

## COST OF CAPITAL STUDY

**YIELD CAPITALIZATION**  
**2013 ASSESSMENT YEAR**

APPENDIX C

### NATURAL GAS DISTRIBUTION

<b>EQUITY RATE</b>						<b>8.50%</b>	
<b>CAPITAL ASSET PRICING MODEL</b>							PAGE
					5.96%		5
					6.67%		6
<b>DIVIDEND GROWTH MODELS</b>							
					7.00%		8
					9.80%		9
					7.50%		10
				<b>RANGE</b>		5.96 - 9.80%	
<b>DEBT RATE</b>						<b>4.50%</b>	11
<b>MARKET CAPITAL STRUCTURE</b>							
	Equity	60%	x	8.50%	=	5.10%	3
	Debt	40%	x	4.50%	=	1.80%	3
	Marginal Tax Rate	38%	=	(1-.38)	x	1.80%	
						<u>1.12%</u>	
<b>WEIGHTED AVERAGE COST OF CAPITAL</b>						<b>6.22%</b>	

## SUPPORT FOR GUIDELINE COMPANIES

WASHINGTON STATE DEPARTMENT OF REVENUE

2013 ASSESSMENT YEAR

NATURAL GAS DISTRIBUTION

Capital Structure at Book Value

Company	Ticker	Beta	P/E Ratio	Div'd Yield	Common Stock	%	Preferred Stock	%	Long Term Debt	%	Total Debt & Equity
AGL Resources	gas	0.75	14.5	4.7%	3,866,348,675	53.7%		0.0%	3,327,000,000	46.3%	7,193,348,675
Atmos Energy Corp	ato	0.70	15.8	3.7%	2,625,007,761	57.3%		0.0%	1,956,400,000	42.7%	4,581,407,761
Laclede Group	lg	0.55	14.3	4.2%	639,938,511	64.6%		0.0%	350,700,000	35.4%	990,638,511
New Jersey Resources	njr	0.65	17.0	3.6%	781,848,365	66.5%		0.0%	394,400,000	33.5%	1,176,248,365
Nisource Inc	ni	0.80	16.1	3.5%	5,259,078,349	46.0%		0.0%	6,169,700,000	54.0%	11,428,778,349
NW Natural Gas	nwn	0.60	18.6	4.0%	735,769,700	53.4%		0.0%	641,700,000	46.6%	1,377,469,700
Piedmont Natural Gas	pon	0.65	18.8	3.8%	1,123,896,030	53.5%		0.0%	975,000,000	46.5%	2,098,896,030
South Jersey Industries	sjj	0.65	17.4	3.3%	769,059,222	57.6%		0.0%	566,400,000	42.4%	1,335,459,222
Southwest Gas	swx	0.75	15.2	3.0%	1,428,194,457	53.2%		0.0%	1,256,000,000	46.8%	2,684,194,457
UGI Corp	ugi	0.70	14.7	3.1%	2,409,411,057	41.8%		0.0%	3,358,400,000	58.2%	5,767,811,057
WGL Holdings	wgl	0.65	17.1	4.0%	1,320,117,707	69.4%	28,200,000	1.5%	553,700,000	29.1%	1,902,017,707
	<b>Mean</b>	<b>0.68</b>	<b>16.3</b>	<b>3.7%</b>	<b>1,905,333,621</b>	<b>56.1%</b>		<b>0.1%</b>	<b>1,777,218,182</b>	<b>43.8%</b>	
	<b>Weighted Mean</b>				<b>20,958,669,834</b>	<b>51.7%</b>	<b>28,200,000</b>	<b>0.1%</b>	<b>19,549,400,000</b>	<b>48.2%</b>	<b>40,536,269,834</b>
	<b>Median</b>					<b>53.7%</b>		<b>0.0%</b>		<b>46.3%</b>	

# SUPPORT FOR CAPITAL STRUCTURE MARKET VALUE

WASHINGTON STATE DEPARTMENT OF REVENUE  
2013 ASSESSMENT YEAR  
NATURAL GAS DISTRIBUTION

Capital Structure at Market Value

Company	Ticker	Stock Average	Common Shares	Common Stock	%	Preferred Stock	%	Long Term Debt	%	Total Debt & Equity
AGL Resources	gas	39.837	117,876,484	4,695,806,201	53.3%		0.0%	4,111,063,000	46.7%	8,806,869,201
Atmos Energy Corp	ato	35.358	90,517,509	3,200,548,256	56.9%		0.0%	2,420,735,237	43.1%	5,621,283,492
Laclede Group	lg	40.508	22,572,787	914,385,980	68.1%		0.0%	428,539,148	31.9%	1,342,925,128
New Jersey Resources	njr	42.327	41,810,073	1,769,681,023	78.9%		0.0%	473,280,930	21.1%	2,242,961,953
Nisource Inc	ni	24.790	311,188,068	7,714,352,206	51.5%		0.0%	7,270,878,129	48.5%	14,985,230,335
NW Natural Gas	nwn	45.458	26,902,000	1,222,920,083	60.0%		0.0%	816,869,581	40.0%	2,039,789,664
Piedmont Natural Gas	pnv	31.230	72,276,272	2,257,187,975	67.2%		0.0%	1,099,316,739	32.8%	3,356,504,714
South Jersey Industries	sjj	50.282	31,262,570	1,571,934,124	71.2%		0.0%	635,444,160	28.8%	2,207,378,284
Southwest Gas	swx	42.737	46,294,796	1,978,485,265	52.7%		0.0%	1,778,998,400	47.3%	3,757,483,665
UGI Corp	ugi	32.252	113,117,890	3,648,240,482	48.8%		0.0%	3,832,002,368	51.2%	7,480,242,850
WGL Holdings	wgl	38.890	51,668,012	2,009,368,987	74.6%	28,200,000	1.0%	657,058,324	24.4%	2,694,627,311
<b>Mean</b>					<b>62.1%</b>		<b>0.1%</b>		<b>37.8%</b>	
<b>Weighted Mean</b>				<b>30,982,910,581</b>	<b>56.8%</b>	<b>28,200,000</b>	<b>0.1%</b>	<b>23,524,186,015</b>	<b>43.1%</b>	<b>54,535,296,597</b>
<b>Median</b>					<b>60.0%</b>		<b>0.0%</b>		<b>40.0%</b>	
<b>Max</b>					<b>78.9%</b>		<b>1.0%</b>		<b>51.2%</b>	
<b>Min</b>					<b>48.8%</b>		<b>0.0%</b>		<b>21.1%</b>	
<b>Target</b>					<b>60%</b>		<b>0%</b>		<b>40%</b>	<b>100%</b>

Source:

