

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In re: Annual Reestablishment of)	DOCKET NO. 900006-WS
authorized rate of return on common)	
equity of water and sewer utilities,)	ORDER NO. 23318
pursuant to Section 367.081(4)(f),)	
Florida Statutes)	ISSUED: 8-7-90
)	

The following Commissioners participated in the disposition of this matter:

MICHAEL McK. WILSON, Chairman
 THOMAS M. BEARD
 BETTY EASLEY
 GERALD L. GUNTER
 FRANK S. MESSERSMITH

NOTICE OF PROPOSED AGENCY ACTIONORDER ESTABLISHING AUTHORIZED
RANGE OF RETURNS ON COMMON EQUITY

BY THE COMMISSION:

NOTICE IS HEREBY GIVEN by the Florida Public Service Commission that the action proposed herein is preliminary in nature but will become final unless a person whose interests are substantially affected files a petition for a formal proceeding in accordance with Rule 25-22.029, Florida Administrative Code.

BACKGROUND

Pursuant to Section 367.081(4)(f), Florida Statutes, this Commission is authorized to establish, not less than once each year, a leverage formula to calculate a reasonable range of returns on common equity for water and wastewater utilities. In addition to our annual review, Staff continuously monitors the leverage formula and recommends revisions as conditions warrant. We last revised the leverage formula by Order No. 21775, issued August 23, 1989.

CURRENT LEVERAGE FORMULA

In order to calculate the current leverage formula, we have utilized the same methodologies and assumptions utilized in previous years, adjusted for changes in bond yields and required

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rates of return. The basic assumptions are that: business risk is similar for all water and wastewater utilities; the cost of equity is an exponential function of the equity ratio; the marginal weighted average cost of investor capital is constant over the 40 to 100 percent equity ratio range; and, given adequate management and effective regulation, a Moody's Baa bond rating is representative of the average marginal cost of debt for water and wastewater utilities with equity ratios of 40 to 100 percent.

Using the most current financial information, we have calculated a range of returns on common equity to range from 11.50 to 13.51 percent. Last year's leverage formula, 10.30 percent + (1.46/Equity Ratio), produced a range of 11.76 to 13.95 percent. The net change in the average return over the 40 to 100 percent equity ratio range is a decrease of 35 basis points, from 12.86 to 12.51 percent. This decrease reflects a lowered yield on bonds.

We derived the upper level of the range of returns on common equity by applying a discounted cash flow model to an index of publicly traded water and wastewater utilities, a risk premium model to an index of natural gas utilities, and a bond yield differential adjustment to reflect the difference in risk between the indices and an average Florida water/wastewater utility. Using the most recently available capital structure for the index of publicly traded water and wastewater companies as a proxy for the capital structure of an average Florida water/wastewater utility, we calculated the marginal cost of investor capital to be 11.50 percent, as shown below.

Marginal Cost of Investor Capital
Average Water/Wastewater Utility

<u>Capital Component</u>	<u>Ratio</u>	<u>Cost Rate</u>	<u>Marginal Cost</u>
Common Equity	40%	13.51%	5.40%
Total Debt	60%	10.16%	6.10%
	100%		11.50%

Our analyses are appended to this Order as Attachment 1.

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Based upon the discussion above, we find that the appropriate formula for measuring returns on common equity for Florida water and wastewater utilities is as follows:

$$\text{Return on Common Equity} = 10.16 \text{ percent} + \frac{1.34}{\text{Equity Ratio}}$$

where:

$$\text{Equity Ratio} = \frac{\text{Common Equity}}{\text{Common Equity} + \text{Preferred Equity} + \text{Long- and Short-Term Debt}}$$

Finally, in order to discourage imprudent financial risk, we find it appropriate to limit the authorized return on common equity to a maximum of 13.51 percent for all water/wastewater utilities with equity ratios of less than 40 percent.

It is, therefore,

ORDERED by the Florida Public Service Commission that the provisions of this Order are issued as proposed agency action and will become final unless an appropriate petition is filed with the Division of Records and Reporting, 101 East Gaines Street, Tallahassee, Florida 32399-0850, by the close of business on the date indicated in the Notice of Further Proceedings or Judicial Review. It is further

ORDERED that the appropriate formula for measuring returns on common equity for water and wastewater utilities shall be as set forth in the body of this Order. It is further

ORDERED that returns on common equity are hereby capped at 13.51 percent for all water/wastewater utilities with equity ratios of less than 40 percent in order to discourage imprudent financial risk. It is further

ORDERED that, after the expiration of the protest period, this Commission will issue either a notice of further proceedings, or an order indicating that the provisions of this Order have become final and effective and closing this docket.

