

MISSOURI PUBLIC SERVICE COMMISSION

STAFF REPORT

COST OF SERVICE

APPENDIX 2

**Support for Staff
Cost of
Capital Recommendations**

SPIRE MISSOURI, INC., d/b/a SPIRE

**LACLEDE GAS COMPANY and MISSOURI GAS ENERGY
GENERAL RATE CASE**

**CASE NOS. GR-2017-0215
and GR-2017-0216**

*Jefferson City, Missouri
September 2017*

LAC and MGE
GR-2017-0215 GR-2017-0216

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LAC and MGE
GR-2017-0215 GR-2017-0216

Federal Reserve Discount Rates Changes and Federal Reserve Funds Rates Changes

Date	Federal Reserve Discount Rate	Federal Reserve Funds Rate	Date	Federal Reserve Discount Rate	Federal Reserve Funds Rate
01/01/83	8.50%		06/30/99	4.50%	5.00%
12/31/83	8.50%		08/24/99	4.75%	5.25%
04/09/84	9.00%		11/16/99	5.00%	5.50%
11/21/84	8.50%		02/02/00	5.25%	5.75%
12/24/84	8.00%		03/21/00	5.50%	6.00%
05/20/85	7.50%		05/19/00	6.00%	6.50%
03/07/86	7.00%		01/03/01	5.75%	6.00%
04/21/86	6.50%		01/04/01	5.50%	6.00%
07/11/86	6.00%		01/31/01	5.00%	5.50%
08/21/86	5.50%		03/20/01	4.50%	5.00%
09/04/87	6.00%		04/18/01	4.00%	4.50%
08/09/88	6.50%		05/15/01	3.50%	4.00%
02/24/89	7.00%		06/27/01	3.25%	3.75%
07/13/90		8.00%	08/21/01	3.00%	3.50%
10/29/90		7.75%	09/17/01	2.50%	3.00%
11/13/90		7.50%	10/02/01	2.00%	2.50%
12/07/90		7.25%	11/06/01	1.50%	2.00%
12/18/90		7.00%	12/11/01	1.25%	1.75%
12/19/90	6.50%		11/06/02	0.75%	1.25%
01/09/91		6.75%	01/09/03	2.25%**	1.25%
02/01/91	6.00%	6.25%	06/25/03	2.00%	1.00%
03/08/91		6.00%	06/30/04	2.25%	1.25%
04/30/91	5.50%	5.75%	08/10/04	2.50%	1.50%
08/06/91		5.50%	09/21/04	2.75%	1.75%
09/13/91	5.00%	5.25%	11/10/04	3.00%	2.00%
10/31/91		5.00%	12/14/04	3.25%	2.25%
11/06/91	4.50%	4.75%	02/02/05	3.50%	2.50%
12/06/91		4.50%	03/22/05	3.75%	2.75%
12/20/91	3.50%	4.00%	05/03/05	4.00%	3.00%
04/09/92		3.75%	06/30/05	4.25%	3.25%
07/02/92	3.00%	3.25%	08/09/05	4.50%	3.50%
09/04/92		3.00%	09/20/05	4.75%	3.75%
01/01/93			11/01/05	5.00%	4.00%
12/31/93	No Changes	No Changes	12/13/05	5.25%	4.25%
02/04/94		3.25%	01/31/06	5.50%	4.50%
03/22/94		3.50%	03/28/06	5.75%	4.75%
04/18/94		3.75%	05/10/06	6.00%	5.00%
05/17/94	3.50%	4.25%	06/29/06	6.25%	5.25%
08/16/94	4.00%	4.75%	08/17/07	5.75%	5.25%
11/15/94	4.75%	5.50%	09/18/07	5.25%	4.75%
02/01/95	5.25%	6.00%	10/31/07	5.00%	4.50%
07/06/95		5.75%	12/11/07	4.75%	4.25%
12/19/95		5.50%	01/22/08	4.00%	3.50%
01/31/96	5.00%	5.25%	01/30/08	3.50%	3.00%
03/25/97		5.50%	03/16/08	3.25%	
12/12/97	5.00%		03/18/08	2.50%	2.25%
01/09/98	5.00%		04/30/08	2.25%	2.00%
03/06/98	5.00%		10/08/08	1.75%	1.50%
09/29/98		5.25%	10/29/08	1.25%	1.00%
10/15/98	4.75%	5.00%	12/16/08	0.50%	0% - .25%
11/17/98	4.50%	4.75%	02/19/10	0.75%	
			12/17/15	1.00%	0.25%-0.50%
			12/15/16	1.25%	0.50% - 0.75%
			03/16/17	1.50%	0.75% - 1.00%

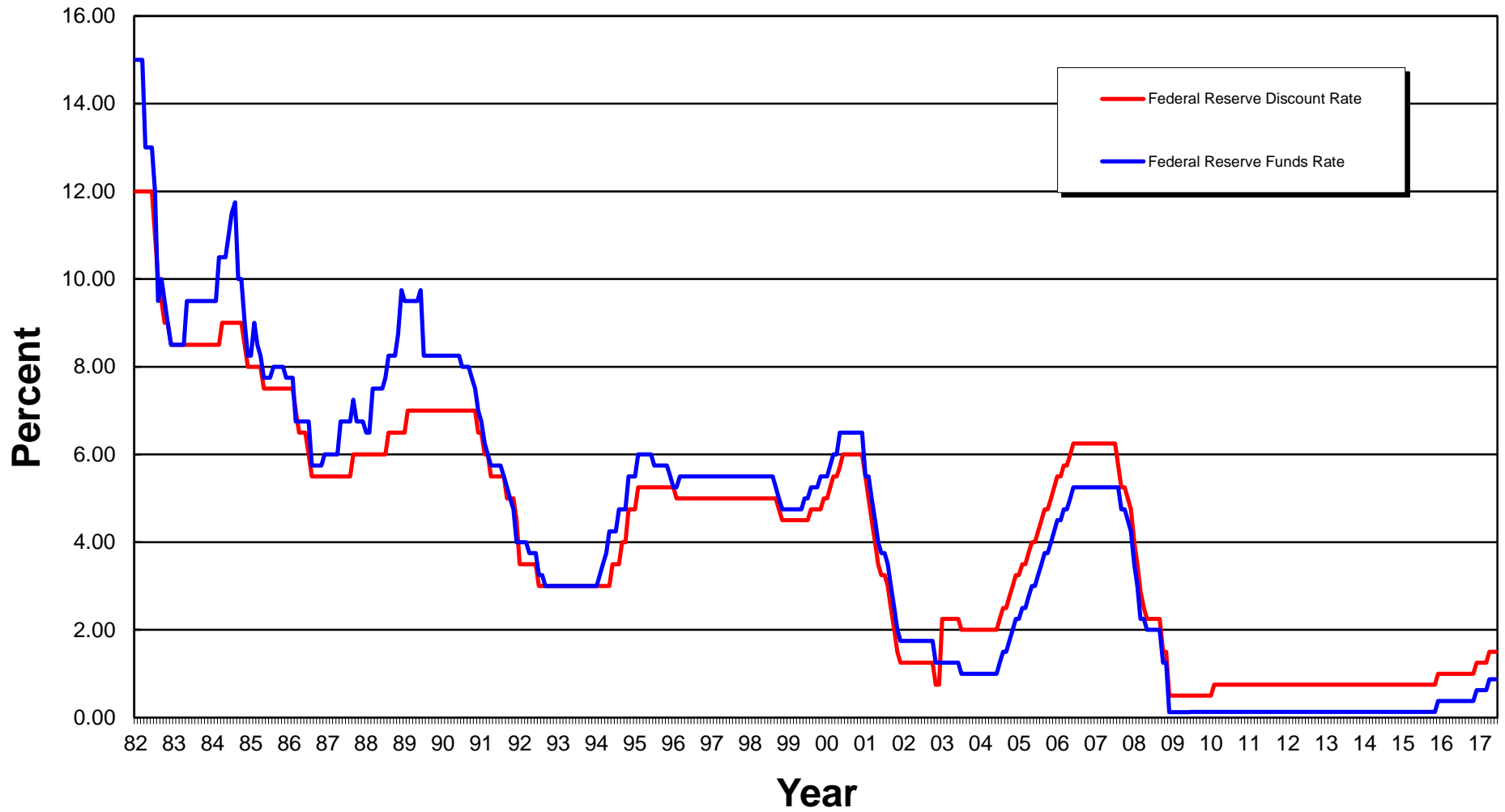
* Staff began tracking the Federal Funds Rate.

**Revised discount window program begins. Reflects rate on primary credit. This revised discount window policy results in incomparability of the discount rates after January 9, 2003 to discount rates before January 9, 2003.

Source: <http://www.federalreserve.gov>

Note: Interest rates as of December 31 for each year are underlined.

Federal Reserve Discount Rates and Federal Funds Rates
1982 - 2017



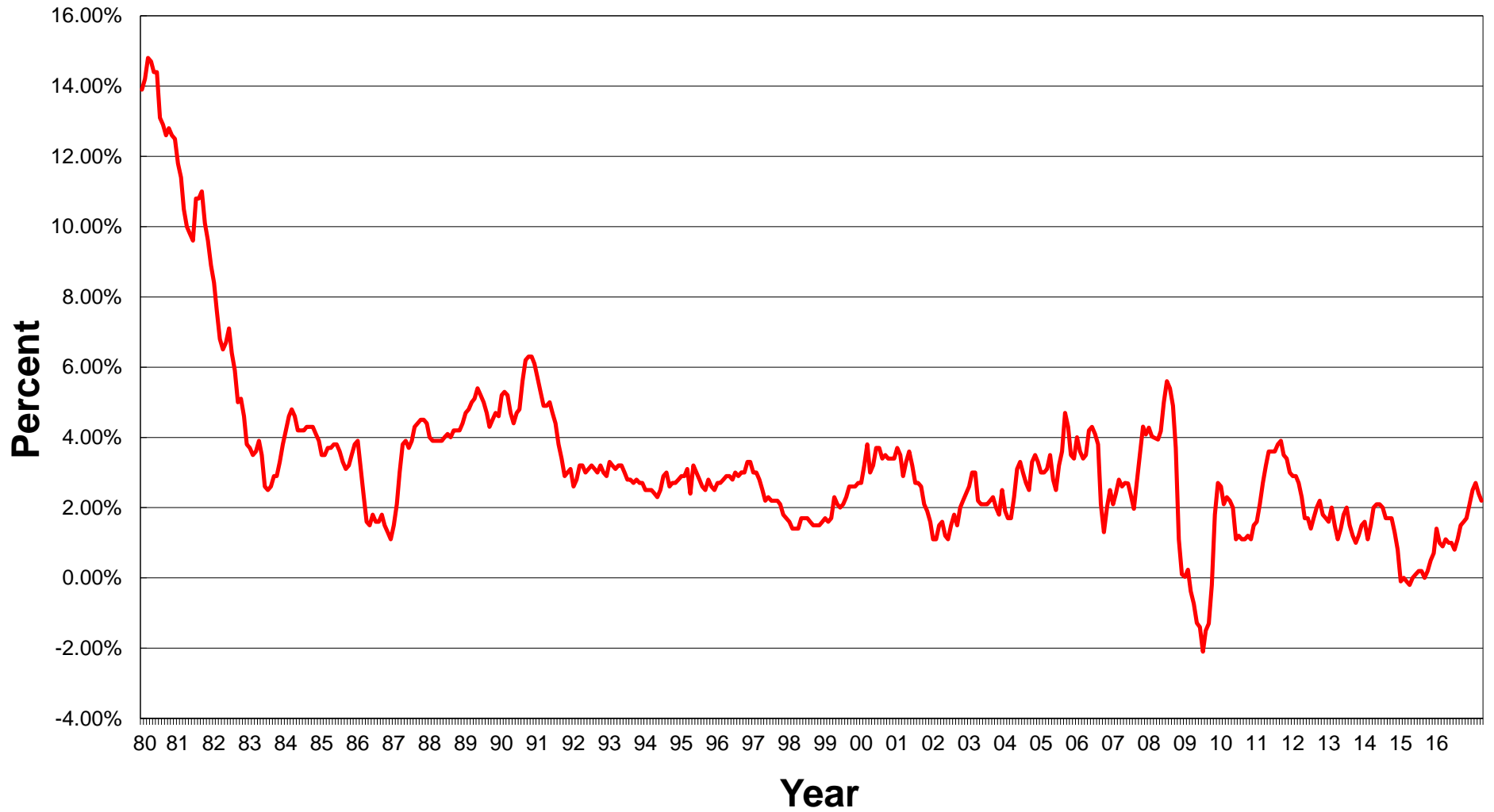
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Rate of Inflation