Stock Price: Yahoo

Market Value Debt: Bond Analysis

## SUPPORT FOR MARKET MULTIPLES

WASHINGTON STATE DEPARTMENT OF REVENUE

2013 ASSESSMENT YEAR

NATURAL GAS DISTRIBUTION

Company	Ticker	Stock Avg	Revenues	Multiple	Cash Flow	Multiple	Earnings	Multiple	Divds Decid	Multiple	Book Value	Multiple
AGL Resources	gas	39.837	35.550	1.1	6.10	6.5	2.55	15.6	1.88	21.2	32.80	1.2
Atmos Energy Corp	ato	35.358	38.150	0.9	5.15	6.9	2.40	14.7	1.40	25.3	29.00	1.2
Laclede Group	lg	40.508	50.400	0.8	4.65	8.7	2.85	14.2	1.74	23.3	28.35	1.4
New Jersey Resources	njr	42.327	66.250	0.6	3.55	11.9	2.60	16.3	1.60	26.5	18.70	2.3
Nisource Inc	ni	24.790	17.300	1.4	3.45	7.2	1.55	16.0	0.96	25.8	16.90	1.5
NW Natural Gas	nwn	45.458	29.500	1.5	4.60	9.9	2.45	18.6	1.83	24.8	27.35	1.7
Piedmont Natural Gas	pnv	31.230	15.800	2.0	3.10	10.1	1.70	18.4	1.23	25.4	15.55	2.0
South Jersey Industries	sjj	50.282	25.850	1.9	4.75	10.6	3.25	15.5	1.82	27.6	24.60	2.0
Southwest Gas	swx	42.737	43.100	1.0	7.75	5.5	2.95	14.5	1.32	32.4	30.85	1.4
UGI Corp	ugi	32.252	65.800	0.5	5.25	6.1	2.40	13.4	1.10	29.3	21.30	1.5
WGL Holdings	wgl	38.890	48.300	0.8	4.35	8.9	2.45	15.9	1.66	23.4	25.55	1.5
		<b>Mean</b>		<b>1.2</b>		<b>8.4</b>		<b>15.7</b>		<b>25.9</b>		<b>1.6</b>
		<b>Median</b>		<b>1.0</b>		<b>8.7</b>		<b>15.6</b>		<b>25.4</b>		<b>1.5</b>
		<b>Max</b>		<b>2.0</b>		<b>11.9</b>		<b>18.6</b>		<b>32.4</b>		<b>2.3</b>
		<b>Min</b>		<b>0.49</b>		<b>5.5</b>		<b>13.4</b>		<b>21.2</b>		<b>1.2</b>
		<b>Std Dev</b>		<b>0.5</b>		<b>2.1</b>		<b>1.6</b>		<b>3.1</b>		<b>0.3</b>
		<b>Coefficient of Variation</b>		<b>0.4</b>		<b>0.2</b>		<b>0.1</b>		<b>0.1</b>		<b>0.2</b>
		<b>Say</b>		<b>1.0</b>		<b>8.6</b>		<b>15.6</b>		<b>25.5</b>		<b>1.5</b>

**SUPPORT FOR YIELD CAPITALIZATION EQUITY COMPONENT  
CAPITAL ASSET PRICING MODEL**

WASHINGTON STATE DEPARTMENT OF REVENUE

2013 ASSESSMENT YEAR

NATURAL GAS DISTRIBUTION

**Ex Post**

$$K_e = R_f + B (R_m - R_f)$$

---

**Ke = Cost of Equity** **5.96%**

---

to page 1

Rf =	risk free rate	2.90%
Rp =	risk premium	4.70%
B =	Beta	0.65

page 7

---

**Rp = Risk Premium (Rm-Rf)** **4.70%**

---

to above

**Ibbotson SBBI, Risk Premia Over Time Report 2013, Page 6**

Ibbotson, SBBI, Large Co. Stocks, Total Return	9.80%	Rm
Ibbotson, SBBI, Long Term Government Bond, Income Return	5.10%	Historical Rf

---

**Rf = Risk Free Rate** **2.90%**

---

to above

**Ibbotson SBBI, Risk Premia Over Time Report 2013, Page 7**

Long Term (20 years) US Treasury Bond Yield	2.41%
---	-------

**Value Line Investment Survey, Selected Yields January 11, 2013, page 1177**

US Treasury Securities year end data	
30 year	3.05%
30 year Zero	3.29%

**Federal Reserve Statistical Release (<http://www.federalreserve.gov/Releases/H15/Current/>)**

Treasury Constant Maturities	
20 year	2.54%
30 year	2.95%
20 year TIPS	<u>0.15%</u>
	2.39%

---

**Inflation** **2.30%**

---

**Value Line Investment Survey, Economic Series January 11, 2013, page 1500**

Consumer Price Index Annual Rate of Change 2015-17	2.30%
--	-------

**The Livingston Survey December 12, 2012 page 3**

Inflation average (measured by the CPI) over next 10 years	2.50%
--	-------

**SUPPORT FOR YIELD CAPITALIZATION EQUITY COMPONENT  
CAPITAL ASSET PRICING MODEL**

WASHINGTON STATE DEPARTMENT OF REVENUE

2013 ASSESSMENT YEAR

NATURAL GAS DISTRIBUTION

**Ex Ante**  
**Ke = Rf + B (Rp)**

<b>Ke = Cost of Equity</b>				<b>6.67%</b>
				to page 1
	Rm =	rate of return	8.70%	
	Rf =	risk free rate	2.90%	
	Rp =	risk premium	5.80%	
	B =	Beta	0.65	page 7
<b>Rp = Risk Premium</b>				<b>5.80%</b>
				to above
	<b>Shannon Pratt and Roger Grabowski</b>		3.50- 6.00%	
	Cost of Capital, Applications and Examples, 3rd Ed, 2008			
	<b>Dr. Aswath Damodaran</b>		5.78%	
	<a href="http://pages.stern.nyu.edu/~adamodar/">http://pages.stern.nyu.edu/~adamodar/</a>			
	2012 Implied Premium			
	<b>Ibbotson</b>		6.11%	
	2013 Risk Premia Over Time Report, Page 7			
	Long-horizon expected ERP (supply side)			
	<b>John Graham &amp; Campbell Harvey</b>		3.83%	December 2012
	Equity Risk Premium 2013 pg 4 & 7		2.39 - 4.74%	10 year average range
<b>Rf = Risk Free Rate</b>				<b>2.90%</b>
				to above
	<b>Ibbotson SBBi, Risk Premia Over Time Report, Page 7</b>			
	Long Term (20 years) US Treasury Bond Yield		2.41%	
	<b>Value Line Investment Survey, Selected Yields January 11, 2013, page 1177</b>			
	US Treasury Securities year end data			
	30 year		3.05%	
	30 year Zero		3.29%	
	<b>Federal Reserve Statistical Release (<a href="http://www.federalreserve.gov/Releases/H15/Current/">http://www.federalreserve.gov/Releases/H15/Current/</a>)</b>			
	Treasury Constant Maturities			
	20 year		2.54%	
	30 year		2.95%	
	20 year TIPS		<u>0.15%</u>	
			2.39%	
<b>Inflation</b>				<b>2.30%</b>
	<b>Value Line Investment Survey, Economic Series January 11, 2013, page 1500</b>			
	Consumer Price Index Annual Rate of Change 2015-17		2.30%	
	<b>The Livingston Survey December 12, 2012 page 3</b>			
	Inflation average (measured by the CPI) over next 10 year:		2.50%	

## BETA CALCULATION FOR CAPM

WASHINGTON STATE DEPARTMENT OF REVENUE

2013 ASSESSMENT YEAR

NATURAL GAS DISTRIBUTION

Company	Ticker	Value Line
AGL Resources	gas	0.75
Atmos Energy Corp	ato	0.70
Laclede Group	lg	0.55
New Jersey Resources	njr	0.65
Nisource Inc	ni	0.80
NW Natural Gas	nwn	0.60
Piedmont Natural Gas	pry	0.65
South Jersey Industries	sjj	0.65
Southwest Gas	swx	0.75
UGI Corp	ugi	0.70
WGL Holdings	wgl	0.65
	<b>Mean</b>	<b>0.68</b>
	<b>Median</b>	<b>0.65</b>
	<b>Max</b>	<b>0.80</b>
	<b>Min</b>	<b>0.55</b>

