

STATE OF INDIANA

INDIANA UTILITY REGULATORY COMMISSION

VERIFIED PETITION OF INDIANA GAS COMPANY,)
INC. D/B/A VECTREN ENERGY DELIVERY OF)
INDIANA, INC. ("VECTREN NORTH") FOR (1))
AUTHORITY TO MODIFY ITS RATES AND)
CHARGES FOR GAS UTILITY SERVICE THROUGH)
A PHASE-IN OF RATES, (2) APPROVAL OF NEW)
SCHEDULES OF RATES AND CHARGES, AND NEW)
AND REVISED RIDERS, (3) APPROVAL OF A NEW)
TAX SAVINGS CREDIT RIDER, (4) APPROVAL OF)
VECTREN NORTH'S ENERGY EFFICIENCY)
PORTFOLIO OF PROGRAMS AND AUTHORITY TO)
EXTEND PETITIONER'S ENERGY EFFICIENCY)
RIDER ("EER"), INCLUDING THE DECOUPLING)
MECHANISM EFFECTUATED THROUGH THE EER,)
(5) APPROVAL OF REVISED DEPRECIATION RATES)
APPLICABLE TO GAS PLANT IN SERVICE, (6))
APPROVAL OF NECESSARY AND APPROPRIATE)
ACCOUNTING RELIEF, AND (7) APPROVAL OF AN)
ALTERNATIVE REGULATORY PLAN PURSUANT)
TO WHICH VECTREN NORTH WOULD CONTINUE)
ITS CUSTOMER BILL ASSISTANCE PROGRAMS.)

CAUSE NO. 45468

INDIANA OFFICE OF UTILITY CONSUMER COUNSELOR'S

PUBLIC'S EXHIBIT NO. 5 – TESTIMONY OF OUCC WITNESS
LEJA D. COURTER

With the current requirement that all staff work from home, signatures for affirmations are not available at this time.

March 31, 2021

Respectfully submitted,



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**INDIANA GAS COMPANY, INC.
D/B/A VECTREN ENERGY DELIVERY OF INDIANA, INC.
CAUSE NO. 45468
TESTIMONY OF OUCC WITNESS LEJA D. COURTER**

I. INTRODUCTION

1 **Q: Please state your name and business address.**

2 A: My name is Leja D. Courter. My business address is 115 West Washington Street,
3 Suite 1500 South, Indianapolis, IN 46204.

4 **Q: By whom are you employed and in what capacity?**

5 A: I am employed by the Indiana Office of Utility Consumer Counselor ("OUCC") as
6 Director of the Natural Gas Division. For a summary of my educational and
7 professional experience, as well as my preparation for presenting testimony in this
8 case, please see Appendix LDC-1 attached to my testimony. Appendix LDC-1 also
9 includes the Discounted Cash Flow ("DCF") Model and Capital Asset Pricing
10 Model ("CAPM") mechanics.

11 **Q: What are your recommendations in this Cause?**

12 A: Based on the results of the DCF method, CAPM and macroeconomic analyses,
13 I conclude a cost of equity of 9.2% would be a reasonable and appropriate return
14 on equity ("ROE") for Indiana Gas Company, Inc. d/b/a Vectren Energy
15 Delivery of Indiana, Inc. ("Vectren North" or "Petitioner"). I recommend rate
16 case expenses be equally shared between shareholders and Vectren North's
17 customers. Finally, I recommend Vectren North provide more transparency in its
18 residential customer bills.

II. VECTREN NORTH'S PROPOSED COST OF EQUITY

1 **Q: What is Vectren North's current authorized ROE?**

2 A: Vectren North's current ROE is 10.20% as a result of a settlement agreement
3 approved by the Indiana Utility Regulatory Commission's ("Commission")
4 Order in Cause No. 43298. *In re Vectren North*, Cause No. 43298, Final Order pp.
5 25-26 (Ind. Util. Regul. Comm'n Feb. 13, 2008).

6 **Q: What is Vectren North's proposed ROE?**

7 A: Vectren North's witness Ms. Ann E. Bulkley recommends a return on equity of
8 10.15%. (Petitioner's Exhibit No. 12, p. 10, line 11.)

9 **Q: Do you agree with Ms. Bulkley's recommendation?**

10 A: No.

11 **Q: What level of ROE do you recommend?**

12 A: I recommend a ROE of 9.2%.

13 **Q: Why do you recommend a lower authorized ROE?**

14 A: Neither my DCF nor my CAPM analyses yield a return as high as Vectren
15 North's current 10.20%, or Ms. Bulkley's proposed 10.15% cost of equity. The
16 current economic condition, both nationally and in the State of Indiana, is best
17 described as an economic recovery. Data on bond yields, dividend yields,
18 inflation and economic growth do not support projections of double-digit rates
19 of return. Moreover, regulated public utilities tend to be less risky than the
20 market as a whole.

21 The average authorized electric and gas returns approved in cases
22 decided during 2020 were the lowest in S&P Global's Regulatory Research
23 Associates' rate case database, which includes all major rate cases decided

1 since 1980. (Attachment LDC-1, p. 1.) The average ROE for natural gas utilities
2 for 2020 was 9.46%. (*Id.*) The highest ROE approved for any of the companies in
3 Ms. Bulkley's Natural Gas group was 9.8% in a settled case for Atmos Energy
4 Corp. in Texas on April 21, 2020. (*Id.* at 3, 5) However, in a litigated case in Kansas,
5 Atmos Energy Corp. was granted a 9.1% ROE on February 24, 2020. Most recently,
6 Southwest Gas Corp., another utility in the Natural Gas group, was granted a 9.1%
7 ROE by the Arizona Public Utilities Commission on December 9, 2020 in a
8 litigated case. (*Id.*)

9 **Q: What have natural gas utility authorized ROEs averaged in the last decade?**

10 A: The annual natural gas utility average authorized ROE has been below 10% every
11 year since 2011. (Attachment LDC-2, p. 1.) Since the beginning of 2016, the
12 average authorized ROE has been above 10% only once, in the third quarter of
13 2016. (*Id.*)

14 **Q: Does Vectren North obtain capital financing under its own name or through**
15 **its parent holding company, Vectren Utility Holdings, Inc. ("VUHI")?**

16 A: Vectren North obtains its capital financing through VUHI.

17 **Q: Will your recommendation allow Vectren North access to capital on**
18 **reasonable terms?**

19 A: Yes. VUHI owns all the common stock of Vectren North. VUHI is an Indiana
20 corporation and a wholly-owned subsidiary of CenterPoint Energy, Inc.
21 ("CenterPoint"). CenterPoint is a holding company whose stock is publicly traded
22 and listed on the New York Stock Exchange.

23 Value Line grades CenterPoint's financial strength rating as B+.
24 (Attachment LDC-3, p. 1.) Value Line's financial strength ratings range from
25 A++ to C. Value Line's financial strength ratings consider balance sheet

1 leverage, business risk, the level and direction of profits, cash flow, earned returns,
2 cash, corporate size, and stock price. All those factors contribute to a company's
3 relative position on the scale. The amount of cash on hand, net of debt, is also an
4 important consideration. I also reviewed the Value Line financial strength ratings
5 for the utilities in Ms. Bulkley's Natural Gas group. South Jersey Inds. and Spire
6 have B++ financial strength ratings. Northwest Natural, ONE Gas, Inc. and
7 Southwest Gas are rated at A. Atmos Energy is rated at A+. Based on this
8 information, my recommendation will allow Vectren North to access capital on
9 reasonable terms.

10 **Q: Why is a 9.2% ROE reasonable?**

11 A: My DCF model indicates a ROE of 9.2% for the Natural Gas group. My CAPM
12 analysis results indicates a ROE of 6.86% for the Natural Gas group.

13 Bond yields remain in a low range. My review of 5-year, 10-year, 20-
14 year, and 30-year constant maturity Treasury bonds does not produce a CAPM
15 risk-free rate above 2.17% for February 2021. Therefore, I am using a 2.5%
16 normalized risk-free rate based on calculations by Duff & Phelps (Attachment
17 LDC-4, p. 1). Also, Duff & Phelps' current recommended Equity Risk Premium
18 ("ERP") is 5.5%. (*Id.*) Together the risk-free rate and the ERP yield a market
19 return of 8.0%.

20 Duff and Phelps' ERP and normalized risk-free rate apply across the U.S.
21 equity markets and include companies with higher business risks than those of a
22 regulated gas utility.

1 In my DCF analysis I use the same growth rate as Value Line's
2 forecasted growth rate in dividends per share for the Natural Gas group.
3 (Attachment LDC-5, p. 4.) I considered long-term growth rates in the U.S.
4 economy to produce a reasonable growth rate for Vectren North. Economic and
5 financial trends do not justify a higher ROE.

6 **Q: To what extent does Vectren North's Compliance and System**
7 **Improvement Adjustment ("CSIA") contribute to a reasonable**
8 **reduction to Vectren North's ROE from its current level?**

9 A: The CSIA includes a Transmission, Distribution, and Storage System
10 Improvement Charge ("TDSIC") component. Ind. Code ch. § 8-1-39 provides
11 regulated Indiana gas utilities with 80% expedited recovery of eligible capital
12 expenditures through a TDSIC. Vectren North's first 7-Year Plan was filed
13 under Cause No. 44430 and was consolidated with Vectren South's 7-Year Plan
14 under Cause No. 44429. Vectren North's first 7-Year TDSIC Plan was
15 approved by the Commission on August 27, 2014 in Cause No. 44429 as part
16 of the CSIA. *In re Vectren South*, Cause No. 44429, Final Order p. 28. (Ind. Util.
17 Regul. Comm'n Aug. 27, 2014.). Vectren North started receiving cost recovery
18 through its first TDSIC in January 2015. *In re Vectren North*, Cause No. 44430
19 TDSIC 1, Final Order pp. 11-12. (Ind. Util. Regul. Comm'n Jan. 14, 2015.).

20 The CSIA also includes a Compliance component. Ind. Code ch. § 8-1-
21 8.4 provides regulated Indiana gas utilities with 80% expedited recovery of
22 eligible federally mandated costs incurred in connection with a compliance
23 project. Vectren North's Compliance component of the CSIA also was
24 approved on August 27, 2014 in Cause No. 44429. *In re Vectren South*, Cause

1 No. 44429, Final Order p. 28. (Ind. Util. Regul. Comm'n Aug. 27, 2014.) Vectren
2 North started receiving cost recovery through its first CSIA in January 2015. *In*
3 *re Vectren North*, Cause No. 44430 TDSIC 1, Final Order pp. 11-12. (Ind. Util.
4 Regul. Comm'n Jan. 14, 2015.)

5 TDSIC and Compliance trackers eliminate a significant amount of
6 business risk for Vectren North because of Vectren North's ability to recover
7 80% of its approved TDSIC and Compliance costs through its semi-annual
8 tracker filings.

9 **Q: Ms. Bulkley states on page 68 of her testimony: "[t]herefore, to the extent that**
10 **Vectren North were to continue the TDSIC or other capital investment**
11 **trackers, the financial risk for the Company would be comparable to the proxy**
12 **group." Do you agree with her statement?**

13 A: Yes. As Ms. Bulkley indicates, several companies in the Natural Gas group have
14 capital investment tracker mechanisms. (Petitioner's Exhibit No. 12, p. 68, lines
15 19-21.) Those trackers would have been considered in the market data of the proxy
16 group companies. When Vectren North's last rate case, Cause No. 43298, was
17 approved, Vectren North did not have authority to recover TDSIC and Compliance
18 costs, unlike today. Although the TDSIC and Compliance trackers reduce financial
19 risk, I have not made a downward adjustment to my ROE calculation because the
20 financial risk reduction to Vectren North is similar to companies in the proxy group.

III. THE PROXY GROUP USED FOR DCF AND CAPM ANALYSES

21 **Q: Please describe your approach to establish a cost of equity estimate for Vectren**
22 **North.**

23 A: I relied primarily on the DCF model and CAPM to estimate Vectren North's cost
24 of equity.

1 **Q: Can you apply the DCF model and CAPM directly to Vectren North?**

2 A: No. Vectren North is not publicly traded. As a result, much of the data that would
3 be available for publicly traded companies is not available for Vectren North. This
4 fact makes it impractical to apply the DCF and CAPM directly to Vectren North.
5 Therefore, I calculated Vectren North's cost of equity based on a proxy group of
6 publicly traded companies.

7 **Q: Please describe how you derived the proxy group for your DCF and CAPM**
8 **studies.**

9 A: I started with Ms. Bulkley's Natural Gas Utility Proxy Group and removed one
10 utility that should no longer qualify. For my Natural Gas Utility Proxy Group
11 ("Natural Gas group") I used five of the six companies used by Ms. Bulkley. Ms.
12 Bulkley's proxy group was selected from Value Line. Ms. Bulkley's testimony
13 describes the proxy group's selection criteria. (Petitioner's Exhibit No. 12, p. 32,
14 line 16 – p. 35, line 17.)

15 **Q: What companies are in your Natural Gas group?**

16 A: I used five companies also used by Ms. Bulkley. Those five companies are: Atmos
17 Energy Corporation, ONE Gas, Inc., South Jersey Industries Inc., Southwest Gas
18 Corporation, and Spire, Inc. (Attachment LDC-6, pp. 1-5.) I did not include
19 Northwest Natural since it derives revenues from water and other utility operations.
20 (Attachment LDC-7, p. 1.)

IV. DISCOUNTED CASH FLOW ANALYSIS

21 **Q: Please describe DCF Analysis.**

22 A: DCF analysis helps investors determine the appropriate price to pay for particular
23 assets, such as utility stocks. The model has been adapted for regulatory

1 proceedings to determine the cost of utility equity capital. The DCF model is a
2 model which maintains that the value (price) of any security or commodity is the
3 discounted present value of all future cash flows. This discount rate equals the cost
4 of capital. With utility stocks, dividends are the relevant cash flows. A detailed
5 description of the DCF mechanics is included in my Appendix LDC-1.

6 **Q: What is the result of your dividend forward yield calculations for your Natural**
7 **Gas group?**

8 A: My calculation resulted in a 3.7% forward dividend yield for the Natural Gas group.
9 This calculation applies the “half year method” to the data from Value Line.
10 Attachment LDC-5, p. 2 shows my calculation.

11 **Q: What is your conclusion regarding the Dividend Yield of the DCF model?**

12 A: I conclude a 3.7% dividend yield is reasonable for my Natural Gas group DCF
13 calculations.

14 **Q: Please describe the results of your growth calculations.**

15 A: I conclude 5.5% is a reasonable growth rate for the Natural Gas group. (Attachment
16 LDC-5, p. 3.) This rate results from analyzing Value Line’s historical and projected
17 earnings per share (“EPS”), dividends per share (“DPS”), and book value per share
18 (“BPS”) growth rates for the proxy group. My 5.5% projected growth rate equals
19 the projected growth rates for the Natural Gas group companies of 5.5% for DPS.
20 (*Id.* at 4.) My projected growth rate is above the nominal percentage annual growth
21 rate of 5.16% from 1980 to 2020 as indicated on Attachment LDC-5, p. 5. Finally,
22 the 5.5% growth rate is higher than the Congressional Budget Office (“CBO”)
23 Budget and Economic Outlook average for 2021 to 2031, and higher than any

1 individual annual percentage between 2009 and 2020 in the Federal St. Louis
2 Economic data. (Attachment LDC-8, p. 16; Attachment LDC-5, p. 5.)

3 **Q: What have you concluded based on your DCF analysis?**

4 A: My DCF calculations for the Natural Gas group result in a return on equity of
5 9.20%. This combines the 3.7% forward yield and the 5.5% growth rate. (Attachment
6 LDC-5, p. 1.)

V. CAPITAL ASSET PRICING MODEL

7 **Q: Please describe the CAPM.**

8 A: The CAPM is another analysis frequently relied upon by this Commission to help
9 determine a reasonable cost of utility equity capital. The CAPM's underlying
10 assumption is the stock market compensates investors for risk that cannot be
11 eliminated by means of a diversified stock portfolio. A detailed description of the
12 CAPM mechanics is included in my Appendix LDC-1.

13 **Q: Please describe the results of your CAPM analysis.**

14 A: I used the Duff & Phelps normalized risk-free rate of 2.50%, which is 60 basis
15 points above the average 30-year Treasury bond yield for the three months ended
16 February 2021. (Attachment LDC-4, p. 1; Attachment LDC-9, p. 2.) I used the betas
17 from *Value Line*, and balanced the weight given to the geometric mean and
18 arithmetic mean approaches, consistent with prior Commission guidance. For the
19 Natural Gas group, my CAPM estimate is 6.86%. (Attachment LDC-9, p. 1.)

VI. MS. BULKLEY'S OTHER MODELS

1 **Q: Does Ms. Bulkley use any models you do not use?**

2 A: Yes. In addition to her DCF and CAPM analyses, Ms. Bulkley uses an Empirical
3 CAPM ("ECAPM"), Constant Growth DCF Analysis, a Bond Yield Plus Risk
4 Premium Analysis and an Expected Earnings Analysis.

5 **Q: Do you agree with Ms. Bulkley's ECAPM to estimate an appropriate ROE for**
6 **Vectren North?**

7 A: No. Ms. Bulkley's ECAPM produced an estimated cost of equity range of 12.53%
8 to 13.12% for her Natural Gas group. (Petitioner's Exhibit No. 12, p. 78, Figure
9 11.) The ECAPM is designed to address a theoretical downward bias in risk by
10 increasing the risk factor, called "beta." This is accomplished by giving a 25%
11 weight to the Market Risk Premium and a 75% weight to a traditional CAPM risk
12 premium for the proxy group. ECAPM essentially limits the impact of the beta
13 calculated for the proxy group.

14 **Q: Has the Commission expressed an opinion on the use and results of an ECAPM**
15 **approach?**

16 A: Yes. The Commission has rejected the use of ECAPM in at least two previous
17 Causes (Cause Nos. 40003 and 42359). In its Final Order in Cause No. 42359, the
18 Commission affirmed its previous finding the ECAPM is unreliable for ratemaking
19 purposes:

20 With respect to the ECAPM analysis performed by Dr. Morin we
21 note that the Commission rejected this model in Cause No. 40003,
22 and found that: "the Empirical CAPM is not sufficiently reliable for
23 ratemaking purposes." Cause No. 40003 at 32. We went on to
24 conclude that the ECAPM ". . . would adjust, in essence, future
25 expectations with regard to investor perceptions of relative risks for
26 further change which may occur years hence." The Commission
27 concluded that ". . . we do not believe exercises in approximating
28 future cost of capital are conducive to such precise estimation as the

Empirical CAPM would suggest.” Id. We find that nothing presented in this Cause has changed our prior determination that ECAPM is not sufficiently reliable for ratemaking purposes and hereby reject the model in this proceeding.

In re PSI Energy, Cause No. 42359, Final Order, p. 56. (Ind. Util. Regul. Comm’n May 18, 2004.)

Q: Do you agree with the other models Ms. Bulkley uses to estimate Vectren North’s ROE?

A: No. Ms. Bulkley’s other models produce results that are above the DCF and CAPM results, which the Commission routinely considers to determine an appropriate ROE. The other models’ results also are above the ROEs approved by other state utility commissions in 2020. (Attachment LDC-2, p. 1.)

VII. REGULATORY AND BUSINESS RISKS

Q: Please discuss Ms. Bulkley’s testimony of the various regulatory and business risks to consider when determining an appropriate ROE.

A: Ms. Bulkley considers small size risk, flotation costs, capital expenditures and regulatory risks. (Petitioner’s Exhibit No. 12, p. 56, line 3 – p. 74, line 7.)

Q: Does Ms. Bulkley make an adjustment for small size risk?

A: No. She does not propose a specific adjustment for small size. (Petitioner’s Exhibit No. 12, p. 61, lines 16-17.) I agree an adjustment for small size is not warranted. Vectren North has approximately 620,000 customers, and is a subsidiary of a large holding company, CenterPoint Energy, which had estimated net profits of \$885 million in 2020. (Attachment LDC-3, p. 1.)

Q: Does Ms. Bulkley make an adjustment for flotation costs?

A: No. Ms. Bulkley calculates a flotation cost adjustment of 13 basis points. (Petitioner’s Exhibit No. 12, p. 65, lines 11-12.) However, she does not make an

1 explicit flotation costs adjustment in any of her quantitative analyses. (*Id.* at 66,
2 lines 8-9.)

3 **Q: Does Ms. Bulkley make an adjustment related to capital expenditures?**

4 A: No. Ms. Bulkley recognizes Vectren North's CSIA tracker, which recovers
5 investments and expenses associated with complying with federal mandates, and
6 TDSIC related investments and expenses, which are similar to other trackers of the
7 proxy group. (Petitioner's Exhibit No. 12, p. 68, lines 19-21.) Therefore, she
8 concludes if Vectren North continues with the CSIA or other capital investment
9 trackers, then Vectren North's financial risk is comparable to the proxy group. (*Id.*,
10 lines 21-24.)

11 **Q: Does Ms. Bulkley make an adjustment related to regulatory risk?**

12 A: No. Ms. Bulkley states: "many of the companies in the proxy group have cost
13 recovery mechanisms that are similar to those implemented by Vectren North
14 (through forecasted test years, year-end rate base, cost recovery trackers, and
15 revenue stabilization mechanisms) in Indiana." (Petitioner's Exhibit No. 12, p. 74,
16 lines 1-4.) She concludes the regulatory risks for Vectren North are comparable to
17 the proxy group. (*Id.*, lines 6-7.)

VIII. MACROECONOMIC TRENDS

18 **Q: Do macroeconomic factors and trends influence the cost of equity?**

19 A: Yes. The most noteworthy of these factors are interest rates, economic growth, and
20 inflation.

1 **Q: Please discuss bond yields as an influencing factor on the cost of equity.**

2 A: Bond yields are extremely important factors influencing cost of equity. Yields on
3 U.S. Treasury Bonds are commonly used to establish the risk-free rate of return in
4 CAPM and other risk premium analyses. Moreover, changes in bond yields and
5 interest rates affect investor expectations. Long-term Treasury bond yields dropped
6 during 2020 but have been increasing recently. (Attachment LDC-9, p. 2.)

7 **Q: Does economic growth influence cost of equity?**

8 A: Yes. As previously mentioned, the CBO Budget and Economic Outlook for 2021
9 to 2031 forecasts nominal GDP of 6.3% for 2021, 4.9% for 2022, 4.2% for 2023,
10 4.4% for 2024-2025, and 3.8% for 2026 to 2031. (Attachment LDC-8, p. 16.)

11 **Q: In your analysis, have you considered current and projected inflation?**

12 A: Yes. I examined historical and projected rates of inflation from both government
13 and private sector sources, including the Bureau of Labor Statistics, the CBO, and
14 Morningstar, Inc. Spikes or long-term increases in inflation can affect the
15 prospective real return, but I found no support for the position that inflation will
16 experience such increases in the near term. The CBO projects inflation for the GDP
17 price index to range from a low of 1.6% in 2021 to a high of 2.1% in 2024-2031.
18 (Attachment LDC-8, p. 16.)

19 **Q: What conclusions have you reached regarding the macroeconomic trends that**
20 **influence cost of equity?**

21 A: Recent trends in interest rates, inflation, and economic growth do not suggest a
22 return to an inflationary economy. There is no indication macroeconomic trends are
23 fueling any significant increase in capital costs. Consequently, my recommended
24 ROE of 9.2% is more in line with current economic conditions.

IX. RATE CASE EXPENSES

1 **Q: How much is Vectren North seeking to recover from its customers in rate case**
2 **expenses?**

3 A: Vectren North wants its customers to pay \$1,650,000 in rate case expenses. This
4 amount includes \$965,000 in legal fees, \$175,000 for a cost-of-service study,
5 \$110,000 for a cost of equity study, \$50,000 for a depreciation study, and another
6 \$350,000 for other consulting and miscellaneous expenses. (Petitioner's Exhibit
7 No. 18, WPC-3.12.)

8 **Q: Do you agree this entire amount should be paid by Vectren North's customers?**

9 A: No. Rate case expenses should be paid equally by Vectren North's shareholders
10 and its customers. Vectren North shareholders benefit from rate cases as much as
11 Vectren North's customers.

12 **Q: What benefits do Vectren North's shareholders receive from rate cases?**

13 A: Shareholders receive the benefit of an updated rate base, updated revenue
14 requirements, and an updated cost of service. Shareholders also receive an updated
15 and reasonable return on equity, which allows Vectren North to attract capital and
16 provide dividends to its shareholders.

17 **Q: Do Indiana statutes allow Vectren North to recover rate case expenses from its**
18 **customers?**

19 A: Yes. However, Indiana statutes do not prohibit the Commission from allowing rate
20 case expenses to be shared between shareholders and utility customers. Ind. Code
21 § 8-1-2-42.7 provides the Commission with jurisdiction over utility rate case
22 proceedings. The language of the statute does not prohibit the Commission from
23 requiring a utility's shareholders to pay an equitable portion of rate case expenses.
24 Furthermore, Ind. Code § 8-1-2-4 states:

1 The charge made by any public utility for any service rendered or to
2 be rendered either directly or in connection therewith *shall be*
3 *reasonable and just*, and every unjust or unreasonable charge for
4 such service is prohibited and declared unlawful. (Emphasis added.)

5 **Q: Are you aware of any cases where the Commission has specifically addressed**
6 **the sharing of rate case expenses between a utility's shareholders and its**
7 **customers?**

8 A: Yes. In 1987, the Commission did not require the utility's shareholders to pay any
9 rate case expenses. *In re Kokomo Gas and Fuel Co.*, Cause No. 38096, Final Order,
10 p. 13. (Ind. Util. Regul. Comm'n July 29, 1987.) The Commission indicated the
11 OUCC's proposal appeared to be peculiarly disadvantageous to the small public
12 utilities in Indiana, which do not have in-house personnel and counsel to handle
13 their rate cases. (*Id.*)

14 Also, the Commission did not require the utility's shareholders to pay any
15 rate case expenses in a Community Natural Gas rate case, indicating rate case
16 expense is a cost of doing business. *In re Community Nat. Gas Co. Inc.*, Cause No.
17 44768, Final Order, p. 22. (Ind. Util. Regul. Comm'n Mar. 22, 2017.)

18 **Q: Do you agree sharing rate case expenses between shareholders and customers**
19 **could be disadvantageous to small public utilities?**

20 A: I agree small public utilities probably do not have the financial ability to have in-
21 house counsel or some other experts required for presenting a rate case. However,
22 that fact does not mean rate case expenses should not be shared between
23 shareholders and customers. Rate case expenses must be reasonable regardless of
24 who is responsible for paying those costs of doing business.