Mo/Year	Rate (%)	Mo/Year	Rate (%)	Mo/Year	Rate (%)	Mo/Year	Mo/Year	Rate (%)	Mo/Year	Rate (%)	Mo/Year	Rate (%)	Mo/Year	Rate (%)	Mo/Year	Rate (%)	Mo/Year	Rate (%)
Jan 1980	13.90	Jan 1984	4.20	Jan 1988	4.00	Jan 1992	Jan 1996	2.70	Jan 2000	2.70	Jan 2004	1.90	Jan 2008	4.30	Jan 2012	2.90	Jan 2016	1.40
Feb	14.20	Feb	4.60	Feb	3.90	Feb	Feb	2.70	Feb	3.20	Feb	1.70	Feb	4.00	Feb	2.90	Feb	1.00
Mar	14.80	Mar	4.80	Mar	3.90	Mar	Mar	2.80	Mar	3.70	Mar	1.70	Mar	4.00	Mar	2.70	Mar	0.90
Apr	14.70	Apr	4.60	Apr	3.90	Apr	Apr	2.90	Apr	3.00	Apr	2.30	Apr	3.90	Apr	2.30	Apr	1.10
May	14.40	May	4.20	May	3.90	May	May	2.90	May	3.20	May	3.10	May	4.20	May	1.70	May	1.00
Jun	14.40	Jun	4.20	Jun	4.00	Jun	Jun	2.80	Jun	3.70	Jun	3.30	Jun	5.00	Jun	1.70	Jun	1.00
Jul	13.10	Jul	4.20	Jul	4.10	Jul	Jul	3.00	Jul	3.70	Jul	3.00	Jul	5.60	Jul	1.40	Jul	0.80
Aug	12.90	Aug	4.30	Aug	4.00	Aug	Aug	2.90	Aug	3.40	Aug	2.70	Aug	5.40	Aug	1.70	Aug	1.10
Sep	12.60	Sep	4.30	Sep	4.20	Sep	Sep	3.00	Sep	3.50	Sep	2.50	Sep	4.90	Sep	2.00	Sep	1.50
Oct	12.80	Oct	4.30	Oct	4.20	Oct	Oct	3.00	Oct	3.40	Oct	3.30	Oct	3.70	Oct	2.20	Oct	1.60
Nov	12.60	Nov	4.10	Nov	4.20	Nov	Nov	3.30	Nov	3.40	Nov	3.50	Nov	1.10	Nov	1.80	Nov	1.70
Dec	12.50	Dec	3.90	Dec	4.40	Dec	Dec	3.30	Dec	3.40	Dec	3.30	Dec	0.10	Dec	1.70	Dec	2.10
Jan 1981	11.80	Jan 1985	3.50	Jan 1989	4.70	Jan 1993	Jan 1997	3.00	Jan 2001	3.70	Jan 2005	3.00	Jan 2009	0.00	Jan 2013	1.60	Jan 2017	2.50
Feb	11.40	Feb	3.50	Feb	4.80	Feb	Feb	3.00	Feb	3.50	Feb	3.00	Feb	0.20	Feb	2.00	Feb	2.70
Mar	10.50	Mar	3.70	Mar	5.00	Mar	Mar	2.80	Mar	2.90	Mar	3.10	Mar	-0.40	Mar	1.50	Mar	2.40
Apr	10.00	Apr	3.70	Apr	5.10	Apr	Apr	2.50	Apr	3.30	Apr	3.50	Apr	-0.70	Apr	1.10	Apr	2.20
May	9.80	May	3.80	May	5.40	May	May	2.20	May	3.60	May	2.80	May	-1.28	May	1.40		
Jun	9.60	Jun	3.80	Jun	5.20	Jun	Jun	2.30	Jun	3.20	Jun	2.50	Jun	-1.40	Jun	1.80		
Jul	10.80	Jul	3.60	Jul	5.00	Jul	Jul	2.20	Jul	2.70	Jul	3.20	Jul	-2.10	Jul	2.00		
Aug	10.80	Aug	3.30	Aug	4.70	Aug	Aug	2.20	Aug	2.70	Aug	3.60	Aug	-1.50	Aug	1.50		
Sep	11.00	Sep	3.10	Sep	4.30	Sep	Sep	2.20	Sep	2.60	Sep	4.70	Sep	-1.30	Sep	1.20		
Oct	10.10	Oct	3.20	Oct	4.50	Oct	Oct	2.10	Oct	2.10	Oct	4.30	Oct	-0.20	Oct	1.00		
Nov	9.60	Nov	3.50	Nov	4.70	Nov	Nov	1.80	Nov	1.90	Nov	3.50	Nov	1.80	Nov	1.20		
Dec	8.90	Dec	3.80	Dec	4.60	Dec	Dec	1.70	Dec	1.60	Dec	3.40	Dec	2.70	Dec	1.50		
Jan 1982	8.40	Jan 1986	3.90	Jan 1990	5.20	Jan 1994	Jan 1998	1.60	Jan 2002	1.10	Jan 2006	4.00	Jan 2010	2.60	Jan 2014	1.60		
Feb	7.60	Feb	3.10	Feb	5.30	Feb	Feb	1.40	Feb	1.10	Feb	3.60	Feb	2.10	Feb	1.10		
Mar	6.80	Mar	2.30	Mar	5.20	Mar	Mar	1.40	Mar	1.50	Mar	3.40	Mar	2.30	Mar	1.50		
Apr	6.50	Apr	1.60	Apr	4.70	Apr	Apr	1.40	Apr	1.60	Apr	3.50	April	2.20	Apr	2.00		
May	6.70	May	1.50	May	4.40	May	May	1.70	May	1.20	May	4.20	May	2.00	May	2.10		
Jun	7.10	Jun	1.80	Jun	4.70	Jun	Jun	1.70	Jun	1.10	June	4.30	Jun	1.10	Jun	2.10		
Jul	6.40	Jul	1.60	Jul	4.80	Jul	Jul	1.70	Jul	1.50	July	4.10	Jul	1.20	Jul	2.00		
Aug	5.90	Aug	1.60	Aug	5.60	Aug	Aug	1.60	Aug	1.80	Aug	3.80	Aug	1.10	Aug	1.70		
Sep	5.00	Sep	1.80	Sep	6.20	Sep	Sep	1.50	Sep	1.50	Sep	2.10	Sep	1.10	Sep	1.70		
Oct	5.10	Oct	1.50	Oct	6.30	Oct	Oct	1.50	Oct	2.00	Oct	1.30	Oct	1.20	Oct	1.70		
Nov	4.60	Nov	1.30	Nov	6.30	Nov	Nov	1.50	Nov	2.20	Nov	2.00	Nov	1.10	Nov	1.30		
Dec	3.80	Dec	1.10	Dec	6.10	Dec	Dec	1.60	Dec	2.40	Dec	2.50	Dec	1.50	Dec	0.80		
Jan 1983	3.70	Jan 1987	1.50	Jan 1991	5.70	Jan 1995	Jan 1999	1.70	Jan 2003	2.60	Jan 2007	2.10	Jan 2011	1.60	Jan 2015	-0.10		
Feb	3.50	Feb	2.10	Feb	5.30	Feb	Feb	1.60	Feb	3.00	Feb	2.40	Feb	2.10	Feb	0.00		
Mar	3.60	Mar	3.00	Mar	4.90	Mar	Mar	1.70	Mar	3.00	Mar	2.80	Mar	2.70	Mar	-0.10		
Apr	3.90	Apr	3.80	Apr	4.90	Apr	Apr	2.30	Apr	2.20	Apr	2.60	Apr	3.20	Apr	-0.20		
May	3.50	May	3.90	May	5.00	May	May	2.10	May	2.10	May	2.70	May	3.60	May	0.00		
Jun	2.60	Jun	3.70	Jun	4.70	Jun	Jun	2.00	Jun	2.10	Jun	2.70	Jun	3.60	Jun	0.10		
Jul	2.50	Jul	3.90	Jul	4.40	Jul	Jul	2.10	Jul	2.10	Jul	2.40	Jul	3.60	Jul	0.20		
Aug	2.60	Aug	4.30	Aug	3.80	Aug	Aug	2.30	Aug	2.20	Aug	2.00	Aug	3.80	Aug	0.20		
Sep	2.90	Sep	4.40	Sep	3.40	Sep	Sep	2.60	Sep	2.30	Sep	2.80	Sep	3.90	Sep	0.00		
Oct	2.90	Oct	4.50	Oct	2.90	Oct	Oct	2.60	Oct	2.00	Oct	3.50	Oct	3.50	Oct	0.20		
Nov	3.30	Nov	4.50	Nov	3.00	Nov	Nov	2.60	Nov	1.80	Nov	4.30	Nov	3.40	Nov	0.50		
Dec	3.80	Dec	4.40	Dec	3.10	Dec	Dec	2.70	Dec	1.90	Dec	4.10	Dec	3.00	Dec	0.70		

Source: U.S. Dept of Labor, Bureau of Labor Statistics, Consumer Price Index - All Urban Consumers, Change for 12-Month Period, Bureau of Labor Statistics, http://www.bls.gov/schedule/archives/cpi_nr.htm

Rate of Inflation
1980 - 2017



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Average Yields on AA, A and BBB Public Utility Bonds

