

Conditional Equity Risk Premium Update

The lockdown policies helped slow the expansion of the virus in the U.S., and the support from the U.S. government and the Fed kept businesses and consumers afloat. By the end of spring and into the summer of 2020, businesses started to reopen, and the economy started to show some signs of recovery. After collapsing 5% and 31.4% in the first and second quarters of 2020, respectively, the U.S. economy grew in *real* terms by an annualized 33.1% in the third quarter.¹ Nevertheless, by the end of the third quarter, *nominal* U.S. gross domestic product (GDP) remained at a lower level than at year-end 2019. Furthermore, real GDP is still expected to contract in 2020 by the worst percentage amount since World War II.

In the fourth quarter of 2020, U.S. equity markets reached new all-time highs, spurred by optimism about new COVID-19 vaccines and the expectation of continued support by the Fed (including ultra-low interest rates through at least 2023, and possibly longer), coupled with lower uncertainty regarding the impact of U.S. presidential elections on the economy and future corporate earnings. Equity volatility reverted to levels close to long-term averages, and corporate credit spreads have narrowed to historical averages. Consumer confidence and business optimism improved, although the former is still far below the levels observed prior to the outbreak.

Duff & Phelps goes beyond historical measures of ERP by examining approaches that are sensitive to current economic and financial market conditions. In Exhibit 1 we list the primary factors considered when arriving at the Duff & Phelps Recommended U.S. ERP. Specifically, Exhibit 1 documents the evolution of these factors from March 25, 2020 through November 30, 2020, along with the corresponding relative impact on ERP indications.

Basis for Estimating the
U.S. Equity Risk Premium
as of December 9, 2020

EXHIBIT 1: FACTORS CONSIDERED IN THE U.S. ERP RECOMMENDATION: RELATIVE CHANGE FROM MARCH TO NOVEMBER 2020

FACTOR	CHANGE	EFFECT ON ERP
U.S. Equity Markets	▲	▼
Implied Equity Volatility	▼	▼
Corporate Spreads	▼	▼
Economic Policy Uncertainty (EPU) and Equity Uncertainty Indices	▼	▼
Historical Real GDP Growth and Forecasts	▼	▲
Unemployment Environment	▼	▲
Consumer Confidence	▼	▲
Business Confidence	▲	▼
Sovereign Credit Ratings	◄►	◄►
Damodaran Implied ERP Model	▼	▼
Default Spread Model	▼	▼

¹ Source: U.S. Bureau of Economic Analysis (BEA). Information accurate as of November 30, 2020.

Currently, the U.S. is experiencing a third wave of COVID-19 cases, which is proving to be more severe than the first (in March and April) and the second one (in June and July). Daily new COVID-19 cases have reached a record high in early December 2020, and so have the daily number of deaths. This new wave could lead to a stalling of the recovery, or to another period of economic contraction, as states across the U.S. have already begun (or are considering) a new round of lockdowns until COVID-19 vaccines are more widely available.

There are still a number of risk factors and sources of uncertainty that may impact the shape of the U.S. economic recovery and the pattern of behavior by financial markets over the next few months:

- Two vaccines (one from Moderna and another from a partnership between Pfizer and BioNTech) have shown efficacy rates around 95%. Both vaccines have been submitted for emergency approval by the U.S. Food & Drug Administration (FDA), and shipments of the vaccines were expected to begin in late December. A third vaccine developed by AstraZeneca and Oxford University showed some promising but mixed results, with additional trials required before it can be considered for FDA approval.
- The rollout of the vaccines to the public is expected to initially be limited to those individuals considered to be at high risk, such as health care and other critical workers, as well as nursing home residents. Manufacturing, supply chain, and distribution challenges are anticipated to negatively impact the speed of delivery, but the vaccines are nonetheless expected to be accessible to most of the U.S. population by mid-2021. Another potential challenge is the resistance among certain pockets of the population to receive COVID-19 inoculations, which may slow the achievement of “herd” immunity.
- Until the COVID-19 health crisis is resolved, either through vaccination(s) or better treatments, the economy may be unable to fully recover. Fed chairman Jerome Powell and other members of the Federal Open Market Committee (FOMC) have stated that additional fiscal stimulus is needed to support the fragile economic recovery and prevent a possible relapse.²
- Agreement on a second major fiscal stimulus package proved to be difficult and discussions have been fraught with political division. The U.S. Congress and the White House have been unable to agree on the size and scope of a new stimulus package, but it now appears that the approval of a smaller, more limited bipartisan package may be possible before year end.
- As more states certify their U.S. presidential election results, uncertainty around the election is lessening. Financial markets appeared to initially welcome a potentially divided legislature, with Republicans in control of the U.S. Senate and Democrats controlling the House of Representatives, making it less likely that large increases in corporate and individual tax rates and other potentially business-unfriendly ideas proposed during the election campaign would be enacted. Ultimate control of the Senate will be decided in January 2021 after the Georgia run-off elections; a loss of the two Republican seats would give Democrats control of the Senate, which could lead to the enactment of business-unfriendly legislation that lowers future after-tax corporate earnings.

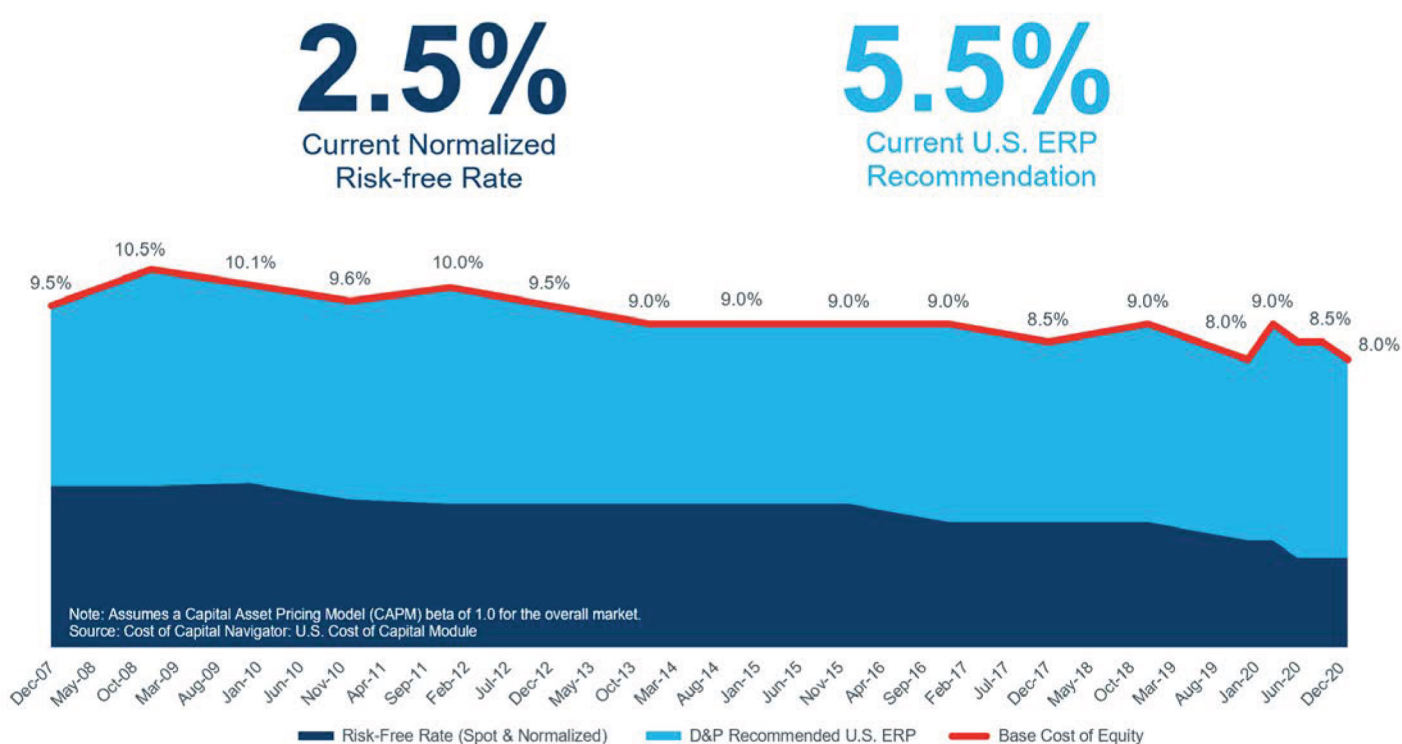
There are still a number of risk factors and sources of uncertainty that may impact the shape of the U.S. economic recovery

² The Fed has the responsibility for setting monetary policy in the U.S. by controlling the three tools of monetary policy: open market operations, the discount rate, and reserve requirements. The Board of Governors of the Federal Reserve System is responsible for setting the discount rate and reserve requirements, while the FOMC is the committee charged under U.S. law with overseeing the nation's open market operations (i.e., the Fed's buying and selling of U.S. Treasury securities).

Conclusion

Taken together, we find sufficient support to decrease our ERP recommendation relative to our previous recommendation, although not yet to the same level recommended at year-end 2019.³ Accordingly, Duff & Phelps recommends a **U.S. Equity Risk Premium of 5.5%** when developing discount rates as of December 9, 2020 and thereafter, until further guidance is issued. This recommendation is to be used in conjunction with a **normalized risk-free rate of 2.5%**, implying an 8.0% (2.5% + 5.5%) base cost of equity (i.e. assuming a market beta of 1.0).

While this recommendation has an effective date of December 9, 2020, some of the factors that were considered when lowering the D&P Recommended U.S. ERP to 5.5% were already present in late November, such as positive vaccine news and the partial resolution of U.S. election results.



³ At year-end 2019, the Duff & Phelps' U.S. equity risk premium recommendation was 5.0%.

Authors

Carla S. Nunes, CFA
Managing Director
carla.nunes@duffandphelps.com

James P. Harington
Director
james.harington@duffandphelps.com

Contributors

Anas Aboulamer, PhD
Director
anas.aboulamer@duffandphelps.com

Kevin Madden
Vice President
kevin.madden@duffandphelps.com

Kevin Latz
Analyst
kevin.latz@duffandphelps.com

About Duff & Phelps

Duff & Phelps is the world's premier provider of governance, risk and transparency solutions. We work with clients across diverse sectors in the areas of valuation, corporate finance, disputes and investigations, cyber security, claims administration and regulatory compliance. With Kroll, the leading global provider of risk solutions, and Prime Clerk, the leader in complex business services and claims administration, our firm has nearly 4,000 professionals in 25 countries around the world. For more information, visit www.duffandphelps.com.

M&A advisory, capital raising and secondary market advisory services in the United States are provided by Duff & Phelps Securities, LLC, Member FINRA/SIPC. Pagemill Partners is a Division of Duff & Phelps Securities, LLC. M&A advisory, capital raising and secondary market advisory services in the United Kingdom are provided by Duff & Phelps Securities Ltd. (DPSL), which is authorized and regulated by the Financial Conduct Authority. Valuation Advisory Services in India are provided by Duff & Phelps India Private Limited under a category 1 merchant banker license issued by the Securities and Exchange Board.

Principles *of* Corporate Finance

TWELFTH EDITION

Richard A. Brealey

*Professor of Finance
London Business School*

Stewart C. Myers

*Robert C. Merton (1970) Professor of Finance
Sloan School of Management
Massachusetts Institute of Technology*

Franklin Allen

*Professor of Finance and Economics
Imperial College London and
Nippon Life Professor of Finance
The Wharton School
University of Pennsylvania*

**Mc
Graw
Hill
Education**

TABLE 7.1 Average rates of return on U.S. Treasury bills, government bonds, and common stocks, 1900–2014 (figures in % per year).

Source: E. Dimson, P. R. Marsh, and M. Staunton, *Triumph of the Optimists: 101 Years of Investment Returns*, (Princeton, NJ: Princeton University Press, 2002), with updates provided by the authors.

	Average Annual Rate of Return		
	Nominal	Real	Average Risk Premium (Extra Return versus Treasury Bills)
Treasury bills	3.8	1.0	0
Government bonds	5.4	2.4	1.5
Common stocks	11.5	8.4	7.7

to keep up with inflation. An investment in long-term Treasury bonds would have produced \$278. Common stocks were in a class by themselves. An investor who placed a dollar in the stocks of large U.S. firms would have received \$38,255.

We can also calculate the rate of return from these portfolios for each year from 1900 to 2014. This rate of return reflects both cash receipts—dividends or interest—and the capital gains or losses realized during the year. Averages of the 115 annual rates of return for each portfolio are shown in Table 7.1.

Over this period, Treasury bills have provided the lowest average return—3.8% per year in *nominal* terms and 1.0% in *real* terms. In other words, the average rate of inflation over this period was about 3% per year. Common stocks were again the winners. Stocks of major corporations provided an average nominal return of 11.5%. By taking on the risk of common stocks, investors earned a *risk premium* of $11.5 - 3.8 = 7.7\%$ over the return on Treasury bills.⁴

You may ask why we look back over such a long period to measure average rates of return. The reason is that annual rates of return for common stocks fluctuate so much that averages taken over short periods are meaningless. Our only hope of gaining insights from historical rates of return is to look at a very long period.⁵

Arithmetic Averages and Compound Annual Returns

Notice that the average returns shown in Table 7.1 are arithmetic averages. In other words, we simply added the 115 annual returns and divided by 115. The arithmetic average is higher than the compound annual return over the period. The 115-year compound annual return for common stocks was 9.6%.⁶

The proper uses of arithmetic and compound rates of return from past investments are often misunderstood. Therefore, we call a brief time-out for a clarifying example.

Suppose that the price of Big Oil's common stock is \$100. There is an equal chance that at the end of the year the stock will be worth \$90, \$110, or \$130. Therefore, the return could be -10%, +10%, or +30% (we assume that Big Oil does not pay a dividend). The *expected* return is $\frac{1}{3}(-10 + 10 + 30) = +10\%$.

⁴The risk premium for bonds doesn't "add up" because of rounding.

⁵We cannot be sure that this period is truly representative and that the average is not distorted by a few unusually high or low returns. The reliability of an estimate of the average is usually measured by its *standard error*. For example, the standard error of our estimate of the average risk premium on common stocks is 1.9%. There is a 95% chance that the *true* average is within plus or minus 2 standard errors of the 7.7% estimate. In other words, if you said that the true average was between 3.9% and 11.5%, you would have a 95% chance of being right. *Technical note:* The standard error of the average is equal to the standard deviation divided by the square root of the number of observations. In our case the standard deviation of the risk premium is 20.2%, and therefore the standard error is $20.2/\sqrt{115} = 1.9\%$.

⁶This was calculated from $(1 + r)^{115} = 38.255$, which implies $r = .096$. *Technical note:* For log normally distributed returns the annual compound return is equal to the arithmetic average return minus half the variance. For example, the annual standard deviation of returns on the U.S. market was about .20, or 20%. Variance was therefore $.20^2$, or .04. The compound annual return is about $.04/2 = .02$, or 2 percentage points less than the arithmetic average.



American Finance Association

Betas and Their Regression Tendencies

Author(s): Marshall E. Blume

Source: *The Journal of Finance*, Vol. 30, No. 3 (Jun., 1975), pp. 785-795

Published by: Blackwell Publishing for the American Finance Association

Stable URL: <http://www.jstor.org/stable/2326858>

Accessed: 18/04/2011 17:57

Your use of the JSTOR archive indicates your acceptance of JSTOR's Terms and Conditions of Use, available at <http://www.jstor.org/page/info/about/policies/terms.jsp>. JSTOR's Terms and Conditions of Use provides, in part, that unless you have obtained prior permission, you may not download an entire issue of a journal or multiple copies of articles, and you may use content in the JSTOR archive only for your personal, non-commercial use.

Please contact the publisher regarding any further use of this work. Publisher contact information may be obtained at <http://www.jstor.org/action/showPublisher?publisherCode=black>.

Each copy of any part of a JSTOR transmission must contain the same copyright notice that appears on the screen or printed page of such transmission.

JSTOR is a not-for-profit service that helps scholars, researchers, and students discover, use, and build upon a wide range of content in a trusted digital archive. We use information technology and tools to increase productivity and facilitate new forms of scholarship. For more information about JSTOR, please contact support@jstor.org.



Blackwell Publishing and American Finance Association are collaborating with JSTOR to digitize, preserve and extend access to *The Journal of Finance*.

<http://www.jstor.org>

BETAS AND THEIR REGRESSION TENDENCIES

MARSHALL E. BLUME*

I. INTRODUCTION

A PREVIOUS STUDY [3] showed that estimated beta coefficients, at least in the context of a portfolio of a large number of securities, were relatively stationary over time. Nonetheless, there was a consistent tendency for a portfolio with either an extremely low or high estimated beta in one period to have a less extreme beta as estimated in the next period. In other words, estimated betas exhibited in that article a tendency to regress towards the grand mean of all betas, namely one. This study will examine in further detail this regression tendency.¹

The next section presents evidence showing the existence of this regression tendency and reviews the conventional reasons given in explanation [1], [4], [5]. The following section develops a formal model of this regression tendency and finds that the conventional analysis of this tendency is, if not incorrect, certainly misleading. Accompanying this theoretical analysis are some new empirical results which show that a major reason for the observed regression is real non-stationarities in the underlying values of beta and that the so-called "order bias" is not of dominant importance.

II. THE CONVENTIONAL WISDOM

If an investor were to use estimated betas to group securities into portfolios spanning a wide range of risk, he would more than likely find that the betas estimated for the very same portfolios in a subsequent period would be less extreme or closer to the market beta of one than his prior estimates. To illustrate, assume that the investor on July 1, 1933, had at his disposal an estimate of beta for each common stock which had been listed on the NYSE (New York Stock Exchange) for the prior seven years, July 1926-June 1933. Assume further that each estimate was derived by regressing the eighty-four monthly relatives covering this seven-year period upon the corresponding values for the market portfolio.²

If this investor, say, desired equally weighted portfolios of 100 securities, he might group those 100 securities with the smallest estimates of beta together to form a portfolio. Such a portfolio would of all equally

* Professor of Finance, University of Pennsylvania. The author wishes to thank Professors John Bildersee and Harry Markowitz for their helpful comments and the Rodney L. White Center for financial support.

1. Quite apart from this regression tendency, it is reasonable to suppose that betas do change over time in systematic ways in response to certain changes in the structure of companies.

2. Such regressions were calculated only for securities with complete data. The relative for the market portfolio was measured by Fisher's Combination Link Relative [6].

weighted portfolios have the smallest possible estimated portfolio beta since an estimate of such a portfolio beta can be shown to be an average of the estimates for the individual securities [2, p. 169]. To cover a wide range of portfolio betas, this investor might then form a second portfolio consisting of the 100 securities with the next smallest estimates of beta, and so on.

Using the securities available as of June 1933, this investor could thus obtain four portfolios of 100 securities apiece with no security in common. Estimated over the same seven-year period, July 1926-June 1933, the betas for these portfolios³ would have ranged from 0.50 to 1.53. Similar portfolios can be constructed for each of the next seven-year periods through 1954 and their portfolio betas calculated. Table 1 contains these estimates under the heading "Grouping Period."

The betas for these same portfolios, but reestimated using the monthly portfolio relatives adjusted for delistings from the seven years following the grouping period, illustrate the magnitude of the regression tendency.⁴ Whereas the portfolio betas as estimated, for instance, in the grouping period 1926-33 ranged from 0.50 to 1.53, the betas as estimated for these same portfolios in the subsequent seven-year period 1933-40 ranged only from 0.61 to 1.42. The results for the other periods display a similar regression tendency.

An obvious explanation of this regression tendency is that for some unstated economic or behavioral reasons, the underlying betas do tend to regress towards the mean over time.⁵ Yet, even if the true betas were constant over time, it has been argued that the portfolio betas as estimated in the grouping period would as a statistical artifact tend to be more extreme than those estimated in a subsequent period. This bias has sometimes been termed an order or selection bias.

The frequently given intuitive explanation of this order bias [1], [4], [5], parallels the following: Consider the portfolio formed of the 100 securities with the lowest estimates of beta. The estimated portfolio beta might be expected to understate the true beta or equivalently be expected to be measured with negative error. The reason the measurement error might

3. These portfolio betas were derived by averaging the 100 estimates for the individual securities. Alternatively, as [2] shows, the same number would be obtained by regressing the monthly portfolio relatives upon the market index where the portfolio relatives are calculated assuming an equal amount invested in each security at the beginning of each month.

4. These portfolio betas were calculated by regressing portfolio relatives upon the market relatives. The portfolio relatives were taken to be the average of the monthly relatives of the individual securities for which relatives were available. These relatives represent those which would have been realized from an equally-weighted, monthly rebalancing strategy in which a delisted security is sold at the last available price and the proceeds reinvested equally in the remaining securities. This rather complicated procedure takes into account delisted securities and therefore avoids any survivorship bias. In [3], the securities analyzed were required to be listed on the NYSE throughout both the grouping period and the subsequent period, so that there was a potential survivorship bias. Nonetheless, the results reported there are in substantive agreement with the results in Table 1.

5. If the betas are continually changing over time, an estimate of beta as provided by a simple regression must be interpreted with considerable caution. For example, if the true beta followed a linear time trend, it is easily shown that the estimated beta can be interpreted as an unbiased estimate of the beta in the middle of the sample period. A similar interpretation would not in general hold if, for instance, the true beta followed a quadratic time trend.

TABLE 1
BETA COEFFICIENTS FOR PORTFOLIOS
OF 100 SECURITIES

Portfolio	Grouping Period	First Subsequent Period
	7/26-6/33	7/33-6/40
1	0.50	0.61
2	0.85	0.96
3	1.15	1.24
4	1.53	1.42
	7/33-6/40	7/40-6/47
1	0.38	0.56
2	0.69	0.77
3	0.90	0.91
4	1.13	1.12
5	1.35	1.31
6	1.68	1.69
	7/40-6/47	7/47-6/54
1	0.43	0.60
2	0.61	0.76
3	0.73	0.88
4	0.86	0.99
5	1.00	1.10
6	1.21	1.21
7	1.61	1.36
	7/47-6/54	7/54-6/61
1	0.36	0.57
2	0.61	0.71
3	0.78	0.88
4	0.91	0.96
5	1.01	1.03
6	1.13	1.13
7	1.26	1.24
8	1.47	1.32
	7/54-6/61	7/61-6/68
1	0.37	0.62
2	0.56	0.68
3	0.72	0.85
4	0.86	0.85
5	0.99	0.95
6	1.11	0.98
7	1.23	1.07
8	1.43	1.25

be expected to be negative may best be explored by analyzing how a security might happen to have one of the 100 lowest estimates of beta. First, if the true beta were in the lowest hundred, the estimated beta would fall in the lowest 100 estimates only if the error in measuring the beta were not too large which roughly translates into more negative than positive errors. Second, if the true beta were not in the lowest 100, the

estimated beta might still be in the lowest 100 estimates if it were measured with a sufficiently large negative error.⁶

Thus, the negative errors in the 100 smallest estimates of beta might be expected to outweigh the positive errors. The same argument except in reverse would apply to the 100 largest estimates. Indeed, it would seem that any portfolio of securities stratified by estimates of beta for which the average of these estimates is not the grand mean of all betas, namely 1.0, would be subject to some order bias. It would also seem that the absolute magnitude of this order bias should be greater, the further the average estimate is from the grand mean. The next section formalizes this intuitive argument and suggests that, if it is not incorrect, it is certainly misleading as to the source of the bias.

III. A FORMAL MODEL

The intuitive explanation of the order bias just given would seem to suggest that the way in which the portfolios are formed caused the bias. This section will argue that the bias is present in the estimated betas for the individual securities and is not induced by the way in which the portfolios are selected. Following this argument will be an analysis of the extent to which this order bias accounts for the observed regression tendency in portfolio betas over time.

A numerical example will serve to illustrate the logic of the subsequent argument and to introduce some required notation.⁷ Assume for the moment that the possible values of beta for an individual security i in period t , β_{it} , are 0.8, 1.0 and 1.2 and that each of these values is equally likely. Assume further that in estimating a beta for an individual security, there is a 0.6 probability that the estimate $\hat{\beta}_{it}$ contains no measurement error, a 0.2 probability that it understates the true β_{it} by 0.2, and a 0.2 probability that it overstates the true value by 0.2. Now in a sample of ten securities whose true betas were all say 0.8, one would expect two estimates of beta to be 0.6, six to be 0.8, and two to be 1.0. These numbers have been transcribed to the first row of Table 2. The second and third rows are similarly constructed by first assuming that the ten securities all had a true value of 1.0 and then of 1.2.

The rows of Table 2 thus correspond to the distribution of the estimated beta, $\hat{\beta}_{it}$, conditional on the true value, β_{it} . It might be noted that the expectation of $\hat{\beta}_{it}$ conditional on β_{it} , $E(\hat{\beta}_{it} | \beta_{it})$, is β_{it} . However, in a sampling situation, an investigator would be faced with an estimate of beta and would want to assess the distribution of the true β_{it} conditional on the estimated $\hat{\beta}_{it}$. Such conditional distributions correspond to the columns of Table 2. It is easily verified that the expectation of β_{it} conditional on $\hat{\beta}_{it}$, $E(\beta_{it} | \hat{\beta}_{it})$ is generally not $\hat{\beta}_{it}$. For example, if $\hat{\beta}_{it}$ were

6. It is theoretically possible that the estimated beta for a security whose true beta does not fall into the lowest 100 to be in the lowest 100 estimates with a positive measurement error if the betas for some of the improperly classified securities are measured with sufficiently large positive errors.

7. The author is indebted to Harry Markowitz for suggesting this numerical example as a way of clarifying the subsequent formal development.

TABLE 2
NUMBER OF SECURITIES CROSS
CLASSIFIED BY β_{it} AND $\hat{\beta}_{it}$

		$\hat{\beta}_{it}$				
		.6	.8	1.0	1.2	1.4
β_{it}	.8	2	6	2		
	1.0		2	6	2	
	1.2			2	6	2

0.8, $E(\beta_{it} | \hat{\beta}_{it} = 0.8)$ would be 0.85 since with this estimate the true beta would be 0.8 with probability 0.75 or 1.0 with probability 0.25.⁸

The estimate $\hat{\beta}_{it}$, therefore, would typically be biased, and it is biased whether or not portfolios are formed. The effect of forming large portfolios is to reduce the random component in the estimate, so that the difference between the estimated portfolio beta and the true portfolio beta can be ascribed almost completely to the magnitude of the bias.

In the spirit of this example, the paper will now develop explicit formulae for the order bias and real non-stationarities over time. Let it be assumed that the betas for individual securities in period t , β_{it} , can be thought of as drawings from a normal distribution with a mean of 1.0 and variance $\sigma^2(\beta_{it})$. The corresponding assumption for the numerical example just discussed would be a trinomial distribution with equal probabilities for each possible value of β_{it} .

Let it additionally be assumed that the estimate, $\hat{\beta}_{it}$, measures β_{it} with error η_{it} , a mean-zero independent normal variate, so that $\hat{\beta}_{it}$ is given by the sum of β_{it} and η_{it} . It immediately follows that β_{it} and $\hat{\beta}_{it}$ are distributed by a bivariate normal distribution. It might be noted that, as formulated, $\sigma^2(\eta_{it})$ need not equal $\sigma^2(\eta_{jt})$, $i \neq j$. Since the empirical work will assume equality, the subsequent theoretical work will also make this assumption even though for the most part it is not necessary. The final assumption is that β_{it} and β_{it+1} are distributed as bivariate normal variates. Because η_{it} is independently distributed, $\hat{\beta}_{it}$ and β_{it+1} will be distributed by a bivariate normal distribution.

That $\hat{\beta}_{it}$ and β_{it+1} are bivariate normal random variables, each with a mean of 1.0, implies the following regression

$$E(\beta_{it+1} | \hat{\beta}_{it}) - 1 = \frac{\text{Cov}(\beta_{it+1}, \hat{\beta}_{it})}{\sigma^2(\hat{\beta}_{it})} (\hat{\beta}_{it} - 1). \quad (1)$$

This regression is similar to the procedure proposed in Blume [3] to adjust the estimated betas for the regression tendency. That procedure was to regress estimates of beta for individual securities from a later period on estimates from an earlier period and to use the coefficients from this regression to adjust future estimates.⁹ The empirical evidence

8. For further and more detailed discussion of the distinction between $E(\beta_{it} | \hat{\beta}_{it})$ and $E(\hat{\beta}_{it} | \beta_{it})$, the reader is referred to Vasicek [7].

9. That the regression of estimated betas from a later period on estimates from an earlier period is similar to (1) follows from noting that $E(\beta_{it+1} | \hat{\beta}_{it})$ equals $E(\beta_{it+1} | \beta_{it})$ and that $\text{Cov}(\beta_{it+1}, \hat{\beta}_{it})$ equals $\text{Cov}(\beta_{it+1}, \beta_{it})$. In [3], the grand mean of all betas was estimated in each period and was not assumed equal to 1.0.

presented there indicated that this procedure did improve the accuracy of estimates of future betas, though no claim was made that there might not be better ways to adjust for the regression tendency.

The coefficient of $(\hat{\beta}_{it} - 1)$ in (1) can be broken down into two components: one of which would correspond to the so-called order bias and the other to a true regression tendency. To achieve this result, note that the covariance of β_{it+1} and $\hat{\beta}_{it}$ is given by $\text{Cov}(\beta_{it+1}, \beta_{it} + \eta_{it})$, which because of the assumed independence of the errors, reduces to the covariance of β_{it+1} and β_{it} . Making this substitution and replacing $\text{Cov}(\beta_{it+1}, \beta_{it})$ by $\rho(\beta_{it+1}, \beta_{it})\sigma(\beta_{it+1})\sigma(\beta_{it})$, (1) becomes

$$E(\beta_{it+1} | \hat{\beta}_{it}) - 1 = \frac{\rho(\beta_{it+1}, \beta_{it})\sigma(\beta_{it+1})\sigma(\beta_{it})}{\sigma^2(\hat{\beta}_{it})} (\hat{\beta}_{it} - 1). \quad (2)$$

The ratio of $\sigma(\beta_{it})\sigma(\beta_{it+1})$ to $\sigma^2(\hat{\beta}_{it})$ might be identified with the order bias and the correlation of β_{it} and β_{it+1} with a true regression.

If the underlying values of beta are stationary over time, the correlation of successive values will be 1.0 and the standard deviations of β_{it} and β_{it+1} will be the same. Assuming such stationarity and noting then that β_{it+1} equals β_{it} , equation (2) can be rewritten as¹⁰

$$\begin{aligned} E(\beta_{it+1} | \hat{\beta}_{it}) - 1 &= E(\beta_{it} | \hat{\beta}_{it}) - 1 \\ &= \frac{\sigma^2(\beta_{it})}{\sigma^2(\hat{\beta}_{it})} (\hat{\beta}_{it} - 1). \end{aligned} \quad (3)$$

Since $\sigma^2(\beta_{it})$ would be less than $\sigma^2(\hat{\beta}_{it})$ if beta is measured with any error, the coefficient of $(\hat{\beta}_{it} - 1)$ would be less than 1.0. This means that the true beta for a security would be expected to be closer to one than the estimated value. In other words, an estimate of beta for an individual security except for an estimate of 1.0 is biased.¹¹

10. Equation (3) can be derived alternatively from the assumption that β_{it} and $\hat{\beta}_{it}$ are bivariate normal variables and under the assumption of stationarity β_{it} will equal β_{it+1} . Vasicek [7] has developed using Bayes' Theorem, an expression for $E(\beta_{it} | \hat{\beta}_{it})$ which can be shown to be mathematically identical to the right hand side of (3): He observed that the procedure used by Merrill Lynch, Pierce, Fenner and Smith, Inc. in their Security Risk Evaluation Service is similar to his expression if $\sigma^2(\eta_{it})$ is assumed to be the same for all securities. Merrill Lynch's procedure, as he presented it, is to use the coefficient of the cross-sectional regression of $(\hat{\beta}_{it+1} - 1)$ on $(\hat{\beta}_{it} - 1)$ to adjust future estimates. This adjustment mechanism is in fact the same as (1) or (2) which shows that such a cross sectional regression takes into account real changes in the underlying betas. Only if betas were stationary over time would his formula be similar to Merrill Lynch's.

11. The formula for order bias given by (3) is similar to that which measures the bias in the estimated slope coefficient in a regression on one independent variable measured with error. Explicitly, consider the regression, $y = bx + \epsilon$, where ϵ is an independent mean-zero normal disturbance and both y and x are measured in deviate form. Now if x is measured with independent mean-zero error η and y is regressed on $x + \eta$, it is well known that the estimated coefficient, \hat{b} , will be biased toward zero and the probability limit of \hat{b} is $\frac{b}{1 + \frac{\sigma^2(\eta)}{\sigma^2(x)}}$. This expression can be

rewritten as $\frac{\sigma^2(x)}{\sigma^2(x + \eta)} \hat{b}$. Interpreting x as the true beta less 1.0, the correspondence to (3) is obvious. In this type of regression, one could either adjust the independent variables themselves for bias and thus obtain an unbiased estimate of the regression coefficient or run the regression on the unadjusted variables and then adjust the regression coefficient. The final coefficient will be the same in either case.

In light of this discussion, the paper now reexamines the empirical results of the previous section. The initial task will be to adjust the portfolio betas in the grouping periods for the order bias. After making this adjustment, it will be apparent that much of the regression tendency observed in Table 1 remains. Thus, if (2) is valid, the value of the correlation coefficient is probably not 1.0. The statistical properties of estimates of the portfolio betas in both the grouping and subsequent periods will be examined. The section ends with an additional test that gives further confirmation that much of the regression tendency stems from true non-stationarities in the underlying betas.

To adjust the estimates of beta in the grouping periods for the order bias using (3) would require estimates of the ratio of $\sigma^2(\beta_{it})$ to $\sigma^2(\hat{\beta}_{it})$. The sample variance calculated from the estimated betas for all securities in a particular cross-section provides an estimate of $\sigma^2(\hat{\beta}_{it})$. An estimate of $\sigma^2(\beta_{it})$ can be derived as the difference between estimates of $\sigma^2(\hat{\beta}_{it})$ and $\sigma^2(\eta_{it})$. If the variance of the error in measuring an individual beta is the same for every security, $\sigma^2(\eta_{it})$ can be estimated as the average over all securities of the squares of the standard error associated with each estimated beta.

In conformity with these procedures, estimates of the ratio of $\sigma^2(\beta_{it})$ to $\sigma^2(\hat{\beta}_{it})$ for the five seven-year periods from 1926 through 1961 were respectively 0.92, 0.92, 0.89, 0.82, and 0.75. In other words, an unbiased estimate of the underlying beta for an individual security should be some eight to twenty-five per cent closer to 1.0 than the original estimate. For instance, if $\sigma^2(\beta_{it})/\sigma^2(\hat{\beta}_{it})$ were 0.9 and if $\hat{\beta}_{it}$ were 1.3, an unbiased estimate would be 1.27.

To determine whether the order bias accounted for all of the regression, the estimated betas for the individual securities were adjusted for the order bias using (3) and the appropriate value of the ratio. For the same portfolios of 100 securities examined in the previous section, portfolio betas for the grouping period were recalculated as the average of these adjusted betas. It might be noted that these adjusted portfolio betas could alternatively be obtained by adjusting the unadjusted portfolio betas directly. These adjusted portfolio betas are given in Table 3. For the reader's convenience, the unadjusted portfolio betas and those estimated in the subsequent seven years are reproduced from Table 1.

Before comparing these estimates, let us for the moment consider the statistical properties of the portfolio betas, first in the grouping period and then in the subsequent period. Though unadjusted estimates of the portfolio betas in the grouping period may be biased, they would be expected to be highly "reliable" as that term is used in psychometrics. Thus, regardless of what these estimates measure, they measure it accurately or more precisely their values approximate those which would be expected conditional on the underlying population and how they are calculated. For equally-weighted portfolios, the larger the number of securities, the more reliable would be the estimate.

Specifically, for an equally-weighted portfolio of 100 securities, the standard deviation of the error in the portfolio beta would be one-tenth

TABLE 3
BETA COEFFICIENTS FOR PORTFOLIOS OF 100 SECURITIES

Portfolio	Grouping Period		First Subsequent Period	Second Subsequent Period
	Unadjusted for Order Bias	Adjusted for Order Bias		
	7/26-6/33		7/33-6/40	7/40-6/47
1	0.50	.54	0.61	0.73
2	0.85	.86	0.96	0.92
3	1.15	1.14	1.24	1.21
4	1.53	1.49	1.42	1.47
	7/33-6/40		7/40-6/47	7/47-6/54
1	0.38	.43	0.56	0.53
2	0.69	.72	0.77	0.86
3	0.90	.91	0.91	0.96
4	1.13	1.12	1.12	1.11
5	1.35	1.32	1.31	1.29
6	1.68	1.63	1.69	1.40
	7/40-6/47		7/47-6/54	7/54-6/61
1	0.43	.50	0.60	0.73
2	0.61	.65	0.76	0.88
3	0.73	.76	0.88	0.93
4	0.86	.88	0.99	1.04
5	1.00	1.00	1.10	1.12
6	1.21	1.19	1.21	1.14
7	1.61	1.54	1.36	1.20
	7/47-6/54		7/54-6/61	7/61-6/68
1	0.36	.48	0.57	0.72
2	0.61	.68	0.71	0.79
3	0.78	.82	0.88	0.88
4	0.91	.93	0.96	0.92
5	1.01	1.01	1.03	1.04
6	1.13	1.10	1.13	1.02
7	1.26	1.21	1.24	1.08
8	1.47	1.39	1.32	1.15
	7/54-6/61		7/61-6/68	
1	0.37	.53	0.62	
2	0.56	.67	0.68	
3	0.72	.79	0.85	
4	0.86	.89	0.85	
5	0.99	.99	0.95	
6	1.11	1.08	0.98	
7	1.23	1.17	1.07	
8	1.43	1.32	1.25	

the standard error of the estimated betas for individual securities providing the errors in measuring these individual betas were independent of each other. During the 1926-33 period, the average standard error of betas for individual securities was 0.12 so that the standard error of the portfolio beta would be roughly 0.012. The average standard error for individual securities increased gradually to 0.20 in the period July 1954-June 1961. For the next seven-year period ending June 1968, the average declined to 0.17.

As pointed out, standard errors for portfolio betas calculated from those for individual securities assume independence of the errors in estimates. The standard error for a portfolio beta can however be calculated directly without making this assumption of independence by regressing the portfolio returns on the market index. The standard error for the portfolio of the 100 securities with the lowest estimates of beta in the July 1926-June 1933 period was for instance, 0.018, which compares to 0.012 calculated assuming independence. The average standard error of the estimated betas for the four portfolios in this period was also 0.018. The average standard errors of the betas for the portfolios of 100 securities in the four subsequent seven-year periods ending June 1961 were respectively 0.025, 0.027, 0.024, and 0.027. Although these standard errors, not assuming independence, are about 50 per cent larger than before, they are still extremely small compared to the range of possible values for portfolio betas.

For the moment, let us therefore assume that the portfolio betas as estimated in the grouping period before adjustment for order bias are extremely reliable numbers in that whatever they measure, they measure it accurately. In this case, adjusting these portfolio betas for the order bias will give extremely reliable and unbiased estimates of the underlying portfolio beta and therefore these adjusted betas can be taken as very good approximations to the underlying, but unknown, values. The greater the number of securities in the portfolio, the better the approximation will be.

The numerical example in Table 2 gives an intuitive feel for what is happening. Consider a portfolio of a large number of securities whose estimated betas were all 0.8 in a particular sample. It will be recalled that such an estimate requires that the true beta be either 0.8 or 1.0. As the number of securities with estimates of 0.8 increases, one can be more and more confident that 75 per cent of the securities have true betas of 0.8 and 25 per cent have true betas of 1.0 or equivalently that an equally-weighted portfolio of these securities has a beta of 0.85.

The heuristic argument in the prior section might lead some to believe that, contrary to the estimates in the grouping period, there are no order biases associated with the portfolio betas estimated in the subsequent seven years. This belief, however, is not correct. Formally, the portfolios formed in the grouping period are being treated as if they were securities in the subsequent period. To estimate these portfolio betas, portfolio returns were calculated and regressed upon some measure of the market. In this paper so far, these portfolio returns were calculated under an equally-weighted monthly revision strategy in which delisted securities were sold at the last available price and the proceeds reinvested equally in the remaining. Other strategies are, of course, possible.

Since these portfolios are being treated as securities, formula (3) applies, so that there is still some "order bias" present. However, in determining the rate of regression, the appropriate measure of the variance of the errors in the estimates is the variance for the portfolio betas and not for the betas of individual stocks. This fact has the important effect of making the ratio of $\sigma^2(\beta_{it})$ to $\sigma^2(\hat{\beta}_{it})$ much closer to one than for

individual securities. Estimating $\sigma^2(\hat{\beta}_{it})$ and $\sigma^2(\eta_{it})$ for the portfolios formed on the immediately prior period, the value of this ratio for each of the four seven-year periods from 1933 to 1961 was in excess of 0.99 and for the last seven-year period in excess of 0.98. Thus, for most purposes, little error is introduced by assuming that these estimated portfolio betas contain no "order bias" or equivalently that these estimates measure accurately the true portfolio beta.

A comparison of the portfolio betas in the grouping period, even after adjusting for the order bias, to the corresponding betas in the immediately subsequent period discloses a definite regression tendency. This regression tendency is statistically significant at the five per cent level for each of the last three grouping periods, 1940-47, 1947-54, 1954-61.¹² Thus, this evidence strongly suggests that there is a substantial tendency for the underlying values of beta to regress towards the mean over time. Yet, it could be argued that this test is suspect because the formula used in adjusting for the order bias was developed under the assumption that the distributions of beta were normal. This assumption is certainly not strictly correct and it is not clear how sensitive the adjustment is to violations of this assumption.

A more robust way to demonstrate the existence of a true regression tendency is based upon the observation that the portfolio betas estimated in the period immediately subsequent to the grouping period are measured with negligible error and bias. These estimated portfolio betas can be compared to betas for the same portfolios estimated in the second seven years subsequent to the grouping period. These betas, which have been estimated in the second subsequent period and are given in Table 3, disclose again an obvious regression tendency. This tendency is significant at the five per cent level for the last three of the four possible comparisons.¹³

IV. SUMMARY

Beginning with a review of the conventional wisdom, the paper showed that estimated beta coefficients tend to regress towards the grand mean of all betas over time. The next section presented two kinds of empirical analyses which showed that part of this observed regression tendency represented real nonstationarities in the betas of individual securities and that the so-called order bias was not of overwhelming importance.

In other words, companies of extreme risk—either high or low—tend to have less extreme risk characteristics over time. There are two logical

12. This test of significance was based upon the regression $(\hat{\beta}_{it+1} - 1) = b(\hat{\beta}_{it} - 1) + \epsilon_{it}$ where $\hat{\beta}_{it}$ has been adjusted for order bias. The estimated coefficients with the t-value measured from 1.0 in parentheses were for the five seven-years chronologically 0.86 (-1.14), 0.94 (-0.88), 0.71 (-3.84), 0.86 (-3.23), and 0.81 (-2.57). Note that even if β_{it} were measured with substantial independent error contrary to fact, the estimated b would not be biased towards zero because, as footnote 10 shows, the adjustment for the order bias has already corrected for this bias.