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By ORDER of the Florida Public Service Commission,
this 7th day of AUGUST, 1990.

STEVE TRIBBLE, Director
Division of Records and Reporting

(S E A L)

RJP

by: Kay Selton
Chief, Bureau of Records

NOTICE OF FURTHER PROCEEDINGS OR JUDICIAL REVIEW

The Florida Public Service Commission is required by Section 120.59(4), Florida Statutes, to notify parties of any administrative hearing or judicial review of Commission orders that is available under Sections 120.57 or 120.68, Florida Statutes, as well as the procedures and time limits that apply. This notice should not be construed to mean all requests for an administrative hearing or judicial review will be granted or result in the relief sought.

The action proposed herein is preliminary in nature and will not become effective or final, except as provided by Rule 25-22.029, Florida Administrative Code. Any person whose substantial interests are affected by the action proposed by this order may file a petition for a formal proceeding, as provided by Rule 25-22.029(4), Florida Administrative Code, in the form provided by Rule 25-22.036(7)(a) and (f), Florida Administrative Code. This petition must be received by the Director, Division of Records and Reporting at his office at 101 East Gaines Street, Tallahassee, Florida 32399-0870, by the close of business on August 28, 1990.

In the absence of such a petition, this order shall become effective on the day subsequent to the above date as provided by Rule 25-22.029(6), Florida Administrative Code, and as reflected in a subsequent order.

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Any objection or protest filed in this docket before the issuance date of this order is considered abandoned unless it satisfies the foregoing conditions and is renewed within the specified protest period.

If this order becomes final and effective on the date described above, any party adversely affected may request judicial review by the Florida Supreme Court in the case of an electric, gas or telephone utility or by the First District Court of Appeal in the case of a water or sewer utility by filing a notice of appeal with the Director, Division of Records and Reporting and filing a copy of the notice of appeal and the filing fee with the appropriate court. This filing must be completed within thirty (30) days of the effective date of this order, pursuant to Rule 9.110, Florida Rules of Appellate Procedure. The notice of appeal must be in the form specified in Rule 9.900(a), Florida Rules of Appellate Procedure.

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Marginal Cost of Investor Capital
Average Water and Sewer Utility

<u>Capital Component</u>	<u>Ratio</u>	<u>Marginal Cost Rate</u>	<u>Weighted Marginal Cost Rate</u>
Common Equity	43.10%	13.28%	5.72%
Total Debt	<u>56.90%</u>	10.16% *	<u>5.78%</u>
	<u>100%</u>		<u>11.50%</u>

Return on Common Equity = $10.16\% + 1.34/ER^{**}$

Use leverage formula to compute required common equity return at 40% common equity ratio. Required return at 40% equity ratio is the ceiling for allowed common equity returns.

Return on Common Equity = $10.16\% + 1.34/.40 = 13.51\%$

Marginal Cost of Investor Capital
Average Water and Sewer Utility

<u>Capital Component</u>	<u>Ratio</u>	<u>Marginal Cost Rate</u>	<u>Weighted Marginal Cost Rate</u>
Common Equity	40.00%	13.51%	5.40%
Total Debt	<u>60.00%</u>	<u>10.16%</u> *	<u>6.10%</u>
	<u>100%</u>		<u>11.50%</u>

* Average Baa rate for May 1990.
 Source: Moody's Bond Survey, 6/4/90

** Where:
 $Equity\ Ratio = \frac{Common\ Equity}{Common\ Equity + Preferred\ Equity + Long\ and\ Short-Term\ Debt}$

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Summary of Results

Leverage Formula Update

	<u>1989</u>	<u>1990</u>
DCF Cost of Equity for Water Index	13.10%	12.48%
Risk Premium Cost of Equity for Natural Gas Index	<u>12.78%</u>	<u>12.87%</u>
Average	12.94%	12.68%
Bond Yield Differential	.55%	.60%
Adjustment to Reflect Required Equity Return at a 40% Equity Ratio	.46%	.23%
Cost of Equity for Average Florida Water and Sewer Utility at a 40% Equity Ratio	<u>13.95%</u>	<u>13.51%</u>