Mo/Year	Rate (%)	Mo/Year	Rate (%)	Mo/Year	Rate (%)	Mo/Year	Mo/Year	Rate (%)	Mo/Year	Rate (%)	Mo/Year	Rate (%)	Mo/Year	Rate (%)	Mo/Year	Rate (%)	Mo/Year	Rate (%)
Jan 1980	12.12	Jan 1984	13.40	Jan 1988	10.75	Jan 1992	Jan 1996	7.20	Jan 2000	8.22	Jan 2004	6.23	Jan 2008	6.08	Jan 2012	4.48	Jan 2016	4.62
Feb	13.48	Feb	13.50	Feb	10.11	Feb	Feb	7.37	Feb	8.10	Feb	6.17	Feb	6.28	Feb	4.47	Feb	4.44
Mar	14.33	Mar	14.03	Mar	10.11	Mar	Mar	7.72	Mar	8.14	Mar	6.01	Mar	6.29	Mar	4.59	Mar	4.4
Apr	13.50	Apr	14.30	Apr	10.53	Apr	Apr	7.88	Apr	8.14	Apr	6.38	Apr	6.36	Apr	4.54	Apr	4.16
May	12.17	May	14.95	May	10.75	May	May	7.99	May	8.55	May	6.68	May	6.38	May	4.36	May	4.06
Jun	11.87	Jun	15.16	Jun	10.71	Jun	Jun	8.07	Jun	8.22	Jun	6.53	Jun	6.50	Jun	4.26	Jun	3.93
Jul	12.12	Jul	14.92	Jul	10.96	Jul	Jul	8.02	Jul	8.17	Jul	6.34	Jul	6.50	Jul	4.12	Jul	3.70
Aug	12.82	Aug	14.29	Aug	11.09	Aug	Aug	7.84	Aug	8.05	Aug	6.18	Aug	6.48	Aug	4.18	Aug	3.73
Sep	13.29	Sep	14.04	Sep	10.56	Sep	Sep	8.01	Sep	8.16	Sep	6.01	Sep	6.59	Sep	4.17	Sep	3.80
Oct	13.53	Oct	13.68	Oct	9.92	Oct	Oct	7.76	Oct	8.08	Oct	5.95	Oct	7.70	Oct	4.04	Oct	3.90
Nov	14.07	Nov	13.15	Nov	9.89	Nov	Nov	7.48	Nov	8.03	Nov	5.97	Nov	7.80	Nov	3.95	Nov	4.21
Dec	14.48	Dec	12.96	Dec	10.02	Dec	Dec	7.58	Dec	7.79	Dec	5.93	Dec	6.87	Dec	4.10	Dec	4.39
Jan 1981	14.22	Jan 1985	12.88	Jan 1989	10.02	Jan 1993	Jan 1997	7.79	Jan 2001	7.76	Jan 2005	5.80	Jan 2009	6.77	Jan 2013	4.24	Jan 2017	4.24
Feb	14.84	Feb	13.00	Feb	10.02	Feb	Feb	7.68	Feb	7.69	Feb	5.64	Feb	6.72	Feb	4.29	Feb	4.25
Mar	14.86	Mar	13.66	Mar	10.16	Mar	Mar	7.92	Mar	7.59	Mar	5.86	Mar	6.85	Mar	4.29	Mar	4.30
Apr	15.32	Apr	13.42	Apr	10.14	Apr	Apr	8.08	Apr	7.81	Apr	5.72	Apr	6.90	Apr	4.08	Apr	4.19
May	15.84	May	12.89	May	9.92	May	May	7.94	May	7.88	May	5.60	May	6.83	May	4.24	May	4.19
Jun	15.27	Jun	11.91	Jun	9.49	Jun	Jun	7.77	Jun	7.75	Jun	5.39	June	6.54	Jun	4.63	June	4.01
Jul	15.87	Jul	11.88	Jul	9.34	Jul	Jul	7.52	Jul	7.71	Jul	5.50	July	6.15	Jul	4.78		
Aug	16.33	Aug	11.93	Aug	9.37	Aug	Aug	7.57	Aug	7.57	Aug	5.51	Aug	5.80	Aug	4.85		
Sep	16.89	Sep	11.95	Sep	9.43	Sep	Sep	7.50	Sep	7.73	Sep	5.54	Sep	5.60	Sep	4.90		
Oct	16.76	Oct	11.84	Oct	9.37	Oct	Oct	7.37	Oct	7.64	Oct	5.79	Oct	5.64	Oct	4.78		
Nov	15.50	Nov	11.33	Nov	9.33	Nov	Nov	7.24	Nov	7.61	Nov	5.88	Nov	5.71	Nov	4.86		
Dec	15.77	Dec	10.82	Dec	9.31	Dec	Dec	7.16	Dec	7.86	Dec	5.83	Dec	5.86	Dec	4.88		
Jan 1982	16.73	Jan 1986	10.66	Jan 1990	9.44	Jan 1994	Jan 1998	7.03	Jan 2002	7.69	Jan 2006	5.77	Jan 2010	5.83	Jan 2014	4.72		
Feb	16.72	Feb	10.16	Feb	9.66	Feb	Feb	7.09	Feb	7.62	Feb	5.83	Feb	5.94	Feb	4.64		
Mar	16.07	Mar	9.33	Mar	9.75	Mar	Mar	7.13	Mar	7.83	Mar	5.98	Mar	5.90	Mar	4.64		
Apr	15.82	Apr	9.02	Apr	9.87	Apr	Apr	7.12	Apr	7.74	Apr	6.28	Apr	5.87	Apr	4.52		
May	15.60	May	9.52	May	9.89	May	May	7.11	May	7.76	May	6.39	May	5.59	May	4.37		
Jun	16.18	Jun	9.51	Jun	9.69	Jun	Jun	6.99	Jun	7.67	June	6.39	June	5.62	Jun	4.42		
Jul	16.04	Jul	9.19	Jul	9.66	Jul	Jul	6.99	Jul	7.54	July	6.37	July	5.41	Jul	4.35		
Aug	15.22	Aug	9.15	Aug	9.84	Aug	Aug	6.96	Aug	7.34	Aug	6.20	Aug	5.10	Aug	4.28		
Sep	14.56	Sep	9.42	Sep	10.01	Sep	Sep	6.88	Sep	7.23	Sep	6.03	Sep	5.10	Sep	4.40		
Oct	13.88	Oct	9.39	Oct	9.94	Oct	Oct	6.88	Oct	7.43	Oct	6.01	Oct	5.20	Oct	4.24		
Nov	13.58	Nov	9.15	Nov	9.76	Nov	Nov	6.96	Nov	7.31	Nov	5.82	Nov	5.45	Nov	4.29		
Dec	13.55	Dec	8.96	Dec	9.57	Dec	Dec	6.84	Dec	7.20	Dec	5.83	Dec	5.64	Dec	4.18		
Jan 1983	13.46	Jan 1987	8.77	Jan 1991	9.56	Jan 1995	Jan 1999	6.87	Jan 2003	7.13	Jan 2007	5.96	Jan 2011	5.64	Jan 2015	3.83		
Feb	13.60	Feb	8.81	Feb	9.31	Feb	Feb	7.00	Feb	6.92	Feb	5.91	Feb	5.73	Feb	3.91		
Mar	13.28	Mar	8.75	Mar	9.39	Mar	Mar	7.18	Mar	6.80	Mar	5.87	Mar	5.62	Mar	3.97		
Apr	13.03	Apr	9.30	Apr	9.30	Apr	Apr	7.16	Apr	6.68	Apr	6.01	Apr	5.62	Apr	3.96		
May	13.00	May	9.82	May	9.29	May	May	7.42	May	6.35	May	6.03	May	5.38	May	4.38		
Jun	13.17	Jun	9.87	Jun	9.44	Jun	Jun	7.70	Jun	6.21	June	6.34	June	5.32	June	4.60		
Jul	13.28	Jul	10.01	Jul	9.40	Jul	Jul	7.66	Jul	6.54	July	6.28	July	5.34	July	4.63		
Aug	13.50	Aug	10.33	Aug	9.16	Aug	Aug	7.86	Aug	6.78	Aug	6.28	Aug	4.78	Aug	4.54		
Sep	13.35	Sep	11.00	Sep	9.03	Sep	Sep	7.87	Sep	6.58	Sep	6.24	Sep	4.61	Sep	4.69		
Oct	13.19	Oct	11.32	Oct	8.99	Oct	Oct	8.02	Oct	6.50	Oct	6.17	Oct	4.66	Oct	4.63		
Nov	13.33	Nov	10.82	Nov	8.93	Nov	Nov	7.86	Nov	6.44	Nov	6.04	Nov	4.37	Nov	4.73		
Dec	13.48	Dec	10.99	Dec	8.76	Dec	Dec	8.04	Dec	6.36	Dec	6.23	Dec	4.47	Dec	4.69		

Source:
Mergent Bond Record

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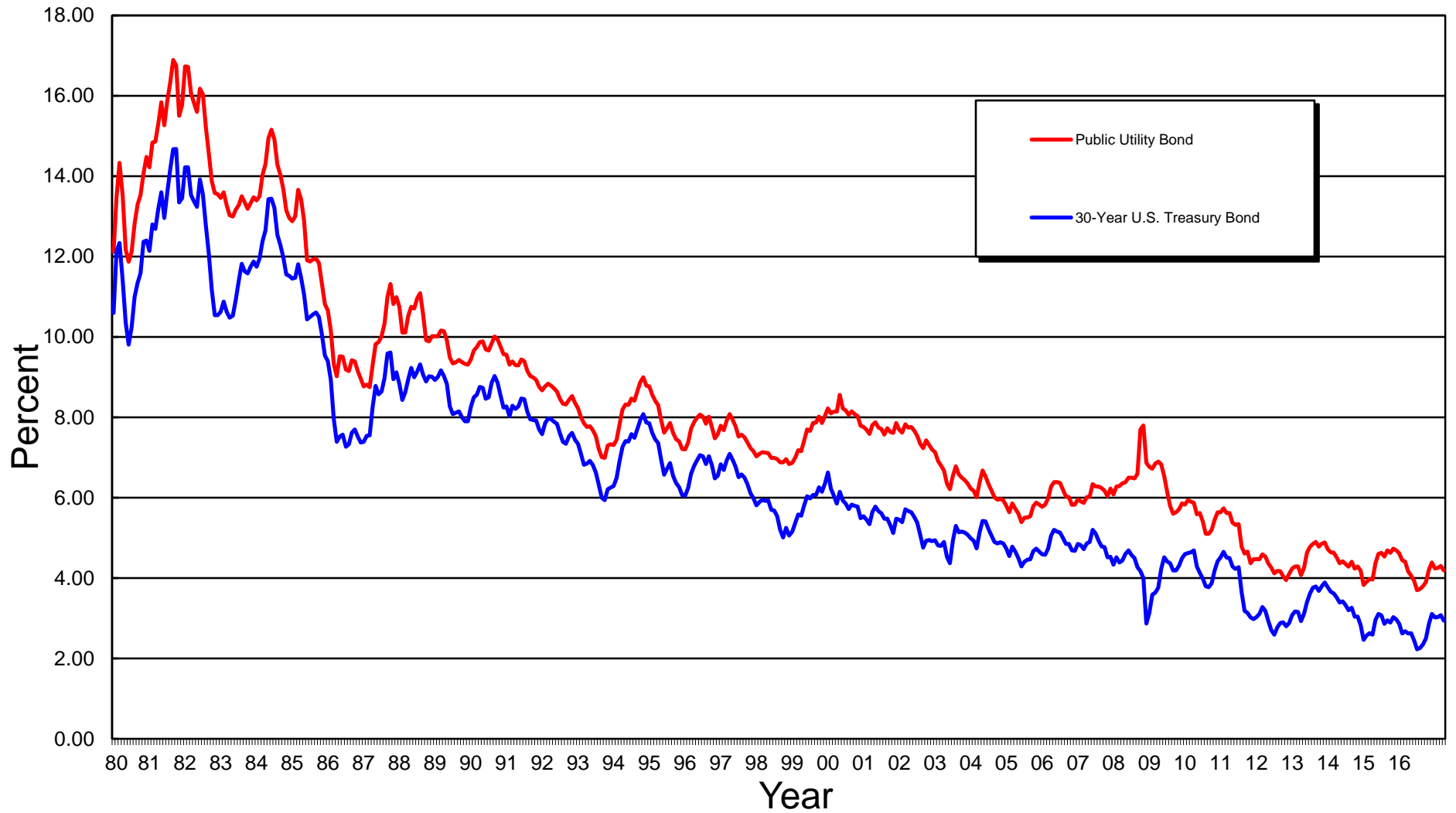
Average Yields on Thirty-Year U.S. Treasury Bonds

Mo/Year	Rate (%)	Mo/Year	Rate (%)	Mo/Year	Rate (%)	Mo/Year	Rate (%)	Mo/Year	Rate (%)	Mo/Year	Rate (%)	Mo/Year	Rate (%)	Mo/Year	Rate (%)	Mo/Year	Rate (%)	Mo/Year	Rate (%)
Jan 1980	10.60	Jan 1984	11.75	Jan 1988	8.83	Jan 1992	7.58	Jan 1996	6.05	Jan 2000	6.63	Jan 2004	4.99	Jan 2008	4.33	Jan 2012	3.03	Jan 2016	2.86
Feb	12.13	Feb	11.95	Feb	8.43	Feb	7.85	Feb	6.24	Feb	6.23	Feb	4.93	Feb	4.52	Feb	3.11	Feb	2.62
Mar	12.34	Mar	12.38	Mar	8.63	Mar	7.97	Mar	6.60	Mar	6.05	Mar	4.74	Mar	4.39	Mar	3.28	Mar	2.68
Apr	11.40	Apr	12.65	Apr	8.95	Apr	7.96	Apr	6.79	Apr	5.85	Apr	5.14	Apr	4.44	Apr	3.18	Apr	2.62
May	10.36	May	13.43	May	9.23	May	7.89	May	6.93	May	6.15	May	5.42	May	4.60	May	2.93	May	2.63
Jun	9.81	Jun	13.44	Jun	9.00	Jun	7.84	Jun	7.06	Jun	5.93	Jun	5.41	Jun	4.69	Jun	2.70	June	2.45
Jul	10.24	Jul	13.21	Jul	9.14	Jul	7.60	Jul	7.03	Jul	5.85	Jul	5.22	Jul	4.57	Jul	2.59	July	2.23
Aug	11.00	Aug	12.54	Aug	9.32	Aug	7.39	Aug	6.84	Aug	5.72	Aug	5.06	Aug	4.50	Aug	2.77	Aug	2.26
Sep	11.34	Sep	12.29	Sep	9.06	Sep	7.34	Sep	7.03	Sep	5.83	Sep	4.90	Sep	4.27	Sep	2.88	Sep	2.35
Oct	11.59	Oct	11.98	Oct	8.89	Oct	7.53	Oct	6.81	Oct	5.80	Oct	4.86	Oct	4.17	Oct	2.90	Oct	2.50
Nov	12.37	Nov	11.56	Nov	9.02	Nov	7.61	Nov	6.48	Nov	5.78	Nov	4.89	Nov	4.00	Nov	2.80	Nov	2.86
Dec	12.40	Dec	11.52	Dec	9.01	Dec	7.44	Dec	6.55	Dec	5.49	Dec	4.86	Dec	2.87	Dec	2.88	Dec	3.11
Jan 1981	12.14	Jan 1985	11.45	Jan 1989	8.93	Jan 1993	7.34	Jan 1997	6.83	Jan 2001	5.54	Jan 2005	4.73	Jan 2009	3.13	Jan 2013	3.08	Jan 2017	3.02
Feb	12.80	Feb	11.47	Feb	9.01	Feb	7.09	Feb	6.69	Feb	5.45	Feb	4.55	Feb	3.59	Feb	3.17	Feb	3.03
Mar	12.69	Mar	11.81	Mar	9.17	Mar	6.82	Mar	6.93	Mar	5.34	Mar	4.78	Mar	3.64	Mar	3.16	Mar	3.08
Apr	13.20	Apr	11.47	Apr	9.03	Apr	6.85	Apr	7.09	Apr	5.65	Apr	4.65	Apr	3.76	Apr	2.93	Apr	2.94
May	13.60	May	11.05	May	8.83	May	6.92	May	6.94	May	5.78	May	4.49	May	4.23	May	3.11	May	2.96
Jun	12.96	Jun	10.44	Jun	8.27	Jun	6.81	Jun	6.77	Jun	5.67	Jun	4.29	Jun	4.52	Jun	3.40	June	2.80
Jul	13.59	Jul	10.50	Jul	8.08	Jul	6.63	Jul	6.51	Jul	5.61	Jul	4.41	July	4.41	Jul	3.61		
Aug	14.17	Aug	10.56	Aug	8.12	Aug	6.32	Aug	6.58	Aug	5.48	Aug	4.46	Aug	4.37	Aug	3.76		
Sep	14.67	Sep	10.61	Sep	8.15	Sep	6.00	Sep	6.50	Sep	5.48	Sep	4.47	Sep	4.19	Sep	3.79		
Oct	14.68	Oct	10.50	Oct	8.00	Oct	5.94	Oct	6.33	Oct	5.32	Oct	4.67	Oct	4.19	Oct	3.68		
Nov	13.35	Nov	10.06	Nov	7.90	Nov	6.21	Nov	6.11	Nov	5.12	Nov	4.73	Nov	4.31	Nov	3.80		
Dec	13.45	Dec	9.54	Dec	7.90	Dec	6.25	Dec	5.99	Dec	5.48	Dec	4.66	Dec	4.49	Dec	3.89		
Jan 1982	14.22	Jan 1986	9.40	Jan 1990	8.26	Jan 1994	6.29	Jan 1998	5.81	Jan 2002	5.44	Jan 2006	4.59	Jan 2010	4.60	Jan 2014	3.77		
Feb	14.22	Feb	8.93	Feb	8.50	Feb	6.49	Feb	5.89	Feb	5.39	Feb	4.58	Feb	4.62	Feb	3.66		
Mar	13.53	Mar	7.96	Mar	8.56	Mar	6.91	Mar	5.95	Mar	5.71	Mar	4.73	Mar	4.64	Mar	3.62		
Apr	13.37	Apr	7.39	Apr	8.76	Apr	7.27	Apr	5.92	Apr	5.67	Apr	5.06	Apr	4.69	Apr	3.52		
May	13.24	May	7.52	May	8.73	May	7.41	May	5.93	May	5.64	May	5.20	May	4.29	May	3.39		
Jun	13.92	Jun	7.57	Jun	8.46	Jun	7.40	Jun	5.70	Jun	5.52	Jun	5.16	Jun	4.13	Jun	3.42		
Jul	13.55	Jul	7.27	Jul	8.50	Jul	7.58	Jul	5.68	Jul	5.38	July	5.13	July	3.99	Jul	3.33		
Aug	12.77	Aug	7.33	Aug	8.86	Aug	7.49	Aug	5.54	Aug	5.08	Aug	5.00	Aug	3.80	Aug	3.20		
Sep	12.07	Sep	7.62	Sep	9.03	Sep	7.71	Sep	5.20	Sep	4.76	Sep	4.85	Sep	3.77	Sep	3.26		
Oct	11.17	Oct	7.70	Oct	8.86	Oct	7.94	Oct	5.01	Oct	4.93	Oct	4.85	Oct	3.87	Oct	3.04		
Nov	10.54	Nov	7.52	Nov	8.54	Nov	8.08	Nov	5.25	Nov	4.95	Nov	4.69	Nov	4.19	Nov	3.04		
Dec	10.54	Dec	7.37	Dec	8.24	Dec	7.87	Dec	5.06	Dec	4.92	Dec	4.68	Dec	4.42	Dec	2.83		
Jan 1983	10.63	Jan 1987	7.39	Jan 1991	8.27	Jan 1995	7.85	Jan 1999	5.16	Jan 2003	4.94	Jan 2007	4.85	Jan 2011	4.52	Jan 2015	2.46		
Feb	10.88	Feb	7.54	Feb	8.03	Feb	7.61	Feb	5.37	Feb	4.81	Feb	4.82	Feb	4.65	Feb	2.57		
Mar	10.63	Mar	7.55	Mar	8.29	Mar	7.45	Mar	5.58	Mar	4.80	Mar	4.72	Mar	4.51	Mar	2.63		
Apr	10.48	Apr	8.25	Apr	8.21	Apr	7.36	Apr	5.55	Apr	4.90	Apr	4.86	Apr	4.50	Apr	2.59		
May	10.53	May	8.78	May	8.27	May	6.95	May	5.81	May	4.53	May	4.90	May	4.29	May	2.96		
Jun	10.93	Jun	8.57	Jun	8.47	Jun	6.57	Jun	6.04	Jun	4.37	Jun	5.20	Jun	4.23	Jun	3.11		
Jul	11.40	Jul	8.64	Jul	8.45	Jul	6.72	Jul	5.98	Jul	4.93	July	5.11	Jul	4.27	Jul	3.07		
Aug	11.82	Aug	8.97	Aug	8.14	Aug	6.86	Aug	6.07	Aug	5.30	Aug	4.93	Aug	3.65	Aug	2.86		
Sep	11.63	Sep	9.59	Sep	7.95	Sep	6.55	Sep	6.07	Sep	5.14	Sep	4.79	Sep	3.18	Sep	2.95		
Oct	11.58	Oct	9.61	Oct	7.93	Oct	6.37	Oct	6.26	Oct	5.16	Oct	4.77	Oct	3.13	Oct	2.89		
Nov	11.75	Nov	8.95	Nov	7.92	Nov	6.26	Nov	6.15	Nov	5.13	Nov	4.52	Nov	3.02	Nov	3.03		
Dec	11.88	Dec	9.12	Dec	7.70	Dec	6.06	Dec	6.35	Dec	5.08	Dec	4.53	Dec	2.98	Dec	2.97		