Source: Value Line-five year, weekly

**Say**

**0.65**

**SUPPORT FOR YIELD CAPITALIZATION EQUITY COMPONENT  
DIVIDEND GROWTH MODEL**

WASHINGTON STATE DEPARTMENT OF REVENUE  
2013 ASSESSMENT YEAR  
NATURAL GAS DISTRIBUTION

**Based on Dividend Growth**

$$K_e = (D_1 / P_o) + G$$

Ke = Cost of Equity  
D1 = Expected Dividends  
Po = Current Price  
G = Sustainable Growth

Company	Ticker	Stock Price (Po)	Expected Dividend (D1)	Dividend Yield (D1/Po)	Dividend Growth (G)	Ke
AGL Resources	gas	39.837	1.92	4.82%	2.00%	6.82%
Atmos Energy Corp	ato	35.358	1.42	4.02%	1.50%	5.52%
Laclede Group	lg	40.508	1.76	4.34%	2.00%	6.34%
New Jersey Resources	njr	42.327	1.60	3.78%	3.00%	6.78%
Nisource Inc	ni	24.790	1.00	4.03%	2.50%	6.53%
NW Natural Gas	nwn	45.458	1.87	4.11%	2.50%	6.61%
Piedmont Natural Gas	pny	31.230	1.27	4.07%	3.00%	7.07%
South Jersey Industries	sjj	50.282	1.98	3.94%	9.00%	12.94%
Southwest Gas	swx	42.737	1.40	3.28%	7.00%	10.28%
UGI Corp	ugi	32.252	1.14	3.53%	4.00%	7.53%
WGL Holdings	wgl	38.890	1.71	4.40%	3.00%	7.40%
					<b>Mean</b>	<b>7.62%</b>
					<b>Median</b>	<b>6.82%</b>
					<b>Max</b>	<b>12.94%</b>
					<b>Min</b>	<b>5.52%</b>

Source: Value Line Projections to 13-15

**Say 7.00%**

## SUPPORT FOR YIELD CAPITALIZATION EQUITY COMPONENT DIVIDEND GROWTH MODEL

WASHINGTON STATE DEPARTMENT OF REVENUE

2013 ASSESSMENT YEAR

NATURAL GAS DISTRIBUTION

### Based on Earnings Growth

$$K_e = (D_1 / P_o) + G$$

Ke = Cost of Equity  
 D1 = Expected Dividends  
 Po = Current Price  
 G = Sustainable Growth

Company	Ticker	Stock Price (Po)	Expected Dividend (D1)	Dividend Yield (D1/Po)	Earnings Growth (G)	Ke
AGL Resources	gas	39.837	1.92	4.82%	9.00%	13.82%
Atmos Energy Corp	ato	35.358	1.42	4.02%	5.50%	9.52%
Laclede Group	lg	40.508	1.76	4.34%	5.50%	9.84%
New Jersey Resources	njr	42.327	1.60	3.78%	2.00%	5.78%
Nisource Inc	ni	24.790	1.00	4.03%	10.00%	14.03%
NW Natural Gas	nwn	45.458	1.87	4.11%	3.00%	7.11%
Piedmont Natural Gas	pny	31.230	1.27	4.07%	3.00%	7.07%
South Jersey Industries	sjj	50.282	1.98	3.94%	9.00%	12.94%
Southwest Gas	swx	42.737	1.40	3.28%	8.00%	11.28%
UGI Corp	ugi	32.252	1.14	3.53%	6.50%	10.03%
WGL Holdings	wgl	38.890	1.71	4.40%	2.00%	6.40%
					<b>Mean</b>	<b>9.80%</b>
					<b>Median</b>	<b>9.84%</b>
					<b>Max</b>	<b>14.03%</b>
					<b>Min</b>	<b>5.78%</b>

Source: Value Line Projections to 13-15

**Say 9.80%**

## SUPPORT FOR YIELD CAPITALIZATION EQUITY COMPONENT DIVIDEND GROWTH MODEL

WASHINGTON STATE DEPARTMENT OF REVENUE

2013 ASSESSMENT YEAR

NATURAL GAS DISTRIBUTION

### Based on Return on Equity

**Ke = (D1 / Po) + G**

**Ke** = Cost of Equity  
**D1** = Expected Dividends  
**Po** = Current Price  
**G** = Sustainable Growth  
**b** = Retained Earnings (plowback)  
**ROE** = Return on Equity

Value Line

Company	Ticker	Stock Price (Po)	Expected Dividend (D1)	Dividend Yield (D1/Po)	b payout ratio	ROE	Growth (b*ROE)	Ke
AGL Resources	gas	39.837	1.92	4.82%	26.0%	8.00%	2.08%	6.90%
Atmos Energy Corp	ato	35.358	1.42	4.02%	42.0%	8.50%	3.57%	7.59%
Laclede Group	lg	40.508	1.76	4.34%	39.0%	10.00%	3.90%	8.24%
New Jersey Resources	njr	42.327	1.60	3.78%	39.0%	14.00%	5.46%	9.24%
Nisource Inc	ni	24.790	1.00	4.03%	38.0%	9.00%	3.42%	7.45%
NW Natural Gas	nwn	45.458	1.87	4.11%	25.0%	9.00%	2.25%	6.36%
Piedmont Natural Gas	pnv	31.230	1.27	4.07%	28.0%	11.00%	3.08%	7.15%
South Jersey Industries	sjj	50.282	1.98	3.94%	44.0%	13.00%	5.72%	9.66%
Southwest Gas	swx	42.737	1.40	3.28%	56.0%	9.50%	5.32%	8.60%
UGI Corp	ugi	32.252	1.14	3.53%	54.0%	11.50%	6.21%	9.74%
WGL Holdings	wgl	38.890	1.71	4.40%	32.0%	9.50%	3.04%	7.44%
							<b>Mean</b>	<b>8.03%</b>
							<b>Median</b>	<b>7.59%</b>
							<b>Max</b>	<b>9.74%</b>
							<b>Min</b>	<b>6.36%</b>
							<b>Say</b>	<b>7.50%</b>