13. Using the same regression as in the previous footnote, the estimated coefficient b with the t-value measured from 1.0 in parentheses were for the four possible comparisons in chronological order 0.92 (-0.69), 0.74 (-2.67), 0.62 (-6.86), and 0.58 (-5.51).

explanations. First, the risk of existing projects may tend to become less extreme over time. This explanation may be plausible for high risk firms, but it would not seem applicable to low risk firms. Second, new projects taken on by firms may tend to have less extreme risk characteristics than existing projects. If this second explanation is correct, it is interesting to speculate on the reasons. For instance, is it a management decision or do limitations on the availability of profitable projects of extreme risk tend to cause the riskiness of firms to regress towards the grand mean over time? Though one could continue to speculate on the forces underlying this tendency of risk—as measured by beta coefficients—to regress towards the grand mean over time, it remains for future research to determine the explicit reasons.

REFERENCES

1. Fischer Black, Michael C. Jensen and Myron Scholes. "The Capital Asset Pricing Model: Some Empirical Tests," in Michael C. Jensen, ed., *Studies in the Theory of Capital Markets*. New York: Praeger Publishing, 1972.
2. Marshall Blume. "Portfolio Theory: A Step Towards Its Practical Application," *Journal of Business* (April 1970).
3. ———. "On the Assessment of Risk," *Journal of Finance* (March 1971).
4. ——— and Irwin Friend. "A New Look at the Capital Asset Pricing Model," *Journal of Finance* (March 1973).
5. Eugene F. Fama and James D. MacBeth. "Risk, Return and Equilibrium: Empirical Tests," *Journal of Political Economy* (May 1973).
6. Lawrence Fisher. "Some New Stock-Market Indexes," *Journal of Business* (January 1966), supplement.
7. Oldrich A. Vasicek. "A Note on Using Cross-Sectional Information in Bayesian Estimation of Security Betas," *Journal of Finance* (December 1973).



SURVEY OF PROFESSIONAL FORECASTERS

Release Date: February 12, 2021

FIRST QUARTER 2021

Stronger Economic Rebound with Lower Unemployment

The outlook for the U.S. economy over the next three years looks stronger now than it did three months ago, according to 39 forecasters surveyed by the Federal Reserve Bank of Philadelphia. The panel predicts real GDP will grow at an annual rate of 3.2 percent this quarter, unchanged from the prediction in the last survey. However, over the remaining quarters in 2021 and the following two years, the panelists see a stronger rebound in output growth than they predicted previously. On an annual-average over annual-average basis, the forecasters expect real GDP to grow at an annual rate of 4.5 percent in 2021 and 3.7 percent in 2022. The projections for 2021 and 2022 are up from 4.0 percent and 3.0 percent, respectively, in the last survey.

A brighter outlook for the unemployment rate accompanies the outlook for growth. The forecasters predict unemployment will decrease from a projected 6.3 percent this quarter to 5.1 percent in the first quarter of 2022. On an annual-average basis, the panelists predict the unemployment rate will decline from a projected 5.9 percent in 2021 to 4.0 percent in 2024. The annual-average projections for 2021, 2022, and 2023 are 0.4 percentage point below those of the last survey.

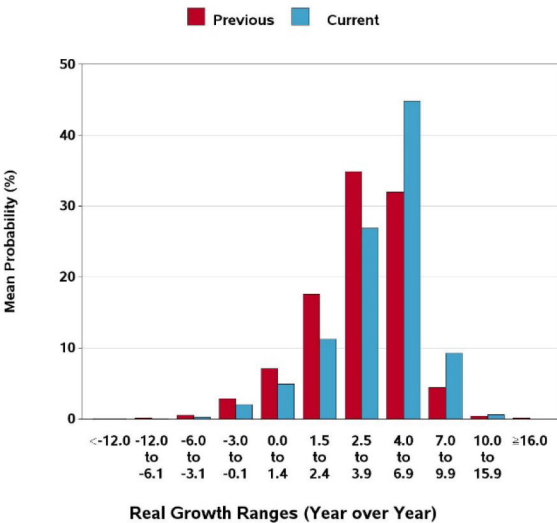
On the employment front, the forecasters have revised downward their estimates for job gains in 2021. The projections for the annual-average level of nonfarm payroll employment suggest job gains at a monthly rate of 223,400 in 2021, down from 321,600 projected three months ago. (These annual-average estimates are computed as the year-to-year change in the annual-average level of nonfarm payroll employment, converted to a monthly rate.)

Median Forecasts for Selected Variables in the Current and Previous Surveys

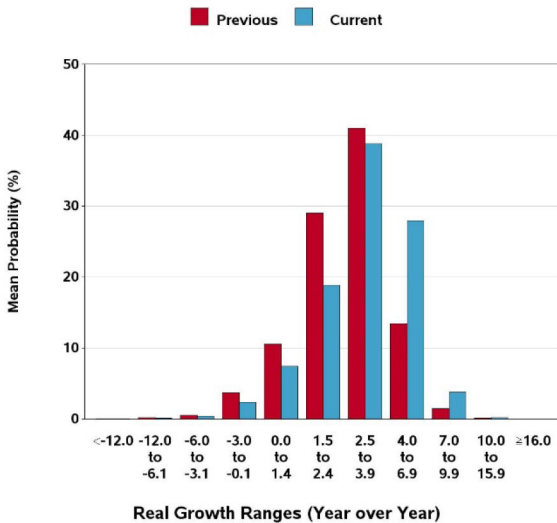
	Real GDP (%)		Unemployment Rate (%)		Payrolls (000s/month)	
	Previous	New	Previous	New	Previous	New
Quarterly data:						
2021:Q1	3.2	3.2	6.7	6.3	471.6	143.1
2021:Q2	3.5	5.0	6.5	6.1	423.8	396.1
2021:Q3	3.5	5.3	6.1	5.7	444.5	445.8
2021:Q4	3.3	4.0	5.8	5.4	399.5	565.8
2022:Q1	N.A.	3.7	N.A.	5.1	N.A.	441.4
Annual data (projections are based on annual-average levels):						
2021	4.0	4.5	6.3	5.9	321.6	223.4
2022	3.0	3.7	5.2	4.8	N.A.	329.8
2023	2.1	3.1	4.6	4.2	N.A.	N.A.
2024	N.A.	2.5	N.A.	4.0	N.A.	N.A.

The charts below provide some insight into the degree of uncertainty the forecasters have about their projections for the rate of growth in the annual-average level of real GDP. Each chart presents the forecasters’ previous and current estimates of the probability that growth will fall into each of 11 ranges. The charts show the forecasters have revised upward their estimates of the probability that real GDP will grow 4.0 percent or more in 2021 and 2022.

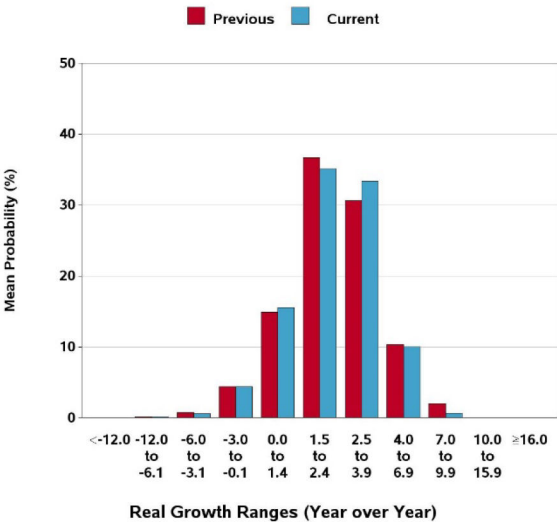
Mean Probabilities for Real GDP Growth in 2021



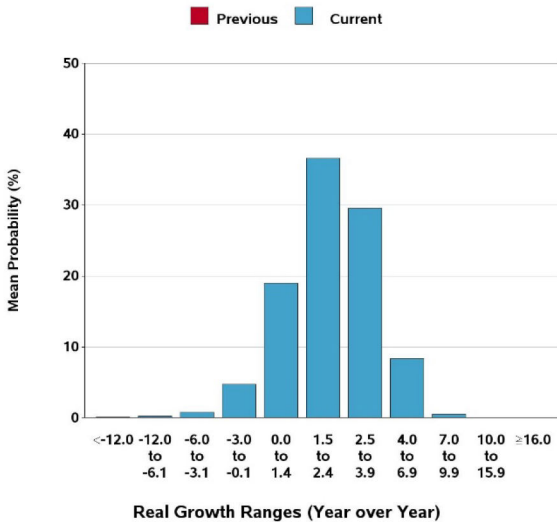
Mean Probabilities for Real GDP Growth in 2022



Mean Probabilities for Real GDP Growth in 2023

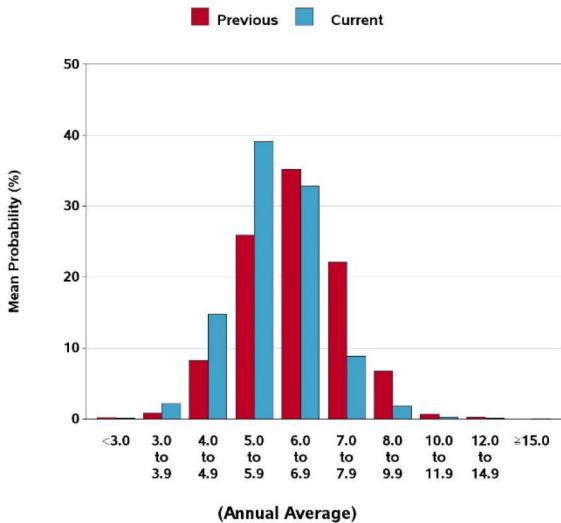


Mean Probabilities for Real GDP Growth in 2024

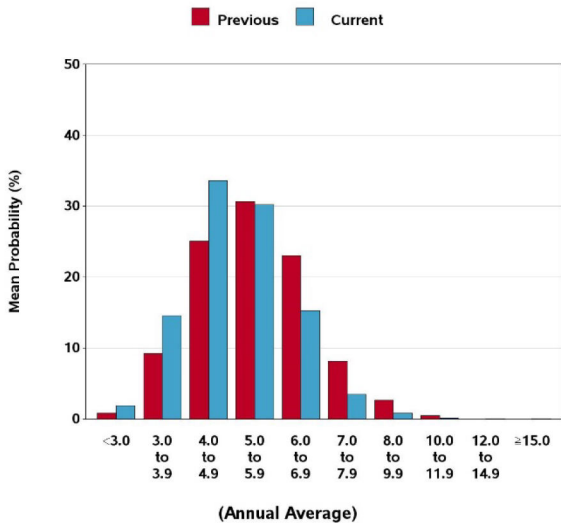


The forecasters' density projections for unemployment, shown below, shed light on uncertainty about the labor market over the next four years. Each chart presents the forecasters' current estimates of the probability that unemployment will fall into each of 10 ranges. The charts show the panelists are raising their probability estimates for an unemployment rate below 5.0 percent over each of the next three years, compared with their previous estimates.

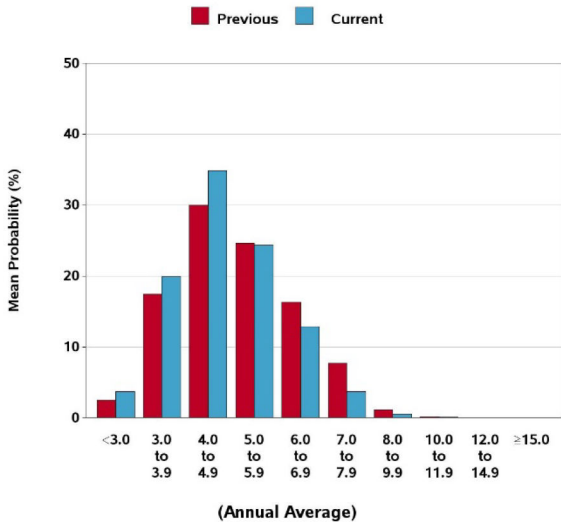
Mean Probabilities for Unemployment Rate in 2021



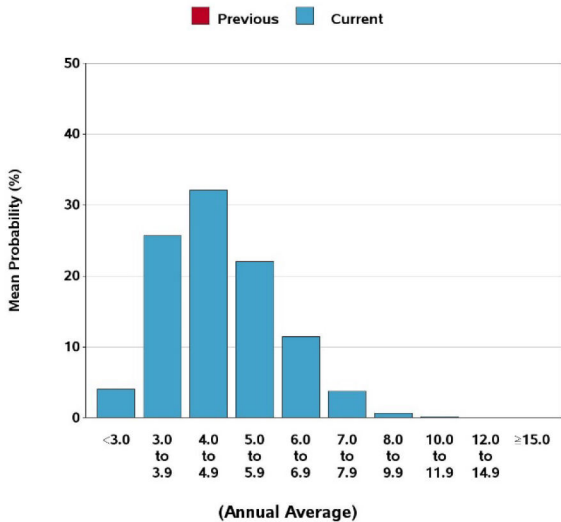
Mean Probabilities for Unemployment Rate in 2022



Mean Probabilities for Unemployment Rate in 2023



Mean Probabilities for Unemployment Rate in 2024



Forecasters Hike Their Estimates for Inflation

The forecasters expect current-quarter headline CPI inflation to average 2.5 percent, up from 2.0 percent in the last survey. Headline PCE inflation over the current quarter will be 2.4 percent, up 0.6 percentage point from the previous estimate.

Projections for headline and core CPI and PCE inflation at all other forecast horizons have been revised upward slightly or held steady, compared with those in the survey of three months ago.

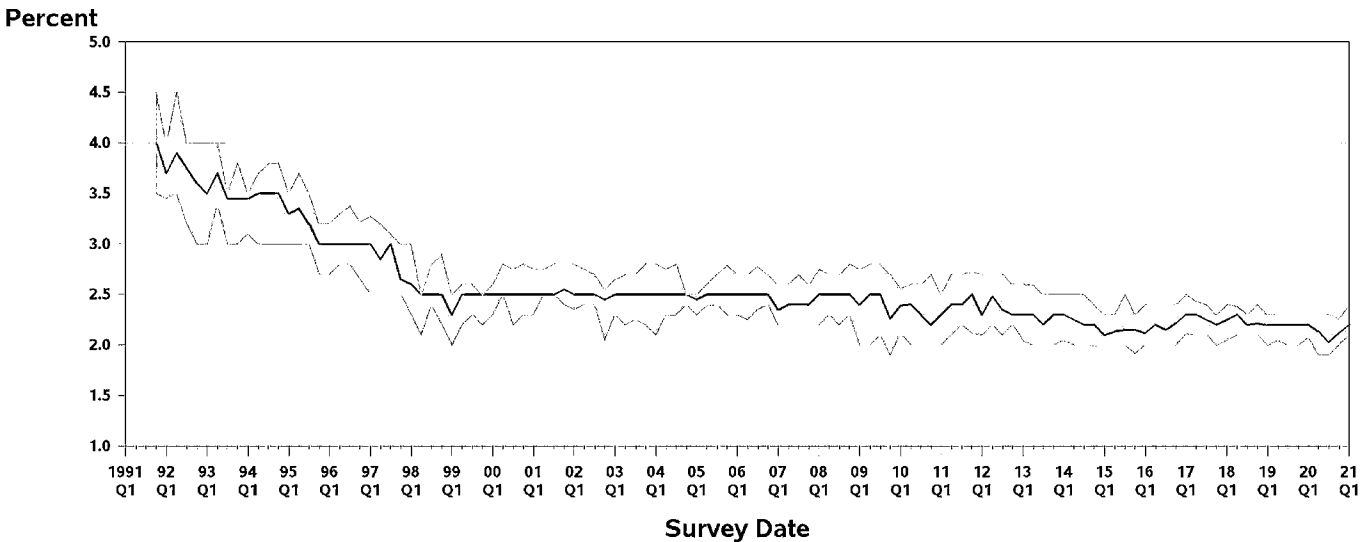
Over the next 10 years, 2021 to 2030, the forecasters expect headline CPI inflation to average 2.20 percent at an annual rate. The corresponding estimate for 10-year annual-average PCE inflation is 2.03 percent. These 10-year projections are higher than those of the previous survey.

Median Short-Run and Long-Run Projections for Inflation (Annualized Percentage Points)

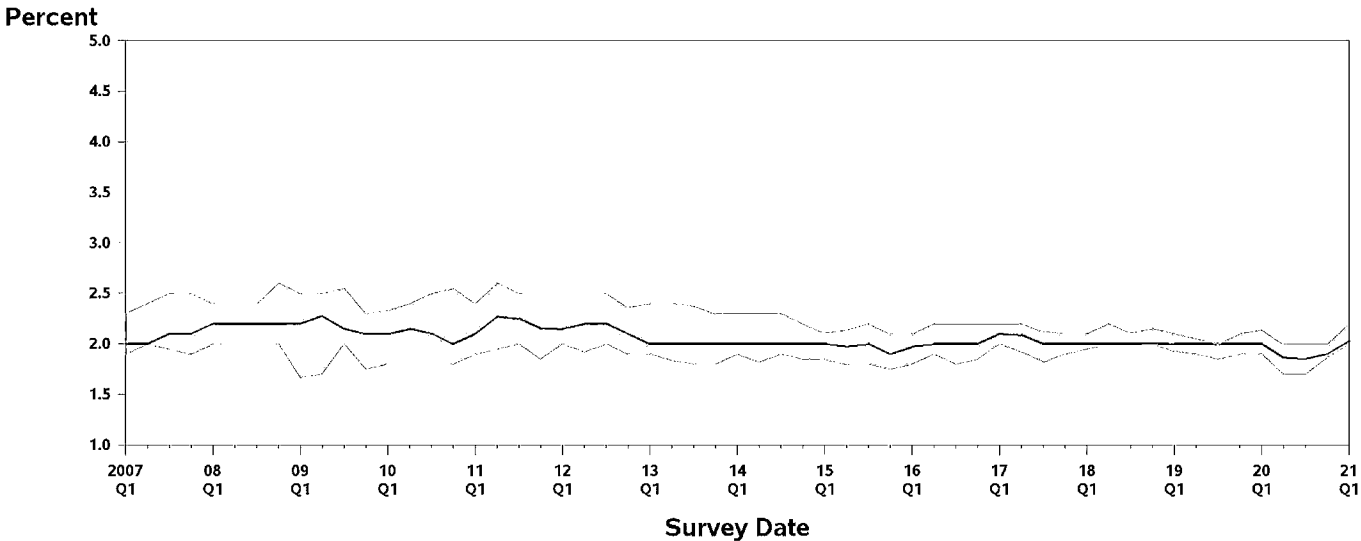
	Headline CPI		Core CPI		Headline PCE		Core PCE	
	Previous	Current	Previous	Current	Previous	Current	Previous	Current
Quarterly								
2021:Q1	2.0	2.5	1.8	1.8	1.8	2.4	1.7	1.9
2021:Q2	2.0	2.1	2.0	2.1	1.8	1.8	1.7	1.8
2021:Q3	2.1	2.1	1.9	2.1	2.0	1.9	1.8	1.9
2021:Q4	2.2	2.2	1.9	2.1	1.9	2.0	1.7	1.9
2022:Q1	N.A.	2.2	N.A.	2.1	N.A.	2.0	N.A.	1.9
Q4/Q4 Annual Averages								
2021	2.0	2.2	1.9	2.0	1.9	2.0	1.8	1.8
2022	1.9	2.2	2.0	2.1	1.8	1.9	1.7	1.9
2023	N.A.	2.2	N.A.	2.2	N.A.	2.0	N.A.	2.0
Long-Term Annual Averages								
2020-2024	2.00	N.A.	N.A.	N.A.	1.79	N.A.	N.A.	N.A.
2021-2025	N.A.	2.20	N.A.	N.A.	N.A.	2.00	N.A.	N.A.
2020-2029	2.12	N.A.	N.A.	N.A.	1.90	N.A.	N.A.	N.A.
2021-2030	N.A.	2.20	N.A.	N.A.	N.A.	2.03	N.A.	N.A.

The charts below show the median projections (the red line) and the associated interquartile ranges (gray areas around the red line) for the projections for 10-year annual-average CPI and PCE inflation. The charts highlight slightly higher projections for the long-term inflation rate, compared with those of the last survey.

Projections for the 10-Year Annual-Average Rate of CPI Inflation
(Median and Interquartile Range)

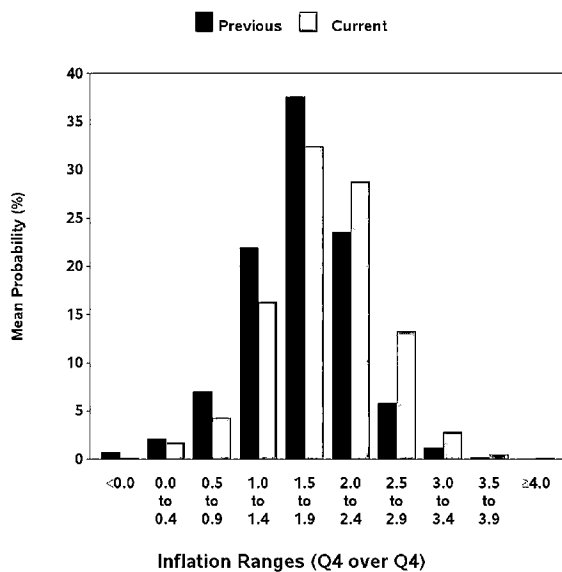


Projections for the 10-Year Annual-Average Rate of PCE Inflation
(Median and Interquartile Range)

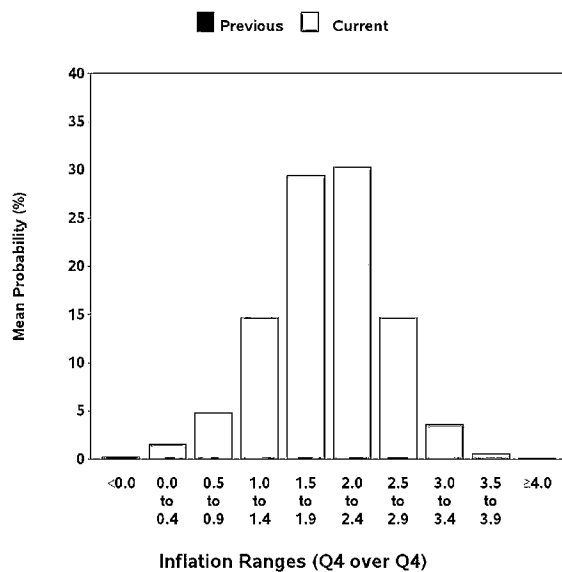


The figures below show the probabilities that the forecasters are assigning to each of 10 possible ranges for fourth-quarter over fourth-quarter core PCE inflation in 2021 and 2022. For 2021, the forecasters have increased the probability that core PCE inflation will be above 2.0 percent.

Mean Probabilities for Core PCE Inflation in 2021



Mean Probabilities for Core PCE Inflation in 2022



Lower Risk of a Negative Quarter in 2021

The forecasters have revised downward the chance of a contraction in real GDP in any of the next four quarters. For the current quarter, the forecasters predict a 19.1 percent chance of negative growth, down from 20.4 percent in the survey of three months ago. The panelists have also made downward revisions to their probability estimates for the following three quarters in 2021.

Risk of a Negative Quarter (%) *Survey Means*

Quarterly data:	Previous	New
2021:Q1	20.4	19.1
2021:Q2	17.5	12.7
2021:Q3	14.4	12.3
2021:Q4	13.9	12.9
2022:Q1	N.A.	14.1

Forecasters State Their Views on House Price Growth over the Next Two Years

In a special question in this survey, panelists were asked to provide their forecasts for fourth-quarter over fourth-quarter growth in house prices, as measured by a number of alternative indices. The panelists were allowed to choose their measure from a list of indices or to write in their own index. For each index of their choosing, the panelists provided forecasts for growth in 2021 and 2022.

Fifteen panelists answered the special question. Some panelists provided projections for more than one index. The table below provides a summary of the forecasters' responses. The number of responses (N) is low for each index. The median estimates for the six house-price indices listed in the table below range from 4.7 percent to 7.9 percent in 2021 and from 3.5 percent to 5.3 percent in 2022.

Projections for Growth in Various Indices of House Prices Q4/Q4, Percentage Points

Index	2021 (Q4/Q4 Percent Change)			2022 (Q4/Q4 Percent Change)		
	N	Mean	Median	N	Mean	Median
S&P CoreLogic Case-Shiller: U.S. National	9	6.6	6.8	8	4.5	4.5
S&P CoreLogic Case-Shiller: Composite 10	2	4.7	4.7	2	3.9	3.9
S&P CoreLogic Case-Shiller: Composite 20	4	7.0	7.5	4	4.9	5.0
FHFA: Purchase Only (U.S. Total)	9	5.4	5.6	8	3.8	3.5
CoreLogic: National HPI, incl. Distressed Sales (Single Family Combined)	1	5.6	5.6	1	5.3	5.3
NAR Median: Total Existing	2	7.9	7.9	2	5.1	5.1

Forecasters See Higher 10-Year Growth in Output and Productivity Than They Predicted One Year Ago

In our first-quarter surveys, the forecasters provide their 10-year annual-average projections for an expanded set of variables, including growth in output and productivity, as well as returns on financial assets.

As the table below shows, the forecasters expect real GDP to grow at an annual-average rate of 2.25 percent over the next 10 years, higher than their projection of 2.00 percent in the first-quarter survey of 2020. Ten-year annual-average productivity growth is now expected to be 1.75 percent, up from 1.40 percent previously.

Mixed revisions to the return on financial assets accompany the current outlook. The forecasters predict the S&P 500 returning an annual-average 5.00 percent over the next 10 years, unchanged from the first-quarter survey of 2020. The forecasters see the rate on 10-year Treasuries averaging 2.80 percent over the next 10 years, up slightly from 2.70 percent in last year's first-quarter survey. Three-month Treasury bills will return an annual-average 1.75 percent over the next 10 years, down from 2.02 percent previously.

Median Long-Term (10-Year) Forecasts (%)

	<i>First Quarter 2020</i>	<i>Current Survey</i>
<i>Real GDP Growth</i>	2.00	2.25
<i>Productivity Growth</i>	1.40	1.75
<i>Stock Returns (S&P 500)</i>	5.00	5.00
<i>Rate on 10-Year Treasury Bonds</i>	2.70	2.80
<i>Bill Returns (3-Month)</i>	2.02	1.75

Technical Notes

New Probability Ranges

Beginning with the 2020:Q2 survey, changes were made to the definition of the probability bins for real GDP growth and the unemployment rate over the next four years.

Moody's Aaa and Baa Historical Rates

The historical values of Moody's Aaa and Baa rates are proprietary and, therefore, not available in the data files on the Bank's website or on the tables that accompany the survey's complete write-up in the PDF.

The Federal Reserve Bank of Philadelphia thanks the following forecasters for their participation in recent surveys:

Lewis Alexander, Nomura Securities; **Scott Anderson**, Bank of the West (BNP Paribas Group); **Robert J. Barbera**, Johns Hopkins University Center for Financial Economics; **Peter Bernstein**, RCF Economic and Financial Consulting, Inc.; **Wayne Best** and **Michael Brown**, Visa, Inc.; **Jay Bryson**, Wells Fargo; **Christine Chmura, Ph.D.**, and **Xiaobing Shuai, Ph.D.**, Chmura Economics & Analytics; **Gary Ciminero, CFA**, GLC Financial Economics; **Gregory Daco**, Oxford Economics USA, Inc.; **Rajeev Dhawan**, Georgia State University; **Bill Diviney**, ABN AMRO Bank NV; **G. Ehrlich**, **D. Manaenkov**, **T. Ranoso**, and **A. Thapar**, RSQE, University of Michigan; **Michael R. Englund**, Action Economics, LLC; **Sacha Gelfer**, Bentley University; **James Glassman**, JPMorgan Chase & Co.; **Jan Hatzius**, Goldman Sachs; **Fred Joutz**, Benchmark Forecasts; **Sam Kahan**, Kahan Consulting Ltd. (ACT Research LLC); **N. Karp**, BBVA Research USA; **Walter Kemmsies** and **Ryan Severino**, Jones Lang LaSalle; **Jack Kleinhenz**, Kleinhenz & Associates, Inc.; **Rohan Kumar**, Decision Economics, Inc.; **Thomas Lam**, Sim Kee Boon Institute, Singapore Management University; **John Lonski**, Moody's Capital Markets Group; **Matthew Luzzetti**, Deutsche Bank Securities; **IHS Markit**; **Robert McNab**, Old Dominion University; **R. Anthony Metz**, Pareto Optimal Economics; **R. M. Monaco**, TitanRM; **Michael Moran**, Daiwa Capital Markets America; **Joel L. Naroff**, Naroff Economic Advisors; **Brendon Ogmundson**, BC Real Estate Association; **Perc Pineda, Ph.D.**, Plastics Industry Association; **Philip Rothman**, East Carolina University; **Chris Rupkey**, MUFG Union Bank; **Sean M. Snaith, Ph.D.**, University of Central Florida; **Constantine G. Soras, Ph.D.**, CGS Economic Consulting, Inc.; **Stephen Stanley**, Amherst Pierpont Securities; **Charles Steindel**, Ramapo College of New Jersey; **Susan M. Sterne**, Economic Analysis Associates, Inc.; **James Sweeney**, Credit Suisse; **Thomas Kevin Swift**, American Chemistry Council; **Maira Trimble**, Eaton Corporation; **Mark Zandi**, Moody's Analytics; **Ellen Zentner**, Morgan Stanley.

This is a partial list of participants. We also thank those who wish to remain anonymous.

SUMMARY TABLE
SURVEY OF PROFESSIONAL FORECASTERS
MAJOR MACROECONOMIC INDICATORS

	2021 Q1	2021 Q2	2021 Q3	2021 Q4	2022 Q1	2021	2022 (YEAR-OVER-YEAR)	2023	2024
PERCENT GROWTH AT ANNUAL RATES									
1. REAL GDP (BILLIONS, CHAIN WEIGHTED)	3.2	5.0	5.3	4.0	3.7	4.5	3.7	3.1	2.5
2. GDP PRICE INDEX (PERCENT CHANGE)	2.0	1.9	1.9	2.0	2.0	1.9	2.0	N.A.	N.A.
3. NOMINAL GDP (\$ BILLIONS)	5.3	7.2	7.2	6.6	6.1	6.6	6.0	N.A.	N.A.
4. NONFARM PAYROLL EMPLOYMENT (PERCENT CHANGE)	1.2	3.4	3.8	4.7	3.6	1.9	2.7	N.A.	N.A.
(AVG MONTHLY CHANGE)	143.1	396.1	445.8	565.8	441.4	223.4	329.8	N.A.	N.A.
VARIABLES IN LEVELS									
5. UNEMPLOYMENT RATE (PERCENT)	6.3	6.1	5.7	5.4	5.1	5.9	4.8	4.2	4.0
6. 3-MONTH TREASURY BILL (PERCENT)	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.3	0.5
7. 10-YEAR TREASURY BOND (PERCENT)	1.1	1.2	1.3	1.4	1.5	1.2	1.6	1.9	2.1
	2021 Q1	2021 Q2	2021 Q3	2021 Q4	2022 Q1	2021	2022 (Q4-OVER-Q4)	2023	
INFLATION INDICATORS									
8. CPI (ANNUAL RATE)	2.5	2.1	2.1	2.2	2.2	2.2	2.2	2.2	
9. CORE CPI (ANNUAL RATE)	1.8	2.1	2.1	2.1	2.1	2.0	2.1	2.2	
10. PCE (ANNUAL RATE)	2.4	1.8	1.9	2.0	2.0	2.0	1.9	2.0	
11. CORE PCE (ANNUAL RATE)	1.9	1.8	1.9	1.9	1.9	1.8	1.9	2.0	

Note: The figures on each line are medians of 39 forecasters.

Source: Research Department, Federal Reserve Bank of Philadelphia.
Survey of Professional Forecasters, First Quarter 2021.

SURVEY OF PROFESSIONAL FORECASTERS

First Quarter 2021

Tables

Note: Data in these tables listed as "actual" are the data that were available to the forecasters when they were sent the survey questionnaire on January 28, 2021; the tables do not reflect subsequent revisions to the data. All forecasts were received on or before February 9, 2021.

TABLE ONE
MAJOR MACROECONOMIC INDICATORS
MEDIAN OF FORECASTER PREDICTIONS

	NUMBER OF FORECASTERS	ACTUAL		FORECAST				ACTUAL		FORECAST		
		2020 Q4	2021 Q1	2021 Q2	2021 Q3	2021 Q4	2022 Q1	2020 ANNUAL	2021 ANNUAL	2022 ANNUAL	2023 ANNUAL	2024 ANNUAL
1. GROSS DOMESTIC PRODUCT (GDP) (\$ BILLIONS)	38	21480	21758	22142	22532	22893	23233	20933	22305	23651	N.A.	N.A.
2. GDP PRICE INDEX (2012=100)	38	114.42	114.98	115.53	116.07	116.66	117.23	113.62	115.78	118.12	N.A.	N.A.
3. CORPORATE PROFITS AFTER TAXES (\$ BILLIONS)	15	N.A.	1988.6	2027.5	2087.0	2119.3	2151.1	N.A.	2055.9	2153.5	N.A.	N.A.
4. UNEMPLOYMENT RATE (PERCENT)	39	6.8	6.3	6.1	5.7	5.4	5.1	8.1	5.9	4.8	4.2	4.0
5. NONFARM PAYROLL EMPLOYMENT (THOUSANDS)	34	142605	143034	144223	145560	147257	148582	142261	144942	148900	N.A.	N.A.
6. INDUSTRIAL PRODUCTION (2012=100)	30	104.5	106.0	107.2	108.5	109.5	110.8	102.1	107.8	111.4	N.A.	N.A.
7. NEW PRIVATE HOUSING STARTS (ANNUAL RATE, MILLIONS)	33	1.59	1.55	1.51	1.52	1.51	1.53	1.40	1.51	1.56	N.A.	N.A.
8. 3-MONTH TREASURY BILL RATE (PERCENT)	36	0.09	0.09	0.10	0.10	0.10	0.11	0.37	0.10	0.15	0.32	0.51
9. MOODY'S AAA CORP BOND YIELD * (PERCENT)	22	N.A.	2.50	2.57	2.59	2.73	2.77	N.A.	2.57	2.82	N.A.	N.A.
10. MOODY'S BAA CORP BOND YIELD * (PERCENT)	21	N.A.	3.40	3.50	3.60	3.65	3.75	N.A.	3.55	3.81	N.A.	N.A.
11. 10-YEAR TREASURY BOND YIELD (PERCENT)	37	0.86	1.13	1.20	1.29	1.40	1.50	0.89	1.24	1.64	1.90	2.05
12. REAL GDP (BILLIONS, CHAIN WEIGHTED)	39	18780	18929	19163	19411	19604	19783	18423	19261	19973	20592	21097
13. TOTAL CONSUMPTION EXPENDITURE (BILLIONS, CHAIN WEIGHTED)	36	13004.7	13082.8	13266.4	13475.0	13626.7	13762.2	12727.0	13358.1	13891.6	N.A.	N.A.
14. NONRESIDENTIAL FIXED INVESTMENT (BILLIONS, CHAIN WEIGHTED)	35	2746.2	2791.6	2828.7	2880.3	2920.1	2958.5	2666.1	2857.4	3015.5	N.A.	N.A.
15. RESIDENTIAL FIXED INVESTMENT (BILLIONS, CHAIN WEIGHTED)	35	693.9	713.3	725.1	742.1	746.7	747.1	637.1	735.0	758.0	N.A.	N.A.
16. FEDERAL GOVERNMENT C & I (BILLIONS, CHAIN WEIGHTED)	35	1333.3	1343.1	1353.6	1361.5	1367.5	1373.4	1332.8	1357.4	1386.0	N.A.	N.A.
17. STATE AND LOCAL GOVT C & I (BILLIONS, CHAIN WEIGHTED)	34	1984.5	1988.5	1998.5	2005.5	2017.5	2023.1	2007.9	2000.2	2039.2	N.A.	N.A.
18. CHANGE IN PRIVATE INVENTORIES (BILLIONS, CHAIN WEIGHTED)	34	44.6	55.9	66.7	72.0	73.1	72.0	-81.7	67.9	74.3	N.A.	N.A.
19. NET EXPORTS (BILLIONS, CHAIN WEIGHTED)	35	-1121.1	-1135.7	-1152.0	-1156.5	-1169.3	-1172.9	-925.8	-1151.6	-1174.7	N.A.	N.A.

* The historical values of Moody's Aaa and Baa rates are proprietary and therefore not available to the general public.

Source: Research Department, Federal Reserve Bank of Philadelphia. Survey of Professional Forecasters, First Quarter 2021.

TABLE TWO
MAJOR MACROECONOMIC INDICATORS
PERCENTAGE CHANGES AT ANNUAL RATES

	NUMBER OF FORECASTERS	Q4 2020 TO Q1 2021	Q1 2021 TO Q2 2021	Q2 2021 TO Q3 2021	Q3 2021 TO Q4 2021	Q4 2021 TO Q1 2022	2020 TO 2021	2021 TO 2022	2022 TO 2023	2023 TO 2024
1. GROSS DOMESTIC PRODUCT (GDP) (\$ BILLIONS)	38	5.3	7.2	7.2	6.6	6.1	6.6	6.0	N.A.	N.A.
2. GDP PRICE INDEX (2012=100)	38	2.0	1.9	1.9	2.0	2.0	1.9	2.0	N.A.	N.A.
3. CORPORATE PROFITS AFTER TAXES (\$ BILLIONS)	15	2.3	8.1	12.3	6.3	6.1	11.7	4.7	N.A.	N.A.
4. UNEMPLOYMENT RATE (PERCENT)	39	-0.5	-0.2	-0.4	-0.3	-0.3	-2.2	-1.1	-0.5	-0.2
5. NONFARM PAYROLL EMPLOYMENT (PERCENT CHANGE)	34	1.2	3.4	3.8	4.7	3.6	1.9	2.7	N.A.	N.A.
(AVG MONTHLY CHANGE)	34	143.1	396.1	445.8	565.8	441.4	223.4	329.8	N.A.	N.A.
6. INDUSTRIAL PRODUCTION (2012=100)	30	5.9	4.5	5.1	3.6	4.8	5.5	3.4	N.A.	N.A.
7. NEW PRIVATE HOUSING STARTS (ANNUAL RATE, MILLIONS)	33	-10.1	-9.0	1.1	-2.2	5.4	8.3	2.7	N.A.	N.A.
8. 3-MONTH TREASURY BILL RATE (PERCENT)	36	0.00	0.01	0.00	0.00	0.01	-0.27	0.05	0.17	0.19
9. MOODY'S AAA CORP BOND YIELD * (PERCENT)	22	N.A.	0.07	0.02	0.14	0.03	N.A.	0.25	N.A.	N.A.
10. MOODY'S BAA CORP BOND YIELD * (PERCENT)	21	N.A.	0.10	0.10	0.05	0.10	N.A.	0.26	N.A.	N.A.
11. 10-YEAR TREASURY BOND YIELD (PERCENT)	37	0.27	0.07	0.09	0.11	0.10	0.35	0.40	0.26	0.15
12. REAL GDP (BILLIONS, CHAIN WEIGHTED)	39	3.2	5.0	5.3	4.0	3.7	4.5	3.7	3.1	2.5
13. TOTAL CONSUMPTION EXPENDITURE (BILLIONS, CHAIN WEIGHTED)	36	2.4	5.7	6.4	4.6	4.0	5.0	4.0	N.A.	N.A.
14. NONRESIDENTIAL FIXED INVESTMENT (BILLIONS, CHAIN WEIGHTED)	35	6.8	5.4	7.5	5.6	5.4	7.2	5.5	N.A.	N.A.
15. RESIDENTIAL FIXED INVESTMENT (BILLIONS, CHAIN WEIGHTED)	35	11.6	6.8	9.7	2.5	0.2	15.4	3.1	N.A.	N.A.
16. FEDERAL GOVERNMENT C & I (BILLIONS, CHAIN WEIGHTED)	35	3.0	3.1	2.4	1.8	1.7	1.8	2.1	N.A.	N.A.
17. STATE AND LOCAL GOVT C & I (BILLIONS, CHAIN WEIGHTED)	34	0.8	2.0	1.4	2.4	1.1	-0.4	1.9	N.A.	N.A.
18. CHANGE IN PRIVATE INVENTORIES (BILLIONS, CHAIN WEIGHTED)	34	11.3	10.8	5.3	1.1	-1.1	149.7	6.3	N.A.	N.A.
19. NET EXPORTS (BILLIONS, CHAIN WEIGHTED)	35	-14.6	-16.2	-4.5	-12.8	-3.6	-225.8	-23.1	N.A.	N.A.

* The historical values of Moody's Aaa and Baa rates are proprietary and therefore not available to the general public.

Note: Figures for unemployment rate, 3-month Treasury bill rate, Moody's Aaa corporate bond yield, Moody's Baa corporate bond yield, and 10-year Treasury bond yield are changes in these rates, in percentage points. Figures for change in private inventories and net exports are changes in billions of chain-weighted dollars. All others are percentage changes at annual rates.

Source: Research Department, Federal Reserve Bank of Philadelphia. Survey of Professional Forecasters, First Quarter 2021.

TABLE THREE
MAJOR PRICE INDICATORS
MEDIAN OF FORECASTER PREDICTIONS

	NUMBER OF FORECASTERS	ACTUAL		FORECAST (Q/Q)				ACTUAL		FORECAST (Q4/Q4)	
		2020 Q4	2021 Q1	2021 Q2	2021 Q3	2021 Q4	2022 Q1	2020 ANNUAL	2021 ANNUAL	2022 ANNUAL	2023 ANNUAL
1. CONSUMER PRICE INDEX (ANNUAL RATE)	38	2.2	2.5	2.1	2.1	2.2	2.2	1.2	2.2	2.2	2.2
2. CORE CONSUMER PRICE INDEX (ANNUAL RATE)	37	1.8	1.8	2.1	2.1	2.1	2.1	1.6	2.0	2.1	2.2
3. PCE PRICE INDEX (ANNUAL RATE)	37	1.5	2.4	1.8	1.9	2.0	2.0	1.2	2.0	1.9	2.0
4. CORE PCE PRICE INDEX (ANNUAL RATE)	36	1.4	1.9	1.8	1.9	1.9	1.9	1.4	1.8	1.9	2.0

Source: Research Department, Federal Reserve Bank of Philadelphia. Survey of Professional Forecasters, First Quarter 2021.

TABLE FOUR
YIELD SPREADS
MEDIAN OF FORECASTER PREDICTIONS

	NUMBER OF FORECASTERS	ACTUAL		FORECAST				ACTUAL		FORECAST		
		2020 Q4	2021 Q1	2021 Q2	2021 Q3	2021 Q4	2022 Q1	2020 ANNUAL	2021 ANNUAL	2022 ANNUAL	2023 ANNUAL	2024 ANNUAL
1. TBOND MINUS TBILL (PERCENTAGE POINTS)	34	0.77	1.03	1.09	1.16	1.26	1.29	0.53	1.12	1.33	1.37	1.41
2. AAA MINUS TBOND (PERCENTAGE POINTS)	21	N.A.	1.42	1.40	1.38	1.37	1.36	N.A.	1.39	1.33	N.A.	N.A.
3. BAA MINUS TBOND (PERCENTAGE POINTS)	21	N.A.	2.30	2.30	2.30	2.30	2.35	N.A.	2.30	2.29	N.A.	N.A.
4. BAA MINUS AAA (PERCENTAGE POINTS)	21	N.A.	0.90	0.95	1.00	1.00	1.00	N.A.	0.95	1.00	N.A.	N.A.

Notes:

TBOND is the rate on 10-year Treasury bonds.
TBILL is the rate on 3-month Treasury bills.
AAA is the rate on Moody's Aaa corporate bonds.
BAA is the rate on Moody's Baa corporate bonds.