Sources:
<http://finance.yahoo.com/q/hp?s=^TYX>
<http://research.stlouisfed.org/fred2/data/GS30.txt>

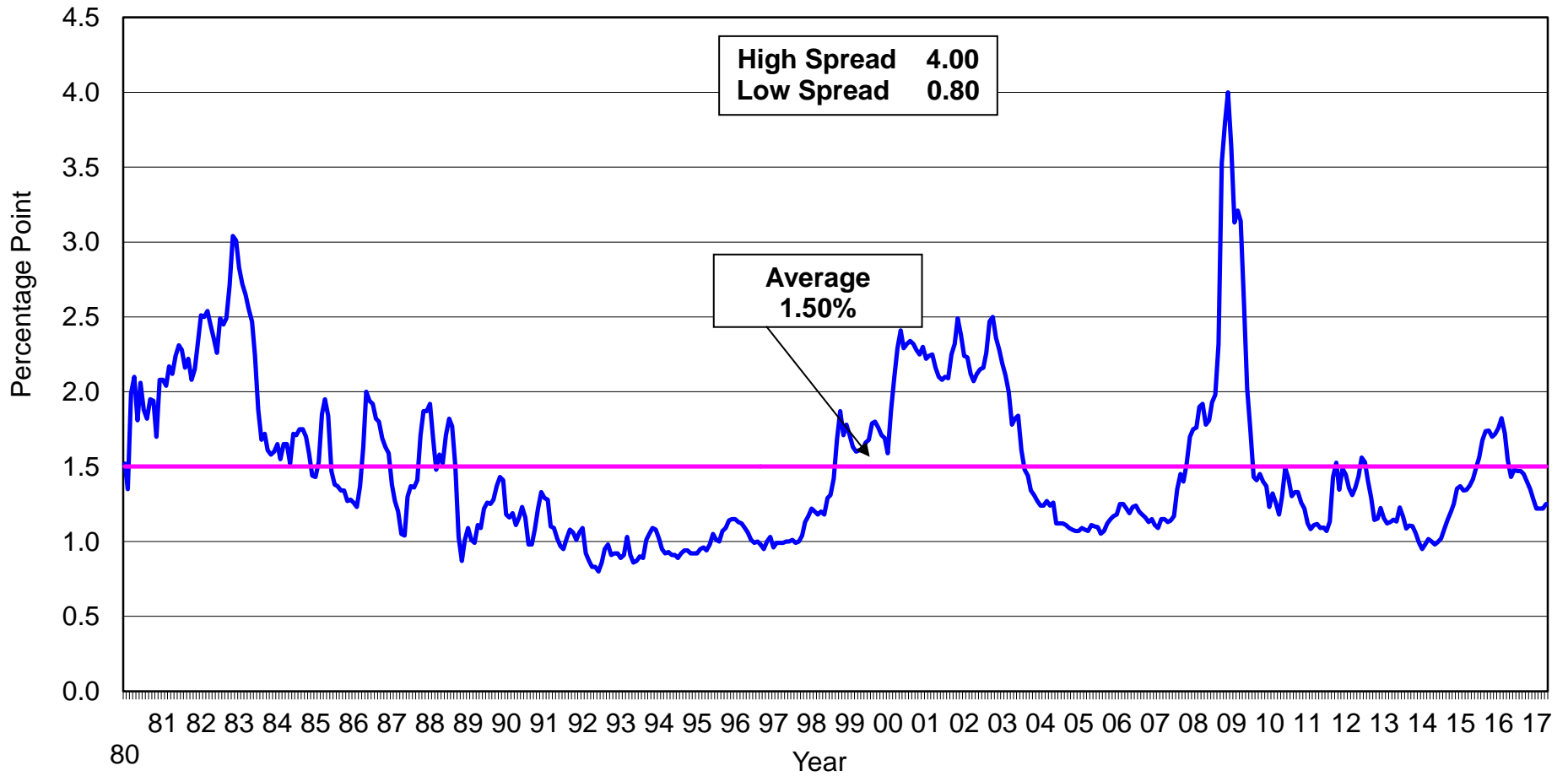
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Average Yields on Public Utility Bonds and
Thirty-Year U.S. Treasury Bonds (1980 - 2016)

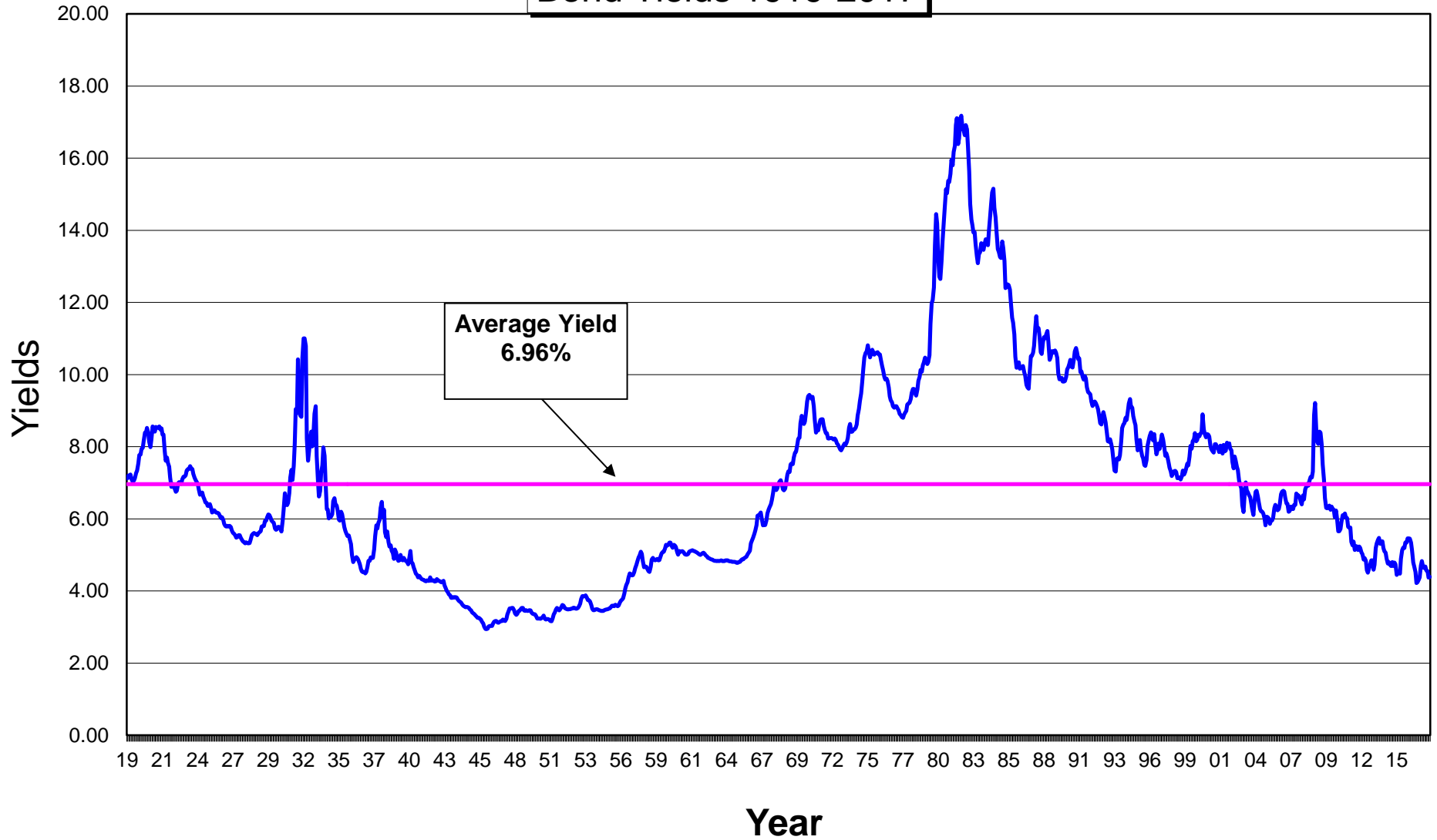


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Monthly Spreads Between Yields on Public Utility Bonds and
Thirty-Year U.S. Treasury Bonds (1980 - 2016)



Moody's Baa Corporate
Bond Yields 1919-2017



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**Historical Capital Structures for Spire Inc. and
Laclede Gas Company (Including Short-Term Debt)**