## SUPPORT FOR DEBT RATING AND DEBT YIELD RATE

WASHINGTON STATE DEPARTMENT OF REVENUE

2013 ASSESSMENT YEAR

NATURAL GAS DISTRIBUTION

Company	Ticker	Mergent's Ratings	S&P Ratings	WAYTM
AGL Resources	gas		BBB+	2.96%
Atmos Energy Corp	ato	Baa1	BBB+	2.56%
Laclede Group	lg	Baa2	A	3.63%
New Jersey Resources	njr	Aa3	A	
Nisource Inc	ni	Ba2	BBB-	2.16%
NW Natural Gas	nwn	A3	A+	3.41%
Piedmont Natural Gas	pnv	A3	A	5.30%
South Jersey Industries	sjj	A3	BBB+	4.59%
Southwest Gas	swx	Baa1	BBB+	3.76%
UGI Corp	ugi			2.12%
WGL Holdings	wgl	A2	A+	3.56%
<b>Overall Average Debt Rating</b>		<b>A3</b>	<b>A-</b>	<b>3.41%</b>

bond analysis, A-BBB bonds

All issues 20+ year maturities

<b>Guideline Companies, All Ratings</b>	<b>2.69%</b>	<b>4.56%</b>
---	--------------	--------------

bond analysis page 12

<b>Mergent's Bond Record January 2013, page 152</b>				
<b>Corporate</b>	<b>Aaa</b>	<b>Aa</b>	<b>A</b>	<b>Baa</b>
October	3.47%	3.63%	3.90%	4.58%
November	3.50%	3.57%	3.87%	4.51%
December	3.65%	3.70%	3.98%	4.63%
<b>4th Qtr Average</b>	<b>3.54%</b>	<b>3.63%</b>	<b>3.92%</b>	<b>4.57%</b>
<b>Public Utilities</b>	<b>Aaa</b>	<b>Aa</b>	<b>A</b>	<b>Baa</b>
October		3.68%	3.91%	4.54%
November		3.60%	3.84%	4.42%
December		3.75%	4.00%	4.56%
<b>4th Qtr Average</b>		<b>3.68%</b>	<b>3.92%</b>	<b>4.51%</b>
<b>Industrials</b>	<b>Aaa</b>	<b>Aa</b>	<b>A</b>	<b>Baa</b>
October	3.47%	3.58%	3.89%	4.62%
November	3.50%	3.54%	3.89%	4.60%
December	3.65%	3.65%	3.96%	4.70%
<b>4th Qtr Average</b>	<b>3.54%</b>	<b>3.59%</b>	<b>3.91%</b>	<b>4.64%</b>