The historical values for interest rate spreads for Moody's Aaa and Baa rates are proprietary and therefore not available to the general public.

Each interest rate spread is computed as the median value of the forecasters' spreads. These median values may differ from those computed as the difference between the median values of each interest rate in the spread.

Source: Research Department, Federal Reserve Bank of Philadelphia. Survey of Professional Forecasters, First Quarter 2021.

TABLE FIVE
ESTIMATED PROBABILITY OF DECLINE IN REAL GDP

ESTIMATED PROBABILITY (CHANCES IN 100)	Q4 2020 TO Q1 2021	Q1 2021 TO Q2 2021	Q2 2021 TO Q3 2021	Q3 2021 TO Q4 2021	Q4 2021 TO Q1 2022
NUMBER OF FORECASTERS					
10 OR LESS	10	17	20	18	16
11 TO 20	10	11	8	10	11
21 TO 30	6	2	2	2	1
31 TO 40	4	1	1	1	2
41 TO 50	0	0	0	0	0
51 TO 60	1	0	0	0	0
61 TO 70	0	0	0	0	0
71 TO 80	0	0	0	0	0
81 TO 90	0	0	0	0	0
91 AND OVER	0	0	0	0	0
NOT REPORTING	8	8	8	8	9
MEAN AND MEDIAN					
MEDIAN PROBABILITY	17.00	10.00	10.00	10.00	10.00
MEAN PROBABILITY	19.13	12.74	12.35	12.91	14.10

Note: Total number of forecasters reporting is 31.

Source: Research Department, Federal Reserve Bank of Philadelphia.
Survey of Professional Forecasters, First Quarter 2021.

TABLE SIX
MEAN PROBABILITIES

MEAN PROBABILITY ATTACHED TO POSSIBLE
CIVILIAN UNEMPLOYMENT RATES:
(ANNUAL AVERAGE)

	2021	2022	2023	2024
15.0 PERCENT OR MORE	0.06	0.03	0.00	0.00
12.0 TO 14.9 PERCENT	0.13	0.06	0.04	0.05
10.0 TO 11.9 PERCENT	0.25	0.13	0.13	0.15
8.0 TO 9.9 PERCENT	1.78	0.82	0.51	0.67
7.0 TO 7.9 PERCENT	8.85	3.46	3.67	3.74
6.0 TO 6.9 PERCENT	32.80	15.24	12.87	11.49
5.0 TO 5.9 PERCENT	39.09	30.23	24.35	22.00
4.0 TO 4.9 PERCENT	14.76	33.58	34.83	32.11
3.0 TO 3.9 PERCENT	2.16	14.58	19.93	25.71
LESS THAN 3.0 PERCENT	0.13	1.88	3.67	4.08

MEAN PROBABILITY ATTACHED TO POSSIBLE
PERCENT CHANGES IN REAL GDP:
(ANNUAL-AVERAGE OVER ANNUAL-AVERAGE)

	2020-2021	2021-2022	2022-2023	2023-2024
16.0 PERCENT OR MORE	0.00	0.00	0.00	0.00
10.0 TO 15.9 PERCENT	0.61	0.19	0.04	0.05
7.0 TO 9.9 PERCENT	9.26	3.81	0.66	0.55
4.0 TO 6.9 PERCENT	44.78	27.97	10.04	8.37
2.5 TO 3.9 PERCENT	26.90	38.84	33.38	29.60
1.5 TO 2.4 PERCENT	11.26	18.83	35.13	36.60
0.0 TO 1.4 PERCENT	4.88	7.46	15.52	18.96
-3.0 TO -0.1 PERCENT	1.99	2.35	4.43	4.74
-6.0 TO -3.1 PERCENT	0.23	0.41	0.60	0.82
-12.0 TO -6.1 PERCENT	0.06	0.13	0.16	0.23
LESS THAN -12.0 PERCENT	0.03	0.03	0.04	0.09

MEAN PROBABILITY ATTACHED TO POSSIBLE
PERCENT CHANGES IN GDP PRICE INDEX:
(ANNUAL-AVERAGE OVER ANNUAL-AVERAGE)

	2020-2021	2021-2022
4.0 PERCENT OR MORE	1.00	0.68
3.5 TO 3.9 PERCENT	1.33	1.12
3.0 TO 3.4 PERCENT	3.80	4.70
2.5 TO 2.9 PERCENT	13.50	17.91
2.0 TO 2.4 PERCENT	32.41	30.65
1.5 TO 1.9 PERCENT	29.91	27.13
1.0 TO 1.4 PERCENT	12.75	11.67
0.5 TO 0.9 PERCENT	4.02	4.46
0.0 TO 0.4 PERCENT	1.14	1.38
LESS THAN 0.0 PERCENT	0.13	0.31

Source: Research Department, Federal Reserve Bank of Philadelphia.
Survey of Professional Forecasters, First Quarter 2021.

TABLE SEVEN
MEAN PROBABILITY OF CORE CPI AND CORE PCE INFLATION (Q4/Q4)

MEAN PROBABILITY ATTACHED TO CORE CPI INFLATION:

	20Q4 TO 21Q4	21Q4 TO 22Q4
	<hr/>	<hr/>
4.0 PERCENT OR MORE	0.13	0.67
3.5 TO 3.9 PERCENT	0.66	1.16
3.0 TO 3.4 PERCENT	3.78	4.55
2.5 TO 2.9 PERCENT	16.58	17.50
2.0 TO 2.4 PERCENT	33.94	32.96
1.5 TO 1.9 PERCENT	27.65	27.18
1.0 TO 1.4 PERCENT	12.04	10.63
0.5 TO 0.9 PERCENT	3.98	3.82
0.0 TO 0.4 PERCENT	1.15	0.92
LESS THAN 0.0 PERCENT	0.08	0.60

MEAN PROBABILITY ATTACHED TO CORE PCE INFLATION:

	20Q4 TO 21Q4	21Q4 TO 22Q4
	<hr/>	<hr/>
4.0 PERCENT OR MORE	0.07	0.09
3.5 TO 3.9 PERCENT	0.50	0.54
3.0 TO 3.4 PERCENT	2.78	3.62
2.5 TO 2.9 PERCENT	13.27	14.69
2.0 TO 2.4 PERCENT	28.74	30.32
1.5 TO 1.9 PERCENT	32.40	29.42
1.0 TO 1.4 PERCENT	16.28	14.72
0.5 TO 0.9 PERCENT	4.23	4.81
0.0 TO 0.4 PERCENT	1.66	1.56
LESS THAN 0.0 PERCENT	0.07	0.22

Source: Research Department, Federal Reserve Bank of Philadelphia.
Survey of Professional Forecasters, First Quarter 2021.

TABLE EIGHT
LONG-TERM (5-YEAR AND 10-YEAR) INFLATION FORECASTS

ANNUAL AVERAGE OVER THE NEXT 5 YEARS: 2021-2025

CPI INFLATION RATE		PCE INFLATION RATE	
MINIMUM	1.60	MINIMUM	1.50
LOWER QUARTILE	2.10	LOWER QUARTILE	1.90
MEDIAN	2.20	MEDIAN	2.00
UPPER QUARTILE	2.30	UPPER QUARTILE	2.10
MAXIMUM	2.80	MAXIMUM	2.60
MEAN	2.21	MEAN	1.99
STD. DEVIATION	0.23	STD. DEVIATION	0.21
N	29	N	29
MISSING	10	MISSING	10

ANNUAL AVERAGE OVER THE FOLLOWING 5 YEARS: 2026-2030

CPI INFLATION RATE		PCE INFLATION RATE	
MINIMUM	1.92	MINIMUM	1.60
LOWER QUARTILE	2.00	LOWER QUARTILE	2.00
MEDIAN	2.23	MEDIAN	2.08
UPPER QUARTILE	2.50	UPPER QUARTILE	2.30
MAXIMUM	3.10	MAXIMUM	2.90
MEAN	2.28	MEAN	2.14
STD. DEVIATION	0.31	STD. DEVIATION	0.29
N	28	N	28
MISSING	11	MISSING	11

ANNUAL AVERAGE OVER THE NEXT 10 YEARS: 2021-2030

CPI INFLATION RATE		PCE INFLATION RATE	
MINIMUM	1.94	MINIMUM	1.60
LOWER QUARTILE	2.10	LOWER QUARTILE	2.00
MEDIAN	2.20	MEDIAN	2.03
UPPER QUARTILE	2.40	UPPER QUARTILE	2.20
MAXIMUM	2.70	MAXIMUM	2.51
MEAN	2.24	MEAN	2.07
STD. DEVIATION	0.21	STD. DEVIATION	0.21
N	29	N	29
MISSING	10	MISSING	10

Note: The summary statistics for each forecast horizon are computed on a sample of panelists that may differ from one horizon to the next. The usual identity linking the 10-year horizon to the two underlying five-year horizons may not hold in the results.

Source: Research Department, Federal Reserve Bank of Philadelphia.
Survey of Professional Forecasters, First Quarter 2021.

TABLE NINE
ADDITIONAL LONG-TERM (10-YEAR) FORECASTS

ANNUAL AVERAGE OVER THE NEXT 10 YEARS: 2021-2030
=====

REAL GDP GROWTH RATE		PRODUCTIVITY GROWTH RATE	
-----		-----	
MINIMUM	1.70	MINIMUM	1.00
LOWER QUARTILE	2.00	LOWER QUARTILE	1.40
MEDIAN	2.25	MEDIAN	1.75
UPPER QUARTILE	2.50	UPPER QUARTILE	1.95
MAXIMUM	2.93	MAXIMUM	3.50
MEAN	2.27	MEAN	1.73
STD. DEVIATION	0.33	STD. DEVIATION	0.54
N	29	N	20
MISSING	10	MISSING	19

STOCK RETURNS (S&P 500)		BOND RATE (10-YEAR)		BILL RETURNS (3-MONTH)	
-----		-----		-----	
MINIMUM	1.76	MINIMUM	1.30	MINIMUM	0.25
LOWER QUARTILE	4.00	LOWER QUARTILE	2.18	LOWER QUARTILE	1.00
MEDIAN	5.00	MEDIAN	2.80	MEDIAN	1.75
UPPER QUARTILE	6.00	UPPER QUARTILE	3.20	UPPER QUARTILE	2.10
MAXIMUM	8.00	MAXIMUM	4.00	MAXIMUM	3.10
MEAN	5.09	MEAN	2.76	MEAN	1.64
STD. DEVIATION	1.73	STD. DEVIATION	0.72	STD. DEVIATION	0.76
N	14	N	21	N	21
MISSING	25	MISSING	18	MISSING	18

Source: Research Department, Federal Reserve Bank of Philadelphia.
Survey of Professional Forecasters, First Quarter 2021.

RRA Regulatory Focus

Major Rate Case Decisions - January - June 2021

For Detailed Data

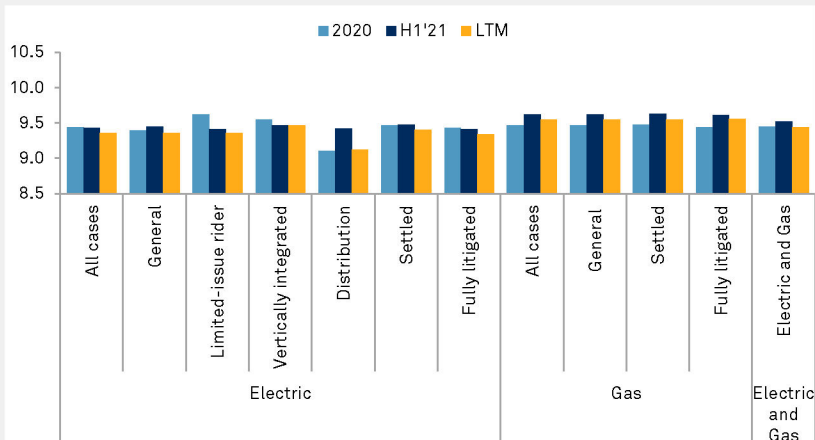
Click [here](#) to see supporting data tables.

The average return on equity authorized electric utilities was 9.43% in rate cases decided in the first half of 2021, in line with the 9.44% average for cases in full-year 2020. There were 20 electric ROE determinations in the first half 2021 versus 55 in full-year 2020.

The average ROE authorized gas utilities was 9.62% in cases decided in the first half of 2021 versus 9.46% in full-year 2020. There were 16 gas cases that included an ROE determination in the first half of 2021 versus 34 gas cases in full-year 2020.

The electric data includes several limited-issue rider cases. Excluding these cases, the average authorized ROE was 9.45% in electric general rate cases decided in the first half of 2021, versus 9.39% observed in full-year 2020. There is, however, little difference between the ROE averages including rider cases and those excluding rider cases for the first half of 2021; historically, the annual average authorized ROEs in electric cases that involve limited-issue riders were meaningfully higher than those approved in general rate cases, driven primarily by substantial ROE premiums authorized in generation-related limited-issue rider proceedings in Virginia. However, these premiums were approved for limited durations and have since begun to expire. As a result, the gap between the average ROE observed in the rider cases and that observed in general rate cases has narrowed. Limited-issue rider cases in which a separate ROE is determined have had limited use in the gas industry, as most of the gas riders rely on ROEs approved in a previous base rate case.

Average authorized return on equity (%)
Dashboard



Electric average	2020	H1'21	LTM ended 06/30/2021
All cases	9.44	9.43	9.36
General rate cases	9.39	9.45	9.36
Limited-issue rider cases	9.62	9.41	9.36
Vertically integrated cases	9.55	9.46	9.46
Distribution cases	9.10	9.42	9.12
Settled cases	9.46	9.47	9.40
Fully litigated cases	9.43	9.41	9.34
Gas averages			
All cases	9.46	9.62	9.55
General rate cases	9.46	9.62	9.55
Settled cases	9.47	9.63	9.54
Fully litigated cases	9.44	9.61	9.56
Composite electric and gas averages			
Electric and gas	9.45	9.52	9.44
U.S. Treasury			
30-year bond yield	1.56	2.17	1.83

Data compiled July 26, 2021.

Source: Regulatory Research Associates, a group within S&P Global Market Intelligence

Lisa Fontanella, CFA
Research Director

Sales & subscriptions
Sales_NorthAm@spglobal.com

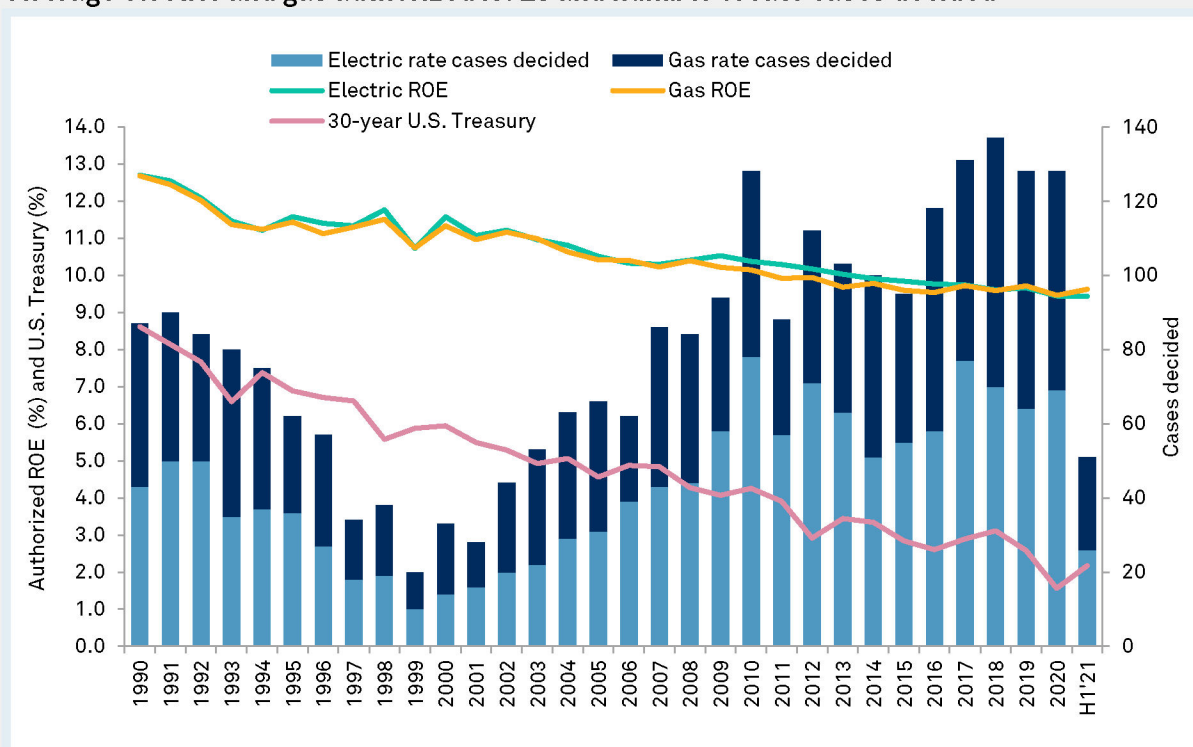
Enquiries
support.mi@spglobal.com

In the first six months of 2021, the median ROE authorized in all electric utility rate cases was 9.32%, versus 9.45% in full-year 2020; for gas utilities, the metric was 9.64% in the first half of 2021, versus 9.42% in full-year 2020.

Looking at the last 12 months ended June 30, 2021, the average ROE authorized in all electric utility rate cases was 9.36% and the median was 9.40%, while for gas utilities, the average was 9.55% and the median was 9.55%.

The full-year averages in recent years have been at the lowest levels ever witnessed in the industry, and the 2020 calendar-year average reflects the impact of interest rate cuts by the U.S. Federal Reserve and the COVID-19 pandemic-induced recession.

Average electric and gas authorized ROEs and number of rate cases decided



Data compiled July 26, 2021.

Source: Regulatory Research Associates, a group within S&P Global Market Intelligence

From a longer-term perspective, interest rates, as measured by the 30-year U.S. Treasury bond yield, fell almost steadily from the early 1980s until 2015 or so, placing downward pressure on authorized ROEs. Even though the decline in authorized ROEs was less dramatic in the period since 1990, average authorized ROEs fell below 10% for gas utilities in 2011 and for electric utilities in 2014. The calendar-year averages hovered between 9.5% and 9.8% through 2019, falling below 9.5% for the first time in 2020.

These declines in ROE are occurring at the same time that rate case activity has been on an upswing. There have been 100 or more cases adjudicated in nine of the last 11 calendar years. This count includes electric and gas cases where no ROEs have been specified; however, withdrawn cases are not included. After reaching an almost 30-year high in 2018, when almost 140 cases were decided, rate case activity moderated somewhat in both 2019 and 2020, with about 128 electric and gas cases resolved in each year.

Absent the pandemic, increased costs associated with environmental compliance, generation and delivery infrastructure upgrades and expansion, renewable generation mandates, storm and disaster recovery, cybersecurity and employee benefits have contributed to an active rate case agenda over the last decade.

Due to COVID-19 and the challenging economic backdrop, many utilities and state commissions in 2020 found creative ways to limit the immediate impact of rate hikes by pushing rate changes into a future period or agreeing to forgo rate hikes and using accounting mechanisms, such as the accelerated recovery of excess accumulated deferred tax liabilities, to facilitate these policies.

Currently, there are about 110 electric and gas rate cases pending.

Rising interest rates over the past several years also likely contributed to the increased rate case activity. After holding rates near zero for several years, the Federal Reserve began raising the federal funds rate in 2015. Before the pandemic hit, the Fed, after more than a decade without a cut, lowered rates three times in 2019, due to signs of a slowing economy. In addition, to stabilize the economy from the fallout from the coronavirus outbreak, the Fed cut rates twice in March 2020, resulting in a target range of 0%-0.25%. To facilitate economic recovery, Fed policymakers have indicated that it will keep rates anchored near zero until 2023.

While changes in the federal funds rate do not move in lockstep with longer-term treasuries, and authorized ROEs do not move in lockstep with interest rates, the expectation is that as interest rates change, authorized ROEs would also change in a similar fashion. However, several factors impact the timing and magnitude of such a shift. For example, normal regulatory lag, i.e., the amount of time it takes for a utility to put together a rate case filing and tender it to the commission and then for the commission to process the case, would without any other influences delay a change in average authorized ROEs relative to interest rates.

It is also worth noting that while both interest rates and authorized ROEs have generally been declining since 1990, the gap between authorized ROEs and interest rates widened somewhat over this period, largely as a result of an often-unstated understanding by regulators that the drop in interest rates caused by Federal Reserve intervention was unusual. Consequently, regulators did not necessarily fully reflect the interest rate drop in newly authorized ROEs in some instances; in others, regulators acknowledged that the changing dynamics of the industry and instability in the overall economy represented increased risk for investors, justifying a higher premium over interest rates.

In more recent periods, with the focus on customers' ability to pay and the need to maintain universal service as the pandemic drags on, regulators have been more apt to further lower authorized ROEs to mitigate the level of bill increases. These concerns are likely to continue as regulators will begin to grapple with increases in rates that result from recovery of pandemic-related costs. These considerations could be further impacted by the pace of the economic recovery, the potential uptick in the corporate tax rate and the threat that the U.S. may see a resurgence of COVID-19 cases due to the delta variant.

Capital structure trends

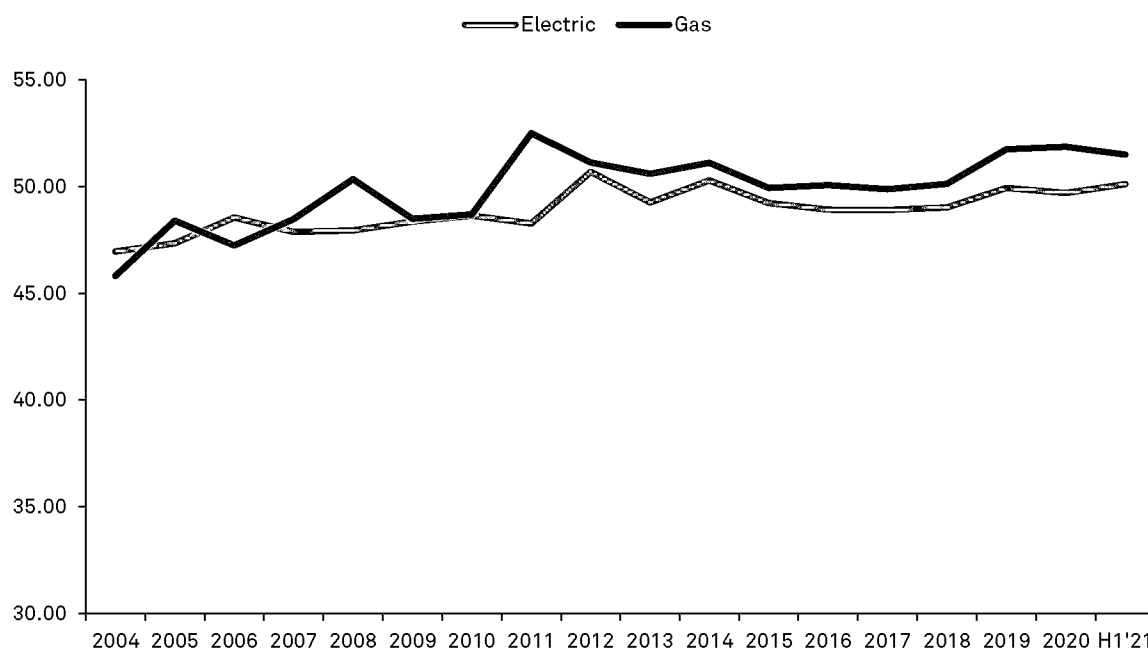
The negative cash flow impact of 2017 federal tax reform raised concerns regarding utility liquidity and credit metrics. In response many utilities sought higher common equity ratios, and the average authorized equity ratios adopted by utility commissions in 2019 were modestly higher than the levels observed in 2018 and 2017.

For full-years 2020, 2019, 2018 and 2017, the average equity ratios authorized in electric utility cases were 49.69%, 49.94%, 49.02% and 48.90%, respectively. The average equity ratios authorized gas utilities were 51.86%, 51.75%, 50.12% and 49.88%, respectively.

In the first half of 2021, the average authorized equity ratio in electric cases ticked up to 50.11%. For gas cases, the average was 51.50%.

Taking a longer-term view, equity ratios have generally increased over the last several years — the average equity ratio approved in electric rate cases decided during 2004 was 46.96%, while the average for gas utilities was 45.81%. Many commissions began approving more equity-rich capital structures in the wake of the 2008 financial crisis. For the bulk of the period since 2004, allowed equity ratios for gas utilities have been above that authorized for electrics.

Average authorized capital structures (%)



Data compiled July 26, 2021.

Source: Regulatory Research Associates, a group within S&P Global Market Intelligence

A more granular look at ROE trends

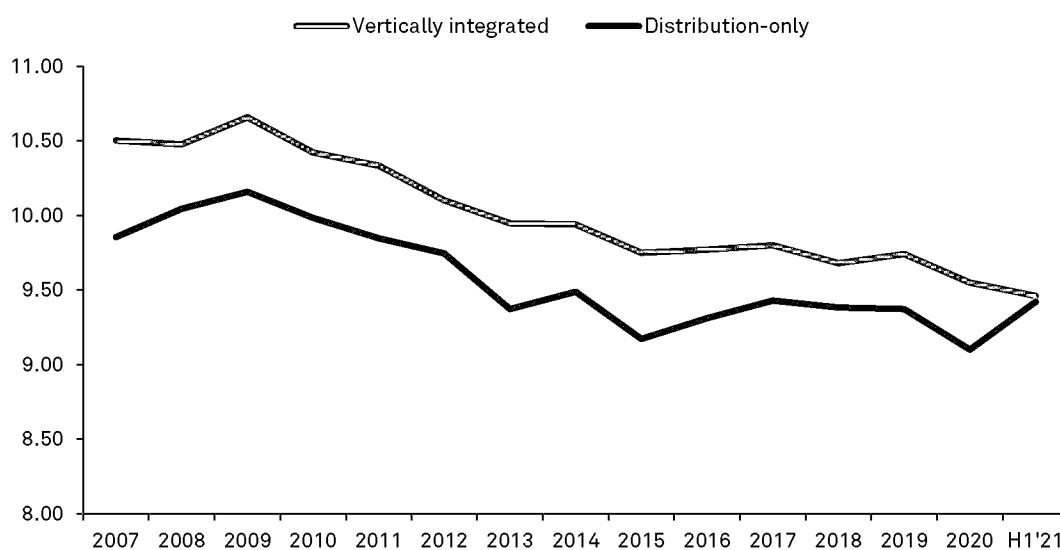
The discussion thus far has looked broadly at trends in authorized ROEs; the sections that follow provide a more granular view based upon the types of proceedings/decisions in which these ROEs were established.

Regulatory Research Associates, a group within S&P Global Market Intelligence, has observed that there can be significant differences between the average ROEs from one subcategory of cases to another.

As a result of electric industry restructuring, certain states unbundled electric rates and implemented retail competition for generation. Commissions in those states now have jurisdiction only over the revenue requirement and return parameters for delivery operations.

Comparing electric vertically integrated cases versus delivery-only proceedings over the past several years, RRA finds that the annual average authorized ROEs in vertically integrated cases typically are about 30 to 65 basis points higher than in delivery-only cases, arguably reflecting the increased risk associated with ownership and operation of generation assets.

Average authorized electric ROEs (%)



Data compiled July 26, 2021.

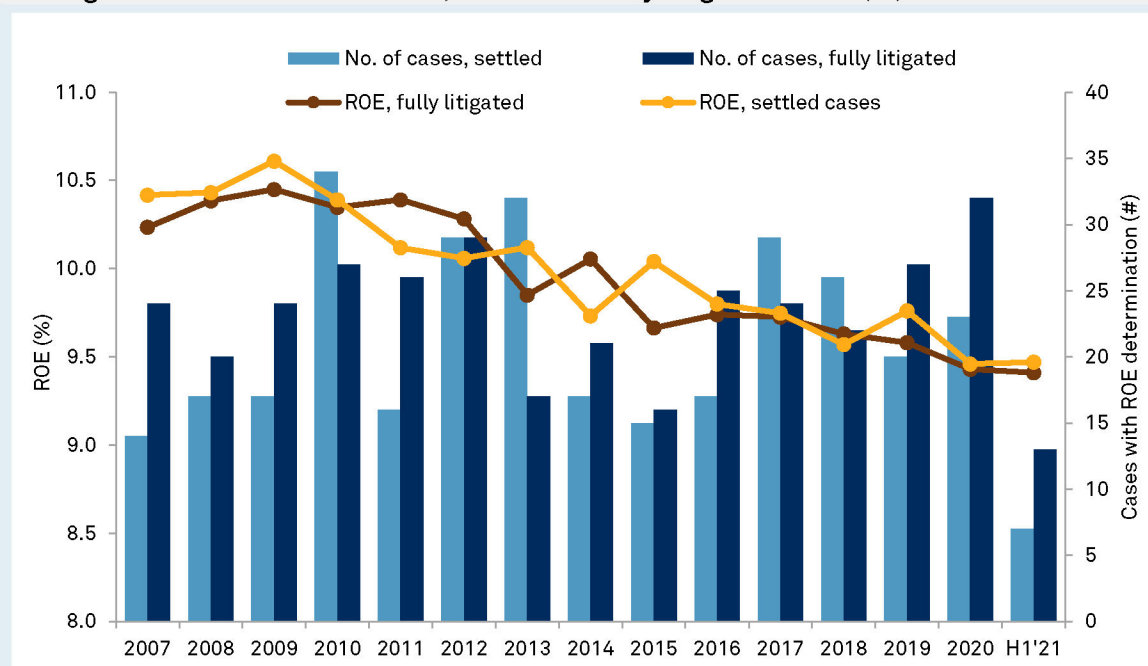
Source: Regulatory Research Associates, a group within S&P Global Market Intelligence

The industry average ROE for vertically integrated electric utilities was 9.46% in cases decided in the first half of 2021, versus the 9.55% average posted in full-year 2020. For electric distribution-only cases, the industry average ROE was 9.42% in the first half of 2021, versus 9.10% in full-year 2020.

Settlements have frequently been used to resolve rate cases over the last several years, and in many cases, these settlements are “black box” in nature and do not specify the ROE and other typical rate case parameters underlying the stipulated rate change. However, some states preclude this type of treatment, and settlements must specify these values, if not the specific adjustments from which these values were derived.

For both electric and gas cases, RRA has found no discernible pattern in the average authorized ROEs in cases that were settled versus those that were fully litigated. In some years, the average authorized ROE was higher for fully litigated cases, in others, it was higher for settled cases, and in a handful of years, the authorized ROE was similar for both fully litigated and settled cases.

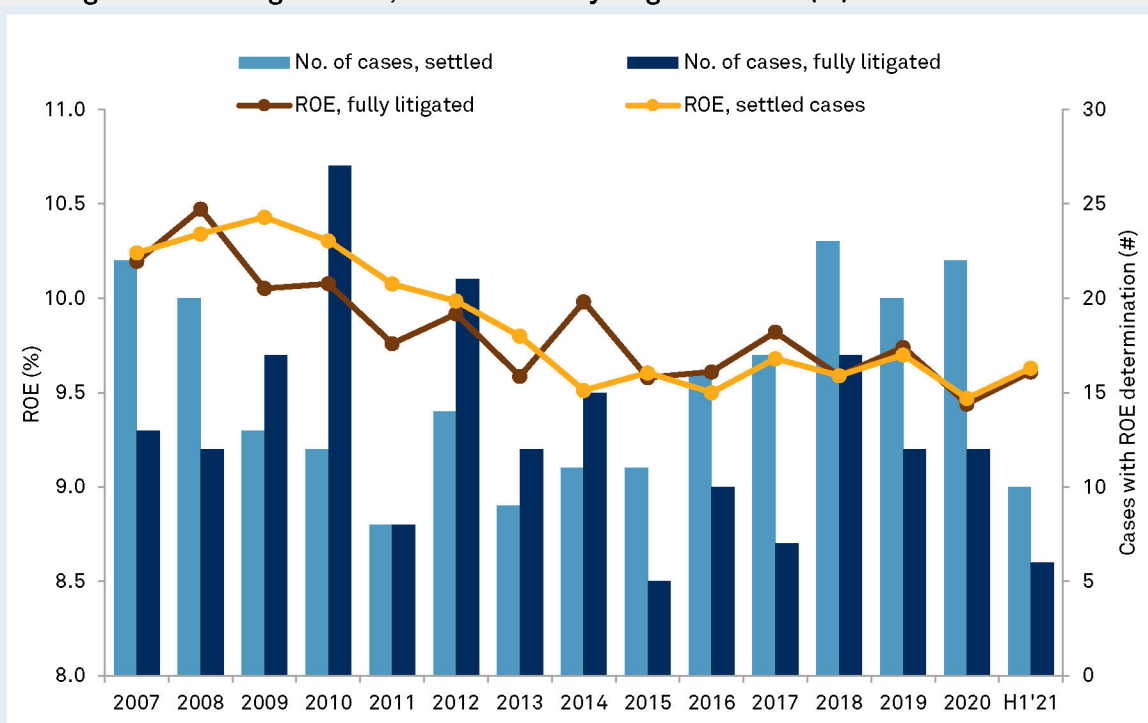
Average authorized electric ROEs, settled vs. fully litigated cases (%)



Data compiled July 26, 2021.

Source: Regulatory Research Associates, a group within S&P Global Market Intelligence

Average authorized gas ROEs, settled vs. fully litigated cases (%)



Data compiled July 26, 2021.

Source: Regulatory Research Associates, a group within S&P Global Market Intelligence

The following discussion focuses on the corresponding tables available [here](#).

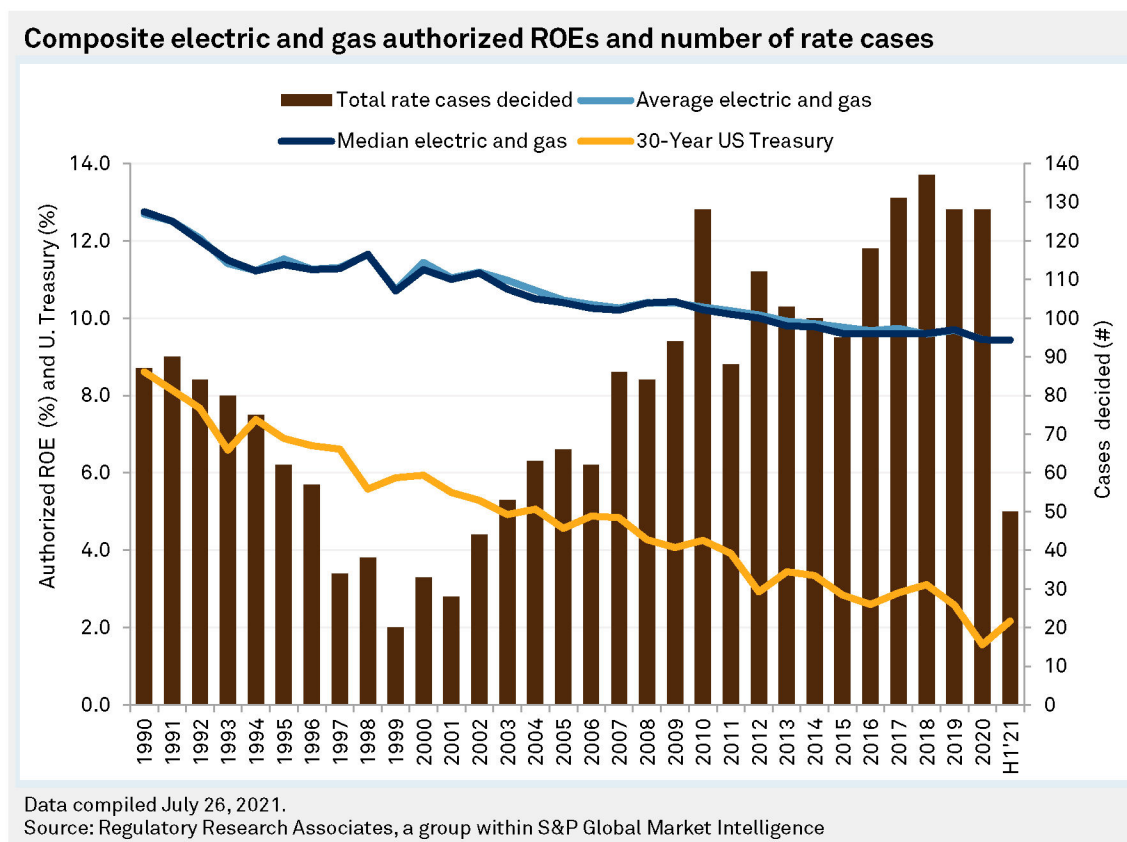
Table 1 shows the average ROE authorized in major electric and gas rate decisions annually since 1990 and by quarter since 2016, followed by the number of observations in each period. Table 2 indicates the composite electric and gas industry data for all major cases, summarized annually since 2004 and by quarter for the past 10 quarters.

Tables 3 and 4 provide comparisons since 2007 of average authorized ROEs for settled versus fully litigated cases, general rate cases versus limited-issue rider proceedings and vertically integrated cases versus delivery-only cases for electric and gas utilities, respectively.

The individual electric and gas cases decided in 2021 are listed in **Table 5**, with the decision date shown first, followed by the company name, the abbreviation for the state issuing the decision, the authorized rate of return, the ROE and the percentage of common equity in the adopted capital structure. Next, RRA indicates the month and year in which the adopted test year ended, whether the commission utilized an average or a year-end rate base and the amount of the permanent rate change authorized. The dollar amounts represent the permanent rate change ordered at the time decisions were rendered. Fuel adjustment clause rate changes are not reflected in this study.

The simple mean is utilized for the return averages. In addition, the average equity returns indicated in this report reflect the ROEs approved in cases that were decided during the specified time periods and are not necessarily representative of either the average currently authorized ROEs for utilities industrywide or the returns actually earned by the utilities.

Table 6 and the graph below track the combined average and median equity return authorized for all electric and gas rate cases since 1990. As the table indicates, since 1990, authorized ROEs have generally trended downward, reflecting the significant decline in interest rates and capital costs that has occurred over this time frame.



Please note: In an effort to align data presented in this report with data available in S&P Global Market Intelligence's online database, earlier historical data provided in previous reports may not match historical data in this report due to certain differences in presentation, including the treatment of cases that were withdrawn or dismissed, as well as the addition of cases that were previously not part of RRA's coverage.

© 2021 S&P Global Market Intelligence. All rights reserved. Regulatory Research Associates is a group within S&P Global Market Intelligence, a division of S&P Global (NYSE:SPGI). Confidential Subject Matter. WARNING! This report contains copyrighted subject matter and confidential information owned solely by S&P Global Market Intelligence (SPGMI). Reproduction, distribution or use of this report in violation of this license constitutes copyright infringement in violation of federal and state law. SPGMI hereby provides consent to use the "email this story" feature to redistribute articles within the subscriber's company. Although the information in this report has been obtained from sources that SPGMI believes to be reliable, SPGMI does not guarantee its accuracy.



SURVEY OF PROFESSIONAL FORECASTERS

Release Date: August 13, 2021

THIRD QUARTER 2021

Lower Current-Quarter Growth, Followed by Stronger Growth over Subsequent Quarters

The U.S. economy for the current quarter looks weaker now than it did three months ago, according to 36 forecasters surveyed by the Federal Reserve Bank of Philadelphia. The panel predicts real GDP will grow at an annual rate of 6.8 percent this quarter, down 0.7 percentage point from the prediction in the last survey. Over the next three quarters, however, the panelists see stronger output growth than they predicted previously. Using the annual-average over annual-average computation, the forecasters expect real GDP to grow at an annual rate of 6.1 percent in 2021 and 4.4 percent in 2022.

The projections for unemployment are little changed from those of the previous survey. On an annual-average basis, the forecasters predict the unemployment rate will decline from 5.6 percent in 2021 to 3.6 percent in 2024.

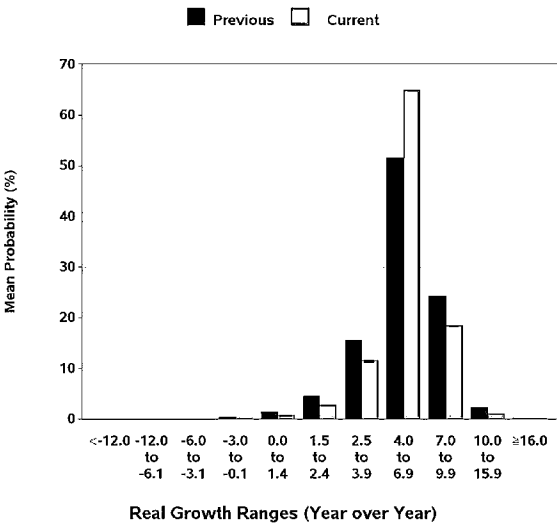
The employment outlook mirrors the outlook for output growth. The forecasters revised downward their estimate for job growth for the current quarter and revised upward their estimates for the next three quarters. The projections for the annual-average level of nonfarm payroll employment suggest job gains at a monthly rate of 309,400 in 2021 and 456,300 in 2022. (These annual-average projections are computed as the year-to-year change in the annual-average level of nonfarm payroll employment, converted to a monthly rate.)

Median Forecasts for Selected Variables in the Current and Previous Surveys

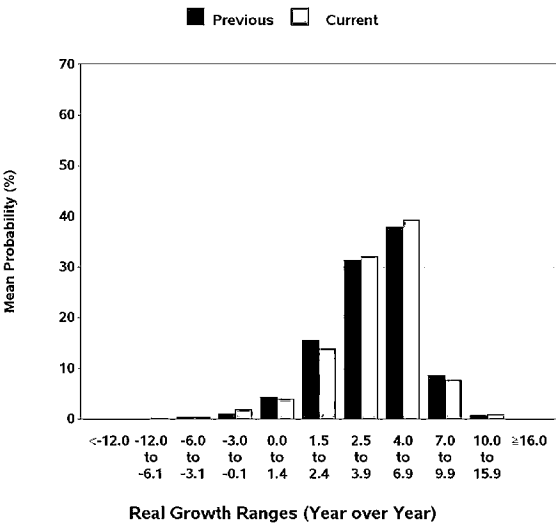
	Real GDP (%)		Unemployment Rate (%)		Payrolls (000s/month)	
	Previous	New	Previous	New	Previous	New
Quarterly data:						
2021:Q3	7.5	6.8	5.3	5.3	753.0	695.1
2021:Q4	5.0	5.2	4.9	4.9	482.4	508.8
2022:Q1	4.0	4.5	4.7	4.6	372.3	468.9
2022:Q2	2.6	3.4	4.5	4.4	287.0	404.8
2022:Q3	N.A.	2.7	N.A.	4.2	N.A.	265.0
Annual data (projections are based on annual-average levels):						
2021	6.3	6.1	5.5	5.6	331.6	309.4
2022	4.3	4.4	4.4	4.3	405.1	456.3
2023	2.6	2.5	3.9	3.8	N.A.	N.A.
2024	2.3	2.0	3.8	3.6	N.A.	N.A.

The charts below provide some insight into the degree of uncertainty the forecasters have about their projections for the rate of growth in the annual-average level of real GDP. Each chart presents the forecasters' previous and current estimates of the probability that growth will fall into each of 11 ranges. Notably, for 2021, the forecasters have significantly revised upward their estimate of the probability that real GDP will grow at a rate of 4.0 percent to 6.9 percent.