SPIRE INC. TOTAL CAPITALIZATION						
<i>(in thousands)</i>						June 30, 2017
Capital Components	2012	2013	2014	2015	2016	Update Period
Common Equity	\$601,611	\$1,046,282	\$1,508,400	\$1,573,600	\$1,768,200	\$2,028,200
Long-Term Debt ¹	\$364,416	\$912,712	\$1,851,100	\$1,851,500	\$2,083,700	\$1,925,300
Short-Term Debt ²	\$40,100	\$74,000	\$287,100	\$338,000	\$398,700	\$450,700
Total	<u>\$1,006,127</u>	<u>\$2,032,994</u>	<u>\$3,646,600</u>	<u>\$3,763,100</u>	<u>\$4,250,600</u>	<u>\$4,404,200</u>

Capital Structure	2012	2013	2014	2015	2016	June 30, 2017 Update Period	Average for 2012 - 2016
Common Equity	59.79%	51.47%	41.36%	41.82%	41.60%	46.05%	47.21%
Long-Term Debt ¹	36.22%	44.89%	50.76%	49.20%	49.02%	43.72%	46.02%
Short-Term Debt ²	3.99%	3.64%	7.87%	8.98%	9.38%	10.23%	6.77%
Total	<u>100.00%</u>	<u>100.00%</u>	<u>100.00%</u>	<u>100.00%</u>	<u>100.00%</u>	<u>100.00%</u>	<u>100.00%</u>

LACLEDE GAS COMPANY TOTAL CAPITALIZATION						
<i>(in thousands)</i>						June 30, 2017
Capital Components	2012	2013	2014	2015	2016	Update Period
Common Equity	\$491,328	\$973,930	\$1,007,800	\$1,037,800	\$1,068,500	\$1,167,500
Long-Term Debt ¹	\$364,416	\$887,712	\$807,900	\$808,100	\$808,300	\$804,500
Short-Term Debt ²	\$40,100	\$74,000	\$238,600	\$233,000	\$243,700	\$260,200
Total	<u>\$895,844</u>	<u>\$1,935,642</u>	<u>\$2,054,300</u>	<u>\$2,078,900</u>	<u>\$2,120,500</u>	<u>\$2,232,200</u>

Capital Structure	2012	2013	2014	2015	2016	June 30, 2017 Update Period	Average for 2012 - 2016
Common Equity	54.85%	50.32%	49.06%	49.92%	50.39%	52.30%	50.91%
Long-Term Debt ¹	40.68%	45.86%	39.33%	38.87%	38.12%	36.04%	40.57%
Short-Term Debt ²	4.48%	3.82%	11.61%	11.21%	11.49%	11.66%	8.52%
Total	<u>100.00%</u>	<u>100.00%</u>	<u>100.00%</u>	<u>100.00%</u>	<u>100.00%</u>	<u>100.00%</u>	<u>100.00%</u>

SPREAD BETWEEN SPIRE INC. AND LACLEDE GAS COMPANY EQUITY RATIOS						
	2012	2013	2014	2015	2016	June 30, 2017 Update Period
Spire Equity Ratio	59.79%	51.47%	41.36%	41.82%	41.60%	46.05%
Laclede Equity Ratio	54.85%	50.32%	49.06%	49.92%	50.39%	52.30%
Equity Spreads	<u>4.95%</u>	<u>1.15%</u>	<u>-7.69%</u>	<u>-8.10%</u>	<u>-8.79%</u>	<u>-6.25%</u>

1. Long-term debt includes current or maturing portion of long-term debt

2. Short-term debt excludes current or maturing portion of long-term debt

Spire Inc.'s September 30, 2012, 2013, 2014, 2015 and 2016 SEC 10-K filings.

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**Historical Capital Structures for Spire Inc. and
Laclede Gas Company (Excluding Short-Term Debt)**

SPIRE INC. TOTAL CAPITALIZATION						June 30, 2017
<i>(in thousands)</i>						Update Period
Capital Components	2012	2013	2014	2015	2016	Update Period
Common Equity	\$601,611	\$1,046,282	\$1,508,400	\$1,573,600	\$1,768,200	\$2,028,200
Long-Term Debt ¹	\$364,416	\$912,712	\$1,851,100	\$1,851,500	\$2,083,700	\$1,925,300
Short-Term Debt ²	\$0	\$0	\$0	\$0	\$0	\$0
Total	<u>\$966,027</u>	<u>\$1,958,994</u>	<u>\$3,359,500</u>	<u>\$3,425,100</u>	<u>\$3,851,900</u>	<u>\$3,953,500</u>

Capital Structure	2012	2013	2014	2015	2016	June 30, 2017	Average for
						Update Period	2012 - 2016
Common Equity	62.28%	53.41%	44.90%	45.94%	45.90%	51.30%	50.49%
Long-Term Debt ¹	37.72%	46.59%	55.10%	54.06%	54.10%	48.70%	49.51%
Short-Term Debt ²	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Total	<u>100.00%</u>	<u>100.00%</u>	<u>100.00%</u>	<u>100.00%</u>	<u>100.00%</u>	<u>100.00%</u>	<u>100.00%</u>

LACLEDE GAS COMPANY TOTAL CAPITALIZATION						June 30, 2017
<i>(in thousands)</i>						Update Period
Capital Components	2012	2013	2014	2015	2016	Update Period
Common Equity	\$491,328	\$973,930	\$1,007,800	\$1,037,800	\$1,068,500	\$1,167,500
Long-Term Debt ¹	\$364,416	\$887,712	\$807,900	\$808,100	\$808,300	\$804,500
Short-Term Debt ²	\$0	\$0	\$0	\$0	\$0	\$0
Total	<u>\$855,744</u>	<u>\$1,861,642</u>	<u>\$1,815,700</u>	<u>\$1,845,900</u>	<u>\$1,876,800</u>	<u>\$1,972,000</u>

Total Debt	\$364,416	\$887,712	\$807,900	\$808,100	\$808,300		
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Capital Structure	2012	2013	2014	2015	2016	June 30, 2017	Average for
						Update Period	2012 - 2016
Common Equity	57.42%	52.32%	55.50%	56.22%	56.93%	59.20%	55.68%
Long-Term Debt ¹	42.58%	47.68%	44.50%	43.78%	43.07%	40.80%	44.32%
Short-Term Debt ²	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Total	<u>100.00%</u>	<u>100.00%</u>	<u>100.00%</u>	<u>100.00%</u>	<u>100.00%</u>	<u>100.00%</u>	<u>100.00%</u>

SPREAD BETWEEN SPIRE INC. AND LACLEDE GAS COMPANY EQUITY RATIOS						June 30, 2017
	2012	2013	2014	2015	2016	Update Period
Spire Equity Ratio	62.28%	53.41%	44.90%	45.94%	45.90%	51.30%
Laclede Equity Ratio	57.42%	52.32%	55.50%	56.22%	56.93%	59.20%
Equity Spreads	4.86%	1.09%	-10.61%	-10.28%	-11.03%	-7.90%

1. Long-term debt includes current or maturing portion of long-term debt
2. Short-term debt excludes current or maturing portion of long-term debt
Spire Inc.'s September 30, 2012, 2013, 2014, 2015 and 2016 SEC 10-K filings.

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Capital Structure Scenarios as of June 30, 2017

Spire Capital Structure

<u>All dollar amounts are in thousands</u>	Dollar	Percentage
<u>Capital Component</u>	<u>Amount</u>	<u>of Capital</u>
Common Stock Equity	\$ 2,028,200	48.84%
Long-Term Debt	\$ 1,925,300	46.36%
Short-Term Debt	\$ 199,439 ¹	4.80%
Total Capitalization	\$ 4,152,939	100.00%

Source: SNL Financial - Amounts are Amounts Reported on Balance Sheet (not adjusted)

Notes:

1. Short-term debt based on average balance since September 30, 2013 less average construction work in progress balances over same period.

Laclede Capital structure

<u>All dollar amounts are in thousands</u>	Dollar	Percentage
<u>Capital Component</u>	<u>Amount</u>	<u>of Capital</u>
Common Stock Equity	\$ 1,167,500	54.74%
Long-Term Debt	\$ 804,500	37.72%
Short-Term Debt	\$ 160,722 ¹	7.54%
Total Capitalization	\$ 2,132,722	100.00%

Source: SNL Financial - Amounts are Amounts Reported on Balance Sheet (not adjusted)

Notes:

1. Short-term debt based on average balance since September 30, 2013 less average construction work in progress balances over same period.

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Criteria for Selecting Comparable Local Gas Distribution Utility Companies

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
SNL Financial Gas Utility Companies	Ticker	Stock Publicly Traded	At least 80% of Assets are Regulated	At Least 80% of Income from Regulated Utility Operations	No Reduced Dividend Since 2014	At Least Investment Grade Credit Rating (2 of 3 agencies)	L- T Growth at least 2 equity analysts in last 90 days and Current L-T Growth Available	No Pending Merger or Acquisition	Comparabl Company Met All Criteria
Atmos Energy Corporation	ATO	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Delta Natural Gas Company, Inc.	DGAS	Yes	Yes	Yes	Yes	NR			
Gas Natural Inc.	EGAS	Yes	No						
National Fuel Gas Company	NFG	Yes	No						
New Jersey Resources Corporation	NJR	Yes	No						
Northwest Natural Gas Company	NWN	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
ONE Gas, Inc.	OGS	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
RGC Resources, Inc.	RGCO	Yes	Yes	Yes	Yes	NR			
South Jersey Industries, Inc.	SJI	Yes	No						
Southwest Gas Holdings, Inc.	SWX	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Spire Inc.	SR	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
WGL Holdings, Inc.	WGL	Yes	Yes	Yes	Yes	Yes	Yes	No	

Source: SNL Financial and SEC 10-Ks if additional information was needed for more detail.

NA = Not available.
NR = Not rated.

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Comparable Natural Gas Distribution Companies

Number	Ticker Symbol	Company Name
1	ATO	Atmos Energy Corporation.
2	NWN	Northwest Natural Gas
3	OGS	OneGas
4	SWX	Southwestgas
5	SR	Spire

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Dividends Per Share
for the Comparable Natural Gas Utility Companies

Company Name	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009	2008	2007	2006	2005	2004
Atmos Energy Corporation	2.05	1.93	1.81	1.68	1.56	1.48	1.40	1.38	1.36	1.34	1.32	1.30	1.28	1.26	1.24	1.22
Northwest Natural Gas Company	1.93	1.89	1.88	1.87	1.86	1.85	1.83	1.79	1.75	1.68	1.60	1.52	1.44	1.39	1.32	1.30
ONE Gas, Inc.	1.98	1.81	1.68	1.40	1.20	0.84	--	--	--	--	--	--	--	--	--	--
Southwest Gas Holdings, Inc.	2.30	2.15	1.99	1.80	1.62	1.46	1.32	1.18	1.06	1.00	0.95	0.90	0.86	1.03	0.82	0.82
Spire Inc.	2.33	2.22	2.10	1.96	1.84	1.76	1.70	1.66	1.62	1.58	1.54	1.50	1.46	1.41	1.38	1.36

	<u>10-Year Historical</u>	<u>5-Year Historical</u>	<u>3-Year Projected</u>
Atmos Energy Corporation	2.41%	3.26%	6.92%
Northwest Natural Gas Company	3.36%	2.10%	0.97%
ONE Gas, Inc.	--	--	12.23%
Southwest Gas Holdings, Inc.	6.24%	10.15%	8.57%
Spire Inc.	2.99%	3.24%	5.99%
Average	3.75%	4.69%	6.94%

Note: OneGas completed spinoff in 2014.

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**Earnings Per Share
for the Comparable Natural Gas Utility Companies**

Company Name	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009	2008	2007	2006	2005	2004
Atmos Energy Corporation	4.08	3.82	3.59	3.33	3.00	2.96	2.54	2.12	2.08	2.14	2.08	2.00	1.94	1.83	1.73	1.60
Northwest Natural Gas Company	2.51	2.30	2.16	2.13	1.96	2.16	2.24	2.19	2.36	2.73	2.83	2.63	2.78	2.30	2.11	1.87
ONE Gas, Inc.	3.23	3.10	2.98	2.67	2.26	2.10	1.90	--	--	--	--	--	--	--	--	--
Southwest Gas Holdings, Inc.	3.72	3.61	3.37	3.20	2.94	3.04	3.14	2.89	2.45	2.29	1.95	1.40	1.97	2.07	1.15	1.61
Spire Inc.	3.78	3.66	3.52	3.26	3.16	2.36	2.03	2.80	2.87	2.43	2.90	2.64	2.13	2.31	1.90	1.82

	<u>10-Year Historical</u>	<u>5-Year Historical</u>	<u>3-Year Projected</u>
Atmos Energy Corporation	6.06%	8.08%	6.98%
Northwest Natural Gas Company	-0.05%	-4.63%	5.57%
ONE Gas, Inc.	--	--	6.54%
Southwest Gas Holdings, Inc.	6.63%	6.53%	5.15%
Spire Inc.	3.83%	1.38%	5.09%
Average	4.12%	2.84%	5.87%

Note: OneGas completed spinoff in 2014.