1 **Q: You mentioned the reasonableness of rate case expenses. Did Vectren North**
2 **send requests for proposals (“RFP”) to consultants for rate case expenses in**
3 **this Cause?**

4 A: No. Vectren North did not solicit RFPs for this rate case. (OUCC DR 13.3,
5 Attachment LDC-10, p. 1.) Petitioner has not provided evidence of efforts at cost
6 containment, and consequently that these rate case expenses have been prudently
7 incurred. Indiana utilities should have the incentive to keep rate case expenses as
8 low as reasonably possible. One way to do so is to solicit RFPs and receive
9 competitive bids for legal expenses, cost of equity, cost of service and depreciation
10 experts. Another way to control rate case expenses is to perform some of the work
11 in-house. This is especially true for Vectren utilities, which could have its legal
12 work done within the CenterPoint Energy legal department. Finally, the best and
13 most fair way to incentivize the utility to control rate case expenses is to allocate
14 those expenses equally between shareholders and utility customers.

15 **Q: Are you aware of any jurisdictions where the state commission has disallowed**
16 **rate case expenses?**

17 A: Yes. The Missouri Supreme Court on February 9, 2021 upheld a Missouri Public
18 Service Commission (“MPSC”) decision to disallow certain rate case expenses
19 claimed by Spire Missouri, Inc. (“Spire”). (Attachment LDC-11, p. 2.) Spire is one
20 of the utilities in the Natural Gas proxy group.

21 **Q: What was the legal basis the MPSC used to disallow a portion of the rate case**
22 **expenses?**

23 A: The MPSC concluded that because it is required under section 393.130.13 to set
24 rates that are “just and reasonable,” it had the broad discretion to determine whether
25 it was just and reasonable for Spire’s shareholders to share the burden of rate case
26 expenses with ratepayers. (Attachment LDC-11, p. 3.)

1 **Q: Is there a similar legal standard in Indiana which the Commission must**
2 **follow?**

3 A: Yes. Ind. Code § 8-1-2-4 requires charges for utility service to be reasonable and
4 just.

5 **Q: Why did the MPSC disallow a portion of the rate case expenses?**

6 A: The Missouri Supreme Court Opinion states:

7 The PSC determined that approximately half the litigated issues in
8 this case were driven by Spire and among these issues were the
9 proposed use of various shareholder-favorable ratemaking tools,
10 including a revenue stabilization mechanism, a rate of return on
11 equity of 10.35 percent (which would have been the highest of any
12 large utility in Missouri), tracking mechanisms to limit shareholder
13 risk, and earnings-based incentive compensation. The PSC further
14 determined Spire “padded” its revenue requirement by pursuing
15 positions it did not expect to win.

16 (Attachment LDC-11, p. 4, emphasis in original.)

17 The Opinion also states: “...the PSC concluded that including all of these
18 expenditures in setting Spire’s future rates was not *just* because some of the
19 expenses were not fair to ratepayers in that they only were incurred to benefit (if
20 anyone) Spire’s shareholders.” (*Id.* at 12, emphasis in original.)

21 **Q: Are there issues in this Cause similar to the Missouri case?**

22 A: Yes. Vectren North is proposing the continuation of the Sales Reconciliation
23 Component (decoupling mechanism); a rate of return of 10.15%, which would be
24 higher than any ROE awarded to a natural gas utility in Indiana in over a decade;
25 and earnings-based short-term and long-term incentive compensation. (Petitioner’s
26 Exhibit No. 9, page 18; OUCC DR 14.1, Attachment LDC-12, p. 1.) Also, Vectren
27 North just concluded a 7-year CSIA mechanism to track and recover capital costs

1 from customers, and indications are Vectren North will file a new CSIA plan in
2 2022.

3 **Q: Did the Missouri Supreme Court state that ratepayers benefit from rate cases?**

4 A: Yes. The Opinion states:

5 Generally, ratepayers benefit from rate cases because they have an
6 interest in ensuring the financial well-being of the utilities that serve
7 them. Therefore, ratepayers justly and reasonably can be expected
8 to pay a utility's expenses in bringing such a case.

9 (Attachment LDC-11, p. 12.)

10 However, the Opinion also states:

11 *But this does not mean there cannot be limits.* A utility cannot spend
12 any amount it pleases secure in the knowledge or expectation that
13 ratepayers will foot the bill, particularly when those expenses
14 include items seeking to subordinate ratepayers' interests to those of
15 the utility's investors.

16 (*Id.* at 12-13, emphasis added.)

17 The Missouri Supreme Court concluded the MPSC did not err in its decision
18 to exclude a portion of those expenses in setting "just and reasonable" rates because
19 they served only to benefit shareholders and minimize shareholder risk with no
20 accompanying benefit (or potential benefit) to ratepayers. (*Id.* at 13, emphasis in
21 original.)

22 **Q: What is your recommendation regarding rate case expenses?**

23 A: Based on the reasonable and just standard of the Indiana Code, and similar facts in
24 this Cause to those presented in the Missouri case, I recommend rate case expenses
25 be shared equally between Vectren North's shareholders and customers.

X. CUSTOMER BILL TRANSPARENCY

1 **Q: How are Vectren North's residential customer bills itemized?**

2 A: Currently, Vectren North's residential customer bills are itemized as follows:
3 Distribution and Service Charges, Gas Cost Charge, and Sales Tax.

4 **Q: Does this itemization provide sufficient transparency to residential customers?**

5 A: No. A residential customer would not know from viewing a bill what is included in
6 Distribution and Service Charges. The residential customer bill should be itemized
7 to include the customer service charge, TDSIC charge, universal service fund
8 charge, distribution charge, gas cost charge, and sales tax. If other charges are
9 included in the customer's bill, then those should be itemized as well.

10 **Q: Did you ask Vectren North whether it can break out all the components of a**
11 **customer's bill, including customer service charge, volumetric charge, GCA**
12 **charge, CSIA charge, EER charge, USF charge, etc.?**

13 A: Yes. Vectren North responded: "Yes. The Banner system contains the detail that
14 allows the bill to show all of the information required under 170 IAC 5-1-13(A).
15 The Company does not currently have the ability to show on the bill all of the details
16 set forth in the question." (OUCC DR 9.1, Attachment LDC-13, p. 1.)

17 **Q: Can Vectren North's customers request itemized bills?**

18 A: Yes. According to Vectren North: "[t]he detail of the bill components is within the
19 billing system and available to customer service representatives should a customer
20 call in to inquire for the breakdown." (*Id.*)

21 **Q: If Vectren North's customers can request itemized bills, then is it necessary**
22 **for Vectren North to provide itemized bills to each residential customer?**

23 A: Yes. The default (regular) customer bill should be an itemized bill, which is
24 transparent and provides a thorough breakdown of the charges being paid.

1 Customers should not have to contact Vectren North customer service personnel to
2 receive a transparent, itemized bill.

3 **Q: Is Vectren North going to provide an itemized customer bill as the default bill?**

4 A: No. Vectren North responded: "...Banner is not a part of the system harmonization
5 project as proposed within this proceeding. Before and after any changes to the
6 billing system, the requirements of 170 IAC 5-1-13(A) will continue to be met by
7 the Company." (*Id.*)

8 **Q: Is Vectren North complying with the Commission's Administrative Code in**
9 **the way Petitioner is submitting its bills to its customers?**

10 A: Yes, in a literal sense Vectren North is complying with the current requirements of
11 170 I.A.C. 5-1-13(A). However, it appears from Vectren North's responses to
12 OUCC DR 9 that Petitioner will not voluntarily provide itemized bills to its
13 customers as the regularly provided bill unless ordered to do so by the Commission.

14 **Q: What is your recommendation?**

15 A: I recommend the Commission order Vectren North to provide its customers with
16 itemized bills to indicate the customer service charge, TDSIC charge, universal
17 service fund charge, distribution charge, gas cost charge, and sales tax. If other
18 charges are included in the customer's bill, then those should be itemized as well.
19 Alternatively, the Commission should order Vectren North to include a bold face
20 notation on the bill that customers may call Vectren North's customer service
21 representatives if customers want an itemized breakdown of their bills.

XI. SUMMARY AND RECOMMENDATIONS

1 **Q: Please summarize your testimony on DCF calculations for the proxy group.**

2 A: I calculated a 3.7% forward dividend yield for the Natural Gas group. I also
3 performed calculations and analysis in which I concluded a DCF growth rate, g , of
4 5.5% is reasonable. These estimates were made using historical and projected
5 growth rates from *Value Line*, and economic growth data from the Federal Reserve
6 Bank of St. Louis. I considered both projected and historical data. Overall, my DCF
7 calculations resulted in a 9.2% ROE for the Natural Gas group.

8 **Q: Please summarize your testimony on CAPM calculations for the proxy group.**

9 A: Based on *Value Line* betas and using the same proxy group, I calculated an average
10 beta of 0.89 for the Natural Gas group. As the beta is less than 1.0, it also describes
11 a relatively low-risk industry. I used the Duff & Phelps normalized risk-free rate of
12 2.5%. I reviewed 5-year, 10-year, 20-year, and 30-year bond yield data for 2020 in
13 arriving at this estimate. Giving equal weight to both the geometric mean and
14 arithmetic mean approaches, I calculated a market risk premium of 4.90%. This
15 results in a CAPM cost of equity for the Natural Gas group of 6.86%.

16 **Q: Please summarize your testimony on macroeconomic and capital market**
17 **trends influencing cost of equity.**

18 A: I examined macroeconomic variables that can influence the cost of equity capital.
19 I examined interest rates. Interest rates on 5-year, 10-year, 20-year and 30-year
20 bonds remain low. Second, CBO forecasts nominal GDP growth over the next 10
21 years to range from 6.3% for 2021, 4.9% for 2022, 4.2% for 2023, 4.4% for 2024-
22 2025, and 3.8% for 2026 to 2031. Growth in this range is not likely to drive up
23 interest rates.

1 Third, the United States is in a continuing period of low inflation. Inflation
2 concerns are always a policy consideration for the Federal Reserve, but recent
3 experience and projections by the CBO tend to indicate inflation is under control.

4 **Q: Please summarize your recommendation for Vectren North's ROE.**

5 A: I recommend the Commission authorize a 9.2% return on equity for Vectren North.

6 This recommendation is at the high end of the range of my DCF and CAPM
7 calculations for the Natural Gas group. Moderate economic growth, low rates of
8 inflation and recent trends in utility rate cases all suggest the 9.2% level is
9 reasonable. I have found no evidence that dramatic changes in economic trends are
10 likely in the foreseeable future. Given these economic conditions, and my DCF and
11 CAPM calculations, my 9.2% ROE recommendation is reasonable.

12 **Q: Please summarize your recommendation regarding rate case expenses.**

13 A: I recommend rate case expenses be shared equally between Vectren North's
14 shareholders and its customers.

15 **Q: Please summarize your recommendation regarding residential customer bill**
16 **transparency.**

17 A: I recommend Vectren North's residential customer bill be itemized to include the
18 customer service charge, TDSIC charge, universal service fund charge, distribution
19 charge, gas cost charge, and sales tax. If other charges are included in the
20 customer's bill, then those should be itemized as well. Alternatively, the
21 Commission should order Vectren North to include a bold face notation on the bill
22 that customers may call Vectren North's customer service representatives if
23 customers want an itemized breakdown of their bills.

24 **Q: Does this conclude your testimony?**

25 A: Yes.

1 capital and g equals the expected, long-run annual growth rate in dividends per share
2 (“DPS”). This model relies on the assumption that investors *expect* earnings per share
3 (“EPS”), book value per share (“BPS”), and stock price per share to also grow at a constant
4 long-run rate (g).

5 By rearranging the algebraic terms, it becomes possible to solve for the cost of
6 equity capital. The resulting formula is the DCF model most familiar in utility regulation:

$$K = (D_1/P_0) + g$$

8 Here, the cost of equity capital, K , equals the “forward dividend yield,” D_1/P_0 , plus
9 the expected growth rate in dividends per share, g . The DCF model, therefore, requires
10 estimates of the forward dividend yield and the expected growth rate.

11 **Q: Is the “Constant Growth” DCF Model considered a reliable method for estimating**
12 **cost of equity for public utilities?**

13 **A:** Yes. When combined with reasonable judgment, this model provides a realistic and reliable
14 method of estimating a utility's cost of equity. It also formulates the cost of equity as “yield
15 plus growth,” which accurately defines the incentive for investors to purchase stocks.

16 The DCF model is also relatively simple in that it states cost of equity in terms of
17 just two components, and only one of these involves any significant controversy. The
18 calculation of dividend yield generally involves few disputes. Most of the controversy in
19 DCF calculations focuses on the growth rate, g . This should not be surprising since the
20 growth rate projects into the future, and disagreements will always arise regarding such
21 projections. However, a reasonable estimate for g can be developed by evaluating variables
22 such as dividends, earnings, and book value per share.

1 **Q: What is the difference between current and forward dividend yields?**

2 A: The current yield, D_0/P_0 , equals the current annual dividend rate, D_0 , divided by the current
3 stock price, P_0 . The current annual dividend rate, D_0 , equals the most recent quarterly
4 dividend multiplied by four -- it does not include any projection into the next year.
5 Dividend yields published by *The Wall Street Journal* are current dividend yields, D_0/P_0 .

6 The forward yield, D_1/P_0 , adjusts the current yield D_0/P_0 to reflect likely dividend
7 growth in the subsequent year. The forward yield replaces the current dividend rate, D_0 ,
8 with a prospective dividend rate, D_1 . D_1 is the rate expected during the following year, and
9 the forward yield will then be calculated by dividing D_1 by the current price, P_0 . This
10 adjustment is frequently accomplished by increasing the current dividend yield for one-
11 half of a year's growth in dividends. This method is often referred to as the "half-year
12 method," and has been recognized as valid and reasonable by this Commission. I use this
13 method in my DCF analysis to convert current dividend yields (D_0/P_0) into forward
14 dividend yields (D_1/P_0).

CAPM Mechanics

15 **Q: What is the CAPM formula?**

16 A: In CAPM, the required return on a stock equals the sum of a risk-free rate of return (R_f)
17 plus a risk premium [$\beta^*(R_m - R_f)$], which is proportional to the level of market risk. Market
18 risk cannot be eliminated through diversification.

19 The CAPM formula is:

$$K = R_f + \beta^*(R_m - R_f)$$

21 where,

22 β = Beta, a measure of risk for the company,

1 K = Required return (i.e., cost of equity) on the stock of the company,

2 R_f = Risk-free rate of return,

3 R_m = Market equity return, and

4 $(R_m - R_f)$ = Market equity risk premium.

5 The “beta” is considered the measure of risk most relevant in CAPM. A stock with
6 a beta below 1.0 is considered less volatile and less risky than the stock market. If beta
7 exceeds 1.0, the stock is considered more volatile and riskier than the stock market as a
8 whole. The stock market has a beta of 1.0. The stock market is usually represented by a
9 large and highly diversified portfolio of stocks such as the Standard & Poor’s 500.

10 **Q: Were you able to perform a CAPM analysis for Vectren North?**

11 A: No. Vectren North is not a publicly traded company. Consequently, the necessary data does
12 not exist to perform a CAPM analysis directly for Vectren North. Therefore, I have
13 primarily used Ms. Bulkley’s Natural Gas proxy group to perform a CAPM analysis.
14 However, I excluded Northwest Natural from the proxy group because it has recently
15 acquired water and other utility operations.

16 **Q: How did you determine beta for purposes of your analysis?**

17 A: I used betas from the *Value Line Investment Survey*. For this analysis I used the average of
18 the *Value Line* adjusted betas for the proxy group. I calculated a beta of 0.89 for the Natural
19 Gas group in my CAPM analysis. (Attachment LDC-9, p. 3.)

20 **Q: What risk-free rate (R_f) did you use for your CAPM calculations?**

21 A: I used 2.5% for my risk-free rate.

22 **Q: Please describe how you determined the risk-free rate of 2.5%.**

23 A: I used the Duff & Phelps normalized risk-free rate, as indicated on Attachment LDC-3. I
24 reviewed bond yield performance for the twelve months ended February 2021 and could

1 justify a risk-free rate no higher than 2.50% based on the average 30-year bond yields from
2 March 2020 to the end of February 2021. I also examined recent term trends in yields on
3 5-year, 10-year, 20-year, and 30-year Treasury Bonds from data available from the Federal
4 Reserve (www.federalreserve.gov). The bond data for the last business day of each month
5 is reflected on Attachment LDC-9, p. 2. The highest average is 1.90% for the three-month
6 period ended February 2021. The 30-year Treasury Bond yield for February 2021 was
7 2.17% (*Id.*) Therefore, it is reasonable to adopt the 2.5% normalized risk-free rate
8 recommend by Duff & Phelps.

9 The above research and analysis lead me to conclude 2.5% is a reasonable risk-free
10 rate to use in my CAPM analysis, considering both recent experience and future
11 projections.

12 **Q: How did you estimate the Market Risk Premium ($R_m - R_f$)?**

13 A: I calculated long term market risk premiums based on historical data from the *Stocks,*
14 *Bonds, Bills and Inflation (SBBI), 2020 Yearbook*, by Duff & Phelps. The current SBBI
15 database covers the period between 1926 and 2019.

16 There are two methods of calculating historical holding period returns: the
17 geometric mean (or compound annual return) and the arithmetic mean, which is a simple
18 average of one year holding period returns. The geometric mean return measures the
19 average compound annual rate of return from an investment over a period of more than one
20 year. The arithmetic mean measures the average of one year holding period returns. Unless
21 the investment provides a constant return year after year, the arithmetic mean rate of return
22 *always* exceeds the geometric mean rate of return. The arithmetic mean approach also
23 produces higher estimates of the market risk premium and higher overall CAPM results.

1 The Commission has consistently expressed its preference for considering both the
2 geometric mean and arithmetic mean approaches. For instance, in its final order in the
3 Indiana-American Water rate case (Cause No. 42520), the Commission stated:

4 In past rate cases this Commission has given weight to both the arithmetic and
5 the geometric mean risk premiums. This position was reaffirmed in our 1996
6 Rate Order, when we stated “[t]he debate over the proper use of the arithmetic
7 and geometric means is one we consider resolved. As we stated in Indianapolis
8 Water Company, Cause No. 39713-39843 [*sic*], each method has its strengths
9 and weaknesses, and neither is so clearly appropriate as to exclude
10 consideration of the other.” (1996 Rate Order, Cause No. 40103, p. 41.) Also,
11 in the 2002 Rate Order, we stated “. . . that, while the debate over the proposed
12 use of the arithmetic and geometric means continues, however, each method
13 has its strengths and weaknesses, neither is so clearly appropriate as to exclude
14 consideration of the other.” (2002 Rate Order, Cause No. 42029, p. 32.) . . .

15 . . . We will continue to give both the geometric and arithmetic mean risk
16 premiums substantial weight. Neither the arithmetic nor geometric mean
17 risk premiums should be excluded in favor of the other.

18 *In re Indiana American Water*, Cause No. 42520, Final Order at 59 (Ind. Util. Regul.
19 Comm’n Nov. 18, 2004.)

20 Following this guidance, I calculated market risk premiums giving equal weight to
21 both the geometric and arithmetic mean approaches. I used the resulting market risk
22 premium of 4.90% in my CAPM calculations. (Attachment LDC-9, p. 4.)

RRA REGULATORY FOCUS

Snapshot of US gas ROE determinations in 2020 in the age of COVID-19

Friday, March 5, 2021 6:00 AM ET

By Lisa Fontanella
Market Intelligence

The overall average authorized gas return on equity fell to 9.46% in rate cases decided in 2020, 25 basis points below the 9.71% average observed in cases decided during full year 2019, according to Regulatory Research Associates, a group within S&P Global Market Intelligence.

This decline is attributable to lower interest rates and other matters including economic challenges wrought by the COVID-19 pandemic.

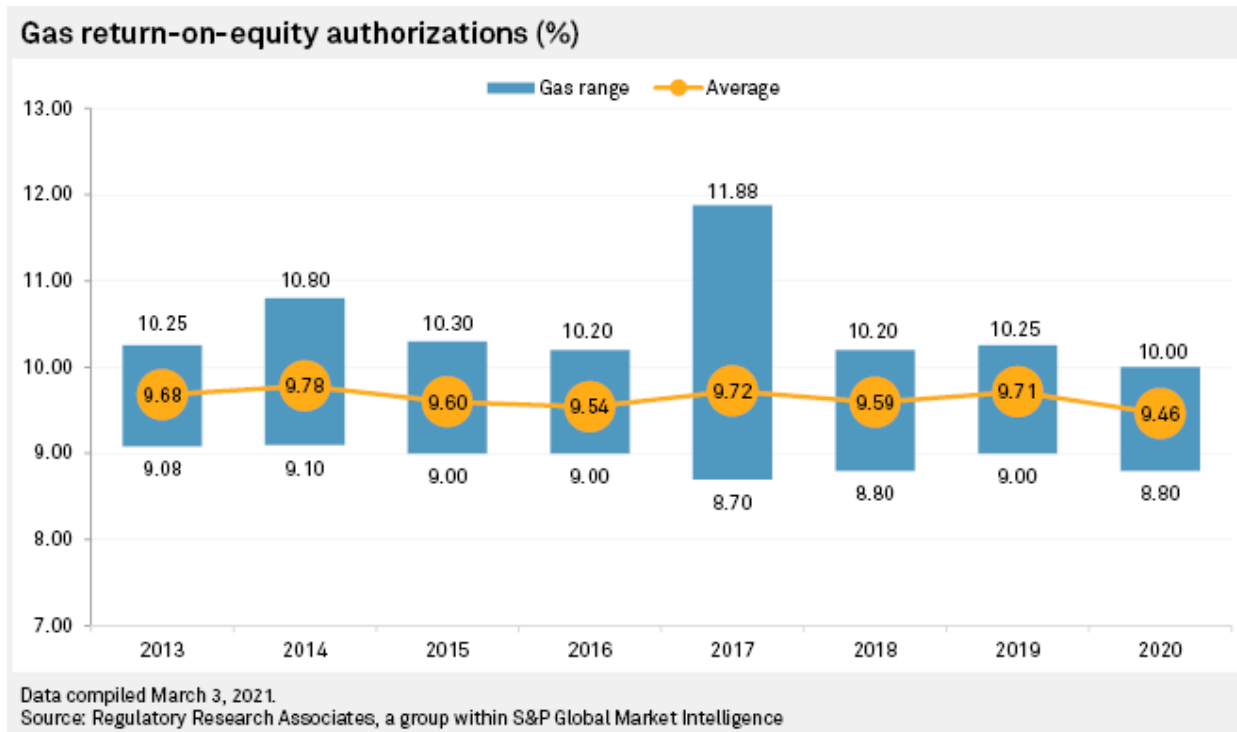
As the COVID-19 pandemic carries on in the U.S., the associated economic fallout will likely continue to weigh on utilities, regulators and rate case outcomes.

There were 34 gas cases that included an ROE determination in 2020, versus 32 in full year 2019.

The 2020 gas average is at the lowest level witnessed in the almost 40 years that RRA has been compiling ROE data.

The average allowed ROEs for the gas sector have been trending downward since the 1980s, consistent with the declining interest rate environment. In addition, the proliferation of automatic adjustment and investment recovery mechanisms that reduce the business risk of a utility have been cited as a contributing factor by commissions in authorizing lower ROEs. Looking at recent years the average ROE determinations have gone from 9.68% in 2013 to 9.46% in 2020.

The ROE determinations authorized by state utility commissions during 2020 ranged from 8.80% to 10%, with an average of 9.46% and a median of 9.42%.

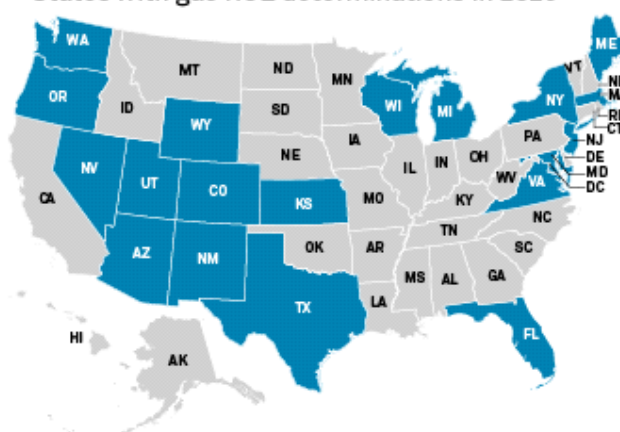


The 34 gas ROE determinations that occurred in 2020 were rendered in 19 different state jurisdictions. One state awarded an ROE of 10% — Wisconsin. Only one state awarded an ROE below 9% — New York.

State	Company	Rate
WI	Wisconsin Power and Light Co.	10.00
MI	DTE Gas Co.	9.90
	Consumers Energy Co.	9.90
MA	NSTAR Gas Co.	9.90
FL	Peoples Gas System	9.90
TX	Atmos Energy Corp.	9.80
WI	Madison Gas and Electric Co.	9.80
MA	Fitchburg Gas and Electric Light Co.	9.70
	Eversource Gas Co. of Massachusetts	9.70
TX	CenterPoint Energy Resources Corp.	9.65
MD	Baltimore Gas and Electric Co.	9.65
NJ	South Jersey Gas Co.	9.60
MD	Columbia Gas of Maryland Inc.	9.60
UT	Questar Gas Co.	9.50
TX	Texas Gas Service Co. Inc.	9.50
ME	Northern Utilities Inc.	9.48
VA	Roanoke Gas Co.	9.44
WA	Cascade Natural Gas Corp.	9.40
	Avista Corp.	9.40
	Puget Sound Energy Inc.	9.40
OR	Northwest Natural Gas Co.	9.40
	Avista Corp.	9.40

Rate case proceedings

States with gas ROE determinations in 2020



State	Company	Value
NM	New Mexico Gas Co. Inc.	9.38
WY	MDU Resources Group Inc.	9.35
	Questar Gas Co.	9.35
NV	Southwest Gas Corp.	9.25
	Southwest Gas Corp.	9.25
CO	Black Hills Colorado Gas Inc.	9.20
	Public Service Co. of Colorado	9.20
KS	Atmos Energy Corp.	9.10
AZ	Southwest Gas Corp.	9.10
NY	Consolidated Edison Co. of New York Inc.	8.80
	New York State Electric & Gas Corp.	8.80
	Rochester Gas and Electric Corp.	8.80

Data compiled March 3, 2021.