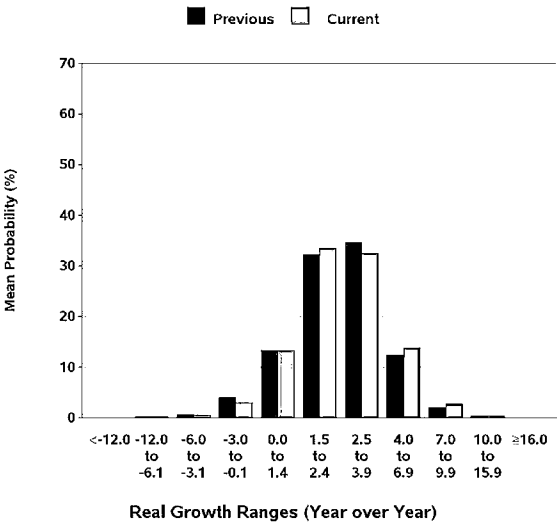
Mean Probabilities for Real GDP Growth in 2021



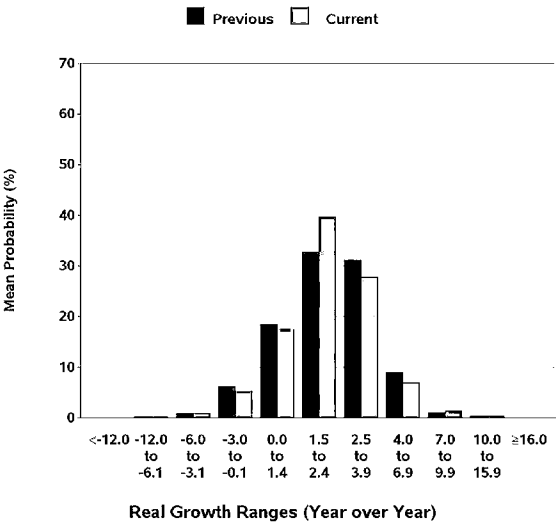
Mean Probabilities for Real GDP Growth in 2022



Mean Probabilities for Real GDP Growth in 2023

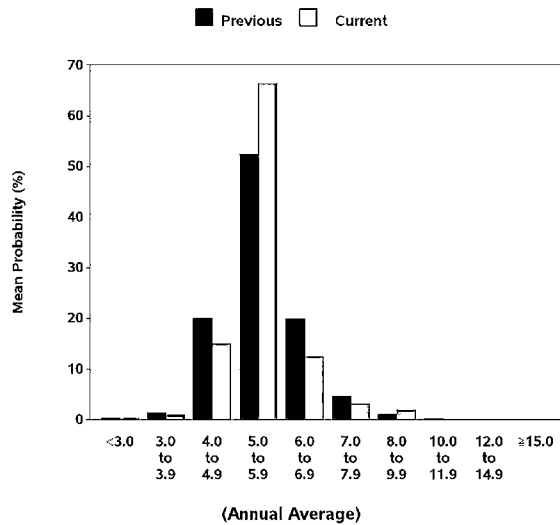


Mean Probabilities for Real GDP Growth in 2024

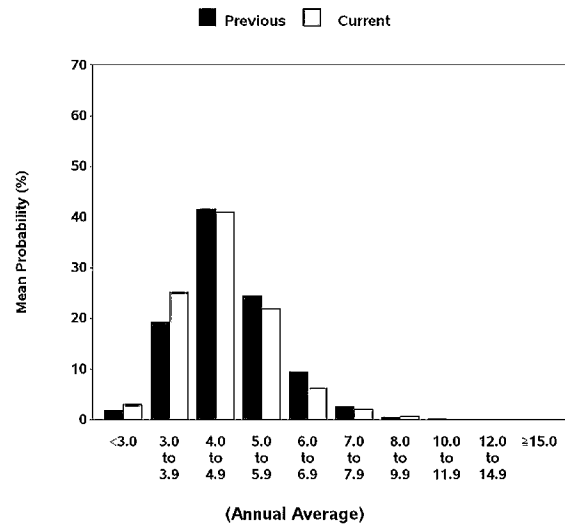


The forecasters' density projections for unemployment, shown below, shed light on uncertainty about the labor market over the next four years. Each chart presents the forecasters' current and previous estimates of the probability that unemployment will fall into each of 10 ranges. The panelists are raising their probability estimates for an unemployment rate between 5.0 percent and 5.9 percent in 2021. The unemployment density projections for the following three years are little changed, compared with their previous estimates.

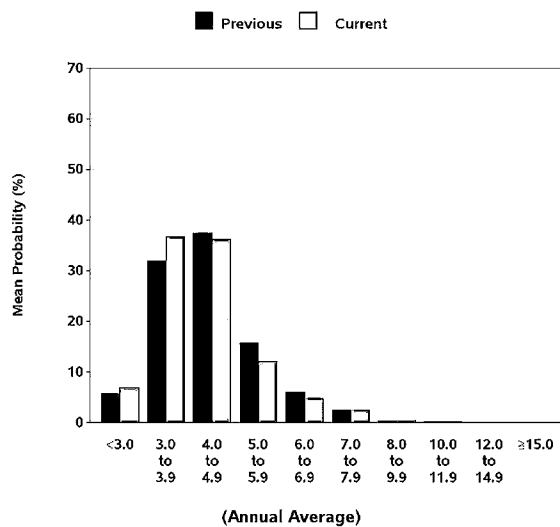
Mean Probabilities for Unemployment Rate in 2021



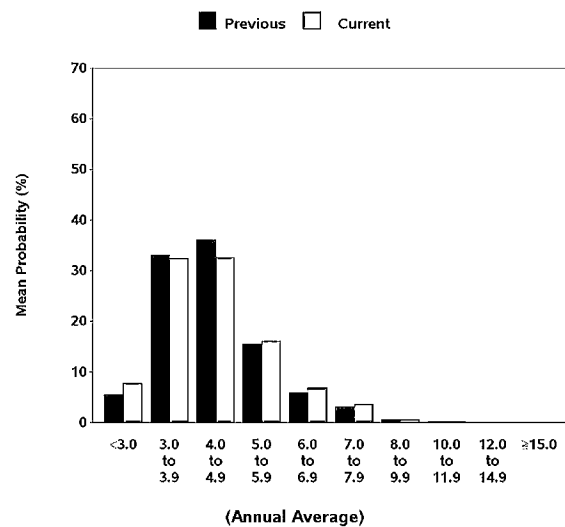
Mean Probabilities for Unemployment Rate in 2022



Mean Probabilities for Unemployment Rate in 2023



Mean Probabilities for Unemployment Rate in 2024



Forecasters Raise Their Projections for Inflation

The forecasters expect current-quarter headline CPI inflation to average 5.2 percent, up from 2.6 percent in the last survey. Headline PCE inflation over the current quarter will be 4.0 percent, up 1.6 percentage points from the previous estimate.

Projections for headline and core CPI and PCE inflation at most other forecast horizons have been revised upward, compared with those from the survey of three months ago.

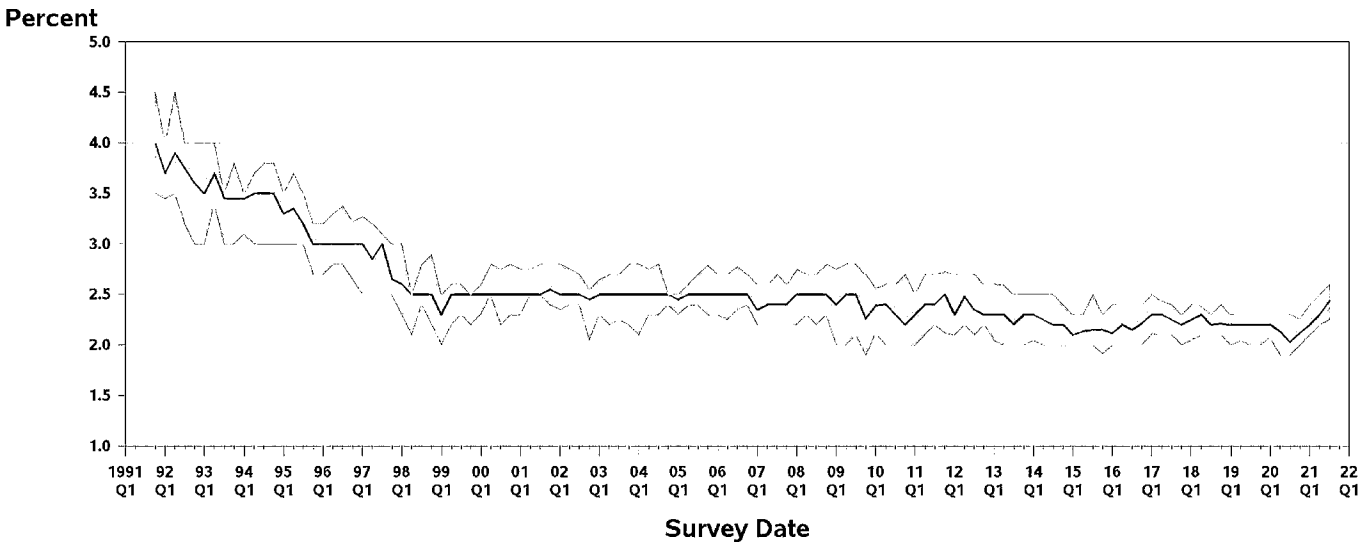
Over the next 10 years, 2021 to 2030, the forecasters predict headline CPI inflation will average 2.44 percent at an annual rate. The corresponding estimate for 10-year annual-average PCE inflation is 2.20 percent. These 10-year projections are higher than those of the previous survey.

Median Short-Run and Long-Run Projections for Inflation (Annualized Percentage Points)

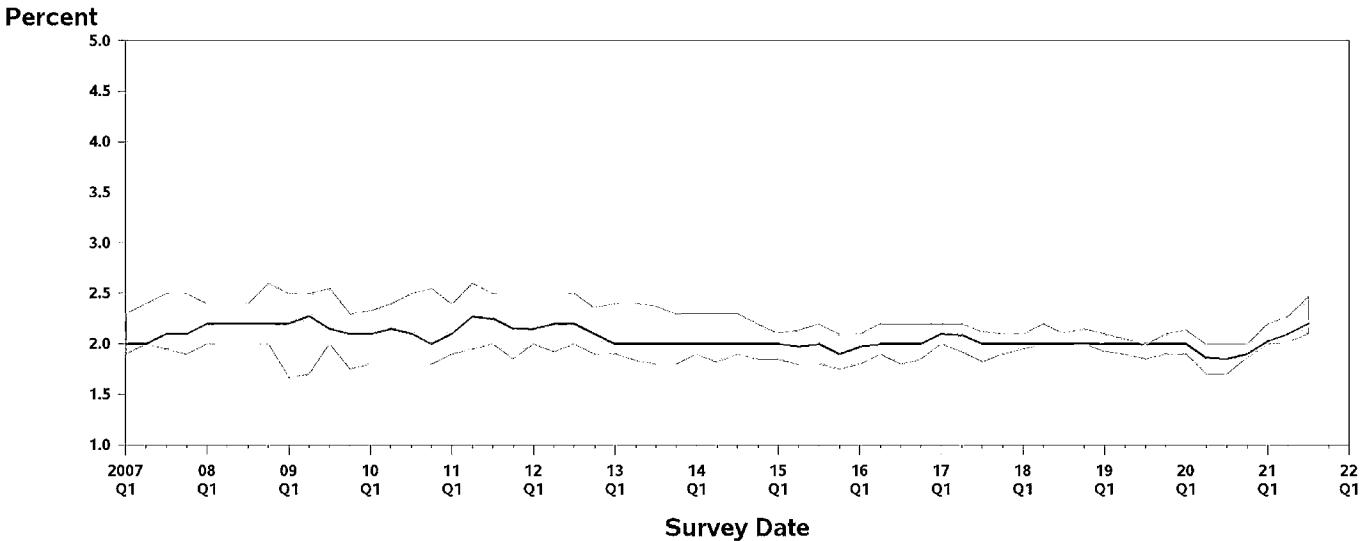
	Headline CPI		Core CPI		Headline PCE		Core PCE	
	Previous	Current	Previous	Current	Previous	Current	Previous	Current
Quarterly								
2021:Q3	2.6	5.2	2.5	5.1	2.4	4.0	2.2	3.7
2021:Q4	2.4	2.6	2.3	2.5	2.2	2.6	2.0	2.2
2022:Q1	2.3	2.2	2.1	2.3	2.1	2.3	2.0	2.1
2022:Q2	2.2	2.3	2.2	2.3	2.1	2.2	2.0	2.1
2022:Q3	N.A.	2.4	N.A.	2.4	N.A.	2.2	N.A.	2.2
Q4/Q4 Annual Averages								
2021	3.0	4.9	2.1	4.2	2.8	4.1	2.3	3.7
2022	2.3	2.4	2.2	2.4	2.2	2.2	2.0	2.2
2023	2.3	2.3	2.3	2.4	2.2	2.3	2.1	2.1
Long-Term Annual Averages								
2021-2025	2.40	2.75	N.A.	N.A.	2.20	2.40	N.A.	N.A.
2021-2030	2.30	2.44	N.A.	N.A.	2.10	2.20	N.A.	N.A.

The charts below show the median projections (the red line) and the associated interquartile ranges (gray areas around the red line) for 10-year annual-average CPI and PCE inflation. The charts highlight the rising projections for the long-term inflation rate in recent surveys.

Projections for the 10-Year Annual-Average Rate of CPI Inflation
(Median and Interquartile Range)

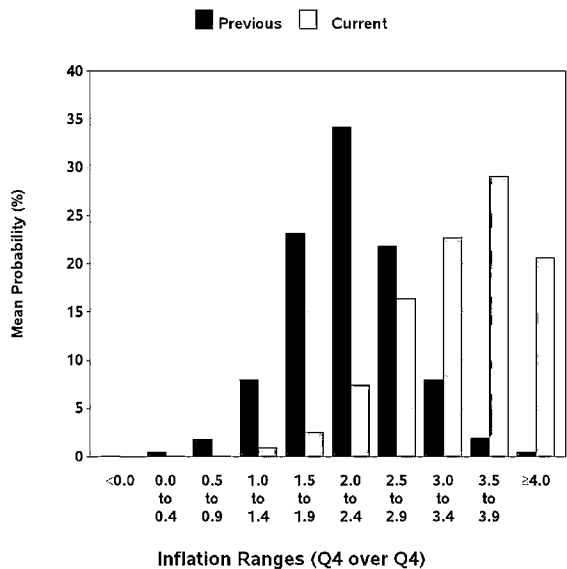


Projections for the 10-Year Annual-Average Rate of PCE Inflation
(Median and Interquartile Range)

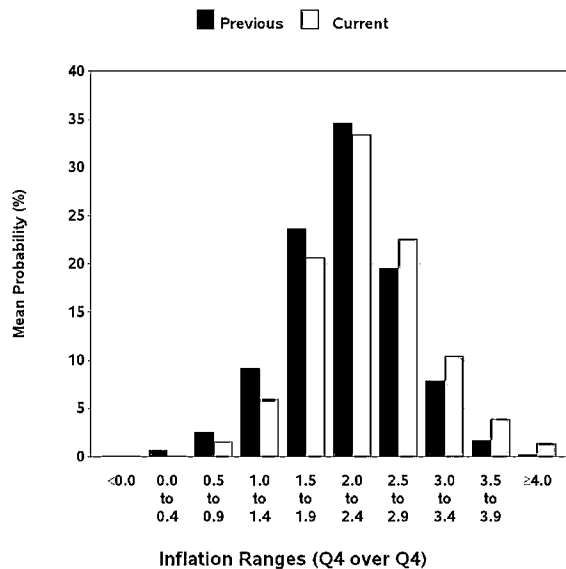


The figures below show the probabilities that the forecasters are assigning to each of 10 possible ranges for fourth-quarter over fourth-quarter core PCE inflation in 2021 and 2022. For both years, the forecasters have raised their estimates for the probability that core PCE inflation will be 3.0 percent or more, compared with their estimates from three months ago.

Mean Probabilities for Core PCE Inflation in 2021



Mean Probabilities for Core PCE Inflation in 2022



Lower Risk of a Negative Quarter

The forecasters expect only a small likelihood of a contraction in real GDP in any of the next five quarters, and these new estimates are slightly below those of the previous survey. The forecasters have cut their estimate of the risk of a downturn this quarter to 5.7 percent, compared with 7.3 percent in the survey of three months ago. The panelists have also reduced their probability estimates for the following three quarters, compared with their previous estimates.

Risk of a Negative Quarter (%)
Survey Means

Quarterly data:	Previous	New
2021:Q3	7.3	5.7
2021:Q4	10.1	9.5
2022:Q1	12.1	12.0
2022:Q2	13.3	12.3
2022:Q3	N.A.	12.9

Natural Rate of Unemployment Estimated at 3.78 Percent

In third-quarter surveys, we ask the forecasters to provide their estimates of the natural rate of unemployment — the rate of unemployment that occurs when the economy reaches equilibrium. The forecasters peg this rate at 3.78 percent. The table below shows, for each third-quarter survey since 1996, the percentage of respondents who use the natural rate in their forecasts and, for those who use it, the median estimate and the lowest and highest estimates. Thirty-seven percent of the 27 forecasters who answered the question report that they use the natural rate in their forecasts. The lowest estimate is 3.00 percent, and the highest estimate is 4.25 percent.

Median Estimates of the Natural Rate of Unemployment

Survey Date	Percentage Who Use the Natural Rate	Median Estimate (%)	Low (%)	High (%)
1996:Q3	62	5.65	5.00	6.00
1997:Q3	59	5.25	4.50	5.88
1998:Q3	45	5.30	4.50	5.80
1999:Q3	43	5.00	4.13	5.60
2000:Q3	48	4.50	4.00	5.00
2001:Q3	34	4.88	3.50	5.50
2002:Q3	50	5.10	3.80	5.50
2003:Q3	41	5.00	4.31	5.40
2004:Q3	46	5.00	4.00	5.50
2005:Q3	50	5.00	4.25	5.50
2006:Q3	53	4.95	4.00	5.50
2007:Q3	52	4.65	4.20	5.50
2008:Q3	48	5.00	4.00	5.50
2009:Q3	45	5.00	4.00	6.00
2010:Q3	50	5.78	4.50	6.80
2011:Q3	42	6.00	4.75	7.00
2012:Q3	49	6.00	4.75	7.00
2013:Q3	63	6.00	4.75	7.00
2014:Q3	65	5.50	4.50	6.70
2015:Q3	62	5.00	4.25	5.80
2016:Q3	56	4.80	4.50	5.50
2017:Q3	44	4.50	3.50	5.00
2018:Q3	34	4.30	3.80	4.60
2019:Q3	33	4.10	3.88	4.60
2020:Q3	48	4.10	3.50	6.00
2021:Q3	37	3.78	3.00	4.25

Technical Notes

Moody's Aaa and Baa Historical Rates

The historical values of Moody's Aaa and Baa rates are proprietary and, therefore, not available in the data files on the Bank's website or on the tables that accompany the survey's complete write-up in the PDF.

The Federal Reserve Bank of Philadelphia thanks the following forecasters for their participation in recent surveys:

Scott Anderson, Bank of the West (BNP Paribas Group); **Robert J. Barbera**, Johns Hopkins University Center for Financial Economics; **Peter Bernstein**, RCF Economic and Financial Consulting, Inc.; **Wayne Best** and **Michael Brown**, Visa, Inc.; **Jay Bryson**, Wells Fargo; **Christine Chmura, Ph.D.**, and **Xiaobing Shuai, Ph.D.**, Chmura Economics & Analytics; **Gary Ciminero**, CFA, GLC Financial Economics; **Gregory Daco**, Oxford Economics USA, Inc.; **Rajeev Dhawan**, Georgia State University; **Bill Diviney**, ABN AMRO Bank NV; **G. Ehrlich**, **D. Manaenkov**, **T. Ranosova**, and **A. Thapar**, RSQE, University of Michigan; **Michael R. Englund**, Action Economics, LLC; **Sacha Gelfer**, Bentley University; **James Glassman**, JPMorgan Chase & Co.; **Jan Hatzius**, Goldman Sachs; **Fred Joutz**, Benchmark Forecasts; **Sam Kahan**, Kahan Consulting Ltd. (ACT Research LLC); **N. Karp**, BBVA Research USA; **Walter Kemmsies** and **Ryan Severino**, Jones Lang LaSalle; **Jack Kleinhenz**, Kleinhenz & Associates, Inc.; **Yaniv Konchitchki**, University of California, Berkeley; **Rohan Kumar** and **Allen Sinai**, Decision Economics, Inc.; **Thomas Lam**, Sim Kee Boon Institute, Singapore Management University; **John Lonski**, Moody's Capital Markets Group; **Matthew Luzzetti**, Deutsche Bank Securities; **IHS Markit**; **Robert McNab**, Old Dominion University; **R. Anthony Metz**, Pareto Optimal Economics; **R. M. Monaco**, TitanRM; **Michael Moran**, Daiwa Capital Markets America; **Joel L. Naroff**, Naroff Economic Advisors; **Nomura Securities International**; **Brendon Ogmundson**, BC Real Estate Association; **Perc Pineda, Ph.D.**, Plastics Industry Association; **Jason Prole**, Capital Risk Management; **Philip Rothman**, East Carolina University; **Chris Rupkey**, MUFG Union Bank; **Sean M. Snaith, Ph.D.**, University of Central Florida; **Constantine G. Soras, Ph.D.**, CGS Economic Consulting, Inc.; **Stephen Stanley**, Amherst Pierpont Securities; **Charles Steindel**, Editor, NABE *Business Economics*; **Susan M. Sterne**, Economic Analysis Associates, Inc.; **James Sweeney**, Credit Suisse; **Thomas Kevin Swift**, American Chemistry Council; **Maira Trimble**, Eaton Corporation; **Mark Zandi**, Moody's Analytics; **Ellen Zentner**, Morgan Stanley.

This is a partial list of participants. We also thank those who wish to remain anonymous.

SUMMARY TABLE
SURVEY OF PROFESSIONAL FORECASTERS
MAJOR MACROECONOMIC INDICATORS

	2021 Q3	2021 Q4	2022 Q1	2022 Q2	2022 Q3	2021	2022 (YEAR-OVER-YEAR)	2023	2024
PERCENT GROWTH AT ANNUAL RATES									
1. REAL GDP (BILLIONS, CHAIN WEIGHTED)	6.8	5.2	4.5	3.4	2.7	6.1	4.4	2.5	2.0
2. GDP PRICE INDEX (PERCENT CHANGE)	3.8	2.4	2.1	2.2	2.3	3.6	2.7	N.A.	N.A.
3. NOMINAL GDP (\$ BILLIONS)	10.4	8.4	6.5	5.4	5.2	9.8	7.1	N.A.	N.A.
4. NONFARM PAYROLL EMPLOYMENT (PERCENT CHANGE)	5.9	4.2	3.8	3.3	2.1	2.6	3.8	N.A.	N.A.
(AVG MONTHLY CHANGE)	695.1	508.8	468.9	404.8	265.0	309.4	456.3	N.A.	N.A.
VARIABLES IN LEVELS									
5. UNEMPLOYMENT RATE (PERCENT)	5.3	4.9	4.6	4.4	4.2	5.6	4.3	3.8	3.6
6. 3-MONTH TREASURY BILL (PERCENT)	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.5	0.8
7. 10-YEAR TREASURY BOND (PERCENT)	1.4	1.6	1.6	1.7	1.9	1.5	1.8	2.2	2.5
	2021 Q3	2021 Q4	2022 Q1	2022 Q2	2022 Q3	2021	2022 (Q4-OVER-Q4)	2023	
INFLATION INDICATORS									
8. CPI (ANNUAL RATE)	5.2	2.6	2.2	2.3	2.4	4.9	2.4	2.3	
9. CORE CPI (ANNUAL RATE)	5.1	2.5	2.3	2.3	2.4	4.2	2.4	2.4	
10. PCE (ANNUAL RATE)	4.0	2.6	2.3	2.2	2.2	4.1	2.2	2.3	
11. CORE PCE (ANNUAL RATE)	3.7	2.2	2.1	2.1	2.2	3.7	2.2	2.1	

Note: The figures on each line are medians of 36 forecasters.

Source: Research Department, Federal Reserve Bank of Philadelphia.
Survey of Professional Forecasters, Third Quarter 2021.

SURVEY OF PROFESSIONAL FORECASTERS

Third Quarter 2021

Tables

Note: Data in these tables listed as "actual" are the data that were available to the forecasters when they were sent the survey questionnaire on July 29, 2021; the tables do not reflect subsequent revisions to the data. All forecasts were received on or before August 10, 2021.

TABLE ONE
MAJOR MACROECONOMIC INDICATORS
MEDIAN OF FORECASTER PREDICTIONS

	NUMBER OF FORECASTERS	ACTUAL	FORECAST						ACTUAL	FORECAST			
		2021 Q2	2021 Q3	2021 Q4	2022 Q1	2022 Q2	2022 Q3	2020 ANNUAL	2021 ANNUAL	2022 ANNUAL	2023 ANNUAL	2024 ANNUAL	
1. GROSS DOMESTIC PRODUCT (GDP) (\$ BILLIONS)	36	22723	23290	23763	24139	24459	24769	20894	22946	24582	N.A.	N.A.	
2. GDP PRICE INDEX (2012=100)	35	117.52	118.62	119.32	119.95	120.59	121.29	113.74	117.78	120.93	N.A.	N.A.	
3. CORPORATE PROFITS AFTER TAXES (\$ BILLIONS)	21	N.A.	2293.5	2353.1	2361.4	2423.4	2491.2	1968.1	2277.1	2416.1	N.A.	N.A.	
4. UNEMPLOYMENT RATE (PERCENT)	36	5.9	5.3	4.9	4.6	4.4	4.2	8.1	5.6	4.3	3.8	3.6	
5. NONFARM PAYROLL EMPLOYMENT (THOUSANDS)	31	144998	147133	148660	150067	151281	152076	142252	145965	151440	N.A.	N.A.	
6. INDUSTRIAL PRODUCTION (2017=100)	29	99.6	100.9	102.1	103.1	104.0	104.7	95.0	100.2	104.3	N.A.	N.A.	
7. NEW PRIVATE HOUSING STARTS (ANNUAL RATE, MILLIONS)	30	1.57	1.60	1.60	1.59	1.59	1.59	1.40	1.59	1.58	N.A.	N.A.	
8. 3-MONTH TREASURY BILL RATE (PERCENT)	34	0.03	0.06	0.08	0.10	0.11	0.14	0.37	0.05	0.14	0.49	0.75	
9. MOODY'S AAA CORP BOND YIELD * (PERCENT)	19	N.A.	2.65	2.90	2.99	3.05	3.08	N.A.	2.81	3.08	N.A.	N.A.	
10. MOODY'S BAA CORP BOND YIELD * (PERCENT)	19	N.A.	3.35	3.63	3.73	3.80	3.90	N.A.	3.54	3.86	N.A.	N.A.	
11. 10-YEAR TREASURY BOND YIELD (PERCENT)	34	1.59	1.40	1.57	1.63	1.73	1.86	0.89	1.48	1.78	2.20	2.48	
12. REAL GDP (BILLIONS, CHAIN WEIGHTED)	36	19358	19680	19929	20148	20317	20451	18385	19503	20363	20863	21283	
13. TOTAL CONSUMPTION EXPENDITURE (BILLIONS, CHAIN WEIGHTED)	33	13659.3	13814.3	13966.1	14067.5	14185.2	14265.9	12629.9	13686.0	14215.2	N.A.	N.A.	
14. NONRESIDENTIAL FIXED INVESTMENT (BILLIONS, CHAIN WEIGHTED)	32	2865.2	2917.2	2968.2	3013.4	3054.2	3085.9	2671.1	2890.8	3068.3	N.A.	N.A.	
15. RESIDENTIAL FIXED INVESTMENT (BILLIONS, CHAIN WEIGHTED)	32	712.1	719.6	728.4	737.8	744.5	750.6	648.0	722.8	745.3	N.A.	N.A.	
16. FEDERAL GOVERNMENT C & I (BILLIONS, CHAIN WEIGHTED)	30	1357.6	1366.9	1375.7	1383.4	1389.5	1398.0	1340.7	1369.0	1392.6	N.A.	N.A.	
17. STATE AND LOCAL GOVT C & I (BILLIONS, CHAIN WEIGHTED)	31	2021.2	2033.7	2044.8	2064.0	2076.2	2084.3	2019.9	2029.2	2076.6	N.A.	N.A.	
18. CHANGE IN PRIVATE INVENTORIES (BILLIONS, CHAIN WEIGHTED)	31	-165.9	5.0	42.0	62.5	72.3	78.3	-42.3	-50.4	72.2	N.A.	N.A.	
19. NET EXPORTS (BILLIONS, CHAIN WEIGHTED)	32	-1259.0	-1285.7	-1297.3	-1302.8	-1311.1	-1318.9	-942.7	-1269.0	-1314.9	N.A.	N.A.	

* The historical values of Moody's Aaa and Baa rates are proprietary and therefore not available to the general public.

Source: Research Department, Federal Reserve Bank of Philadelphia. Survey of Professional Forecasters, Third Quarter 2021.

TABLE TWO
MAJOR MACROECONOMIC INDICATORS
PERCENTAGE CHANGES AT ANNUAL RATES

	NUMBER OF FORECASTERS	Q2 2021 TO Q3 2021	Q3 2021 TO Q4 2021	Q4 2021 TO Q1 2022	Q1 2022 TO Q2 2022	Q2 2022 TO Q3 2022	2020 TO 2021	2021 TO 2022	2022 TO 2023	2023 TO 2024
1. GROSS DOMESTIC PRODUCT (GDP) (\$ BILLIONS)	36	10.4	8.4	6.5	5.4	5.2	9.8	7.1	N.A.	N.A.
2. GDP PRICE INDEX (2012=100)	35	3.8	2.4	2.1	2.2	2.3	3.6	2.7	N.A.	N.A.
3. CORPORATE PROFITS AFTER TAXES (\$ BILLIONS)	21	7.2	10.8	1.4	10.9	11.7	15.7	6.1	N.A.	N.A.
4. UNEMPLOYMENT RATE (PERCENT)	36	-0.6	-0.4	-0.3	-0.2	-0.2	-2.5	-1.3	-0.5	-0.2
5. NONFARM PAYROLL EMPLOYMENT (PERCENT CHANGE)	31	5.9	4.2	3.8	3.3	2.1	2.6	3.8	N.A.	N.A.
(AVG MONTHLY CHANGE)	31	695.1	508.8	468.9	404.8	265.0	309.4	456.3	N.A.	N.A.
6. INDUSTRIAL PRODUCTION (2017=100)	29	5.5	4.6	4.0	3.6	2.8	5.5	4.1	N.A.	N.A.
7. NEW PRIVATE HOUSING STARTS (ANNUAL RATE, MILLIONS)	30	7.1	1.3	-1.3	-1.9	1.3	13.6	-0.3	N.A.	N.A.
8. 3-MONTH TREASURY BILL RATE (PERCENT)	34	0.03	0.03	0.02	0.01	0.04	-0.32	0.08	0.35	0.27
9. MOODY'S AAA CORP BOND YIELD * (PERCENT)	19	N.A.	0.25	0.09	0.06	0.03	N.A.	0.27	N.A.	N.A.
10. MOODY'S BAA CORP BOND YIELD * (PERCENT)	19	N.A.	0.28	0.10	0.07	0.10	N.A.	0.32	N.A.	N.A.
11. 10-YEAR TREASURY BOND YIELD (PERCENT)	34	-0.19	0.17	0.07	0.10	0.13	0.59	0.30	0.42	0.28
12. REAL GDP (BILLIONS, CHAIN WEIGHTED)	36	6.8	5.2	4.5	3.4	2.7	6.1	4.4	2.5	2.0
13. TOTAL CONSUMPTION EXPENDITURE (BILLIONS, CHAIN WEIGHTED)	33	4.6	4.5	2.9	3.4	2.3	8.4	3.9	N.A.	N.A.
14. NONRESIDENTIAL FIXED INVESTMENT (BILLIONS, CHAIN WEIGHTED)	32	7.5	7.2	6.2	5.5	4.2	8.2	6.1	N.A.	N.A.
15. RESIDENTIAL FIXED INVESTMENT (BILLIONS, CHAIN WEIGHTED)	32	4.3	5.0	5.2	3.7	3.3	11.5	3.1	N.A.	N.A.
16. FEDERAL GOVERNMENT C & I (BILLIONS, CHAIN WEIGHTED)	30	2.8	2.6	2.3	1.8	2.5	2.1	1.7	N.A.	N.A.
17. STATE AND LOCAL GOVT C & I (BILLIONS, CHAIN WEIGHTED)	31	2.5	2.2	3.8	2.4	1.6	0.5	2.3	N.A.	N.A.
18. CHANGE IN PRIVATE INVENTORIES (BILLIONS, CHAIN WEIGHTED)	31	170.9	37.0	20.5	9.8	6.0	-8.1	122.6	N.A.	N.A.
19. NET EXPORTS (BILLIONS, CHAIN WEIGHTED)	32	-26.7	-11.6	-5.6	-8.3	-7.8	-326.3	-45.9	N.A.	N.A.

* The historical values of Moody's Aaa and Baa rates are proprietary and therefore not available to the general public.

Note: Figures for unemployment rate, 3-month Treasury bill rate, Moody's Aaa corporate bond yield, Moody's Baa corporate bond yield, and 10-year Treasury bond yield are changes in these rates, in percentage points. Figures for change in private inventories and net exports are changes in billions of chain-weighted dollars. All others are percentage changes at annual rates.

Source: Research Department, Federal Reserve Bank of Philadelphia. Survey of Professional Forecasters, Third Quarter 2021.

TABLE THREE
MAJOR PRICE INDICATORS
MEDIAN OF FORECASTER PREDICTIONS

	NUMBER OF FORECASTERS	ACTUAL	FORECAST (Q/Q)					ACTUAL	FORECAST (Q4/Q4)		
		2021 Q2	2021 Q3	2021 Q4	2022 Q1	2022 Q2	2022 Q3	2020 ANNUAL	2021 ANNUAL	2022 ANNUAL	2023 ANNUAL
1. CONSUMER PRICE INDEX (ANNUAL RATE)	36	8.4	5.2	2.6	2.2	2.3	2.4	1.2	4.9	2.4	2.3
2. CORE CONSUMER PRICE INDEX (ANNUAL RATE)	34	8.1	5.1	2.5	2.3	2.3	2.4	1.6	4.2	2.4	2.4
3. PCE PRICE INDEX (ANNUAL RATE)	35	6.4	4.0	2.6	2.3	2.2	2.2	1.2	4.1	2.2	2.3
4. CORE PCE PRICE INDEX (ANNUAL RATE)	34	6.1	3.7	2.2	2.1	2.1	2.2	1.4	3.7	2.2	2.1

Source: Research Department, Federal Reserve Bank of Philadelphia. Survey of Professional Forecasters, Third Quarter 2021.

TABLE FOUR
YIELD SPREADS
MEDIAN OF FORECASTER PREDICTIONS

	NUMBER OF FORECASTERS	ACTUAL	FORECAST					ACTUAL	FORECAST			
		2021 Q2	2021 Q3	2021 Q4	2022 Q1	2022 Q2	2022 Q3	2020 ANNUAL	2021 ANNUAL	2022 ANNUAL	2023 ANNUAL	2024 ANNUAL
1. TBOND MINUS TBILL (PERCENTAGE POINTS)	33	1.57	1.34	1.48	1.55	1.66	1.70	0.53	1.42	1.68	1.80	1.66
2. AAA MINUS TBOND (PERCENTAGE POINTS)	19	N.A.	1.26	1.29	1.30	1.26	1.26	N.A.	1.33	1.26	N.A.	N.A.
3. BAA MINUS TBOND (PERCENTAGE POINTS)	19	N.A.	1.99	2.00	2.05	2.05	2.06	N.A.	2.03	2.05	N.A.	N.A.
4. BAA MINUS AAA (PERCENTAGE POINTS)	19	N.A.	0.70	0.70	0.73	0.76	0.81	N.A.	0.71	0.79	N.A.	N.A.

Notes:

TBOND is the rate on 10-year Treasury bonds.
TBILL is the rate on 3-month Treasury bills.
AAA is the rate on Moody's Aaa corporate bonds.
BAA is the rate on Moody's Baa corporate bonds.

The historical values for interest rate spreads for Moody's Aaa and Baa rates are proprietary and therefore not available to the general public.

Each interest rate spread is computed as the median value of the forecasters' spreads. These median values may differ from those computed as the difference between the median values of each interest rate in the spread.

Source: Research Department, Federal Reserve Bank of Philadelphia. Survey of Professional Forecasters, Third Quarter 2021.

TABLE FIVE
ESTIMATED PROBABILITY OF DECLINE IN REAL GDP

ESTIMATED PROBABILITY (CHANCES IN 100)	Q2 2021 TO Q3 2021	Q3 2021 TO Q4 2021	Q4 2021 TO Q1 2022	Q1 2022 TO Q2 2022	Q2 2022 TO Q3 2022
NUMBER OF FORECASTERS					
10 OR LESS	27	22	18	15	13
11 TO 20	3	7	10	14	15
21 TO 30	0	1	2	1	1
31 TO 40	0	0	0	0	0
41 TO 50	0	0	0	0	0
51 TO 60	0	0	0	0	0
61 TO 70	0	0	0	0	0
71 TO 80	0	0	0	0	0
81 TO 90	0	0	0	0	0
91 AND OVER	0	0	0	0	0
NOT REPORTING	6	6	6	6	7
MEAN AND MEDIAN					
MEDIAN PROBABILITY	5.00	8.50	10.00	10.65	12.00
MEAN PROBABILITY	5.65	9.50	12.00	12.28	12.88

Note: Total number of forecasters reporting is 30.

Source: Research Department, Federal Reserve Bank of Philadelphia.
Survey of Professional Forecasters, Third Quarter 2021.

TABLE SIX
MEAN PROBABILITIES

MEAN PROBABILITY ATTACHED TO POSSIBLE
CIVILIAN UNEMPLOYMENT RATES:
(ANNUAL AVERAGE)

	2021	2022	2023	2024
15.0 PERCENT OR MORE	0.00	0.00	0.00	0.00
12.0 TO 14.9 PERCENT	0.00	0.00	0.04	0.05
10.0 TO 11.9 PERCENT	0.03	0.07	0.12	0.15
8.0 TO 9.9 PERCENT	1.92	0.63	0.42	0.55
7.0 TO 7.9 PERCENT	3.09	2.00	2.55	3.63
6.0 TO 6.9 PERCENT	12.40	6.24	4.83	6.90
5.0 TO 5.9 PERCENT	66.39	21.82	12.11	15.99
4.0 TO 4.9 PERCENT	14.98	40.97	36.32	32.62
3.0 TO 3.9 PERCENT	0.92	25.24	36.64	32.42
LESS THAN 3.0 PERCENT	0.27	3.03	6.97	7.71

MEAN PROBABILITY ATTACHED TO POSSIBLE
PERCENT CHANGES IN REAL GDP:
(ANNUAL-AVERAGE OVER ANNUAL-AVERAGE)

	2020-2021	2021-2022	2022-2023	2023-2024
16.0 PERCENT OR MORE	0.17	0.10	0.00	0.00
10.0 TO 15.9 PERCENT	1.04	0.84	0.46	0.30
7.0 TO 9.9 PERCENT	18.44	7.63	2.73	1.36
4.0 TO 6.9 PERCENT	64.93	39.20	13.90	6.93
2.5 TO 3.9 PERCENT	11.59	32.08	32.38	27.81
1.5 TO 2.4 PERCENT	2.77	13.91	33.40	39.72
0.0 TO 1.4 PERCENT	0.74	3.90	13.32	17.50
-3.0 TO -0.1 PERCENT	0.27	1.84	3.02	5.28
-6.0 TO -3.1 PERCENT	0.03	0.37	0.59	0.81
-12.0 TO -6.1 PERCENT	0.03	0.11	0.17	0.25
LESS THAN -12.0 PERCENT	0.00	0.03	0.04	0.05

MEAN PROBABILITY ATTACHED TO POSSIBLE
PERCENT CHANGES IN GDP PRICE INDEX:
(ANNUAL-AVERAGE OVER ANNUAL-AVERAGE)

	2020-2021	2021-2022
4.0 PERCENT OR MORE	19.25	8.96
3.5 TO 3.9 PERCENT	34.36	12.00
3.0 TO 3.4 PERCENT	25.70	18.28
2.5 TO 2.9 PERCENT	9.58	23.95
2.0 TO 2.4 PERCENT	8.14	23.84
1.5 TO 1.9 PERCENT	2.59	9.05
1.0 TO 1.4 PERCENT	0.31	2.74
0.5 TO 0.9 PERCENT	0.03	0.74
0.0 TO 0.4 PERCENT	0.03	0.21
LESS THAN 0.0 PERCENT	0.00	0.22

Source: Research Department, Federal Reserve Bank of Philadelphia.
Survey of Professional Forecasters, Third Quarter 2021.

TABLE SEVEN
MEAN PROBABILITY OF CORE CPI AND CORE PCE INFLATION (Q4/Q4)

MEAN PROBABILITY ATTACHED TO CORE CPI INFLATION:

	20Q4 TO 21Q4	21Q4 TO 22Q4
	<hr/>	<hr/>
4.0 PERCENT OR MORE	40.89	2.81
3.5 TO 3.9 PERCENT	26.67	7.17
3.0 TO 3.4 PERCENT	18.12	17.62
2.5 TO 2.9 PERCENT	9.27	32.00
2.0 TO 2.4 PERCENT	3.97	26.08
1.5 TO 1.9 PERCENT	0.72	9.80
1.0 TO 1.4 PERCENT	0.18	3.00
0.5 TO 0.9 PERCENT	0.11	1.05
0.0 TO 0.4 PERCENT	0.04	0.27
LESS THAN 0.0 PERCENT	0.04	0.21

MEAN PROBABILITY ATTACHED TO CORE PCE INFLATION:

	20Q4 TO 21Q4	21Q4 TO 22Q4
	<hr/>	<hr/>
4.0 PERCENT OR MORE	20.62	1.39
3.5 TO 3.9 PERCENT	29.08	3.88
3.0 TO 3.4 PERCENT	22.76	10.43
2.5 TO 2.9 PERCENT	16.40	22.55
2.0 TO 2.4 PERCENT	7.47	33.37
1.5 TO 1.9 PERCENT	2.50	20.62
1.0 TO 1.4 PERCENT	0.93	5.95
0.5 TO 0.9 PERCENT	0.14	1.58
0.0 TO 0.4 PERCENT	0.07	0.14
LESS THAN 0.0 PERCENT	0.04	0.08

Source: Research Department, Federal Reserve Bank of Philadelphia.
Survey of Professional Forecasters, Third Quarter 2021.

TABLE EIGHT
LONG-TERM (5-YEAR AND 10-YEAR) INFLATION FORECASTS

ANNUAL AVERAGE OVER THE NEXT 5 YEARS: 2021-2025

CPI INFLATION RATE		PCE INFLATION RATE	
MINIMUM	2.10	MINIMUM	1.90
LOWER QUARTILE	2.50	LOWER QUARTILE	2.20
MEDIAN	2.75	MEDIAN	2.40
UPPER QUARTILE	2.97	UPPER QUARTILE	2.80
MAXIMUM	3.75	MAXIMUM	3.13
MEAN	2.76	MEAN	2.48
STD. DEVIATION	0.40	STD. DEVIATION	0.35
N	28	N	28
MISSING	8	MISSING	8

ANNUAL AVERAGE OVER THE FOLLOWING 5 YEARS: 2026-2030

CPI INFLATION RATE		PCE INFLATION RATE	
MINIMUM	1.80	MINIMUM	1.60
LOWER QUARTILE	2.00	LOWER QUARTILE	1.85
MEDIAN	2.10	MEDIAN	2.00
UPPER QUARTILE	2.35	UPPER QUARTILE	2.20
MAXIMUM	2.60	MAXIMUM	2.40
MEAN	2.17	MEAN	2.01
STD. DEVIATION	0.22	STD. DEVIATION	0.24
N	28	N	28
MISSING	8	MISSING	8

ANNUAL AVERAGE OVER THE NEXT 10 YEARS: 2021-2030

CPI INFLATION RATE		PCE INFLATION RATE	
MINIMUM	2.00	MINIMUM	1.80
LOWER QUARTILE	2.25	LOWER QUARTILE	2.10
MEDIAN	2.44	MEDIAN	2.20
UPPER QUARTILE	2.60	UPPER QUARTILE	2.47
MAXIMUM	3.00	MAXIMUM	2.70
MEAN	2.46	MEAN	2.24
STD. DEVIATION	0.26	STD. DEVIATION	0.24
N	28	N	28
MISSING	8	MISSING	8

Note: The summary statistics for each forecast horizon are computed on a sample of panelists that may differ from one horizon to the next. The usual identity linking the 10-year horizon to the two underlying five-year horizons may not hold in the results.

Source: Research Department, Federal Reserve Bank of Philadelphia.
Survey of Professional Forecasters, Third Quarter 2021.

RECENT PRICE	88.49	P/E RATIO	23.0 (Trailing: 24.3 Median: 18.0)	RELATIVE P/E RATIO	1.20	DIV'D YLD	2.6%	VALUE LINE
--------------	--------------	-----------	--	--------------------	-------------	-----------	-------------	------------

18-Month Target Price Range
 Low-High Midpoint (% to Mid)
 \$65-\$131 \$98 (10%)

2024-26 PROJECTIONS

	Price	Gain (+5%) (-15%)	Ann'l Total Return 5% Nil
High	95		
Low	75		

Institutional Decisions

	4Q2020	1Q2021	2Q2021
to Buy	266	249	273
to Sell	250	269	226
Hit's(000)	196751	194499	194886

% TOT. RETURN 7/21

	THIS STOCK	VL ARITH.*
1 yr.	6.7	55.5
3 yr.	45.4	48.6
5 yr.	83.6	95.5

CAPITAL STRUCTURE as of 6/30/21		7531.0	6828.0	5838.0	6053.0	6098.0	6076.0	6177.0	6291.0	5910.0	5794.0	6100	6350	Revenues (\$mill)	7200
Total Debt \$16882 mill. Due in 5 Yrs \$2434 mill.		602.0	589.0	518.0	593.0	585.0	659.0	683.0	821.0	834.0	877.0	1000	1090	Net Profit (\$mill)	1410
LT Debt \$12492 mill. LT Interest \$459 mill.		37.3%	36.9%	37.5%	38.9%	38.3%	36.7%	38.2%	22.4%	17.9%	15.0%	10.0%	10.0%	Income Tax Rate	10.0%
(LT interest earned: 3.7x)		5.6%	6.1%	7.1%	5.7%	5.1%	4.1%	5.6%	6.9%	5.8%	5.5%	5.0%	5.0%	AFUDC % to Net Profit	4.0%
Leases, Uncapitalized Annual rentals \$9 mill.		45.3%	49.5%	45.2%	47.2%	49.3%	47.7%	49.2%	50.3%	52.1%	55.0%	54.0%	53.0%	Long-Term Debt Ratio	50.0%
Pension Assets-12/20 \$5510 mill.		53.7%	49.4%	53.7%	51.7%	49.7%	51.3%	49.8%	48.8%	47.1%	44.3%	45.5%	46.0%	Common Equity Ratio	49.5%
		Oblig \$5510 mill.													
Pfd Stock \$129 mill. Pfd Div'd \$5 mill.		14738	13384	12190	12975	13968	13840	14420	15632	17116	20158	21425	22950	Total Capital (\$mill)	27600
807,595 sh. \$3.50 to \$5.50 cum. (no par), \$100 stated val., redeem. \$102.176-\$110/sh.; 487,508 sh. 4.00% to 5.16%, \$100 par, redeem. \$102.50-\$104.30/sh.		18127	16096	16205	17424	18799	20113	21466	22810	24376	26807	29275	31075	Net Plant (\$mill)	36800
		5.6%	6.0%	5.6%	5.8%	5.3%	6.0%	6.0%	6.4%	6.0%	5.3%	5.5%	5.5%	Return on Total Cap'l	6.0%
		7.5%	8.7%	7.7%	8.7%	8.3%	9.1%	9.3%	10.6%	10.2%	9.7%	10.0%	10.0%	Return on Shr. Equity	10.5%
Common Stock 257,147,162 shs. as of 7/30/21		7.5%	8.8%	7.8%	8.7%	8.3%	9.2%	9.4%	10.7%	10.3%	9.7%	10.0%	10.0%	Return on Com Equity	10.5%
MARKET CAP: \$23 billion (Lrg. Cap)		2.8%	3.0%	1.9%	2.9%	2.5%	3.3%	3.4%	4.8%	4.4%	4.2%	4.5%	4.5%	Retained to Com Eq	4.5%
ELECTRIC OPERATING STATISTICS		63%	66%	76%	67%	70%	64%	64%	56%	57%	57%	57%	57%	All Div'ds to Net Prof	58%

Fixed Charge Cov. (%)		313	307	291
ANNUAL RATES	Past	Past	Est'd '18-'20	
of change (per sh)	10 Yrs.	5 Yrs.	to '24-'26	
Revenues	-3.0%	-5%	1.0%	
"Cash Flow"	2.5%	6.5%	5.5%	
Earnings	2.0%	8.0%	6.5%	
Dividends	.5%	3.5%	7.0%	
Book Value	--	3.5%	6.5%	

Calendar	EARNINGS PER SHARE ^A				Full Year
	Mar.31	Jun.30	Sep.30	Dec.31	
2018	.62	.97	1.45	.28	3.32
2019	.78	.72	1.47	.38	3.35
2020	.59	.98	1.47	.46	3.50
2021	.91	.80	1.70	.44	3.85
2022	.90	.85	1.85	.50	4.10

(A) Diluted EPS. Excl. nonrec. gain (losses): '05, (11¢); '10, (\$2.19); '11, (32¢); '12, (\$6.42); '17, (63¢); gain (loss) from disc. ops.: '13, 92¢; '15, 21¢. Next earnings report due mid-	Nov. (B) Div'ds paid late Mar., June, Sept., & Dec. ■ Div'd reinvest. plan avail. (C) Incl. intang. In '20: \$5.97/sh. (D) In mill. (E) Rate base: Orig. cost depr. Rate allowed on com.	eq. in MO in '20: elec., none; in '11: gas, none; in IL: electric, varies; in '21: gas, 9.67%; earned on avg. com. eq., '20: 10.2%. Regulatory Climate: MO, Average; IL, Below Average.	Company's Financial Strength Stock's Price Stability Price Growth Persistence Earnings Predictability	A 95 75 95
---	--	---	--	---------------------

growth is investment in the utility's electric transmission system. We have raised our earnings estimate by a nickel a share, to \$4.10. This would produce an increase within the company's targeted annual range of 6%-8%. Note that we assume no change in the allowed ROE for transmission. The Federal Energy Regulatory Commission is considering eliminating a half percentage point "adder" for electric transmission. This would reduce Ameren's annual earning power by \$0.04 a share.

The Callaway nuclear plant returned to service in early August. Ameren expects the \$60 million capital cost and the replacement power expenses to be covered by insurance. This was the case all along, but at least the unit's return to service ended a source of uncertainty.

This untimely stock has a dividend yield that is nearly one percentage point below the utility average. With the recent quotation well within our 2024-2026 Target Price Range, total return potential is low. The equity doesn't stand out for the next 18 months, either. We did raise its Safety rank from 2 to 1 (Highest).

Paul E. Debbas, CFA September 10, 2021

© 2021 Value Line, Inc. All rights reserved. Factual material is obtained from sources believed to be reliable and is provided without warranties of any kind. THE PUBLISHER IS NOT RESPONSIBLE FOR ANY ERRORS OR OMISSIONS HEREIN. This publication is strictly for subscriber's own, non-commercial, internal use. No part of it may be reproduced, resold, stored or transmitted in any printed, electronic or other form, or used for generating or marketing any printed or electronic publication, service or product.

AMERICAN ELEC. PWR. NDQ-AEP										RECENT PRICE	89.62	P/E RATIO	18.9 (Trailing: 19.1 Median: 16.0)	RELATIVE P/E RATIO	0.99	DIV'D YLD	3.5%	VALUE LINE							
TIMELINESS	3	Raised 9/10/21	High: 37.9	41.7	45.4	51.6	63.2	65.4	71.3	78.1	81.1	96.2	105.0	91.5					Target Price	2024	2025	2026			
SAFETY	1	Raised 3/17/17	Low: 28.2	33.1	37.0	41.8	45.8	52.3	56.8	61.8	62.7	72.3	65.1	74.8											
TECHNICAL	3	Raised 9/10/21	LEGENDS 0.67 x Dividends p sh divided by Interest Rate Relative Price Strength Options: Yes Shaded area indicates recession																						
BETA	.75	(1.00 = Market)																							
18-Month Target Price Range																									
Low-High		Midpoint (% to Mid)																							
\$69-\$131		\$100 (10%)																							
2024-26 PROJECTIONS																									
High	Price	Gain	Ann'l Total																						
Low	110	(+25%)	9%																						
	90	(Nil)	4%																						
Institutional Decisions																									
to Buy	402020	102021	202021																						
to Sell	562	537	605																						
Hlds(000)	4671	535	431																						
	37903	370214	371285																						
© VALUE LINE PUB. LLC 24-26																									
2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022								
30.76	31.82	33.41	35.56	28.22	30.01	31.27	30.77	31.48	34.78	33.51	33.31	31.35	32.84	31.49	30.04	32.15	31.30	Revenues per sh				35.00			
5.96	6.67	6.80	6.84	6.32	6.29	6.83	6.92	7.02	7.57	7.98	8.47	7.95	8.77	9.35	10.28	10.80	10.95	"Cash Flow" per sh				12.75			
2.64	2.86	2.86	2.99	2.97	2.60	3.13	2.98	3.18	3.34	3.59	4.23	3.62	3.90	4.08	4.42	4.70	5.00	Earnings per sh ^A				6.00			
1.42	1.50	1.58	1.64	1.64	1.71	1.85	1.88	1.95	2.03	2.15	2.27	2.39	2.53	2.71	2.84	3.00	3.17	Div'd Decl'd per sh ^B				3.75			
6.11	8.89	8.88	9.83	6.19	5.07	5.74	6.45	7.75	8.68	9.37	9.98	11.79	12.89	12.43	12.72	15.30	15.60	Cap'l Spending per sh				15.25			
23.08	23.73	25.17	26.33	27.49	28.33	30.33	31.37	32.98	34.37	36.44	35.38	37.17	38.58	39.73	41.38	43.70	47.50	Book Value per sh ^C				56.00			
393.72	396.67	400.43	406.07	478.05	480.81	483.42	485.67	487.78	489.40	491.05	491.71	492.01	493.25	494.17	496.60	504.00	530.00	Common Shs Outst'g ^D				550.00			
13.7	12.9	16.3	13.1	10.0	13.4	11.9	13.8	14.5	15.9	15.8	15.2	19.3	18.0	21.4	19.6	Bold figures are Value Line estimates		Avg Ann'l P/E Ratio				17.0			
.73	.70	.87	.79	.67	.85	.75	.88	.81	.84	.80	.80	.97	.97	1.14	1.02			Relative P/E Ratio				.95			
3.9%	4.1%	3.4%	4.2%	5.5%	4.9%	5.0%	4.6%	4.2%	3.8%	3.8%	3.5%	3.4%	3.6%	3.1%	3.3%			Avg Ann'l Div'd Yield				3.7%			
CAPITAL STRUCTURE as of 6/30/21						15116	14945	15357	17020	16453	16380	15425	16196	15561	14918	16200	16600	Revenues (\$mill)				19200			
Total Debt \$36246 mill. Due in 5 Yrs \$14092 mill.						1513.0	1443.0	1549.0	1634.0	1763.4	2073.6	1783.2	1923.8	2019.0	2200.1	2365	2590	Net Profit (\$mill)				3335			
LT Debt \$30659 mill. LT Interest \$1066 mill.						31.7%	33.9%	36.2%	37.8%	35.1%	26.8%	33.7%	5.8%	7.7%	1.9%	7.5%	7.5%	Income Tax Rate				7.5%			
Incl. \$922.5 mill. securitized bonds. Incl. \$289.1 mill. finance leases.						10.6%	11.2%	7.3%	9.0%	11.0%	8.0%	8.0%	10.7%	12.7%	9.7%	11.0%	11.0%	AFUDC % to Net Profit				9.0%			
(LT interest earned: 2.9x)						50.7%	50.6%	51.1%	49.0%	49.8%	50.0%	51.5%	53.2%	56.1%	58.5%	59.0%	58.5%	Long-Term Debt Ratio				59.5%			
Leases, Uncapitalized Annual rentals \$270.8 mill.						49.3%	49.4%	48.9%	51.0%	50.2%	50.0%	48.5%	46.8%	43.9%	41.5%	41.0%	41.5%	Common Equity Ratio				40.5%			
Pension Assets-12/20 \$5556.6 mill.						29747	30823	32913	33001	35633	34775	37707	40677	44759	49537	53950	60750	Total Capital (\$mill)				76000			
Oblig \$5544.5 mill.						36971	38763	40997	44117	46133	45639	50262	55099	60138	63902	68550	73600	Net Plant (\$mill)				85700			
Pfd Stock None						6.6%	6.1%	6.0%	6.3%	6.1%	7.2%	5.9%	5.9%	5.6%	5.6%	5.0%	5.0%	Return on Total Cap'l				5.5%			
Common Stock 500,251,339 shs.						10.3%	9.5%	9.6%	9.7%	9.9%	11.9%	9.8%	10.1%	10.3%	10.7%	10.5%	10.5%	Return on Shr. Equity				11.0%			
as of 7/22/21						10.3%	9.5%	9.6%	9.7%	9.9%	11.9%	9.8%	10.1%	10.3%	10.7%	10.5%	10.5%	Return on Com Equity ^E				11.0%			
MARKET CAP: \$45 billion (Large Cap)						4.2%	3.5%	3.7%	3.8%	3.9%	5.5%	3.2%	3.5%	3.4%	3.8%	4.0%	3.5%	Retained to Com Eq				4.0%			
ELECTRIC OPERATING STATISTICS						60%	63%	62%	61%	60%	54%	67%	65%	67%	65%	66%	66%	All Div'ds to Net Prof				63%			
						2018	2019	2020																	
% Change Retail Sales (KWH)						+3.0	-2.2	-																	
Avg. Indust. Use (MWH)						NA	NA	NA																	
Avg. Indust. Revs. per KWH (¢)						NA	NA	NA																	
Capacity at Peak (Mw)						NA	NA	NA																	
Peak Load (Mw)						NA	NA	NA																	
Annual Load Factor (%)						NA	NA	NA																	
% Change Customers (yr-end)						NA	+3	+1.0																	
Fixed Charge Cov. (%)						254	234	243																	
ANNUAL RATES						Past 10 Yrs.	Past 5 Yrs.	Est'd '18-'20																	
of change (per sh)						10 Yrs.	5 Yrs.	'18-'20																	
Revenues						-	-1.0%	2.0%																	
"Cash Flow"						4.0%	4.5%	5.0%																	
Earnings						4.0%	4.0%	6.5%																	
Dividends						5.0%	5.5%	5.5%																	
Book Value						4.0%	3.0%	6.0%																	
Cal-endar	QUARTERLY REVENUES (\$mill.)				Full Year																				
	Mar.31	Jun.30	Sep.30	Dec.31																					
2018	4049	4013	4333	3801	16196																				
2019	4057	3573	4315	3616	15561																				
2020	3747	3494	4066	3611	14918																				
2021	4281	3827	4300	3792	16200																				
2022	4300	3850	4500	3950	16600																				
Cal-endar	EARNINGS PER SHARE ^A				Full Year																				
	Mar.31	Jun.30	Sep.30	Dec.31																					
2018	.92	1.07	1.17	.74	3.90																				
2019	1.16	.93	1.48	.51	4.08																				
2020	1.00	1.05	1.50	.87	4.42																				
2021	1.15	1.15	1.60	.80	4.70																				
2022	1.20	1.20	1.70	.90	5.00																				
Cal-endar	QUARTERLY DIVIDENDS PAID ^B				Full Year																				
	Mar.31	Jun.30	Sep.30	Dec.31																					
2017	.59	.59	.59	.62	2.39																				
2018	.62	.62	.62	.67	2.53																				
2019	.67	.67	.67	.70	2.71																				
2020	.70	.70	.70	.74	2.84																				
2021	.74	.74	.74																						

Business: American Electric Power Company Inc. (AEP), through 10 operating utilities, serves 5.5 million customers in Arkansas, Kentucky, Indiana, Louisiana, Michigan, Ohio, Oklahoma, Tennessee, Texas, Virginia, & West Virginia. Has a transmission subsidiary. Electric revenue breakdown: residential, 43%; commercial, 23%; industrial, 18%; wholesale, 10%; other, 6%. Sold commercial

Value Line: We estimate solid profit growth this year and next. Rate relief should be a key factor. AEP also benefits from increased transmission investment each year. Management is guiding Wall Street to the upper half of the company's 2021 targeted range of \$4.55-\$4.75 a share. Its goal for annual earnings growth is 5%-7%. We are sticking with our 2021 estimate of 2021 and have boosted our 2022 estimate by a nickel, to \$5.00.

The company might sell its utility operations in Kentucky. Management is undergoing a strategic review of these assets, which had a rate base of roughly \$2 billion at the end of 2020. AEP expects an announcement by yearend.

We expect a dividend hike in the fourth quarter. We look for an increase of \$0.04 a share (5.4%) in the quarterly disbursement. AEP's goal for the payout ratio is 60%-70%.

This high-quality stock has a dividend yield that is about average for a utility. Total return potential is decent for the next 18 months but unspectacular for the 3- to 5-year period.

Paul E. Debbas, CFA September 10, 2021

RECENT PRICE	67.53	P/E RATIO	20.1 (Trailing: 21.1 Median: 18.0)	RELATIVE P/E RATIO	1.05	DIV'D YLD	3.9%	VALUE LINE
--------------	-------	-----------	------------------------------------	--------------------	------	-----------	------	------------

18-Month Target Price Range

Low-High Midpoint (% to Mid)

\$34-\$88 \$61 (-10%)

Shaded area indicates recession

Year	Low	High	Midpoint
1970	40	45	42.5
1975	45	55	50
1980	50	60	55
1985	55	65	60
1990	50	60	55
1995	55	65	60
2000	75	85	80
2005	45	55	50
2010	55	65	60

LOW 70 (+5%) 5%			
Institutional Decisions			
	4Q2020	1Q2021	2Q2021
to Buy	124	122	98
to Sell	124	121	131
Hld's(000)	37566	37997	37914

% TOT. RETURN 7/21	
THIS STOCK	VL ARITH. INDEX
1 yr. 23.5	55.5
3 yr. -0.2	48.6
5 yr. 29.1	95.5

CAPITAL STRUCTURE as of 6/30/21	928.2	961.2	1018.4	1136.8	1486.4	1339.7	1419.3	1498.6	1240.5	1169.1	1370	1325	Revenues (\$mill)	1500
Total Debt \$2027.2 mill. Due in 5 Yrs \$697.0 mill.	93.8	97.1	104.7	124.8	163.4	155.3	159.2	174.1	172.4	174.2	165	195	Net Profit (\$mill)	250
LT Debt \$1664.6 mill. LT Interest \$65.3 mill. (LT interest earned: 2.8x)	27.6%	28.1%	21.5%	22.6%	19.4%	11.3%	14.8%	--	NMF	NMF	NMF	NMF	Income Tax Rate	NMF
	2.7%	5.3%	4.4%	6.3%	2.0%	1.4%	8%	7%	1.3%	1.1%	2.0%	2.0%	AFUDC % to Net Profit	1.0%
Leases, Uncapitalized Annual rentals \$6.0 mill.	44.3%	43.7%	44.6%	44.2%	46.3%	42.0%	41.0%	39.9%	38.6%	41.0%	42.0%	41.0%	Long-Term Debt Ratio	42.5%
	55.7%	56.3%	55.4%	55.8%	53.7%	58.0%	59.0%	60.1%	61.4%	59.0%	58.0%	59.0%	Common Equity Ratio	57.5%
Pension Assets-12/20 \$759.4 mill.	1937.2	2134.6	2425.9	2882.2	3388.9	3263.4	3507.4	3584.3	3632.8	3887.8	4040	4120	Total Capital (\$mill)	4825
Oblig \$965.7 mill.	1982.7	2347.6	2576.5	3286.4	3669.1	3741.2	3822.4	3904.4	4377.0	4840.8	5100	5055	Net Plant (\$mill)	5175
Pfd Stock None	6.0%	5.6%	5.3%	5.2%	5.8%	5.8%	5.5%	5.8%	5.6%	5.3%	5.0%	5.5%	Return on Total Cap'l	6.0%
Common Stock 52,268,119 shs.	8.7%	8.1%	7.8%	7.8%	9.0%	8.2%	7.7%	8.1%	7.7%	7.6%	7.0%	8.0%	Return on Shr. Equity	9.0%
	8.7%	8.1%	7.8%	7.8%	9.0%	8.2%	7.7%	8.1%	7.7%	7.6%	7.0%	8.0%	Return on Com Equity ^E	9.0%
MARKET CAP: \$3.5 billion (Mid Cap)	2.9%	2.3%	2.2%	2.5%	3.6%	2.8%	2.4%	2.7%	2.3%	2.0%	1.5%	2.5%	Retained to Com Eq	3.0%
ELECTRIC OPERATING STATISTICS	66%	71%	72%	67%	60%	66%	68%	66%	70%	74%	80%	71%	All Div'ds to Net Prof	65%

Fixed Charge Cov. (%)	296	277	230
ANNUAL RATES	Past	Past	Est'd '18-'20
of change (per sh)	10 Yrs.	5 Yrs.	to '24-'26
Revenues	5.5%	1.0%	1.5%
"Cash Flow"	6.0%	4.5%	5.0%
Earnings	4.0%	2.5%	5.0%
Dividends	3.0%	3.5%	4.0%
Book Value	5.0%	4.5%	3.0%

Calendar	EARNINGS PER SHARE ^A				Full Year
	Mar.31	Jun. 30	Sep. 30	Dec. 31	
2018	.99	.61	.59	1.18	3.38
2019	1.18	.64	.60	.92	3.33
2020	1.28	.39	.78	.90	3.35
2021	.99	.53	.73	.90	3.15
2022	1.20	.60	.80	1.10	3.70

(A) Diluted EPS. Excl. nonrec. gains (losses): '05, \$(1.84); '15, (46¢); '17, 25¢; '19, 26¢; losses on disc. ops.: '05, 16¢; '06, 2¢. '18 & '19 EPS don't sum due to rounding. Next earnings report due early Nov.	(B) Div'ds historically paid in early Mar., June, Sept. and Dec. ■ Div'd reinvest. plan avail. † Shareholder invest. plan avail. (C) Incl. deferred charges. In '20:	\$9.23/sh. (D) In mill. (E) Rate base: Orig. cost depr. Rate allowed in MN on com. eq. in '18: 9.25%; earned on avg. com. eq., '20: 7.7%. Regulatory Climate: Average.	Company's Financial Strength Stock's Price Stability Price Growth Persistence Earnings Predictability	A 90 55 90
--	--	---	--	---

that Minnesota Power has a larger industrial sector, and a much-smaller residential share of revenues, than most electric companies.) An interim rate hike, subject to refund, will take effect at the start of 2022, with a final order coming late in the year.

We expect much higher earnings in 2022. Minnesota Power should obtain rate relief. ACE will benefit from the addition of a 303-megawatt wind project, which is on track for completion at the end of 2021. ACE has also agreed to sell a repowered wind project to Xcel Energy for \$210 million in 2022. The stock price has risen 14% so far in 2021, in anticipation of an earnings recovery next year. We also expect much-greater dividend growth next year than the 2% hike the board of directors declared in 2021.

This stock is untimely, but has a modestly higher dividend yield than the utility average. The equity is unappealing for the next 18 months. The recent quotation is within our 3- to 5-year Target Price Range, so total return potential over that time frame is subpar.

Paul E. Debbas, CFA September 10, 2021

Rate base: Orig. cost	Company's Financial Strength	A
on com. eq. in '18:	Stock's Price Stability	90
com. eq., '20: 7.7%.	Price Growth Persistence	55
age.	Earnings Predictability	90

© 2021 Value Line, Inc. All rights reserved. Factual material is obtained from sources believed to be reliable and is provided without warranties of any kind. THE PUBLISHER IS NOT RESPONSIBLE FOR ANY ERRORS OR OMISSIONS HEREIN. This publication is strictly for subscriber's own, non-commercial, internal use. No part of it may be reproduced, resold, stored or transmitted in any printed, electronic or other form, or used for generating or marketing any printed or electronic publication, service or product. To subscribe call 1-800-VALUELINE

AVISTA CORP. NYSE-AVA					RECENT PRICE	42.56	P/E RATIO	19.8 (Trailing: 19.7 Median: 18.0)	RELATIVE P/E RATIO	1.00	DIV'D YLD	4.1%	VALUE LINE														
TIMELINESS	3	Raised 3/5/21	High: 22.8	26.5	28.0	29.3	37.4	38.3	45.2	52.8	52.9	49.5	53.0	49.1				Target Price Range	2024	2025	2026						
SAFETY	2	Raised 5/7/10	Low: 18.5	21.1	22.8	24.1	27.7	29.8	34.3	37.8	41.9	39.8	32.1	36.7													
TECHNICAL	2	Lowered 6/11/21	LEGENDS 0.61 x Dividends p sh divided by Interest Rate Relative Price Strength Options: Yes Shaded area indicates recession																								
BETA	.95	(1.00 = Market)																									
18-Month Target Price Range																											
Low-High Midpoint (% to Mid)																											
\$18-\$62 \$40 (-5%)																											
2024-26 PROJECTIONS																											
High	Price	Gain																									
Low	60	(+40%)																									
	45	(+5%)																									
Institutional Decisions																											
to Buy	302020	402020	102021																								
to Sell	105	102	111																								
Hlds(000)	57100	57728	58026																								
Percent shares traded			18																								
			12																								
			6																								

RECENT PRICE	64.48	P/E RATIO	25.7 (Trailing: 21.9 Median: 19.0)	RELATIVE P/E RATIO	1.35	DIV/D YLD	2.8%	VALUE LINE
--------------	-------	-----------	------------------------------------	--------------------	------	-----------	------	------------

18-Month Target Price Range
 Low-High Midpoint (% to Mid)
 \$45-\$98 \$72 (10%)

2024-26 PROJECTIONS

	Price	Gain	Ann'l Total Return
High	70	(+10%)	5%
Low	55	(-15%)	N/A

Institutional Decisions

	4Q2020	1Q2021	2Q2021
to Buy	242	268	293
to Sell	274	262	245
Hld's(000)	262184	259761	263668

% TOT. RETURN 7/21

	THIS STOCK	VL ARITH. INDEX
1 yr.	-1.1	55.5
3 yr.	37.9	48.6
5 yr.	56.7	95.5

CAPITAL STRUCTURE as of 6/30/21	6503.0	6312.0	6566.0	7179.0	6456.0	6399.0	6583.0	6873.0	6845.0	6680.0	6850	6950	Revenues (\$mill)	7700
Total Debt \$12317 mill. Due in 5 Yrs NA	384.0	413.0	454.0	479.0	525.0	553.0	610.0	659.0	682.0	757.0	770	840	Net Profit (\$mill)	1045
LT Debt \$11728 mill. LT Interest \$432 mill.														
Incl. \$50 mill. finance leases.	36.8%	39.4%	39.9%	34.3%	34.0%	33.1%	31.2%	14.9%	17.7%	15.0%	13.0%	13.0%	Income Tax Rate	13.0%
(LT interest earned: 2.9x)	2.6%	2.9%	2.0%	2.3%	2.7%	3.1%	1.1%	1.4%	2.1%	1.1%	1.0%	2.0%	AFUDC % to Net Profit	1.0%
Leases, Uncapitalized Annual rentals \$10 mill.	66.9%	67.9%	67.5%	68.7%	68.3%	67.1%	67.3%	69.0%	70.4%	71.2%	66.0%	65.5%	Long-Term Debt Ratio	65.5%
Pension Assets-12/20 \$3402 mill.	32.6%	31.6%	32.2%	31.0%	31.4%	32.6%	32.4%	30.7%	29.4%	28.6%	32.5%	33.0%	Common Equity Ratio	33.5%
	9279.0	10101	10730	11846	12534	13040	13692	15476	17082	19223	18275	18925	Total Capital (\$mill)	23100
Pfd Stock \$37 mill. Pfd Div'd \$2 mill.	10633	11551	12246	13412	14705	15715	16761	18126	18926	21039	22425	24250	Net Plant (\$mill)	28000
Incl. 373,148 shs. \$4.50 \$100 par, cum., callable at \$110.00.														
	6.3%	5.9%	6.0%	5.7%	5.7%	5.8%	5.9%	5.6%	5.3%	5.2%	5.5%	6.0%	Return on Total Cap'l	6.0%
Common Stock 289,654,238 shs.	12.5%	12.8%	13.0%	12.9%	13.2%	12.9%	13.6%	13.8%	13.5%	13.7%	12.5%	13.0%	Return on Shr. Equity	13.0%
as of 7/12/21	12.6%	12.9%	13.1%	13.0%	13.3%	13.0%	13.7%	13.8%	13.6%	13.7%	13.0%	13.5%	Return on Com Equity ^E	13.5%
MARKET CAP: \$19 billion (Large Cap)	5.6%	5.0%	5.2%	5.0%	5.2%	4.8%	5.2%	5.3%	4.9%	5.3%	4.5%	5.0%	Retained to Com Eq	5.5%
ELECTRIC OPERATING STATISTICS	55%	61%	60%	62%	61%	63%	62%	62%	64%	62%	66%	63%	All Div'ds to Net Prof	60%

Fixed Charge Cov. (%)	250	235	240
ANNUAL RATES	Past	Past	Est'd '18-'20
of change (per sh)	10 Yrs.	5 Yrs.	to '24-'26
Revenues	-1.5%	-5%	1.5%
"Cash Flow"	5.0%	6.5%	5.5%
Earnings	7.5%	7.0%	6.0%
Dividends	11.5%	7.0%	5.5%
Book Value	5.0%	5.5%	6.5%

CMS Energy has agreed to sell its EnerBank subsidiary. The bank is profitable, but was not a core operation. CMS Energy expects to receive \$960 million. This will enable the company to eliminate its planned equity issuances from 2022 through 2024 that will finance its capital earnings growth exceeds dividend growth. **Consumers Energy has an electric rate case pending.** The utility is seeking an increase of \$225 million, based on a 10.5% return on equity and a 52% common-equity ratio. The staff of the Michigan Public Service Commission

Calendar	EARNINGS PER SHARE ^A				Full Year
	Mar.31	Jun.30	Sep.30	Dec.31	
2018	.86	.49	.59	.38	2.32
2019	.75	.33	.73	.58	2.39
2020	.85	.48	.76	.55	2.64
2021	1.09	.55	.58	.43	2.65
2022	.95	.60	.75	.55	2.85

(A) Diluted EPS. Excl. nonrec. gains (losses): '05, (\$1.61); '06, (\$1.08); '07, (\$1.26); '09, (7c); '10, 3c; '11, 12c; '12, (14c); '17, (53c); gains (losses) on discount ops.: '05, 7c; '06, 3c; '07,	(40c); '09, 8c; '10, (8c); '11, 1c; '12, 3c; '21, 18c. Next eggs. report due late Oct. (B) Div'ds historically paid late Feb., May, Aug., & Nov. ■ Div'd reinvestment plan avail. (C) Incl. intang.	In '20: \$9.18/sh. (D) In mill. (E) Rate base: Net orig. cost. Rate allowed on com. eq. in '21: 9.9% elec.; in '19: 9.9% gas; earned on avg. com. eq., '20: 14.4%. Regul. Clim.: Above Avg.	Company's Financial Strength Stock's Price Stability Price Growth Persistence Earnings Predictability	B++ 95 90 90
--	---	---	--	-----------------------

Generating sources: coal, 23%; gas, 17%; renewables, 4%; purchased, 56%. Fuel costs: 38% of revenues. '20 reported deprec. rates: 3.9% electric, 2.9% gas, 9.8% other. Has 8,100 full-time employees. Chairman: John G. Russell. President & CEO: Garrick Rochow. Inc.: MI. Address: One Energy Plaza, Jackson, MI 49201. Tel.: 517-788-0550. Internet: www.cmsenergy.com.

earnings growth exceeds dividend growth.

Consumers Energy has an electric rate case pending. The utility is seeking an increase of \$225 million, based on a 10.5% return on equity and a 52% common-equity ratio. The staff of the Michigan Public Service Commission (MPSC) recommended a hike of \$85 million, based on a 9.7% ROE and a 51% common-equity ratio. An order is due by late December, with new tariffs taking effect at the start of 2022. This is a key factor in the profit growth that is likely next year.

Additional rate cases are upcoming. Frequent filings are necessary because Consumers Energy has a big system with a lot of old equipment. It plans to file a gas case in December. The utility expects to file its next electric petition in the first quarter of 2022. Decisions from the MPSC are due 10 months after the filing date.

The stock's valuation is on the high side. The dividend yield does not stand out among utilities. Total return potential is decent for the next 18 months, but unspectacular for the 3- to 5-year period.

Paul E. Debbas, CFA September 10, 2021

© 2021 Value Line, Inc. All rights reserved. Factual material is obtained from sources believed to be reliable and is provided without warranties of any kind. THE PUBLISHER IS NOT RESPONSIBLE FOR ANY ERRORS OR OMISSIONS HEREIN. This publication is strictly for subscriber's own, non-commercial, internal use. No part of it may be reproduced, resold, stored or transmitted in any printed, electronic or other form, or used for generating or marketing any printed or electronic publication, service or product.

RECENT PRICE	120.40	P/E RATIO	25.0 (Trailing: 17.6 Median: 17.0)	RELATIVE P/E RATIO	1.31	DIV'D YLD	2.7%	VALUE LINE
--------------	--------	-----------	---------------------------------------	--------------------	------	-----------	------	------------

[illegible]

2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	© VALUE LINE PUB. LLC	24-26
50.74	50.93	54.28	57.23	48.45	50.51	52.57	51.01	54.56	69.50	57.60	59.24	70.28	78.12	65.91	62.84	72.25	70.25	Revenues per sh	77.75
8.14	8.19	8.48	8.26	9.38	9.78	9.57	9.77	10.13	11.85	9.44	10.60	11.77	12.58	12.97	14.70	12.55	13.55	"Cash Flow" per sh	16.50
3.27	2.45	2.66	2.73	3.24	3.74	3.67	3.88	3.76	5.10	4.44	4.83	5.73	6.17	6.31	7.08	4.65	6.00	Earnings per sh ^A	7.25
2.06	2.08	2.12	2.12	2.12	2.18	2.32	2.42	2.59	2.69	2.84	3.06	3.36	3.59	3.85	4.12	3.82	3.45	Div'd Decl'd per sh ^B ■	4.25
5.99	7.92	7.96	8.42	6.26	6.49	8.77	10.56	10.59	11.58	11.26	11.40	12.54	14.91	15.59	19.91	21.85	15.10	Cap'l Spending per sh	13.25
32.44	33.02	35.86	36.77	37.96	39.67	41.41	42.78	44.73	47.05	48.88	50.22	53.03	56.27	60.73	64.12	64.65	69.95	Book Value per sh ^C	78.75
177.81	177.14	163.23	163.02	165.40	169.43	169.25	172.35	177.09	176.99	179.47	179.43	179.39	181.93	192.21	193.77	193.75	205.00	Common Shs Outst'g ^D	206.00
13.8	17.4	18.3	14.8	10.4	12.3	13.5	14.9	17.9	14.9	18.1	19.0	18.6	17.4	19.9	16.3	Bold figures are Value Line estimates			16.5
.73	.94	.97	.89	.69	.78	.85	.95	1.01	.78	.91	1.00	.94	.94	1.06	.84				.90
4.6%	4.9%	4.4%	5.2%	6.3%	4.8%	4.7%	4.2%	3.8%	3.5%	3.5%	3.3%	3.2%	3.3%	3.1%	3.6%				3.7%

	2018	2019	2020	
% Change Retail Sales (KWh)	+3.5	-3.9	-3.4	BUSINESS: DTE Energy Company is a holding company for DTE
Avg. Indust. Use (MWH)	NA	NA	NA	Electric (formerly Detroit Edison), which supplies electricity in De-
Avg. Indust. Revs. per KW (\$)	NA	NA	NA	troit and a 7,600-square-mile area in southeastern Michigan, and
Capacity at Peak (MW)	NMf	NMf	NMf	DTE Gas (formerly Michigan Consolidated Gas). Customers: 2.2
Peak Load, Summer (MW)	NA	NA	NA	mill. electric, 1.3 mill. gas. Has various nonutility operations. Electric
Annual Load Factor (%)	NA	NA	NA	revenue breakdown: residential, 46%; commercial, 34%; industrial,
% Change Customers (yr-end)	NA	NA	NA	13%; other, 7%. Generating sources: coal, 67%; nuclear, 17%; gas,

1%; purchased, 15%. Fuel costs: 48% of revenues. '20 reported
deprec. rates: 4.2% electric, 2.7% gas. Has 10,600 employees.
Chairman: Gerard M. Anderson. President & CEO: Jerry Norcia.
Inc.: MI. Address: One Energy Plaza, Detroit, MI 48226-1279. Tel.:
313-235-4000. Internet: www.dteenergy.com.

Fixed Charge Cov. (%)	278	260	268
ANNUAL RATES of change (per sh)	Past 10 Yrs.	Past 5 Yrs.	Est'd '18-'20 to '24-'26
Revenues	3.0%	2.5%	2.0%
"Cash Flow"	4.0%	5.0%	3.5%
Earnings	7.5%	8.0%	2.0%
Dividends	6.0%	7.5%	1.5%
Book Value	4.5%	5.0%	4.5%

DTE Energy spun off its midstream natural gas operations on July 1st. Stockholders got one share of the new company, DT Midstream (NYSE: DTM), for each DTE Energy share. As of the third quarter, the results of the former midstream gas division will be reported as dis-

DTE Gas has a rate case pending, and DTE Electric plans to file one later this year. DTE Gas requested an increase of \$195 million, based on a return on equity of 10.25% and a common-equity ratio of 52%. The commission's staff recommended an increase of \$80 million, based on an

Calendar	QUARTERLY REVENUES (\$mill.)				Full Year
	Mar.31	Jun.30	Sep.30	Dec.31	
2018	3753	3159	3550	3750	14212
2019	3514	2888	3119	3148	12669
2020	3022	2583	3284	3288	12177
2021	3581F	3021F	3700	3698	14000
2022	3700	3100	3800	3800	14400

Calendar	EARNINGS PER SHARE A					Full Year
	Mar.31	Jun.30	Sep.30	Dec.31		
2018	2.00	1.29	1.84	1.05		6.17
2019	2.19	.99	1.73	1.40		6.31
2020	1.76	1.44	2.46	1.42		7.08
2021	1.64 ^F	.85 ^F	1.51	.65		4.65
2022	1.80	1.45	1.75	1.00		6.00

Calendar	QUARTERLY DIVIDENDS PAID \$				Full Year	and income, greater than the \$1.04 a share DTE Energy was paying before the corporate separation. Management's earnings guidance for 2021 is \$5.62-\$5.92 a share, but the company excludes some items (such as costs of the spinoff) that we include in our earnings presentation.	cause this business is based on tax credits that are expiring. The stock's dividend yield is below the utility average. The equity doesn't stand out for 3- to 5-year total return potential, either. <i>Paul E. Debbas, CFA September 10, 2021</i>
	Mar.31	Jun.30	Sep.30	Dec.31			
2017	.825	.825	.825	.825	3.30		
2018	.8825	.8825	.8825	.8825	3.53		
2019	.945	.945	.945	.945	3.78		
2020	1.0125	1.0125	1.0125	1.0125	4.05		
2021	1.085	1.085	1.085				

(A) Diluted EPS, Excl. nonrec. gains (losses): '05, (2c); '07, \$1.96; '08, 50c; '11, 51c; '15, '39c; '17, 59c; gains (losses) on disc. ops.: '05, (20c); '06, (2c); '07, \$1.20; '08, 13c; '12,	(33c). '18 EPS don't sum due to rounding. Next earnings report due late Oct. (B) Div'ds pd. mid-Jan., Apr., July & Oct. ■ Div'd reinvest. plan avail. (C) Incl. intang. In '20: \$46.10/sh.	(D) In mill. (E) Rate base: Net orig. cost. Rate all'd on com. eq. in '20: 9.9% elec., in '20: 9.9% gas; earned on avg. com. eq., '20: 11.4%. Reg. Clim.: Above Avg. (F) Restated.	Company's Financial Strength Stock's Price Stability Price Growth Persistence Earnings Predictability	A 90 85 95
--	--	--	--	---

© 2021 Value Line, Inc. All rights reserved. Factual material is obtained from sources believed to be reliable and is provided without warranties of any kind. THE PUBLISHER IS NOT RESPONSIBLE FOR ANY ERRORS OR OMISSIONS HEREIN. This publication is strictly for subscriber's own, non-commercial, internal use. No part of it may be reproduced, resold, stored or transmitted in any printed, electronic or other form, or used for generating or marketing any printed or electronic publication, service or product. To subscribe call 1-800-VALUELINE

RECENT PRICE	106.19	P/E RATIO	20.2 (Trailing: 27.0 Median: 18.0)	RELATIVE P/E RATIO	1.05	DIV'D YLD	3.7%	VALUE LINE
--------------	--------	-----------	---------------------------------------	--------------------	------	-----------	------	------------

18-Month Target Price Range

Low-High Midpoint (% to Mid)

\$52-\$130 \$91 (-15%)

Shaded area indicates recession

2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	© VALUE LINE PUB. LLC	24-26	
--	25.32	30.24	31.15	29.18	32.22	32.63	27.88	34.84	33.84	34.10	32.49	33.66	33.73	34.21	31.04	32.15	33.05	Revenues per sh	36.00	
--	7.86	8.11	7.34	7.58	8.49	8.68	6.80	8.56	9.11	9.40	9.20	10.01	10.49	12.13	10.89	12.60	13.30	"Cash Flow" per sh	15.50	
--	2.76	3.60	3.03	3.39	4.02	4.14	3.71	3.98	4.13	4.10	3.71	4.22	4.13	5.07	3.92	5.15	5.45	Earnings per sh ^A	6.50	
--	--	2.58	2.70	2.82	2.91	2.97	3.03	3.09	3.15	3.24	3.36	3.49	3.64	3.75	3.82	3.90	3.98	Div'd Dec'd per sh ^{B ■}	4.25	
--	8.07	7.43	10.35	9.85	10.84	9.80	7.81	7.83	7.62	9.83	11.29	11.50	12.91	15.17	12.88	13.60	16.60	Cap'l Spending per sh	15.50	
--	62.30	50.40	49.51	49.85	50.84	51.14	58.04	58.54	57.81	57.74	58.62	59.63	60.27	61.20	59.82	61.15	62.60	Book Value per sh ^C	68.50	
--	418.96	420.62	423.96	436.29	442.96	445.29	704.00	706.00	707.00	688.00	700.00	700.00	727.00	733.00	769.00	770.00	770.00	Common Shs Outst'g ^D	770.00	
--	--	16.1	17.3	13.3	12.7	13.8	17.5	17.4	17.9	18.2	21.3	19.9	19.4	17.7	22.4	Bold figures are Value Line estimates			Avg Ann'l P/E Ratio	17.0
--	--	.85	1.04	.89	.81	.87	1.11	.98	.94	.92	1.12	1.00	1.05	.94	1.16				Relative P/E Ratio	.95
--	--	4.4%	5.2%	6.2%	5.7%	5.2%	4.7%	4.4%	4.3%	4.3%	4.3%	4.2%	4.5%	4.2%	4.4%				Avg Ann'l Div'd Yield	3.9%

	2018	2019	2020	BUSINESS: Duke Energy Corporation is a holding company for utilities with 7.6 mill. elec. customers in NC, FL, IN, SC, OH, & KY, and 1.6 mill. gas customers in OH, KY, NC, SC, and TN. Owns independent power plants & has 25% stake in National Methanol in Saudi Arabia. Acqd Progress Energy 7/12; Piedmont Natural Gas 10/16; discontinued most intl' ops. in '16. Elec. rev. breakdown:	residential, 45%; commercial, 28%; industrial, 13%; other, 14%. Generating sources: gas, 31%; nuclear, 30%; coal, 18%; other, 2%; purchased, 19%. Fuel costs: 27% of revs. '20 reported deprec. rate: 3.0%. Has 27,500 employees. Chairman, President & CEO: Lynn J. Good, Inc.: DE. Address: 550 South Tryon St. Charlotte, NC 28202-1803. Tel.: 704-382-3853. Internet: www.duke-energy.com.
% Change Retail Sales (KWH)	+3.9	-9	-2.3		
Avg. Indust. Use (MWH)	2953	2934	NA		
Avg. Indust. Revs. per MWH (¢)	NA	NA	NA		
Capacity at Peak (MW)	NA	NA	NA		
Peak Load, Summer (MW)	NA	NA	NA		
Annual Load Factor (%)	NA	NA	NA		
% Change Customers (avg.)	+1.4	+1.5	NA		

Calendar	QUARTERLY REVENUES (\$mill.)				Full Year
	Mar.31	Jun.30	Sep.30	Dec.31	
2018	6135	5643	6628	6115	24521
2019	6163	5873	6940	6103	25079
2020	5949	5421	6721	5777	23868
2021	6150	5650	6900	6050	24750
2022	6350	5800	7100	6200	25450

Calendar	QUARTERLY DIVIDENDS PAID ^B				Full Year
	Mar.31	Jun.30	Sep.30	Dec.31	
2017	.855	.855	.89	.89	3.49
2018	.89	.89	.9275	.9275	3.64
2019	.9275	.9275	.945	.945	3.75
2020	.945	.945	.965	.965	3.82
2021	.965	.965	.985		

© 2021 Value Line, Inc. All rights reserved. Factual material is obtained from sources believed to be reliable and is provided without warranties of any kind. THE PUBLISHER IS NOT RESPONSIBLE FOR ANY ERRORS OR OMISSIONS HEREIN. This publication is strictly for subscriber's own, non-commercial, internal use. No part of it may be reproduced, resold, stored or transmitted in any printed, electronic or other form, or used for generating or marketing any printed or electronic publication, service or product.

RECENT PRICE	109.36	P/E RATIO	19.6 (Trailing: 14.6 Median: 13.0)	RELATIVE P/E RATIO	1.03	DIV'D YLD	3.7%	VALUE LINE
--------------	--------	-----------	---------------------------------------	--------------------	------	-----------	------	------------

18-Month Target Price Range

Low-High	Midpoint (% to Mid)
\$56-\$147	\$102 (-5%)



2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	© VALUE LINE PUB. LLC	24-26
46.61	53.94	59.47	69.15	56.82	64.27	63.67	57.94	63.86	69.71	64.54	60.55	61.35	58.23	54.63	50.51	57.85	55.10	Revenues per sh	58.75
8.18	10.69	11.73	12.89	13.29	16.54	17.53	15.98	16.25	17.68	17.71	18.72	16.70	16.50	17.19	18.21	17.65	18.45	"Cash Flow" per sh	21.50
4.40	5.36	5.60	6.20	6.30	6.66	7.55	6.02	4.96	5.77	5.81	6.88	5.19	5.88	6.30	6.90	6.00	6.35	Earnings per sh ^A	7.50
2.16	2.16	2.58	3.00	3.00	3.24	3.32	3.32	3.32	3.32	3.34	3.42	3.50	3.58	3.66	3.74	3.86	4.08	Div'd Dec'd per sh ^B \uparrow	4.80
6.72	9.44	10.29	13.92	12.99	13.33	15.21	18.18	15.73	14.82	16.79	17.28	22.07	22.45	21.72	24.52	17.10	17.35	Cap'l Spending per sh	19.25
35.71	40.45	40.71	42.07	45.54	47.53	50.81	51.73	54.00	55.83	51.89	45.12	44.28	46.78	51.34	54.56	56.40	58.90	Book Value per sh ^C	67.50
216.83	202.67	193.12	189.36	189.12	178.75	176.36	177.81	178.37	179.24	178.39	179.13	180.52	189.06	199.15	200.24	204.00	205.00	Common Shs Outst'g ^D	208.00
16.3	14.3	19.3	16.6	12.0	11.6	9.1	11.2	13.2	12.9	12.5	10.9	15.0	13.8	16.5	15.3	Bold figures are Value Line estimates			17.5
.87	.77	1.02	1.00	.80	.74	.57	.71	.74	.68	.63	.57	.75	.75	.88	.79				.95
3.0%	2.8%	2.4%	2.9%	4.0%	4.2%	4.9%	4.9%	5.1%	4.5%	4.6%	4.6%	4.5%	4.4%	3.5%	3.6%				3.7%

	2018	2019	2020	BUSINESS: Entergy Corporation supplies electricity to 3 million customers through subsidiaries in Arkansas, Louisiana, Mississippi, Texas, and New Orleans (regulated separately from Louisiana). Distributes gas to 202,000 customers in Louisiana. Has a nonutility subsidiary that owns four nuclear units (three no longer operating). Electric revenue breakdown: residential, 39%; commercial, 25%; industrial, 26%; other, 10%. Generating sources: gas, 47%; nuclear, 29%; coal, 3%; purchased, 21%. Fuel costs: 24% of revenues. '20 reported depreciation rate: 2.8%. Has 13,000 employees. Chairman & CEO: Leo P. Denault. Incorporated: Delaware. Address: 639 Loyola Avenue, P.O. Box 61000, New Orleans, Louisiana 70161. Telephone: 504-576-4000. Internet: www.entergy.com .
% Change Retail Sales (KWh)	+4.1	-1.4	-4.1	
Avg. Indust. Use (MWH)	946	1070	1017	
Avg. Indust. Revs. per KWh(c)	5.16	5.24	4.95	
Capacity at Peak (MW)	23121	23887	25665	
Peak Load, Summer (MW)	21587	21598	21340	
Annual Load Factor (%)	65	64	62	
% Change Customers (yr-end)	+6	+8	+1.0	

Calendar	QUARTERLY REVENUES (\$mill.)				Full Year
	Mar.31	Jun.30	Sep.30	Dec.31	
2018	2724	2669	3104	2512	11009
2019	2610	2666	3141	2462	10879
2020	2427	2413	2904	2370	10114
2021	2845	2822	3333	2800	11800
2022	2700	2700	3200	2700	11300

Calendar	QUARTERLY DIVIDENDS PAID $\$$				Full Year
	Mar.31	Jun.30	Sep.30	Dec.31	
2017	.87	.87	.87	.89	3.50
2018	.89	.89	.89	.91	3.58
2019	.91	.91	.91	.93	3.66
2020	.93	.93	.93	.95	3.74
2021	.95	.95	.95		

dustrial, 26%; other, 10%. Generating sources: gas, 47%; nuclear, 29%; coal, 3%; purchased, 21%. Fuel costs: 24% of revenues. '20 reported depreciation rate: 2.8%. Has 13,000 employees. Chairman & CEO: Leo P. Denault. Incorporated: Delaware. Address: 639 Loyola Avenue, P.O. Box 61000, New Orleans, Louisiana 70161. Telephone: 504-576-4000. Internet: www.entergy.com.

asking for electric and gas hikes totaling \$64 million, effective in November.

Entergy is seeking permission to issue securitized bonds. These are mainly to recover costs associated with storms in Louisiana and Texas in 2020. Entergy wants to issue \$2.1 billion in Louisiana and \$266 million in Texas. If the commissions approve, the issuances will occur in 2022. As we went to press, it was too early to assess the effects of Hurricane Ida.

Dividend growth is likely to accelerate in the fourth quarter. In recent years, the board has been raising the quarterly payout just \$0.02 a share annually. However, with the divestiture of most of the company's nonregulated nuclear assets, business risk has declined. We estimate a hike of \$0.06 a share (6.3%) quarterly. Entergy expects its annual increases will be in the range of its long-term profit growth expectation of 5%-7%.

This stock's dividend yield is slightly above the utility average. However, total return potential is negative for the next 18 months and subpar for the period to 2024-2026.

Paul E. Debbas, CFA September 10, 2021

© 2021 Value Line, Inc. All rights reserved. Factual material is obtained from sources believed to be reliable and is provided without warranties of any kind. THE PUBLISHER IS NOT RESPONSIBLE FOR ANY ERRORS OR OMISSIONS HEREIN. This publication is strictly for subscriber's own, non-commercial, internal use. No part of it may be reproduced, resold, stored or transmitted in any printed, electronic or other form, or used for generating or marketing any printed or electronic publication, service or product.

EVERGY, INC. NYSE-EVRG										RECENT PRICE	67.91	P/E RATIO	20.5 (Trailing: 19.6 Median: NMF)	RELATIVE P/E RATIO	1.07	DIV'D YLD	3.3%	VALUE LINE	
TIMELINESS 3 Raised 9/10/21		SAFETY 2 New 9/14/18		TECHNICAL 4 Raised 9/3/21		BETA .95 (1.00 = Market)		18-Month Target Price Range		Low-High Midpoint (% to Mid)		\$32-\$87 \$60 (-10%)		2024-26 PROJECTIONS		High Low		Price 80 Gain (+20%) Ann'l Total Return 7% Low 60 (-10%) 1%	
Institutional Decisions		4Q2020 1Q2021 2Q2021		Percent shares traded		36 24 12													
to Buy		268 268 291																	
to Sell		291 255 220																	
Hld's(000)		188200 191409 198932																	
Evergy, Inc. was formed through the merger of Great Plains Energy and Westar Energy in June of 2018. Great Plains Energy holders received .5981 of a share of Evergy for each of their shares, and Westar Energy holders received one share of Evergy for each of their shares. The merger was completed on June 4, 2018. Shares of Evergy began trading on the New York Stock Exchange one day later.		CAPITAL STRUCTURE as of 6/30/21		Total Debt \$11009 mill. Due in 5 Yrs \$3606.0 mill.		LT Debt \$9297.3 mill. LT Interest \$331.4 mill.		Incl. \$45.3 mill. finance leases.		(LT interest earned: 3.4x)		Leases, Uncapitalized Annual rentals \$18.5 mill.		Pension Assets-12/20 \$1799.1 mill.		Oblig \$2901.1 mill.		Pfd Stock None	
Common Stock 229,297,836 shs. as of 7/30/21		MARKET CAP: \$16 billion (Large Cap)		ELECTRIC OPERATING STATISTICS		2018 2019 2020		% Change Retail Sales (KWH)		NA NA NA		Avg. Indust. Use (MWH)		NA NA NA		Avg. Indust. Revs. per KWH (¢)		7.11 7.25 7.14	
Capacity at Peak (Mw)		NA NA NA		Peak Load, Summer (Mw)		NA NA NA		Annual Load Factor (%)		NA NA NA		% Change Customers (yr-end)		NA NA NA		Fixed Charge Cov. (%)		322 305 286	
ANNUAL RATES of change (per sh)		Past 10 Yrs.		Past 5 Yrs.		Est'd '18-'20 to '24-'26		Revenues		-- -- 3.5%		"Cash Flow"		-- -- 6.5%		Earnings		-- -- 8.0%	
Dividends		-- -- 5.5%		Book Value		-- -- 3.0%		BUSINESS: Evergy, Inc. was formed through the merger of Great Plains Energy and Westar Energy in June of 2018. Through its subsidiaries (now doing business under the Evergy name), provides electric service to 1.6 million customers in Kansas and Missouri, including the greater Kansas City area. Electric revenue breakdown: residential, 39%; commercial, 33%; industrial, 12%; wholesale, 5%; other, 11%. Generating sources: coal, 54%; nuclear, 17%; purchased, 29%. Fuel costs: 22% of revenues. '20 reported deprec. rate: 3%. Has 5,100 employees. Chairman: Mark A. Ruelle. President & Chief Executive Officer: David A. Campbell. Incorporated: Missouri. Address: 1200 Main Street, Kansas City, Missouri 64105. Telephone: 816-556-2200. Internet: www.evergy.com.		approve the issuance of \$295 million of securitized bonds to recover the surge in power costs resulting from the aforementioned cold spell in February. Evergy might also issue securitized bonds to recover the company's undepreciated interest in coal-fired plants if these are retired early and replaced with renewable generating facilities.		We expect a dividend increase in November. This is the usual timing. We look for a boost of \$0.03 a share (5.6%) in the quarterly disbursement, the same as in each of the past two years. Evergy's target for the payout ratio is 60%-70%.		The stock price is up 22% year to date. Perhaps this reflects takeover speculation, although we note that there is a standstill agreement with investors Bluescape Energy Partners and Elliott Investment Management through the 2022 annual meeting. The dividend yield is about average for a utility. Total return potential is negative for the next 18 months and unexciting for the 3- to 5-year period. The recent quotation is within our 2024-2026 Target Price Range.		Paul E. Debbas, CFA September 10, 2021			
Cal-endar		QUARTERLY REVENUES (\$mill.)		Full Year		2018 2019 2020 2021 2022		600.2 893.4 1582.5 1199.8 4275.9		1216.9 1221.7 1577.6 1131.6 5147.8		1116.7 1184.7 1517.6 1094.4 4913.4		1612 1236 1550 1102 5500		1250 1250 1600 1100 5200			
Cal-endar		EARNINGS PER SHARE ^		Full Year		2018 2019 2020 2021 2022		.42 .56 1.32 .07 2.50		.39 .57 1.56 .28 2.79		.31 .59 1.60 .22 2.72		.84 .81 1.70 .25 3.60		.55 .85 1.85 .30 3.55			
Cal-endar		QUARTERLY DIVIDENDS PAID ^		Full Year		2017 2018 2019 2020 2021		.40 .40 .46 .475 1.74		.475 .475 .475 .505 1.93		.505 .505 .505 .535 2.05		.535 .535					

HAWAIIAN ELECTRIC NYSE:HE					RECENT PRICE	42.54	P/E RATIO	21.3	(Trailing: 20.4 Median: 18.0)	RELATIVE P/E RATIO	1.08	DIV'D YLD	3.2%	VALUE LINE												
TIMELINESS	3	Raised 5/28/21	High: 25.0	26.8	29.2	28.3	35.0	34.9	35.0	38.7	39.3	47.6	55.2	46.0					Target Price Range	2024	2025	2026				
SAFETY	2	Raised 11/2/12	Low: 18.6	20.6	23.7	23.8	22.7	27.0	27.3	31.7	31.7	35.1	31.8	33.0												
TECHNICAL	3	Raised 5/7/21	LEGENDS 0.61 x Dividends p sh divided by Interest Rate Relative Price Strength Options: Yes Shaded area indicates recession																							
BETA	.80	(1.00 = Market)																								
18-Month Target Price Range																										
Low-High Midpoint (% to Mid)																										
\$18-\$56 \$37 (-15%)																										
2024-26 PROJECTIONS																										
High Low			Price 50	Gain (+20%)	Ann'l Total Return 7%																					
50 35			50 35	(-20%)	-1%																					
Institutional Decisions																										
to Buy to Sell Hlds(000)			302020 137 135	402020 133 151	102021 120 160	Percent shares traded	15 10 5																			
53574 55805 58433			53574 55805 58433																							
2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 2020 2021 2022																			© VALUE LINE PUB. LLC		24-26					
27.36 3.22 1.46 1.24 2.76 15.02 80.98 18.3 .97 4.6%			30.21 3.19 1.33 1.24 2.58 13.44 81.46 20.3 1.10 4.6%	30.40 3.01 1.11 1.24 2.62 15.29 83.43 21.6 1.15 5.2%	35.56 2.72 1.07 1.24 3.12 15.35 90.52 23.2 1.40 5.0%	24.96 2.59 .91 1.24 3.29 15.58 92.52 19.8 1.32 6.9%	28.14 2.88 1.21 1.24 2.88 15.67 94.69 18.6 1.18 5.5%	33.76 3.18 1.44 1.24 2.45 15.95 97.93 17.1 1.07 5.0%	34.46 3.28 1.67 1.24 3.32 16.28 101.26 15.8 1.01 4.7%	31.98 3.22 1.62 1.24 3.49 17.06 102.57 16.2 1.91 4.7%	31.59 3.41 1.64 1.24 3.31 17.47 107.46 15.9 .84 4.8%	24.22 3.31 1.50 1.24 3.39 19.03 108.58 20.4 1.03 4.1%	21.92 4.17 2.29 1.24 3.04 19.28 108.79 13.6 .71 4.0%	23.49 3.68 1.64 1.24 4.55 19.86 108.88 20.7 1.04 3.7%	26.38 4.20 1.85 1.24 4.94 20.93 108.97 18.9 1.13 3.5%	23.63 4.55 1.81 1.32 3.52 21.41 109.18 21.5 1.10 3.4%	24.75 4.75 2.00 1.36 3.25 22.05 109.20 21.5 1.10 3.4%	25.45 5.00 2.10 1.40 3.90 22.80 110.00 21.5 1.10 3.4%	Revenues per sh		27.50					
1.46 1.24 2.76 15.02 80.98 18.3 .97 4.6%			1.33 1.24 2.58 13.44 81.46 20.3 1.10 4.6%	1.11 1.24 2.62 15.29 83.43 21.6 1.15 5.2%	1.07 1.24 3.12 15.35 90.52 23.2 1.40 5.0%	.91 1.24 3.29 15.58 92.52 19.8 1.32 6.9%	1.21 1.24 2.88 15.67 94.69 18.6 1.18 5.5%	1.44 1.24 2.45 15.95 97.93 17.1 1.07 5.0%	1.67 1.24 3.32 16.28 101.26 15.8 1.01 4.7%	1.62 1.24 3.49 17.06 102.57 16.2 1.91 4.7%	1.64 1.24 3.31 17.47 107.46 15.9 .84 4.8%	1.50 1.24 3.39 19.03 108.58 20.4 1.03 4.1%	2.29 1.24 3.04 19.28 108.79 13.6 .71 4.0%	1.64 1.24 4.55 19.86 108.88 20.7 1.04 3.7%	1.85 1.24 4.94 20.93 108.97 18.9 1.13 3.5%	1.99 1.32 3.52 21.41 109.18 21.5 1.10 3.4%	2.00 1.36 3.25 22.05 109.20 21.5 1.10 3.4%	2.10 1.40 3.90 22.80 110.00 21.5 1.10 3.4%	"Cash Flow" per sh		5.75					
1.46 1.24 2.76 15.02 80.98 18.3 .97 4.6%			1.33 1.24 2.58 13.44 81.46 20.3 1.10 4.6%	1.11 1.24 2.62 15.29 83.43 21.6 1.15 5.2%	1.07 1.24 3.12 15.35 90.52 23.2 1.40 5.0%	.91 1.24 3.29 15.58 92.52 19.8 1.32 6.9%	1.21 1.24 2.88 15.67 94.69 18.6 1.18 5.5%	1.44 1.24 2.45 15.95 97.93 17.1 1.07 5.0%	1.67 1.24 3.32 16.28 101.26 15.8 1.01 4.7%	1.62 1.24 3.49 17.06 102.57 16.2 1.91 4.7%	1.64 1.24 3.31 17.47 107.46 15.9 .84 4.8%	1.50 1.24 3.39 19.03 108.58 20.4 1.03 4.1%	2.29 1.24 3.04 19.28 108.79 13.6 .71 4.0%	1.64 1.24 4.55 19.86 108.88 20.7 1.04 3.7%	1.85 1.24 4.94 20.93 108.97 18.9 1.13 3.5%	1.99 1.32 3.52 21.41 109.18 21.5 1.10 3.4%	2.00 1.36 3.25 22.05 109.20 21.5 1.10 3.4%	2.10 1.40 3.90 22.80 110.00 21.5 1.10 3.4%	Earnings per sh ^A		2.50					
1.46 1.24 2.76 15.02 80.98 18.3 .97 4.6%			1.33 1.24 2.58 13.44 81.46 20.3 1.10 4.6%	1.11 1.24 2.62 15.29 83.43 21.6 1.15 5.2%	1.07 1.24 3.12 15.35 90.52 23.2 1.40 5.0%	.91 1.24 3.29 15.58 92.52 19.8 1.32 6.9%	1.21 1.24 2.88 15.67 94.69 18.6 1.18 5.5%	1.44 1.24 2.45 15.95 97.93 17.1 1.07 5.0%	1.67 1.24 3.32 16.28 101.26 15.8 1.01 4.7%	1.62 1.24 3.49 17.06 102.57 16.2 1.91 4.7%	1.64 1.24 3.31 17.47 107.46 15.9 .84 4.8%	1.50 1.24 3.39 19.03 108.58 20.4 1.03 4.1%	2.29 1.24 3.04 19.28 108.79 13.6 .71 4.0%	1.64 1.24 4.55 19.86 108.88 20.7 1.04 3.7%	1.85 1.24 4.94 20.93 108.97 18.9 1.13 3.5%	1.99 1.32 3.52 21.41 109.18 21.5 1.10 3.4%	2.00 1.36 3.25 22.05 109.20 21.5 1.10 3.4%	2.10 1.40 3.90 22.80 110.00 21.5 1.10 3.4%	Div'd Decl'd per sh ^B		1.55					
1.46 1.24 2.76 15.02 80.98 18.3 .97 4.6%			1.33 1.24 2.58 13.44 81.46 20.3 1.10 4.6%	1.11 1.24 2.62 15.29 83.43 21.6 1.15 5.2%	1.07 1.24 3.12 15.35 90.52 23.2 1.40 5.0%	.91 1.24 3.29 15.58 92.52 19.8 1.32 6.9%	1.21 1.24 2.88 15.67 94.69 18.6 1.18 5.5%	1.44 1.24 2.45 15.95 97.93 17.1 1.07 5.0%	1.67 1.24 3.32 16.28 101.26 15.8 1.01 4.7%	1.62 1.24 3.49 17.06 102.57 16.2 1.91 4.7%	1.64 1.24 3.31 17.47 107.46 15.9 .84 4.8%	1.50 1.24 3.39 19.03 108.58 20.4 1.03 4.1%	2.29 1.24 3.04 19.28 108.79 13.6 .71 4.0%	1.64 1.24 4.55 19.86 108.88 20.7 1.04 3.7%	1.85 1.24 4.94 20.93 108.97 18.9 1.13 3.5%	1.99 1.32 3.52 21.41 109.18 21.5 1.10 3.4%	2.00 1.36 3.25 22.05 109.20 21.5 1.10 3.4%	2.10 1.40 3.90 22.80 110.00 21.5 1.10 3.4%	Cap'l Spending per sh		4.50					
1.46 1.24 2.76 15.02 80.98 18.3 .97 4.6%			1.33 1.24 2.58 13.44 81.46 20.3 1.10 4.6%	1.11 1.24 2.62 15.29 83.43 21.6 1.15 5.2%	1.07 1.24 3.12 15.35 90.52 23.2 1.40 5.0%	.91 1.24 3.29 15.58 92.52 19.8 1.32 6.9%	1.21 1.24 2.88 15.67 94.69 18.6 1.18 5.5%	1.44 1.24 2.45 15.95 97.93 17.1 1.07 5.0%	1.67 1.24 3.32 16.28 101.26 15.8 1.01 4.7%	1.62 1.24 3.49 17.06 102.57 16.2 1.91 4.7%	1.64 1.24 3.31 17.47 107.46 15.9 .84 4.8%	1.50 1.24 3.39 19.03 108.58 20.4 1.03 4.1%	2.29 1.24 3.04 19.28 108.79 13.6 .71 4.0%	1.64 1.24 4.55 19.86 108.88 20.7 1.04 3.7%	1.85 1.24 4.94 20.93 108.97 18.9 1.13 3.5%	1.99 1.32 3.52 21.41 109.18 21.5 1.10 3.4%	2.00 1.36 3.25 22.05 109.20 21.5 1.10 3.4%	2.10 1.40 3.90 22.80 110.00 21.5 1.10 3.4%	Book Value per sh ^C		25.75					
CAPITAL STRUCTURE as of 3/31/21																										
Total Debt \$2330.0 mill. Due in 5 Yrs \$667.3 mill.																										
LT Debt \$2175.0 mill. LT Interest \$89.2 mill.																										
Incl. \$50 mill. 6.5% oblig. pld. sec. of trust subsid. (LT interest earned: 3.9%)																										
Leases, Uncapitalized Annual rentals of \$11.0 mill.																										
Pension Assets-12/20 \$2089.5 mill.																										
Oblig \$2626.5 mill.																										
Pfd Stock \$34.3 mill. Pfd Div'd \$2.0 mill.																										
1,114,657 shs. 4 1/4% to 5 1/4%, \$20 par. call. \$20 to \$21; 120,000 shs. 7%, \$100 par. call. \$100.																										
Sinking fund ends 2018.																										
Common Stock 109,181,493 shs. as of 4/23/21																										
MARKET CAP: \$4.6 billion (Mid Cap)																										
ELECTRIC OPERATING STATISTICS																										
2018 2019 2020																										
% Change Retail Sales (KWH)																										
Avg. Indust. Use (MWH)																										
Avg. Indust. Revs. per KWH (\$)																										
Capacity at Yearend (MW)																										
Peak Load, Winter (MW)																										
Annual Load Factor (%)																										
% Change Customers (yr-end)																										
Fixed Charge Cov. (%)																										
ANNUAL RATES			Past 10 Yrs.	Past 5 Yrs.	Est'd '18-'20 to '24-'26																					
Revenues			-1.5%	-3.0%	1.5%																					
"Cash Flow"			5.0%	6.0%	3.5%																					
Earnings			6.0%	3.5%	5.0%																					
Dividends			.5%	.5%	3.0%																					
Book Value			3.0%	3.5%	3.5%																					
Cal-endar			QUARTERLY REVENUES (\$mill.)	Full Year																						
Mar.31 Jun.30 Sep.30 Dec.31																										
2018			645.9 685.3 768.0 761.6	2860.8																						
2019			661.6 715.5 771.5 726.0	2874.6																						
2020			677.2 609.0 641.4 652.2	2579.8																						
2021			642.9 675 707.1 675	2700																						
2022			675 700 725 700	2800																						
Cal-endar			EARNINGS PER SHARE ^A	Full Year																						
Mar.31 Jun.30 Sep.30 Dec.31																										
2018			.37 .42 .60 .45	1.85																						
2019			.42 .39 .58 .61	1.99																						
2020			.31 .45 .59 .46	1.81																						
2021			.59 .40 .58 .43	2.00																						
2022			.45 .40 .60 .50	2.00																						
Cal-endar			QUARTERLY DIVIDENDS PAID ^B	Full Year																						
Mar.31 Jun.30 Sep.30 Dec.31																										
2017			.31 .31 .31 .31	1.24																						
2018			.31 .31 .31 .31	1.24																						
2019			.32 .32 .32 .32	1.28																						
2020			.33 .33 .33 .33	1.32																						
2021			.34 .34 .34 .34																							
BUSINESS: Hawaiian Electric Industries, Inc. is the parent company of Hawaiian Electric Company, Inc. (HECO), American Savings Bank (ASB), and Pacific Current. HECO & its subs., Maui Electric Co. (MECO) & Hawaii Electric Light Co. (HELCO), supply electricity to 468,000 customers on Oahu, Maui, Molokai, Lanai, & Hawaii. Operating companies' systems are not interconnected. Elec. rev.																										
breakdown: residential, 34%; commercial, 34%; lg. light & power, 32%; other, less than 1%. Generating sources: oil, 54%; purch., 46%. Fuel costs: 42% of revs. '20 reported deprec. rate (utility): 3.2%. Has 3,700 employees. Chairman: Tom Fargo. Pres. & CEO: Constance H. Lau, Inc.: HI. Address: 1001 Bishop St., Suite 2900, Honolulu, HI 96808-0730. Tel.: 808-543-5662. Web: www.hei.com.																										
Upon reporting first-quarter results in early May, Hawaiian Electric Industries raised its earnings target for 2021. Last year, management of HEI's American Savings Bank subsidiary was conservative with its provision for uncollectible accounts. This was understandable, given the disruption to the economy caused by lockdowns and other restrictions. This figure soared to \$50 million in 2020, versus \$17 million-\$22 million in a typical year. In early 2021, ASB expected to book a provision of \$17 million-\$25 million for the full year. As the economic recovery has been better than expected, the bank reversed some of its reserve. Thus, ASB believes the provision will be no more than \$10 million in 2021. Accordingly, HEI raised its targeted range for share net from \$1.75-\$1.95 to \$1.90-\$2.05. We raised our estimate from \$1.85 to \$2.00.																										
We estimate flat earnings in 2022. We expect income at HEI's utilities to improve as the company benefits from its first full year under a new performance-based rate-making (PBR) mechanism. However, if ASB's provision returns to a more-normal level, this will almost certainly result in a																										
smaller contribution from the bank. Even so, our \$2.00-a-share estimate is \$0.05 higher than it was in our April report. The utilities are operating under a new regulatory mechanism. Under the previous mechanism, they were getting additional revenues every year (\$17.4 million in 2021), but not until June 1st. Under the new PBR mechanism, the adjustment will occur at the start of each year. This should eventually reduce the utilities' regulatory lag. Earlier this year, two of the credit-rating agencies raised their ratings for Hawaiian Electric Company, reflecting the benefits of the new PBR mechanism. HEI's utilities will need to be able to earn an adequate return on their capital spending as they invest in renewable-energy projects. This is especially important because Hawaii's regulatory climate has sometimes been difficult in recent years. The stock remains expensively priced, in our view. The dividend yield does not stand out among utility issues. The recent quotation is well within our 2024-2026 Target Price Range. Thus, total return potential over that time frame is low.																										
Paul E. Debbas, CFA July 23, 2021																										

RECENT PRICE	99.35	P/E RATIO	20.7 (Trailing: 20.5 Median: 17.0)	RELATIVE P/E RATIO	1.05	DIV'D YLD	3.0%	VALUE LINE
--------------	-------	-----------	------------------------------------	--------------------	------	-----------	------	------------

2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	© VALUE LINE PUB. LLC	24-26
20.15	21.23	19.51	20.47	21.92	20.97	20.55	21.55	24.81	25.51	25.23	25.04	26.76	27.19	26.70	26.77	28.15	28.75	Revenues per sh	31.75
3.87	4.58	4.11	4.27	5.07	5.35	5.84	5.93	6.29	6.58	6.70	6.86	7.50	7.85	8.07	8.19	8.40	8.75	"Cash Flow" per sh	10.00
1.75	2.35	1.86	2.18	2.64	2.95	3.36	3.37	3.64	3.85	3.87	3.94	4.21	4.49	4.61	4.69	4.80	5.05	Earnings per sh ^A	5.75
1.20	1.20	1.20	1.20	1.20	1.20	1.20	1.20	1.37	1.57	1.76	1.92	2.08	2.24	2.40	2.56	2.72	2.89	Div'd Decl'd per sh ^{B + †}	3.70
4.53	5.16	6.39	5.19	5.26	6.85	6.76	4.78	4.68	5.45	5.84	5.89	5.66	5.51	5.53	6.16	7.25	7.70	Cap'l Spending per sh	10.00
24.04	25.77	26.79	27.76	29.17	31.01	33.19	35.07	36.84	38.85	40.88	42.74	44.65	47.01	48.88	50.73	52.65	54.60	Book Value per sh ^C	60.75
42.66	43.63	45.06	46.92	47.90	49.41	49.95	50.16	50.23	50.27	50.34	50.40	50.42	50.42	50.42	50.46	50.45	50.45	Common Shs Outst'g ^D	50.45
16.7	15.1	18.2	13.9	10.2	11.8	11.5	12.4	13.4	14.7	16.2	19.1	20.6	20.5	22.3	19.9	Bold figures are Value Line estimates		Avg Ann'l P/E Ratio	19.0
.89	.82	.97	.84	.68	.75	.72	.79	.75	.77	.82	1.00	1.04	1.11	1.19	1.02			Relative P/E Ratio	1.05
4.1%	3.4%	3.5%	4.0%	4.5%	3.4%	3.1%	3.3%	3.2%	3.1%	3.1%	2.8%	2.6%	2.6%	2.5%	2.9%			Avg Ann'l Div'd Yield	3.4%

	2018	2019	2020	BUSINESS: IDACORP, Inc. is a holding company for Idaho Power Company, a regulated electric utility that serves 583,000 customers throughout a 24,000-square-mile area in southern Idaho and eastern Oregon (population: 1.2 million). Most of the company's revenues are derived from the Idaho portion of its service area. Revenue breakdown: residential, 42%; commercial, 22%; industrial, 14%; irrigation, 12%; other, 10%. Generating sources: hydro, 39%; coal, 21%; gas, 12%; purchased, 28%. Fuel costs: 32% of revenues. ⁽²⁾ reported depreciation rate: 2.9%. Has 1,900 employees. Chairman: Richard J. Dahl. President & CEO: Lisa Grow. Incorporated: Idaho. Address: 1221 W. Idaho St., Boise, Idaho 83702. Telephone: 208-388-2200. Internet: www.idacorpinc.com .
% Change Retail Sales (KWH)	+1	-3	+2.0	
Avg. Indust. Use (MWH)	NA	NA	NA	
% Indust. Revs. per KW (\$)	5.64	5.32	5.38	
Capacity at Peak (MW)	NA	NA	NA	
Peak Load, Summer (MW)	3392	3242	3392	
Annual Load Factor (%)	NA	NA	NA	
% Change Customers (yr-end)	+2.3	+2.5	+2.7	

Calendar	QUARTERLY REVENUES(\$mill.)				Full Year
	Mar.31	Jun.30	Sep.30	Dec.31	
2018	310.1	340.0	408.8	311.9	1370.8
2019	350.3	316.9	386.3	292.9	1346.4
2020	291.0	318.8	425.3	315.6	1350.7
2021	316.1	338.9	440	325	1420
2022	320	345	455	330	1450

Calendar	QUARTERLY DIVIDENDS PAID ^B ■ †				Full Year
	Mar.31	Jun.30	Sep.30	Dec.31	
2017	.55	.55	.55	.59	2.24
2018	.59	.59	.59	.63	2.40
2019	.63	.63	.63	.67	2.56
2020	.67	.67	.67	.71	2.72
2021	.71	.71			

IDACORP's strengths are reflected in the stock price. The dividend yield is low for a utility. The recent quotation is near the low end of our 2024-2026 Target Price Range, so total return potential is only modest over that time frame.

Paul E. Debbas, CFA July 23, 2021

allowed on common	Company's Financial Strength	A+
ed); earned on avg.	Stock's Price Stability	100
Regulatory Climate:	Price Growth Persistence	85
	Earnings Predictability	100

To subscribe call 1-800-VALUELINE

Net original cost. Rate allowed on common equity in '12: 10% (imputed); earned on avg. com. eq., '20: 9.5%. Regulatory Climate: Above Average.

Company's Financial Strength	A+
Stock's Price Stability	100
Price Growth Persistence	85
Earnings Predictability	100

© 2021 Value Line, Inc. All rights reserved. Factual material is obtained from sources believed to be reliable and is provided without warranties of any kind. THE PUBLISHER IS NOT RESPONSIBLE FOR ANY ERRORS OR OMISSIONS HEREIN. This publication is strictly for subscriber's own, non-commercial, internal use. No part of it may be reproduced, resold, stored or transmitted in any printed, electronic or other form, or used for generating or marketing any printed or electronic publication, service or product.

To subscribe call 1-800-VALUELINE

ALLIANT ENERGY NDQ-LNT				RECENT PRICE	60.89	P/E RATIO	23.4	(Trailing: 24.9 Median: 19.0)	RELATIVE P/E RATIO	1.23	DIV'D YLD	2.8%	VALUE LINE				
TIMELINESS 3	Raised 4/30/21	High: 18.8	22.2	23.8	27.1	34.9	35.4	41.0	45.6	46.6	55.4	60.3	62.3	Target Price Range	2024	2025	2026
SAFETY 2	Raised 9/28/07	Low: 14.6	17.0	20.9	21.9	25.0	27.1	30.4	36.6	36.8	40.8	37.7	46.0				
TECHNICAL 3	Raised 9/10/21	LEGENDS 0.70 x Dividends p sh divided by Interest Rate Relative Price Strength 2-for-1 split 5/16 Options: Yes Shaded area indicates recession															
BETA .85	(1.00 = Market)																
18-Month Target Price Range																	
Low-High		Midpoint (% to Mid)															
\$34-\$77		\$56 (-10%)															
2024-26 PROJECTIONS																	
High	Price	Gain	Ann'l Total														
Low	65	(+5%)	Return														
	45	(-25%)	5%														
Institutional Decisions																	
4Q2020 1Q2021 2Q2021																	
to Buy	261	249	236														
to Sell	241	253	237														
Hld's(000)	181812	188898	191641														
Percent shares traded				24	16												
				8													
				</													

RECENT PRICE	78.81	P/E RATIO	40.2 (Trailing: 35.8 Median: 19.0)	RELATIVE P/E RATIO	2.09	DIV'D YLD	2.1%	VALUE LINE
--------------	--------------	-----------	--	--------------------	-------------	-----------	-------------	------------

2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	© VALUE LINE PUB. LLC	24-26
7.50	9.69	9.37	10.03	9.45	9.10	9.22	8.41	8.70	9.61	9.48	8.63	9.13	8.75	9.82	9.18	8.50	9.25	Revenues per sh	11.00
1.54	1.69	1.71	2.01	2.19	2.41	2.32	2.17	2.63	3.03	3.23	3.24	3.03	3.84	4.22	4.31	4.35	5.00	"Cash Flow" per sh	6.00
.58	.81	.82	1.02	.99	1.19	1.21	1.14	1.21	1.40	1.52	1.45	1.63	1.67	1.94	2.10	2.10	2.65	Earnings per sh ^A	3.50
.36	.38	.41	.45	.47	.50	.55	.60	.66	.73	.77	.87	.98	1.11	1.25	1.40	1.54	1.70	Div'd Decl'd per sh ^B †	2.25
1.02	2.31	3.08	3.20	3.63	3.47	3.98	5.58	3.84	3.96	4.54	5.15	5.70	6.80	6.29	7.45	7.15	7.60	Cap'l Spending per sh	9.00
5.38	6.12	6.59	7.14	7.84	8.59	8.98	9.47	10.37	11.24	12.24	13.00	14.97	17.86	18.92	18.63	19.20	20.75	Book Value per sh ^C	25.75
1579.4	1621.6	1629.4	1635.7	1654.5	1683.4	1664.0	1696.0	1740.0	1772.0	1844.0	1872.0	1884.0	1912.0	1956.0	1960.0	1963.0	1980.0	Common Shs Outst'g ^D	2025.0
17.9	13.7	18.9	14.5	13.4	10.8	11.5	14.4	16.6	17.3	16.9	20.7	21.6	24.8	26.8	31.8	Bold figures are Value Line estimates		Avg Ann'l P/E Ratio	24.0
.95	.74	1.00	.87	.89	.69	.72	.92	.93	.91	.85	1.09	1.09	1.34	1.43	1.65			Relative P/E Ratio	1.35
3.4%	3.4%	2.7%	3.0%	3.5%	3.9%	4.0%	3.6%	3.3%	3.0%	3.0%	2.9%	2.8%	2.7%	2.4%	2.1%			Avg Ann'l Div'd Yield	2.7%

% Change Retail Sales (KWh)	+1.4	+1.7	NA
Avg. Indust. Use (MWh)	NA	NA	NA
Avg. Indust. Revs. per KwH (%)	6.40	6.39	NA
Capacity at Peak (Mw)	NA	NA	NA
Peak Load, Summer (Mw)	NA	NA	NA
Annual Load Factor (%)	NA	NA	NA
% Change Customers (Yr-end)	NA	+1.8	NA
Financial Ratios	266	268	265

BUSINESS: NextEra Energy, Inc. (formerly FPL Group, Inc.) is a holding company for Florida Power & Light Company (FPL), which provide electricity to 5.6 million customers in eastern, southern, and northwestern Florida. NextEra Energy Resources is a nonregulated power generator with nuclear, gas, & renewable ownership. Has 57.2% stake in NextEra Energy Partners. Revenue breakdown: residential, 58%; commercial, 32%; industrial & other, 10%. Generating sources: gas, 73%; nuclear, 22%; other, 3%; purchased, 2%. Fuel costs: 20% of revs. '20 reported depr. rate (utility): 3.7%. Has 14,900 employees. Chairman, President and CEO: James L. Robo, Inc.: FL. Address: 700 Universe Blvd., Juno Beach, FL 33408. Tel.: 561-694-4000. Internet: www.nexteraenergy.com.

Calendar	QUARTERLY REVENUES (\$mill.)				Full Year
	Mar.31	Jun.30	Sep.30	Dec.31	
2018	3857	4063	4416	4391	16727
2019	4075	4970	5572	4587	19204
2020	4613	4204	4785	4445	17997
2021	3796	3997	4600	4447	16700

2018	.52	.41	.53	.22	1.67	and unrealized gains or losses on the company's decommissioning trusts for non-regulated nuclear units. These were positive factors in the first quarter, but negative in the second period and the first six	limiting market risk. Its backlog of projects continues to rise. Our 2022 earnings estimate is at the midpoint of NextEra's targeted range of \$2.55-\$2.75 a share.
2019	.35	.64	.45	.50	1.94		
2020	.21	.65	.62	.62	2.10		
2021	.84	.13	.65	.48	2.10		
2022	.70	.70	.70	.55	2.65		

2017	.243	.243	.243	.243	.96	ings we estimate for the current year . . .	dividend-paying equities under our coverage.
2018	.2775	.2775	.2775	.2775	1.11	The company's utility and nonutility	Total return potential is attractive for
2019	.3125	.3125	.3125	.3125	1.25	operations are faring well. FPL is experi-	the next 18 months, but not for the 3- to 5-
2020	.35	.35	.35	.35	1.40	encing healthy growth in Florida. Regu-	year period.
2021	.385	.385				latory capital employed a key driver of	<i>Paul F. Debbas, CFA</i> <i>August 13, 2021</i>

Our 2021 earnings estimate requires an explanation. Our presentation *includes* mark-to-market accounting items and unrealized gains or losses on the company's decommissioning trusts for non-regulated nuclear units. These were positive factors in the first quarter, but negative in the second period and the first six months. Thus, our \$2.10-a-share estimate is well below NextEra's guidance of \$2.40-\$2.64 a share. Despite the flat share earnings we estimate for the current year . . .

earning power, rose more than 10% in the first six months of 2021. Gulf Power (which was merged into FPL at the start of the year) is cutting costs. FPL should benefit from rate relief in 2022. Another positive factor is the acquisition of three transmission utilities for \$502 million in cash and the assumption of \$175 million of debt at the end of the first quarter. Next-Era Energy Resources, the nonutility subsidiary, is benefiting from increased demand for renewable energy. The company has a sizable presence in onshore wind, solar, and battery storage. The output of most of its assets is contracted, thereby limiting market risk. Its backlog of projects continues to rise. Our 2022 earnings estimate is at the midpoint of Next-Era's targeted range of \$2.55-\$2.75 a share.

This high-quality stock is timely, but has a high valuation. The dividend yield is not much higher than the median of all dividend-paying equities under our coverage. Total return potential is attractive for the next 18 months, but not for the 3- to 5-year period.

Paul E. Debbas, CFA August 13, 2021

ings report due late Oct. **(B)** Div'ds historically paid in mid-Mar., mid-June, mid-Sept., & mid-Dec. ■ Div'd reinvestment plan avail. † Shareholder investment plan avail. **(C)** Incl. deferred

charges. In '20: \$4.94/sh. (D) In mill., adj. for stock split. (E) Rate all'd on com. eq. in '17 (FPL): 9.6%-11.6%; earned on avg. com. eq. '20: 11.0%. Reg. Climate: Avg. (F) FPL only.

Company's Financial Strength	A+
Stock's Price Stability	90
Price Growth Persistence	100
Earnings Predictability	80

© 2021 Value Line, Inc. All rights reserved. Factual material is obtained from sources believed to be reliable and is provided without warranties of any kind. THE PUBLISHER IS NOT RESPONSIBLE FOR ANY ERRORS OR OMISSIONS HEREIN. This publication is strictly for subscriber's own, non-commercial, internal use. No part of it may be reproduced, resold, stored or transmitted in any printed, electronic or other form, or used for generating or marketing any printed or electronic publication, service or product.

To subscribe call 1-800-VALUELINE

RECENT PRICE	61.42	P/E RATIO	17.1 (Trailing: 18.6 Median: 17.0)	RELATIVE P/E RATIO	0.86	DIV'D YLD	4.1%	VALUE LINE
--------------	-------	-----------	------------------------------------	--------------------	------	-----------	------	------------

18-Month Target Price Range
 Low-High Midpoint (% to Mid)
 \$33-\$88 \$61 (0%)

2024-26 PROJECTIONS

	Price	Gain	Ann'l Total Return
High	85	(+40%)	12%
Low	65	(+5%)	6%

Institutional Decisions

	3Q2020	4Q2020	1Q2021
to Buy	134	116	114
to Sell	126	135	130
Hold's(000)	47772	47664	47776

% TOT. RETURN 6/21

	THIS STOCK	VL ARITH. INDEX
1 yr.	15.2	63.9
3 yr.	17.7	53.6
5 yr.	14.9	108.0

CAPITAL STRUCTURE as of 3/31/21	1117.3	1070.3	1154.5	1204.9	1214.3	1257.2	1305.7	1198.1	1257.9	1198.7	1300	1300	Revenues (\$mill)	1450
Total Debt \$2480.9 mill. Due in 5 Yrs \$782.2 mill.	92.6	83.7	94.0	120.7	138.4	164.2	162.7	171.1	179.3	155.2	185	195	Net Profit (\$mill)	225
LT Debt \$2478.2 mill. LT Interest \$87.8 mill.	9.8%	9.6%	13.2%	--	13.7%	--	7.6%	--	1.6%	--	Nil	5.0%	Income Tax Rate	12.0%
Incl. \$14.1 mill. finance leases. (LT interest earned: 2.8x)	3.3%	9.4%	8.7%	8.9%	9.8%	4.3%	5.2%	3.4%	4.6%	6.3%	6.0%	6.0%	AFUDC % to Net Profit	4.0%
	52.2%	53.8%	53.5%	53.4%	53.1%	52.0%	50.2%	52.2%	52.5%	52.8%	52.5%	50.0%	Long-Term Debt Ratio	49.0%
Pension Assets-12/20 \$688.5 mill.	47.8%	46.2%	46.5%	46.6%	46.9%	48.0%	49.8%	47.8%	47.5%	47.2%	47.5%	50.0%	Common Equity Ratio	51.0%
Oblig \$821.0 mill.	1797.1	2020.7	2215.7	3168.0	3408.6	3493.9	3614.5	4064.6	4289.8	4409.1	4590	4675	Total Capital (\$mill)	5100
Pfd Stock None	2213.3	2435.6	2690.1	3758.0	4059.5	4214.9	4358.3	4521.3	4700.9	4952.9	5215	5470	Net Plant (\$mill)	6050
	7.0%	5.5%	5.5%	4.8%	5.2%	5.9%	5.6%	5.2%	5.2%	4.5%	5.0%	5.0%	Return on Total Cap'l	5.5%
Common Stock 50,675,207 shs.	10.8%	9.0%	9.1%	8.2%	8.6%	9.8%	9.0%	8.8%	8.8%	7.5%	8.5%	8.5%	Return on Shr. Equity	8.5%
as of 4/16/21	10.8%	9.0%	9.1%	8.2%	8.6%	9.8%	9.0%	8.8%	8.8%	7.5%	8.5%	8.5%	Return on Com Equity	8.5%
MARKET CAP: \$3.1 billion (Mid Cap)	4.7%	3.2%	3.5%	3.8%	3.0%	4.1%	3.4%	3.2%	3.1%	1.7%	2.5%	2.5%	Retained to Com Eq	2.5%
ELECTRIC OPERATING STATISTICS	56%	65%	61%	54%	65%	58%	62%	64%	64%	78%	69%	69%	All Div'ds to Net Prof	68%

Fixed Charge Cov. (%)	275	284	237
ANNUAL RATES	Past	Past	Est'd '18-'20
of change (per sh)	10 Yrs.	5 Yrs.	to '24-'26
Revenues	-3.0%	-2.0%	1.5%
"Cash Flow"	4.0%	4.5%	3.0%
Earnings	5.5%	3.5%	3.0%
Dividends	5.5%	6.5%	3.5%
Book Value	6.0%	5.5%	3.0%

Calendar	EARNINGS PER SHARE ^A				Full Year
	Mar.31	Jun.30	Sep.30	Dec.31	
2018	1.18	.61	.56	1.06	3.40
2019	1.44	.49	.42	1.18	3.53
2020	1.00	.43	.58	1.06	3.06
2021	1.24	.50	.65	1.21	3.60
2022	1.30	.50	.65	1.25	3.70

(A) Diluted EPS. Excl. gain (loss) on disc. ops.: '05, (6c); '06, 1c; nonrec. gains: '12, 39c net; '15, 27c; '18, 52c; '19, 45c. '18, '20 EPS don't sum due to rounding. Next earnings report due late Oct.		(B) Div'ds historically paid in late Mar., June, Sept. & Dec. ■ Div'd reinvest. plan available.	(C) Incl. def'd charges. In '20: \$20.93/sh.	(D) In mill. (E) Rate base: Net orig. cost. Rate allowed on com. eq. in MT in '19 (elec.): 9.65%; in '17 (gas): 9.55%; in SD in '15: none spec.; in NE in '07: 10.4%; earned on avg. com. eq., '20: 7.5%. Reg. Climate: Below Avg.	Company's Financial Strength Stock's Price Stability Price Growth Persistence Earnings Predictability	B++ 90 60 85
--	--	--	---	---	--	-----------------------

4%; other, 10%. Generating sources: hydro, 33%; coal, 22%; wind, 7%; other, 3%; purchased, 35%. Fuel costs: 25% of revenues. '20 reported deprec. rate: 2.8%. Has 1,500 employees. Chairman: Stephen P. Adik. CEO: Robert C. Rowe. President & COO: Brian B. Bird. Inc.: DE. Address: 3010 West 69th Street, Sioux Falls, SD 57108. Tel.: 605-978-2900. Internet: www.northwesternenergy.com.

pected by May of 2022.

NorthWestern is adding generating capacity in South Dakota, too. A 60-mw gas-fired unit is under construction at an expected cost of \$80 million. Commercial operation is expected by yearend. The utility is planning to add 30 mw-40 mw in a different part of the state in 2023. The expected cost is about \$60 million.

The company is issuing common equity. This will occur from time to time through a \$200 million at-the-market program. The specific amount each year is uncertain, but the issuances are expected to occur over the next three years. NorthWestern's finances are sound, and its credit ratings are investment grade. However, the company has a negative outlook from Moody's due to a decline in the ratio of funds from operations to debt, which is a key metric for the rating agencies.

The stock's dividend yield is a cut above the utility mean. Total return potential to 2024-2026 is about average, but the equity lacks appeal for the 18-month span. The recent price is near the low end of our 3- to 5-year Target Price Range.

Paul E. Debbas, CFA *July 23, 2021*

© 2021 Value Line, Inc. All rights reserved. Factual material is obtained from sources believed to be reliable and is provided without warranties of any kind. THE PUBLISHER IS NOT RESPONSIBLE FOR ANY ERRORS OR OMISSIONS HEREIN. This publication is strictly for subscriber's own, non-commercial, internal use. No part of it may be reproduced, resold, stored or transmitted in any printed, electronic or other form, or used for generating or marketing any printed or electronic publication, service or product. To subscribe call 1-800-VALUELINE

RECENT PRICE	35.49	P/E RATIO	15.8 (Trailing: 16.4 Median: 17.0)	RELATIVE P/E RATIO	0.83	DIV'D YLD	4.7%	VALUE LINE
--------------	-------	-----------	------------------------------------	--------------------	------	-----------	------	------------

18-Month Target Price Range

Low-High Midpoint (% to Mid)

\$15-\$46 \$31 (-15%)

2-10-1

Shaded area indicates recession

2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	© VALUE LINE PUB. LLC	24-26	
32.83	21.96	20.68	21.77	14.79	19.04	19.96	18.58	14.45	12.30	11.00	11.31	11.32	11.37	11.15	10.61	18.00	13.75	Revenues per sh	16.75	
1.94	2.23	2.39	2.40	2.69	3.01	3.31	3.69	3.46	3.40	3.23	3.31	3.34	3.74	4.02	4.03	4.25	4.55	"Cash Flow" per sh	5.50	
.92	1.23	1.32	1.25	1.33	1.50	1.73	1.79	1.94	1.98	1.69	1.69	1.92	2.12	2.24	2.08	2.25	2.45	Earnings per sh ^A	2.75	
.67	.67	.68	.70	.71	.73	.76	.80	.85	.95	1.05	1.16	1.27	1.40	1.51	1.58	1.64	1.69	Div'd Dec'd per sh ^B ■	1.95	
1.65	2.67	3.04	4.01	4.37	4.36	6.48	5.85	4.99	2.86	2.74	3.31	4.13	2.87	3.18	3.25	3.85	3.90	Cap'l Spending per sh	4.25	
7.59	8.79	9.16	10.14	10.52	11.73	13.06	14.00	15.30	16.27	16.66	17.24	19.28	20.06	20.69	18.15	18.70	19.35	Book Value per sh ^C	21.75	
181.20	182.40	183.60	187.00	194.00	195.20	196.20	197.60	198.50	199.40	199.70	199.70	199.70	199.70	200.10	200.10	200.20	200.20	Common Shs Outst'g ^D	200.20	
14.9	13.7	13.8	12.4	10.8	13.3	14.4	15.2	17.7	18.3	17.7	17.7	18.3	16.5	19.0	16.2	Bold figures are Value Line estimates			Avg Ann'l P/E Ratio	17.5
.79	.74	.73	.75	.72	.85	.90	.97	.99	.96	.89	.93	.92	.89	1.01	.84				Relative P/E Ratio	.95
4.9%	4.0%	3.8%	4.5%	5.0%	3.7%	3.1%	2.9%	2.5%	2.6%	3.5%	3.9%	3.6%	4.0%	3.5%	4.7%				Avg Ann'l Div'd Yield	4.0%

	2018	2019	2020	BUSINESS: OGE Energy Corp. is a holding company for Oklahoma Gas and Electric Company (OG&E), which supplies electricity to 875,000 customers in Oklahoma (84% of electric revenues) and western Arkansas (8%); wholesale is (8%). Owns 25.5% of Enable Midstream Partners. Electric revenue breakdown: residential, 41%; commercial, 23%; industrial, 9%; oilfield, 8%; other, 19%. Generation sources: gas, 38%; coal, 15%; wind, 5%; purchased, 42%. Fuel costs: 30% of revenues. '20 reported depreciation rate (utility): 2.6%. Has 2,400 employees. Chairman, President and Chief Executive Officer: Sean Trauschke. Incorporated: Oklahoma. Address: 321 North Harvey, P.O. Box 321, Oklahoma City, Oklahoma 73101-0321. Telephone: 405-553-3000. Internet: www.oge.com.
% Change Retail Sales (KWH)	+6.8	+1.1	-4.9	
Avg. Indust. Use (MWH)	NA	NA	NA	
Avg. Indust. Revs. per KW (\$) (K)	4.86	4.69	4.40	
Capacity at Peak (MW)	NA	NA	NA	
Peak Load, Summer (MW)	6863	6817	6437	
Annual Load Factor (%)	NA	NA	NA	
% Change Customers (Y-r-end)	+9	+1.0	+1.1	

Calendar	QUARTERLY REVENUES (\$mill.)				Full Year
	Mar.31	Jun.30	Sep.30	Dec.31	
2018	492.7	567.0	698.8	511.8	2270.3
2019	490.0	513.7	755.4	472.5	2321.6
2020	431.3	503.5	702.1	485.4	2122.3
2021	1630.6	577.4	800	592	3600
2022	600	650	900	600	2750

Calendar	QUARTERLY DIVIDENDS PAID ^a				Full Year	<p>We raised our 2021 and 2022 earnings estimates by \$0.05 a share each year.</p> <p>Utility income is coming in as management had expected, but OGE Energy's equity income from its investment in Enable Midstream Partners continues to be greater than we had estimated. The com-</p>	<p>be \$0.05 a share (3.1%). This is lower than in recent years because the payout ratio is high.</p> <p>The stock is untimely, but offers an attractive dividend yield and decent 3- to 5-year total return potential.</p> <p><i>Paul E. Debbas, CFA September 10, 2021</i></p>
	Mar.31	Jun.30	Sep.30	Dec.31			
2017	.3025	.3025	.3025	.3325	1.24		
2018	.3325	.3325	.3325	.365	1.36		
2019	.365	.365	.365	.3875	1.48		
2020	.3875	.3875	.3875	.4025	1.57		
2021	.4025	.4025	.4025				

<p>(A) Diluted EPS. Excl. nonrecurring gain (losses): '15, (33c); '17, \$1.18; '19, (8c); '20, (\$2.95); gains on discount. ops: '05, 25c; '06, 20c; '18 & '19 EPS don't sum due to rounding.</p> <p>© 2021 Value Line, Inc. All rights reserved. Factual material is obtained from sources believed to be reliable and is provided without warranties of any kind. The PUBLISHER IS NOT RESPONSIBLE FOR ANY ERRORS OR OMISSIONS HEREIN. This publication is strictly for subscriber's own, non-commercial, internal use. No part of it may be reproduced, resold, stored or transmitted in any printed, electronic or other form, or used for generating or marketing any printed or electronic publication, service or product.</p>		<p>Next earnings report due early Nov. (B) Div'ds historically paid in late Jan., Apr., July, & Oct. ■ Div'd reinvestment plan avail. (C) Incl. deferred charges. In '20: \$2.08/sh. (D) In mill., adj. for split. (E) Rate base: Net original cost. Rate allowed on com. eq. in OK in '19: 9.5%; in AR in '18: 9.5%; earned on avg. com. eq., '20: 9.9%. Regulatory Climate: Average.</p>		<p>Company's Financial Strength A</p> <p>Stock's Price Stability 80</p> <p>Price Growth Persistence 25</p> <p>Earnings Predictability 90</p>
<p>To subscribe call 1-800-VALUELINE</p>				

RECENT PRICE	55.02	P/E RATIO	14.8 (Trailing: 18.0 Median: 21.0)	RELATIVE P/E RATIO	0.77	DIV'D YLD	2.9%	VALUE LINE
--------------	--------------	-----------	--	--------------------	-------------	-----------	-------------	------------

2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	© VALUE LINE PUB. LLC	24-26
35.59	37.43	41.50	37.06	29.03	31.08	29.86	23.76	24.63	21.48	20.60	20.42	21.47	23.10	22.90	21.46	26.45	24.70	Revenues per sh	29.25
3.35	3.39	3.55	2.81	2.76	2.60	2.36	2.71	3.02	3.09	3.14	3.44	3.70	3.96	4.11	4.29	5.85	5.10	"Cash Flow" per sh	6.00
1.78	1.69	1.78	1.09	.71	.38	.45	1.05	1.37	1.55	1.56	1.60	1.86	2.06	2.17	2.34	3.65	2.80	Earnings per sh ^A	3.25
1.12	1.15	1.17	1.19	1.19	1.19	1.19	1.19	1.19	1.21	1.23	1.25	1.28	1.34	1.40	1.48	1.56	1.64	Div'd Decl'd per sh ^B	2.00
2.04	2.35	5.43	7.51	4.95	2.38	2.04	3.20	4.53	4.40	4.23	4.10	3.36	2.66	5.16	8.96	3.20	5.55	Cap'l Spending per sh	2.75
15.80	16.67	17.55	19.14	18.78	17.57	15.83	14.43	14.75	15.39	15.98	17.03	17.62	18.38	19.46	21.00	23.05	24.15	Book Value per sh ^C	27.75
29.40	29.52	29.85	35.38	35.81	36.00	36.10	36.17	36.27	37.22	37.86	39.35	39.56	39.66	40.16	41.47	41.60	41.70	Common Shs Outst'g ^D	42.00
15.4	17.3	19.0	30.1	31.2	NMF	NMF	21.7	21.1	18.8	18.2	20.2	22.1	22.2	23.5	18.3	Bold figures are Value Line estimates		Avg Ann'l P/E Ratio	17.5
.82	.93	1.01	1.81	2.08	NMF	NMF	1.38	1.19	.99	.92	1.06	1.11	1.20	1.25	.95			Relative P/E Ratio	.95
4.1%	3.9%	3.5%	3.6%	5.4%	5.7%	5.6%	5.2%	4.1%	4.1%	4.3%	3.9%	3.1%	2.9%	2.7%	3.5%			Avg Ann'l Div'd Yield	3.5%

% Change Retail Sales (KWH)	2018	2019	2020	BUSINESS: Otter Tail Corporation is the parent of Otter Tail Power Company, which supplies electricity to 133,000 customers in Minnesota (53% of retail electric revenues), North Dakota (38%), and South Dakota (9%). Electric rev. breakdown: residential, 32%; commercial & farms, 36%; industrial, 30%; other, 2%. Generating sources: coal, 38%; wind & other, 18%; purchased, 44%. Fuel costs: 12% of revenues. Also has operations in manufacturing and plastics (30% of '20 operating income). '20 deprec. rate: 2.7%. Has 2,100 employees. Chairman: Nathan I. Partain. President & CEO: Charles S. MacFarlane, Inc.: Minnesota. Address: 215 South Cascade St., P.O. Box 496, Fergus Falls, Minnesota 56538-0496. Tel.: 866-410-8780. Internet: www.ottertail.com.
Avg. Indust. Use (MWH)	+3.4	-2	-3.9	
Avg. Indust. Revs. per KWH (¢)	NA	NA	NA	
Capacity at Peak (MW)	5.97	NA	NA	
Peak Load, Winter (MW)	NA	NA	NA	
Annual Load Factor (%)	912	NA	NA	
% Change Customers (Y-r-end)	NA	NA	NA	
	+2	+1	NA	

Calendar	QUARTERLY REVENUES (\$mill.)				Full Year
	Mar.31	Jun.30	Sep.30	Dec.31	
2018	241.2	226.3	227.7	221.2	916.4
2019	246.0	229.2	228.6	215.7	919.5
2020	234.7	192.8	235.8	226.8	890.1
2021	261.7	285.6	300	252.7	1100
2022	265	255	260	250	1030

Calendar	QUARTERLY DIVIDENDS PAID ■				Full Year
	Mar.31	Jun.30	Sep.30	Dec.31	
2017	.32	.32	.32	.32	1.28
2018	.335	.335	.335	.335	1.34
2019	.35	.35	.35	.35	1.40
2020	.37	.37	.37	.37	1.48
2021	.39	.39	.39		

The stock's dividend yield is below the utility average. The recent quotation is within our 3- to 5-year Target Price Range, so total return potential is just modest.

<p>(A) Dil. EPS. Excl. nonrec. gains (loss): '10, (44c); '11, 26c; '13, 2c; gains (losses) from disc. ops.: '05, 33c; '06, '1c; '11, ('1.11); '12, (\$1.22); '13, 2c; '14, 2c; '15, 2c; '16, '1c; '17, 1c. '19 EPS don't sum due to rounding. Next earnings report due early Nov. (B) Div'ds histor. pd. in early Mar., Jun., Sept., & Dec. ■ Div'd reinv. plan avail. (C) Incl. intang. In '20: \$5.21/sh. (D) In mill. (E) Rate all'd on com. eq. in MN in '17: 9.41%; in ND in '18: 9.77%; in SD in '19: 8.75%; earn. avg. com. eq., '20: 11.6%. Reg. Clim.: MN, ND, Avg.; SD, Above Avg.</p>	<p>Company's Financial Strength A Stock's Price Stability 100 Price Growth Persistence 75 Earnings Predictability 95</p>
---	--

© 2021 Value Line, Inc. All rights reserved. Factual material is obtained from sources believed to be reliable and is provided without warranties of any kind. THE PUBLISHER IS NOT RESPONSIBLE FOR ANY ERRORS OR OMISSIONS HEREIN. This publication is strictly for subscriber's own, non-commercial, internal use. No part of it may be reproduced, resold, stored or transmitted in any printed, electronic or other form, or used for generating or marketing any printed or electronic publication, service or product.

RECENT PRICE	83.78	P/E RATIO	16.4 (Trailing: 17.0 Median: 17.0)	RELATIVE P/E RATIO	0.83	DIV'D YLD	4.1%	VALUE LINE
--------------	-------	-----------	------------------------------------	--------------------	------	-----------	------	------------

18-Month Target Price Range

Low-High	Midpoint (% to Mid)
\$59-\$126	\$93 (10%)

Shaded area indicates recession

100
80
60
50

2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	© VALUE LINE PUB. LLC	24-26
30.16	34.03	35.07	33.37	32.50	30.01	29.67	30.09	31.35	31.58	31.50	31.42	31.90	32.93	30.87	31.81	<i>31.85</i>	<i>31.80</i>	Revenues per sh	<i>35.00</i>
5.76	9.70	9.29	8.13	8.08	6.85	7.52	7.92	8.15	8.09	9.09	9.39	9.79	11.41	11.13	10.86	<i>11.50</i>	<i>11.90</i>	"Cash Flow" per sh	<i>14.50</i>
2.24	3.17	2.96	2.12	2.26	3.08	2.99	3.50	3.66	3.58	3.92	3.95	4.43	4.54	4.77	4.87	<i>5.10</i>	<i>5.45</i>	Earnings per sh ^A	<i>6.50</i>
1.93	2.03	2.10	2.10	2.10	2.10	2.10	2.67	2.23	2.33	2.44	2.56	2.70	2.87	3.04	3.23	<i>3.42</i>	<i>3.63</i>	Div'd Dec'd per sh ^{B ■}	<i>4.25</i>
6.39	7.59	9.37	9.46	7.64	7.03	8.26	8.24	9.36	8.38	9.84	11.64	12.80	10.73	10.76	11.93	<i>13.90</i>	<i>13.30</i>	Cap'l Spending per sh	<i>12.00</i>
34.57	34.48	35.15	34.16	32.69	33.86	34.98	36.20	38.07	39.50	41.30	43.15	44.80	46.59	48.30	49.96	<i>51.55</i>	<i>54.35</i>	Book Value per sh ^C	<i>61.50</i>
99.08	99.96	100.49	100.89	101.43	108.77	109.25	109.74	110.18	110.57	110.98	111.34	111.75	112.10	112.44	112.76	<i>113.00</i>	<i>118.00</i>	Common Shs Outst'g ^D	<i>120.00</i>
19.2	13.7	14.9	16.1	13.7	12.6	14.6	14.3	15.3	15.9	16.0	18.7	19.3	17.8	19.4	16.7	<i>Bold figures are Value Line estimates</i>		Avg Ann'l P/E Ratio	<i>17.5</i>
1.02	.74	.79	.97	.91	.80	.92	.91	.86	.84	.81	.98	.97	.96	1.03	.86			Relative P/E Ratio	<i>.95</i>
4.5%	4.7%	4.8%	6.2%	6.8%	5.4%	4.8%	5.3%	4.0%	4.1%	3.9%	3.5%	3.2%	3.5%	3.3%	4.0%			Avg Ann'l Div'd Yield	<i>3.7%</i>

	2018	2019	2020	BUSINESS: Pinnacle West Capital Corporation is a holding company for Arizona Public Service Company (APS), which supplies electricity to 1.3 million customers in most of Arizona, except about half of the Phoenix metro area, the Tucson metro area, and Mohave County in northwestern Arizona. Discontinued SunCor real estate subsidiary in '10. Electric revenue breakdown: residential, 51%; commercial, 38%; industrial, 5%; other, 6%. Generating sources: gas & other, 33%; nuclear, 27%; coal, 19%; purchased, 21%. Fuel costs: 28% of revenues. '20 reported deprec. rate: 2.8%. Has 6,000 employees. Chairman, President & CEO: Jeffrey B. Guldner, Inc.: AZ. Address: 400 North Fifth St., P.O. Box 53999, Phoenix, AZ 85072-3999. Tel.: 602-250-1000. Internet: www.pinnaclewest.com .
% Change Retail Sales (KWH)	-3	-4	+5.4	
Avg. Indust. Use (MWH)	662	714	583	
Avg. Indust. Revs. per KW (\$)	8.40	7.88	7.49	
Capacity at Peak (MW)	8643	8241	9094	
Peak Load, Summer (MW)	7320	7115	7660	
Annual Load Factor (%)	47.0	47.1	45.5	
% Change Customers (Y-r-end)	+2.0	+2.0	+2.1	

Calendar	QUARTERLY REVENUES (\$mill.)				Full Year
	Mar.31	Jun.30	Sep.30	Dec.31	
2018	692.7	974.1	1268.0	756.4	3691.2
2019	740.5	869.5	1190.8	670.4	3471.2
2020	661.9	929.6	1254.5	741.0	3587.0
2021	696.5	903.5	1250	750	3600
2022	725	950	1300	775	3750

Calendar	QUARTERLY DIVIDENDS PAID ²				Full Year
	Mar.31	Jun.30	Sep.30	Dec.31	
2017	.655	.655	.655	.695	2.66
2018	.695	.695	.695	.737	2.82
2019	.7375	.7375	.7375	.7825	3.00
2020	.7825	.7825	.7825	.83	3.18
2021	.83	.83			

commercial, 38%; industrial, 5%; other, 6%. Generating sources: gas & other, 33%; nuclear, 27%; coal, 19%; purchased, 21%. Fuel costs: 28% of revenues. 20 reported deprec. rate: 2.8%. Has 6,000 employees. Chairman, President & CEO: Jeffrey B. Guldner. Inc.: AZ. Address: 604 North Fifth St., P.O. Box 53999, Phoenix, AZ 85072-3999. Tel.: 602-250-1000. Internet: www.pinnaclewest.com.

earnings estimates by \$0.05 a share each year. First-quarter profits were better than we expected. The fourth-quarter comparison will be easy because a year ago the company booked a charge for the refund of previously collected revenues. We note that our 2021 estimate might well prove optimistic if new tariffs don't take effect until the seasonally strong third quarter is over. The utility is benefiting from solid economic growth in its service territory. Some customers are adding facilities that will begin operating as early as in 2022. Arizona has also become attractive for data centers.

Finances are in good shape. The fixed-charge coverage and common-equity ratio are superior to those of most utilities. Pinnacle West has a Financial Strength rating of A+, our second highest.

This top-quality equity has an attractive dividend yield. This is nearly one percentage point above the utility average. Total return potential to 2024-2026 is of note, especially for conservative investors. This issue doesn't stand out for the next 18 months, however.

Paul E. Debbas, CFA *July 23, 2021*

<p>(A) Diluted EPS. Excl. nonrec. gain (loss): '09, (\$1.45); '17, 8c; gains (losses) from discount. ops.: '05, '36c, '06, '10c; '08, '28c; '09, '13c; '10, '18c; '11, '10c; '12, '5c). '19, '20 EPS don't</p>	<p>sum due to rounding. Next earnings report due early Aug. (B) Div'ds historically paid in early Mar., June, Sept., & Dec. There were 5 declarations in '12. ■ Div'd reinvestment plan avail.</p>	<p>(C) Incl. deferred charges. In '20: \$19.31/sh. (D) In mill. (E) Rate base: Fair value. Rate allowed on com. eq. in '17: 10.0%; earned on avg. com. eq., '20: 10.0%. Regul. Climate: Avg.</p>	<p>Company's Financial Strength A+ Stock's Price Stability 90 Price Growth Persistence 60 Earnings Predictability 100</p>
<p>© 2021 Value Line, Inc. All rights reserved. Factual material is obtained from sources believed to be reliable and is provided without warranties of any kind. THE PUBLISHER IS NOT RESPONSIBLE FOR ANY ERRORS OR OMISSIONS HEREIN. This publication is strictly for subscriber's own, non-commercial, internal use. No part of it may be reproduced, resold, stored or transmitted in any printed, electronic or other form, or used for generating or marketing any printed or electronic publication, service or product.</p>			
<p>To subscribe call 1-800-VALUELINE</p>			

© 2021 Value Line, Inc. All rights reserved. Factual material is obtained from sources believed to be reliable and is provided without warranties of any kind. THE PUBLISHER IS NOT RESPONSIBLE FOR ANY ERRORS OR OMISSIONS HEREIN. This publication is strictly for subscriber's own, non-commercial, internal use. No part of it may be reproduced, resold, stored or transmitted in any printed, electronic or other form, or used for generating or marketing any printed or electronic publication, service or product.

SOUTHERN COMPANY NYSE-SO					RECENT PRICE	64.08	P/E RATIO	19.4	(Trailing: 18.3 Median: 16.0)	RELATIVE P/E RATIO	1.01	DIV'D YLD	4.2%	VALUE LINE											
TIMELINESS	4	Lowered 8/13/21	High: 38.6	46.7	48.6	48.7	51.3	53.2	54.6	53.5	49.4	64.3	71.1	66.9					Target Price Range	2024	2025	2026			
SAFETY	2	Lowered 2/21/14	Low: 30.8	35.7	41.8	40.0	40.3	41.4	46.0	46.7	42.4	43.3	42.0	56.7											
TECHNICAL	4	Lowered 8/13/21	<div>0.62 x Dividends p sh divided by Interest Rate</div> <div>Relative Price Strength</div> <div>Options: Yes</div> <div>Shaded area indicates recession</div>																						
BETA	.95	(1.00 = Market)																							
18-Month Target Price Range																									
Low-High Midpoint (% to Mid)																									
\$45-\$99 \$72 (10%)																									
2024-26 PROJECTIONS																									
High Low			Price 75 55	Gain (+15%) (-15%)	Ann'l Total Return 8% 1%																				
Institutional Decisions																									
to Buy to Sell Hlds(000)			3Q2020 598 612 610548	4Q2020 708 589 618856	1Q2021 676 649 627954	Percent shares traded	18 12 6																		
2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 2020 2021 2022																									
18.28 4.03 2.13 1.48 3.20 14.42 741.45 15.9 .85 4.4%			19.24 4.01 2.10 1.54 4.01 15.24 746.27 16.2 .87 4.5%	20.12 4.22 2.28 1.60 4.65 16.23 763.10 16.0 .85 4.4%	22.04 4.43 2.25 1.66 5.10 17.08 777.19 16.1 .97 4.6%	19.21 4.43 2.32 1.73 4.85 18.15 819.65 13.5 .90 5.5%	20.70 4.51 2.36 1.80 4.85 19.21 843.34 14.9 .95 5.1%	20.41 4.91 2.55 1.87 5.23 20.32 865.13 15.8 .99 4.6%	19.06 5.18 2.67 1.94 5.54 21.09 867.77 17.0 1.08 4.3%	20.34 5.28 2.77 2.01 6.16 21.43 887.09 16.2 .91 4.6%	19.18 5.47 2.84 2.15 6.22 21.98 907.78 16.0 .84 4.7%	20.09 5.69 2.83 2.22 7.38 22.59 911.72 15.8 .80 4.8%	22.86 6.64 3.21 2.30 7.74 23.98 990.39 17.8 .93 4.4%	22.73 6.41 3.00 2.38 7.74 23.92 1007.6 15.5 .78 4.6%	20.34 6.33 3.17 2.46 7.17 26.11 1053.3 15.1 .82 5.3%	19.29 6.98 3.25 2.54 7.04 26.48 1056.5 17.9 .92 4.4%	20.85 7.15 3.40 2.62 7.65 26.75 1070.0 14.5 .80 4.4%	20.80 7.10 3.50 2.70 7.65 28.45 1105.0 14.5 .80 4.5%	Revenues per sh		24.00				
4.03 2.13 1.48 3.20 14.42 741.45 15.9 .85 4.4%			4.01 2.10 1.54 4.01 15.24 746.27 16.2 .87 4.5%	4.22 2.28 1.60 4.65 16.23 763.10 16.0 .85 4.4%	4.43 2.25 1.66 5.10 17.08 777.19 16.1 .97 4.6%	4.43 2.32 1.73 4.85 18.15 819.65 13.5 .90 5.5%	4.51 2.36 1.80 4.85 19.21 843.34 14.9 .95 5.1%	4.91 2.55 1.87 5.23 20.32 865.13 15.8 .99 4.6%	5.18 2.67 1.94 5.54 21.09 867.77 17.0 1.08 4.3%	5.28 2.77 2.01 6.16 21.43 887.09 16.2 .91 4.6%	5.47 2.84 2.15 6.22 21.98 907.78 16.0 .84 4.7%	5.69 2.83 2.22 7.38 22.59 911.72 15.8 .80 4.8%	6.64 3.21 2.30 7.74 23.98 990.39 17.8 .93 4.4%	6.41 3.00 2.38 7.74 23.92 1007.6 15.5 .78 4.6%	6.33 3.17 2.46 7.17 26.11 1053.3 15.1 .82 5.3%	6.98 3.25 2.54 7.04 26.48 1056.5 17.9 .92 4.4%	7.15 3.40 2.62 7.65 26.75 1070.0 14.5 .80 4.4%	7.10 3.50 2.70 7.65 28.45 1105.0 14.5 .80 4.5%	"Cash Flow" per sh		8.50				
2.13 1.48 3.20 14.42 741.45 15.9 .85 4.4%			2.10 1.54 4.01 15.24 746.27 16.2 .87 4.5%	2.28 1.60 4.65 16.23 763.10 16.0 .85 4.4%	2.25 1.66 5.10 17.08 777.19 16.1 .97 4.6%	2.32 1.73 4.85 18.15 819.65 13.5 .90 5.5%	2.36 1.80 4.85 19.21 843.34 14.9 .95 5.1%	2.55 1.87 5.23 20.32 865.13 15.8 .99 4.6%	2.67 1.94 5.54 21.09 867.77 17.0 1.08 4.3%	2.77 2.01 6.16 21.43 887.09 16.2 .91 4.6%	2.84 2.15 6.22 21.98 907.78 16.0 .84 4.7%	2.83 2.22 7.38 22.59 911.72 15.8 .80 4.8%	3.21 2.30 7.74 23.98 990.39 17.8 .93 4.4%	3.00 2.38 7.74 23.92 1007.6 15.5 .78 4.6%	3.17 2.46 7.17 26.11 1053.3 15.1 .82 5.3%	3.25 2.54 7.04 26.48 1056.5 17.9 .92 4.4%	3.40 2.62 7.65 26.75 1070.0 14.5 .80 4.4%	3.50 2.70 7.65 28.45 1105.0 14.5 .80 4.5%	Earnings per sh ^A		4.50				
1.48 3.20 14.42 741.45 15.9 .85 4.4%			1.54 4.01 15.24 746.27 16.2 .87 4.5%	1.60 4.65 16.23 763.10 16.0 .85 4.4%	1.66 5.10 17.08 777.19 16.1 .97 4.6%	1.73 4.85 18.15 819.65 13.5 .90 5.5%	1.80 4.85 19.21 843.34 14.9 .95 5.1%	1.87 5.23 20.32 865.13 15.8 .99 4.6%	1.94 5.54 21.09 867.77 17.0 1.08 4.3%	2.01 6.16 21.43 887.09 16.2 .91 4.6%	2.08 6.22 21.98 907.78 16.0 .84 4.7%	2.15 6.22 21.98 911.72 15.8 .80 4.8%	2.22 7.38 22.59 990.39 17.8 .93 4.4%	2.30 7.74 23.98 1007.6 15.5 .78 4.6%	2.38 7.74 23.92 1053.3 15.1 .82 5.3%	2.46 7.17 26.11 1056.5 17.9 .92 4.4%	2.62 7.65 26.75 1070.0 14.5 .80 4.4%	2.70 7.65 28.45 1105.0 14.5 .80 4.5%	Div'd Decl'd per sh ^B		2.94				
3.20 14.42 741.45 15.9 .85 4.4%			4.01 15.24 746.27 16.2 .87 4.5%	4.65 16.23 763.10 16.0 .85 4.4%	5.10 17.08 777.19 16.1 .97 4.6%	4.85 18.15 819.65 13.5 .90 5.5%	4.85 19.21 843.34 14.9 .95 5.1%	5.23 20.32 865.13 15.8 .99 4.6%	5.54 21.09 867.77 17.0 1.08 4.3%	6.16 21.43 887.09 16.2 .91 4.6%	6.58 21.98 907.78 16.0 .84 4.7%	6.22 21.98 911.72 15.8 .80 4.8%	7.38 22.59 990.39 17.8 .93 4.4%	7.37 23.92 1007.6 15.5 .78 4.6%	7.74 23.92 1053.3 15.1 .82 5.3%	7.17 26.11 1056.5 17.9 .92 4.4%	7.65 26.75 1070.0 14.5 .80 4.4%	7.65 28.45 1105.0 14.5 .80 4.5%	Cap'l Spending per sh		6.00				
14.42 741.45 15.9 .85 4.4%			15.24 746.27 16.2 .87 4.5%	16.23 763.10 16.0 .85 4.4%	17.08 777.19 16.1 .97 4.6%	18.15 819.65 13.5 .90 5.5%	19.21 843.34 14.9 .95 5.1%	20.32 865.13 15.8 .99 4.6%	21.09 867.77 17.0 1.08 4.3%	21.43 887.09 16.2 .91 4.6%	21.98 907.78 16.0 .84 4.7%	22.59 911.72 15.8 .80 4.8%	23.98 990.39 17.8 .93 4.4%	23.92 1007.6 15.5 .78 4.6%	23.92 1053.3 15.1 .82 5.3%	26.11 1056.5 17.9 .92 4.4%	26.75 1070.0 14.5 .80 4.4%	28.45 1105.0 14.5 .80 4.5%	Book Value per sh ^C		32.50				
741.45 15.9 .85 4.4%			746.27 16.2 .87 4.5%	763.10 16.0 .85 4.4%	777.19 16.1 .97 4.6%	819.65 13.5 .90 5.5%	843.34 14.9 .95 5.1%	865.13 15.8 .99 4.6%	867.77 17.0 1.08 4.3%	887.09 16.2 .91 4.6%	907.78 16.0 .84 4.7%	911.72 15.8 .80 4.8%	990.39 17.8 .93 4.4%	1007.6 15.5 .78 4.6%	1033.8 15.1 .82 5.3%	1053.3 15.1 .82 5.3%	1056.5 17.9 .92 4.4%	1070.0 14.5 .80 4.4%	1105.0 14.5 .80 4.5%	Common Shs Outst'g ^D		1105.0			
15.9 .85 4.4%			16.2 .87 4.5%	16.0 .85 4.4%	16.1 .97 4.6%	13.5 .90 5.5%	14.9 .95 5.1%	15.8 .99 4.6%	17.0 1.08 4.3%	16.2 .91 4.6%	16.0 .84 4.7%	15.8 .80 4.8%	17.8 .93 4.4%	15.5 .78 4.6%	15.1 .82 5.3%	17.6 .94 4.4%	17.9 .92 4.4%	Bold figures are Value Line estimates			Avg Ann'l P/E Ratio		14.5		
.85 4.4%			.87 4.5%	.85 4.4%	.97 4.6%	.90 5.5%	.95 5.1%	.99 4.6%	1.08 4.3%	.91 4.6%	.84 4.7%	.80 4.8%	.93 4.4%	.78 4.6%	.82 5.3%	.94 4.4%	.92 4.4%				Relative P/E Ratio		.80		
4.4%			4.5%	4.4%	4.6%	5.5%	5.1%	4.6%	4.3%	4.6%	4.7%	4.8%	4.4%	4.6%	5.3%	4.4%	4.4%				Avg Ann'l Div'd Yield		4.5%		
CAPITAL STRUCTURE as of 6/30/21																									
Total Debt \$52059 mill. Due in 5 Yrs \$14647 mill.																									
LT Debt \$47828 mill. LT Interest \$1682 mill.																									
(LT interest earned: 3.3x)																									
Leases, Uncapitalized Annual rentals \$300 mill.																									
Pension Assets-12/20 \$15367 mill.																									
Obliq \$16646 mill.																									
Pfd Stock \$291 mill. Pfd Div'd \$15 mill.																									
Incl. 10 mill. shs. 5.83% cum. pfd. (\$25 stated value); 475,115 shs. 4.2%-5.44% cum. pfd. (\$100 par).																									
Common Stock 1,058,825,814 shs.																									
MARKET CAP: \$68 billion (Large Cap)																									
ELECTRIC OPERATING STATISTICS																									
2018 2019 2020																									
% Change Retail Sales (KWH)																									
Avg. Indust. Use (MWH)																									
Avg. Indust. Revs. per KWH (¢)																									
Capacity at Yearend (MW)																									
Peak Load, Summer (MW) ^F																									
Annual Load Factor (%)																									
% Change Customers (yr-end)																									
Fixed Charge Cov. (%)																									
2018 2019 2020																									

2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	© VALUE LINE PUB. LLC		24-26	
18.28	19.24	20.12	22.04	19.21	20.70	20.41	19.06	19.26	20.34	19.18	20.09	22.86	22.73	20.34	19.29	20.85	20.80	Revenues per sh		24.00	
4.03	4.01	4.22	4.43	4.43	4.51	4.91	5.18	5.27	5.28	5.47	5.69	6.64	6.41	6.33	6.98	7.10	7.15	"Cash Flow" per sh		8.50	
2.13	2.10	2.28	2.25	2.32	2.36	2.55	2.67	2.70	2.77	2.84	2.83	3.21	3.00	3.17	3.25	3.40	3.50	Earnings per sh ^A		4.50	
1.48	1.54	1.60	1.66	1.73	1.80	1.87	1.94	2.01	2.08	2.15	2.22	2.30	2.38	2.46	2.54	2.62	2.70	Div'd Decl'd per sh ^B		2.94	
3.20	4.01	4.65	5.10	5.70	4.85	5.23	5.54	6.16	6.58	6.22	7.38	7.37	7.74	7.17	7.04	7.65	7.65	Cap'l Spending per sh		6.00	
14.42	15.24	16.23	17.08	18.15	19.21	20.32	21.09	21.43	21.98	22.59	25.00	23.98	23.92	26.11	26.48	26.75	28.45	Book Value per sh ^C		32.50	
741.45	746.27	763.10	777.19	819.65	843.34	865.13	867.77	887.09	907.78	911.72	990.39	1007.6	1033.8	1053.3	1056.5	1070.0	1105.0	Common Shs Outst'g ^D		1105.0	
15.9	16.2	16.0	16.1	13.5	14.9	15.8	17.0	16.2	16.0	15.8	17.8	15.5	15.1	17.6	17.9	Bold figures are Value Line estimates		Avg Ann'l P/E Ratio		14.5	
.85	.87	.85	.97	.90	.95	.99	1.08	.91	.84	.80	.93	.78	.82	.94	.92			Relative P/E Ratio		.80	
4.4%	4.5%	4.4%	4.6%	5.5%	5.1%	4.6%	4.3%	4.6%	4.7%	4.8%	4.4%	4.6%	5.3%	4.4%	4.4%			Avg Ann'l Div'd Yield		4.5%	
CAPITAL STRUCTURE as of 6/30/21																					
Total Debt \$52059 mill. Due in 5 Yrs \$14647 mill.																					
LT Debt \$47828 mill. LT Interest \$1682 mill.																					
(LT interest earned: 3.3x)																					
Leases, Uncapitalized Annual rentals \$300 mill.																					
Pension Assets-12/20 \$15367 mill.																					
Obliq \$16646 mill.																					
Pfd Stock \$291 mill. Pfd Div'd \$15 mill.																					
Incl. 10 mill. shs. 5.83% cum. pfd. (\$25 stated value); 475,115 shs. 4.2%-5.44% cum. pfd. (\$100 par).																					
Common Stock 1,058,825,814 shs.																					
MARKET CAP: \$68 billion (Large Cap)																					
ELECTRIC OPERATING STATISTICS																					
2018 2019 2020																					
% Change Retail Sales (KWH)																					
Avg. Indust. Use (MWH)																					
Avg. Indust. Revs. per KWH (¢)																					
Capacity at Yearend (MW)																					
Peak Load, Summer (MW) ^F																					
Annual Load Factor (%)																					
% Change Customers (yr-end)																					
Fixed Charge Cov. (%)																					
2018 2019 2020																					

2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	© VALUE LINE PUB. LLC		24-26
18.28	19.24	20.12	22.04	19.21	20.70	20.41	19.06	19.26	20.34	19.18	20.09	22.86	22.73	20.34	19.29	20.85	20.80	Revenues per sh		24.00
4.03	4.01	4.22	4.43	4.43	4.51	4.91	5.18	5.27	5.28	5.47	5.69	6.64	6.41	6.33	6.98	7.10	7.15	"Cash Flow" per sh		8.50
2.13	2.10	2.28	2.25	2.32	2.36	2.55	2.67	2.70	2.77	2.84	2.83	3.21	3.00	3.17	3.25	3.40	3.50	Earnings per sh ^A		4.50
1.48	1.54	1.60	1.66	1.73	1.80	1.87	1.94	2.01</												

WEC ENERGY GROUP NYSE-WEC										RECENT PRICE	95.02	P/E RATIO	23.2 (Trailing: 23.3 Median: 19.0)	RELATIVE P/E RATIO	1.21	DIV'D YLD	3.0%	VALUE LINE							
TIMELINESS	4	Lowered 9/10/21	High: 30.5	35.4	41.5	45.0	55.4	58.0	66.1	70.1	75.5	98.2	109.5	99.9				Target Price Range	2024	2025	2026				
SAFETY	1	Raised 3/23/12	Low: 23.4	27.0	33.6	37.0	40.2	44.9	50.4	56.1	58.5	67.2	68.0	80.6											
TECHNICAL	3	Raised 9/10/21	LEGENDS 0.81 x Dividends p sh divided by Interest Rate Relative Price Strength 2-for-1 split 3/11 Options: Yes Shaded area indicates recession																						
BETA	.80	(1.00 = Market)																							
18-Month Target Price Range																									
Low-High Midpoint (% to Mid)																									
\$68-\$153 \$111 (15%)																									
2024-26 PROJECTIONS																									
Price	110	Gain (+15%)																							
Low	90	(-5%)																							
Ann'l Total Return 7%																									
Institutional Decisions																									
4Q2020	10Q2021	20Q2021																							
to Buy	421	362	405																						
to Sell	370	441	378																						
Hlds' (000)	230263	233922	231367																						
Percent shares traded			30																						
			20																						
			10																						

XCEL ENERGY					NDQ-XEL		RECENT PRICE	67.84	P/E RATIO	23.0	(Trailing: 23.5 Median: 17.0)		RELATIVE P/E RATIO	1.16	DIV'D YLD	2.8%	VALUE LINE	
TIMELINESS	3	Lowered 3/19/21	High: 24.4	27.8	29.9	31.8	37.6	38.3	45.4	52.2	54.1	66.1	76.4	72.9	Target Price Range			
SAFETY	1	Raised 5/1/15	Low: 19.8	21.2	25.8	26.8	27.3	31.8	35.2	40.0	41.5	47.7	46.6	57.2	2024	2025	2026	
TECHNICAL	3	Lowered 7/23/21	LEGENDS 0.68 x Dividends p sh divided by Interest Rate Relative Price Strength Options: Yes Shaded area indicates recession															
BETA	.80	(1.00 = Market)																
18-Month Target Price Range																		
Low-High Midpoint (% to Mid)																		
\$53-\$110 \$82 (20%)																		
2024-26 PROJECTIONS																		
High	Price	Gain	Ann'l Total															
Low	75	(+10%)	Return															
	60	(-10%)	5% Nil															
Institutional Decisions																		
3Q2020 4Q2020 1Q2021																		
to Buy 356 411 348																		
to Sell 362 350 396																		
Hlds(000) 407854 405434 405318																		
			Percent shares traded	30														
				20														
				10														

The following files are not convertible:

rates.pdf DOD_FEA workpaper MLR-18_yahoo growth

Please see the ZIP file for this Filing on the PUC Interchange in order to access these files.

Contact centralrecords@puc.texas.gov if you have any questions.

10/7/21, 10:05 PM

AEE 82.72 -0.25 -0.30% : Ameren Corporation - Yahoo Finance

Finance Home

Watchlists

My Portfolio

Screeners

Yahoo Finance Plus

Markets

News

...

yfinance+

Try it free

Up Last 30 Days

N/A

N/A

N/A

N/A

Maintains

Morgan Stanley: to Equal-Weight

8/19/2021

Down Last 7 Days

N/A

N/A

N/A

N/A

Maintains

Morgan Stanley: to Equal-Weight

7/20/2021

Down Last 30 Days

N/A

N/A

N/A

N/A

More Upgrades & Downgrades

Growth Estimates

AEE

Industry

Sector(s)

S&P 500

Current Qtr.

10.20%

N/A

N/A

N/A

Advertise with us

Next Qtr.

-4.30%

N/A

N/A

N/A

Current Year

7.70%

N/A

N/A

N/A

Data Disclaimer Help Suggestions

Next Year

6.90%

N/A

N/A

N/A

Privacy Dashboard

Next 5 Years (per annum)

7.70%

N/A

N/A

N/A

Privacy (Updated) About Our Ads Terms (Updated) Sitemap

Past 5 Years (per annum)

8.24%

N/A

N/A

N/A

© 2021 Verizon Media. All rights reserved.

Recommendation Rating

American Electric Power Company, Inc. (AEP)

NasdaqGS - NasdaqGS Real Time Price. Currency in USD

☆ Add to watchlist

Visitors trend 2W ↓ 10W ↑ 9M ↑ 2.2

84.14 -0.42 (-0.50%) 84.15 +0.01 (+0.01%)

At close: 4:00PM EDT After hours: 05:06PM EDT

1 Strong Buy

2 Look up Buy

3 Hold

4 Underperform

5 Sell

Summary	Company Outlook	Chart	Conversations	Statistics	Historical Data	Profile	Financials	Analyst Price Targets (17) >	Sustainability
								Options Holders Average 97.74	

Earnings Estimate					Currency in USD				
	Current Qtr. (Sep 2021)	Next Qtr. (Dec 2021)	Current Year (2021)	Next Year (2022)	Low 81.00 Current 84.14 High 112.00				
No. of Analysts	12	12	19	19					
Avg. Estimate	1.5	0.87	4.68	4.97					
Low Estimate	1.41	0.77	4.52	4.78					
High Estimate	1.55	1.01	4.76	5.1					
Year Ago EPS	1.47	0.87	4.44	4.68					
Revenue Estimate									
	Current Qtr. (Sep 2021)	Next Qtr. (Dec 2021)	Current Year (2021)	Next Year (2022)					
No. of Analysts	4	4	11	11					
Avg. Estimate	4.36B	4.12B	16.45B	17.15B					
Low Estimate	4.03B	3.93B	15.95B	16.35B					
High Estimate	4.65B	4.2B	17.32B	18.45B					
Year Ago Sales	4.1B	3.61B	14.92B	16.45B					
Sales Growth (year/est)	6.40%	14.00%	10.30%	4.30%					

Earnings History				
	9/29/2020	12/30/2020	3/30/2021	6/29/2021
EPS Est.	1.48	0.79	1.17	1.14
EPS Actual	1.47	0.87	1.15	1.18
Difference	-0.01	0.08	-0.02	0.04
Surprise %	-0.70%	10.10%	-1.70%	3.50%

EPS Trend				
	Current Qtr. (Sep 2021)	Next Qtr. (Dec 2021)	Current Year (2021)	Next Year (2022)
Current Estimate	1.5	0.87	4.68	4.97
7 Days Ago	1.5	0.87	4.68	4.97
30 Days Ago	1.5	0.87	4.68	4.97
60 Days Ago	1.51	0.85	4.67	4.96
90 Days Ago	1.49	0.88	4.67	4.97

EPS Revisions				
	Current Qtr. (Sep 2021)	Next Qtr. (Dec 2021)	Current Year (2021)	Next Year (2022)

Upgrades & Downgrades

Maintains	Morgan Stanley: to Overweight	9/17/2021
Maintains	Morgan Stanley: to Overweight	8/19/2021
Upgrade	B of A Securities: Neutral to Buy	7/26/2021
Maintains	Wells Fargo: to Equal-Weight	7/23/2021
Maintains	Morgan Stanley: to Overweight	6/21/2021
Maintains	Barclays: to Overweight	5/25/2021

More Upgrades & Downgrades

Advertise with us

Data Disclaimer Help Suggestions

Privacy Dashboard

Privacy (Updated) About Our Ads Terms (Updated) Sitemap

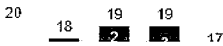


© 2021 Verizon Media. All rights reserved.

People Also Watch

Symbol	Last Price	Change	% Change
SO	62.67	-0.06	-0.10%
The Southern Company			
D	73.85	-0.32	-0.43%
Dominion Energy, Inc.			
DUK	100.96	-0.89	-0.87%
Duke Energy Corporation			
ED	74.38	-0.23	-0.31%
Consolidated Edison, Inc.			
FE	36.43	-0.25	-0.68%
FirstEnergy Corp.			

Recommendation Trends



... y/finance+

Try it free



EPS Revisions

	Current Qtr. (Sep 2021)	Next Qtr. (Dec 2021)	Current Year (2021)	Next Year (2022)
Up Last 30 Days	1	2	2	2
Down Last 7 Days	N/A	N/A	N/A	N/A
Down Last 30 Days	N/A	N/A	N/A	N/A

Growth Estimates

	AEP	Industry	Sector(s)	S&P 500
Current Qtr.	2.00%	N/A	N/A	N/A
Next Qtr.	N/A	N/A	N/A	N/A
Current Year	5.40%	N/A	N/A	N/A
Next Year	6.20%	N/A	N/A	N/A
Next 5 Years (per annum)	6.03%	N/A	N/A	N/A
Past 5 Years (per annum)	6.58%	N/A	N/A	N/A

100

5

Jul

Aug

Sep

Oct

Underperform

Sell

Recommendation Rating >

2.2

1 Strong Buy

2 Buy

3 Hold

4 Under-perform

5 Sell

Analyst Price Targets (17) >

Average 97.74

Low 81.00

Current 84.14

High 112.00

Upgrades & Downgrades >

Maintains	Morgan Stanley: to Overweight	9/17/2021
Maintains	Morgan Stanley: to Overweight	8/19/2021
Upgrade	B of A Securities: Neutral to Buy	7/26/2021
Maintains	Wells Fargo: to Equal-Weight	7/23/2021
Maintains	Morgan Stanley: to Overweight	6/21/2021
Maintains	Barclays: to Overweight	5/25/2021

More Upgrades & Downgrades

Advertise with us

Data Disclaimer Help Suggestions

Privacy Dashboard

Privacy (Updated) About Our Ads Terms (Updated) Sitemap



© 2021 Verizon Media. All rights reserved.

ALLETE, Inc. (ALE)

NYSE - NYSE Delayed Price. Currency in USD

Add to watchlist

Visitors trend 2W ↑ 10W ↑ 9M ↑

Quote Lookup

59.57 -0.37 (-0.62%) 59.57 -0.01 (-0.02%)

At close: 4:00PM EDT After hours: 04:12PM EDT

Summary

Company Outlook

Chart

Conversations

Statistics

Historical Data

Profile

Financials

Analysis

Options

Holders

Sustainability

Earnings Estimate

	Current Qtr. (Sep 2021)	Next Qtr. (Dec 2021)	Current Year (2021)	Next Year (2022)
No. of Analysts	5	5	6	5
Avg. Estimate	0.72	0.91	3.15	3.85
Low Estimate	0.6	0.82	3.12	3.84
High Estimate	0.81	0.99	3.19	3.87
Year Ago EPS	0.78	0.9	3.35	3.15

Revenue Estimate

	Current Qtr. (Sep 2021)	Next Qtr. (Dec 2021)	Current Year (2021)	Next Year (2022)
No. of Analysts	2	2	3	3
Avg. Estimate	300.2M	327.65M	1.27B	1.32B
Low Estimate	299M	326M	1.21B	1.28B
High Estimate	301.4M	329.3M	1.31B	1.35B
Year Ago Sales	292.9M	320.4M	1.17B	1.27B
Sales Growth (year/est)	2.50%	2.30%	8.80%	3.70%

Earnings History

	9/29/2020	12/30/2020	3/30/2021	6/29/2021
EPS Est.	0.64	0.75	1.09	0.51
EPS Actual	0.78	0.9	0.99	0.53
Difference	0.14	0.15	-0.1	0.02
Surprise %	21.90%	20.00%	-9.20%	3.90%

EPS Trend

	Current Qtr. (Sep 2021)	Next Qtr. (Dec 2021)	Current Year (2021)	Next Year (2022)
Current Estimate	0.72	0.91	3.15	3.85
7 Days Ago	0.72	0.91	3.15	3.85
30 Days Ago	0.72	0.91	3.16	3.86
60 Days Ago	0.71	0.88	3.18	3.87
90 Days Ago	0.71	0.88	3.18	3.87

EPS Revisions

	Current Qtr. (Sep 2021)	Next Qtr. (Dec 2021)	Current Year (2021)	Next Year (2022)
Up Last 7 Days	N/A	N/A	N/A	N/A

Currency in USD

People Also Watch

Symbol	Last Price	Change	% Change
BKH	65.02	-1.10	-1.66%
NWE	59.51	-0.12	-0.20%
AVA	40.72	-0.61	-1.48%
IDA	103.38	-2.33	-2.20%
LNT	56.66	-0.42	-0.74%

Recommendation Trends

6 6 6 5

4 1 1 1

2

Jul Aug Sep Oct

Strong Buy Buy Hold Underperform Sell

Recommendation Rating

2.8

1 Strong Buy 2 Buy 3 Hold 4 Underperform 5 Sell

Analysis Price Targets (5)

Average 70.40

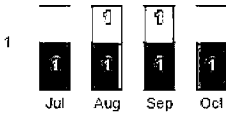
Low 62.00 High 84.00

Current 59.57

Upgrades & Downgrades

Maintains	Wells Fargo: to Equal-Weight	4/28/2021
Downgrade	Guggenheim: Buy to Neutral	1/21/2021
Maintains	Mizuho: to Neutral	8/26/2020
Maintains	JP Morgan: to Underweight	6/1/2020

Finance Home	Watchlists	My Portfolio	Screeners	Yahoo Finance Plus	Markets	News	... yfinance+ Try it free
Up Last 30 Days		N/A		N/A	N/A	N/A	Upgrade Mizuho: Underperform to Neutral 3/3/2020
Down Last 7 Days		N/A		N/A	N/A	N/A	
Down Last 30 Days		N/A		N/A	N/A	N/A	More Upgrades & Downgrades
Growth Estimates		ALE	Industry	Sector(s)	S&P 500		Advertise with us
Current Qtr.		-7.70%	N/A	N/A	N/A		Data Disclaimer Help Suggestions
Next Qtr.		1.10%	N/A	N/A	N/A		Privacy Dashboard
Current Year		-6.00%	N/A	N/A	N/A		Privacy (Updated) About Our Ads Terms (Updated) Sitemap
Next Year		22.20%	N/A	N/A	N/A		© 2021 Verizon Media. All rights reserved.
Next 5 Years (per annum)		5.67%	N/A	N/A	N/A		
Past 5 Years (per annum)		1.25%	N/A	N/A	N/A		



Sell

Recommendation Rating

Avista Corporation (AVA)

NYSE - NYSE Delayed Price. Currency in USD

Add to watchlist

Visitors trend 2W ↑ 10W ↑ 9M ↑

40.72 -0.61 (-1.48%) 40.72 0.00 (0.00%)

At close: 4:00PM EDT

After hours: 05:42PM EDT

Quote Lookup

3.2

1 Strong Buy

2 Buy

3 Hold

4 Under-perform

5 Sell

Analyst Price Targets (4)

Analysis

Options

Holders

Sustainability

Average 40.75

Low 32.00

Current 40.72

High 51.00

Upgrades & Downgrades

Downgrade

Sidoti & Co.: Buy to Neutral

3/26/2021

Downgrade

B of A Securities: Neutral to Underperform

1/8/2021

Downgrade

B of A Securities: Buy to Neutral

9/22/2020

Upgrade

KeyBanc: Underweight to Sector Weight

3/24/2020

Maintains

KeyBanc: to Underweight

1/17/2020

Maintains

B of A Securities: to Underperform

1/16/2020

More Upgrades & Downgrades

Advertise with us

Summary Company Outlook Chart Conversations Statistics Historical Data Profile Financials

	Currency in USD			
	Current Qtr. (Sep 2021)	Next Qtr. (Dec 2021)	Current Year (2021)	Next Year (2022)
Earnings Estimate				
No. of Analysts	5	5	5	5
Avg. Estimate	0.08	0.77	2.05	2.17
Low Estimate	0.05	0.66	2	2.07
High Estimate	0.12	0.85	2.11	2.26
Year Ago EPS	0.07	0.85	1.9	2.05
Revenue Estimate				
No. of Analysts	3	3	3	3
Avg. Estimate	291.39M	428.69M	1.43B	1.5B
Low Estimate	274.56M	387.21M	1.37B	1.41B
High Estimate	311.56M	497.28M	1.5B	1.59B
Year Ago Sales	301.1M	380.42M	1.32B	1.43B
Sales Growth (year/est)	-3.20%	12.70%	8.30%	4.90%

Earnings History	9/29/2020	12/30/2020	3/30/2021	6/29/2021
EPS Est.	0.12	0.79	0.84	0.26
EPS Actual	0.07	0.85	0.98	0.2
Difference	-0.05	0.06	0.14	-0.06
Surprise %	-41.70%	7.60%	16.70%	-23.10%

EPS Trend	Current Qtr. (Sep 2021)	Next Qtr. (Dec 2021)	Current Year (2021)	Next Year (2022)
Current Estimate	0.08	0.77	2.05	2.17
7 Days Ago	0.08	0.77	2.05	2.17
30 Days Ago	0.08	0.77	2.05	2.18
60 Days Ago	0.09	0.78	2.12	2.29
90 Days Ago	0.1	0.79	2.12	2.29

EPS Revisions	Current Qtr. (Sep 2021)	Next Qtr. (Dec 2021)	Current Year (2021)	Next Year (2022)
Up Last 7 Days	N/A	N/A	N/A	N/A

Data Disclaimer Help Suggestions

Privacy Dashboard

Privacy (Updated) About Our Ads Terms (Updated) Sitemap

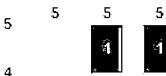
Twitter Facebook LinkedIn

© 2021 Verizon Media. All rights reserved.

People Also Watch

Symbol	Last Price	Change	% Change
IDA	103.38	-2.33	-2.20%
IDACORP, Inc.			
BKH	65.02	-1.10	-1.66%
Black Hills Corporation			
ALE	59.57	-0.37	-0.62%
ALLETE, Inc.			
POR	48.78	-0.33	-0.67%
Portland General Electric Company			
PNM	49.84	+0.02	+0.04%
PNM Resources, Inc.			

Recommendation Trends



Strong Buy

Finance Home	Watchlists	My Portfolio	Screeners	Yahoo Finance Plus	Markets	News
Up Last 30 Days		N/A	N/A	N/A	N/A	
Down Last 7 Days		N/A	N/A	N/A	N/A	
Down Last 30 Days		N/A	1	1	1	

... yfinance+ Try it free

1

Jul

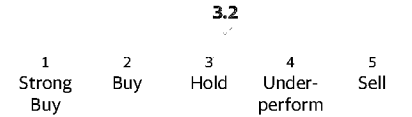
Aug

Sep

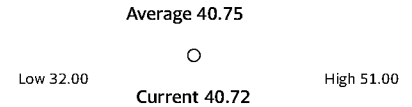
Oct

Sell

Recommendation Rating >



Analyst Price Targets (4) >



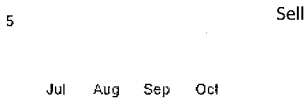
Upgrades & Downgrades >

Downgrade	Sidoti & Co.: Buy to Neutral	3/26/2021
Downgrade	B of A Securities: Neutral to Underperform	1/8/2021
Downgrade	B of A Securities: Buy to Neutral	9/22/2020
Upgrade	KeyBanc: Underweight to Sector Weight	3/24/2020
Maintains	KeyBanc: to Underweight	1/17/2020
Maintains	B of A Securities: to Underperform	1/16/2020

More Upgrades & Downgrades

Advertise with us

Data Disclaimer Help Suggestions
Privacy Dashboard
Privacy (Updated) About Our Ads Terms (Updated) Sitemap
© 2021 Verizon Media. All rights reserved.



Recommendation Rating

CMS Energy Corporation (CMS)

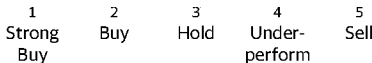
NYSE - NYSE Delayed Price. Currency in USD

Add to watchlist

Visitors trend 2W ↓ 10W ↑ 9M ↑

Quote Lookup

2.4



60.57 -0.65 (-1.06%) 60.57 -0.03 (-0.05%)

At close: 4:03PM EDT

After hours: 04:04PM EDT

SummaryCompany OutlookChartConversationsStatisticsHistorical DataProfileFinancials

Analyst Price Targets (19)

Average 67.57

	Currency in USD			
	Current Qtr. (Sep 2021)	Next Qtr. (Dec 2021)	Current Year (2021)	Next Year (2022)
Earnings Estimate				
No. of Analysts	7	6	10	14
Avg. Estimate	0.61	0.46	2.8	2.88
Low Estimate	0.54	0.37	2.64	2.86
High Estimate	0.76	0.59	2.9	3.04
Year Ago EPS	0.77	0.56	2.67	2.8
Revenue Estimate				
No. of Analysts	4	4	11	12
Avg. Estimate	1.58B	1.83B	6.99B	7.07B
Low Estimate	1.52B	1.78B	6.67B	6.43B
High Estimate	1.65B	1.9B	7.18B	7.45B
Year Ago Sales	N/A	1.8B	6.68B	6.99B
Sales Growth (year/est)	N/A	1.60%	4.60%	1.10%

Upgrades & Downgrades

Maintains	Morgan Stanley: to Equal-Weight	9/20/2021
Maintains	Morgan Stanley: to Equal-Weight	9/17/2021
Maintains	Morgan Stanley: to Equal-Weight	8/19/2021
Maintains	Morgan Stanley: to Equal-Weight	7/20/2021
Upgrade	Keybank: Sector Weight to Overweight	7/20/2021
Downgrade	Vertical Research: Buy to Hold	6/9/2021

More Upgrades & Downgrades

Advertise with us

	9/29/2020	12/30/2020	3/30/2021	6/29/2021
Earnings History				
EPS Est.	0.72	0.55	1.14	0.46
EPS Actual	0.77	0.56	1.21	0.62
Difference	0.05	0.01	0.07	0.16
Surprise %	6.90%	1.80%	6.10%	34.80%

	Current Qtr. (Sep 2021)	Next Qtr. (Dec 2021)	Current Year (2021)	Next Year (2022)
EPS Trend				
Current Estimate	0.61	0.46	2.8	2.88
7 Days Ago	0.61	0.46	2.8	2.88
30 Days Ago	0.61	0.47	2.8	2.89
60 Days Ago	0.63	0.58	2.83	2.89
90 Days Ago	0.65	0.61	2.85	2.92

	Current Qtr. (Sep 2021)	Next Qtr. (Dec 2021)	Current Year (2021)	Next Year (2022)
EPS Revisions				
Up Last 7 Days	N/A	N/A	N/A	N/A

Data Disclaimer Help Suggestions

Privacy Dashboard

Privacy (Updated) About Our Ads Terms (Updated) Sitemap

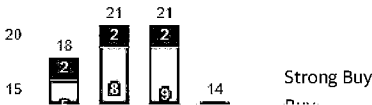


© 2021 Verizon Media. All rights reserved.

People Also Watch

Symbol	Last Price	Change	% Change
DTE	115.06	-0.22	-0.19%
DTE Energy Company			
CNP	25.57	-0.22	-0.85%
CenterPoint Energy, Inc.			
AEE	82.72	-0.25	-0.30%
Ameren Corporation			
ETR	103.46	+0.29	+0.28%
Entergy Corporation			
LNT	56.66	-0.42	-0.74%
Alliant Energy Corporation			

Recommendation Trends



Up Last 30 Days	1	N/A	2	2	5	Sell				
Down Last 7 Days	N/A	N/A	N/A	N/A	Jul Aug Sep Oct					
Down Last 30 Days	N/A	N/A	N/A	N/A	Recommendation Rating >					
Growth Estimates					2.4					
					▼					
	CMS	Industry	Sector(s)	S&P 500	1	2	3	4	5	
Current Qtr.	-20.80%	N/A	N/A	N/A	Strong Buy	Buy	Hold	Under-perform	Sell	
Next Qtr.	-17.90%	N/A	N/A	N/A	Analyst Price Targets (19) >					
Current Year	4.90%	N/A	N/A	N/A	Average 67.57					
Next Year	2.90%	N/A	N/A	N/A	○ Low 62.00 High 75.00					
Next 5 Years (per annum)	5.72%	N/A	N/A	N/A	Current 60.57					
Past 5 Years (per annum)	7.18%	N/A	N/A	N/A	Upgrades & Downgrades >					
					Maintains	Morgan Stanley: to Equal-Weight 9/20/2021				
					Maintains	Morgan Stanley: to Equal-Weight 9/17/2021				
					Maintains	Morgan Stanley: to Equal-Weight 8/19/2021				
					Maintains	Morgan Stanley: to Equal-Weight 7/20/2021				
					Upgrade	Keybanc: Sector Weight to Overweight 7/20/2021				
					Downgrade	Vertical Research: Buy to Hold 6/9/2021				
More Upgrades & Downgrades										

Advertise with us

Recommendation Rating

DTE Energy Company (DTE)

NYSE - NYSE Delayed Price. Currency in USD

Add to watchlist

Visitors trend 2W ↑ 10W ↑ 9M ↑

115.06 -0.22 (-0.19%)

At close: 4:03PM EDT

114.48 -0.58 (-0.50%)

After hours: 07:57PM EDT

Quote Lookup 2.3

1 Strong Buy

2 Buy

3 Hold

4 Under-perform

5 Sell

Summary

Company Outlook

Chart

Conversations

Statistics

Historical Data

Profile

Financials

Analyst Price Targets (16)

Analysis

Options

Holders

Average 127.45

Sustainability

	Currency in USD		Low 108.00		High 146.00	
			Current 115.06			
Earnings Estimate	Current Qtr. (Sep 2021)	Next Qtr. (Dec 2021)	Current Year (2021)	Next Year (2022)		
No. of Analysts	12	10	11	16		
Avg. Estimate	1.67	0.73	5.95	5.92		
Low Estimate	1.5	0.16	5.75	5.77		
High Estimate	1.91	1.09	6.66	6.18		
Year Ago EPS	2.61	1.39	7.19	5.95		
Revenue Estimate	Current Qtr. (Sep 2021)	Next Qtr. (Dec 2021)	Current Year (2021)	Next Year (2022)		
No. of Analysts	5	5	12	12		
Avg. Estimate	3.31B	3.13B	12.98B	12.95B		
Low Estimate	2.9B	2.94B	11.85B	12.04B		
High Estimate	4.16B	3.33B	14.5B	14.73B		
Year Ago Sales	N/A	3.29B	12.18B	12.98B		
Sales Growth (year/est)	N/A	-4.70%	6.60%	-0.20%		

Upgrades & Downgrades

- Maintains Morgan Stanley: to Equal-Weight 10/4/2021
- Upgrade Evercore ISI Group: In-Line to Outperform 9/17/2021
- Downgrade Wells Fargo: Overweight to Equal-Weight 9/1/2021
- Maintains Morgan Stanley: to Equal-Weight 8/19/2021
- Maintains Mizuho: to Buy 8/5/2021
- Maintains Wells Fargo: to Overweight 7/28/2021

More Upgrades & Downgrades

Advertise with us

Earnings History	9/29/2020	12/30/2020	3/30/2021	6/29/2021
EPS Est.	2.07	1.24	2.17	1.3
EPS Actual	2.61	1.39	2.44	1.7
Difference	0.54	0.15	0.27	0.4
Surprise %	26.10%	12.10%	12.40%	30.80%

EPS Trend	Current Qtr. (Sep 2021)	Next Qtr. (Dec 2021)	Current Year (2021)	Next Year (2022)
Current Estimate	1.67	0.73	5.95	5.92
7 Days Ago	1.67	0.73	5.95	5.92
30 Days Ago	1.67	0.73	5.95	5.92
60 Days Ago	1.62	0.79	5.73	5.84
90 Days Ago	1.75	0.76	5.73	5.8

EPS Revisions	Current Qtr. (Sep 2021)	Next Qtr. (Dec 2021)	Current Year (2021)	Next Year (2022)
Up Last 7 Days	N/A	N/A	N/A	N/A

Data Disclaimer Help Suggestions

Privacy Dashboard

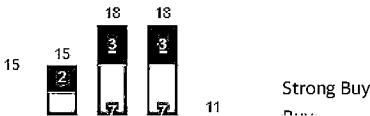
Privacy (Updated) About Our Ads Terms (Updated) Sitemap

© 2021 Verizon Media. All rights reserved.

People Also Watch

Symbol	Last Price	Change	% Change
CMS	60.57	-0.65	-1.06%
CMS Energy Corporation			
ETR	103.46	+0.29	+0.28%
Entergy Corporation			
AEE	82.72	-0.25	-0.30%
Ameren Corporation			
PNW	68.19	-5.99	-8.07%
Pinnacle West Capital Corporation			
EIX	57.12	+0.51	+0.90%
Edison International			

Recommendation Trends



Finance Home

Watchlists

My Portfolio

Screeners

Yahoo Finance Plus

Markets

News

5

Up Last 30 Days

N/A

N/A

N/A

N/A

Down Last 7 Days

N/A

N/A

N/A

N/A

Down Last 30 Days

N/A

N/A

N/A

N/A

Growth Estimates

DTE

Industry

Sector(s)

S&P 500

Current Qtr.

-36.00%

N/A

N/A

N/A

Next Qtr.

-47.50%

N/A

N/A

N/A

Current Year

-17.20%

N/A

N/A

N/A

Next Year

-0.50%

N/A

N/A

N/A

Next 5 Years (per annum)

2.65%

N/A

N/A

N/A

Past 5 Years (per annum)

7.07%

N/A

N/A

N/A

2.3

1 Strong Buy

2 Buy

3 Hold

4 Under-perform

5 Sell

Recommendation Rating >

Analyst Price Targets (16) >

Average 127.45

Low 108.00

Current 115.06

High 146.00

Upgrades & Downgrades >

Maintains

Morgan Stanley: to Equal-Weight

10/4/2021

Upgrade

Evercore ISI Group: In-Line to Outperform

9/17/2021

Downgrade

Wells Fargo: Overweight to Equal-Weight

9/1/2021

Maintains

Morgan Stanley: to Equal-Weight

8/19/2021

Maintains

Mizuho: to Buy

8/5/2021

Maintains

Wells Fargo: to Overweight

7/28/2021

More Upgrades & Downgrades

Advertise with us

Data Disclaimer Help Suggestions

Privacy Dashboard

Privacy (Updated) About Our Ads Terms (Updated) Sitemap

© 2021 Verizon Media. All rights reserved.

https://finance.yahoo.com/quote/DTE/analysis?p=DTE

2/2

Duke Energy Corporation (DUK)

NYSE - NYSE Delayed Price. Currency in USD

☆ Add to watchlist

👤 Visitors trend 2W ↑ 10W ↑ 9M ↑

Quote Lookup

100.96 -0.89 (-0.87%)

At close: 4:02PM EDT

100.92 -0.04 (-0.04%)

After hours: 06:54PM EDT

Summary

Company Outlook

Chart

Conversations

Statistics

Historical Data

Profile

Financials

Analysis

Options

Holders

Sustainability

Earnings Estimate

	Current Qtr. (Sep 2021)	Next Qtr. (Dec 2021)	Current Year (2021)	Next Year (2022)
No. of Analysts	10	10	15	16
Avg. Estimate	1.81	0.98	5.21	5.46
Low Estimate	1.76	0.83	5.14	5.4
High Estimate	1.85	1.07	5.27	5.52
Year Ago EPS	1.87	1.03	5.12	5.21

Revenue Estimate

	Current Qtr. (Sep 2021)	Next Qtr. (Dec 2021)	Current Year (2021)	Next Year (2022)
No. of Analysts	5	5	10	10
Avg. Estimate	7.02B	6.45B	25.27B	26.39B
Low Estimate	6.85B	6.1B	24.68B	25.66B
High Estimate	7.18B	7.49B	26.58B	27.55B
Year Ago Sales	N/A	5.78B	23.87B	25.27B
Sales Growth (year/est)	N/A	11.70%	5.90%	4.40%

Earnings History

	9/29/2020	12/30/2020	3/30/2021	6/29/2021
EPS Est.	1.79	1.03	1.2	1.1
EPS Actual	1.87	1.03	1.26	1.15
Difference	0.08	0	0.06	0.05
Surprise %	4.50%	0.00%	5.00%	4.50%

EPS Trend

	Current Qtr. (Sep 2021)	Next Qtr. (Dec 2021)	Current Year (2021)	Next Year (2022)
Current Estimate	1.81	0.98	5.21	5.46
7 Days Ago	1.81	0.98	5.21	5.47
30 Days Ago	1.81	0.99	5.21	5.47
60 Days Ago	1.81	1.03	5.19	5.46
90 Days Ago	1.81	1.02	5.18	5.46

EPS Revisions

	Current Qtr. (Sep 2021)	Next Qtr. (Dec 2021)	Current Year (2021)	Next Year (2022)
Up Last 7 Days	N/A	N/A	N/A	N/A

Currency in USD

People Also Watch

Symbol	Last Price	Change	% Change
SO	62.67	-0.06	-0.10%
The Southern Company			
D	73.85	-0.32	-0.43%
Dominion Energy, Inc.			
AEP	84.14	-0.42	-0.50%
American Electric Power Company, Inc.			
ED	74.38	-0.23	-0.31%
Consolidated Edison, Inc.			
EXC	48.71	-0.40	-0.81%
Exelon Corporation			

Recommendation Trends

20

18

19

19

17

5

5

4

2

Strong Buy

Buy

Hold

Underperform

Sell

Jul

Aug

Sep

Oct

Recommendation Rating

2.6

1 Strong Buy

2 Buy

3 Hold

4 Underperform

5 Sell

Analyst Price Targets (17)

Average 107.21

Low 96.00

Current 100.96

High 118.00

Upgrades & Downgrades

Maintains	Mizuho: to Neutral	10/5/2021
Maintains	Morgan Stanley: to Equal-Weight	9/17/2021
Downgrade	RBC Capital: Outperform to Sector Perform	8/20/2021
Maintains	Morgan Stanley: to Equal-Weight	8/19/2021

https://finance.yahoo.com/quote/DUK/analysis?p=DUK

1/2

Finance Home

Watchlists

My Portfolio

Screeners

Yahoo Finance Plus

Markets

News

... **yfinance+** Try it free

Downgrade Vertical Research: Buy to Hold 8/6/2021

More Upgrades & Downgrades

Growth Estimates

DUK

Industry

Sector(s)

S&P 500

Current Qtr.

-3.20%

N/A

N/A

N/A

Next Qtr.

-4.90%

N/A

N/A

N/A

Current Year

1.80%

N/A

N/A

N/A

Next Year

4.80%

N/A

N/A

N/A

Next 5 Years (per annum)

5.45%

N/A

N/A

N/A

Past 5 Years (per annum)

0.38%

N/A

N/A

N/A

Advertise with us

Data Disclaimer Help Suggestions

Privacy Dashboard

Privacy (Updated) About Our Ads Terms (Updated) Sitemap

© 2021 Verizon Media. All rights reserved.

Entergy Corporation (ETR)

NYSE - Nasdaq Real Time Price. Currency in USD

103.46 +0.29 (+0.28%)

102.94 -0.52 (-0.50%)

At close: 4:00PM EDT

After hours: 05:59PM EDT

Summary

Company Outlook

Chart

Conversations

Statistics

Historical Data

Profile

Financials

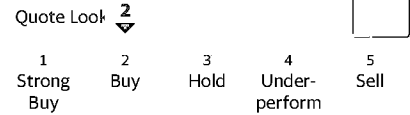
Earnings Estimate				
	Current Qtr. (Sep 2021)	Next Qtr. (Dec 2021)	Current Year (2021)	Next Year (2022)
No. of Analysts	10	10	17	19
Avg. Estimate	2.52	0.57	5.97	6.36
Low Estimate	2.01	0.18	5.66	6.21
High Estimate	2.77	0.97	6.07	6.57
Year Ago EPS	2.44	0.71	5.66	5.97
Revenue Estimate				
	Current Qtr. (Sep 2021)	Next Qtr. (Dec 2021)	Current Year (2021)	Next Year (2022)
No. of Analysts	6	6	11	12
Avg. Estimate	3.1B	2.22B	10.69B	10.91B
Low Estimate	2.85B	1.72B	9.87B	10.35B
High Estimate	3.76B	2.46B	11.21B	11.87B
Year Ago Sales	2.9B	2.37B	10.11B	10.69B
Sales Growth (year/est)	6.90%	-6.30%	5.70%	2.10%

Earnings History				
	9/29/2020	12/30/2020	3/30/2021	6/29/2021
EPS Est.	2.39	0.66	1.17	1.4
EPS Actual	2.44	0.71	1.47	1.34
Difference	0.05	0.05	0.3	-0.06
Surprise %	2.10%	7.60%	25.60%	-4.30%

EPS Trend				
	Current Qtr. (Sep 2021)	Next Qtr. (Dec 2021)	Current Year (2021)	Next Year (2022)
Current Estimate	2.52	0.57	5.97	6.36
7 Days Ago	2.52	0.57	5.97	6.35
30 Days Ago	2.57	0.52	5.99	6.36
60 Days Ago	2.48	0.62	5.95	6.31
90 Days Ago	2.46	0.63	5.94	6.31

EPS Revisions				
	Current Qtr. (Sep 2021)	Next Qtr. (Dec 2021)	Current Year (2021)	Next Year (2022)
Up Last 7 Days	N/A	N/A	N/A	1

Recommendation Rating

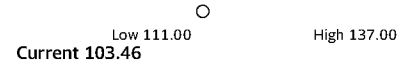


Analyst Price Targets (17)

Options

Holders

Sustainability



Upgrades & Downgrades

Maintains	Mizuho: to Buy	9/21/2021
Maintains	Morgan Stanley: to Equal-Weight	9/17/2021
Maintains	Mizuho: to Buy	8/23/2021
Maintains	Morgan Stanley: to Equal-Weight	8/19/2021
Maintains	Wells Fargo: to Overweight	8/17/2021
Maintains	Morgan Stanley: to Equal-Weight	7/20/2021

More Upgrades & Downgrades

Advertise with us

Data Disclaimer

Help

Suggestions

Privacy Dashboard

Privacy (Updated)

About Our Ads

Terms (Updated)

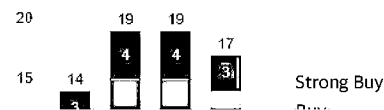
Sitemap


© 2021 Verizon Media. All rights reserved.

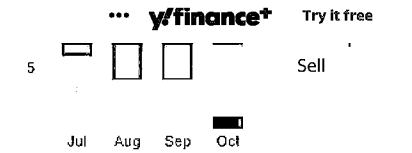
People Also Watch

Symbol	Last Price	Change	% Change
FE	36.43	-0.25	-0.68%
FirstEnergy Corp.			
EIX	57.12	+0.51	+0.90%
Edison International			
DTE	115.06	-0.22	-0.19%
DTE Energy Company			
EXC	48.71	-0.40	-0.81%
Exelon Corporation			
CMS	60.57	-0.65	-1.06%
CMS Energy Corporation			

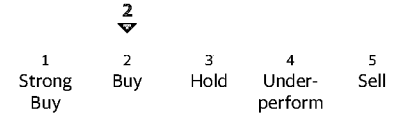
Recommendation Trends



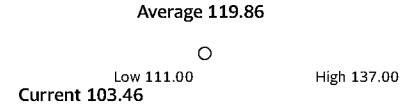
Finance Home	Watchlists	My Portfolio	Screeners	Yahoo Finance Plus 	Markets	News
Up Last 30 Days		N/A		1	1	2
Down Last 7 Days		N/A		N/A	N/A	N/A
Down Last 30 Days		N/A		N/A	1	1
Growth Estimates		ETR	Industry	Sector(s)	S&P 500	
Current Qtr.		3.30%		N/A	N/A	N/A
Next Qtr.		-19.70%		N/A	N/A	N/A
Current Year		5.50%		N/A	N/A	N/A
Next Year		6.50%		N/A	N/A	N/A
Next 5 Years (per annum)		3.50%		N/A	N/A	N/A
Past 5 Years (per annum)		1.88%		N/A	N/A	N/A



Recommendation Rating >



Analyst Price Targets (17) >



Upgrades & Downgrades >

Maintains	Mizuho: to Buy	9/21/2021
Maintains	Morgan Stanley: to Equal-Weight	9/17/2021
Maintains	Mizuho: to Buy	8/23/2021
Maintains	Morgan Stanley: to Equal-Weight	8/19/2021
Maintains	Wells Fargo: to Overweight	8/17/2021
Maintains	Morgan Stanley: to Equal-Weight	7/20/2021

More Upgrades & Downgrades

Advertise with us