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**Book Value Per Share
for the Comparable Natural Gas Utility Companies**

Company Name	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009	2008	2007	2006	2005	2004
Atmos Energy Corporation	42.52	39.30	36.82	33.32	31.48	30.74	28.47	26.14	24.98	24.16	23.52	22.60	22.01	20.16	19.90	18.05
Northwest Natural Gas Company	33.71	32.08	30.80	29.71	28.47	28.12	27.77	27.11	26.62	25.99	24.88	23.71	22.52	21.97	21.28	20.64
ONE Gas, Inc.	39.89	38.24	36.98	36.12	35.24	34.45	--	--	--	--	--	--	--	--	--	--
Southwest Gas Holdings, Inc.	39.77	38.28	36.86	35.03	33.65	32.00	30.51	28.39	26.68	25.60	24.44	23.49	22.98	21.58	19.10	19.18
Spire Inc.	45.02	42.61	41.24	38.73	36.31	34.93	32.00	26.69	25.56	24.02	23.32	22.12	19.79	18.85	17.31	16.96

	<u>10-Year Historical</u>	<u>5-Year Historical</u>	<u>3-Year Projected</u>
Atmos Energy Corporation	5.10%	5.63%	8.46%
Northwest Natural Gas Company	3.05%	2.18%	4.30%
ONE Gas, Inc.	--	--	3.37%
Southwest Gas Holdings, Inc.	5.34%	5.59%	4.32%
Spire Inc.	7.55%	8.57%	5.14%
Average	5.26%	5.49%	5.12%

Note: OneGas completed spinoff in 2014.

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Historical and Projected Growth Rates for the
Comparable Natural Gas Utility Companies

Company Name	(1)	(2)	(3)
	10-Year Historical Growth Rate (DPS, EPS and BVPS)	5-Year Historical Growth Rate (DPS, EPS and BVPS)	Projected 5-Year EPS Growth S&P IQ (Mean) (%)
Atmos Energy Corporation	4.52%	5.66%	7.00%
Northwest Natural Gas Company	2.12%	-0.12%	4.67%
ONE Gas, Inc.	--	--	5.37%
Southwest Gas Holdings, Inc.	6.07%	7.42%	4.95%
Spire Inc.	4.79%	4.40%	3.96%
Average	4.38%	4.34%	5.19%

Sources: Column 1 = DPS, EPS, BVPS -- 10 & 5 yr Historical Growth

Column 2 = DPS, EPS, BVPS -- 10 & 5 yr Historical Growth

Column 3 = SNL Financial

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Long-Term Gas Proxy Group
DPS, EPS, BVPS & GDP
10-Year Compound Growth Rate Averages (1968-2016)

<u>DPS</u>	<u>EPS</u>	<u>BVPS</u>	<u>Average</u>	<u>GDP</u>	<u>CSPS</u>					
10 yr compound growth rate avgs	10 yr compound growth rate avgs	10 yr compound growth rate avgs	DPS, EPS and BVPS	10 yr compound growth rate avgs	10 yr compound growth rate avgs					
Years	Years	Years	Years	Years	Years					
1968-70 to 1978-80	3.82%	1968-70 to 1978-80	5.16%	1968-70 to 1978-80	4.59%	4.52%	1968-70 to 1978-80	9.96%	1968-70 to 1978-80	3.30%
1969-71 to 1979-81	4.13%	1969-71 to 1979-81	5.07%	1969-71 to 1979-81	4.62%	4.61%	1969-71 to 1979-81	10.31%	1969-71 to 1979-81	4.76%
1970-72 to 1980-82	4.69%	1970-72 to 1980-82	4.75%	1970-72 to 1980-82	4.51%	4.65%	1970-72 to 1980-82	10.32%	1970-72 to 1980-82	4.85%
1971-73 to 1981-83	5.10%	1971-73 to 1981-83	4.10%	1971-73 to 1981-83	4.30%	4.50%	1971-73 to 1981-83	10.15%	1971-73 to 1981-83	3.90%
1972-74 to 1982-84	5.50%	1972-74 to 1982-84	5.20%	1972-74 to 1982-84	4.11%	4.94%	1972-74 to 1982-84	9.98%	1972-74 to 1982-84	5.06%
1973-75 to 1983-85	5.98%	1973-75 to 1983-85	5.87%	1973-75 to 1983-85	4.08%	5.31%	1973-75 to 1983-85	9.93%	1973-75 to 1983-85	7.35%
1974-76 to 1984-86	6.51%	1974-76 to 1984-86	5.91%	1974-76 to 1984-86	4.11%	5.51%	1974-76 to 1984-86	9.76%	1974-76 to 1984-86	9.67%
1975-77 to 1985-87	6.91%	1975-77 to 1985-87	5.28%	1975-77 to 1985-87	4.15%	5.44%	1975-77 to 1985-87	9.34%	1975-77 to 1985-87	10.74%
1976-78 to 1986-88	6.99%	1976-78 to 1986-88	5.37%	1976-78 to 1986-88	4.24%	5.54%	1976-78 to 1986-88	8.82%	1976-78 to 1986-88	9.61%
1977-79 to 1987-89	7.06%	1977-79 to 1987-89	5.07%	1977-79 to 1987-89	4.23%	5.45%	1977-79 to 1987-89	8.35%	1977-79 to 1987-89	8.22%
1978-80 to 1988-90	6.79%	1978-80 to 1988-90	3.85%	1978-80 to 1988-90	4.16%	4.93%	1978-80 to 1988-90	7.96%	1978-80 to 1988-90	6.28%
1979-81 to 1989-91	6.37%	1979-81 to 1989-91	2.39%	1979-81 to 1989-91	3.81%	4.19%	1979-81 to 1989-91	7.42%	1979-81 to 1989-91	4.20%
1980-82 to 1990-92	5.72%	1980-82 to 1990-92	2.16%	1980-82 to 1990-92	3.66%	3.85%	1980-82 to 1990-92	7.10%	1980-82 to 1990-92	3.07%
1981-83 to 1991-93	5.23%	1981-83 to 1991-93	2.86%	1981-83 to 1991-93	3.63%	3.91%	1981-83 to 1991-93	6.75%	1981-83 to 1991-93	3.21%
1982-84 to 1992-94	5.04%	1982-84 to 1992-94	2.59%	1982-84 to 1992-94	3.98%	3.87%	1982-84 to 1992-94	6.52%	1982-84 to 1992-94	4.02%
1983-85 to 1993-95	4.40%	1983-85 to 1993-95	2.36%	1983-85 to 1993-95	3.93%	3.56%	1983-85 to 1993-95	6.15%	1983-85 to 1993-95	3.46%
1984-86 to 1994-96	3.75%	1984-86 to 1994-96	2.94%	1984-86 to 1994-96	3.91%	3.53%	1984-86 to 1994-96	5.92%	1984-86 to 1994-96	1.91%
1985-87 to 1995-97	3.39%	1985-87 to 1995-97	3.94%	1985-87 to 1995-97	3.92%	3.75%	1985-87 to 1995-97	5.85%	1985-87 to 1995-97	1.52%
1986-88 to 1996-98	3.02%	1986-88 to 1996-98	3.44%	1986-88 to 1996-98	3.61%	3.36%	1986-88 to 1996-98	5.78%	1986-88 to 1996-98	0.98%
1987-89 to 1997-99	2.71%	1987-89 to 1997-99	2.29%	1987-89 to 1997-99	3.25%	2.75%	1987-89 to 1997-99	5.66%	1987-89 to 1997-99	0.64%
1988-90 to 1998-00	2.44%	1988-90 to 1998-00	2.27%	1988-90 to 1998-00	3.16%	2.63%	1988-90 to 1998-00	5.57%	1988-90 to 1998-00	0.15%
1989-91 to 1999-01	2.19%	1989-91 to 1999-01	4.07%	1989-91 to 1999-01	3.46%	3.24%	1989-91 to 1999-01	5.55%	1989-91 to 1999-01	-0.16%
1990-92 to 2000-02	2.07%	1990-92 to 2000-02	4.73%	1990-92 to 2000-02	3.67%	3.49%	1990-92 to 2000-02	5.48%	1990-92 to 2000-02	-0.03%
1991-93 to 2001-03	2.01%	1991-93 to 2001-03	4.89%	1991-93 to 2001-03	4.03%	3.64%	1991-93 to 2001-03	5.39%	1991-93 to 2001-03	0.30%
1992-94 to 2002-04	2.05%	1992-94 to 2002-04	4.50%	1992-94 to 2002-04	4.48%	3.68%	1992-94 to 2002-04	5.31%	1992-94 to 2002-04	0.75%
1993-95 to 2003-05	2.19%	1993-95 to 2003-05	5.00%	1993-95 to 2003-05	4.98%	4.06%	1993-95 to 2003-05	5.37%	1993-95 to 2003-05	1.05%
1994-96 to 2004-06	2.42%	1994-96 to 2004-06	5.08%	1994-96 to 2004-06	5.41%	4.30%	1994-96 to 2004-06	5.45%	1994-96 to 2004-06	1.61%
1995-97 to 2005-07	2.66%	1995-97 to 2005-07	4.84%	1995-97 to 2005-07	5.69%	4.40%	1995-97 to 2005-07	5.45%	1995-97 to 2005-07	1.55%
1996-98 to 2006-08	2.91%	1996-98 to 2006-08	5.35%	1996-98 to 2006-08	5.98%	4.75%	1996-98 to 2006-08	5.25%	1996-98 to 2006-08	1.47%
1997-99 to 2007-09	3.18%	1997-99 to 2007-09	6.29%	1997-99 to 2007-09	6.18%	5.22%	1997-99 to 2007-09	4.77%	1997-99 to 2007-09	1.80%
1998-00 to 2008-10	3.47%	1998-00 to 2008-10	6.81%	1998-00 to 2008-10	6.23%	5.50%	1998-00 to 2008-10	4.27%	1998-00 to 2008-10	3.56%
1999-01 to 2009-11	3.78%	1999-01 to 2009-11	6.28%	1999-01 to 2009-11	6.25%	5.43%	1999-01 to 2009-11	3.92%	1999-01 to 2009-11	4.97%
2000-02 to 2010-12	4.02%	2000-02 to 2010-12	5.75%	2000-02 to 2010-12	6.29%	5.35%	2000-02 to 2010-12	3.88%	2000-02 to 2010-12	7.07%
2001-03 to 2011-13	4.08%	2001-03 to 2011-13	4.56%	2001-03 to 2011-13	5.98%	4.87%	2001-03 to 2011-13	3.86%	2001-03 to 2011-13	8.22%
2002-04 to 2012-14	4.28%	2002-04 to 2012-14	4.37%	2002-04 to 2012-14	5.89%	4.85%	2002-04 to 2012-14	3.75%	2002-04 to 2012-14	8.81%
2003-05 to 2013-15	4.44%	2003-05 to 2013-15	3.74%	2003-05 to 2013-15	5.80%	4.66%	2003-05 to 2013-15	3.52%	2003-05 to 2013-15	9.57%
2004-06 to 2014-16	4.57%	2004-06 to 2014-16	3.83%	2004-06 to 2014-16	5.56%	4.65%	2004-06 to 2014-16	3.25%	2004-06 to 2014-16	9.48%
Average	4.21%	Average	4.40%	Average	4.59%	4.40%	Average	6.54%	Average	4.24%

Average of 10-year Rolling Averages EPS, DPS and BVPS **4.40%**

Source: Value Line Investment Survey

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Long-Term Gas Proxy Group Excluding Atmos
DPS, EPS, BVPS & GDP
10-Year Compound Growth Rate Averages (1968-2016)