Updated Leverage Formula

Return on Common Equity	-	10.16%	+	1.34/ER
Range of Returns on Equity	-	11.50%	-	13.51%

Existing Leverage Formula

Return on Common Equity	-	10.30%	+	1.46/ER
Range of Returns on Equity	-	11.76%	-	13.95%

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Historical Dividends Per Share

	1985	1986	1987	1988	1989	Geometric Average Growth Rate	Aver. Stock Price
American Water Works	.50	.56	.64	.68	.74	10.30%	16.31
Cal. Water Svc. Co.	1.30	1.40	1.48	1.60	1.68	6.62%	25.50
Connecticut Water Co.	1.48	1.49	1.52	1.53	1.56	1.32%	18.38
Consumers Water Co.	.75	.84	.92	1.00	1.06	9.03%	14.50
E'Town Company	2.63	2.74	2.82	2.89	2.92	2.65%	38.50
Hydraulic Company	1.33	1.39	1.46	1.52	1.58	4.40%	22.69
IWC*	1.35	1.36	1.38	1.37	1.38	.55%	16.75
Middlesex Water Co.	1.52	1.60	1.68	1.74	1.78	4.03%	24.00
SJW Corporation	1.45	1.57	1.68	1.76	1.82	5.85%	24.00
South. Cal. Water Co.	1.78	1.88	1.93	2.02	2.02	3.21%	28.63
United Water Res.	.68	.70	.77	.88	.88	6.66%	13.88
Average					1.58	4.97%	22.11

*1988 dividend excludes extraordinary dividend paid in first quarter.

DCF Analysis

$$K = D1/P(0) + g$$

K = Investors' required rate of return

$$D1 = \text{Dividend paid at the end of period (T)} = \$1.58 * 1.0497\% = \$1.66$$

$$P(0) = \$22.11$$

g = Projected long-term growth in dividends

$$K = \$1.66/\$22.11 + 4.97\%$$

$$K = 12.48\%$$

Source: Moody's Public Utility Manual, 1989
 Standard and Poor's Stock Guide, June 1990

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Risk Premium Cost of Equity for Moody's Natural Gas Distribution Index

Estimated Monthly Risk Premium	4.399%
Blue Chip Forecast for 30-Year Treasury Bond	<u>8.475%</u>
	12.87%

* Blue Chip Financial Forecasts, June 1, 1990

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ESTIMATED MONTHLY RISK PREMIUMS
 MOODY'S NAT'L GAS DISTR INDEX

YEAR	MONTH	Cost of Equity Gas	Risk Free Rate	Risk Premium
1980	MAY	18.423	11.220	7.203
	JUN	17.783	10.150	7.633
	JUL	17.114	9.740	7.374
	AUG	17.040	10.200	6.840
	SEP	17.577	10.940	6.637
	OCT	16.963	11.360	5.603
	NOV	16.984	11.630	5.354
	DEC	17.344	12.300	5.044
1981	JAN	17.480	12.350	5.130
	FEB	17.425	12.050	5.375
	MAR	17.020	12.680	4.340
	APR	17.200	12.590	4.610
	MAY	17.835	13.080	4.755
	JUN	18.450	13.440	5.010
	JUL	18.290	12.820	5.470
	AUG	18.173	13.490	4.683
	SEP	17.850	14.050	3.800
	OCT	18.810	14.590	4.220
	NOV	19.080	14.590	4.490
	DEC	18.757	13.080	5.677
1982	JAN	18.434	13.280	5.154
	FEB	18.970	14.160	4.810
	MAR	19.480	14.070	5.410
	APR	19.783	13.370	6.413
	MAY	19.614	13.240	6.374
	JUN	19.930	13.050	6.880
	JUL	19.450	13.750	5.700
	AUG	19.963	13.400	6.563
	SEP	19.990	12.540	7.450
	OCT	18.962	11.860	7.102
	NOV	18.576	10.840	7.736
	DEC	18.625	10.460	8.165
1983	JAN	18.054	10.600	7.454
	FEB	17.806	10.640	7.166
	MAR	17.800	10.890	6.910
	APR	17.464	10.650	6.814
	MAY	17.364	10.490	6.874
	JUN	17.180	10.520	6.660
	JUL	16.505	10.950	5.555
	AUG	16.429	11.440	4.989
	SEP	16.493	11.780	4.713
	OCT	16.226	11.620	4.606
	NOV	15.903	11.550	4.353
	DEC	16.072	11.680	4.392
1984	JAN	15.862	11.810	4.052
	FEB	15.870	11.650	4.220
	MAR	15.825	11.810	4.015
	APR	15.736	12.280	3.456
	MAY	15.627	12.580	3.047
	JUN	15.776	13.320	2.456
	JUL	16.334	13.430	2.904
	AUG	16.429	13.240	3.189
	SEP	16.453	12.630	3.823
	OCT	16.508	12.340	4.168
	NOV	15.927	12.000	3.927
	DEC	15.640	11.550	4.090