<b>Debt Yield Rate</b>	<b>4.50%</b>
------------------------	--------------

to page 1

# Natural Gas Distribution Bond Analysis

2013.5

Company	type	coupon	maturity	Price 12/12	Issued / Book	current yield	yield to maturity	WAYTM	Rating	Mkt Val	Mkt : Book	Embedded	Debt Service
AGL Capital	Nt	4.950	2015	107.63 \$	200,000,000	4.60%	1.07%	0.02%	BBB+	\$ 215,260,000	107.63%		9,900,000
AGL Capital	Sr Nt	5.875	2041	130.63 \$	700,000,000	4.50%	4.02%	0.30%	BBB+	\$ 914,410,000	130.63%		41,125,000
AGL Capital	Sr Nt	6.375	2016	117.71 \$	300,000,000	5.42%	1.76%	0.06%	BBB+	\$ 353,130,000	117.71%		19,125,000
	<b>3</b>	<b>300</b>	<b>Sum</b>	<b>355.97 \$</b>	<b>1,200,000,000</b>	<b>Percent of book</b>	<b>118.66%</b>	<b>0.38%</b>	<b>BBB+</b>	<b>\$ 1,482,800,000</b>	<b>123.57%</b>	<b>5.85%</b>	<b>\$ 70,150,000</b>
Atlanta Gas & Light	MTN	7.300	2027	129.68 \$	54,000,000	5.63%	4.35%	0.03%	BBB+	\$ 70,027,200	129.68%		3,942,000
	<b>1</b>	<b>100</b>	<b>Sum</b>	<b>129.68 \$</b>	<b>54,000,000</b>	<b>Percent of book</b>	<b>129.68%</b>	<b>0.03%</b>	<b>BBB+</b>	<b>\$ 70,027,200</b>	<b>129.68%</b>	<b>7.30%</b>	<b>3,942,000</b>
Atmos Energy	Sr Nt	6.350	2017	120.96 \$	250,000,000	5.25%	0.32%	0.01%	BBB+	\$ 302,400,000	120.96%		15,875,000
Atmos Energy	Sr Nt	6.750	2028	128.55 \$	150,000,000	5.25%	4.10%	0.07%	BBB+	\$ 192,825,000	128.55%		10,125,000
Atmos Energy	Sr Nt	5.950	2034	123.59 \$	200,000,000	4.81%	4.21%	0.09%	BBB+	\$ 247,180,000	123.59%		11,900,000
	<b>3</b>	<b>300</b>	<b>Sum</b>	<b>373.1 \$</b>	<b>600,000,000</b>	<b>Percent of book</b>	<b>124.37%</b>	<b>0.17%</b>	<b>BBB+</b>	<b>\$ 742,405,000</b>	<b>123.73%</b>	<b>6.32%</b>	<b>37,900,000</b>
Laclede Gas	1st Mtg	7.900	2030	138.54 \$	30,000,000	5.70%	4.53%	0.01%	A	\$ 41,562,000	138.54%		2,370,000
Laclede Gas	1st Mtg	7.000	2029	126.44 \$	25,000,000	5.54%	4.58%	0.01%	A	\$ 31,610,000	126.44%		1,750,000
Laclede Gas	1st Mtg	5.500	2019	115.89 \$	150,000,000	4.75%	2.38%	0.04%	A	\$ 173,835,000	115.89%		8,250,000
Laclede Gas	1st Mtg	6.150	2036	127.58 \$	55,000,000	4.82%	4.23%	0.03%	A	\$ 70,169,000	127.58%		3,382,500
Laclede Gas	1st Mtg	6.000	2034	122.55 \$	150,000,000	4.90%	4.32%	0.07%	A	\$ 183,825,000	122.55%		9,000,000
	<b>5</b>	<b>500</b>	<b>Sum</b>	<b>631.00 \$</b>	<b>410,000,000</b>	<b>Percent of book</b>	<b>126.20%</b>	<b>0.16%</b>	<b>A</b>	<b>\$ 501,001,000</b>	<b>122.20%</b>	<b>6.04%</b>	<b>\$ 24,752,500</b>
Nisource Finance	Gtd Nt	6.800	2019	122.71 \$	500,000,000	5.54%	2.35%	0.13%	BBB-	\$ 613,550,000	122.71%		34,000,000
Nisource Finance	Gtd Nt	6.125	2022	119.84 \$	500,000,000	5.11%	3.40%	0.18%	BBB-	\$ 599,200,000	119.84%		30,625,000
Nisource Finance	Gtd Nt	6.400	2018	120.54 \$	800,000,000	5.31%	1.63%	0.14%	BBB-	\$ 964,320,000	120.54%		51,200,000
Nisource Finance	Gtd Nt	5.250	2017	114.38 \$	1,000,000,000	4.59%	1.04%	0.11%	BBB-	\$ 1,143,800,000	114.38%		52,500,000
Nisource Finance	Gtd Nt	10.750	2016	124.89 \$	600,000,000	8.61%	0.68%	0.04%	BBB-	\$ 749,340,000	124.89%		64,500,000
Nisource Finance	Gtd Nt	5.250	2043	105.85 \$	500,000,000	4.96%	4.87%	0.26%	BBB-	\$ 529,250,000	105.85%		26,250,000
Nisource Finance	Gtd Nt	5.450	2020	117.51 \$	1,000,000,000	4.64%	2.50%	0.27%	BBB-	\$ 1,175,100,000	117.51%		54,500,000
	<b>7</b>	<b>700</b>	<b>Sum</b>	<b>825.72 \$</b>	<b>4,900,000,000</b>	<b>Percent of book</b>	<b>117.96%</b>	<b>1.14%</b>	<b>BBB-</b>	<b>\$ 5,774,560,000</b>	<b>117.85%</b>	<b>6.40%</b>	<b>313,575,000</b>
Northwest Nat Gas	MTN	5.660	2033	113.48 \$	150,000,000	4.99%	4.60%	0.07%	A+	\$ 170,220,000	113.48%		8,490,000
Northwest Nat Gas	MTN	5.820	2032	115.36 \$	108,000,000	5.05%	4.57%	0.05%	A+	\$ 124,588,800	115.36%		6,285,600
Northwest Nat Gas	MTN	7.850	2030	138.64 \$	123,000,000	5.66%	4.49%	0.06%	A+	\$ 170,527,200	138.64%		9,655,500
Northwest Nat Gas	MTN	7.740	2030	138.06 \$	123,000,000	5.61%	4.44%	0.06%	A+	\$ 169,813,800	138.06%		9,520,200
Northwest Nat Gas	MTN	4.700	2015	106.98 \$	40,000,000	4.39%	0.04%	0.00%	A+	\$ 42,792,000	106.98%		1,880,000
Northwest Nat Gas	MTN	9.050	2021	145.17 \$	10,000,000	6.23%	2.40%	0.00%	A+	\$ 14,517,000	145.17%		905,000
Northwest Nat Gas	MTN	5.620	2023	121.61 \$	150,000,000	4.62%	2.98%	0.05%	A+	\$ 182,415,000	121.61%		8,430,000
Northwest Nat Gas	MTN	7.630	2019	131.38 \$	123,000,000	5.81%	1.62%	0.02%	A+	\$ 161,597,400	131.38%		9,384,900
Northwest Nat Gas	MTN	7.720	2025	142.28 \$	123,000,000	5.43%	3.25%	0.04%	A+	\$ 175,004,400	142.28%		9,495,600
Northwest Nat Gas	MTN	7.000	2017	121.93 \$	40,000,000	5.74%	0.64%	0.00%	A+	\$ 48,772,000	121.93%		2,800,000
	<b>10</b>	<b>1000</b>	<b>Sum</b>	<b>1274.89 \$</b>	<b>990,000,000</b>	<b>Percent of book</b>	<b>127.49%</b>	<b>0.36%</b>	<b>A+</b>	<b>\$ 1,260,247,600</b>	<b>127.30%</b>	<b>6.75%</b>	<b>66,846,800</b>
Piedmont Nat Gas	Nt	6.000	2033	117.59 \$	200,000,000	5.10%	4.61%	0.10%	A	\$ 235,180,000	117.59%		12,000,000
Piedmont Nat Gas	Nt	6.250	2036	100.00 \$	200,000,000	6.25%	6.25%	0.13%	NR	\$ 200,000,000	100.00%		12,500,000
Piedmont Nat Gas	MTN	7.950	2029	139.12 \$	60,000,000	5.71%	4.41%	0.03%	A	\$ 83,472,000	139.12%		4,770,000
	<b>3</b>	<b>300</b>	<b>Sum</b>	<b>356.71 \$</b>	<b>460,000,000</b>	<b>Percent of book</b>	<b>118.90%</b>	<b>0.26%</b>	<b>A</b>	<b>\$ 518,652,000</b>	<b>112.75%</b>	<b>6.36%</b>	<b>29,270,000</b>
South Jersey Gas	MTN	5.550	2033	112.19 \$	30,000,000	4.95%	4.59%	0.01%	A	\$ 33,657,000	112.19%		1,665,000
	<b>1</b>	<b>100</b>	<b>Sum</b>	<b>112.19 \$</b>	<b>30,000,000</b>	<b>Percent of book</b>	<b>112.19%</b>	<b>0.01%</b>	<b>A</b>	<b>\$ 33,657,000</b>	<b>112.19%</b>	<b>5.55%</b>	<b>1,665,000</b>
Southwest Gas	Deb	8.000	2026	141.64 \$	75,000,000	5.65%	3.76%	0.03%	BBB+	\$ 106,230,000	141.64%		6,000,000
	<b>1</b>	<b>100</b>	<b>Sum</b>	<b>141.64 \$</b>	<b>75,000,000</b>	<b>Percent of book</b>	<b>141.64%</b>	<b>0.03%</b>	<b>BBB+</b>	<b>\$ 106,230,000</b>	<b>141.64%</b>	<b>8.00%</b>	<b>6,000,000</b>
UGI Utilities	Sr Nt	5.753	2016	112.63 \$	175,000,000	5.11%	0.64%	0.01%	NR	\$ 197,102,500	112.63%		10,067,750
UGI Utilities	Sr Nt	6.206	2036	121 \$	100,000,000	5.13%	4.68%	0.05%	NR	\$ 121,000,000	121.00%		6,206,000
UGI Utilities	MTN	5.640	2015	109.64 \$	125,000,000	5.14%	2.28%	0.03%	NR	\$ 137,050,000	109.64%		7,050,000
UGI Utilities	MTN	7.250	2017	120.38 \$	20,000,000	6.02%	1.26%	0.00%	BBB	\$ 24,076,000	120.38%		1,450,000
	<b>4</b>	<b>400</b>	<b>Sum</b>	<b>463.65 \$</b>	<b>420,000,000</b>	<b>Percent of book</b>	<b>115.91%</b>	<b>0.10%</b>	<b>NR</b>	<b>\$ 479,228,500</b>	<b>114.10%</b>	<b>5.90%</b>	<b>24,773,750</b>
Washington Gas & Light	MTN	5.700	2036	117.51 \$	25,000,000	4.85%	4.45%	0.01%	A+	\$ 29,377,500	117.51%		1,425,000
Washington Gas & Light	MTN	5.170	2016	109.43 \$	25,000,000	4.72%	1.31%	0.00%	A+	\$ 27,357,500	109.43%		1,292,500
Washington Gas & Light	MTN	5.781	2036	118.74 \$	25,000,000	4.87%	4.45%	0.01%	A+	\$ 29,685,000	118.74%		1,445,250
Washington Gas & Light	MTN	6.490	2027	125.64 \$	8,000,000	5.17%	4.00%	0.00%	A+	\$ 10,051,200	125.64%		519,200
Washington Gas & Light	MTN	6.820	2026	129.67 \$	25,000,000	5.26%	3.80%	0.01%	A+	\$ 32,417,500	129.67%		1,705,000
Washington Gas & Light	MTN	5.440	2025	116.89 \$	41,000,000	4.65%	3.62%	0.02%	A+	\$ 47,924,900	116.89%		2,230,400
	<b>6</b>	<b>600</b>	<b>Sum</b>	<b>717.88 \$</b>	<b>149,000,000</b>	<b>Percent of book</b>	<b>119.65%</b>	<b>0.06%</b>	<b>A+</b>	<b>\$ 176,813,600</b>	<b>118.67%</b>	<b>5.78%</b>	<b>8,617,350</b>
			<b>Total</b>	<b>\$</b>	<b>9,288,000,000</b>			<b>2.69%</b>	<b>Total</b>	<b>\$ 11,145,621,900</b>	<b>120.00%</b>	<b>6.33%</b>	<b>\$ 587,492,400</b>
										<b>This includes short term. For 20+ year maturities see below</b>			
Company	type	coupon	maturity	Price 12/12	Issued / Book	current yield	yield to maturity	Weighted A	Rating	Mkt Val	Mkt : Book		Debt Service
AGL Capital	Sr Nt	5.875	2041	130.63 \$	700,000,000	4.50%	4.02%	1.25%	BBB+	\$ 914,410,000	130.63%		41,125,000
Atmos Energy	Sr Nt	5.950	2034	123.59 \$	200,000,000	4.81%	4.21%	0.38%	BBB+	\$ 247,180,000	123.59%		11,900,000

Laclede Gas	1st Mtg	6.150	2036	127.58	\$	55,000,000	4.82%	4.23%	0.10%	<b>A</b>	\$	70,169,000	127.58%	3,382,500
Laclede Gas	1st Mtg	6.000	2034	122.55	\$	150,000,000	4.90%	4.32%	0.29%	<b>A</b>	\$	183,825,000	122.55%	9,000,000
Nisource Finance	Gtd Nt	5.250	2043	105.85	\$	500,000,000	4.96%	4.87%	1.09%	<b>BBB-</b>	\$	529,250,000	105.85%	26,250,000
Northwest Nat Gas	MTN	5.660	2033	113.48	\$	150,000,000	4.99%	4.60%	0.31%	<b>A+</b>	\$	170,220,000	113.48%	8,490,000
Northwest Nat Gas	MTN	5.820	2032	115.36	\$	108,000,000	5.05%	4.57%	0.22%	<b>A+</b>	\$	124,588,800	115.36%	6,285,600
Piedmont Nat Gas	Nt	6.250	2036	100.00	\$	200,000,000	6.25%	6.25%	0.56%	<b>NR</b>	\$	200,000,000	100.00%	12,500,000
South Jersey Gas	MTN	5.550	2033	112.19	\$	30,000,000	4.95%	4.59%	0.06%	<b>A</b>	\$	33,657,000	112.19%	1,665,000
UGI Utilities	Sr Nt	6.206	2036	121	\$	100,000,000	5.13%	4.68%	0.21%	<b>NR</b>	\$	121,000,000	121.00%	6,206,000
Washington Gas & Light	MTN	5.700	2036	117.51	\$	25,000,000	4.85%	4.45%	0.05%	<b>A+</b>	\$	29,377,500	117.51%	1,425,000
Washington Gas & Light	MTN	5.781	2036	118.74	\$	25,000,000	4.87%	4.45%	0.05%	<b>A+</b>	\$	29,685,000	118.74%	1,445,250

<b>Total</b>					<b>\$</b>	<b>2,243,000,000</b>			<b>4.56%</b>	<b>Total</b>	<b>\$</b>	<b>2,653,362,300</b>	<b>118.30%</b>	<b>\$</b>	<b>129,674,350</b>
--------------	--	--	--	--	-----------	----------------------	--	--	--------------	--------------	-----------	----------------------	----------------	-----------	--------------------

Source: Standard & Poor's Bond Guide, January 2013, 2012 Yr End Prices

<b>Embedded debt rate</b>	<b>5.78%</b>
<b>Weighted average yield to maturity</b>	<b>4.56%</b>
<b>Debt service / Market value</b>	<b>4.89%</b>

# DATA INPUT

WASHINGTON STATE DEPARTMENT OF REVENUE  
 2013 ASSESSMENT YEAR  
 NATURAL GAS DISTRIBUTION

Instructions: Data entered on this page will flow to the applicable worksheets.

div to earnings

Guideline Companies		Stock Price	Revenues	Cash Flow	Earnings	Dividends	Bk Value	Common	Calculated Debt	Wtd Avg YTM	Payout Ratio	Payout Ratio	ROE
Name	Ticker	(4th Qtr Avg)	Per Share	Per Share	Per Share	Per Share	Stock	Shares	mk to bk		calculated	V L	V L
AGL Resources	gas	39.837	35.55	6.10	2.55	1.88	32.80	117,876,484	123.57%	2.96%	74%	74%	8.0%
Atmos Energy Corp	ato	35.358	38.15	5.15	2.40	1.40	29.00	90,517,509	123.73%	2.56%	58%	58%	8.5%
Laclede Group	lg	40.508	50.40	4.65	2.85	1.74	28.35	22,572,787	122.20%	3.63%	61%	61%	10.0%
New Jersey Resources	njr	42.327	66.25	3.55	2.60	1.60	18.70	41,810,073	120.00%		62%	61%	14.0%
Nisource Inc	ni	24.790	17.30	3.45	1.55	0.96	16.90	311,188,068	117.85%	2.16%	62%	62%	9.0%
NW Natural Gas	nwn	45.458	29.50	4.60	2.45	1.83	27.35	26,902,000	127.30%	3.41%	nmf	75%	9.0%
Piedmont Natural Gas	pny	31.230	15.80	3.10	1.70	1.23	15.55	72,276,272	112.75%	5.30%	72%	72%	11.0%
South Jersey Industries	sjj	50.282	25.85	4.75	3.25	1.82	24.60	31,262,570	112.19%	4.59%	56%	56%	13.0%
Southwest Gas	swx	42.737	43.10	7.75	2.95	1.32	30.85	46,294,796	141.64%	3.76%	45%	44%	9.5%
UGI Corp	ugi	32.252	65.80	5.25	2.40	1.10	21.30	113,117,890	114.10%	2.12%	nmf	46%	11.5%
WGL Holdings	wgl	38.890	48.30	4.35	2.45	1.66	25.55	51,668,012	118.67%	3.56%	68%	68%	9.5%

Value Line March 8, 2013

Yahoo

Value Line

Value Line

Value Line

Value Line

Value Line

Value Line

Bond analysis  
 121.27%  
 120.00%

Bond analysis

calculated

Value Line

Value Line

## SUPPORT FOR DIRECT CAPITALIZATION EQUITY COMPONENT

WASHINGTON STATE DEPARTMENT OF REVENUE

2013 ASSESSMENT YEAR

NATURAL GAS DISTRIBUTION

Company	Ticker	Stock Average	2011		2012		2011		2012	
			Actual Earnings Ratio (EPS/P)	Projected Earnings Ratio (PEPS/P)	Cash Flow Ratio (CF/P)	Projected Cash Flow Ratio				
AGL Resources	gas	39.84	2.55	6.4%	2.90	7.3%	6.10	15.3%	6.65	16.7%
Atmos Energy Corp	ato	35.36	2.40	6.8%	2.55	7.2%	5.15	14.6%	5.40	15.3%
Laclede Group	lg	40.51	2.85	7.0%	3.00	7.4%	4.65	11.5%	4.85	12.0%
New Jersey Resources	njr	42.33	2.60	6.1%	2.70	6.4%	3.55	8.4%	3.75	8.9%
Nisource Inc	ni	24.79	1.55	6.3%	1.65	6.7%	3.45	13.9%	3.60	14.5%
NW Natural Gas	nwn	45.46	2.45	5.4%	2.90	6.4%	4.60	10.1%	4.85	10.7%
Piedmont Natural Gas	pny	31.23	1.70	5.4%	1.75	5.6%	3.10	9.9%	3.15	10.1%
South Jersey Industries	sjj	50.28	3.25	6.5%	3.50	7.0%	4.75	9.4%	5.35	10.6%
Southwest Gas	swx	42.74	2.95	6.9%	3.10	7.3%	7.75	18.1%	8.00	18.7%
UGI Corp	ugi	32.25	2.40	7.4%	2.50	7.8%	5.25	16.3%	5.50	17.1%
WGL Holdings	wgl	38.89	2.45	6.3%	2.60	6.7%	4.35	11.2%	4.50	11.6%
<b>Mean</b>				<b>6.4%</b>		<b>6.9%</b>		<b>12.6%</b>		<b>13.3%</b>
<b>Median</b>				<b>6.4%</b>		<b>7.0%</b>		<b>11.5%</b>		<b>12.0%</b>
<b>Max</b>				<b>7.4%</b>		<b>7.8%</b>		<b>18.1%</b>		<b>18.7%</b>
<b>Min</b>				<b>5.4%</b>		<b>5.6%</b>		<b>8.4%</b>		<b>8.9%</b>

Source:

**Say**

**6.4%**

**7.0%**

**11.6%**

**12.0%**

Actual earnings: Value Line / Q4 average stock price

Estimated Earnings: Value Line / Q4 average stock price

Actual Cash Flow: Value Line / Q4 average stock price

Estimated Cash Flow: Value Line / Q4 average stock price

## AVERAGE FOURTH QUARTER STOCK PRICE

WASHINGTON STATE DEPARTMENT OF REVENUE

2013 ASSESSMENT YEAR

NATURAL GAS DISTRIBUTION

AGL Resources gas								38.52
Date	Open	High	Low	Close	Volume	Adj Close		Q4 Average
12/3/2012	39.10	41.21	38.51	39.97	560700		39.97	39.837
11/1/2012	40.74	41.04	36.90	38.98	442100		38.98	
10/1/2012	40.92	41.71	39.65	40.83	315800		40.34	

Atmos Energy Corp ato								35.358
Date	Open	High	Low	Close	Volume	Adj Close		
12/3/2012	35.12	36.43	34.29	35.12	381500		35.12	35.358
11/1/2012	36.05	36.57	32.94	35.01	447100		35.01	
10/1/2012	35.79	36.88	35.04	35.97	354700		35.60	

Laclede Group Inc lg								40.508
Date	Open	High	Low	Close	Volume	Adj Close		
12/3/2012	40.75	40.93	37.35	38.61	134300		38.61	40.508
11/1/2012	41.69	41.77	37.79	40.71	105200		40.29	
10/1/2012	43.06	44.04	41.17	41.64	69300		41.21	

New Jersey Resources njr								42.327
Date	Open	High	Low	Close	Volume	Adj Close		
12/3/2012	40.84	41.69	38.61	39.62	363200		39.62	42.327
11/1/2012	44.41	44.79	38.51	40.58	218000		40.19	
10/1/2012	46.00	46.28	44.08	44.46	153700		44.03	

Nisource Inc ni								24.790
Date	Open	High	Low	Close	Volume	Adj Close		
12/3/2012	24.43	25.08	24.02	24.89	3103900		24.89	24.790
11/1/2012	25.47	25.69	23.14	24.17	2734300		24.17	
10/1/2012	25.55	25.97	24.84	25.47	1676800		25.47	

NW Natural Gas nwn								45.458
Date	Open	High	Low	Close	Volume	Adj Close		
12/3/2012	44.05	45.32	42.91	44.2	116400		44.2	45.458
11/1/2012	46.48	46.48	41.01	43.86	132800		43.86	
10/1/2012	49.29	50.8	46.23	46.53	126400		46.53	

Piedmont Natural Gas pny								31.230
Date	Open	High	Low	Close	Volume	Adj Close		
12/3/2012	31.06	32.54	30.54	31.31	263800		31.31	31.230
11/1/2012	31.88	32.08	28.51	30.86	247800		30.57	
10/1/2012	32.58	32.68	31.03	31.87	269000		31.57	

South Jersey Industries sjj								50.282
Date	Open	High	Low	Close	Volume	Adj Close		
12/3/2012	50.23	51.92	49.03	50.33	132700		50.33	50.282
11/1/2012	50.48	51.22	45.81	49.97	117400		49.53	
10/1/2012	52.96	53.47	50.24	50.59	93500		50.15	

Southwest Gas Corp swx								42.737
Date	Open	High	Low	Close	Volume	Adj Close		

12/3/2012	42.05	43.29	41.42	42.41	177300	42.41
11/1/2012	43.62	44.79	39.01	41.94	152000	41.94
10/1/2012	44.39	44.83	43.08	43.47	118400	43.16

UGI Corp ugi

Date	Open	High	Low	Close	Volume	Adj Close	
12/3/2012	33.25	33.58	31.95	32.71	713700	32.71	<b>32.252</b>
11/1/2012	32.28	33.5	30.15	33.22	606200	32.95	
10/1/2012	31.92	33.36	30.97	32.29	533300	32.03	

WGL Holdings wgl

Date	Open	High	Low	Close	Volume	Adj Close	
12/3/2012	39.32	40.13	38.22	39.19	264800	39.19	<b>38.890</b>
11/1/2012	39.83	40.17	35.96	39.06	285200	39.06	
10/1/2012	40.18	40.33	38.53	39.77	246900	39.77	

Source:

finance.yahoo.com

Historical Stock Quotes

## IMPLIED PREMIUMS FOR US MARKET

Last updated January 5, 2013

These implied premiums are calculated using the S&P 500.

Year	Earnings Yield	Dividend Yield	S&P 500	Earnings	Dividends	Change in Earnings	Change in Dividends	T.Bill Rate	T.Bond Rate	Bond-Bill	Smoothed Growth	Premium (t)	Net Growth Es	Implied Premium (FCFE)	ERP/Riskfree Rate
1960	5.34%	3.41%	58.11	3.10	1.98			0.0266	2.76%	0.10%	2.45%				
1961	4.71%	2.85%	71.55	3.37	2.04	8.60%	2.91%	2.13%	2.35%	0.22%	2.41%	2.92%		2.92%	1.24
1962	5.81%	3.40%	63.1	3.67	2.15	8.79%	5.21%	2.73%	3.85%	1.12%	4.05%	3.56%		3.56%	0.92
1963	5.51%	3.13%	75.02	4.13	2.35	12.75%	9.45%	3.12%	4.14%	1.02%	4.96%	3.38%		3.38%	0.82
1964	5.62%	3.05%	84.75	4.76	2.58	15.23%	10.08%	3.54%	4.21%	0.67%	5.13%	3.31%		3.31%	0.79
1965	5.73%	3.06%	92.43	5.30	2.83	11.20%	9.42%	3.93%	4.65%	0.72%	5.46%	3.32%		3.32%	0.71
1966	6.74%	3.59%	80.33	5.41	2.88	2.23%	1.96%	4.76%	4.64%	-0.12%	4.19%	3.68%		3.68%	0.79
1967	5.66%	3.09%	96.47	5.46	2.98	0.85%	3.37%	4.21%	5.70%	1.49%	5.25%	3.20%		3.20%	0.56
1968	5.51%	2.93%	103.86	5.72	3.04	4.81%	2.09%	5.21%	6.16%	0.95%	5.32%	3.00%		3.00%	0.49
1969	6.63%	3.52%	92.06	6.10	3.24	6.66%	6.49%	6.58%	7.88%	1.30%	7.55%	3.74%		3.74%	0.47
1970	5.98%	3.46%	92.15	5.51	3.19	-9.72%	-1.61%	6.53%	6.50%	-0.03%	4.78%	3.41%		3.41%	0.52
1971	5.46%	3.10%	102.09	5.57	3.16	1.15%	-0.74%	4.39%	5.89%	1.50%	4.57%	3.09%		3.09%	0.52
1972	5.23%	2.70%	118.05	6.17	3.19	10.76%	0.71%	3.84%	6.41%	2.57%	5.21%	2.72%		2.72%	0.42
1973	8.16%	3.70%	97.55	7.96	3.61	28.93%	13.24%	6.93%	6.90%	-0.03%	8.30%	4.30%		4.30%	0.62
1974	13.64%	5.43%	68.56	9.35	3.72	17.48%	3.14%	8.00%	7.40%	-0.60%	6.42%	5.59%		5.59%	0.76
1975	8.55%	4.14%	90.19	7.71	3.73	-17.54%	0.30%	5.80%	7.76%	1.96%	5.99%	4.13%		4.13%	0.53
1976	9.07%	3.93%	107.46	9.75	4.22	26.39%	13.10%	5.08%	6.81%	1.73%	8.19%	4.55%		4.55%	0.67
1977	11.43%	5.11%	95.1	10.87	4.86	11.53%	15.07%	5.12%	7.78%	2.66%	9.52%	5.92%		5.92%	0.76
1978	12.11%	5.39%	96.11	11.64	5.18	7.07%	6.60%	7.18%	9.15%	1.97%	8.48%	5.72%		5.72%	0.63
1979	13.48%	5.53%	107.94	14.55	5.97	25.01%	15.23%	10.38%	10.33%	-0.05%	11.70%	6.45%		6.45%	0.62
1980	11.04%	4.74%	135.76	14.99	6.44	3.01%	7.81%	11.24%	12.43%	1.19%	11.01%	5.03%		5.03%	0.40
1981	12.39%	5.57%	122.55	15.18	6.83	1.31%	6.08%	14.71%	13.98%	-0.73%	11.42%	5.73%		5.73%	0.41
1982	9.83%	4.93%	140.64	13.82	6.93	-8.95%	1.58%	10.54%	10.47%	-0.07%	7.96%	4.90%		4.90%	0.47
1983	8.06%	4.32%	164.93	13.29	7.12	-3.84%	2.76%	8.80%	11.80%	3.00%	9.09%	4.31%		4.31%	0.37
1984	10.07%	4.68%	167.24	16.84	7.83	26.69%	9.85%	9.85%	11.51%	1.66%	11.02%	5.11%		5.11%	0.44
1985	7.42%	3.88%	211.28	15.68	8.20	-6.91%	4.74%	7.72%	8.99%	1.27%	7.89%	4.03%	6.75%	3.84%	0.43
1986	5.96%	3.38%	242.17	14.43	8.19	-7.93%	-0.15%	6.16%	7.22%	1.06%	5.54%	3.36%	6.96%	3.58%	0.50
1987	6.49%	3.71%	247.08	16.04	9.17	11.10%	11.99%	5.47%	8.86%	3.39%	9.66%	4.18%	8.58%	3.99%	0.45
1988	8.20%	3.68%	277.72	24.12	10.22	50.42%	11.49%	6.35%	9.14%	2.79%	9.76%	4.12%	7.67%	3.77%	0.41
1989	6.80%	3.32%	353.4	24.32	11.73	0.83%	14.80%	8.37%	7.93%	-0.44%	9.58%	3.85%	7.46%	3.51%	0.44
1990	6.58%	3.74%	330.22	22.65	12.35	-6.87%	5.26%	7.81%	8.07%	0.26%	7.39%	3.92%	7.19%	3.89%	0.48
1991	4.58%	3.11%	417.09	19.30	12.97	-14.79%	5.03%	7.00%	6.70%	-0.30%	6.34%	3.27%	7.81%	3.48%	0.52
1992	4.16%	2.90%	435.71	20.87	12.64	8.13%	-2.59%	5.30%	6.68%	1.38%	4.67%	2.83%	9.83%	3.55%	0.53
1993	4.25%	2.72%	466.45	26.90	12.69	28.89%	0.41%	3.50%	5.79%	2.29%	4.73%	2.74%	8.00%	3.17%	0.55
1994	5.89%	2.91%	459.27	31.75	13.36	18.03%	5.34%	5.00%	7.82%	2.82%	7.23%	3.06%	7.17%	3.55%	0.45
1995	5.74%	2.30%	615.93	37.70	14.17	18.74%	6.00%	3.50%	5.57%	2.07%	5.65%	2.44%	6.50%	3.29%	0.59
1996	4.83%	2.01%	740.74	40.63	14.89	7.77%	5.10%	5.00%	6.41%	1.41%	6.13%	2.11%	7.92%	3.20%	0.50
1997	4.08%	1.60%	970.43	44.09	15.52	8.52%	4.25%	5.35%	5.74%	0.39%	5.45%	1.67%	8.00%	2.73%	0.48
1998	3.11%	1.32%	1229.23	44.27	16.20	0.41%	4.37%	4.33%	4.65%	0.32%	4.60%	1.38%	7.20%	2.26%	0.49
1999	3.07%	1.14%	1469.25	51.68	16.71	16.74%	3.16%	5.37%	6.44%	1.07%	5.75%	1.20%	12.50%	2.05%	0.32
2000	3.94%	1.23%	1320.28	56.13	16.27	8.61%	-2.65%	5.73%	5.11%	-0.62%	3.71%	1.65%	12.00%	2.87%	0.56
2001	3.85%	1.37%	1148.09	38.85	15.74	-30.79%	-3.24%	1.80%	5.05%	3.25%	3.56%	1.73%	10.30%	3.62%	0.72
2002	5.23%	1.83%	879.82	46.04	16.08	18.51%	2.15%	1.20%	3.81%	2.61%	3.57%	2.29%	8.00%	4.10%	1.08
2003	4.87%	1.61%	1111.91	54.69	17.88	18.79%	11.19%	1.00%	4.25%	3.25%	5.35%	2.12%	11.00%	3.69%	0.87
2004	5.58%	1.60%	1211.92	67.68	19.407	23.75%	8.54%	2.18%	4.22%	2.04%	4.90%	2.02%	8.50%	3.65%	0.86
2005	5.47%	1.79%	1248.29	76.45	22.38	12.96%	15.32%	4.31%	4.39%	0.08%	6.16%	2.20%	8.00%	4.08%	0.93
2006	6.18%	1.77%	1418.3	87.72	25.05	14.74%	11.93%	4.88%	4.70%	-0.18%	5.93%	1.97%	12.50%	4.16%	0.89
2007	5.62%	1.89%	1468.36	82.54	27.73	-5.91%	10.70%	3.31%	4.02%	0.71%	5.03%	2.06%	5.00%	4.37%	1.09

2008	7.24%	3.11%	903.25	65.39	28.05	-20.78%	1.15%	1.59%	2.21%	0.62%	2.11%	4.05%	4.00%	6.43%	2.91
2009	5.35%	2.00%	1115.10	59.65	22.31	-8.78%	-20.46%	0.14%	3.84%	3.70%	0.28%	2.60%	7.20%	4.36%	1.14
2010	6.65%	1.84%	1257.64	83.66	23.12	40.25%	3.63%	0.13%	3.29%	3.16%	3.33%	2.24%	6.95%	5.20%	1.58