<u>DPS</u>		<u>EPS</u>		<u>BVPS</u>		<u>Average</u>	<u>GDP</u>	
Years	10 yr compound growth rate avgs	Years	10 yr compound growth rate avgs	Years	10 yr compound growth rate avgs	DPS, EPS and BVPS	Years	10 yr compound growth rate avgs
1968-70 to 1978-80	3.27%	1968-70 to 1978-80	5.16%	1968-70 to 1978-80	4.59%	4.34%	1968-70 to 1978-80	9.96%
1969-71 to 1979-81	3.54%	1969-71 to 1979-81	5.07%	1969-71 to 1979-81	4.62%	4.41%	1969-71 to 1979-81	10.31%
1970-72 to 1980-82	4.02%	1970-72 to 1980-82	4.75%	1970-72 to 1980-82	4.51%	4.43%	1970-72 to 1980-82	10.32%
1971-73 to 1981-83	4.37%	1971-73 to 1981-83	4.10%	1971-73 to 1981-83	4.30%	4.26%	1971-73 to 1981-83	10.15%
1972-74 to 1982-84	4.71%	1972-74 to 1982-84	5.20%	1972-74 to 1982-84	4.11%	4.67%	1972-74 to 1982-84	9.98%
1973-75 to 1983-85	5.12%	1973-75 to 1983-85	5.87%	1973-75 to 1983-85	4.08%	5.02%	1973-75 to 1983-85	9.93%
1974-76 to 1984-86	5.69%	1974-76 to 1984-86	5.91%	1974-76 to 1984-86	4.11%	5.24%	1974-76 to 1984-86	9.76%
1975-77 to 1985-87	6.05%	1975-77 to 1985-87	5.28%	1975-77 to 1985-87	4.15%	5.16%	1975-77 to 1985-87	9.34%
1976-78 to 1986-88	6.12%	1976-78 to 1986-88	5.37%	1976-78 to 1986-88	4.24%	5.24%	1976-78 to 1986-88	8.82%
1977-79 to 1987-89	6.18%	1977-79 to 1987-89	5.07%	1977-79 to 1987-89	4.23%	5.16%	1977-79 to 1987-89	8.35%
1978-80 to 1988-90	5.94%	1978-80 to 1988-90	3.85%	1978-80 to 1988-90	4.16%	4.65%	1978-80 to 1988-90	7.96%
1979-81 to 1989-91	5.57%	1979-81 to 1989-91	2.39%	1979-81 to 1989-91	3.81%	3.92%	1979-81 to 1989-91	7.42%
1980-82 to 1990-92	5.00%	1980-82 to 1990-92	2.16%	1980-82 to 1990-92	3.66%	3.61%	1980-82 to 1990-92	7.10%
1981-83 to 1991-93	4.57%	1981-83 to 1991-93	2.86%	1981-83 to 1991-93	3.63%	3.69%	1981-83 to 1991-93	6.75%
1982-84 to 1992-94	4.41%	1982-84 to 1992-94	2.59%	1982-84 to 1992-94	3.98%	3.66%	1982-84 to 1992-94	6.52%
1983-85 to 1993-95	3.85%	1983-85 to 1993-95	2.36%	1983-85 to 1993-95	3.93%	3.38%	1983-85 to 1993-95	6.15%
1984-86 to 1994-96	3.28%	1984-86 to 1994-96	2.94%	1984-86 to 1994-96	3.91%	3.38%	1984-86 to 1994-96	5.92%
1985-87 to 1995-97	2.84%	1985-87 to 1995-97	3.93%	1985-87 to 1995-97	3.80%	3.52%	1985-87 to 1995-97	5.85%
1986-88 to 1996-98	2.50%	1986-88 to 1996-98	3.30%	1986-88 to 1996-98	3.49%	3.09%	1986-88 to 1996-98	5.78%
1987-89 to 1997-99	2.18%	1987-89 to 1997-99	2.34%	1987-89 to 1997-99	3.14%	2.55%	1987-89 to 1997-99	5.66%
1988-90 to 1998-00	1.92%	1988-90 to 1998-00	2.48%	1988-90 to 1998-00	3.09%	2.50%	1988-90 to 1998-00	5.57%
1989-91 to 1999-01	1.71%	1989-91 to 1999-01	4.34%	1989-91 to 1999-01	3.38%	3.14%	1989-91 to 1999-01	5.55%
1990-92 to 2000-02	1.60%	1990-92 to 2000-02	4.88%	1990-92 to 2000-02	3.59%	3.36%	1990-92 to 2000-02	5.48%
1991-93 to 2001-03	1.56%	1991-93 to 2001-03	4.93%	1991-93 to 2001-03	3.91%	3.47%	1991-93 to 2001-03	5.39%
1992-94 to 2002-04	1.62%	1992-94 to 2002-04	4.54%	1992-94 to 2002-04	4.35%	3.50%	1992-94 to 2002-04	5.31%
1993-95 to 2003-05	1.78%	1993-95 to 2003-05	5.14%	1993-95 to 2003-05	4.79%	3.90%	1993-95 to 2003-05	5.37%
1994-96 to 2004-06	2.04%	1994-96 to 2004-06	5.28%	1994-96 to 2004-06	5.24%	4.19%	1994-96 to 2004-06	5.45%
1995-97 to 2005-07	2.32%	1995-97 to 2005-07	5.06%	1995-97 to 2005-07	5.52%	4.30%	1995-97 to 2005-07	5.45%
1996-98 to 2006-08	2.61%	1996-98 to 2006-08	5.78%	1996-98 to 2006-08	5.89%	4.76%	1996-98 to 2006-08	5.25%
1997-99 to 2007-09	2.91%	1997-99 to 2007-09	6.62%	1997-99 to 2007-09	6.10%	5.21%	1997-99 to 2007-09	4.77%
1998-00 to 2008-10	3.24%	1998-00 to 2008-10	7.03%	1998-00 to 2008-10	6.16%	5.47%	1998-00 to 2008-10	4.27%
1999-01 to 2009-11	3.56%	1999-01 to 2009-11	6.21%	1999-01 to 2009-11	6.21%	5.33%	1999-01 to 2009-11	3.92%
2000-02 to 2010-12	3.82%	2000-02 to 2010-12	5.83%	2000-02 to 2010-12	6.27%	5.31%	2000-02 to 2010-12	3.88%
2001-03 to 2011-13	3.85%	2001-03 to 2011-13	4.64%	2001-03 to 2011-13	5.98%	4.83%	2001-03 to 2011-13	3.86%
2002-04 to 2012-14	4.04%	2002-04 to 2012-14	4.32%	2002-04 to 2012-14	5.90%	4.75%	2002-04 to 2012-14	3.75%
2003-05 to 2013-15	4.17%	2003-05 to 2013-15	3.51%	2003-05 to 2013-15	5.90%	4.53%	2003-05 to 2013-15	3.52%
2004-06 to 2014-16	4.22%	2004-06 to 2014-16	3.56%	2004-06 to 2014-16	5.64%	4.47%	2004-06 to 2014-16	3.25%
Average	3.68%	Average	4.45%	Average	4.55%	4.23%	Average	6.54%

Average of 10-year Rolling Averages EPS, DPS and BVPS **4.23%**

Source: Value Line Investment Survey

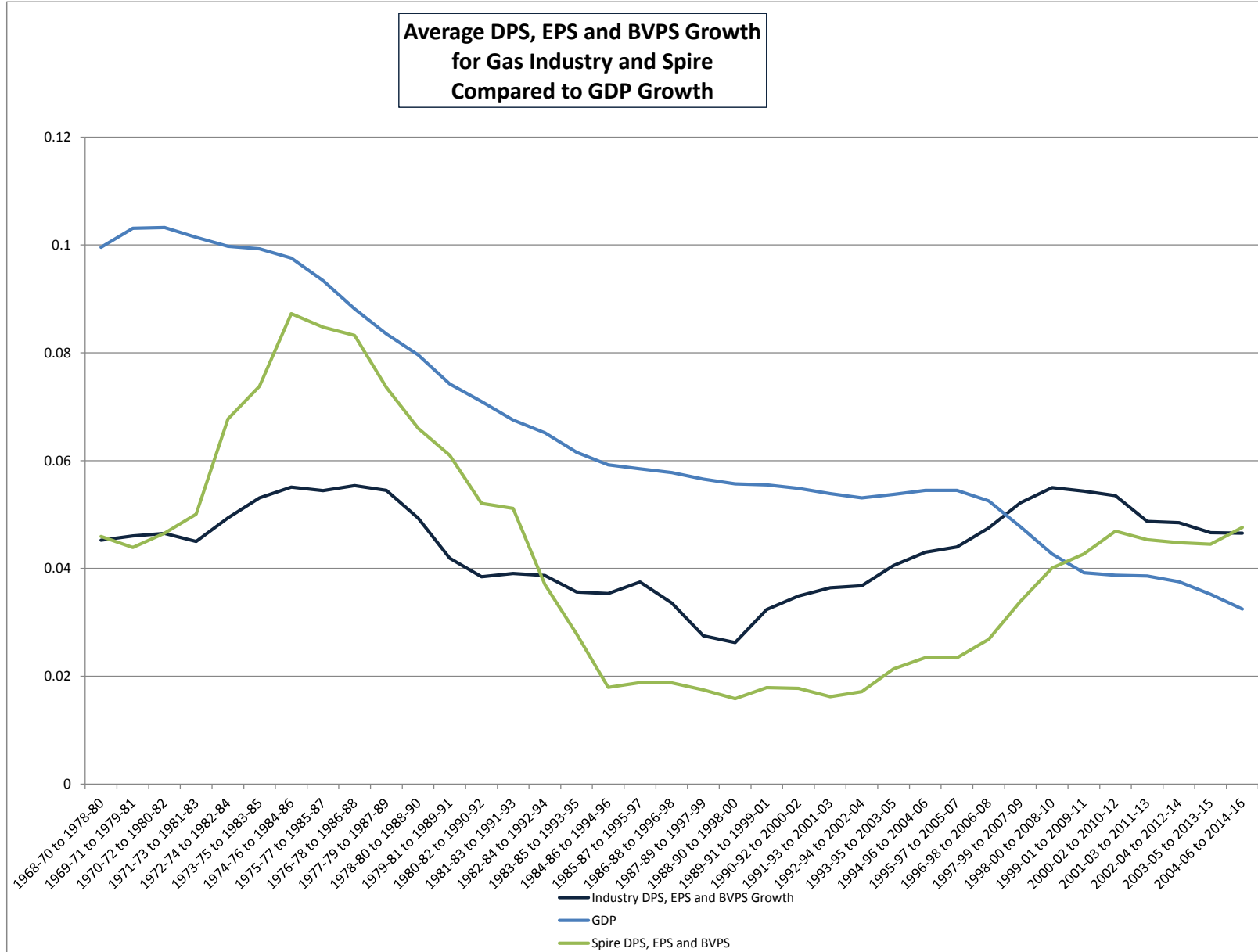
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Spire Inc.
DPS, EPS, BVPS & GDP
10-Year Compound Growth Rate Averages (1968-2016)