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

All of the 34 ROE determinations in 2020 were authorized in general rate cases. Twelve cases were fully litigated and 22 of the cases were settled.

The highest ROE authorized in 2020 was 10%, which was authorized by the Public Service Commission of Wisconsin for Wisconsin Power and Light Co., or WP&L.

For WP&L, the Wisconsin PSC's decision freezes the utility's electric and gas base rates for 2021 at the amounts established for 2019 and 2020 in a prior commission decision. In doing so, the PSC maintained WP&L's ROE of 10%. WP&L's earnings sharing mechanism is to continue for 2021. Under the earnings sharing mechanism, WP&L is to return to customers an amount equal to 50% of incremental earnings between a 10.25% and 10.75% ROE and 100% of any incremental earnings in excess of an ROE of 10.75%.

The second highest ROE for the group was 9.90%, which was authorized by the Michigan Public Service Commission for Consumers Energy Co. and DTE Gas Co., the Florida Public Service Commission for Peoples Gas System and the Massachusetts Department of Public Utilities, or DPU, for NSTAR Gas Co.

For both Consumers Energy and DTE Gas, the Michigan PSC authorized the 9.9% ROEs following adoption of settlements. As part of the approved settlements, the utilities both agreed to propose a plan to achieve more balanced capital structures in their next rate cases. The PSC found the settlements reached in those proceedings to be "in the public interest," and "fair and reasonable" resolutions of the proceedings. Consumers Energy is a subsidiary of CMS Energy Corp. DTE Gas is a subsidiary of DTE Energy Co.

The 9.9% ROE authorized by the Florida PSC for People Gas also followed a settlement. The approved settlement includes an allowed regulatory return on common equity range of 8.90% to 11.00%, with a 9.90% midpoint. Peoples Gas is a unit of Tampa Electric Co., which is a unit of Emera Inc.

For NSTAR Gas, the DPU found the 9.9% ROE to be "within a reasonable range of rates that will preserve NSTAR Gas's financial integrity, will allow it to attract capital on reasonable terms and for the proper discharge of its public duties, will be comparable to earnings of companies of similar risk and, therefore, is appropriate in this case." As part of that case, the DPU authorized NSTAR Gas to operate under a 10-year performance-based regulation plan commencing Nov. 1, 2020, with a commitment that the company not seek to increase base distribution rates prior to Nov. 1, 2030. Annual rate increases under the plan are targeted to equal inflation plus 1.03%. An earnings sharing mechanism is in place that provides both upside sharing if NSTAR Gas' earned ROE exceeds 10.9% and downside sharing if its earned ROE falls below 8.4%. NSTAR Gas is a subsidiary of Yankee Energy System Inc., a subsidiary of Eversource Energy.

The lowest authorized gas ROE, at 8.8%, was adopted by the New York Public Service Commission for Consolidated Edison Co. of New York Inc., or CECONY, in January 2020 and for Avangrid Inc. subsidiaries New York State Electric & Gas Corp., or NYSEG, and Rochester Gas and Electric Corp., or RG&E, in November 2020.

The 8.8% ROEs, which were adopted for both the electric and gas operations for CECONY, NYSEG and RG&E were approved by the New York PSC as part of joint proposals that provide for three-year rate plans. The PSC has a long history of adopting settlements containing multifaceted, multiyear rate plans that provide regulatory predictability during the course of the plan.

According to the PSC, the 8.8% ROE for CECONY "is reasonable given the current financial market conditions as well as the increased financial and business risks inherent in setting rates over a multi-year period."

The approved joint proposal for CECONY contains provisions under which actual earnings above a threshold ROE are to be shared with customers. Specifically, incremental earnings between a 9.3% ROE and a 9.8% ROE are to be shared equally by ratepayers and shareholders, incremental earnings between a 9.8% ROE and a 10.3% ROE are to be allocated 75%/25% to ratepayers and shareholders, and incremental earnings in excess of a 10.3% ROE are to be allocated 90%/10% to ratepayers and shareholders.

CECONY is a subsidiary of Consolidated Edison Inc.

According to the PSC, the 8.8% ROEs authorized for NYSEG and RG&E are "reasonable given the current financial market conditions as well as the increased financial and business risks inherent in setting rates over a multi-year period." Furthermore, the PSC stated that "because the Joint Proposal locks in forecasted amounts for numerous significant elements of expense for the three-year term, the Companies are exposed to the business risk that its actual operating costs will turn out to be greater than those allowed for in rates. This aspect of multi-year rate plans and its impact on overall business risk has accordingly been recognized by the Commission when adopting the allowed ROEs incorporated in long-term rate plans."

The approved joint proposal for NYSEG and RG&E also contains earning sharing provisions under which actual earnings above a threshold ROE of 9%, 9.10% and 9.2% in rate-years one, two and three, respectively, are to be shared with customers.

The second-lowest authorized gas ROE, at 9.1%, was approved by the Kansas Corporation Commission, or KCC, in February 2020 for Atmos Energy Corp. and by the Arizona Corporation Commission, or ACC, in December 2020 for Southwest Gas Corp.

In the KCC's view, the authorized 9.1% ROE for Atmos "strikes the proper balance of allowing Atmos to access capital markets while acknowledging the economic impact of higher ROEs on ratepayers." Atmos had sought a 9.9% ROE, but according to the commission, the company's proposed equity return "runs counter to the trends in Kansas and

nationwide towards lower ROEs in recognition of historically low costs of capital."

The ACC found that the 9.1% ROE will provide Southwest Gas "with a reasonable and appropriate return on its investment, maintain the overall financial integrity of [the utility], and will result in just and reasonable rates."

For a chronological listing of the major energy rate case decisions issued during 2020 as well as historical summary data going back to 1990, see RRA's latest Rate Case Decisions Quarterly Update.

2020 gas return on equity authorizations

Companies	State	Date of decision	ROE (%)	Decision type
MDU Resources Group Inc.	WY	01/15/20	9.35	Settled
Consolidated Edison Co. of New York Inc.	NY	01/16/20	8.80	Settled
Roanoke Gas Co.	VA	01/24/20	9.44	Fully litigated
Cascade Natural Gas Corp.	WA	02/03/20	9.40	Settled
Atmos Energy Corp.	KS	02/24/20	9.10	Fully litigated
Questar Gas Co.	UT	02/25/20	9.50	Fully litigated
Fitchburg Gas and Electric Light Co.	MA	02/28/20	9.70	Settled
Avista Corp.	WA	03/25/20	9.40	Settled
Northern Utilities Inc.	ME	03/26/20	9.48	Fully litigated
Atmos Energy Corp.	TX	04/21/20	9.80	Settled
Black Hills Colorado Gas Inc.	CO	05/19/20	9.20	Fully litigated
CenterPoint Energy Resources Corp.	TX	06/16/20	9.65	Settled
Puget Sound Energy Inc.	WA	07/08/20	9.40	Fully litigated
Texas Gas Service Co. Inc.	TX	08/04/20	9.50	Settled
DTE Gas Co.	MI	08/20/20	9.90	Settled
Questar Gas Co.	WY	08/21/20	9.35	Settled
Consumers Energy Co.	MI	09/10/20	9.90	Settled
South Jersey Gas Co.	NJ	09/23/20	9.60	Settled
Southwest Gas Corp.	NV	09/25/20	9.25	Fully litigated
Southwest Gas Corp.	NV	09/25/20	9.25	Fully litigated
Eversource Gas Co. of Massachusetts	MA	10/07/20	9.70	Settled
Public Service Co. of Colorado	CO	10/12/20	9.20	Settled
Northwest Natural Gas Co.	OR	10/16/20	9.40	Settled
NSTAR Gas Co.	MA	10/30/20	9.90	Fully litigated
Columbia Gas of Maryland, Incorporated	MD	11/07/20	9.60	Settled
New York State Electric & Gas Corp.	NY	11/19/20	8.80	Settled
Rochester Gas and Electric Corp.	NY	11/19/20	8.80	Settled
Peoples Gas System	FL	11/19/20	9.90	Settled
Madison Gas and Electric Co.	WI	11/24/20	9.80	Settled
Southwest Gas Corp.	AZ	12/09/20	9.10	Fully litigated
Avista Corp.	OR	12/10/20	9.40	Settled
New Mexico Gas Co. Inc.	NM	12/16/20	9.38	Settled
Baltimore Gas and Electric Co.	MD	12/16/20	9.65	Fully litigated
Wisconsin Power and Light Co.	WI	12/23/20	10.00	Fully litigated
Average			9.46	
Median			9.42	

Data compiled March 3, 2021.

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

Regulatory Research Associates is a group within S&P Global Market Intelligence.

For a full listing of past and pending rate cases, rate case statistics and upcoming events, visit the S&P Global Market Intelligence Energy Research Home Page.

For a complete, searchable listing of RRA's in-depth research and analysis, please go to the S&P Global Market Intelligence Energy Research Library.

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Table 1: ROEs authorized January 1990-June 2020

Year	Period	Electric utilities			Gas utilities		
		Average ROE (%)	Median ROE (%)	Number of observations	Average ROE (%)	Median ROE (%)	Number of observations
1990	Full year	12.70	12.77	38	12.68	12.75	33
1991	Full year	12.54	12.50	42	12.45	12.50	31
1992	Full year	12.09	12.00	45	12.02	12.00	28
1993	Full year	11.46	11.50	28	11.37	11.50	40
1994	Full year	11.21	11.13	28	11.24	11.27	24
1995	Full year	11.58	11.45	28	11.44	11.30	13
1996	Full year	11.40	11.25	18	11.12	11.25	17
1997	Full year	11.33	11.58	10	11.30	11.25	12
1998	Full year	11.77	12.00	10	11.51	11.40	10
1999	Full year	10.72	10.75	6	10.74	10.65	6
2000	Full year	11.58	11.50	9	11.34	11.16	13
2001	Full year	11.07	11.00	15	10.96	11.00	5
2002	Full year	11.21	11.28	14	11.17	11.00	19
2003	Full year	10.96	10.75	20	10.99	11.00	25
2004	Full year	10.81	10.70	21	10.63	10.50	22
2005	Full year	10.51	10.35	24	10.41	10.40	26
2006	Full year	10.32	10.23	26	10.40	10.50	15
2007	Full year	10.30	10.20	38	10.22	10.20	35
2008	Full year	10.41	10.30	37	10.39	10.45	32
2009	Full year	10.52	10.50	40	10.22	10.26	30
2010	Full year	10.37	10.30	61	10.15	10.10	39
2011	Full year	10.29	10.17	42	9.92	10.03	16
2012	Full year	10.17	10.08	58	9.94	10.00	35
2013	Full year	10.03	9.95	49	9.68	9.72	21
2014	Full year	9.91	9.78	38	9.78	9.78	26
2015	Full year	9.85	9.65	30	9.60	9.68	16
	1st quarter	10.29	10.50	9	9.48	9.50	6
	2nd quarter	9.60	9.60	7	9.42	9.52	6
	3rd quarter	9.76	9.80	8	9.47	9.50	4
	4th quarter	9.57	9.58	18	9.68	9.73	10
2016	Full year	9.77	9.75	42	9.54	9.50	26
	1st quarter	9.87	9.60	15	9.60	9.25	3
	2nd quarter	9.63	9.50	14	9.47	9.60	7
	3rd quarter	9.66	9.60	5	10.14	9.90	6
	4th quarter	9.74	9.60	19	9.68	9.55	8
2017	Full year	9.74	9.60	53	9.72	9.60	24
	1st quarter	9.75	9.90	13	9.68	9.80	6
	2nd quarter	9.54	9.50	13	9.43	9.50	7
	3rd quarter	9.67	9.70	11	9.69	9.60	13
	4th quarter	9.42	9.50	11	9.53	9.60	14
2018	Full year	9.60	9.58	48	9.59	9.60	40
	1st quarter	9.73	9.70	12	9.55	9.70	4
	2nd quarter	9.58	9.50	12	9.73	9.73	3
	3rd quarter	9.55	9.60	7	9.80	9.90	3
	4th quarter	9.70	9.68	16	9.73	9.70	22
2019	Full year	9.65	9.60	47	9.71	9.70	32
	1st quarter	9.58	9.50	19	9.35	9.40	9
	2nd quarter	9.47	9.44	8	9.55	9.65	3
2020	1st half	9.55	9.45	27	9.40	9.42	12

Data compiled July 20, 2020

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

(A) Diluted EPS. Excl. extraord. gains (losses): '04, (\$2.72); '05, .9c; '11, \$1.89; '12, (38c); '13, (52c); '15, (\$2.69); '17, \$2.56; '20, \$2.86; losses on disc. ops: '04, 37c; '05, 1c; '20, 35c.	Next earnings report due late Feb. (B) Div'ds historically paid in early Mar., June, Sept. & Dec. 5 declarations in '17, 3 in '19. ■ Div'd reinvest. plan avail. (C) Incl. intang. In '19:	\$15.14/sh. (D) In mill. (E) Rate base: Net orig. cost. Rate allowed on com. eq. (elec.) in '20: 9.4%; (gas): 9.45%-11.25%; earned on avg. com. eq., '19: 11.6%. Regulatory Climate: Avg.	<table><tr><td>Company's Financial Strength</td><td>B+</td></tr><tr><td>Stock's Price Stability</td><td>70</td></tr><tr><td>Price Growth Persistence</td><td>30</td></tr><tr><td>Earnings Predictability</td><td>45</td></tr></table>	Company's Financial Strength	B+	Stock's Price Stability	70	Price Growth Persistence	30	Earnings Predictability	45
Company's Financial Strength	B+										
Stock's Price Stability	70										
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Table: Equity Risk Premium & Risk-free Rates

December 9, 2020

Duff & Phelps Recommended
U.S. Equity Risk Premium (ERP) and
Corresponding Risk-free Rates (R_f);
January 2008–Present

For additional information, please visit
<https://www.duffandphelps.com/insights/publications/cost-of-capital>

Date	Risk-free Rate (R_f)	R_f (%)	Duff & Phelps Recommended ERP (%)	What Changed
Current Guidance:				
December 9, 2020 – UNTIL FURTHER NOTICE	Normalized 20-year U.S. Treasury yield	2.50	5.50	ERP
June 30, 2020 – December 8, 2020	Normalized 20-year U.S. Treasury yield	2.50	6.00	R_f
March 25, 2020 – June 29, 2020	Normalized 20-year U.S. Treasury yield	3.00	6.00	ERP
December 19, 2019 – March 24, 2020	Normalized 20-year U.S. Treasury yield	3.00	5.00	ERP
September 30, 2019 – December 18, 2019	Normalized 20-year U.S. Treasury yield	3.00	5.50	R_f
December 31, 2018 – September 29, 2019	Normalized 20-year U.S. Treasury yield	3.50	5.50	ERP
September 5, 2017 – December 30, 2018	Normalized 20-year U.S. Treasury yield	3.50	5.00	ERP
November 15, 2016 – September 4, 2017	Normalized 20-year U.S. Treasury yield	3.50	5.50	R_f
January 31, 2016 – November 14, 2016	Normalized 20-year U.S. Treasury yield	4.00	5.50	ERP
December 31, 2015	Normalized 20-year U.S. Treasury yield	4.00	5.00	
December 31, 2014	Normalized 20-year U.S. Treasury yield	4.00	5.00	
December 31, 2013	Normalized 20-year U.S. Treasury yield	4.00	5.00	
February 28, 2013 – January 30, 2016	Normalized 20-year U.S. Treasury yield	4.00	5.00	ERP
December 31, 2012	Normalized 20-year U.S. Treasury yield	4.00	5.50	
January 15, 2012 – February 27, 2013	Normalized 20-year U.S. Treasury yield	4.00	5.50	ERP
December 31, 2011	Normalized 20-year U.S. Treasury yield	4.00	6.00	
September 30, 2011 – January 14, 2012	Normalized 20-year U.S. Treasury yield	4.00	6.00	ERP
July 1 2011 – September 29, 2011	Normalized 20-year U.S. Treasury yield	4.00	5.50	R_f
June 1, 2011 – June 30, 2011	Spot 20-year U.S. Treasury yield	Spot	5.50	R_f
May 1, 2011 – May 31, 2011	Normalized 20-year U.S. Treasury yield	4.00	5.50	R_f
December 31, 2010	Spot 20-year U.S. Treasury yield	Spot	5.50	
December 1, 2010 – April 30, 2011	Spot 20-year U.S. Treasury yield	Spot	5.50	R_f
June 1, 2010 – November 30, 2010	Normalized 20-year U.S. Treasury yield	4.00	5.50	R_f
December 31, 2009	Spot 20-year U.S. Treasury yield	Spot	5.50	
December 1, 2009 – May 31, 2010	Spot 20-year U.S. Treasury yield	Spot	5.50	ERP
June 1, 2009 – November 30, 2009	Spot 20-year U.S. Treasury yield	Spot	6.00	R_f
December 31, 2008	Normalized 20-year U.S. Treasury yield	4.50	6.00	
November 1, 2008 – May 31, 2009	Normalized 20-year U.S. Treasury yield	4.50	6.00	R_f
October 27, 2008 – October 31, 2008	Spot 20-year U.S. Treasury yield	Spot	6.00	ERP
January 1, 2008 – October 26, 2008	Spot 20-year U.S. Treasury yield	Spot	5.00	Initialized

"Normalized" in this context means that in months where the risk-free rate is deemed to be abnormally low, a proxy for a longer-term sustainable risk-free rate is used.

To learn more about cost of capital issues, and to ensure that you are using the most recent Duff & Phelps Recommended ERP, visit www.duffandphelps.com/insights/publications/cost-of-capital. This and other related resources can also be found in the online Cost of Capital Navigator platform. To learn more about the Cost of Capital Navigator and other Duff & Phelps valuation and industry data products, visit www.DPCostofCapital.com.

**Summary of
Discounted Cash Flow Analysis (DCF)**

$$DCF \text{ formula: } K = (D_1 / P_0) + g$$

Gas Proxy Group:

Dividend Yield (D_1/P_0): **3.7%** **see pages 2 and 3**

Dividend Growth (g): **5.5%** **see pages 4 and 5**

DCF Cost of Equity (K):	9.2%
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Value Line Dividend Yield Data

	Value Line Forward Yield D_1/P_0 (February 26, 2021)
Gas Utility Group Companies:	
Atmos Energy Corp. (ATO)	2.5%
ONE Gas Inc. (OGS)	3.0%
South Jersey Inds. (SJI)	5.3%
Southwest Gas (SWX)	3.3%
Spire, Inc. (SR)	4.1%
Gas Utility Group Average	3.6%

Forward Dividend Yields:

Average Dividend Yield, adjusted for growth by $(1 + 0.5g)$

$$D_1/P_0 = D_0/P_0 * (1 + 0.5g) = 3.6\% * [1 + 0.5(0.053)] = \underline{\underline{3.7\%}}$$

$$\text{Value Line Forward Yield } (D_1/P_0) = \underline{\underline{3.6\%}}$$

Use for forward yield (D_1/P_0):	3.7%
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**Summary of
Discounted Cash Flow Analysis (DCF)
Growth Estimates**

Gas Utility Group:

From Standard Edition Value Line:

Average of Value Line forecasted growth rates	6.7%
Average of 5 year historical growth	6.3%
Average 10 year historical growth:	5.8%
Earnings Per Share (Value Line Forecasted)	8.2%
Earnings Per Share (Past 5 Years)	6.9%
Earnings Per Share (Past 10 Years)	4.6%
Dividends Per Share (Value Line Forecasted)	5.5%
Dividends Per Share (Past 5 Years)	9.0%
Dividends Per Share (Past 10 Years)	6.4%
Book Value Per Share (Value Line Forecasted)	6.3%
Book Value Per Share (Past 5 Years)	5.6%
Book Value Per Share (Past 10 years)	6.5%

Nominal GDP Growth

From Federal Reserve Bank of St. Louis

Average % Growth in Nominal GDP (1948 to 2020)	6.3%
Average % Growth in Nominal GDP (1980 to 2020)	5.2%

Projected Growth in Nominal GDP

Congressional Budget Office (2021 to 2030)	4.3%
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Use DCF Growth Rate	5.5%
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Value Line Growth Rates

STANDARD VALUE LINE COMPANIES -- Gas Utility Group

Company Name	Annual Growth - Past 10 Years			Annual Growth - Past 5 Years			Annual Growth - Value Line Projected			Average Growth Rates		
	Earnings Per Share	Dividends Per Share	Book Value Per Share	Earnings Per Share	Dividends Per Share	Book Value Per Share	Earnings Per Share	Dividends Per Share	Book Value Per Share	Past 10 Years	Past 5 Years	Value Line Projected
Atmos Energy Corp. (ATO)	8.0%	5.0%	7.5%	9.0%	7.5%	10.0%	7.0%	7.5%	7.5%	6.8%	8.8%	7.3%
ONE Gas, Inc. (OGS)	n/a*	n/a*	n/a*	9.5%	17.0%	2.5%	6.5%	7.0%	4.5%	n/a*	6.0%	6.0%
South Jersey Inds. (SJI)	1.0%	7.5%	5.5%	-4.0%	5.0%	3.5%	10.5%	4.0%	5.0%	4.7%	4.3%	6.5%
Southwest Gas (SWX)	8.0%	8.5%	6.0%	4.5%	9.5%	6.5%	8.0%	4.5%	6.0%	7.5%	6.8%	6.2%
Spire Inc. (SR)	1.5%	4.5%	7.0%	4.5%	6.0%	5.5%	9.0%	4.5%	8.5%	4.3%	5.3%	7.3%
Gas Utility Group Average	4.6%	6.4%	6.5%	6.9%	9.0%	5.6%	8.2%	5.5%	6.3%	5.8%	6.3%	6.7%

Source: *Value Line Investment Survey, February 26, 2021.*

* *Value Line did not list 10-Year data for ONE Gas, Inc.*
Negative percentages were not included in the average calculations.

Growth in Nominal Gross Domestic Product, 1948 to 2020

Year	% Change in Nominal GDP
1948	7.90%
1949	-3.40%
1950	18.30%
1951	11.50%
1952	7.10%
1953	1.50%
1954	3.60%
1955	9.40%
1956	5.40%
1957	3.20%
1958	5.50%
1959	5.90%
1960	2.40%
1961	7.60%
1962	5.50%
1963	6.80%
1964	6.70%
1965	10.70%
1966	8.00%
1967	5.80%
1968	9.90%
1969	7.30%
1970	4.90%
1971	9.50%
1972	11.60%
1973	11.10%
1974	8.40%
1975	10.20%
1976	9.80%
1977	11.90%
1978	14.60%
1979	10.00%

Year	% Change in Nominal GDP
1980	9.90%
1981	9.90%
1982	3.80%
1983	11.40%
1984	9.30%
1985	7.40%
1986	4.90%
1987	7.60%
1988	7.80%
1989	6.50%
1990	4.60%
1991	4.30%
1992	6.70%
1993	5.00%
1994	6.30%
1995	4.30%
1996	6.30%
1997	6.10%
1998	6.10%
1999	6.50%
2000	5.50%
2001	2.20%
2002	3.80%
2003	6.50%
2004	6.30%
2005	6.50%
2006	5.10%
2007	4.40%
2008	-0.90%
2009	0.20%
2010	4.60%
2011	3.70%

Year	% Change in Nominal GDP
2012	3.30%
2013	4.30%
2014	4.10%
2015	3.00%
2016	3.50%
2017	4.10%
2018	4.90%
2019	4.00%
2020*	-2.40%
Avg. % Change 1948 to 2020	6.30%
Avg. % Change 1980 to 2020	5.16%

Source: Federal Reserve Economic Data, <https://fred.stlouisfed.org>,
Federal Reserve Bank of St. Louis, Economic Research Division

Forecasted Annual Percentage Growth in Nominal GDP
Congressional Budget Office, February 2021

Calendar Year	% Nominal GDP Growth
2021	6.3%
2022	4.9%
2023	4.2%
2024	4.4%
2025	4.4%
2026	3.8%
2027	3.8%
2028	3.8%
2029	3.8%
2030	3.8%
2031	3.8%
Average Growth	4.3%

Source: *Congressional Budget Office, The Budget and Economic Outlook:
2021 to 2031: February 2021*

ATMOS ENERGY CORP. NYSE-ATO										RECENT PRICE	91.05	P/E RATIO	18.2 (Trailing: 18.3 Median: 19.0)	RELATIVE P/E RATIO	0.85	DIV'D YLD	2.9%	VALUE LINE	Page 1		
TIMELINESS	2	Lowered 12/4/20	High: 32.0	35.6	37.3	47.4	58.2	64.8	82.0	93.6	100.8	115.2	121.1	95.9							
SAFETY	1	Raised 6/6/14	Low: 25.9	28.5	30.4	34.9	44.2	50.8	60.0	72.5	76.5	89.2	77.9	86.7							
TECHNICAL	5	Lowered 2/26/21	LEGENDS 0.50 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)																					
\$72-\$160 \$116 (25%)																					
2024-26 PROJECTIONS																					
High Price Gain Ann'l Total																					
Low 130 (+45%) 12%																					
Institutional Decisions																					
10/2020 20/2020 30/2020																					
to Buy 268 233 256																					
to Sell 251 262 231																					
Hld's(000) 103070 108597 108898																					
Percent shares traded																					
24 16 8																					
2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 2020 2021 2022																					
61.75 75.27 66.03 79.52 53.69 53.12 48.15 38.10 42.88 49.22 40.82 32.23 26.01 28.00 24.32 22.41 22.55 22.85																					
3.90 4.26 4.14 4.19 4.29 4.64 4.72 5.14 5.42 5.81 6.19 6.62 7.24 7.57 8.03 8.40 8.85																					
1.72 2.00 1.94 2.00 1.97 2.16 2.26 2.10 2.50 2.96 3.09 3.38 3.60 4.00 4.35 4.72 5.00																					
1.24 1.26 1.28 1.30 1.32 1.34 1.36 1.38 1.40 1.48 1.56 1.68 1.80 1.94 2.10 2.30 2.50																					
4.14 5.20 4.39 5.20 5.51 6.02 6.90 8.12 9.32 8.32 9.61 10.46 10.72 13.19 14.19 15.38 15.80																					
19.90 20.16 22.01 22.60 23.52 24.16 24.98 26.14 28.47 30.74 31.48 33.32 36.74 42.87 48.18 53.95 61.35																					
80.54 81.74 89.33 90.81 92.55 90.16 90.30 90.24 90.64 100.39 101.48 103.93 106.10 111.27 119.34 125.88 133.00																					
16.1 13.5 15.9 13.6 12.5 13.2 14.4 15.9 15.9 16.1 17.5 20.8 22.0 21.7 23.2 22.3																					
.86 .73 .84 .82 .83 .84 .90 1.01 .89 .85 .88 1.09 1.11 1.17 1.24 1.13																					
4.5% 4.7% 4.2% 4.8% 5.3% 4.7% 4.2% 4.1% 3.5% 3.1% 2.9% 2.4% 2.3% 2.2%																					
CAPITAL STRUCTURE as of 12/31/20																					
Total Debt \$5125.1 mill. Due in 5 Yrs \$210.0 mill.																					
LT Debt \$5124.9 mill. LT Interest \$270.0 mill.																					
(LT interest earned: 9.5x; total interest coverage: 9.5x)																					
Leases, Uncapitalized Annual rentals \$20.4 mill.																					
Pfd Stock None																					
Pension Assets-9/20 \$528.9 mill.																					
Oblig. \$604.2 mill.																					
Common Stock 128,160,695 shs.																					
as of 1/29/21																					
MARKET CAP: \$11.7 billion (Large Cap)																					
CURRENT POSITION (SMILL)																					
Cash Assets 24.5 20.8 457.6																					
Other 433.5 450.5 734.7																					
Current Assets 458.0 471.3 1192.3																					
Accts Payable 265.0 235.8 285.0																					
Debt Due 464.9 .2 .2																					
Other 479.5 546.4 512.6																					
Current Liab. 1209.4 782.4 797.8																					
Fix. Chg. Cov. 990% 1306% 1315%																					
ANNUAL RATES Past Past Est'd '18-'20																					
of change (per sh) 10 Yrs. 5 Yrs. to '24-'26																					
Revenues -8.5% -11.0% 6.0%																					
"Cash Flow" 5.5% 7.0% 5.0%																					
Earnings 8.0% 9.0% 7.0%																					
Dividends 5.0% 7.5% 7.5%																					
Book Value 7.5% 10.0% 10.5%																					
Fiscal Year Ends																					
QUARTERLY REVENUES (\$ mill.) A																					
Dec.31 Mar.31 Jun.30 Sep.30																					
Full Fiscal Year																					
2018 889.2 1219.4 562.2 444.7 3115.5																					
2019 877.8 1094.6 485.7 443.7 2901.8																					
2020 875.6 977.6 493.0 474.9 2821.1																					
2021 914.5 1060 525 500.5 3000																					
2022 960 1105 545 520.2 3130																					
Fiscal Year Ends																					
EARNINGS PER SHARE A B E																					
Dec.31 Mar.31 Jun.30 Sep.30																					
Full Fiscal Year																					
2018 1.40 1.57 .64 .41 4.00																					
2019 1.38 1.82 .68 .49 4.35																					
2020 1.47 1.95 .79 .53 4.72																					
2021 1.71 1.99 .78 .52 5.00																					
2022 1.82 2.07 .85 .61 5.35																					
Cal-endar																					
QUARTERLY DIVIDENDS PAID C																					
Mar.31 Jun.30 Sep.30 Dec.31																					
Full Year																					
2017 .45 .45 .45 .485 1.84																					
2018 .485 .485 .485 .525 1.98																					
2019 .525 .525 .525 .575 2.15																					
2020 .575 .575 .575 .625 2.35																					
2021 .625 .625 .625 .625 2.50																					
2022 .625 .625 .625 .625 2.50																					
BUSINESS:																					
Atmos Energy Corporation is engaged primarily in the																					
distribution and sale of natural gas to over three million customers																					
through six regulated natural gas utility operations: Louisiana Division,																					
West Texas Division, Mid-Tex Division, Mississippi Division,																					
Colorado-Kansas Division, and Kentucky/Mid-States Division. Gas																					
sales breakdown for fiscal 2020: 68.6%, residential; 26.2%, com-																					
mercial; 3.6%, industrial; and 1.6% other. The company sold Atmos																					
Energy Marketing, 1/17. Officers and directors own approximately																					
1.4% of common stock (12/19 Proxy). President and Chief Executive																					
Officer: Kevin Akers. Incorporated: Texas. Address: Three Lincoln																					
Centre, Suite 1800, 5430 LBJ Freeway, Dallas, Texas 75240. Telephone:																					
972-934-9227. Internet: www.atmosenergy.com.																					
resources are being deployed to enhance the																					
safety and reliability of Atmos' natural																					
gas distribution and transmission systems.																					
We believe that the fiscal 2022 capital																					
spending budget will be a bit above the																					
present level.																					
Value Line is optimistic about the																					
company's performance out to 2024-																					
2026. It ranks as one of the nation's big-																					
gest natural gas-only distributors, boast-																					
ing more than three million customers																					
across several states, including Texas,																					
Louisiana, and Mississippi. Moreover, we																					
think the pipeline and storage unit has																					
healthy overall growth prospects, since it																					
operates in one of the most-active drilling																					
regions in the world. Lastly, the balance																					
sheet is in solid condition. In Atmos' cur-																					
rent configuration, annual earnings in-																					
creases might be between 6% and 8% over																					
the 3- to 5-year period.																					
The high-quality stock has some ap-																					
pealing attributes. Among them is the 2																					
(Above Average) Timeliness rank. Consid-																					
er, also, the total return possibilities																					
through mid-decade. Another plus is the																					
shares' 18-month capital gains potential.																					
Frederick L. Harris, III February 26, 2021																					

ONE GAS, INC. NYSE-OGS										RECENT PRICE	72.69	P/E RATIO	19.1	(Trailing: 20.5 Median: NMF)	RELATIVE P/E RATIO	0.90	DIV'D YLD	3.2%	VALUE LINE	Page 2		
TIMELINESS	4	Lowered 11/20/20											High: 44.3	51.8	67.4	79.5	87.8	96.7	97.0	78.0		
SAFETY	2	New 6/2/17											Low: 31.9	38.9	48.0	61.4	62.2	75.8	63.7	69.5		
TECHNICAL	4	Lowered 2/12/21																				
BETA	.80	(1.00 = Market)																				
18-Month Target Price Range																						
Low-High Midpoint (% to Mid)																						
\$59-\$131 \$95 (30%)																						
2024-26 PROJECTIONS																						
Price Gain Ann'l Total																						
High 145 (+100%) 21%																						
Low 105 (+45%) 12%																						
Institutional Decisions																						
1Q2020 2Q2020 3Q2020																						
to Buy 124 142 130																						
to Sell 157 137 151																						
Hld's(000) 41769 42060 42057																						

VALUE
LINE Page 3 of 5

<p>(A) Based on economic eggs. from 2007. GAAP EPS: '08, \$1.29; '09, \$0.97; '10, \$1.11; '11, \$1.49; '12, \$1.49; '13, \$1.28; '14, \$1.46; '15, \$1.52; '16, \$1.56; '17, (\$0.04); '18, \$0.21; '19, \$0.84. Excl. nonrecurr. gain (loss): '09, (\$0.22); '10, (\$0.24); '11, \$0.04; '12, (\$0.03); '13, (\$0.24); '14, (\$0.11); '15, \$0.08; '16, \$0.22; '17, (\$1.27); '18, (\$1.17); '19, (\$0.28). Next eggs. rpt. due early May. (B) Div'ds paid early April, July, Oct., and late Dec. ■ Div. reinvest. plan avail. (C) Incl. reg. assets. In 2019: \$665.9 mill., \$7.21 per shr. (D) In mill., adj. for split.</p>		<p>Company's Financial Strength B++</p> <p>Stock's Price Stability 70</p> <p>Price Growth Persistence 15</p> <p>Earnings Predictability 65</p>
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Marina Energy, South Jersey Energy Service Plus, and SJI Midstream. Has about 1,100 employees. Off/dir. own less than 1% of common; BlackRock, 15.5%; The Vanguard Group, 11.4% (3/20 proxy). Pres. & CEO: Michael J. Renna. Chairman: Joseph M. Rigby. Inc.: NJ. Addr.: 1 South Jersey Plaza, Folsom, NJ 08037. Tel.: 609-561-9000. Internet: www.sjindustries.com.

ments. Regulatory initiatives should also pay off. Meanwhile, we look for better performance on the nonutility side. The Energy Group business ought to benefit from fuel supply management contracts and a reorganized wholesale marketing portfolio. Solar investment in support of the New Jersey Energy Master Plan, as well as legacy energy production activity will likely continue to boost the performance of the Energy Services line. Investment by the Midstream unit in long-term contracted energy infrastructure projects, such as the Penn East Pipeline, should bear fruit, too.

This stock is ranked to track the broader market for the coming six to 12 months. Looking further out, we anticipate solid bottom-line growth for the company over the pull to mid-decade. From the recent quotation, this stock offers attractive long-term total return potential. This is aided by a fairly healthy dividend yield. In addition, South Jersey Industries has above-average marks for Price Stability and Earnings Predictability. Income-seeking subscribers may want to take a closer look.

Michael Napoli, CFA February 26, 2002

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TIMELINESS	3	Lowered 1/8/21			
SAFETY	3	Lowered 1/4/91			
TECHNICAL	5	Lowered 2/12/21			
BETA	.95	(1.00 = Market)			
18-Month Target Price Range					
Low-High	Midpoint (% to Mid)				
\$49-\$121	\$85 (35%)				
2024-26 PROJECTIONS					
High Low	Price 125 85	Ann'l Total Return 22% 11%			
Institutional Decisions					
to Buy to Sell Hld's(000)	1Q2020 118 155 47511	3Q2020 116 137 46991			
Percent shares traded		15 10 5			
© VALUE LINE PUB. LLC					
2005	2006	2007			
43.59	48.47	50.28			
5.20	5.97	6.21			
1.25	1.98	1.95			
.82	.82	.86			
7.49	8.27	7.96			
19.10	21.58	22.98			
39.33	41.77	42.81			
20.6	15.9	17.3			
1.10	.86	.92			
3.2%	2.6%	2.6%			
2008	2009	2010			
48.53	42.00	40.18			
5.76	6.16	6.46			
1.39	1.94	2.27			
.90	.95	1.00			
6.79	4.81	4.73			
23.49	24.44	25.62			
44.19	45.09	45.56			
20.3	12.2	14.0			
1.22	.81	.89			
3.2%	4.0%	3.2%			
2011	2012	2013			
41.07	41.77	42.08			
6.81	7.73	8.24			
2.43	2.86	3.11			
1.06	1.18	1.32			
8.29	8.57	7.86			
28.35	30.47	31.95			
45.96	46.15	46.36			
15.7	15.0	15.8			
.98	.95	.89			
2.8%	2.8%	2.7%			
2014	2015	2016			
45.61	52.00	51.82			
8.47	8.62	9.29			
3.01	2.92	3.18			
1.46	1.62	1.80			
8.53	10.30	11.15			
31.95	33.61	35.03			
46.52	47.38	47.48			
17.9	19.4	21.6			
.94	.98	1.13			
2.7%	2.9%	2.6%			
2017	2018	2019			
53.00	54.31	56.72			
8.83	8.14	9.40			
3.62	3.68	3.94			
1.98	2.08	2.18			
12.97	14.44	17.06			
37.74	42.47	45.56			
48.09	53.03	55.01			
22.2	20.6	21.3			
1.12	1.11	1.13			
2.5%	2.7%	2.6%			
2020	2021	2022			
57.65	59.30	60.65			
9.65	10.35	11.05			
4.00	4.45	4.95			
2.26	2.37	2.48			
14.05	16.95	18.85			
47.35	50.00	52.85			
57.00	59.00	61.00			
17.9					
3.3%					
Revenues per sh		67.70			
"Cash Flow" per sh		13.75			
Earnings per sh ^		6.50			
Div'ds Decl'd per sh B=†		2.80			
Cap'l Spending per sh		26.15			
Book Value per sh		63.10			
Common Shs Outst'g ^C		65.00			
Avg Ann'l P/E Ratio		16.0			
Relative P/E Ratio		.90			
Avg Ann'l Div'd Yield		2.7%			
CAPITAL STRUCTURE as of 9/30/20					
Total Debt \$2784.6 mill. Due in 5 Yrs \$898.8 mill.					
LT Debt \$2685.7 mill. LT Interest \$100.0 mill.					
(Total interest coverage: 3.6x) (50% of Cap'l)					
Leases, Uncapitalized Annual rentals \$13.0 mill.					
Pension Assets-12/19 \$1027.8 mill.					
Oblig. \$1405.7 mill.					
Pfd Stock None					
Common Stock 56,464,880 shs. as of 10/30/20					
MARKET CAP: \$3.5 billion (Mid Cap)					
CURRENT POSITION (\$MILL.)	2018	2019			
Cash Assets	85.4	49.5			
Other	754.4	810.4			
Current Assets	839.8	859.9			
Accts Payable	249.0	238.9			
Debt Due	185.1	374.5			
Other	504.5	466.5			
Current Liab.	938.6	1079.9			
Fix. Chg. Cov.	370%	340%			
ANNUAL RATES of change (per sh)	Past 10 Yrs	Past 5 Yrs			
Revenues	1.5%	5.0%			
"Cash Flow"	4.0%	1.5%			
Earnings	8.0%	4.5%			
Dividends	8.5%	9.5%			
Book Value	6.0%	6.5%			
Est'd '17-'19 to '24-'26	3.0%	6.5%			
Cal-endar	QUARTERLY REVENUES (\$ mill.)				Full Year
	Mar.31	Jun.30	Sep.30	Dec.31	
2018	754.3	670.9	668.1	786.7	2880.0
2019	833.6	713.0	725.2	848.1	3119.9
2020	836.3	757.2	791.2	900.3	3285
2021	875	825	850	950	3500
2022	925	875	900	1000	3700
Cal-endar	EARNINGS PER SHARE ^ D				Full Year
	Mar.31	Jun.30	Sep.30	Dec.31	
2018	1.63	.44	.25	1.36	3.68
2019	1.77	.41	.10	1.67	3.94
2020	1.31	.68	.32	1.69	4.00
2021	1.70	.65	.32	1.78	4.45
2022	1.85	.75	.40	1.95	4.95
Cal-endar	QUARTERLY DIVIDENDS PAID B=†				Full Year
	Mar.31	Jun.30	Sep.30	Dec.31	
2017	.450	.495	.495	.495	1.94
2018	.495	.520	.520	.520	2.06
2019	.520	.545	.545	.545	2.16
2020	.545	.570	.570	.570	2.26
2021	.570				

High: 37.3 43.2 46.1 56.0 64.2 63.7 79.6 86.9 86.0 92.9 81.6 62.7

Low: 26.3 32.1 39.0 42.0 47.2 50.5 53.5 72.3 62.5 73.3 45.7 57.0

LEGENDS

0.50 x Dividends p sh divided by Interest Rate

Relative Price Strength

Options: Yes

Shaded area indicates recession

% TOT. RETURN 1/21

THIS STOCK	VL ARITH. INDEX
1 yr. -18.6	26.6
3 yr. -11.9	29.4
5 yr. 15.8	99.1

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2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 2020 2021 2022

Revenues (\$mill) 4400

Net Profit (\$mill) 395

Income Tax Rate 21.0%

Net Profit Margin 9.0%

Long-Term Debt Ratio 48.0%

Common Equity Ratio 52.0%

Total Capital (\$mill) 7850

Net Plant (\$mill) 8000

Return on Total Cap'l 6.0%

Return on Shr. Equity 9.5%

Return on Com Equity 9.5%

Retained to Com Eq 5.0%

All Div'ds to Net Prof 46%

BUSINESS: Southwest Gas Holdings, Inc. is the parent holding company of Southwest Gas and Centuri Group. Southwest Gas is a regulated gas distributor serving about 2.1 million customers in parts of Arizona, Nevada, and California. Centuri provides construction services. 2019 margin mix: residential and small commercial, 84%; large commercial and industrial, 3%; transportation, 13%. Total throughput: 2.3 billion therms. Has 8,944 employees. Off. & dir. own .8% of common stock; BlackRock, Inc., 13.5%; The Vanguard Group, Inc., 10.3%; T.Rowe Price Assoc., Inc., 6.8% (3/20 Proxy). Chairman: Michael J. Melarkey. Pres. & CEO: John P. Hester. Inc.: DE. Address: 8360 S. Durango Drive, P.O. Box 98510 Las Vegas, Nevada 89193. Tel.: 702-876-7237. Web: www.swgas.com.

it to earn a satisfactory return on investment. Meantime, Centuri, the company's infrastructure services business, should fare relatively well. This operation derives its revenue from the installation, replacement, repair, and maintenance of energy distribution systems. It ought to further benefit from the ongoing need for utilities to replace their aging infrastructure. Centuri has a robust client base, many with multiyear pipeline replacement programs. Measures by Southwest Gas to control operating expenses should support profitability, too.

This stock is ranked to perform in line with the broader market averages for the coming six to 12 months. Looking further out, we anticipate healthy growth in revenues and earnings per share for the company over the pull to mid-decade. From the recent quotation, these shares offer attractive long-term total return potential. The payout should continue to rise in the years ahead, as well. Southwest Gas earns favorable marks for Financial Strength, Price Stability, and Earnings Predictability.

Michael Napoli, CFA February 26, 2021

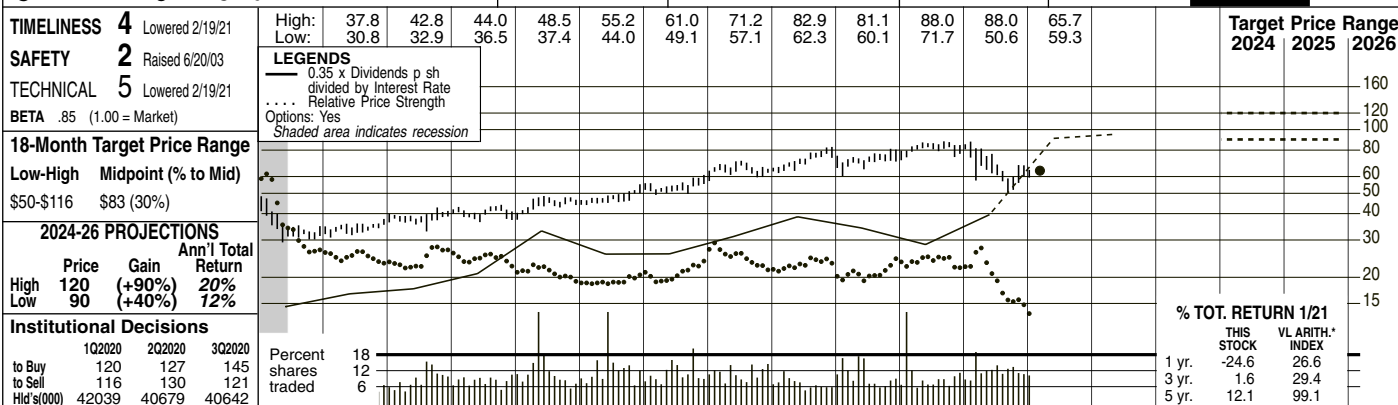
(A) Diluted earnings. Excl. nonrec. gains (losses): '05, (11¢); '06, 7¢. Next egs. report due early March. (B) Dividends historically paid early March, June, September, and December.

■† Div'd reinvestment and stock purchase plan avail. (C) In millions. (D) Totals may not sum due to rounding.

Company's Financial Strength	A
Stock's Price Stability	85
Price Growth Persistence	65
Earnings Predictability	95

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2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	© VALUE LINE PUB. LLC	24-26
75.43	93.51	93.40	100.44	85.49	77.83	71.48	49.90	31.10	37.68	45.59	33.68	36.07	38.78	38.30	35.96	34.95	35.35	Revenues per sh ^A	58.20
2.98	3.81	3.87	4.22	4.56	4.11	4.62	4.58	3.12	3.87	6.15	6.16	6.54	7.55	7.12	5.25	7.85	8.35	"Cash Flow" per sh	10.35
1.90	2.37	2.31	2.64	2.92	2.43	2.86	2.79	2.02	2.35	3.16	3.24	3.43	4.33	3.52	1.44	3.85	4.15	Earnings per sh ^{A B}	5.15
1.37	1.40	1.45	1.49	1.53	1.57	1.61	1.66	1.70	1.76	1.84	1.96	2.10	2.25	2.37	2.49	2.60	2.72	Div'ds Decl'd per sh ^C	3.10
2.84	2.97	2.72	2.57	2.36	2.56	3.02	4.83	4.00	3.96	6.68	6.42	9.08	9.86	16.15	12.37	11.25	11.30	Cap'l Spending per sh	11.45
17.31	18.85	19.79	22.12	23.32	24.02	25.56	26.67	32.00	34.93	36.30	38.73	41.26	44.51	45.14	44.19	52.45	54.80	Book Value per sh ^D	72.00
21.17	21.36	21.65	21.99	22.17	22.29	22.43	22.55	32.70	43.18	43.36	45.65	48.26	50.67	50.97	51.60	52.50	53.50	Common Shs Outst'g ^E	55.00
16.2	13.6	14.2	14.3	13.4	13.7	13.0	14.5	21.3	19.8	16.5	19.6	19.8	16.7	22.8	NMF	20.5	21.0	Avg Ann'l P/E Ratio	20.5
.86	.73	.75	.86	.89	.87	.82	.92	1.20	1.04	.83	1.03	1.00	.90	1.21	NMF	1.15	1.15	Relative P/E Ratio	1.15
4.4%	4.3%	4.4%	3.9%	3.9%	4.7%	4.3%	4.1%	4.0%	3.8%	3.5%	3.1%	3.1%	3.1%	3.0%	3.4%	2.0%	2.0%	Avg Ann'l Div'd Yield	3.0%

CAPITAL STRUCTURE as of 12/31/20										1603.3	1125.5	1017.0	1627.2	1976.4	1537.3	1740.7	1965.0	1952.4	1855.4	1835	1890	Revenues (\$mill) ^A	3200
Total Debt \$3324.5 mill. Due in 5 Yrs \$1690.0 mill.										63.8	62.6	52.8	84.6	136.9	144.2	161.6	214.2	184.6	88.6	200	220	Net Profit (\$mill)	285
LT Debt \$2517.6 mill. LT Interest \$130.0 mill.										31.4%	29.6%	25.0%	27.6%	31.2%	32.5%	32.4%	32.4%	15.7%	12.3%	20.5%	21.0%	Income Tax Rate	23.5%
(Total interest coverage: 2.0x)										4.0%	5.6%	5.2%	5.2%	6.9%	9.4%	9.3%	10.9%	9.5%	4.8%	10.9%	11.6%	Net Profit Margin	8.9%
Leases, Uncapitalized Annual rentals \$8.8 mill.										38.9%	36.1%	46.6%	55.1%	53.0%	50.9%	50.0%	45.7%	45.0%	49.0%	49.0%	49.0%	Long-Term Debt Ratio	45.0%
Pension Assets-9/20 \$897.9 mill.										61.1%	63.9%	53.4%	44.9%	47.0%	49.1%	50.0%	54.3%	55.0%	51.0%	51.0%	51.0%	Common Equity Ratio	55.0%
Oblig. \$1401.3 mill.										937.7	941.0	1959.0	3359.4	3345.1	3601.9	3986.3	4155.5	4625.6	4946.0	5400	5750	Total Capital (\$mill)	7200
Pfd Stock \$242.0 mill. Pfd Div'd \$14.8 mill.										928.7	1019.3	1776.6	2759.7	2941.2	3300.9	3665.2	3970.5	4352.0	4680.1	5000	5300	Net Plant (\$mill)	6700
Common Stock 51,664,553 shs.										8.1%	7.9%	3.3%	3.1%	5.1%	4.9%	5.0%	6.3%	5.1%	2.9%	5.0%	5.5%	Return on Total Cap'l	5.5%
as of 1/31/21										11.1%	10.4%	5.0%	5.6%	8.7%	8.2%	8.1%	9.5%	7.3%	3.5%	7.5%	7.5%	Return on Shr. Equity	7.0%
MARKET CAP: \$3.3 billion (Mid Cap)										11.1%	10.4%	5.0%	5.6%	8.7%	8.2%	8.1%	9.5%	7.9%	3.2%	7.5%	7.5%	Return on Com Equity	7.0%
CURRENT POSITION										4.9%	4.3%	1.0%	1.5%	3.7%	3.3%	3.3%	4.7%	2.7%	NMF	2.0%	2.0%	Retained to Com Eq	2.5%
(SMILL.)										56%	59%	81%	73%	58%	59%	60%	51%	66%	NMF	76%	73%	All Div'ds to Net Prof	65%

Cash Assets	5.8	4.1	3.5
Other	608.7	586.5	766.5
Current Assets	614.5	590.6	770.0
Accts Payable	301.5	243.3	260.8
Debt Due	783.2	708.4	806.9
Other	384.1	497.5	479.0
Current Liab.	1468.8	1449.2	1546.7
Fix. Chg. Cov.	272%	373%	380%

ANNUAL RATES	Past 10 Yrs.	Past 5 Yrs.	Est'd '18-'20 to '24-'26
of change (per sh)			
Revenues	-8.0%	-	7.5%
"Cash Flow"	4.5%	8.5%	7.5%
Earnings	1.5%	4.5%	9.0%
Dividends	4.5%	6.0%	4.5%
Book Value	7.0%	5.5%	8.5%

Fiscal Year Ends	Dec.31	Mar.31	Jun.30	Sep.30	Full Fiscal Year
2018	561.8	813.4	350.6	239.2	1965.0
2019	602.0	803.5	321.3	225.6	1952.4
2020	566.9	715.5	321.1	251.9	1855.4
2021	512.6	732.4	335	255	1835
2022	530	748	346	266	1890

Fiscal Year Ends	Dec.31	Mar.31	Jun.30	Sep.30	Full Fiscal Year
2018	2.39	2.03	.52	d.51	4.33
2019	1.32	3.04	d.09	d.74	3.52
2020	1.24	2.54	d1.87	d.45	1.44
2021	1.65	2.66	.22	d.68	3.85
2022	1.75	2.74	.30	d.64	4.15

Cal-endar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2017	.525	.525	.525	.525	2.10
2018	.5625	.5625	.5625	.5625	2.25
2019	.5925	.5925	.5925	.5925	2.37
2020	.6225	.6225	.6225	.6225	2.49
2021	.65				

(A) Fiscal year ends Sept. 30th. (B) Based on diluted shares outstanding. Excludes nonrecurring loss: '06, 7c. Excludes gain from discontinued operations: '08, 94c. Next earnings report due late April. (C) Dividends paid in early January, April, July, and October. (D) Incl. deferred charges. In '20: \$1,171.6 mill., \$22.71/sh.	(E) In millions. (F) Qlty. egs. may not sum due to rounding or change in shares outstanding.	Company's Financial Strength B++ Stock's Price Stability 95 Price Growth Persistence 60 Earnings Predictability 50
-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	----------------------------------------------------------------------------------------------	-----------------------------------------------------------------------------------------------------------------------------

Spire began fiscal 2021 (which ends September 30th) in strong shape.

First-quarter earnings per share of \$1.65 were 33% higher than the year-ago figure of \$1.24. That was brought about partly by the Gas Utility division, supported by higher Infrastructure System Replacement Surcharge (ISRS) revenues, an expanded customer base, plus diminished operating costs. What's more, the Gas Marketing unit enjoyed wider margins, driven by favorable derivative activity and fair value measurements. Right now, it appears that the bottom line will jump to \$3.85 a share for the full year, versus fiscal 2020's low \$1.44 total (reflecting pandemic-related effects). Assuming that business conditions cooperate in fiscal 2022, share net stands to advance to \$4.15.

The capital spending budget for this year is anticipated to be around \$590 million. (That's 7.5% lower than the fiscal 2020 amount of about \$638 million.) Funds are being allocated to such segments as infrastructure upgrades at the utilities and new business development initiatives. Leadership says that it expects total expenditures during the 2021-2025

horizon to be some \$3 billion, which appears achievable.

We believe good things are in store out to 2024-2026. The gas utilities boast 1.7 million customers in Mississippi, Alabama, and Missouri, providing a measure of regional diversity. Moreover, the other operations, especially pipelines, hold promising potential. Further expansionary projects and technological enhancements in customer service and elsewhere ought to help, too. Lastly, Spire's decent finances make acquisitions possible. The usual risks include unfortunate events like leaks and pipeline ruptures. Still, at the present configuration, annual share-net growth might be in the range of 6%-8% over the 3- to 5-year period.

The stock should draw the attention of some investors. Capital appreciation possibilities through mid-decade look appealing. Consider, also, the 18-month upside potential. Another plus is the quarterly dividend, which was just raised 4.4%. Notably, the yield compares favorably to those of other equities in Value Line's Natural Gas Utility Industry.

Frederick L. Harris, III February 26, 2021

Congressional Budget Office
Nonpartisan Analysis for the U.S. Congress



The Budget and Economic Outlook: 2021 to 2031

FEBRUARY | 2021



At a Glance

The Congressional Budget Office regularly publishes reports presenting projections of what federal budget deficits, debt, revenues, and spending—and the economic path underlying them—would be for the current year and for the following 10 years if current laws governing taxes and spending generally remained unchanged. For this report, the latest in the series, the projections are based on the laws in effect as of January 12, 2021. CBO’s economic assessment is identical to the forecast the agency published on February 1, 2021.

- **Deficits.** CBO projects a federal budget deficit of \$2.3 trillion in 2021, nearly \$900 billion less than the shortfall recorded in 2020. At 10.3 percent of gross domestic product (GDP), the deficit in 2021 would be the second largest since 1945, exceeded only by the 14.9 percent shortfall recorded last year. Those deficits, which were already projected to be large by historical standards before the onset of the 2020–2021 coronavirus pandemic, have widened significantly as a result of the economic disruption caused by the pandemic and the enactment of legislation in response.

In CBO’s projections, annual deficits average \$1.2 trillion a year from 2022 to 2031 and exceed their 50-year average of 3.3 percent of GDP in each of those years. They decline to 4.0 percent of GDP or less from 2023 to 2027 before increasing again, reaching 5.7 percent of GDP in 2031. By the end of the period, both primary deficits (which exclude net outlays for interest) and interest outlays are rising.

- **Debt.** Federal debt held by the public—which stood at 100 percent of GDP at the end of fiscal year 2020—is projected to reach 102 percent of GDP at the end of 2021, dip slightly for a few years, and then rise further. By 2031, debt would equal 107 percent of GDP, the highest in the nation’s history.
- **Revenues.** Federal revenues are projected to generally increase relative to GDP as a result of the expiration of temporary pandemic-related provisions, scheduled increases in taxes, and other factors.
- **Outlays.** Projected outlays decline relative to GDP for the next few years, as pandemic-related spending wanes and low interest rates persist. Outlays then increase relative to GDP, owing to rising interest costs and greater spending for major entitlement programs.
- **Changes Since CBO’s Previous Projections.** Relative to its estimates from September 2020, CBO’s estimate of the deficit for 2021 is now \$448 billion (or 25 percent) larger, and its projection of the cumulative deficit between 2021 and 2030 (at \$12.6 trillion) is now \$345 billion (or 3 percent) smaller. In 2021, the costs of recently enacted legislation are partly offset by the effects of a stronger economy. In subsequent years, the largest changes stem from revisions to the economic forecast. CBO now projects stronger economic activity, higher inflation, and higher interest rates, boosting both revenues and outlays—the former more than the latter.
- **The Economy.** As expanded vaccination reduces the spread of COVID-19 (the disease caused by the coronavirus) and the extent of social distancing declines, real (inflation-adjusted) GDP is projected to grow by 3.7 percent in 2021, returning to its prepandemic level by the middle of the year. With growth averaging 2.6 percent over the 2021–2025 period, real GDP surpasses its potential (maximum sustainable) level in early 2025. The unemployment rate gradually declines through 2026, and the number of employed people returns to its prepandemic level in 2024.

Real GDP growth averages 1.6 percent over the 2026–2031 period. That average growth rate of output is less than its long-term historical average, primarily because the labor force is expected to grow more slowly than it has in the past. Over the forecast period, the interest rate on 10-year Treasury notes is projected to rise gradually, reaching 3.4 percent in 2031.

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Notes

The budget projections in this report include the effects of legislation enacted through January 12, 2021, and are based on the Congressional Budget Office's economic projections. Those economic projections reflect economic developments through January 12, 2021, including the estimated effects on the economy of the Consolidated Appropriations Act, 2021 (Public Law 116-260). The projections do not include budgetary or economic effects of subsequent legislation, economic developments, administrative actions, or regulatory changes.

The economic projections were also published separately on February 1, 2021, to provide the Congress with information as promptly as possible as it continued to address the consequences of the 2020–2021 coronavirus pandemic (www.cbo.gov/publication/56965).

Because the timing of the Consolidated Appropriations Act, 2021, did not allow enough time for all of the analysis and writing that CBO typically performs, this report omits some material that has often appeared in past editions. Certain long-term budget projections will be published separately on February 16, 2021. Other material will be published separately later this year.

Unless this report indicates otherwise, all years referred to in describing the budget outlook are federal fiscal years, which run from October 1 to September 30 and are designated by the calendar year in which they end. Years referred to in describing the economic outlook are calendar years.

Numbers in the text, tables, and figures may not add up to totals because of rounding.

Supplemental data for this analysis are available on CBO's website (www.cbo.gov/publication/56970), as are a glossary of common budgetary and economic terms (www.cbo.gov/publication/42904), a description of how CBO prepares its baseline budget projections (www.cbo.gov/publication/53532), a description of how CBO prepares its economic forecast (www.cbo.gov/publication/53537), and previous editions of this report (<https://go.usa.gov/xQrzS>).

Chapter 1: The Budget Outlook

This chapter provides the Congressional Budget Office's latest baseline budget projections, spanning fiscal years 2021 through 2031. These projections are based on the economic forecast that the agency developed in January 2021. (For CBO's assessment of the economic outlook, see Chapter 2, which is identical to the assessment the agency published on February 1, 2021.) These projections incorporate legislation enacted through January 12, 2021, as well as information available as of that date.

CBO's projections are constructed in accordance with the Balanced Budget and Emergency Deficit Control Act of 1985 (Public Law 99-177) and the Congressional Budget and Impoundment Control Act of 1974 (P.L. 93-344). Those laws require CBO to construct its baseline under the assumption that current laws governing revenues and spending will generally stay the same and that discretionary appropriations in future years will match current funding, with adjustments for inflation.

In consultation with the House and Senate Committees on the Budget, however, CBO deviated from those standard procedures when constructing its current baseline for discretionary spending. Because of the unusual size and nature of the emergency funding provided in response to the 2020–2021 coronavirus pandemic, the agency did not extrapolate the \$184 billion in discretionary budget authority that has been provided for such purposes so far in 2021. Emergency funding provided for purposes unrelated to the pandemic was projected to continue in the future with increases for inflation each year after 2021.

CBO's baseline is not intended to provide a forecast of future budgetary outcomes; rather, it provides a benchmark that policymakers can use to assess the potential effects of future policy decisions. Future legislative action could lead to markedly different outcomes. Even if federal laws remained unaltered for the next decade, though, actual budgetary outcomes would probably differ from CBO's baseline—not only because of unanticipated economic developments, but also as a result of the many other factors that affect federal revenues and outlays.

This presentation of CBO's budget projections is much shorter than usual. The information is less detailed so that CBO can provide it to lawmakers as quickly as possible as they continue to address the consequences of the pandemic. CBO will publish more detailed information about these projections and supplementary information later this year.

This chapter comprises six tables. The first one shows CBO's projections for the **budget, by major category**; projected deficits amount to \$2.3 trillion in fiscal year 2021 and \$12.3 trillion over the 2022–2031 period (see Table 1-1). Next are CBO's projections of **federal debt**; debt held by the public is projected to reach \$35.3 trillion, or 107 percent of gross domestic product (GDP), in 2031 (see Table 1-2). Then additional details are presented about **mandatory outlays**; taken together, outlays for Social Security and Medicare are projected to almost double over 10 years (see Table 1-3).¹ Additional details follow about **discretionary spending**; annual discretionary outlays from 2022 through 2026 are projected to be less than outlays in 2021, which were boosted by pandemic-related spending (see Table 1-4).² The next table gives a summary of **key projections** as specified in section 3111 of S. Con. Res. 11, the Concurrent Resolution on the Budget for Fiscal Year 2016; projected deficits average 4.8 percent of GDP from 2027 through 2031 (see Table 1-5). Finally, detailed information is provided about **how CBO's projections have changed** since September 2020; deficits are larger in 2021 but smaller in total from 2021 through 2030 than CBO projected in September (see Table 1-6). For CBO's analysis of the budgetary effects of tax expenditures in 2021, see the appendix.

1. Mandatory spending consists of outlays for some federal benefit programs, such as Social Security, Medicare, and Medicaid, and certain other payments to people, businesses, nonprofit institutions, and state and local governments. It is governed by statutory criteria and is not normally controlled by the annual appropriation process.
2. Discretionary spending is controlled by appropriation acts that specify the amounts that are to be provided for a broad array of government activities, including, for example, defense, law enforcement, and transportation.

Table 1-1.

CBO's Baseline Budget Projections, by Category

													Total	
	Actual, 2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2022– 2026	2022– 2031
In Billions of Dollars														
Revenues														
Individual income taxes	1,609	1,699	2,041	2,084	2,139	2,228	2,479	2,698	2,782	2,882	2,985	3,096	10,970	25,414
Payroll taxes	1,310	1,325	1,351	1,452	1,507	1,558	1,619	1,673	1,729	1,788	1,849	1,914	7,487	16,441
Corporate income taxes	212	164	252	304	328	355	365	361	369	377	385	393	1,605	3,491
Other	289	318	351	362	379	365	354	365	363	360	357	367	1,811	3,623
Total	3,420	3,506	3,995	4,202	4,352	4,507	4,817	5,097	5,243	5,408	5,577	5,771	21,873	48,968
On-budget	2,455	2,539	3,031	3,154	3,258	3,366	3,630	3,865	3,967	4,087	4,212	4,358	16,438	36,927
Off-budget ^a	965	967	964	1,048	1,094	1,141	1,187	1,232	1,276	1,321	1,365	1,413	5,435	12,041
Outlays														
Mandatory	4,579	3,793	3,153	3,293	3,389	3,618	3,828	4,016	4,340	4,384	4,711	4,988	17,280	39,720
Discretionary	1,628	1,668	1,615	1,593	1,585	1,620	1,654	1,694	1,740	1,772	1,822	1,867	8,067	16,961
Net interest	345	303	282	278	284	306	361	435	516	597	695	799	1,512	4,554
Total	6,552	5,764	5,050	5,165	5,258	5,544	5,843	6,145	6,595	6,754	7,227	7,654	26,859	61,234
On-budget	5,596	4,758	3,977	4,017	4,032	4,238	4,460	4,680	5,039	5,103	5,477	5,798	20,724	46,820
Off-budget ^a	956	1,006	1,073	1,148	1,226	1,305	1,382	1,465	1,556	1,651	1,750	1,856	6,135	14,414
Deficit (-) or Surplus	-3,132	-2,258	-1,056	-963	-905	-1,037	-1,026	-1,048	-1,352	-1,346	-1,650	-1,883	-4,986	-12,266
On-budget	-3,142	-2,220	-946	-863	-774	-872	-830	-815	-1,073	-1,016	-1,265	-1,439	-4,286	-9,893
Off-budget ^a	10	-39	-110	-99	-131	-165	-195	-234	-280	-330	-385	-444	-700	-2,373
Debt Held by the Public	21,019	22,461	23,541	24,547	25,488	26,559	27,596	28,702	30,162	31,593	33,331	35,304	n.a.	n.a.
Memorandum:														
Gross Domestic Product	21,000	21,951	23,082	24,066	25,127	26,249	27,359	28,425	29,506	30,623	31,751	32,933	125,883	279,121
As a Percentage of Gross Domestic Product														
Revenues														
Individual income taxes	7.7	7.7	8.8	8.7	8.5	8.5	9.1	9.5	9.4	9.4	9.4	9.4	8.7	9.1
Payroll taxes	6.2	6.0	5.9	6.0	6.0	5.9	5.9	5.9	5.9	5.8	5.8	5.8	5.9	5.9
Corporate income taxes	1.0	0.7	1.1	1.3	1.3	1.4	1.3	1.3	1.2	1.2	1.2	1.2	1.3	1.3
Other	1.4	1.4	1.5	1.5	1.5	1.4	1.3	1.3	1.2	1.2	1.1	1.1	1.4	1.3
Total	16.3	16.0	17.3	17.5	17.3	17.2	17.6	17.9	17.8	17.7	17.6	17.5	17.4	17.5
On-budget	11.7	11.6	13.1	13.1	13.0	12.8	13.3	13.6	13.4	13.3	13.3	13.2	13.1	13.2
Off-budget ^a	4.6	4.4	4.2	4.4	4.4	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3
Outlays														
Mandatory	21.8	17.3	13.7	13.7	13.5	13.8	14.0	14.1	14.7	14.3	14.8	15.1	13.7	14.2
Discretionary	7.8	7.6	7.0	6.6	6.3	6.2	6.0	6.0	5.9	5.8	5.7	5.7	6.4	6.1
Net interest	1.6	1.4	1.2	1.2	1.1	1.2	1.3	1.5	1.7	2.0	2.2	2.4	1.2	1.6
Total	31.2	26.3	21.9	21.5	20.9	21.1	21.4	21.6	22.4	22.1	22.8	23.2	21.3	21.9
On-budget	26.6	21.7	17.2	16.7	16.0	16.1	16.3	16.5	17.1	16.7	17.2	17.6	16.5	16.8
Off-budget ^a	4.6	4.6	4.7	4.8	4.9	5.0	5.1	5.2	5.3	5.4	5.5	5.6	4.9	5.2
Deficit (-) or Surplus	-14.9	-10.3	-4.6	-4.0	-3.6	-4.0	-3.7	-3.7	-4.6	-4.4	-5.2	-5.7	-4.0	-4.4
On-budget	-15.0	-10.1	-4.1	-3.6	-3.1	-3.3	-3.0	-2.9	-3.6	-3.3	-4.0	-4.4	-3.4	-3.5
Off-budget ^a	*	-0.2	-0.5	-0.4	-0.5	-0.6	-0.7	-0.8	-0.9	-1.1	-1.2	-1.3	-0.6	-0.9
Debt Held by the Public	100.1	102.3	102.0	102.0	101.4	101.2	100.9	101.0	102.2	103.2	105.0	107.2	n.a.	n.a.

Data source: Congressional Budget Office. See www.cbo.gov/publication/56970#data.

n.a. = not applicable; * = between zero and 0.05 percent.

a. The revenues and outlays of the Social Security trust funds and the net cash flow of the Postal Service are classified as off-budget.

Table 1-2.

CBO's Baseline Projections of Federal Debt

Billions of Dollars

	Actual, 2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
Debt Held by the Public at the Beginning of the Year	16,801	21,019	22,461	23,541	24,547	25,488	26,559	27,596	28,702	30,162	31,593	33,331
Changes in Debt Held by the Public												
Deficit	3,132	2,258	1,056	963	905	1,037	1,026	1,048	1,352	1,346	1,650	1,883
Other means of financing ^a	1,086	-817	25	43	35	34	11	57	108	85	88	90
Total	4,218	1,442	1,080	1,006	941	1,071	1,037	1,106	1,460	1,432	1,738	1,973
Debt Held by the Public at the End of the Year												
In billions of dollars	21,019	22,461	23,541	24,547	25,488	26,559	27,596	28,702	30,162	31,593	33,331	35,304
As a percentage of GDP	100.1	102.3	102.0	102.0	101.4	101.2	100.9	101.0	102.2	103.2	105.0	107.2
Memorandum:												
Debt Held by the Public Minus Financial Assets ^b												
In billions of dollars	18,096	20,354	21,410	22,372	23,278	24,315	25,340	26,388	27,741	29,087	30,737	32,620
As a percentage of GDP	86.2	92.7	92.8	93.0	92.6	92.6	92.6	92.8	94.0	95.0	96.8	99.0
Debt Net of Financial Assets and Federal Reserve Holdings												
In billions of dollars	13,730	15,062	15,282	15,872	16,748	17,768	18,775	20,180	21,896	23,569	25,508	27,678
As a percentage of GDP	65.4	68.6	66.2	66.0	66.7	67.7	68.6	71.0	74.2	77.0	80.3	84.0
Gross Federal Debt ^c	26,901	28,467	29,580	30,610	31,561	32,578	33,590	34,544	35,765	36,959	38,369	39,955
Debt Subject to Limit ^d	26,920	28,487	29,600	30,631	31,582	32,600	33,612	34,566	35,787	36,980	38,390	39,975
Average Interest Rate on Debt Held by the Public (Percent)	2.0	1.5	1.4	1.3	1.3	1.3	1.5	1.7	1.9	2.0	2.2	2.4

Data sources: Congressional Budget Office; Department of the Treasury. See www.cbo.gov/publication/56970#data.

GDP = gross domestic product.

- Factors not included in budget totals that affect the government's need to borrow from the public. Those factors include changes in the government's cash balances, as well as cash flows associated with federal credit programs such as student loans (because only the subsidy costs of those programs are reflected in the budget deficit).
- Debt held by the public minus the value of outstanding student loans and other credit transactions, cash balances, and various financial instruments.
- Federal debt held by the public plus Treasury securities held by federal trust funds and other government accounts.
- The amount of federal debt that is subject to the overall limit set in law. That measure of debt excludes debt issued by the Federal Financing Bank and reflects certain other adjustments that are excluded from gross federal debt. The debt limit was most recently set at \$22.0 trillion but has been suspended through July 31, 2021. On August 1, 2021, the debt limit will be raised to its previous level plus the amount of federal borrowing that occurred while the limit was suspended. For more details, see Congressional Budget Office, *Federal Debt and the Statutory Limit, February 2019* (February 2019), www.cbo.gov/publication/54987.

Table 1-3.

Mandatory Outlays Projected in CBO's Baseline

Billions of Dollars

	Actual, 2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	Total	
													2022– 2026	2022– 2031
Social Security														
Old-Age and Survivors Insurance	945	991	1,047	1,108	1,175	1,245	1,319	1,396	1,484	1,573	1,664	1,757	5,893	13,767
Disability Insurance	144	145	152	161	170	177	185	192	195	201	207	214	845	1,855
Subtotal	1,090	1,136	1,199	1,269	1,344	1,422	1,504	1,588	1,679	1,774	1,871	1,971	6,738	15,622
Major Health Care Programs														
Medicare ^{a,b}	917	830	943	1,018	1,047	1,172	1,256	1,348	1,516	1,475	1,643	1,782	5,435	13,200
Medicaid	458	507	514	492	504	533	563	597	632	667	705	744	2,606	5,952
Premium tax credits and related spending ^c	57	56	55	53	53	53	53	55	59	64	68	74	267	587
Children's Health Insurance Program	17	15	15	15	16	16	17	17	18	18	19	20	79	171
Subtotal ^{a,b}	1,450	1,409	1,527	1,578	1,619	1,774	1,889	2,018	2,225	2,224	2,435	2,620	8,388	19,910
Income Security Programs														
Earned income, child, and other tax credits ^d	380	268	90	92	93	93	92	78	78	79	79	80	460	854
Supplemental Nutrition Assistance Program	86	132	99	78	76	75	75	74	74	73	72	71	402	766
Supplemental Security Income ^b	57	57	64	61	59	66	68	70	78	68	77	80	317	690
Unemployment compensation	473	242	40	37	36	34	33	34	36	38	41	46	181	375
Family support and foster care ^e	33	34	34	33	34	34	34	35	35	35	35	35	169	344
Child nutrition	24	23	27	28	29	30	31	33	34	35	37	38	145	321
Subtotal ^b	1,052	757	354	330	326	332	333	323	334	328	341	350	1,674	3,349
Federal Civilian and Military Retirement														
Civilian ^f	109	110	114	117	120	124	127	131	135	138	142	147	602	1,295
Military ^b	62	63	71	68	64	72	74	76	84	75	84	85	348	752
Other	*	2	2	3	2	-2	8	5	5	4	4	4	14	35
Subtotal ^b	171	176	187	187	187	194	209	212	224	217	230	235	964	2,082
Veterans' Programs^b														
Income security ^g	110	119	134	129	122	137	142	147	164	144	162	167	663	1,447
Other	12	17	18	17	17	18	18	19	20	19	21	22	89	191
Subtotal ^b	122	137	152	146	138	155	160	166	185	163	183	190	752	1,638
Other Programs														
Small Business Administration	551	303	5	*	*	*	0	0	0	0	0	0	5	5
Coronavirus relief fund	149	*	0	0	0	0	0	0	0	0	0	0	0	0
Higher education	124	7	4	3	4	5	5	6	7	7	8	8	21	56
Emergency rental assistance	0	24	1	0	0	0	0	0	0	0	0	0	1	1
Agriculture	31	40	15	17	17	17	17	17	17	17	17	17	82	168
MERHCF	11	11	12	12	13	14	14	15	16	17	17	18	65	148
Fannie Mae and Freddie Mac ^h	0	0	6	6	6	7	7	8	8	8	8	8	32	71
Deposit insurance	-7	-3	-1	-4	-4	-4	-5	-6	-7	-8	-8	-9	-18	-57
Other	118	89	76	77	75	72	71	72	75	75	73	73	371	740
Subtotal	977	472	119	111	111	110	110	112	115	116	115	116	560	1,134
Mandatory Outlays, Excluding the Effects of Offsetting Receipts^{a,b}	4,861	4,085	3,537	3,621	3,726	3,987	4,206	4,418	4,761	4,823	5,175	5,481	19,076	43,734

Continued

Table 1-3.

Continued

Mandatory Outlays Projected in CBO's Baseline

Billions of Dollars

	Actual, 2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	Total	
													2022– 2026	2022– 2031
Offsetting Receipts														
Medicare ⁱ	-148	-142	-160	-173	-186	-204	-219	-238	-257	-269	-289	-316	-942	-2,311
Federal share of federal employees' retirement														
Civil service retirement and other	-43	-46	-48	-49	-50	-52	-53	-55	-57	-59	-61	-63	-251	-545
Military retirement	-22	-25	-26	-26	-27	-27	-28	-28	-29	-29	-30	-31	-134	-281
Social Security	-19	-20	-21	-22	-23	-24	-25	-26	-27	-28	-29	-30	-115	-255
Subtotal	-83	-92	-95	-97	-100	-103	-106	-109	-113	-116	-120	-124	-500	-1,081
Receipts related to natural resources ^b	-10	-10	-10	-10	-11	-11	-11	-11	-11	-12	-13	-13	-53	-113
MERHCF	-8	-9	-10	-10	-11	-11	-12	-12	-13	-13	-14	-15	-53	-121
Fannie Mae and Freddie Mac ^b	-4	-5	0	0	0	0	0	0	0	0	0	0	0	0
Other	-28	-35	-109	-38	-30	-40	-31	-30	-28	-28	-28	-27	-248	-388
Subtotal ^b	-282	-292	-384	-328	-338	-369	-378	-401	-422	-438	-464	-494	-1,796	-4,015
Total Mandatory Outlays, Net of Offsetting Receipts^b	4,579	3,793	3,153	3,293	3,389	3,618	3,828	4,016	4,340	4,384	4,711	4,988	17,280	39,720

Memorandum:

Outlays, Net of Offsetting Receipts

Medicare ^b	769	688	783	845	861	967	1,038	1,110	1,259	1,206	1,353	1,466	4,494	10,888
Major health care programs ^b	1,302	1,266	1,367	1,405	1,433	1,569	1,671	1,780	1,968	1,956	2,146	2,304	7,446	17,599

Data source: Congressional Budget Office. See www.cbo.gov/publication/56970#data.

Data on outlays for benefit programs in this table generally exclude administrative costs, which are discretionary.

MERHCF = Department of Defense Medicare-Eligible Retiree Health Care Fund (including TRICARE for Life); * = between zero and \$500 million.

- Excludes the effects of Medicare premiums and other offsetting receipts. (Net Medicare spending, which includes those offsetting receipts, is shown in the memorandum section of the table.) The projections include the estimated effects of a final rule that would eliminate safe harbor protections for rebates paid by pharmaceutical manufacturers to health plans and pharmacy benefit managers in Medicare Part D. On January 29, 2021, the effective date for that rule was delayed from January 1, 2022, to January 1, 2023. CBO will reflect the effects of the postponement and any other subsequent actions in future projections.
- When October 1 (the first day of the fiscal year) falls on a weekend, as it will in calendar years 2022, 2023, and 2028, certain payments that would ordinarily have been made on that day are instead made at the end of September and thus are shifted into the previous fiscal year.
- Premium tax credits are federal subsidies for health insurance purchased through the marketplaces established by the Affordable Care Act. Related spending consists almost entirely of payments for risk adjustment and the Basic Health Program.
- Includes outlays for recovery rebates for individuals, the American Opportunity Tax Credit, and other credits.
- Includes Temporary Assistance for Needy Families, Child Support Enforcement, Child Care Entitlements to States, and other programs that benefit children.
- Includes benefits for retirement programs in the civil service, foreign service, and Coast Guard; benefits for smaller retirement programs; and annuitants' health care benefits.
- Includes veterans' compensation, pensions, and life insurance programs. (Outlays for veterans' health care are classified as discretionary.)
- Cash payments from Fannie Mae and Freddie Mac to the Treasury are recorded as offsetting receipts in 2020 and 2021. Beginning in 2022, CBO's estimates reflect the net lifetime costs—that is, the subsidy costs adjusted for market risk—of the guarantees that those entities will issue and of the loans that they will hold. CBO counts those costs as federal outlays in the year of issuance.
- Includes premium payments, recoveries of overpayments made to providers, and amounts paid by states from savings on Medicaid's prescription drug costs.

Table 1-4.

CBO's Baseline Projections of Discretionary Spending

Billions of Dollars

	Actual, 2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	Total	
													2022– 2026	2022– 2031
Budget Authority														
Defense	757	741	758	776	794	814	834	856	878	900	923	946	3,976	8,479
Nondefense	1,139	873	709	726	744	768	788	809	829	850	872	893	3,736	7,988
Total	1,896	1,614	1,468	1,502	1,538	1,582	1,622	1,665	1,707	1,750	1,794	1,839	7,712	16,467
Outlays														
Defense	714	733	749	757	767	789	808	828	855	865	893	915	3,870	8,225
Nondefense	914	935	866	836	818	831	846	866	885	907	929	952	4,197	8,736
Total	1,628	1,668	1,615	1,593	1,585	1,620	1,654	1,694	1,740	1,772	1,822	1,867	8,067	16,961
Memorandum:														
Emergency Spending in CBO's February 2021 Baseline														
Budget Authority ^a														
Defense	19	*	*	*	*	*	*	*	*	*	*	*	1	1
Nondefense	470	192	10	10	10	10	11	11	11	11	12	12	50	107
Total	489	192	10	10	10	10	11	11	11	11	12	12	51	108
Outlays ^b														
Defense	n.a.	*	*	*	*	*	*	*	*	*	*	*	1	1
Nondefense	n.a.	82	64	36	22	14	11	11	10	10	11	11	147	199
Total	n.a.	82	64	36	23	14	11	11	10	10	11	11	148	201

Data source: Congressional Budget Office. See www.cbo.gov/publication/56970#data.

CBO's current baseline projections incorporate the assumption that the caps on discretionary budget authority and the automatic enforcement procedures specified in the Budget Control Act of 2011 (as amended) remain in effect through 2021. The cap on defense funding in 2021 was set at \$671.5 billion, and the nondefense cap was set at \$626.5 billion. Total budget authority in 2021 exceeds the sum of those amounts because of adjustments made to those caps as provided in law, changes in mandatory programs that are credited against appropriations, and certain other funding that does not count toward those caps. For more information, see Congressional Budget Office, *Final Sequestration Report for Fiscal Year 2021* (January 2021), www.cbo.gov/publication/56955.

Nondefense discretionary outlays are usually greater than budget authority because of spending from the Highway Trust Fund and the Airport and Airway Trust Fund that is subject to obligation limitations set in appropriation acts. The budget authority for such programs is provided in authorizing legislation and is considered mandatory.

n.a. = not available; * = between zero and \$500 million.

- Certain laws require CBO to construct its baseline under the assumption that discretionary appropriations in future years will match current funding, with adjustments for inflation. In consultation with the House and Senate Committees on the Budget, however, CBO deviated from those standard procedures when constructing its current baseline for discretionary spending. Because of the unusual size and nature of the emergency funding provided in legislation enacted specifically in response to the 2020–2021 coronavirus pandemic, the agency did not extrapolate the \$184 billion in discretionary budget authority that has been provided for such purposes so far in 2021. Emergency funding provided for purposes unrelated to the pandemic was projected to continue in the future with increases for inflation each year after 2021.
- The Department of the Treasury does not distinguish between outlays stemming from emergency funding and outlays stemming from nonemergency funding. Consequently, the budget does not record any actual amounts attributed specifically to that category of funding.

Table 1-5.

Key Projections in CBO's Baseline

Percentage of Gross Domestic Product

	2021	2022	Projected Annual Average	
			2023–2026	2027–2031
Revenues				
Individual income taxes	7.7	8.8	8.7	9.4
Payroll taxes	6.0	5.9	6.0	5.8
Corporate income taxes	0.7	1.1	1.3	1.2
Other	1.4	1.5	1.4	1.2
Total Revenues	16.0	17.3	17.4	17.7
Outlays				
Mandatory				
Social Security	5.2	5.2	5.4	5.8
Major health care programs ^a	5.8	5.9	5.9	6.6
Other	6.3	2.5	2.4	2.2
Subtotal	17.3	13.7	13.7	14.6
Discretionary	7.6	7.0	6.3	5.8
Net interest	1.4	1.2	1.2	2.0
Total Outlays	26.3	21.9	21.2	22.4
Deficit	-10.3	-4.6	-3.8	-4.8
Debt Held by the Public at the End of the Period	102	102	101	107
Memorandum:				
Social Security				
Revenues ^b	4.6	4.4	4.6	4.6
Outlays ^c	5.2	5.2	5.4	5.8
Contribution to the Federal Deficit ^d	-0.6	-0.8	-0.8	-1.2
Medicare				
Revenues ^b	1.5	1.4	1.5	1.5
Outlays ^c	3.8	4.1	4.4	5.1
Offsetting receipts	-0.6	-0.7	-0.8	-0.9
Contribution to the Federal Deficit ^d	-1.7	-2.0	-2.1	-2.7
Gross Domestic Product at the End of the Period (Trillions of dollars)	22.0	23.1	27.4	32.9

Data source: Congressional Budget Office. See www.cbo.gov/publication/56970#data.

This table satisfies a requirement specified in section 3111 of S. Con. Res. 11, the Concurrent Resolution on the Budget for Fiscal Year 2016.

- Consists of outlays for Medicare (net of premiums and other offsetting receipts), Medicaid, the Children's Health Insurance Program, subsidies for health insurance purchased through the marketplaces established under the Affordable Care Act, and related spending.
- Includes payroll taxes other than those paid by the federal government on behalf of its employees; those payments are intragovernmental transactions. Also includes income taxes paid on Social Security benefits, which are credited to the trust funds.
- Does not include outlays related to the administration of the program, which are discretionary. For Social Security, outlays do not include intragovernmental offsetting receipts stemming from the employer's share of payroll taxes paid to the Social Security trust funds by federal agencies on behalf of their employees.
- The net increase in the deficit shown in this table differs from the change in the trust fund balance for the associated program. It does not include intragovernmental transactions, interest earned on balances, or outlays related to the administration of the program.

Table 1-6.

Changes in CBO's Baseline Projections of the Deficit Since September 2020

Billions of Dollars

	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total	
											2021– 2025	2021– 2030
Deficit in CBO's September 2020 Baseline	-1,810	-1,336	-1,124	-1,081	-1,174	-1,116	-1,080	-1,333	-1,306	-1,627	-6,524	-12,987
Legislative Changes												
Changes in Revenues												
Individual income taxes	-34	-16	-6	-5	-5	-4	-5	-6	-6	-6	-66	-93
Corporate income taxes	-3	-7	-6	-7	-7	-4	-2	-2	-3	-3	-30	-44
Payroll taxes	-2	*	*	*	*	1	1	1	1	1	-2	2
Other	*	*	*	*	-1	-1	-1	-1	-1	-1	-2	-5
Total Change in Revenues	-39	-23	-12	-13	-13	-8	-7	-8	-8	-9	-100	-141
Changes in Outlays												
Mandatory outlays												
Paycheck Protection Program	261	0	0	0	0	0	0	0	0	0	261	261
Recovery Rebates	162	0	0	0	0	0	0	0	0	0	162	162
Unemployment compensation	117	*	*	*	*	*	*	*	*	*	117	117
Medicare	95	-76	-7	-2	-2	-1	*	*	*	*	9	6
Emergency rental assistance	24	1	0	0	0	0	0	0	0	0	25	25
Disaster loans	20	*	0	0	0	0	0	0	0	0	20	20
SNAP	19	*	*	*	*	*	*	*	*	*	20	20
Air carrier worker support	16	*	*	*	*	*	*	*	*	*	16	15
Other	47	27	14	8	4	2	2	2	1	*	100	108
Subtotal, mandatory	762	-47	7	7	2	1	2	1	1	*	731	736
Discretionary outlays												
Nondefense	87	80	68	47	39	37	37	37	38	38	321	508
Defense	2	*	-4	-7	-9	-10	-10	-10	-11	-11	-17	-69
Subtotal, discretionary	89	80	64	40	30	27	27	27	28	27	303	439
Debt service	1	3	3	4	6	10	14	18	22	26	18	109
Total Change in Outlays	852	36	74	51	39	38	43	46	51	53	1,052	1,283
Increase in the Deficit From Legislative Changes	-891	-59	-87	-64	-51	-47	-51	-54	-59	-62	-1,151	-1,424
Economic Changes												
Changes in Revenues												
Individual income taxes	151	196	179	174	170	168	150	128	117	110	871	1,545
Payroll taxes	49	49	50	53	61	62	53	47	47	50	262	521
Federal Reserve Receipts	-6	-11	-10	-10	-30	-54	-41	-30	-19	2	-68	-210
Corporate income taxes	20	10	6	9	13	16	15	13	11	8	57	120
Other	8	8	7	6	6	6	5	3	1	*	36	52
Total Change in Revenues	221	253	231	232	220	198	182	162	157	171	1,158	2,028
Changes in Outlays												
Mandatory outlays												
Social Security	4	11	15	18	20	23	28	34	41	48	68	241
Unemployment compensation	-65	-21	-13	-12	-12	-10	-7	-3	-2	*	-123	-145
Medicaid	*	2	2	3	4	5	8	11	13	15	10	62
Medicare	*	*	*	2	4	6	8	11	12	15	5	58
Other	-6	-6	-1	-1	-2	-3	-1	2	4	6	-15	-8
Subtotal, mandatory	-67	-14	4	9	14	21	36	54	68	84	-55	208
Discretionary outlays	-1	2	5	8	10	14	17	21	24	28	24	128
Net interest												
Debt service	*	-1	-3	-4	-7	-11	-16	-20	-23	-27	-16	-114
Effect of interest rates and inflation	2	*	1	4	18	48	75	79	66	46	24	338
Subtotal, net interest	1	-1	-2	*	11	37	59	59	42	18	9	224
Total Change in Outlays	-67	-14	7	16	35	71	112	134	134	130	-22	560
Decrease in the Deficit From Economic Changes	288	266	224	216	185	127	70	28	23	41	1,179	1,469

Continued

Table 1-6.

Continued

Changes in CBO's Baseline Projections of the Deficit Since September 2020

Billions of Dollars

	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total	
											2021– 2025	2021– 2030
Technical Changes												
Changes in Revenues												
Individual income taxes	11	39	-2	-12	-27	-19	-16	-17	-21	-25	9	-89
Payroll taxes	32	-32	-10	-9	-11	-11	-9	-8	-10	-12	-29	-78
Corporate income taxes	25	14	15	8	2	1	-7	-10	-8	-6	65	34
Other	*	4	*	1	*	*	1	1	2	1	5	11
Total Change in Revenues	68	26	3	-13	-35	-28	-30	-34	-37	-42	49	-122
Changes in Outlays												
Mandatory outlays												
Medicaid	-31	-7	-8	-16	-15	-17	-15	-15	-15	-16	-78	-156
Social Security	-10	-13	-14	-15	-15	-15	-16	-14	-13	-11	-67	-136
Medicare	-70	46	15	16	14	15	13	14	21	18	21	102
Unemployment compensation	24	-6	-7	-4	-3	-3	-3	-3	-3	-3	3	-11
SNAP	1	5	-7	-8	-9	-10	-11	-12	-11	-10	-18	-71
Spectrum auction receipts	-1	-68	2	*	-1	*	*	*	1	1	-69	-67
Earned income and child tax credits	-3	-4	-4	-4	-4	-4	-5	-4	-4	-4	-18	-39
Veterans' benefits and services	4	-2	2	3	4	4	5	5	5	6	12	37
Premium tax credits and related spending	*	*	-1	-3	-4	-5	-5	-5	-4	-5	-8	-32
Other	1	-10	-8	-7	-6	-3	*	3	5	*	-30	-25
Subtotal, mandatory	-85	-60	-31	-38	-39	-37	-36	-29	-19	-24	-252	-396
Discretionary outlays	-13	6	4	-5	-1	-1	-1	-1	-1	-1	-9	-15
Net interest												
Debt service	-1	-3	-4	-4	-6	-8	-10	-13	-15	-17	-18	-80
Other	12	10	10	11	8	6	5	3	2	3	50	68
Subtotal, net interest	11	7	6	7	2	-2	-6	-10	-13	-14	33	-12
Total Change in Outlays	-87	-47	-20	-36	-37	-39	-43	-40	-33	-39	-228	-423
Increase (-) or Decrease in the Deficit From Technical Changes	155	73	23	23	2	10	12	7	-4	-2	277	300
All Changes												
Increase (-) or Decrease in the Deficit	-448	280	161	175	136	91	32	-19	-40	-24	305	345
Deficit in CBO's February 2021 Baseline	-2,258	-1,056	-963	-905	-1,037	-1,026	-1,048	-1,352	-1,346	-1,650	-6,219	-12,642
Memorandum:												
Changes in Revenues	250	256	222	207	173	162	145	120	112	120	1,107	1,765
Changes in Outlays	698	-25	61	31	36	71	113	139	152	144	802	1,420
Increase (-) or Decrease in the Primary Deficit ^a	-435	289	168	186	156	136	100	48	11	7	364	666
Increase in Net Interest	-13	-9	-7	-10	-19	-45	-68	-67	-51	-31	-59	-321

Data source: Congressional Budget Office. See www.cbo.gov/publication/56970#data.

SNAP = Supplemental Nutrition Assistance Program; * = between -\$500 million and \$500 million.

a. Primary deficits exclude net outlays for interest.

Chapter 2: The Economic Outlook

The 2020–2021 coronavirus pandemic caused severe economic disruptions last year as households, governments, and businesses adopted a variety of mandatory and voluntary measures—collectively referred to here as social distancing—to limit in-person interactions that could spread the virus. The impact was focused on particular sectors of the economy, such as travel and hospitality, and job losses were concentrated among lower-wage workers.

Over the course of the coming year, vaccination is expected to greatly reduce the number of new cases of COVID-19, the disease caused by the coronavirus. As a result, the extent of social distancing is expected to decline. In its new economic forecast, which covers the period from 2021 to 2031, the Congressional Budget Office therefore projects that the economic expansion that began in mid-2020 will continue (see Table 2-1). Specifically, real (inflation-adjusted) gross domestic product (GDP) is projected to return to its prepandemic level in mid-2021 and to surpass its potential (that is, its maximum sustainable) level in early 2025.¹ In CBO’s projections, the unemployment rate gradually declines through 2026, and the number of people employed returns to its prepandemic level in 2024.

This forecast underlies the budget projections that are presented in Chapter 1. The forecast incorporates economic and other information available as of January 12, 2021, as well as estimates of the economic effects of all legislation (including pandemic-related legislation) enacted up to that date.

The Economic Outlook for 2021 to 2025

In CBO’s projections, which incorporate the assumptions that current laws governing federal taxes and spending (as of January 12) generally remain in place and that no significant additional emergency funding

or aid is provided, the economy continues to strengthen during the next five years.

- Real GDP expands rapidly over the coming year, reaching its previous business-cycle peak (which was attained in the fourth quarter of 2019) in mid-2021 and surpassing its potential level in early 2025. The annual growth of real GDP averages 2.6 percent during the five-year period, exceeding the 1.9 percent growth rate of real potential GDP (see Figure 2-1).
- Labor market conditions continue to improve. As the economy expands, many people rejoin the civilian labor force who had left it during the pandemic, restoring it to its prepandemic size in 2022.² The unemployment rate gradually declines throughout the period, and the number of people employed returns to its prepandemic level in 2024.
- Inflation, as measured by the price index for personal consumption expenditures, rises gradually over the next few years and exceeds 2.0 percent after 2023, as the Federal Reserve maintains low interest rates and continues to purchase long-term securities.
- Interest rates on federal borrowing rise. The Federal Reserve maintains the federal funds rate (the rate that financial institutions charge each other for overnight loans of their monetary reserves) near zero through mid-2024 and then starts to raise that rate gradually. The interest rate on 3-month Treasury bills closely follows the federal funds rate. The interest rate on 10-year Treasury notes rises as the Federal Reserve reduces the pace of its asset purchases and investors anticipate rising short-term interest rates later in the decade.

CBO’s projections of economic growth have been boosted by various laws enacted in 2020.³ Most recently,

1. As applied to GDP, the term “prepandemic” refers to its level in the fourth quarter of 2019; applied to employment, it refers to its level in February 2020.

2. The labor force is the number of people age 16 or older in the civilian noninstitutionalized population who have jobs or who are available for work and are actively seeking jobs.

3. See Congressional Budget Office, *The Effects of Pandemic-Related Legislation on Output* (September 2020), www.cbo.gov/publication/56537.

Table 2-1.

CBO's Economic Projections for Calendar Years 2021 to 2031

					Annual Average	
	2020	2021	2022	2023	2024–2025	2026–2031
	Percentage Change From Fourth Quarter to Fourth Quarter					
Gross Domestic Product						
Real ^a	-2.5	3.7	2.4	2.3	2.2	1.6
Nominal	-1.2	5.6	4.5	4.3	4.4	3.8
Inflation						
PCE price index	1.2	1.7	1.9	1.9	2.1	2.1
Core PCE price index ^b	1.4	1.5	1.9	1.9	2.1	2.1
Consumer price index ^c	1.2	1.9	2.2	2.3	2.4	2.4
Core consumer price index ^b	1.6	1.5	2.2	2.3	2.4	2.4
GDP price index	1.3	1.9	2.0	2.0	2.1	2.1
Employment Cost Index ^d	2.8	2.3	2.8	3.0	3.2	3.3
			Fourth-Quarter Level (Percent)			
Unemployment Rate	6.8	5.3	4.9	4.6	4.0 ^e	4.3 ^f
			Percentage Change From Year to Year			
Gross Domestic Product						
Real ^a	-3.5	4.6	2.9	2.2	2.3	1.7
Nominal	-2.3	6.3	4.9	4.2	4.4	3.8
Inflation						
PCE price index	1.2	1.6	1.8	1.9	2.0	2.1
Core PCE price index ^b	1.4	1.5	1.8	1.9	2.0	2.1
Consumer price index ^c	1.3	1.9	2.1	2.3	2.3	2.4
Core consumer price index ^b	1.7	1.6	2.1	2.3	2.4	2.4
GDP price index	1.2	1.6	1.9	2.0	2.1	2.1
Employment Cost Index ^d	2.9	2.1	2.6	2.9	3.1	3.3
			Annual Average			
Unemployment Rate (Percent)	8.1	5.7	5.0	4.7	4.2	4.1
Labor Force Participation Rate (Percent) ^g	61.7	61.9	62.1	62.0	61.9	61.2
Payroll Employment (Monthly change, in thousands) ^h	-765	521	145	145	135	40
Interest Rates (Percent)						
Three-month Treasury bills	0.4	0.1	0.1	0.2	0.4	1.7
Ten-year Treasury notes	0.9	1.1	1.3	1.5	2.0	3.0
Tax Bases (Percentage of GDP)						
Wages and salaries	44.8	44.0	43.9	43.9	43.9	43.6
Domestic corporate profits ⁱ	7.6 ^j	7.9	7.5	7.7	8.2	8.0
Current Account Balance (Percentage of GDP) ^k	-2.8 ^j	-2.9	-2.4	-2.0	-2.0	-2.2

Data sources: Congressional Budget Office; Bureau of Economic Analysis; Bureau of Labor Statistics; Federal Reserve. See www.cbo.gov/publication/56970#data.

GDP = gross domestic product; PCE = personal consumption expenditures.

a. Real values are nominal values that have been adjusted to remove the effects of changes in prices.

b. Excludes prices for food and energy.

c. The consumer price index for all urban consumers.

d. The employment cost index for wages and salaries of workers in private industry.

e. Value for the fourth quarter of 2025.

f. Value for the fourth quarter of 2031.

g. The share of the civilian noninstitutionalized population age 16 or older that has jobs or that is available for and actively seeking work.

h. The average monthly change in the number of employees on nonfarm payrolls, calculated by dividing the change from the fourth quarter of one calendar year to the fourth quarter of the next by 12.

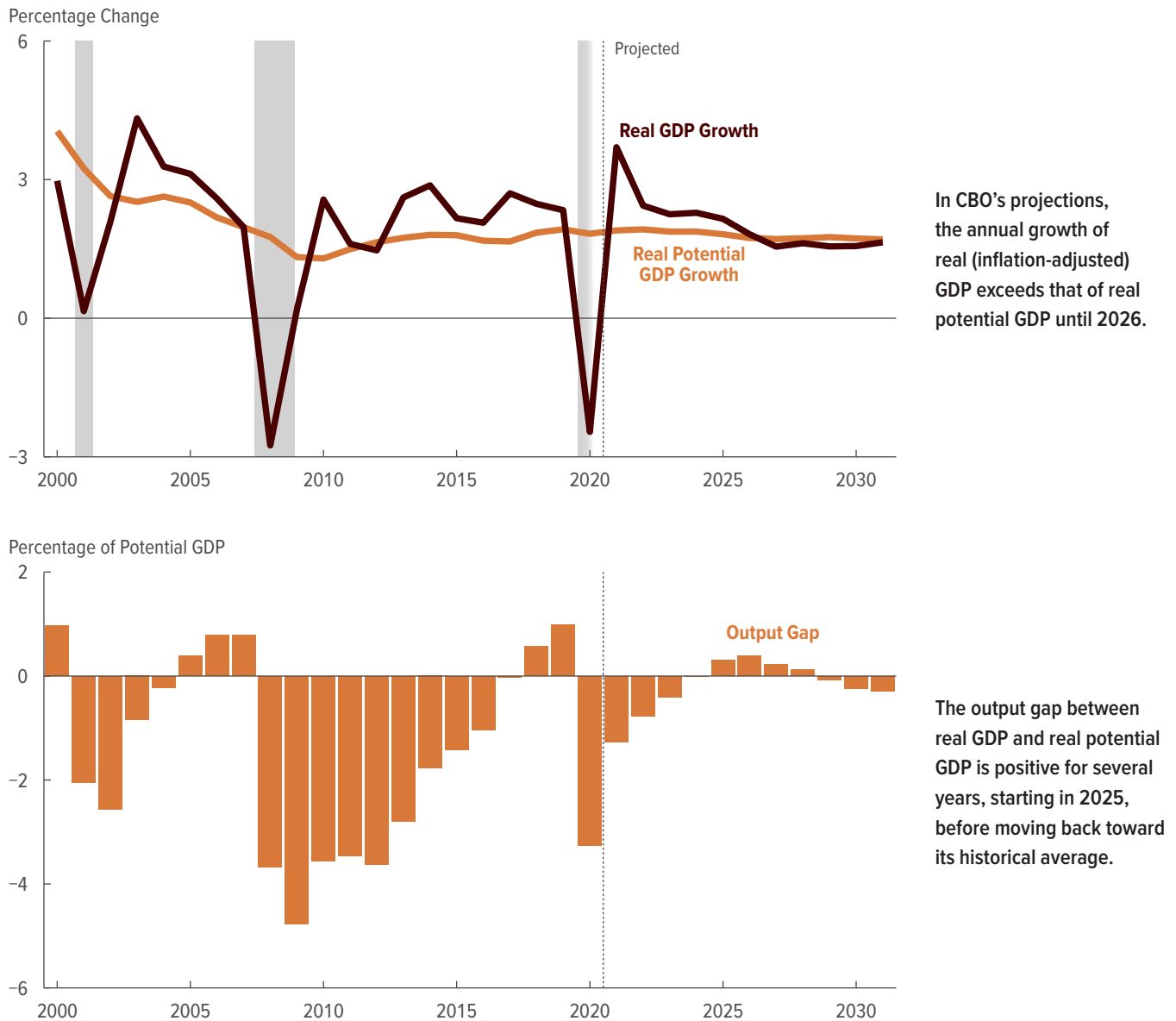
i. Adjusted to remove distortions in depreciation allowances caused by tax rules and to exclude the effects of changes in prices on the value of inventories.

j. Estimated value for 2020.

k. Represents net exports of goods and services, net capital income, and net transfer payments between the United States and the rest of the world.

Figure 2-1.

The Relationship Between GDP and Potential GDP



Data sources: Congressional Budget Office; Bureau of Economic Analysis. See www.cbo.gov/publication/56970#data.

Real values are nominal values that have been adjusted to remove the effects of changes in prices. Potential GDP is CBO's estimate of the maximum sustainable output of the economy. Growth of real GDP and of real potential GDP is measured from the fourth quarter of one calendar year to the fourth quarter of the next.

The output gap is the difference between GDP and potential GDP, expressed as a percentage of potential GDP. A positive value indicates that GDP exceeds potential GDP; a negative value indicates that GDP falls short of potential GDP. Values for the output gap are for the fourth quarter of each year.

The shaded vertical bars indicate periods of recession, which extend from the peak of a business cycle to its trough. The National Bureau of Economic Research (NBER) has determined that an expansion ended and a recession began in February 2020. Although the NBER has not yet identified the end of that recession, CBO estimates that it ended in the second quarter of 2020.

GDP = gross domestic product.

Table 2-2.

The Projected Growth of Real GDP and Its Components

Percent

					Annual Average	
	2020	2021	2022	2023	2024–2025	2026–2031
Percentage Change From Fourth Quarter to Fourth Quarter						
Real GDP	-2.5	3.7	2.4	2.3	2.2	1.6
Components of Real GDP						
Consumer spending ^a	-2.6	3.5	3.0	2.7	2.7	1.9
Business investment ^b	-0.1	6.9	1.2	1.8	3.2	2.4
Business fixed investment ^c	-1.3	5.9	3.0	2.1	3.1	2.5
Residential investment ^d	13.7	4.8	-2.1	-1.7	-0.9	-0.5
Purchases by federal, state, and local governments ^e	-0.6	0.9	0.1	0.7	1.0	0.6
Federal	2.5	1.6	-0.8	-0.5	0.2	0.3
State and local	-2.5	0.5	0.6	1.5	1.4	0.8
Exports	-11.0	12.4	3.1	2.5	2.1	1.6
Imports	-0.6	9.1	0.4	1.2	3.1	2.2
Contributions to the Growth of Real GDP (Percentage points)						
Components of Real GDP						
Consumer spending ^a	-1.8	2.4	2.1	1.8	1.8	1.3
Business investment ^b	*	0.9	0.2	0.3	0.4	0.3
Business fixed investment ^c	-0.2	0.8	0.4	0.3	0.4	0.3
Residential investment ^d	0.5	0.2	-0.1	-0.1	*	*
Purchases by federal, state, and local governments ^e	-0.1	0.2	*	0.1	0.2	0.1
Federal	0.2	0.1	-0.1	*	*	*
State and local	-0.3	0.1	0.1	0.2	0.2	0.1
Exports	-1.2	1.3	0.3	0.3	0.2	0.2
Imports	0.1	-1.2	-0.1	-0.2	-0.4	-0.3

Data source: Congressional Budget Office. See www.cbo.gov/publication/56970#data.

Real values are nominal values that have been adjusted to remove the effects of changes in prices.

GDP = gross domestic product; * = between zero and 0.05 percentage points.

a. Consists of personal consumption expenditures.

b. Comprises business fixed investment and investment in inventories.

c. Consists of purchases of equipment, nonresidential structures, and intellectual property products.

d. Includes the construction of single-family and multifamily structures, manufactured homes, and dormitories; spending on home improvements; and brokers' commissions and other ownership transfer costs.

e. Based on the national income and product accounts.

in late December, the Consolidated Appropriations Act, 2021 (Public Law 116-260), appropriated funds for the remainder of fiscal year 2021, provided additional emergency funding for federal agencies to respond to the public health emergency created by the pandemic, and provided financial support to households, businesses, and nonfederal governments affected by the economic downturn, among other measures. CBO estimates that the pandemic-related provisions in that legislation will add \$774 billion to the deficit in fiscal year 2021

and \$98 billion in 2022.⁴ Those provisions will boost the level of real GDP by 1.8 percent in calendar year 2021 and by 1.1 percent in calendar year 2022, CBO estimates.

The Economic Outlook for 2026 to 2031

In CBO's projections, the economy continues to expand from 2026 to 2031. Real GDP grows by 1.6 percent

4. Those provisions are contained in divisions M, N, and EE of the Consolidated Appropriations Act, 2021.

Table 2-3.

Key Inputs in CBO's Projections of Real Potential GDP

Percent

	Average Annual Growth							Projected Average Annual Growth		
	1950–1973	1974–1981	1982–1990	1991–2001	2002–2007	2008–2020	Total, 1950–2020	2021–2025	2026–2031	Total, 2021–2031
Overall Economy										
Real Potential GDP	4.0	3.2	3.2	3.2	2.4	1.7	3.1	1.9	1.7	1.8
Potential Labor Force	1.6	2.5	1.6	1.2	1.0	0.5	1.4	0.4	0.3	0.4
Potential Labor Force Productivity ^a	2.3	0.7	1.6	2.0	1.4	1.2	1.7	1.5	1.4	1.4
Nonfarm Business Sector										
Real Potential Output	4.1	3.5	3.5	3.7	2.7	1.9	3.4	2.1	2.0	2.1
Potential Hours Worked	1.4	2.3	1.7	1.2	0.2	0.5	1.3	0.4	0.3	0.3
Capital Services ^b	3.8	3.7	3.5	3.9	2.8	2.3	3.4	2.3	2.2	2.2
Potential Total Factor Productivity ^c	1.9	0.8	1.1	1.6	1.6	0.8	1.4	1.1	1.1	1.1
Contributions to the Growth of Real Potential Output (Percentage points)										
Potential hours worked	0.9	1.5	1.2	0.8	0.2	0.4	0.8	0.3	0.2	0.2
Capital input	1.2	1.2	1.1	1.3	0.9	0.7	1.1	0.7	0.7	0.7
Potential total factor productivity	1.9	0.8	1.1	1.6	1.6	0.8	1.4	1.1	1.1	1.1
Total Contributions	4.0	3.5	3.4	3.6	2.7	1.9	3.3	2.1	2.0	2.1
Potential Labor Productivity ^d	2.6	1.2	1.7	2.4	2.4	1.4	2.1	1.8	1.7	1.7

Data source: Congressional Budget Office. See www.cbo.gov/publication/56970#data.

Real values are nominal values that have been adjusted to remove the effects of changes in prices. Potential GDP is CBO's estimate of the maximum sustainable output of the economy.

The table shows compound annual growth rates over the specified periods. Those rates are calculated from the fourth quarter of the year immediately preceding each period to the fourth quarter at the end of that period.

GDP = gross domestic product.

a. The ratio of potential GDP to the potential labor force.

b. The services provided by capital goods (such as computers and other equipment) that constitute the actual input in the production process.

c. The average real output per unit of combined labor and capital services, excluding the effects of business cycles.

d. The ratio of potential output to potential hours worked in the nonfarm business sector.

per year, on average (see Table 2-2). Real potential GDP grows slightly more rapidly (see Table 2-3). For most of the period, the Federal Reserve allows inflation to remain above its target level; the level of real GDP likewise remains above the level of real potential GDP for several years. Eventually, less accommodative policies on the part of the Federal Reserve help push GDP back toward its historical average relationship with potential GDP.

A mild increase in productivity growth causes potential output in CBO's projections to grow more quickly over the 2021–2031 period than it has grown since the 2007–2009 recession. However, potential output still

grows more slowly than it has grown since 1950, mainly because of an ongoing, long-term slowdown in the growth of the labor force.

Uncertainties in the Economic Outlook

CBO's projections reflect an average of possible outcomes under current law. But these projections are subject to an unusually high degree of uncertainty, and that uncertainty stems from many sources, including the course of the pandemic, the effectiveness of monetary and fiscal policies, and the response of global financial markets to substantial increases in public deficits and

Table 2-4.

CBO's Current and Previous Economic Projections for Calendar Years 2020 to 2030

	Annual Average					
	2020	2021	2022	2020–2024	2025–2030	Total, 2020–2030
Percentage Change From Fourth Quarter to Fourth Quarter						
Real GDP ^a						
February 2021	-2.5	3.7	2.4	1.7	1.7	1.7
July 2020	-5.9	4.8	2.2	1.0	2.1	1.6
Nominal GDP						
February 2021	-1.2	5.6	4.5	3.5	3.9	3.7
July 2020	-5.7	6.2	4.1	2.5	4.2	3.4
PCE Price Index						
February 2021	1.2	1.7	1.9	1.7	2.1	1.9
July 2020	0.4	1.3	1.7	1.4	1.9	1.7
Core PCE Price Index ^b						
February 2021	1.4	1.5	1.9	1.7	2.1	1.9
July 2020	0.6	1.3	1.7	1.4	1.9	1.7
Consumer Price Index ^c						
February 2021	1.2	1.9	2.2	2.0	2.4	2.2
July 2020	0.4	1.6	2.0	1.7	2.2	2.0
Core Consumer Price Index ^b						
February 2021	1.6	1.5	2.2	2.0	2.4	2.2
July 2020	1.0	1.5	1.9	1.7	2.2	2.0
GDP Price Index						
February 2021	1.3	1.9	2.0	1.8	2.1	2.0
July 2020	0.2	1.3	1.8	1.5	2.0	1.8
Employment Cost Index ^d						
February 2021	2.8	2.3	2.8	2.7	3.3	3.0
July 2020	1.7	2.6	2.3	2.4	3.0	2.7
Real Potential GDP ^a						
February 2021	1.8	1.9	1.9	1.9	1.7	1.8
July 2020	1.6	1.5	1.8	1.7	1.8	1.8

Continued

debt. As a result, the economy could expand substantially more quickly or more slowly than CBO projects. Labor market conditions could likewise improve more quickly or slowly than projected, and inflation and interest rates could rise more rapidly or slowly as well. Also uncertain is the impact of the pandemic on the economy over the longer term, including its effects on productivity, the labor force, and technological innovation.

Comparisons With Previous Projections

CBO currently projects a stronger economy than it did in July 2020, in large part because the downturn was not as severe as expected and because the first stage of the recovery took place sooner and was stronger

than expected (see Table 2-4).⁵ GDP and employment are projected to be higher and to be accompanied by modestly higher inflation and higher interest rates than they were in CBO's July projections. The fact that the downturn was less severe and the recovery stronger than previously projected also changed the projected pattern of growth: CBO's current projections of GDP growth are stronger, on average, for the 2021–2025 period than they were in July but weaker for the 2026–2031 period.

CBO made those changes to its economic projections even though it expects social distancing to be more pronounced and to last longer than projected in July. The projected effects of the Consolidated Appropriations Act, 2021, played a part in improving the economic outlook.

5. For the July projections, see Congressional Budget Office, *An Update to the Economic Outlook: 2020 to 2030* (July 2020), www.cbo.gov/publication/56442.

Table 2-4.

Continued

CBO's Current and Previous Economic Projections for Calendar Years 2020 to 2030

				Annual Average		
	2020	2021	2022	2020–2024	2025–2030	Total, 2020–2030
Annual Average						
Unemployment Rate (Percent)						
February 2021	8.1	5.7	5.0	5.6	4.1	4.8
July 2020	10.6	8.4	7.1	7.7	4.8	6.1
Interest Rates (Percent)						
Three-month Treasury bills						
February 2021	0.4	0.1	0.1	0.2	1.4	0.9
July 2020	0.4	0.2	0.2	0.2	1.0	0.6
Ten-year Treasury notes						
February 2021	0.9	1.1	1.3	1.3	2.8	2.1
July 2020	0.9	0.9	1.1	1.2	2.6	2.0
Tax Bases (Percentage of GDP)						
Wages and salaries						
February 2021	44.8	44.0	43.9	44.1	43.7	43.9
July 2020	44.3	43.8	43.7	43.8	43.7	43.8
Domestic corporate profits ^e						
February 2021	7.6 ^f	7.9	7.5	7.7	8.1	7.9
July 2020	7.5	7.4	7.7	7.7	8.2	8.0

Data sources: Congressional Budget Office; Bureau of Labor Statistics; Federal Reserve. See www.cbo.gov/publication/56970#data.

GDP = gross domestic product; PCE = personal consumption expenditures.

- a. Real values are nominal values that have been adjusted to remove the effects of changes in prices.
- b. Excludes prices for food and energy.
- c. The consumer price index for all urban consumers.
- d. The employment cost index for wages and salaries of workers in private industry.
- e. Adjusted to remove distortions in depreciation allowances caused by tax rules and to exclude the effects of changes in prices on the value of inventories.
- f. Estimated value for 2020.

Appendix: Tax Expenditures

The tax rules that form the basis for the Congressional Budget Office's projections include an array of exclusions, deductions, preferential rates, and credits. Those provisions reduce revenues for any given level of tax rates in both the individual and corporate income tax systems. Many of those provisions are called tax expenditures because, like government spending programs, they provide financial assistance for particular activities as well as to certain entities or groups of people.¹

Tax expenditures contribute to the budget deficit just as federal spending does. They also influence people's choices about working, saving, and investing, and they affect the distribution of income. The Congressional Budget and Impoundment Control Act of 1974 (Public Law 93-344) requires the federal budget to list tax expenditures and for CBO to report the levels of tax expenditures under existing law. Every year, the staff of the Joint Committee on Taxation (JCT) and the Treasury's Office of Tax Analysis each publish estimates of individual and corporate income tax expenditures.²

Unlike many spending programs, tax expenditures are not subject to annual appropriations. In fact, most tax expenditures are not explicitly recorded in the federal budget but rather are reflected in the total amount of revenues. The one exception is the portion of refundable tax credits that exceeds a filer's tax liability; that amount is recorded as mandatory spending in the budget. Because of that budgetary treatment, tax expenditures can be less transparent than discretionary spending or spending on benefit programs.

Tax expenditures have a large effect on the federal budget. In fiscal year 2021, the value of the more than 200 tax expenditures in the individual and corporate income tax systems will total an estimated \$1.8 trillion—or 8.2 percent of gross domestic product—if their effects on payroll taxes as well as income taxes are included.³ That amount, which was calculated by CBO on the basis of estimates prepared by JCT, equals about half of all federal revenues that are projected to be collected

1. Sec. 3(3) of the Congressional Budget and Impoundment Control Act of 1974, codified at 2 U.S.C. §622(3) (2006), defines tax expenditures as “those revenue losses attributable to provisions of the Federal tax laws which allow a special exclusion, exemption, or deduction from gross income or which provide a special credit, a preferential rate of tax, or a deferral of tax liability.”
2. For this analysis, CBO followed JCT's definition of tax expenditures as deviations from a “normal” income tax structure. For the individual income tax, that structure incorporates existing regular tax rates, the standard deduction, personal exemptions, and deductions of business expenses. For the corporate income tax, that structure includes the statutory tax rate, generally defines income on an accrual basis, and allows for cost recovery according to a specified depreciation system that is less favorable than under current law. For more information, see Joint Committee on Taxation, *Estimates of Federal Tax Expenditures for Fiscal Years 2020–2024*, JCX-23-20 (November 2020), www.jct.gov/publications/2020/jcx-23-20/. The Treasury's

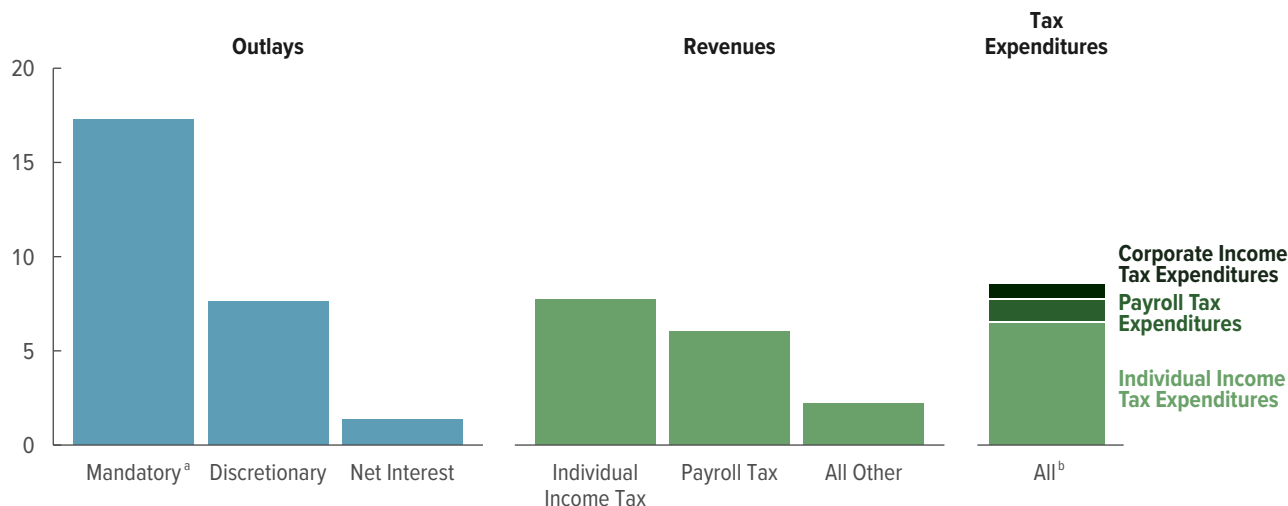
definition of tax expenditures is broadly similar to JCT's. See Office of Management and Budget, *Budget of the U.S. Government, Fiscal Year 2021: Analytical Perspectives* (February 2020), pp. 147–198, <https://go.usa.gov/xscrh> (PDF, 4.8 MB).

3. That total does not incorporate the recent changes to tax law made by the Consolidated Appropriations Act, 2021 (P.L. 116-260). JCT estimated that the law will reduce revenues and increase refundable tax credits by about \$204 billion in 2021. That amount includes \$166 billion for additional recovery rebates for individuals, which are considered tax expenditures, but like other refundable credits are recorded as mandatory spending in the budget. Unlike JCT, CBO includes estimates of the largest payroll tax expenditures. As defined by CBO, a normal payroll tax structure includes the existing payroll tax rates as applied to a broad definition of compensation—which consists of cash wages and fringe benefits. Tax expenditures that reduce the tax base for payroll taxes also decrease spending for Social Security by reducing the earnings base on which Social Security benefits are calculated.

Figure A-1.

Outlays, Revenues, and Tax Expenditures in 2021

Percentage of Gross Domestic Product



Tax expenditures, which are projected to total an estimated \$1.8 trillion in 2021, reduce revenues and, like spending programs, contribute to the deficit.

Data source: Congressional Budget Office, using estimates by the staff of the Joint Committee on Taxation. Those estimates were prepared before the enactment of the Consolidated Appropriations Act, 2021 (Public Law 116-260), and do not include the effects of that law. See www.cbo.gov/publication/56970#data.

- The outlay portions of refundable tax credits are included in tax expenditures as well as mandatory outlays. In 2021, they are estimated to total 0.4 percent of gross domestic product (GDP). The additional recovery rebates for individuals enacted in P.L. 116-260 are included in mandatory outlays but not in the tax expenditure estimates presented here because the tax expenditures were estimated before the enactment of that law. Outlays for those additional rebates are estimated to total 0.7 percent of GDP in 2021.
- This total is the sum of the estimates for all of the separate tax expenditures and does not account for interactions among them. However, CBO estimates that in 2021, the total of all tax expenditures roughly equals the sum of each considered separately. Because estimates of tax expenditures are based on people's behavior with current provisions of the tax code in place, they do not reflect the amount of revenues that would be raised if those provisions were eliminated and taxpayers adjusted their activities in response.

in 2021 and exceeds all projected discretionary outlays combined (see Figure A-1).⁴

4. For more information on the size of each tax expenditure, see Joint Committee on Taxation, *Estimates of Federal Tax Expenditures for Fiscal Years 2020–2024*, JCX-23-20 (November 2020), www.jct.gov/publications/2020/jcx-23-20/. For more information on the estimated budgetary effects of the tax provisions of P.L. 116-260, see Joint Committee on Taxation, *Estimated Budget Effects of the Revenue Provisions Contained in Rules Committee Print 116-68, The “Consolidated Appropriations Act, 2021,”* JCX-24-20 (December 2020), www.jct.gov/publications/2020/jcx-24-20/.

Estimates of tax expenditures measure the difference between households' and businesses' tax liabilities under current law and the tax liabilities they would have incurred if the provisions generating those tax expenditures were repealed but taxpayers' behavior was unchanged. Such estimates do not represent the amount of revenues that would be raised if those provisions were eliminated, because the changes in incentives that would result from eliminating those provisions would lead households and businesses to modify their behavior in ways that would lessen the effect on revenues.

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About This Document

This document is one of a series of reports on the state of the budget and the economy that the Congressional Budget Office issues each year. It satisfies the requirement in section 202(e) of the Congressional Budget Act of 1974 for CBO to submit to the Committees on the Budget periodic reports about fiscal policy and to provide baseline projections of the federal budget. In keeping with CBO's mandate to provide objective, impartial analysis, this report makes no recommendations.

The estimates in this report are the work of more than 100 staff members at CBO and the staff of the Joint Committee on Taxation. Barry Blom wrote Chapter 1, and Aaron Feinstein, Avi Lerner, Amber Marcellino, and Dan Ready compiled the projections. Christina Hawley Anthony, Theresa Gullo, Leo Lex, John McClelland, Sam Papenfuss, and Joshua Shakin provided guidance. Robert Shackleton wrote Chapter 2, with contributions from Aaron Betz, Yiqun Gloria Chen, Erin Deal, Daniel Fried, Edward Gamber, Ronald Gecan, Mark Lasky, Junghoon Lee, Michael McGrane, Jaeger Nelson, Sarah Robinson, Jeffrey Schafer, John Seliski, and Christopher Williams. Robert Arnold, Devrim Demirel, John Kitchen, and Jeffrey Werling provided guidance. Kathleen Burke wrote the appendix; John McClelland and Joshua Shakin provided guidance. Erin Deal, Aaron Feinstein, Avi Lerner, Bayard Meiser, Tess Prendergast, Dan Ready, Sarah Robinson, and Olivia Yang fact-checked the report and prepared the supplemental material.

CBO consulted with members of its Panel of Economic Advisers during the preparation of this report. Although CBO's outside advisers provided considerable assistance, they are not responsible for the contents of this report.

Mark Doms, Mark Hadley, Jeffrey Kling, and Robert Sunshine reviewed the report. Christine Bogusz and Benjamin Plotinsky were the editors, and Casey Labrack was the graphics editor. This report is available on CBO's website (www.cbo.gov/publication/56970).

CBO continually seeks feedback to make its work as useful as possible. Please send any comments to communications@cbo.gov.



Phillip L. Swagel
Director
February 2021

CAPM Cost of Equity Summary -- Natural Gas GroupCAPM Formula: $K = R_f + b(R_m - R_f)$

Risk Free Rate (R_f)	2.50%
Beta (β)	0.89
Risk Premium (<i>Geometric Approach - Long Term Bonds</i>)	4.10%
Risk Premium (<i>Arithmetic Approach - Long Term Bonds</i>)	5.70%
Risk Premium (<i>Long Term Bonds</i>)	4.90%
Required Return (K) (<i>Long Term Bonds</i>)	6.86%

**Yields on U.S. Treasury Securities
March 2020 - February 2021**

Month	Treasury Bonds	10 Year Treasury Bonds	20 Year Treasury Bonds	30 Year Treasury Bonds
March 2020	0.37%	0.70%	1.15%	1.35%
April 2020	0.36%	0.64%	1.05%	1.28%
May 2020	0.30%	0.65%	1.18%	1.41%
June 2020	0.29%	0.66%	1.18%	1.41%
July 2020	0.21%	0.55%	0.98%	1.20%
August 2020	0.28%	0.74%	1.26%	1.49%
September 2020	0.28%	0.69%	1.23%	1.46%
October 2020	0.38%	0.88%	1.43%	1.65%
November 2020	0.36%	0.84%	1.37%	1.58%
December 2020	0.36%	0.93%	1.45%	1.65%
January 2021	0.45%	1.11%	1.68%	1.87%
February 2021	0.75%	1.44%	2.08%	2.17%
Average Last 3 months	0.52%	1.16%	1.74%	1.90%
Average Last 6 months	0.43%	0.98%	1.54%	1.73%
Average Last 12 months	0.37%	0.82%	1.34%	1.54%

Source: www.treasury.gov

Duff and Phelps Normalized Risk Free Rate = 2.50%

Risk Free Rate (R_f) Range and Estimate

	Yield Calculations
Range	2.17% to 2.50%
Risk Free Rate (R_f)	2.50%

Beta for Gas Utility Group

Company Name	Value Line Forward Betas (February 26, 2021)
Atmos Energy Corp. (ATO)	0.80
ONE Gas, Inc.	0.80
South Jersey Industries (SJI)	1.05
Southwest Gas (SWX)	0.95
Spire, Inc. (SR)	0.85
Gas Utility Group Average	0.89

Market Risk Premiums

Total Returns, 1926-2019

	Stocks	Long-term Bonds
Geometric Mean	10.20%	6.10%
Arithmetic Mean	12.10%	6.40%

Market Risk Premiums ($R_m - R_f$)

		Long-term Bonds
Geometric Mean		4.10%
Arithmetic Mean		5.70%
Average Market Risk Premium		4.90%

Source: *Duff & Phelps, SBBI Classic Ibbotson Yearbook, 2020, p. 2-6.*
The 2021 Yearbook containing the 2020 figures will not be available until March 2021.

Q 3.13: Please provide a copy of all Requests for Proposals that were solicited in relation to Petitioner preparing for and filing this rate case. (Please include all requests for accounting, legal, regulatory, cost of service and cost of equity services, along with any other requests that were sent out.)

Response:

Vectren North did not solicit Requests for Proposals for the purposes of this proceeding



SUPREME COURT OF MISSOURI

en banc

SPIRE MISSOURI, INC., F/K/A)	<i>Opinion issued February 9, 2021</i>
LACLEDE GAS COMPANY,)	
)	
Appellant,)	
)	
v.)	
)	
PUBLIC SERVICE COMMISSION OF)	No. SC97834
THE STATE OF MISSOURI,)	
)	
Respondent,)	
)	
and)	
)	
OFFICE OF PUBLIC COUNSEL,)	
)	
Intervenor.)	

APPEAL FROM THE MISSOURI PUBLIC SERVICE COMMISSION

Spire Missouri, Inc. (“Spire”), formerly known as Laclede Gas Co., is an investor-owned public utility regulated by the Public Service Commission (“PSC”). In April 2017, Spire filed tariffs to increase its general rates for gas services in its Spire Missouri East and Spire Missouri West territories.¹ The PSC suspended Spire’s new

¹ Spire East was formerly known as Laclede Gas Company, and Spire West was formerly known as Missouri Gas Energy. For ease of use, only currently existing business entities and

tariffs until March 2018 and established a test year. The cases were consolidated, and several parties were granted intervention. The PSC issued its Amended Report and Order in March 2018. Among the PSC's conclusions, the Amended Report and Order disallowed a portion of Spire's rate case expenses, included some of the proceeds from the 2014 sale of a facility in setting Spire's new rates, and determined Spire East's prepaid pension asset was \$131.4 million (or approximately \$28.8 million less than Spire contended). Spire appeals. This Court has jurisdiction pursuant to article V, section 10 of the Missouri Constitution. The Amended Report and Order is affirmed in part and reversed in part, and the case is remanded for further proceedings consistent with this opinion.

Background

In April 2017, Spire filed tariffs with the PSC that would implement general rate increases in its Spire East and Spire West service areas. The tariffs would have increased annual gas revenue for Spire East by approximately \$58.1 million. Because approximately \$29.5 million of this already was being recovered through Spire's infrastructure system replacement surcharge ("ISRS"), the net increase in revenue for Spire East would be \$28.5 million. The tariffs would have increased annual gas revenue for Spire West by approximately \$50.4 million. Because approximately \$13.4 million of this already was being recovered through Spire West's ISRS, the net increase in revenue for Spire West would be \$37 million.

corresponding service areas are referenced herein, even though those entities had not yet been formed during a part of the time period at issue in this case.

The PSC suspended Spire's general rate increase tariffs until March 2018 and established a test year for the 12-month period ending December 31, 2016, to be updated for known and measurable changes through June 30, 2017. Several parties, including the Office of Public Counsel, were granted intervention,² and the cases were consolidated for hearing purposes. The PSC held local public hearings. The PSC then held evidentiary hearings and true-up hearings followed by briefing. Several issues were resolved by stipulations unopposed by any of the non-signatory parties, and the PSC approved those stipulations. The PSC then issued its consolidated Amended Report and Order on March 7, 2018, which became effective March 17, 2018.

Among the many issues before it, the PSC considered what portion of Spire's rate case expenses ought to be included in Spire's new base rates (and, therefore, paid for by Spire's customers rather than its investors). The PSC concluded that, because it is required under section 393.130.1³ to set rates that are "just and reasonable," it had the broad discretion to determine whether it was just and reasonable for Spire's shareholders to share the burden of rate case expenses with ratepayers. As of September 30, 2017, Spire's total rate case expenses were \$1,393,399. The PSC's staff of technical and subject matter experts ("Staff") recommended disallowing expenses relating to the

² These parties also included: Missouri Industrial Energy Consumers; Midwest Energy Consumers Group; Missouri Department of Economic Development – Division of Energy; Missouri School Board Association; the City of St. Joseph; National Housing Trust; Environmental Defense Fund; MoGas Pipeline, LLC; USW Local 11-6, which intervened only in the Spire East case; and Kansas City Power & Light Company and KCP&L Greater Missouri Operations, which intervened only in the Spire West case.

³ All statutory references are to RSMo 2016.

procurement of a Cash Working Capital study by the consultant firm ScottMadden. The Office of Public Counsel recommended disallowing expenses related to Spire's expert witness Thomas Flaherty because of the high hourly rate charged. The PSC determined that approximately half the litigated issues in this case were driven by Spire and among these issues were the proposed use of various shareholder-favorable ratemaking tools, including a revenue stabilization mechanism, a rate of return on equity of 10.35 percent (which would have been the highest of any large utility in Missouri), tracking mechanisms to limit shareholder risk, and earnings-based incentive compensation. The PSC further determined Spire "padded" its revenue requirement by pursuing positions it did not expect to win. Accordingly, the PSC determined Spire should recover the entire cost of customer notices, totaling \$436,000, and Spire's depreciation study,⁴ totaling \$54,114, but only 50 percent of Spire's remaining rate case expenses. The PSC ordered these allowed rate case expenses normalized over four years.

The PSC also considered whether some of the proceeds of Spire's sale of one of its service centers should be used to offset Spire's purchase of a more expensive service center and, therefore, inure to the benefit of ratepayers. Spire East owned and operated three district service centers providing leak detection, leak repair, construction, maintenance, and marking services. One of the service centers was located near Forest Park in the city of St. Louis ("the Forest Park property"). In 2013, Spire acquired two properties adjacent to the Forest Park property for additional leverage in negotiations.

⁴ Gas utilities are required to file a depreciation study every five years pursuant to 20 C.S.R. § 4240-3.160(1)(A).

Then, in 2014, as part of a restructuring of Spire following the acquisition of Spire West, Spire sold the Forest Park property (and the two adjacent properties) to the Cortex Innovation Community in St. Louis, which purchased the properties for construction of an IKEA retail store. The sale price for the Forest Park property included a gain of approximately \$7.6 million, excluding the \$1.8 million undepreciated book value of recent capital improvements to the facilities, and an allowance of \$5.7 million for relocation expenses. Of the relocation expense allowance, Spire used \$1.95 million to purchase furniture and fixtures for its new offices at 700 and 800 Market Street in the city of St. Louis and \$200,000 to lease a temporary space during the move. The evidence did not show how much (if any) of the remaining relocation expenses were necessitated by the move from the Forest Park property to the new Manchester center. Spire contributed \$1.5 million from the gain as a civic contribution to further downtown St. Louis rehabilitation.

In November 2016, Spire opened the newly constructed Manchester Avenue facility in the city of St. Louis as a partial replacement for the Forest Park property. The Manchester Avenue facility has a greater capital cost (\$7.7 million base rate value), but it is more efficient to operate than the aging Forest Park facility. Pursuant to section 393.190, gas utilities must obtain authorization from the PSC to sell any part of its system that is necessary or useful in the performance of its duties to the public, but Spire did not obtain this authorization prior to selling its Forest Park property.

The PSC was required to decide whether to consider all, some, or none of the proceeds from the sale of the Forest Park property in setting Spire's new rates. Per Staff's recommendation, the PSC ordered nearly \$3.6 million from the sale (the \$5.7 million relocation costs, less documented relocation expenses and the cost of furniture and fixtures for the new offices) be used to offset the cost of the more expensive capital asset of the Manchester Avenue facility. The PSC ordered this amount amortized over five years.

Finally, the PSC considered the amount of Spire's pension contributions to include in base rates. Spire makes contributions to its pension plan pursuant to a collective bargaining agreement with its union employees. A prepaid pension asset is a regulatory asset representing the amount Spire has contributed to its pension plan but has not yet recovered from ratepayers. A pension liability is the opposite; it arises when Spire collects more from ratepayers than it has contributed to its pension plan. It is undisputed that Spire West has a pension liability of \$28.4 million, but the amount of Spire East's pension asset (or liability) was in dispute. Staff and Spire agree that at least \$131.4 million has accumulated in Spire East's pension asset since 1996, but they disagree as to what amount (if any) accumulated prior to that time. Spire argued the pension asset includes an additional \$28.8 million, which accumulated between 1990 and 1996, during which time Spire East filed rate cases in 1990 (i.e., rates for 1990-1992), 1992 (i.e., rates for 1992-1994), and 1994 (i.e., rates for 1994-1996).

The disagreement between Staff and Spire centers on whether Spire East used the cash or accrual method of accounting to account for the pension asset in its 1990, 1992,

and 1994 rate cases. FAS 87 and FAS 88 are Financial Accounting Standards articulating generally accepted accounting principles in accounting for the accrual of a pension asset. These are used routinely in reporting but less regularly in ratemaking. Staff argued Spire East did not begin to use both FAS 87 and FAS 88 to calculate its pension asset in rate cases until the 1996 rate case in that it used neither standard in the 1990 and 1992 cases and only FAS 87 (but not FAS 88) in the 1994 rate case. Spire concedes there is evidence suggesting its pension expense was calculated on a cash basis in the 1992 rate case but argues it had been using FAS 87 for financial reporting purposes since 1987 and, therefore, FAS 87 and FAS 88 would had to have been (and were) used in the 1990, 1992, and 1994 rate cases. With respect to the 1994 rate case, Spire contends the explicit references to FAS 87 necessarily included reference to FAS 88 because the two are inseparably intertwined and the former would not have been used without the latter. The amount in dispute from 1990 through 1994 is \$19.8 million, and the amount in dispute between 1994 and 1996 is \$9 million.

In its Amended Report and Order, the PSC rejected Spire's position and adopted, instead, the testimony of Staff witness Young. Among his lengthy and complex testimony, Young testified that – even though Spire has used FAS 87 for reporting since 1987 – neither Spire East's nor Staff's accounting schedules in the 1990, 1992, and 1994 rate cases itemized a pension asset using FAS 87 and FAS 88. This was supported by the record in the 1992 rate case, which seems clearly to rely upon the cash accounting approach. Staff contends only FAS 87, but not FAS 88, was used in the 1994 rate case. Because the PSC determined Spire East used the cash method in all three rate cases, it

disallowed \$19.8 million in claimed pension assets for 1990 through 1994 and \$9 million in claimed pension assets for 1994 to 1996. As a result, the PSC determined Spire East's pension asset was \$131.4 million, to be amortized over eight years.

Discussion

I. General principles governing the PSC and judicial review

Before proceeding to the merits of this case and analyzing Spire's points on appeal, three principles fundamental to the law governing public utility regulation warrant emphasis.

A PSC decision is presumed valid and the burden is on the party challenging it to demonstrate the decision is unlawful or unreasonable. *Mo. Pub. Serv. Comm'n v. Union Elec. Co.*, 552 S.W.3d 532, 538-39 (Mo. banc 2018). *See also* § 386.510 (providing for judicial review of "the reasonableness or lawfulness of the original order" from the PSC). The decision is lawful where the PSC has statutory authority to render its decision. *Union Elec. Co.*, 552 S.W.3d at 539. It is reasonable if supported by substantial, competent evidence on the whole record, it is not arbitrary and capricious, and is not based on an abuse of discretion. *Id.* *See also* § 536.140.2 (providing for judicial review of agency decisions to determine whether the action of the agency: "(1) Is in violation of constitutional provisions; (2) Is in excess of the statutory authority or jurisdiction of the agency; (3) Is unsupported by competent and substantial evidence upon the whole record; (4) Is, for any other reason, unauthorized by law; (5) Is made upon unlawful procedure or without a fair trial; (6) Is arbitrary, capricious or unreasonable; (7) Involves an abuse of discretion").

This two-step analysis of lawfulness and reasonableness is required by, and instituted in furtherance of, article V, section 18 of the Missouri Constitution, which provides that judicial review of administrative decisions “shall include the determination whether the same are authorized by law, and in cases in which a hearing is required by law, whether the same are supported by competent and substantial evidence upon the whole record.” Analyzing the constitutional standard that administrative decisions must be supported by competent and substantial evidence on the whole record, this Court explained that judicial review of administrative factfinding *does not* view the evidence and all reasonable inferences in the light most favorable to the award or decision.

Hampton v. Big Boy Steel Erection, 121 S.W.3d 220, 223 (Mo. banc 2003). Instead:

A court must examine the whole record to determine if it contains sufficient competent and substantial evidence to support the award, i.e., whether the award is contrary to the overwhelming weight of the evidence. Whether the award is supported by competent and substantial evidence is judged by examining the evidence in the context of the whole record. An award that is contrary to the overwhelming weight of the evidence is, in context, not supported by competent and substantial evidence.

Id. at 222-23 (citations and footnotes omitted). This approach gives weight to the administrative agency’s role as the finder of fact without abdicating the requirement in article V, section 18 that the judiciary stand as an independent check against abuse by the executive branch when it undertakes a judicial or quasi-judicial function.

Second, a public utility is entitled to recover from ratepayers all its costs (plus a reasonable return on its investments) by way of rates that are “just and reasonable.”

Office of Pub. Counsel v. Mo. Pub. Serv. Comm’n, 409 S.W.3d 371, 376 (Mo. banc 2013). *Accord Mo. Pub. Serv. Comm’n*, 552 S.W.3d at 534 (“As a general matter,

utilities ... recover their costs (plus a reasonable return on their investments) through the sale of [gas] at the rates set by the [PSC].”); § 393.150.2 (“At any hearing involving a rate sought to be increased, the burden of proof to show that the increased rate or proposed increased rate is ***just and reasonable*** shall be upon the gas corporation”) (emphasis added). “Just and reasonable” rates, therefore, allow public utilities to recover expenses that are (1) fair to both investors and ratepayers and (2) prudently incurred. The PSC ordinarily applies a presumption of prudence in determining whether a utility reasonably incurred its expenses. *Office of Pub. Counsel*, 409 S.W.3d at 376. This presumption of prudence will “not survive a showing of inefficiency or improvidence that creates serious doubt as to the prudence of an expenditure.” *Id.* (quotation omitted). “If such a showing is made, the presumption drops out and the applicant has the burden of dispelling these doubts and proving the questioned expenditure to have been prudent.” *Id.*

Finally, the PSC is prohibited from engaging in retroactive ratemaking. This is one of the bedrock principles long governing the PSC’s role in setting rates. As this Court has explained:

The [PSC] has the authority to determine the rate [t]o be charged. In so determining it may consider past excess recovery insofar as this is relevant to its determination of what rate is necessary to provide a just and reasonable return in the future, and so avoid further excess recovery. It may not, however, redetermine rates already established and paid without depriving the utility (or the consumer if the rates were originally too low) of his property without due process The utilities take the risk that rates filed by them will be inadequate, or excessive, each time they seek rate approval. To permit them to collect additional amounts simply because they had additional past expenses not covered by either clause is retroactive rate making, i. e., the setting of rates which permit a utility to recover past

losses or which require it to refund past excess profits collected under a rate that did not perfectly match expenses plus rate-of-return with the rate actually established. Past expenses are used as a basis for determining what rate is reasonable to be charged in the future in order to avoid further excess profits or future losses, but under the prospective language of the statutes, they cannot be used to set future rates to recover for past losses due to imperfect matching of rates with expenses.

State ex rel. Utility Consumers' Council of Mo., Inc. v. Pub. Serv. Comm'n, 585 S.W.2d 41, 58-59 (Mo. banc 1979) (“UCCM”) (citations omitted), *superseded on other grounds* by § 386.266. In other words, the PSC must determine a rate that is just and reasonable using a utility’s past expenses *only* as a way to estimate the utility’s future costs (and fair return); not to allow a utility to recover past losses or to force it to refund ratepayers past excess profits.

II. Rate Case Expenses

Spire, in its first point, argues the PSC’s decision to exclude a portion⁵ of Spire’s rate case expenses is contrary to law because the PSC did not find that any of those expenses were imprudent. In its second point, Spire argues this exclusion was unreasonable, arbitrary and capricious, unsupported by competent and substantial evidence, or an abuse of discretion. Both points are denied.

The PSC did not err by excluding a portion of Spire’s rate case expenses when calculating Spire’s new rates. The expenses Spire sought to recover included: (a) the procurement of a Cash Working Capital study by the consultant firm ScottMadden;

⁵ Spire’s metronomic insistence that the PSC denied “half” or “almost half” of its rate case expenses is both inaccurate and unavailing. Spire’s total rate case expenses were nearly \$1.4 million as of September 2017. The PSC allowed full recovery of the cost of customer notices (\$436,000) and the depreciation study (\$54,000). Accordingly, even after the PSC disallowed

(b) unreasonably high hourly fees paid to Spire's expert witness Thomas J. Flaherty; and
(c) various shareholder-oriented (and unlikely to succeed) ratemaking strategies such as a revenue stabilization mechanism, a 10.35-percent rate of return on equity (the highest of any large utility in Missouri), tracking mechanisms to limit shareholder risk, and earnings-based incentive compensation. In terms of their reasonableness, these expenditures were entitled to a presumption of prudence, and the *prudence* of the expenditures was never called into question. Nonetheless, the PSC concluded that including all of these expenditures in setting Spire's future rates was not *just* because some of the expenses were not fair to ratepayers in that they only were incurred to benefit (if anyone) Spire's shareholders. *See Office of Pub. Counsel*, 409 S.W.3d at 376.

Implicit in Spire's argument is an assertion that it is entitled to recover all prudent expenditures in its rates. This is not so. In setting rates, the PSC has broad discretion to include or exclude expenditures to arrive at rates it deems to be "just and reasonable," subject, of course, to judicial review that the PSC's conclusions are supported by competent and substantial evidence and not arbitrary, capricious, or an abuse of discretion.

Generally, ratepayers benefit from rate cases because they have an interest in ensuring the financial well-being of the utilities that serve them. Therefore, ratepayers justly and reasonably can be expected to pay a utility's expenses in bringing such a case. But this does not mean there cannot be limits. A utility cannot spend any amount it

approximately \$452,000 of the remaining expenses, Spire recovered approximately \$942,000 (or 68 percent) of its total rate case expenses.

pleases secure in the knowledge or expectation that ratepayers will foot the bill, particularly when those expenses include items seeking to subordinate ratepayers' interests to those of the utility's investors. Here, even assuming there was no basis in the evidence to reject the presumption of prudence with respect to one or more of Spire's rate case expenses, the PSC did not err in its decision to exclude a portion of those expenses in setting "just and reasonable" rates because they served only to benefit shareholders and minimize shareholder risk with no accompanying benefit (or potential benefit) to ratepayers. To be sure, the PSC's decision to exclude 50 percent of Spire's remaining rate case expenses (after allowing full recovery of the cost of notices and the depreciation study) was not the result of a decision to include or exclude expenses on an item-by-item basis. This is not to say, however, that the PSC's decision was unsupported by competent and substantial evidence on the whole record, and it was far from the sort of irrational or unconsidered approach properly characterized as arbitrary, capricious, or an abuse of discretion. *Cf. Cox v. Kan. City Chiefs Football Club, Inc.*, 473 S.W.3d 107, 114 (Mo. banc 2015) ("A ruling constitutes an abuse of discretion when it is clearly against the logic of the circumstances then before the court and is so unreasonable and arbitrary that it shocks the sense of justice and indicates a lack of careful, deliberate consideration.").

The PSC expressly identified those issues (and related expenses) Spire pursued that benefitted only its shareholders and not its ratepayers, and the PSC decided what proportion of the total case (and expenses) they represented.⁶ Nothing in the PSC's

⁶ Spire also argues the PSC's determination to disallow a portion of its rate case expenses is inconsistent with Spire's low average expenses in other cases and contends the PSC's

authorizing statutes or this Court's precedents requires the PSC to conduct an item-by-item analysis when the issue is the degree to which a utility's case expenses should be included in calculating "just and reasonable" rates rather rejecting a particular expense as imprudent. Accordingly, the PSC did not err in excluding a portion of Spire's rate case expenses, and Spire's Points I and II are denied.

III. Forest Park Property Sale

Spire next argues the PSC erred by ordering that nearly \$3.6 million in relocation proceeds from the sale of the Forest Park property be used to reduce rates. In its second point, Spire claims this constitutes prohibited retroactive ratemaking and, alternatively, that it was arbitrary and capricious in that it was contrary to the traditional treatment of gains on the sale of utility property.⁷ This point is denied.

The PSC did not engage in prohibited retroactive ratemaking. Retroactive ratemaking is setting rates for the future in order to redress imprecision in setting prior rates, i.e., to allow the utility to recover prior losses or force it to disgorge excessive profits. *UCCM*, 585 S.W.2d at 58. This does not mean, however, that the prohibition

disallowance amounts to a penalty for Spire exercising its right to prosecute a rate case as it sees fit. The first argument is unconvincing and largely irrelevant because Spire's expenses in other cases are not the issue in and formed no part of the PSC's decision now before the Court. Spire's claim that it is being penalized fares no better because nothing in the PSC's decision restricts what Spire can and cannot raise in a rate case. Instead, it merely addresses who (between the shareholder and the ratepayers) should be burdened with the cost of the decisions Spire makes in this regard.

⁷ This point is multifarious in that it asserts the PSC's decision regarding relocation expenses was error for two separate and distinct reasons. *Bowers v. Bowers*, 543 S.W.3d 608, 615 n.9 (Mo. banc 2018). Multifarious points preserve nothing for appellate review because they fail to comply with Rule 84.04(d). *Id.* This Court, however, has discretion to review, *ex gratia*, multifarious points on the merits and elects to exercise that discretion here. *Id.*

against retroactive ratemaking bars all reference to events occurring outside the test year. *See State ex rel. GTE N., Inc. v. Mo. Pub. Serv. Comm'n*, 835 S.W.2d 356, 368 (Mo. App. 1992) (approving such reference when the “adjustment is (1) ‘known and measurable,’ (2) promotes the proper relationship of investment, revenues and expenses, and (3) is representative of the conditions anticipated during the time the rates will be in effect”). It is important that the trees do not obscure the forest. The use of the test year concept, the adjustments made to that year, and reference to events outside that year, are merely tools for the PSC to wield in pursuit of identifying rates that are “just and reasonable” as required by § 393.130.1.

For Spire East’s future rates to be “just and reasonable,” the PSC determined those rates needed to reflect the impact of the sale of the Forest Park property even though that sale occurred outside the test year. Specifically, the PSC determined (among other related matters) that: a) section 393.190.1 required Spire to obtain prior approval of this sale from the PSC but it failed to do so; b) the new service center was a more expensive capital asset than the Forest Park property; and c) the evidence did not establish how much (if any) of the nearly \$3.6 million in unspecified relocation expenses were incurred in the move from the Forest Park property to the Manchester property. Spire’s point relied on does not claim these findings (or others underlying the PSC’s treatment of the Forest Park property sale) were not supported by competent and substantial evidence on the record as a whole, only that this treatment was retroactive ratemaking and inconsistent with the PSC’s prior practice. Because there is no

suggestion the PSC was setting Spire's new rates to account for profits or losses resulting from prior rates, Spire's claim that this was prohibited, retroactive ratemaking is denied.

The Court also rejects Spire's contention that the PSC's decision regarding the sale of the Forest Park property was arbitrary and capricious because it departed from approaches taken by the PSC in prior cases. "[A]n administrative agency is not bound by *stare decisis*, nor are PSC decisions binding precedent on this Court." *State ex rel. AG Processing, Inc. v. Pub. Serv. Comm'n of Mo.*, 120 S.W.3d 732, 736 (Mo. banc 2003). Therefore, even if the Court assumes (without deciding) that the PSC's approach was a departure from its prior practice, this alone does not render the PSC's approach so illogical or unreasonable as to justify a conclusion that it was arbitrary, capricious, or an abuse of discretion. *Cf. Cox*, 473 S.W.3d at 114 (An abuse of discretion occurs when decision is "clearly against the logic of the circumstances then before the court and is so unreasonable and arbitrary that it shocks the sense of justice and indicates a lack of careful, deliberate consideration."). Because the PSC's decision shows a reasoned, careful approach to what may well be a new or newly increasing problem, this Court rejects Spire's claim that it was arbitrary, capricious, or an abuse of discretion merely because it may have departed from prior decisions on similar issues.

IV. Spire East's Pension Asset

In its final point, Spire argues the PSC's decision to eliminate \$28.8 million from Spire East's pension asset was arbitrary, capricious, or unsupported by competent and substantial evidence because it was inconsistent with Spire's evidence that the pension

asset was calculated using FAS 87 and FAS 88 throughout Spire's 1990, 1992, and 1994 rate cases. This claim is rejected in part and granted in part.

Spire concedes the pension asset was determined on a cash basis in the 1992 rate case. Nevertheless, Spire points to testimony in the 1990 rate case by Staff witness Rackers that Spire contends supports the conclusion that the pension asset in that case was calculated pursuant to FAS 87 and FAS 88 accounting standards. And, because no departure from this approach was explicitly authorized in the 1992 rate case, Spire argues this could support a finding in its favor regarding that case as well. But this argument was in stark contrast to the testimony of Staff witness Young, who testified that neither Spire East nor Staff included an itemized pension asset based on FAS 87 and FAS 88 in their accounting schedules for Spire's rate cases between 1987 and 1994. Accordingly, there was competent and substantial evidence for the PSC to decide either way with respect to how the pension asset was calculated in the 1990 and 1992 cases. This Court will not substitute its judgment for that of the PSC as to how such a complex question should be resolved where the evidence was in such near equipoise. *See Hampton*, 121 S.W.3d at 222-23.

But the evidentiary scales were not so nearly balanced with respect to how Spire's pension liability was accounted for in the 1994 rate case. Spire showed (and Staff clearly recognized) that Spire East began to use FAS 87 beginning with the 1994 rate case. But, because Staff argues that there was no similar showing with respect to Spire East's use of FAS 88, Staff claimed the cash accounting must have been used to calculate the pension asset in the 1994 rate case and the \$9 million accruing between 1994 and 1996 should be

excluded. But Spire's evidence (which was uncontroverted) showed that FAS 87 and FAS 88 are inextricably linked, that the former would not have been used without the latter, and that reference to FAS 87 was simply shorthand for reference to both FAS 87 and FAS 88. Moreover, the record in the 1994 rate case suggests the dispute was not over whether FAS 88 would be used but rather how it would be used. In light of this, the Court holds the PSC's decision to extend the period in which it determined Spire East used cash accounting to value its pension asset from 1994 to 1996 was not supported by competent and substantial evidence on the record as a whole. Viewed in isolation, there was evidence to support the PSC's decision in this respect, but this Court's review does not use this approach. *Id.*⁸ Instead, the PSC's decision must be supported by competent and substantial evidence on the whole record, including the evidence the PSC rejected. In this very close case, the Court is persuaded it was not. Accordingly, though the Court affirms the PSC's Amended Report and Order in all other respects, the Amended Report and Order is reversed to this extent and the matter remanded to the PSC to add the \$9 million in pension assets that accrued between 1994 and 1996 to Spire East's \$131.4 million prepaid pension asset. Because this increase in the amount of Spire East's

⁸ After *Hampton*, this Court revisited the issue to emphasize that judicial review of an administrative agency finding is not at all like appellate review of a circuit court finding. *Seck v. Dep't of Transp.*, 434 S.W.3d 74, 78-79 (Mo. banc 2014). In reviewing a circuit court's finding, an appellate court considers only the evidence and reasonable inferences that support that finding and examines that evidence and those inferences only in the light most favorable to the finding the circuit court made. *Id.* at 78-79. In reviewing a factual finding made by an administrative agency, on the other hand, judicial review is governed by article V, section 18 of the Missouri Constitution and "must consider all of the evidence that was before the agency and all of the reasonable inferences ... including the evidence and inferences that the agency rejected in making its findings." *Id.* at 79.

pension asset might bear on its amortization, the case is remanded for further proceedings consistent with this opinion.

CONCLUSION

For the reasons set forth above, the PSC's Amended Report and Order is affirmed in part and reversed in part, and the case is remanded for further proceedings consistent with this opinion.

Paul C. Wilson, Judge

All concur.

Data Requests- Set 14

Q 14.1: With regard to the long-term incentive compensation described in Ms. Villatoro's testimony at pages 23-25, please confirm the performance-based awards are based entirely on return and net income. If not, please explain any other criteria that are applicable.

Response:
Confirmed.

Data Requests- Set 9

Q 9.1: Referencing customer bills sent to Vectren North Gas customers:

- a. Does Vectren North currently have the ability to break out all components of a customer's bill, including customer service charge, volumetric charge, GCA charge, CSIA charge, EER charge, USF charge, etc.?
- b. If the answer to part a. is yes, please explain if Vectren North currently provides that information on customer's bills, or if a customer must request the breakdown.
- c. Will Vectren North have the ability to break out all components of a customer's bill, including customer service charge, volumetric charge, GCA charge, CSIA charge, EER charge, USF charge, etc. once Vectren North switches to the SAP software used by CenterPoint?
- d. If the answer to part c. is yes, please explain if Vectren North will provide that information on customer's bills, or if a customer will have to request the breakdown.

Response:

- a. Yes. The Banner system contains the detail that allows the bill to show all of the information required under 170 IAC 5-1-13(A). The Company does not currently have the ability to show on the bill all of the details set forth in the question.
- b. The detail of the bill components is within the billing system and available to customer service representatives should a customer call in to inquire for the breakdown.
- c. As noted in response to IG DR 2.6, Banner is not a part of the system harmonization project as proposed within this proceeding. Before and after any changes to the billing system, the requirements of 170 IAC 5-1-13(A) will continue to be met by the Company.
- d. The Company will comply with the Commission rules.

CERTIFICATE OF SERVICE

This is to certify that a copy of the foregoing ***OUCC'S TESTIMONY OF LEJA D. COURTER*** has been served upon the following counsel of record in the captioned proceeding by electronic service on March 31, 2021.

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