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YEAR	MONTH	Cost of Equity Gas	Risk Free Rate	Risk Premium
1985	JAN	15.290	11.510	3.780
	FEB	15.051	11.460	3.591
	MAR	14.917	11.560	3.357
	APR	14.673	11.920	2.753
	MAY	14.694	11.550	3.144
	JUN	14.588	11.080	3.508
	JUL	14.886	10.480	4.406
	AUG	15.017	10.620	4.397
	SEP	15.604	10.700	4.904
	OCT	15.030	10.780	4.250
	NOV	15.122	10.660	4.462
	DEC	14.672	10.190	4.482
1986	JAN	13.857	9.680	4.177
	FEB	13.780	9.590	4.190
	MAR	13.644	9.260	4.384
	APR	12.944	8.150	4.794
	MAY	12.684	7.580	5.104
	JUN	12.726	8.130	4.596
	JUL	11.818	8.270	3.548
	AUG	11.683	7.880	3.803
	SEP	11.653	7.740	3.913
	OCT	11.408	8.100	3.308
	NOV	11.617	8.060	3.557
	DEC	11.336	7.820	3.516
1987	JAN	11.847	7.660	4.187
	FEB	11.647	7.620	4.022
	MAR	11.503	7.710	3.853
	APR	11.293	7.640	3.653
	MAY	11.759	8.350	3.409
	JUN	11.903	8.850	3.053
	JUL	11.738	8.670	3.068
	AUG	11.856	8.770	3.086
	SEP	11.858	9.060	2.798
	OCT	12.148	9.670	2.478
	NOV	12.926	9.730	3.196
	DEC	13.078	9.100	3.978
1988	JAN	13.226	9.230	3.996
	FEB	12.850	8.930	3.920
	MAR	12.416	8.480	3.936
	APR	12.396	8.640	3.756
	MAY	12.398	8.970	3.428
	JUN	12.378	9.300	3.078
	JUL	12.049	9.110	2.939
	AUG	12.027	9.280	2.747
	SEP	12.314	9.420	2.894
	OCT	12.070	9.140	2.930
	NOV	12.036	8.960	3.076
	DEC	12.088	9.090	2.998

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ESTIMATED MONTHLY RISK PREMIUMS

YEAR	MONTH	Cost of Equity Gas	Risk Free Rate	Risk Premium
1989	JAN	12.028	9.100	2.928
	FEB	12.050	9.050	3.000
	MAR	12.060	9.150	2.910
	APR	12.580	9.310	3.270
	MAY	12.480	9.170	3.310
	JUNE	12.312	8.930	3.382
	JULY	12.071	8.370	3.701
	AUG	11.882	8.160	3.722
	SEPT	11.788	8.230	3.558
	OCT	11.450	8.290	3.160
	NOV	11.462	8.120	3.342
	DEC	11.320	8.000	3.320
1990	JAN	10.978	8.000	2.978
	FEB	11.130	8.370	2.760
	MAR	11.252	8.630	2.622
	APR	11.416	8.730	2.686
AVERAGE				4.399

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BOND YIELD DIFFERENTIALS
 Moody's Bond Survey/Public Utility Bond Yield Averages

YEAR	MONTH	Aa2	SPREAD	Aa3	SPREAD	A1	SPREAD	A2	SPREAD	A3	SPREAD	Baa1	SPREAD	Baa2
1990	APR	9.81	0.04	9.85	0.04	9.88	0.04	9.92	0.07	9.99	0.07	10.06	0.07	10.13
	MAR	9.60	0.08	9.68	0.08	9.77	0.08	9.85	0.07	9.92	0.07	9.99	0.07	10.06
	FEB	9.57	0.06	9.63	0.06	9.70	0.06	9.76	0.07	9.83	0.07	9.89	0.07	9.96
	JAN	9.39	0.06	9.45	0.06	9.50	0.06	9.56	0.06	9.62	0.06	9.68	0.06	9.74
	DEC	9.26	0.06	9.32	0.06	9.38	0.06	9.44	0.05	9.49	0.05	9.55	0.05	9.60
	NOV	9.25	0.09	9.34	0.09	9.42	0.09	9.51	0.04	9.55	0.04	9.60	0.04	9.64
	OCT	9.28	0.09	9.37	0.09	9.45	0.09	9.54	0.03	9.57	0.03	9.61	0.03	9.64
	SEP	9.35	0.08	9.43	0.08	9.50	0.08	9.58	0.04	9.62	0.04	9.66	0.04	9.70
	AUG	9.27	0.08	9.35	0.08	9.44	0.08	9.52	0.04	9.56	0.04	9.60	0.04	9.64
	JUL	9.23	0.09	9.32	0.09	9.41	0.09	9.50	0.05	9.55	0.05	9.59	0.05	9.64
	JUN	9.37	0.09	9.46	0.09	9.55	0.09	9.64	0.05	9.69	0.05	9.75	0.05	9.80
	MAY	9.79	0.07	9.86	0.07	9.92	0.07	9.99	0.10	10.09	0.10	10.19	0.10	10.29
1989	APR	10.02	0.05	10.07	0.05	10.13	0.05	10.18	0.10	10.28	0.10	10.39	0.10	10.49
	MAR	10.05	0.06	10.11	0.06	10.17	0.06	10.23	0.09	10.32	0.09	10.41	0.09	10.50
	FEB	9.93	0.05	9.98	0.05	10.02	0.05	10.07	0.10	10.17	0.10	10.28	0.10	10.38
	JAN	9.89	0.06	9.95	0.06	10.02	0.06	10.08	0.10	10.18	0.10	10.28	0.10	10.38
	DEC	9.90	0.05	9.95	0.05	10.01	0.05	10.06	0.13	10.19	0.13	10.31	0.13	10.44
	NOV	9.79	0.06	9.85	0.06	9.91	0.06	9.97	0.11	10.08	0.11	10.20	0.11	10.31
	OCT	9.80	0.03	9.83	0.03	9.87	0.03	9.90	0.15	10.05	0.15	10.20	0.15	10.35
	SEP	10.34	0.09	10.43	0.09	10.52	0.09	10.61	0.17	10.78	0.17	10.96	0.17	11.13
	AUG	10.85	0.11	10.96	0.11	11.06	0.11	11.17	0.17	11.34	0.17	11.52	0.17	11.69
	JUL	10.76	0.09	10.85	0.09	10.95	0.09	11.04	0.16	11.20	0.16	11.36	0.16	11.52
	JUN	10.52	0.09	10.61	0.09	10.70	0.09	10.79	0.16	10.95	0.16	11.11	0.16	11.27
	MAY	10.53	0.09	10.62	0.09	10.72	0.09	10.81	0.19	11.00	0.19	11.19	0.19	11.38
1988	APR	10.29	0.08	10.37	0.08	10.46	0.08	10.54	0.23	10.77	0.23	11.00	0.23	11.23
	MAR	9.92	0.06	9.98	0.06	10.03	0.06	10.09	0.20	10.29	0.20	10.49	0.20	10.69
	FEB	9.91	0.06	9.97	0.06	10.04	0.06	10.10	0.18	10.28	0.18	10.47	0.18	10.65
	JAN	10.52	0.08	10.60	0.08	10.68	0.08	10.76	0.19	10.95	0.19	11.15	0.19	11.34
	DEC	10.78	0.07	10.85	0.07	10.91	0.07	10.98	0.19	11.17	0.19	11.36	0.19	11.55
	NOV	10.62	0.07	10.69	0.07	10.75	0.07	10.82	0.19	11.01	0.19	11.21	0.19	11.40
	OCT	11.11	0.08	11.19	0.08	11.26	0.08	11.34	0.19	11.53	0.19	11.72	0.19	11.91
	SEP	10.66	0.19	10.85	0.19	11.03	0.19	11.22	0.12	11.34	0.12	11.46	0.12	11.58
	AUG	10.05	0.13	10.18	0.13	10.32	0.13	10.45	0.15	10.60	0.15	10.75	0.15	10.90
	JUL	9.70	0.15	9.85	0.15	10.00	0.15	10.15	0.16	10.31	0.16	10.46	0.16	10.62
	JUN	9.61	0.14	9.75	0.14	9.88	0.14	10.02	0.15	10.17	0.15	10.31	0.15	10.46
	MAY	9.63	0.09	9.72	0.09	9.82	0.09	9.91	0.16	10.07	0.16	10.24	0.16	10.40
1987	APR	9.15	0.08	9.23	0.08	9.30	0.08	9.38	0.16	9.54	0.16	9.69	0.16	9.85
	MAR	8.64	0.10	8.74	0.10	8.83	0.10	8.93	0.09	9.02	0.09	9.10	0.09	9.19
	FEB	8.69	0.10	8.79	0.10	8.90	0.10	9.00	0.08	9.08	0.08	9.16	0.08	9.24
	JAN	8.62	0.11	8.73	0.11	8.84	0.11	8.95	0.11	9.06	0.11	9.16	0.11	9.27
	DEC	8.81	0.10	8.91	0.10	9.02	0.10	9.12	0.12	9.24	0.12	9.37	0.12	9.49
	NOV	9.01	0.09	9.10	0.09	9.19	0.09	9.28	0.14	9.42	0.14	9.55	0.14	9.69
	OCT	9.24	0.09	9.33	0.09	9.43	0.09	9.52	0.14	9.66	0.14	9.81	0.14	9.95
	SEP	9.28	0.08	9.36	0.08	9.44	0.08	9.52	0.15	9.67	0.15	9.81	0.15	9.96
	AUG	9.03	0.09	9.12	0.09	9.20	0.09	9.29	0.14	9.43	0.14	9.56	0.14	9.70
	JUL	9.05	0.11	9.16	0.11	9.26	0.11	9.37	0.11	9.48	0.11	9.58	0.11	9.69
	JUN	9.36	0.09	9.45	0.09	9.55	0.09	9.62	0.14	9.76	0.14	9.89	0.14	10.03
	MAY	9.38	0.07	9.45	0.07	9.52	0.07	9.59	0.14	9.73	0.14	9.88	0.14	10.02
1986	APR	8.87	0.09	8.96	0.09	9.05	0.09	9.14	0.16	9.30	0.16	9.47	0.16	9.63
	MAR	9.16	0.11	9.27	0.11	9.37	0.11	9.48	0.14	9.62	0.14	9.77	0.14	9.91
	FEB	9.98	0.09	10.07	0.09	10.17	0.09	10.26	0.16	10.42	0.16	10.58	0.16	10.74
	JAN	10.44	0.12	10.56	0.12	10.67	0.12	10.79	0.15	10.94	0.15	11.09	0.15	11.24
	DEC	10.57	0.13	10.70	0.13	10.84	0.13	10.97	0.17	11.14	0.17	11.31	0.17	11.48
	NOV	11.10	0.13	11.23	0.13	11.36	0.13	11.49	0.18	11.67	0.18	11.86	0.18	12.04
	OCT	11.61	0.13	11.74	0.13	11.88	0.13	12.01	0.17	12.18	0.17	12.35	0.17	12.52
	SEP	11.68	0.15	11.83	0.15	11.98	0.15	12.13	0.20	12.33	0.20	12.52	0.20	12.72
	AUG	11.65	0.16	11.81	0.16	11.97	0.16	12.13	0.20	12.33	0.20	12.53	0.20	12.73
	JUL	11.55	0.17	11.72	0.17	11.90	0.17	12.07	0.21	12.28	0.21	12.49	0.21	12.70
	JUN	11.68	0.15	11.83	0.15	11.98	0.15	12.13	0.18	12.31	0.18	12.48	0.18	12.66
	MAY	12.65	0.16	12.81	0.16	12.96	0.16	13.12	0.17	13.29	0.17	13.45	0.17	13.62
AVERAGE		Aa2	SPREAD	Aa3	SPREAD	A1	SPREAD	A2	SPREAD	A3	SPREAD	Baa1	SPREAD	Baa2
AVERAGE			0.09		0.09		0.09		0.13		0.13		0.13	