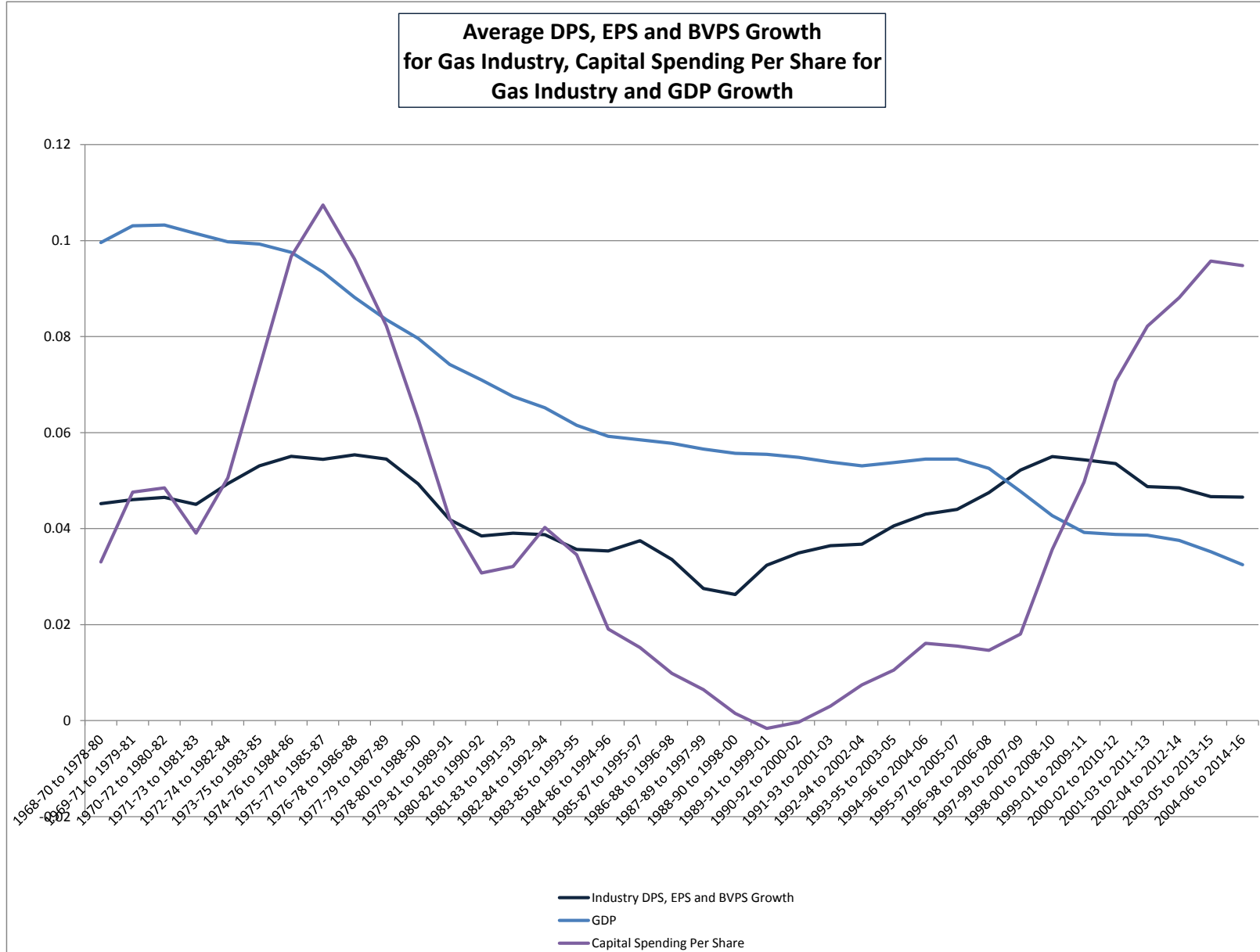
<u>DPS</u>	<u>EPS</u>	<u>BVPS</u>	<u>Average</u>	<u>GDP</u>	<u>CSPS</u>					
10 yr compound growth rate avgs	10 yr compound growth rate avgs	10 yr compound growth rate avgs	DPS, EPS and BVPS	10 yr compound growth rate avgs	10 yr compound growth rate avg					
Years	Years	Years	Years	Years	Years					
1968-70 to 1978-80	3.08%	1968-70 to 1978-80	5.61%	1968-70 to 1978-80	5.09%	4.59%	1968-70 to 1978-80	9.96%	1968-70 to 1978-80	3.83%
1969-71 to 1979-81	3.49%	1969-71 to 1979-81	4.55%	1969-71 to 1979-81	5.13%	4.39%	1969-71 to 1979-81	10.31%	1969-71 to 1979-81	4.17%
1970-72 to 1980-82	4.01%	1970-72 to 1980-82	4.82%	1970-72 to 1980-82	5.13%	4.65%	1970-72 to 1980-82	10.32%	1970-72 to 1980-82	4.15%
1971-73 to 1981-83	4.91%	1971-73 to 1981-83	5.01%	1971-73 to 1981-83	5.10%	5.01%	1971-73 to 1981-83	10.15%	1971-73 to 1981-83	4.30%
1972-74 to 1982-84	5.88%	1972-74 to 1982-84	8.96%	1972-74 to 1982-84	5.48%	6.77%	1972-74 to 1982-84	9.98%	1972-74 to 1982-84	2.74%
1973-75 to 1983-85	6.85%	1973-75 to 1983-85	9.41%	1973-75 to 1983-85	5.89%	7.38%	1973-75 to 1983-85	9.93%	1973-75 to 1983-85	2.78%
1974-76 to 1984-86	7.83%	1974-76 to 1984-86	11.92%	1974-76 to 1984-86	6.43%	8.72%	1974-76 to 1984-86	9.76%	1974-76 to 1984-86	3.85%
1975-77 to 1985-87	8.80%	1975-77 to 1985-87	10.05%	1975-77 to 1985-87	6.58%	8.48%	1975-77 to 1985-87	9.34%	1975-77 to 1985-87	5.40%
1976-78 to 1986-88	9.46%	1976-78 to 1986-88	8.98%	1976-78 to 1986-88	6.53%	8.32%	1976-78 to 1986-88	8.82%	1976-78 to 1986-88	5.71%
1977-79 to 1987-89	9.71%	1977-79 to 1987-89	6.17%	1977-79 to 1987-89	6.19%	7.36%	1977-79 to 1987-89	8.35%	1977-79 to 1987-89	5.38%
1978-80 to 1988-90	9.73%	1978-80 to 1988-90	4.36%	1978-80 to 1988-90	5.70%	6.60%	1978-80 to 1988-90	7.96%	1978-80 to 1988-90	5.81%
1979-81 to 1989-91	9.19%	1979-81 to 1989-91	3.88%	1979-81 to 1989-91	5.23%	6.10%	1979-81 to 1989-91	7.42%	1979-81 to 1989-91	5.71%
1980-82 to 1990-92	8.39%	1980-82 to 1990-92	2.55%	1980-82 to 1990-92	4.69%	5.21%	1980-82 to 1990-92	7.10%	1980-82 to 1990-92	7.06%
1981-83 to 1991-93	7.33%	1981-83 to 1991-93	3.67%	1981-83 to 1991-93	4.34%	5.11%	1981-83 to 1991-93	6.75%	1981-83 to 1991-93	7.88%
1982-84 to 1992-94	6.17%	1982-84 to 1992-94	1.17%	1982-84 to 1992-94	3.77%	3.70%	1982-84 to 1992-94	6.52%	1982-84 to 1992-94	9.11%
1983-85 to 1993-95	5.04%	1983-85 to 1993-95	0.00%	1983-85 to 1993-95	3.31%	2.78%	1983-85 to 1993-95	6.15%	1983-85 to 1993-95	8.52%
1984-86 to 1994-96	3.85%	1984-86 to 1994-96	-1.32%	1984-86 to 1994-96	2.86%	1.79%	1984-86 to 1994-96	5.92%	1984-86 to 1994-96	6.54%
1985-87 to 1995-97	2.88%	1985-87 to 1995-97	0.06%	1985-87 to 1995-97	2.70%	1.88%	1985-87 to 1995-97	5.85%	1985-87 to 1995-97	5.36%
1986-88 to 1996-98	2.24%	1986-88 to 1996-98	0.81%	1986-88 to 1996-98	2.59%	1.88%	1986-88 to 1996-98	5.78%	1986-88 to 1996-98	4.08%
1987-89 to 1997-99	1.81%	1987-89 to 1997-99	0.92%	1987-89 to 1997-99	2.51%	1.75%	1987-89 to 1997-99	5.66%	1987-89 to 1997-99	3.86%
1988-90 to 1998-00	1.55%	1988-90 to 1998-00	0.75%	1988-90 to 1998-00	2.46%	1.59%	1988-90 to 1998-00	5.57%	1988-90 to 1998-00	3.65%
1989-91 to 1999-01	1.31%	1989-91 to 1999-01	1.56%	1989-91 to 1999-01	2.50%	1.79%	1989-91 to 1999-01	5.55%	1989-91 to 1999-01	2.48%
1990-92 to 2000-02	1.17%	1990-92 to 2000-02	1.66%	1990-92 to 2000-02	2.51%	1.78%	1990-92 to 2000-02	5.48%	1990-92 to 2000-02	1.16%
1991-93 to 2001-03	1.05%	1991-93 to 2001-03	1.28%	1991-93 to 2001-03	2.53%	1.62%	1991-93 to 2001-03	5.39%	1991-93 to 2001-03	0.04%
1992-94 to 2002-04	1.02%	1992-94 to 2002-04	1.39%	1992-94 to 2002-04	2.73%	1.71%	1992-94 to 2002-04	5.31%	1992-94 to 2002-04	-0.09%
1993-95 to 2003-05	0.99%	1993-95 to 2003-05	2.57%	1993-95 to 2003-05	2.85%	2.14%	1993-95 to 2003-05	5.37%	1993-95 to 2003-05	0.27%
1994-96 to 2004-06	1.03%	1994-96 to 2004-06	2.94%	1994-96 to 2004-06	3.08%	2.35%	1994-96 to 2004-06	5.45%	1994-96 to 2004-06	1.00%
1995-97 to 2005-07	1.05%	1995-97 to 2005-07	2.83%	1995-97 to 2005-07	3.15%	2.34%	1995-97 to 2005-07	5.45%	1995-97 to 2005-07	1.40%
1996-98 to 2006-08	1.13%	1996-98 to 2006-08	3.30%	1996-98 to 2006-08	3.63%	2.68%	1996-98 to 2006-08	5.25%	1996-98 to 2006-08	1.01%
1997-99 to 2007-09	1.22%	1997-99 to 2007-09	4.87%	1997-99 to 2007-09	4.07%	3.39%	1997-99 to 2007-09	4.77%	1997-99 to 2007-09	-0.07%
1998-00 to 2008-10	1.39%	1998-00 to 2008-10	6.10%	1998-00 to 2008-10	4.55%	4.01%	1998-00 to 2008-10	4.27%	1998-00 to 2008-10	-0.69%
1999-01 to 2009-11	1.60%	1999-01 to 2009-11	6.32%	1999-01 to 2009-11	4.89%	4.27%	1999-01 to 2009-11	3.92%	1999-01 to 2009-11	0.10%
2000-02 to 2010-12	1.87%	2000-02 to 2010-12	6.86%	2000-02 to 2010-12	5.33%	4.69%	2000-02 to 2010-12	3.88%	2000-02 to 2010-12	2.57%
2001-03 to 2011-13	2.14%	2001-03 to 2011-13	5.22%	2001-03 to 2011-13	6.23%	4.53%	2001-03 to 2011-13	3.86%	2001-03 to 2011-13	4.03%
2002-04 to 2012-14	2.42%	2002-04 to 2012-14	4.04%	2002-04 to 2012-14	6.97%	4.48%	2002-04 to 2012-14	3.75%	2002-04 to 2012-14	4.91%
2003-05 to 2013-15	2.70%	2003-05 to 2013-15	3.12%	2003-05 to 2013-15	7.54%	4.45%	2003-05 to 2013-15	3.52%	2003-05 to 2013-15	6.28%
2004-06 to 2014-16	3.04%	2004-06 to 2014-16	3.69%	2004-06 to 2014-16	7.55%	4.76%	2004-06 to 2014-16	3.25%	2004-06 to 2014-16	7.52%
Average	3.98%	Average	4.06%	Average	4.54%	Average	6.54%	Average	3.83%	

Average of 10-year Rolling Averages EPS, DPS and BVPS **4.19%**

Source: Value Line Investment Survey



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**Constant-Growth Discounted Cash Flow (DCF) Estimated Costs of Common Equity
for the Comparable Natural Gas Utility Companies**

Company Name	(1) Expected Annual Dividend	(2) Average 3-Month Stock Price	(3) Projected Dividend Yield
Atmos Energy Corporation	\$1.89	\$82.041	2.31%
Northwest Natural Gas Company	\$1.89	\$60.458	3.13%
ONE Gas, Inc.	\$1.76	\$69.731	2.52%
Southwest Gas Holdings, Inc.	\$2.03	\$79.886	2.53%
Spire Inc.	\$2.15	\$69.850	3.07%
Average			<u><u>2.71%</u></u>

Proposed Dividend Yield: 2.70%

Proposed Range of Growth: 4.20% - 5.00%

Estimated Proxy Cost of Common Equity: 6.90% - 7.70%

Notes: Column 1 = Expected Annual Dividend based on the sum of equity analysts' expected next four quarters of DPS.
Column 3 = (Column 1 / Column 2).

Sources: Columns 1 and 2 = SNL Financial

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**Capital Asset Pricing Model (CAPM) Costs of Common Equity Estimates
for the Comparable Natural Gas Distribution Companies**

	(1)	(2)	(3)	(4)	(5)	(6)
			Arithmetic Average Market Risk Premium (1926-2016)	Geometric Average Market Risk Premium (1926-2016)	Arithmetic CAPM Cost of Common Equity (1926-2016)	Geometric CAPM Cost of Common Equity (1926-2016)
Company Name	Risk Free Rate	Company's Value Line Beta				
Atmos Energy Corporation	2.90%	0.71	6.00%	4.50%	7.17%	6.10%
Northwest Natural Gas Company	2.90%	0.66	6.00%	4.50%	6.89%	5.89%
ONE Gas, Inc.	2.90%	0.77	6.00%	4.50%	7.53%	6.37%
Southwest Gas Holdings, Inc.	2.90%	0.71	6.00%	4.50%	7.17%	6.10%
Spire Inc.	2.90%	0.67	6.00%	4.50%	6.93%	5.92%
Average		<u>0.71</u>			<u>7.14%</u>	<u>6.08%</u>

Sources:

Column 1 = The appropriate yield is equal to the average 30-year U.S. Treasury Bond yield for April, May and June 2017, which was obtained from the St. Louis Federal Reserve website at <http://research.stlouisfed.org/fred2/series/GS30/22>

Column 2 = Beta is a measure of the movement and relative risk of an individual stock to the market as a whole generate by the SNL Beta Stock Generator June 30, 2012 through June 30, 2017.

Column 3 = The Market Risk Premium represents the expected return from holding the entire market portfolio less the expected return from holding a risk free investment. The appropriate Market Risk Premium for the period 1926 - 2016 was determined to be 6.00% based on an arithmetic average as calculated in Valuation Handbook by Duff & Phelps.

Column 4 = The Market Risk Premium represents the expected return from holding the entire market portfolio less the expected return from holding a risk free investment. The appropriate Market Risk Premium for the period 1926 - 2016 was determined to be 4.50% based on a geometric average as calculated in Valuation Handbook by Duff & Phelps.

Column 5 = (Column 1 + (Column 2 * Column 3)).

Column 6 = (Column 1 + (Column 2 * Column 4)).

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**Weighted Rate of Return
for LAC and MGE**

Spire Capital Structure

Capital Component	Percentage of Capital	Cost	9.00%	9.25%	9.50%
Common Stock Equity	48.84%	-----	4.40%	4.52%	4.64%
Long-Term Debt	46.36%	4.13%	1.92%	1.92%	1.92%
Short-Term Debt	4.80%	1.38%	0.07%	0.07%	0.07%
	100.00%		6.38%	6.50%	6.62%

Weighted Rate of Return Using
Return on Common Equity of:

Laclede Capital structure

Capital Component	Percentage of Capital	Cost	9.00%	9.25%	9.50%
Common Stock Equity	54.74%	-----	4.93%	5.06%	5.20%
Long-Term Debt	37.72%	4.20%	1.58%	1.58%	1.58%
Short-Term Debt	7.54%	1.13%	0.09%	0.09%	0.09%
	100.00%		6.60%	6.73%	6.87%

Weighted Rate of Return Using
Return on Common Equity of: