

Montana Department of
REVENUE

Capitalization Rate Study

Centrally Assessed Properties
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Dan Bucks
Director

Montana Department of Revenue

2008 Capitalization Rate Study Business Tax & Valuation Bureau Centrally Assessed Properties



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Governor

METHODOLOGY

The Business Tax and Valuation Bureau develops a capitalization rate for each centrally assessed utility industry group using the band-of-investment technique. The typical industry rate for each source of capital (common equity and debt) is weighted according to its proportion in the typical market capital structure for each industry to derive a weighted average direct capitalization rate for the specific industry. The rate for each of the sources of capital is taken from directly observed information in the market.

For a company in a given industry, the capitalization rate for its industry is applied directly to an estimate of the company's typical net utility operating income to derive an income indicator of value for the company.

COMPARABLE COMPANIES

The companies used as comparables are taken from the appropriate industry group in the Value Line Investment Survey.

THE RATE FOR COMMON EQUITY

Under direct capitalization, the measure of the rate for common equity is the Earnings/Price (E/P) ratio. The E/P ratio is the annual earnings (net operating income) per share of common stock divided by the average market price per share for common stock.



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For each of the companies included in the equity portion of the industry capitalization rate data set, the Bureau calculates several different measures of the E/P ratio, and then calculates an industry (simple) average for each of these measures:

- | | |
|----------------------------|--|
| E/P (Yahoo) | The previous calendar year's earnings per share reported on Yahoo Finance's website is divided by the average of the previous calendar year's monthly high and low price (January through December) reported by Yahoo Finance. |
| E/P (VL) | The previous calendar year's earnings per share reported in the Value Line Investment Survey is divided by the average of the previous calendar year's monthly high and low price (January through December) reported by Yahoo Finance. |
| Inverse of P/E (Yahoo) | This is calculated by dividing 1 by the Price/Earnings (P/E) ratio reported by Yahoo Finance for end of the previous calendar year. |
| Inverse of P/E (VL) | This is calculated by dividing 1 by the P/E ratio reported in the Value Line Investment Survey for end of the previous calendar year. |
| Inverse of MEDIAN P/E (VL) | This is calculated by dividing 1 by the MEDIAN Price/Earnings ratio reported in the Value Line Investment Survey for end of the previous calendar year. Value Line derives the MEDIAN P/E ratio by calculating the average of a company's last 10 years P/E ratios after deleting the 2 highest and 2 lowest values. |



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THE RATE FOR PREFERRED STOCK

The measure of the rate for preferred stock is a percent dividend yield.

The Business Tax and Valuation Bureau does not calculate an annual (simple) average of the monthly percent yields for all preferred stock issues as a separate rate used in the band of investment. Instead, the preferred stock is included in the debt portion of the capital structure.

THE RATE FOR DEBT

The measure of the rate for debt used in the direct capitalization rate and yield rate is yield to maturity. The yield to maturity is the interest rate that equates the present value of a bond's cash flow to its current price (expressed as a percent). Yield to maturity assumes that the bond will be held to maturity. If the bond is not held until maturity, or if the interim cash flows are reinvested at a rate that differs from the yield to maturity, an investor's actual yield will differ from the yield to maturity. The yield to maturity calculation equates a bond's cash flows to its current price; this yield calculation considers both coupon and income and any capital gain or loss the investor will realize by holding the bond to maturity.

Although valuation theory typically requires the use of current yields (the annual coupon rate divided by price) for direct capitalization and the use of yield to maturity for yield capitalization, the two rates will generally not vary significantly for seasoned issues (except under certain circumstances) and they will be the same for new issues. Therefore, for consistency the Department has chosen to use the same cost of debt for both direct capitalization and yield capitalization. This may have a minor effect on the overall rates but using the same rate for direct capitalization and the yield capitalization rates is consistent with the assumption that the prospective buyers would finance the hypothetical sale with new debt securities.



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Yield to Maturity

For each of the companies included in the embedded debt portion Embedded debt of the industry capitalization rate data set, the bureau calculates an annual (simple) average of the monthly yield to maturities for all debt issues listed in the Standard & Poor's Bond Guide. These average yields are then used to calculate an industry (simple) average.

DIRECT CAPITALIZATION of "GROSS" CASH FLOW

The Business Tax and Valuation Bureau develops another direct capitalization rate for each centrally assessed utility industry group. This direct capitalization rate is calculated like the rate for capitalizing net operating income. The only difference is that the rate for common equity is "gross" cash flow per share divided by price per share.

"Gross" cash flow is defined as net utility operating income plus depreciation and amortization expense minus preferred stock dividends.

For a company in a given industry, the capitalization rate for its industry is applied directly to an estimate of the company's typical "gross" cash flow to derive an income indicator of value for the company.

The use of the "gross" cash flow capitalization model is less common than the traditional net operating income capitalization model. The "gross" cash flow model can be valuable in developing an income indicator of value for industries or companies that have been experiencing net operating losses, or in cases where book depreciation does not reflect economic depreciation.



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YIELD CAPITALIZATION of PROJECTED FUTURE (NET) CASH FLOWS

The Business Tax and Valuation Bureau also develops a yield capitalization rate for each centrally assessed utility industry group. Yield capitalization is fundamentally different from direct capitalization, both in the rates developed for each source of capital (common equity and debt), and the level and nature of income that the capitalization rate is applied to.

The rate for each source of capital is the "cost of capital" for each industry group. The cost of debt is the yield to maturity for debt derived from the set of comparable companies for each industry group. The cost of equity capital is calculated using several methods, including the DCF (discounted cash flow) model, the ERP (equity risk premium model), the CAPM (capital asset pricing model) or a combination there of depending on the quantity and quality of available data.

The correct application of a yield capitalization rate is to use the rate for the industry to discount a stream of estimated future (net) cash flows for a company to present value.

It is important to note that the cash flow used in yield capitalization is "true", "net" or "free" cash flow and not the "gross" cash flow used in the Department's direct "gross" cash flow indicator.

The development of a valid future cash flow stream requires considerable time and effort. Most companies choose not to spend the time and effort to develop this future cash flow stream. Therefore, in the event a company does not provide a future cash flow stream as requested in the Annual Reporting Forms, the Department normalizes "net" historical cash flows to determine a cash flow stream. The yield capitalization rate for specific industries is applied directly to this derived cash flow stream.

Properly developed and applied, yield capitalization and direct capitalization usually result in similar indicators of value.



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The Centrally Assessed Property Appraisers, of the Business Tax & Valuation Bureau of the Montana Department of Revenue, produced this study. The team members include:

Grace Gilmore	Kory Hofland
Angie Haller	Eileen Taylor
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MONTANA DEPARTMENT OF REVENUE

Direct Capitalization Rate Study
Industry: Scheduled Passenger Airlines
 2008 Assessment Year

Equity Measures Calculated:

E/P estimates:

	All	Median	
	16.78%	8.70%	Yahoo
	9.21%	7.88%	Value Line
	13.00%	8.29%	Average
Inverse of P/E Ratios:			
	19.31%	9.08%	Yahoo
	14.34%	10.03%	Value Line
	16.82%	9.56%	Average of Inverse of the P/E
	14.34%	10.03%	Inverse of median P/E, Value Line
	14.91%	8.93%	Average of all above except median P/E
<hr/>			
Mean =	14.80%	9.15%	
Median =	14.34%	9.08%	

Debt Measure Calculated:

	Annual	4th Qtr	
	14.34%	15.81%	All
	6.02%	5.81%	BBB & Above
	6.01%	5.78%	BBB's
Mean =	10.18%	10.81%	
Median =	10.18%	10.81%	
Debt Measure =		11.00%	

Equity Measure NUOI = 13.50%

Industry Market Capital Structure Net Utility Operating Income (NUOI) Rate					
Equity	40.00%	x	13.50%	=	5.40%
Debt	60.00%	x	11.00%	=	6.60%
	100%				12.00%
Direct Cap Rate NUOI					= 12.00%

Gross Cash Flow / Price:

	All	Median	
	23.36%	25.95%	Value Line
Equity Measure Gross =		24.00%	

Industry Market Capital Structure Gross Cash Flow Rate (GCF)					
Equity	40.00%	x	24.00%	=	9.60%
Debt	60.00%	x	11.00%	=	6.60%
	100%				16.20%
Direct Cap Rate GCF					= 16.25%

MONTANA DEPARTMENT OF REVENUE

Direct Capitalization Rate Study
Industry: Scheduled Freight Airlines
 2008 Assessment Year

Equity Measures Calculated:

E/P estimates:

	All	Median
	14.38%	10.89% Yahoo
	8.70%	6.47% Value Line
	11.54%	8.68% Average

Inverse of P/E Ratios:

	16.79%	11.44% Yahoo
	6.92%	6.84% Value Line
	11.86%	9.14% Average of Inverse of the P/E
	5.72%	5.72% Inverse of median P/E, V. L.
	11.70%	8.91% Average of all above except median P/E
Mean =	10.50%	8.27%
Median =	8.70%	6.84%

Equity Measure NUOI = 8.00%

Debt Measure Calculated:

	Annual	4th Qtr	
	14.34%	15.81%	All
	6.02%	5.81%	BBB & Above
	6.01%	5.78%	BBB's
Mean =	10.18%	10.81%	
Median =	10.18%	10.81%	
Debt Measure =		11.00%	

Industry Market Capital Structure Net Utility Operating Income (NUOI) Rate					
Equity	95.00%	x	8.00%	=	7.60%
Debt	5.00%	x	11.00%	=	0.55%
	100%				8.15%
Direct Cap Rate NUOI					= 8.25%

Gross Cash Flow / Price:

	All	Median
	10.28%	10.25% Value Line
Equity Measure Gross =		11.00%

Industry Market Capital Structure Gross Cash Flow Rate (GCF)					
Equity	95.00%	x	11.00%	=	10.45%
Debt	5.00%	x	11.00%	=	0.55%
	100%				11.00%
Direct Cap Rate GCF					= 11.00%

MONTANA DEPARTMENT OF REVENUE

Yield Capitalization Rate Study
Industry: Scheduled Airlines
 2008 Assessment Year

Dividend Growth Model	Passenger	Freight			
	nmf	10.30%			
Capital Asset Pricing Model	<u>13.83%</u>	<u>10.29%</u>			
	Mean = 13.83%	10.30%			
	Median = 13.83%	10.30%			
<u>Equity Measure FCF =</u>	14.50%	10.20%			
<u>Debt Measure Calculated =</u>					
Passenger		11.00%			
Freight		11.00%			
Yield Cap Rate Free Cash Flow - Passenger					
Equity	40.00%	x	14.50%	=	5.80%
Debt	60.00%	x	11.00%	=	6.60%
	<u>100%</u>				<u>12.40%</u>
Weighted Average Cost of Capital (WACC) =					12.50%
Yield Cap Rate Free Cash Flow - Freight					
Equity	95.00%	x	10.20%	=	9.69%
Debt	5.00%	x	11.00%	=	0.55%
	<u>100%</u>				<u>10.24%</u>
Weighted Average Cost of Capital (WACC) =					10.25%
Where Assumed Growth Rate = Inflation			Growth =		2.44%
<i>see appendix for calculation</i>					

MONTANA DEPARTMENT OF REVENUE

Support for Industry Capital Structure from Value Line and Yahoo Finance
 Industry: Airlines
 2008 Assessment Year

A	B	C	D	E	F	G	H	I	J	K
COMPANY	TICKER SYMBOL	(VL) FIN STR	VL SHARES (000)	(YAHOO) AVG PRICE COMMON 4th Qtr	(VL) BOOK VALUE PER SHARE	MKT VALUE COMMON (000) DxE	(VL) BOOK VALUE COMMON (000) DxF	(VL) BOOK VALUE PREFERRED (000)	(VL) BOOK VALUE DEBT (000)	MKT/BOOK ratio for DEBT
AirTran Hldgs	AAI	B	91,200	9.01	4.20	821,256	383,040		724,300	1.0
Alaska Air	ALK	C++	40,300	24.94	21.98	1,004,948	885,794		1,031,700	1.0
AMR Corp	AMR	C+	222,200	21.21	(2.73)	4,712,862	(506,606)		12,041,000	1.0
Contl Airlines'B'	CAL	C++	91,800	30.01	3.78	2,754,765	347,004		4,859,000	1.0
Delta Air Lines	DAL	C++	197,300,000	18.367	(58.88)	3,623,743	(13,590,024)		6,509,000	1.0
ExpressJet Holdings	XJT	C++	54,200	2.89	5.62	156,819	304,604		150,200	1.0
Frontier Airlines	FRNT	C+	36,600	6.27	5.72	229,543	209,352		451,900	1.0
Great Lakes Aviation	GLUX		14,100	2.27	(0.20)	32,031	(2,820)		67,900	1.0
JetBlue Airways	JBLU	C++	177,600	8.23	5.36	1,461,056	951,936		2,626,000	1.0
MAIR Holdings	MAIR	B+	15,000,000	5.22	4.480	78,250,000	67,200		500,000	1.0
Mesa Air Group	MESA	C+	33,900	4.25	7.79	143,906	264,081		542,600	1.0
Northwest Airlines	NWA		87,400	16.01	(91.48)	1,399,420	(7,995,362)	277,000	8,693,000	1.0
SkyWest Inc	SKYW	B	64,000	26.54	18.42	1,698,773	1,178,880		1,675,600	1.0
Southwest Airlines	LUV	B+	783,300	13.84	8.23	10,836,956	6,446,559		1,567,000	1.0
UAL Corp	UAUA	C++	112,300	43.13	19.13	4,843,312	2,148,299		8,803,000	1.0
Atlas Air Worldwide	AAWW	B	20,600	54.62	22.94	1,125,241	472,564		398,900	1.0
ABX Air Inc	ABXA	B	58,500	5.45	2.05	318,825	119,925		189,100	1.0
AirNet Systems	ANS	B	10,200	2.07	3.35	21,114	34,170		6,000	1.0
FedEx Corp	FDX	B++	308,000	99.28	41.09	30,577,727	12,655,720		2,007,000	1.0
United Parcel'B'	UPS	A	1,070,000	73.82	14.47	78,989,183	15,482,900		3,133,000	1.0

SUMS & AVERAGES

ALL						144,829,728	41,952,028	277,000	55,476,700	
PASSENGER AIRLINES						33,797,638	13,186,749	277,000	49,742,700	
MEDIAN OF PASSENGER AIRLINES						1,399,420	383,040	277,000	1,567,000	
FREIGHT CARRIERS						111,032,090	28,765,279		5,734,000	
MEDIAN OF FREIGHT CARRIERS						1,125,241	472,564		398,900	

INDUSTRY MARKET STRUCTURE:

	ALL	Passenger Airlines	Freight
EQUITY	72.00%	144,829,728	40.00%
DEBT	28.00%	55,753,700	60.00%
TOTAL		200,583,428	\$83,817,338
			116,766,090

MONTANA DEPARTMENT OF REVENUE

Support for Industry Capital Structure from Value Line and Yahoo Finance

Industry: Airlines

2008 Assessment Year

A	B	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z
COMPANY	TICKER SYMBOL	MKT VALUE PREFERRED & DEBT	EPS (YAHOO)	E/P (YAHOO)	EPS (VL)	E/P (VL)	CF/S (VL)	CF/P (VL)	P/E (YAHOO)	Inverse of P/E (YAHOO)	P/E (VL)	Inverse of P/E (VL)	Median P/E (VL)	Inv of Median P/E (VL) 1/W	ValueLine Beta	S&P Beta
				M/E		O/E		Q/E		1/S		1/U				
AirTran Hldgs	AAI	724,300	0.55	6.11%	0.71	7.88%	1.25	13.88%	13.02	7.68%	9.97	10.03%			1.45	0.6544
Alaska Air	ALK	1,031,700	2.70	10.83%	2.60	10.43%	6.90	27.67%	9.00	11.11%	8.10	12.35%			1.35	1.4007
AMR Corp	AMR	12,041,000	2.10	9.90%	2.20	10.37%	7.20	33.95%	6.44	15.53%	5.57	17.95%			2.55	5.4695
Contl Airlines'B'	CAL	4,859,000	4.23	14.10%	4.25	14.16%	9.40	31.32%	4.95	20.20%	5.95	16.81%			2.25	4.0555
Delta Air Lines	DAL	6,509,000	(1.07)	-5.83%	1.30	7.08%	5.650	30.76%			10.51	9.51%				
ExpressJet Holdings	XJT	150,200	(0.28)	-9.50%	(1.06)	-36.64%									1.50	2.1409
Frontier Airlines	FRNT	451,900	(0.27)	-4.31%											1.55	2.5765
Great Lakes Aviation	GLUX	67,900	1.15	50.62%	0.66	29.05%			2.00	50.00%	2.00	50.00%			0.60	-1.158
JetBlue Airways	JBLU	2,626,000	0.21	2.55%	0.10	1.22%	1.20	14.59%	26.87	3.72%	45.70	2.19%			0.95	0.7843
MAIR Holdings	MAIR	500,000	0.09	1.73%	0.200	3.83%			51.32	1.95%			24.00	4.17%	0.85	0.5182
Mesa Air Group	MESA	542,600	(0.24)	-5.65%	(0.26)	-6.12%							25.00	4.00%	1.20	1.8312
Northwest Airlines	NWA	8,970,000	10.83	67.64%	(1.69)	-10.55%			1.28	78.13%						
SkyWest Inc	SKYW	1,675,600	2.31	8.70%	2.47	9.31%			11.41	8.76%						
Southwest Airlines	LUV	1,567,000	0.75	5.42%	0.63	4.55%	1.45	10.48%	16.11	6.21%	18.63	5.37%	13.00	7.69%	1.30	1.8826
UAL Corp	UAUA	8,803,000	2.990	6.93%	1.500	3.48%	10.45	24.23%	11.01	9.08%	20.58	4.86%	26.00	3.85%	0.95	0.3866
Atlas Air Worldwide	AAWW	398,900	5.95	10.89%	4.01	7.34%	5.6	10.25%	8.74	11.44%	14.62	6.84%			1.00	1.1728
ABX Air Inc	ABXA	189,100	1.37	25.14%	0.31	5.69%			2.97	33.67%					0.90	2.4052
AirNet Systems	ANS	6,000	0.50	24.15%	0.38	18.36%			3.88	25.77%			17.00	5.88%	0.80	1.0811
FedEx Corp	FDX	2,007,000	6.43	6.48%	6.42	6.47%	12.72	12.81%	13.39	7.47%	12.81	7.81%	18.00	5.56%	1.05	0.9206
United Parcel'B'	UPS	3,133,000	3.88	5.26%	4.15	5.62%	5.75	7.79%	17.80	5.62%	16.34	6.12%			0.80	0.7946

SUMS & AVERAGES

ALL		55,753,700	16	16.03%	17	9.05%	11	19.79%	16	18.52%	12	12.49%	6	5.19%	1.25	1.61
PASSENGER AIRLINES		50,019,700	11	16.78%	12	9.21%	7	23.36%	11	19.31%	9	14.34%	4	4.93%	1.38	1.71
MEDIAN OF PASSENGER AIRLINES		1,567,000	11	8.70%	12	7.88%	8	25.95%	11	9.08%	9	10.03%	4	4.08%	1.33	1.62
FREIGHT CARRIERS		5,734,000	5	14.38%	5	8.70%	3	10.28%	5	16.79%	3	6.92%	2	5.72%	0.91	1.30
MEDIAN OF FREIGHT CARRIERS		398,900	5	10.89%	5	6.47%	3	10.25%	5	11.44%	3	6.84%	2	5.72%	0.90	1.00

FOREIGN CARRIERS -British Air, World Air Holdings, WestJet Airlines Ltd.

[REDACTED]

* All Negative values left out of calculations

Overall Industry Beta: 1.25
Passenger Beta: 1.40
Freight Beta: 0.90

MONTANA DEPARTMENT OF REVENUE

Dividend Growth Model

Industry: Airlines

2008 Assessment Year

$$K_E = D1 / P_0 + G_A$$

KE= Cost of Equity

D1= Expected Dividends

Po= Current Price Per Share

G= Sustainable Growth

Company Name	Ticker	Stock Price (Po)	Expected Dividend 1 Year	Dividend Yield (D1/P0)	Dividend Growth (G ₁)	Ke 1 Year
AirTran Hldgs	AAI	9.01	nil		nil	
Alaska Air	ALK	24.94	nil		nil	
AMR Corp	AMR	21.21	nil		nmf	
Contl Airlines'B'	CAL	30.01	nil		nil	
ExpressJet Holdings	XJT	2.89	na		na	
Frontier Airlines	FRNT	6.27	na		na	
Great Lakes Aviation	GLUX	2.27	na		na	
JetBlue Airways	JBLU	8.23	nil		nil	
Mesa Air Group	MESA	4.25	na		na	
SkyWest Inc	SKYW	26.54	na		na	
Southwest Airlines	LUV	13.84	0.02	0.14%	6.00%	6.14%
Delta Air Lines	DAL	18.37	nil		nmf	
MAIR Holdings	MAIR	5.22	na		na	
Northwest Airlines	NWA	16.01	na		na	
UAL Corp	UAUA	43.13	nil		nil	
Atlas Air Worldwide	AAWW	54.62	nil		nil	
ABX Air Inc	ABXA	5.45	na		na	
AirNet Systems	ANS	2.07	na		na	
FedEx Corp	FDX	99.28	0.41	0.41%	10.00%	10.41%
United Parcel'B'	UPS	73.82	1.76	2.38%	8.00%	10.38%

Mean 8.98%

Median 10.38%

Cost of Equity - Domestic

K_E = nmf

Cost of Equity for - Freight

K_E = 10.30%

MONTANA DEPARTMENT OF REVENUE

Capital Asset Pricing Model
Industry: Airlines
 2008 Assessment Year

$$K_E = R_F + \beta (R_M - R_F)$$

	Passenger	Freight
K_E = Cost of Equity	13.83%	10.29%
R_F = Risk Free Rate	3.92%	3.92%
β = Beta	1.40	0.90
R_M = Market Rate of Return	11.00%	11.00%
R_P = Equity Risk Premium (RM - RF)	7.08%	7.08%

R_m = Investor's Market Rate of Return

Ibbotson, SBBI, Large Company, Average Annual Return, *Arithmetic Average, Ex Post
 Ibbotson, SBBI, Large Company, Average Annual Return, *Geometric Average, Ex Post
 3 Stage Dividend Growth Model, S & P 500, Ex Ante

R_M =	12.30%
R_M =	10.40%
R_M =	10.00%
Mean =	10.90%
Median =	10.40%
R_M =	11.00%

R_f = Risk Free Rate

Internal Revenue Service, Rev Rule 2007-70 Table 2 December 2007
 Rev Rule 2007-70 Table 2, 2007

Annual Rates			
Short Term - AFR	R_f =		3.40%
Mid Term - AFR	R_f =		3.67%
Long Term - AFR	R_f =		4.34%

The ValueLine Investment Survey

U.S. Treasury Securities December 28 2007

3 Month	R_f =	2.89%
6 Month	R_f =	3.31%
1 Year	R_f =	3.31%

Federal Reserve Statistical Release

Treasury constant Maturities, 2007

Market yield on U.S. Treasury securities, Annual Averages

3-month constant maturity, quoted on investment basis	R_f =	4.48%
6-month constant maturity, quoted on investment basis	R_f =	4.62%
1-year constant maturity, quoted on investment basis	R_f =	4.53%

U.S. Treasury Securities Long-Term December 31, 2007

30 year constant maturity	R_f = 4.45%	Mean =	3.84%
20 year constant maturity	R_f = 4.50%	Median =	3.67%
		Weighted Mean =	3.92%
		R_f =	4.50%

MONTANA DEPARTMENT OF REVENUE

Historical Stock Price Analysis From YAHOO Finance

Industry: Airlines

2008 Assessment Year

Ticker	Company		Jan-07	Feb-07	Mar-07	Apr-07	May-07	Jun-07	Jul-07	Aug-07	Sep-07	Oct-07	Nov-07	Dec-07	4th Qtr Average	Annual Average	Yahoo P-E	Yahoo EPS 12 mo
AAI	AirTran Hldgs	high	\$13.09	\$11.93	\$11.09	\$12.10	\$12.65	\$12.50	\$11.50	\$11.17	\$10.90	\$10.85	\$10.27	\$8.77	\$9.01	\$10.48	13.02	0.55
		low	\$10.64	\$10.29	\$9.69	\$10.18	\$10.75	\$10.52	\$9.65	\$9.00	\$9.77	\$9.06	\$7.95	\$7.13				
ALK	Alaska Air	high	\$44.52	\$44.50	\$41.17	\$38.99	\$30.72	\$29.30	\$29.09	\$26.22	\$26.00	\$27.89	\$25.77	\$28.00	\$24.94	\$30.26	9.00	2.70
		low	\$39.57	\$40.06	\$36.56	\$29.51	\$27.16	\$25.90	\$23.26	\$21.50	\$22.60	\$23.09	\$21.15	\$23.72				
AMR	AMR Corp	high	\$41.00	\$39.87	\$34.69	\$34.00	\$28.87	\$28.74	\$29.32	\$25.68	\$25.48	\$26.00	\$24.83	\$21.28	\$21.21	\$27.07	6.44	2.10
		low	\$30.65	\$33.28	\$29.68	\$25.99	\$25.25	\$24.88	\$24.49	\$20.30	\$20.28	\$22.50	\$19.00	\$13.65				
AAWW	Atlas Air Worldwide	high	\$48.16	\$50.80	\$54.69	\$60.05	\$60.94	\$59.96	\$61.08	\$56.27	\$55.90	\$58.68	\$58.68	\$55.99	\$54.62	\$53.72	8.74	5.95
		low	\$43.69	\$48.05	\$46.27	\$52.73	\$56.37	\$56.10	\$53.22	\$48.34	\$48.89	\$51.18	\$51.32	\$51.89				
BAIRY.PK	British Airways ADR	high	\$109.54	\$114.67	\$104.59	\$104.14	\$104.14	\$93.30	\$90.00	\$86.59	\$87.60	\$93.10	\$91.50	\$71.60	\$76.75	\$89.54		
		low	\$102.80	\$101.82	\$94.85	\$97.75	\$89.25	\$83.10	\$77.25	\$73.65	\$73.44	\$79.60	\$64.09	\$60.61				
CAL	Conti Airlines'B'	high	\$52.40	\$46.23	\$41.35	\$44.10	\$40.91	\$40.54	\$38.79	\$33.50	\$36.00	\$37.79	\$34.10	\$28.81	\$30.01	\$35.73	4.95	4.23
		low	\$40.44	\$38.26	\$35.22	\$35.31	\$34.81	\$32.00	\$31.40	\$26.21	\$30.11	\$32.58	\$25.18	\$21.59				
DAL	Delta Air Lines	high	Emerged from Bankruptcy in May				\$21.95	\$19.89	\$21.80	\$19.50	\$18.34	\$21.05	\$21.10	\$20.00	\$18.37	\$17.40	NA	(1.07)
		low					\$18.02	\$18.02	\$17.32	\$14.94	\$15.90	\$17.81	\$16.20	\$14.04				
FRNT	Frontier Airlines	high	\$8.07	\$7.74	\$6.80	\$6.37	\$6.75	\$6.27	\$6.06	\$6.17	\$6.32	\$7.46	\$7.13	\$6.16	\$6.27	\$6.26	NA	(0.27)
		low	\$6.97	\$6.65	\$5.90	\$5.90	\$6.00	\$5.51	\$5.15	\$4.51	\$5.48	\$6.12	\$5.56	\$5.20				
GLUX.OB GLUX	Great Lakes Aviation ticker change	high	\$3.50	\$3.40	\$2.80	\$3.20	\$2.85	\$2.80	\$2.75	\$2.75	\$3.00	\$2.60	\$2.45	\$2.30	\$2.27	\$2.56	2.00	1.15
		low	\$2.25	\$2.15	\$2.20	\$2.30	\$2.44	\$2.25	\$2.20	\$2.46	\$2.45	\$2.30	\$2.00	\$1.98				
JBLU	JetBlue Airways	high	\$17.02	\$14.02	\$12.42	\$12.08	\$11.21	\$11.91	\$11.99	\$10.37	\$9.94	\$9.98	\$9.11	\$8.83	\$8.23	\$10.59	26.87	0.21
		low	\$13.48	\$12.07	\$11.33	\$9.85	\$9.72	\$10.05	\$9.77	\$8.53	\$8.97	\$8.97	\$6.57	\$5.90				
MESA	Mesa Air Group	high	\$8.82	\$8.09	\$8.36	\$8.02	\$7.11	\$7.18	\$7.25	\$6.87	\$5.69	\$5.38	\$4.77	\$4.85	\$4.25	\$6.24	NA	(0.24)
		low	\$7.35	\$7.49	\$7.26	\$6.62	\$6.51	\$6.54	\$6.31	\$4.39	\$4.38	\$4.34	\$3.10	\$3.03				
MAIR	MAIR Holdings	high	\$7.85	\$7.49	\$7.04	\$7.45	\$7.00	\$6.93	\$6.70	\$6.64	\$6.62	\$6.10	\$5.28	\$5.88	\$5.22	\$6.35	51.32	0.09
		low	\$7.14	\$6.80	\$6.50	\$6.30	\$6.20	\$6.30	\$6.15	\$6.10	\$5.87	\$5.01	\$4.79	\$4.24				
MEH	Midwest Air Group	high	\$14.15	\$14.11	\$13.54	\$14.75	\$15.74	\$15.30	\$15.30	\$16.23	\$16.48	\$16.47	\$16.26	\$15.65	\$15.48	\$14.30	30.25	0.49
		low	\$11.13	\$12.03	\$10.99	\$11.50	\$13.20	\$13.96	\$12.43	\$13.41	\$16.08	\$15.80	\$15.10	\$13.60				
NWA	Northwest Airlines	high	\$0.00	\$0.00	\$0.00	\$25.50	\$26.50	\$24.25	\$20.74	\$19.15	\$20.63	\$21.00	\$18.85	\$14.73	\$16.01	\$14.28	1.28	10.83
		low	\$0.00	\$0.00	\$0.00	\$24.71	\$21.00	\$17.21	\$14.00	\$15.93	\$17.10	\$15.30	\$13.91	\$12.28				
SKYW	SkyWest Inc ticker change	high	\$28.49	\$27.73	\$27.67	\$28.60	\$27.79	\$27.95	\$24.66	\$25.46	\$25.58	\$27.49	\$29.50	\$28.05	\$26.54	\$25.85	11.41	2.31
		low	\$25.63	\$25.25	\$24.70	\$26.48	\$25.44	\$23.69	\$21.77	\$21.27	\$22.95	\$25.07	\$23.44	\$25.71				
LUV	Southwest Airlines	high	\$16.58	\$16.14	\$15.59	\$15.90	\$14.82	\$15.15	\$16.57	\$16.96	\$15.41	\$15.06	\$14.80	\$14.44	\$13.84	\$14.86	16.11	0.75
		low	\$14.95	\$15.00	\$14.50	\$14.21	\$14.14	\$14.03	\$14.84	\$14.66	\$14.21	\$13.70	\$12.89	\$12.12				
ABXA	ABX Air Inc	high	\$7.04	\$7.95	\$7.76	\$7.13	\$6.83	\$8.56	\$8.36	\$7.69	\$7.24	\$7.39	\$6.39	\$5.14	\$5.45	\$6.67	2.97	1.37
		low	\$6.47	\$6.74	\$6.78	\$6.44	\$6.23	\$6.00	\$7.19	\$6.51	\$6.53	\$6.26	\$3.45	\$4.07				
ANS	AirNet Systems	high	\$3.47	\$3.45	\$3.43	\$3.69	\$3.64	\$3.58	\$3.45	\$3.44	\$2.90	\$2.54	\$2.31	\$1.96	\$2.07	\$2.95	3.88	0.50
		low	\$2.85	\$3.14	\$3.11	\$3.31	\$3.48	\$3.21	\$3.24	\$2.48	\$2.42	\$2.19	\$1.77	\$1.65				
AIRT	Air T	high	\$9.29	\$9.31	\$8.04	\$8.10	\$8.88	\$11.40	\$10.65	\$10.00	\$10.25	\$10.49	\$10.05	\$9.58	\$9.46	\$9.02	9.00	1.00
		low	\$8.70	\$7.65	\$7.52	\$7.84	\$7.70	\$7.99	\$9.55	\$7.95	\$8.88	\$9.50	\$8.39	\$8.74				

MONTANA DEPARTMENT OF REVENUE

Historical Stock Price Analysis From YAHOO Finance
 Industry: Airlines
 2008 Assessment Year

Ticker	Company		Jan-07	Feb-07	Mar-07	Apr-07	May-07	Jun-07	Jul-07	Aug-07	Sep-07	Oct-07	Nov-07	Dec-07	4th Qtr Average	Annual Average	Yahoo P-E	Yahoo EPS 12 mo
FDX	FedEx Corp	high	\$112.90	\$121.42	\$116.76	\$110.36	\$111.67	\$113.28	\$119.10	\$112.54	\$111.29	\$108.14	\$104.00	\$101.53	\$99.28	\$107.27	13.39	6.43
		low	\$106.63	\$110.30	\$106.29	\$105.15	\$104.01	\$107.05	\$108.81	\$99.30	\$102.05	\$101.89	\$91.10	\$89.01				
FWRD	Forward Air	high	\$31.58	\$33.64	\$35.32	\$34.20	\$35.74	\$35.78	\$37.03	\$41.90	\$35.49	\$32.89	\$33.69	\$34.93	\$31.30	\$32.73	18.38	1.47
		low	\$29.30	\$29.50	\$30.74	\$29.67	\$30.25	\$32.43	\$32.78	\$33.08	\$29.18	\$27.07	\$28.25	\$30.98				
UPS	United Parcel'B'	high	\$75.98	\$75.32	\$71.63	\$73.20	\$72.20	\$74.48	\$78.40	\$78.99	\$76.42	\$77.76	\$75.10	\$75.82	\$73.82	\$73.23	17.80	3.88
		low	\$70.38	\$69.93	\$68.66	\$69.53	\$69.71	\$70.93	\$72.70	\$72.87	\$73.31	\$74.00	\$70.00	\$70.25				
RJET	Republic Airways Holdings Inc.	high	\$19.34	\$20.00	\$23.13	\$23.59	\$23.88	\$23.60	\$21.36	\$19.98	\$22.46	\$22.75	\$22.47	\$20.82	\$20.32	\$20.41	10.82	1.84
		low	\$16.70	\$18.30	\$19.18	\$21.02	\$20.44	\$19.80	\$18.96	\$17.46	\$18.75	\$19.15	\$18.39	\$18.32				
XJT	ExpressJet Holdings	high	\$9.61	\$8.08	\$7.38	\$6.19	\$6.63	\$6.32	\$6.45	\$5.45	\$4.50	\$3.72	\$3.27	\$2.97	\$2.89	\$5.30	NA	(0.28)
		low	\$7.50	\$7.15	\$5.78	\$5.69	\$5.65	\$5.61	\$5.08	\$3.75	\$3.03	\$2.65	\$2.30	\$2.45				
UAUA	UAL Corp	high	\$51.57	\$46.50	\$41.56	\$44.32	\$40.53	\$40.85	\$50.00	\$47.85	\$48.57	\$51.60	\$49.48	\$42.83	\$43.13	\$41.82	11.01	2.99
		low	\$40.90	\$38.34	\$36.64	\$33.20	\$31.62	\$33.89	\$40.33	\$35.90	\$42.40	\$45.51	\$35.87	\$33.48				
UTIW	Uti Worldwide Inc	high	\$31.00	\$32.00	\$30.52	\$25.09	\$28.72	\$28.74	\$28.39	\$25.25	\$23.18	\$25.91	\$25.24	\$24.14	\$22.94	\$25.39	18.62	1.04
		low	\$28.22	\$28.38	\$23.61	\$22.25	\$23.26	\$26.14	\$24.86	\$21.57	\$20.49	\$22.81	\$21.74	\$17.80				

MONTANA DEPARTMENT OF REVENUE

Support for Debt Rating
Industry: Airlines
2008 Assessment Year

STANDARD & POOR'S BOND GUIDE
BOND YIELD TO MATURITY

Company Name	Coupon	CUSIP	Issue	Maturity Date	S&P Bond Rating	Jan-07	Feb-07	Mar-07	Apr-07	May-07	Jun-07	Jul-07	Aug-07	Sep-07	Oct-07	Nov-07	Dec-07	Avg Full Year	Avg 4th QTR
Southwest Airlines Co.	7.875	844741AF5	Deb	9/1/2007	A														
Southwest Airlines Co.	7.375	844741AN8	Deb	3/1/2027	A-	5.85	5.61	5.61	5.66	5.59	5.76	5.86						5.68%	
Southwest Airlines Co.	6.5	844741AV0	Nts	3/1/2012	A-	6.78	6.60	6.89	6.69	7.11	7.10	7.10	7.05	7.03	6.82	6.53	6.55	6.85%	6.63%
Southwest Airlines Co.	5.25	844741AW8	Nts	10/1/2014	A-	5.66	5.51	5.44	5.50	5.69	5.88	5.83	5.82	5.69	5.43	4.80	5.53	5.57%	5.25%
Southwest Airlines Co.	5.12	844741AX6	Nts	3/1/2017	A-	5.92	5.75	5.79	5.89	6.04	6.17	6.31	5.85	5.97	5.70	5.61	5.70	5.89%	5.67%
Federal Express	9.65	313309AJ5	Nts	6/15/2012	BBB	6.15	6.00	6.04	6.14	6.30	6.42	6.59	6.27	6.29	5.87	5.66	5.67	6.12%	5.73%
Federal Express	7.6		Nts	1/1/2007	BBB	5.68	5.53	5.41	5.45	5.64	5.79	5.61	5.42	5.29	5.03	4.66	5.25	5.40%	4.98%
AMR Corp.	9	001765AC0	Deb	9/15/2016	CCC+	6.58	6.34	6.57	6.48	6.68	6.78	6.85	6.75	6.77	6.67	6.67	6.38	6.63%	6.57%
AMR Corp.	10.2	001765AE6	Deb	3/15/2020	CCC+	8.25	8.25	8.37	8.37	8.87	8.91	9.24	8.99	9.16	9.22	9.24	9.25	8.84%	9.24%
AMR Corp.	9.88	001765AG1	Deb	6/15/2020	CCC+	9.75	9.71	10.02	10.05	10.16	10.41	10.74	10.63	10.63	10.67	10.94	11.22	10.41%	10.94%
AMR Corp.	10	001765AK2	Deb	4/15/2021	CCC+	9.94	9.91	10.26	10.19	10.21	10.52	10.67	10.74	11.14	11.08	11.31	11.67	10.64%	11.35%
AMR Corp.	9.75	001765AP1	Deb	8/15/2021	CCC+	9.57	9.54	9.99	10.03	10.06	10.27	10.48	10.55	10.92	10.87	10.97	11.22	10.37%	11.02%
AMR Corp.	9.8	001765AQ9	Deb	10/1/2021	CCC+	9.74	9.71	9.86	9.86	9.87	10.11	10.36	10.40	10.87	10.82	10.95	11.21	10.31%	10.98%
AMR Corp.	9	001765AU0	Deb	8/1/2012	CCC+	9.79	9.76	9.88	9.91	9.92	10.13	10.34	10.41	10.85	10.79	10.93	11.22	10.33%	10.98%
Delta Air Lines, Inc.	9	247361AD0	Deb	5/15/2016	NR	7.75	7.73	7.83	7.73	8.03	8.38	8.99	8.80	8.41	8.47	8.92	9.33	8.36%	8.91%
Delta Air Lines, Inc.	10.125	247361QN1	Deb	5/15/2010	NR	17.69	17.41	19.76	20.68	22.21	22.57	22.57	22.57	22.57	22.57	22.57	22.57	21.31%	22.57%
Delta Air Lines, Inc.	10.375	247361WG9	Deb	2/1/2011	NR	32.30	34.83	34.51	40.28	38.06	38.06	38.06	38.06	38.06	38.06	38.06	38.06	37.20%	38.06%
Delta Air Lines, Inc.	9.75	247361WH7	Deb	5/15/2021	NR	27.84	29.65	29.39	34.66	33.66	33.66	33.66	33.66	33.66	33.66	33.66	33.66	32.57%	33.66%
Delta Air Lines, Inc.	9.3	247361XR4	Eq Tr '92A	1/2/2010	NR	17.19	16.99	19.00	19.72	19.28	19.28	19.28	19.28	19.28	19.28	19.28	19.28	18.93%	19.28%
Delta Air Lines, Inc.	9.3	247361XS2	Eq Tr '92B	1/2/2010	NR	9.49	9.44	9.39	9.23										9.39%
Delta Air Lines, Inc.	9.3	247361XT0	Eq Tr '92C	1/2/2010	NR	9.49	9.44	9.39	9.23										9.39%
Delta Air Lines, Inc.	9.3	247361XU7	Eq Tr '92D	1/2/2010	NR	9.49	9.44	9.39	9.23										9.47%
Delta Air Lines, Inc.	9.3	247361XV5	Eq Tr '92E	1/2/2010	NR	9.44	9.49	9.49	9.45										9.47%
Delta Air Lines, Inc.	9.3	247361XW3	Eq Tr '92F	1/2/2011	NR	9.44	9.49	9.49	9.45										9.47%
Delta Air Lines, Inc.	9.25	247361XX1	Deb	3/15/2022	NR	9.88	9.93	9.01	8.92										9.44%
Delta Air Lines, Inc.	10.38	247361XY9	Deb	12/15/2022	NR	16.30	16.11	18.02	18.68	17.95	17.95	17.95	17.95	17.95	17.95	17.95	17.95	17.73%	17.95%
Delta Air Lines, Inc.	7.9	247361YF9	Nts	12/15/2009	NR	17.88	17.67	19.72	20.46	20.08	20.08	20.08	20.08	20.08	20.08	20.08	20.08	19.70%	20.08%
Delta Air Lines, Inc.	8.3	247361YG7	Nts	12/15/2029	NR	28.91	31.10	31.21	36.69	35.50	35.50	35.50	35.50	35.50	35.50	35.50	35.50	34.33%	35.50%
Northwest Airlines Corp.	7.875	667281AM1	Nts	3/15/2008	NR	13.91	13.69	15.18	15.80	15.85	15.85	15.85	15.85	15.85	15.85	15.85	15.85	15.45%	15.85%
United Air Lines	10.85	909279AG6	Eq Tr '91A	7/5/2014	NR	15.64	10.44	22.58	39.18	38.97									25.36%
United Air Lines	10.85	909279AH4	Eq Tr '91B	2/19/2015	NR	23.11	23.11	23.11	23.11	23.11	23.11	23.11	23.11	23.11	23.11	23.11	23.11	23.11%	23.11%
United Air Lines	10.36	909279AC4	Eq Tr '91E	11/27/2012	NR	28.84	28.84	28.84	28.84	28.84	28.84	28.84	28.84	28.84	28.84	28.84	28.84	28.84%	28.84%
			Counts of data			32	32	32	32	26	25	25	24	24	24	24	24	32	24

NOTES:

Data downloaded from the S&P website and supplemented from month end Bond Guides when available.

means the data was not available in S&P Guide

means issuance matured or called

	Annual	4th Qtr
A's	6.02%	5.82%
BBB's	6.01%	5.78%
CCC's	9.90%	10.49%
NR's	19.30%	24.65%
Investment Grade (BBB & above)		
ALL	14.34%	15.81%
BBB+ thru AA	6.02%	5.81%
BBB's	6.01%	5.78%

MONTANA DEPARTMENT OF REVENUE

Direct Capitalization Rate Study
Industry: Electric Utilities - Regulated
 2008 Assessment Year

Equity Measures Calculated:

E/P estimates:		
All	Western	
6.33%	6.39%	Yahoo
5.74%	6.00%	Value Line
6.03%	6.19%	Average of E/Ps
Inverse of P/E Ratios:		
6.36%	6.41%	Yahoo
6.22%	6.16%	Value Line
6.29%	6.28%	Average of Inverse of the P/E
6.57%	6.47%	Inverse of median P/E, Value Line
6.16%	6.24%	Average of all above except median P/E
Mean =	6.24%	6.29%
Median =	6.33%	6.39%

Debt Measure Calculated:

	Annual	4th Qtr	
	5.83%	5.64%	All
	5.65%	5.43%	BBB & Above
	5.74%	5.51%	BBB's
Mean =	5.74%	5.53%	
Median =	5.74%	5.51%	
Debt Measure =		5.75%	

Equity Measure NUOI = 6.30%

Industry Market Capital Structure Net Utility Operating Income (NUOI) Rate					
Equity	61.00%	x	6.30%	=	3.84%
Debt	39.00%	x	5.75%	=	2.24%
	100%				6.09%
Direct Cap Rate NUOI					= 6.25%

Gross Cash Flow / Price:

	All	Western	
	14.42%	14.71%	Value Line
Equity Measure Gross =		14.50%	

Industry Market Capital Structure Gross Cash Flow Rate (GCF)					
Equity	61.00%	x	14.50%	=	8.85%
Debt	39.00%	x	5.75%	=	2.24%
	100%				11.09%
Direct Cap Rate GCF					11.25%

MONTANA DEPARTMENT OF REVENUE

Direct Capitalization Rate Study
Industry: Electric Utility - Exempt Wholesale Generators
 2008 Assessment Year

Equity Measures Calculated:

E/P estimates:

All	B+	
6.13%	5.96%	Yahoo
5.87%	6.07%	Value Line
6.00%	6.01%	Average of E/Ps

Inverse of P/E Ratios:

4.86%	5.29%	Yahoo
5.29%	4.99%	Value Line
5.07%	5.14%	Average of Inverse of the P/E
7.39%	8.33%	Inverse of median P/E, Value Line
5.53%	5.58%	Average of all above except median P/E

Mean =	5.91%	6.13%
Median =	5.87%	5.96%

Equity Measure NUOI = 6.75%

Debt Measure Calculated:

Annual	4th Qtr	
5.83%	5.64%	All
5.65%	5.43%	BBB & Above
5.74%	5.51%	BBB's

Mean =	5.74%	5.53%
Median =	5.74%	5.51%

Debt Measure = 6.00%

Industry Market Capital Structure Net Utility Operating Income (NUOI) Rate					
Equity	72.00%	x	6.75%	=	4.86%
Debt	28.00%	x	6.00%	=	1.68%
	100%				6.54%
Direct Cap Rate NUOI					= 6.75%

Gross Cash Flow / Price:

	All	B+
	11.74%	14.37% Value Line
Equity Measure Gross =		14.37%

Industry Market Capital Structure Gross Cash Flow Rate (GCF)					
Equity	72.00%	x	14.37%	=	10.35%
Debt	28.00%	x	6.00%	=	1.68%
	100%				12.03%
Direct Cap Rate GCF					12.25%

MONTANA DEPARTMENT OF REVENUE

Yield Capitalization Rate Study
Industry: Electric Utilities
 2008 Assessment Year

	All	Western	Wholesale Generators
Dividend Growth Model	10.00%	10.30%	13.00%
Capital Asset Pricing Model	10.22%	10.35%	11.65%
Mean =	10.11%	10.33%	12.33%
Median =	10.11%	10.33%	12.33%
Equity Measure FCF =		10.25%	12.25%
Debt Measure =			5.75%

Yield Cap Rate Free Cash Flow - Electric Utilities					
Equity	61.00%	x	10.25%	=	6.25%
Debt	39.00%	x	5.75%	=	2.24%
	<u>100%</u>				<u>8.50%</u>
Weighted Average Cost of Capital (WACC) =					8.50%

Yield Cap Rate Free Cash Flow - Wholesale Generators					
Equity	72.00%	x	12.25%	=	8.82%
Debt	28.00%	x	6.00%	=	1.68%
	<u>100%</u>				<u>10.50%</u>
Weighted Average Cost of Capital (WACC) =					10.50%

Where Assumed Growth Rate = Inflation
see appendix for calculation

Growth = 2.44%

MONTANA DEPARTMENT OF REVENUE

Support for Industry Capital Structure
Industry: Electric Utilities - Regulated
2008 Assessment Year

COMPANY	TICKER SYMBOL	(VL) FIN STR	(VL) SHARES (000)	(YAHOO) AVG PRICE COMMON 4th Quarter	(VL) BOOK VALUE PER SHARE	MKT VALUE COMMON (000) DxE	(VL) BOOK VALUE COMMON (000)	(VL) BOOK VALUE PREFERRED (000)	MKT VALUE PREFERRED (000) IxL	(VL) BOOK VALUE DEBT (000)
MDU Resources Group	MDU	A+	181,000	27.22	11.88	4,926,217	2,149,900	15,000	15,000	1,170,500
Great Plains Energy	GXP	A	80,400	29.51	16.69	2,372,202	1,341,900	39,000	39,000	607,500
Pinnacle West Capital	PNW	A	100,000	41.88	34.46	4,188,333	3,446,100	0	0	3,232,600
OGE Energy	OGE	A	91,200	36.10	17.59	3,292,624	1,603,800	0	0	1,346,300
Portland General Electric	POR	B++	62,500	27.24	19.58	1,702,292	1,224,000	0	0	937,000
Xcel Energy	XEL	B++	407,300	22.30	14.28	9,082,111	5,816,800	105,000	105,000	6,449,600
Alliant Energy	LNT	A	116,100	40.48	22.84	4,699,535	2,651,300	243,800	243,800	1,323,300
Black Hills Corp	BKH	B+	33,400	42.85	23.65	1,431,079	790,000	0	0	628,300
El Paso Electric	EE	B++	45,900	24.76	12.63	1,136,561	579,700	0	0	616,100
Idacorp Inc	IDA	B+	43,600	34.66	25.78	1,511,103	1,124,200	0	0	928,700
NiSource Inc	NI	B+	273,700	19.23	18.32	5,261,883	5,013,600	0	0	5,146,200
Puget Energy	PSD	B+	116,600	27.26	18.15	3,178,710	2,116,000	1,900	1,900	2,646,100
Avista Corp	AVA	B+	52,500	21.13	17.46	1,109,325	916,800	0	0	1,063,300
DPL Inc	DPL	B	113,000	29.02	6.30	3,279,448	712,100	22,900	22,900	1,551,800
Edison Intl	EIX	B++	325,800	55.89	23.66	18,208,419	7,709,000	915,000	915,000	9,101,000
Sierra Pacific Resources	SRP	B	221,000	16.75	11.87	3,701,750	2,622,300	0	0	4,001,500
Unisource Energy	UNS	C++	35,200	31.03	18.59	1,092,256	654,200	0	0	1,759,900
NorthWestern Corp	NWEC	na	35,600	27.91	20.87	993,655	742,800	0	0	739,400

SUMS & AVERAGES - ALL						71,167,502	41,214,500	1,342,600	1,342,600	43,249,100
AVERAGES - excluding C, NR						69,081,591	39,817,500	1,342,600	1,342,600	40,749,800
SUMS & AVERAGES - WESTERN COMPANIES						51,268,156	29,149,000	1,036,900	1,036,900	32,534,600
AVA, BKH, EIX, EE, IDA, MDU, PNW, POR, PSD, SRP, XEL										

INDUSTRY MARKET STRUCTURE

COMPONENT	ALL		WESTERN	
	EQUITY	61.00%	71,167,502	60.00%
DEBT	39.00%	44,591,700	40.00%	33,571,500
TOTAL		\$115,759,202		\$84,839,656

Preferred stock is grouped with debt.

* All Negative values left out of calculations

**ValueLine data was not available for all Northwestern Corp items

MONTANA DEPARTMENT OF REVENUE

**Support for Industry Capital Structure
Industry: Electric Utilities - Regulated
2008 Assessment Year**

COMPANY	TICKER SYMBOL	MKT/BOOK ratio for DEBT	MKT VALUE DEBT (000) KxL	EPS (YAHOO) lttst 12mo	E/P (YAHOO) N/E	EPS (VL)	E/P (VL) P/E	CF/S (VL)	CF/P (VL) R/E	P/E (YAHOO)	Inverse of P/E (YAHOO) 1/T	P/E (VL)	Inverse of P/E (VL) 1/V	Median P/E (VL)	Inverse of Median P/E (VL) 1/X	(VL) INDUSTRY GROUP	(VL) BETA
MDU Resources Group	MDU	1.00	1,170,500	2.30	8.45%	1.65	6.06%	3.45	12.68%	11.95	8.37%	15.70	6.37%	14.00	7.14%	UTILWEST	0.90
Great Plains Energy	GXP	1.00	607,500	1.72	5.83%	1.70	5.76%	4.10	13.90%	16.71	5.98%	15.58	6.42%	15.00	6.67%	UTILCENT	0.80
Pinnacle West Capital	PNW	1.00	3,232,600	3.20	7.64%	2.95	7.04%	6.85	16.35%	12.99	7.70%	13.94	7.17%	14.00	7.14%	UTILWEST	0.80
OGE Energy	OGE	1.00	1,346,300	2.48	6.86%	2.40	6.65%	4.60	12.74%	14.36	6.96%	14.54	6.88%	14.00	7.14%	UTILCENT	0.85
Portland General Electric	POR	1.00	937,000	2.58	9.47%	2.35	8.63%	5.05	18.54%	10.50	9.52%	13.91	7.19%	N/A	N/A	UTILWEST	N/A
Xcel Energy	XEL	1.00	6,449,600	1.27	5.70%	1.41	6.32%	3.70	16.59%	17.55	5.70%	15.35	6.51%	15.00	6.67%	UTILWEST	0.80
Alliant Energy	LNT	1.00	1,323,300	3.73	9.21%	2.60	6.42%	5.35	13.22%	10.76	9.29%	15.49	6.46%	14.00	7.14%	UTILCENT	0.80
Black Hills Corp	BKH	1.00	628,300	2.64	6.16%	2.52	5.88%	5.25	12.25%	16.34	6.12%	20.15	4.96%	14.00	7.14%	UTILWEST	0.90
EI Paso Electric	EE	1.00	616,100	1.65	6.66%	1.55	6.26%	3.60	14.54%	15.05	6.64%	14.20	7.04%	15.00	6.67%	UTILWEST	0.90
Idacorp Inc	IDA	1.00	928,700	2.05	5.92%	1.98	5.71%	4.25	12.26%	16.70	5.99%	16.61	6.02%	15.00	6.67%	UTILWEST	0.95
NiSource Inc	NI	1.00	5,146,200	1.15	5.98%	1.20	6.24%	3.30	17.17%	16.38	6.11%	16.63	6.01%	16.00	6.25%	UTILCENT	0.90
Puget Energy	PSD	1.00	2,646,100	1.59	5.83%	1.60	5.87%	3.95	14.49%	17.35	5.76%	18.08	5.53%	16.00	6.25%	UTILWEST	0.90
Avista Corp	AVA	1.00	1,063,300	0.81	3.83%	0.80	3.79%	2.70	12.78%	26.35	3.80%	18.82	5.31%	16.00	6.25%	UTILWEST	0.95
DPL Inc	DPL	1.00	1,551,800	1.55	5.34%	1.80	6.20%	3.35	11.54%	18.75	5.33%	16.35	6.12%	15.00	6.67%	UTILCENT	0.85
Edison Intl	EIX	1.00	9,101,000	3.55	6.35%	3.29	5.89%	7.00	12.52%	14.92	6.70%	17.26	5.79%	13.00	7.69%	UTILWEST	0.85
Sierra Pacific Resources	SRP	1.00	4,001,500	0.99	5.91%	0.95	5.67%	2.70	16.12%	17.10	5.85%	15.44	6.48%	30.00	3.33%	UTILWEST	1.20
Unisource Energy	UNS	1.00	1,759,900	1.47	4.75%	1.50	4.83%	5.40	17.40%	21.10	4.74%	18.14	5.51%	16.00	6.25%	UTILWEST	0.60
NorthWestern Corp	NWEC	1.00	739,400	1.13	4.05%	1.48	5.30%	N/A	N/A	25.76	3.88%	N/A	N/A	N/A	N/A	UTILCENT	N/A

SUMS & AVERAGES - ALL			43,249,100		6.33%		5.74%		14.42%		6.36%		6.22%		6.57%		0.87
AVERAGES - excluding C, NR			40,749,800		6.57%		6.15%		14.23%		6.61%		6.27%		6.59%		0.89
SUMS & AVERAGES - WESTERN COMPAN			32,534,600		6.39%		6.00%		14.71%		6.41%		6.16%		6.47%		0.89

Preferred stock is grouped with debt.

* All Negative values left out of calculations

**ValueLine data was not available for all Northwester

**Beta of Industry
Beta of Western Sector**

COMPANY	TICKER SYMBOL	S&P BETA
MDU Resources Group	MDU	0.7059
Great Plains Energy	GXP	0.8101
Pinnacle West Capital	PNW	0.6295
OGE Energy	OGE	0.5955
Portland General Electric	POR	N/A
Xcel Energy	XEL	0.6008
Alliant Energy	LNT	0.8118
Black Hills Corp	BKH	0.9269
El Paso Electric	EE	0.6318
Idacorp Inc	IDA	0.7822
NiSource Inc	NI	0.4559
Puget Energy	PSD	0.5311
Avista Corp	AVA	1.2572
DPL Inc	DPL	0.9151
Edison Intl	EIX	0.6738
Sierra Pacific Resources	SRP	2.0294
Unisource Energy	UNS	0.0936
NorthWestern Corp	NWEC	0.4665

SUMS & AVERAGES - ALL 0.76
AVERAGES - excluding C, NR 0.82
SUMS & AVERAGES - WESTERN COMPAN 0.81
AVA, BKH, EIX, EE, IDA, MDU, PNW, POR, PSD, SRP

0.88
Preferred stock is grouped with debt. 0.90

* All Negative values left out of calculations

**ValueLine data was not available for all Northwester

MONTANA DEPARTMENT OF REVENUE

Support for Industry Capital Structure
Industry: Exempt Wholesale Generators
2008 Assessment Year

COMPANY	TICKER SYMBOL	(VL) FIN STR	(VL) SHARES (000)	(YAHOO) AVG PRICE COMMON	(VL) BOOK VALUE PER SHARE	MKT VALUE COMMON (000) CxD	BOOK VALUE COMMON (000) CxE	(VL) BOOK VALUE PREFERRED (000)	MKT VALUE PREFERRED (000)	(VL) BOOK VALUE DEBT (000)
Constellation Energy	CEG	A	180,500	41.69	25.54	7,525,045	4,609,300	190,000	190,000	4,222,300
Duke Energy	DUK			19.32						
Sempra Energy	SRE	A	262,000	59.53	28.66	15,597,188	7,508,000	196,000	196,000	4,525,000
PPL Corp	PPL	B++	385,000	45.33	13.30	17,453,013	5,122,000	301,000	301,000	6,728,000
NRG Energy	NRG	B+	244,600	38.62	19.36	9,446,809	4,735,000	1,170,000	1,170,000	8,647,000
AES Corp	AES	C++	655,100	21.23	4.63	13,908,865	3,036,000	0	0	14,892,000
Reliant Resources	RRI	C+	339,300	23.45	11.64	7,956,161	3,949,900	0	0	3,177,700
Dynegy Inc. 'A'	DYN	C+	456,000	8.73	4.97	3,979,930	2,267,000	0	0	3,190,000
SUMS & AVERAGES - ALL						75,867,009	31,227,200	1,857,000	1,857,000	45,382,000
Average of VL B++						17,453,013	5,122,000	301,000	301,000	6,728,000
Average of VL A THRU B++						40,575,245	17,239,300	687,000	687,000	15,475,300

These companies have significant amounts of non-utility generation

INDUSTRY MARKET STRUCTURE

COMPONENT	All		AVERAGE of B Companies		VL A THRU B++	
EQUITY	62.00%	75,867,009	71.00%	17,453,013	72.00%	40,575,245
DEBT	38.00%	47,239,000	29.00%	7,029,000	28.00%	16,162,300
TOTAL	100.00%	\$123,106,009	100.00%	\$24,482,013	100.00%	\$56,737,545

Preferred stock is grouped with debt.

* All Negative values left out of calculations

MONTANA DEPARTMENT OF REVENUE

Support for Industry Capital Structure
 Industry: Electric Utilities - Exempt Wholesale Generators
 2008 Assessment Year

COMPANY	TICKER SYMBOL	MKT/BOOK ratio for DEBT	MKT VALUE DEBT (000)	EPS (YAHOO) last 12mo	E/P (YAHOO) N/E	EPS (VL)	E/P (VL) P/E	CF/S (VL)	CF/P (VL) R/E	P/E (YAHOO)	Inverse of P/E (YAHOO) 1/T	P/E (VL)	inverse of P/E (VL) 1/V	Median P/E (VL)	Inverse of Median P/E (VL) 1/X	(VL) INDUSTRY GROUP	(VL) BETA
Constellation Energy	CEG	1.00	4,222,300	5.30	12.71%	4.60	11.03%	8.45	20.27%	19.24	5.20%	20.70	4.83%	15.00	6.67%	UTILEAST	0.85
Duke Energy	DUK	1.00		1.30	6.73%	1.25	6.47%	2.80	14.49%	15.28	6.54%	14.86	6.73%			UTILEAST	
Sempra Energy	SRE	1.00	4,525,000	3.54	5.95%	4.10	6.89%	6.95	11.67%	17.55	5.70%	15.49	6.46%	10.00	10.00%	UTILWEST	0.90
PPL Corp	PPL	1.00	6,728,000	2.70	5.96%	2.75	6.07%	5.00	11.03%	18.90	5.29%	20.04	4.99%	12.00	8.33%	UTILEAST	0.90
NRG Energy	NRG	1.00	8,647,000	2.01	5.20%	2.06	5.33%	5.15	13.33%	19.32	5.18%	16.85	5.93%			POWER	0.95
AES Corp	AES	1.00	14,892,000	(0.15)	-0.71%	0.93	4.38%	2.45	11.54%			23.52	4.25%	22.00	4.55%	POWER	1.30
Reliant Resources	RRI	1.00	3,177,700	0.25	1.05%	0.44	1.88%	1.65	7.04%	97.04	1.03%	26.29	3.80%			POWER	1.20
Dynegy Inc. 'A'	DYN	1.00	3,190,000	0.38	4.35%	0.25	2.86%	0.40	4.58%	19.60	5.10%					GASDIVRS	1.45
SUMS & AVERAGES - ALL			45,382,000		6.13%		5.87%		11.74%		4.86%		5.29%		7.39%		1.08
Average of VL B++			6,728,000		5.96%		6.07%		11.03%		5.29%		4.99%		8.33%		0.90
Average of VL A THRU B++			15,475,300		7.84%		7.61%		14.37%		5.68%		5.75%		8.33%		0.88

These companies have significant amounts of non-utility generation

Beta of Industry

Preferred stock is grouped with debt

* All Negative values left out of calculations

COMPANY	TICKER SYMBOL	S&P BETA
Constellation Energy	CEG	0.498
Duke Energy	DUK	0.8744
Sempra Energy	SRE	0.5137
PPL Corp	PPL	0.27
NRG Energy	NRG	1.5055
AES Corp	AES	2.3097
Reliant Resources	RRR	1.8477
Dynegy Inc. 'A'	DYN	2.1314

SUMS & AVERAGES - ALL 1.61
Average of VL B++ 0.27
Average of VL A THRU B++ 0.54

These companies have significant amounts of non-utility generation 1.10

Preferred stock is grouped with debt.
* All Negative values left out of calculations

MONTANA DEPARTMENT OF REVENUE

Capital Asset Pricing Model (CAPM)

Industry: **Electric Utilities**

2008 Assessment Year

$$K_E = R_F + \beta (R_M - R_F)$$

	Electric Utilities	Western Utilities	Wholesale Generators
K_E = Cost of Equity	10.22%	10.35%	11.65%
R_F = Risk Free Rate	4.50%	4.50%	4.50%
β = Beta	0.88	0.90	1.10
R_M = Market Rate of Return	11.00%	11.00%	11.00%
R_p = Equity Risk Premium (RM - RF)	6.50%	6.50%	6.50%

R_m = Investor's Market Rate of Return

Ibbotson, SBBi, Large Company, Average Annual Return, *Arithmetic Average, Ex-Post
 Ibbotson, SBBi, Large Company, Average Annual Return, *Geometric Average, Ex-Post
 3 Stage Dividend Growth Model, S & P 500, See Exhibit, Ex Ante

R_M =	12.30%
R_M =	10.40%
R_M =	10.00%
Mean =	10.90%
Median =	10.40%
R_M=	11.00%

R_f = Risk Free Rate

Internal Revenue Service, Rev Rule 2007-70 Table 2 December 2007

Rev Rule 2007-70 Table : 2007

Annual Rates		R_f =	
Short Term - AFR			3.40%
Mid Term - AFR			3.67%
Long Term - AFR			4.34%

The ValueLine Investment Survey

U.S. Treasury Securities December 28 2007

3 Month	R_f =	2.89%
6 Month	R_f =	3.31%
1 Year	R_f =	3.31%

Federal Reserve Statistical Release

Treasury constant Maturities, 2007

Market yield on U.S. Treasury securities, Annual Averages

3-month constant maturity, quoted on investment basis	R_f =	4.48%
6-month constant maturity, quoted on investment basis	R_f =	4.62%
1-year constant maturity, quoted on investment basis	R_f =	4.53%

U.S. Treasury Securities Long-Term December 31, 2007

30 year constant maturity	R_f = 4.45%		
20 year constant maturity	R_f = 4.50%		
		Mean =	3.84%
		Median =	3.67%
		Weighted Mean =	3.92%
		R_f =	4.50%

MONTANA DEPARTMENT OF REVENUE

Dividend Growth Model
Industry: Electric Utilities - Regulated
 2008 Assessment Year

$$K_E = D1 / P_0 + G_A$$

KE= Cost of Equity

Po= Current Price Per Share

D1= Expected Dividends

G= Sustainable Growth

Company Name	Ticker*	Stock Price (Po)	Expected Dividend 1 Year	Divided Yield (D1/P0)	Divided Growth (G ₁)	Ke 1 Year
Alliant Energy	LNT	40.48	1.40	3.46%	8.00%	11.46%
Avista Corp	AVA	21.13	0.65	3.08%	12.50%	15.58%
Black Hills Corp	BKH	42.85	1.40	3.27%	3.00%	6.27%
DPL Inc	DPL	29.02	1.10	3.79%	3.50%	7.29%
Edison Intl	EIX	55.89	1.24	2.22%	6.50%	8.72%
El Paso Electric	EE	24.76	nil		nmf	
Great Plains Energy	GXP	29.51	1.66	5.63%	nil	
Idacorp Inc	IDA	34.66	1.20	3.46%	nil	
MDU Resources Group	MDU	27.22	0.60	2.20%	6.50%	8.70%
NiSource Inc	NI	19.23	0.92	4.79%	1.50%	6.29%
NorthWestern Corp	NWEC	27.91	1.32	4.73%	4.70%	9.43%
OGE Energy	OGE	36.10	1.40	3.88%	2.00%	5.88%
Pinnacle West Capital	PNW	41.88	2.12	5.06%	3.00%	8.06%
Portland General Electric	POR	27.24	0.99	3.63%	14.00%	17.63%
Puget Energy	PSD	27.26	1.00	3.67%	3.00%	6.67%
Sierra Pacific Resources	SRP	16.75	0.40	2.39%	nmf	
Unisource Energy	UNS	31.03	0.96	3.09%	7.00%	10.09%
Xcel Energy	XEL	22.30	0.95	4.26%	4.50%	8.76%

***Bold** denotes primarily western operations

All Companies In Survey

Weighted Mean= 9.38%
 Median= 8.71%
 Mean= 9.34%
K_E = 10.00%

Western Companies Only

Weighted Mean= 9.09%
 Median= 8.72%
 Mean= 9.14%
K_E = 10.30%

MONTANA DEPARTMENT OF REVENUE

Dividend Growth Model
Industry: Electric Utilities - Exempt Wholesale Generators
 2008 Assessment Year

$$K_E = D1 / P_0 + G_A$$

KE= Cost of Equity
D1= Expected Dividends
Po= Current Price Per Share
G= Sustainable Growth

Company Name	Ticker	Stock Price (Po)	Expected Dividend (D1)	Dividend Yield (D1/P0)	Dividend Growth (G ₁)	Ke 1 Year
Sempra	SRE	60.98	1.28	2.10%	4.00%	6.10%
NRG Energy	NRG	43.12	nil		nil	
Duke Energy	DUK	19.50	0.90	4.62%	nmf	
Constellation Energy	CEG	40.21	2.00	4.97%	13.00%	17.97%
Dynegy	DYN	8.29	nil		nil	
PPL Corp	PPL	50.62	1.34	2.65%	15.00%	17.65%
AES Corp	AES	21.48	nil		nil	
Reliant Resources	RRI	26.42	nil		nil	

Weighted Mean= 13.91%
 Median = 13.00%
 Mean = 13.91%

K_E = 13.00%

MONTANA DEPARTMENT OF REVENUE

Historical Stock Price Analysis From YAHOO Finance
Industry: Electric Utilities
2008 Assessment Year

Ticker	Company		Jan-07	Feb-07	Mar-07	Apr-07	May-07	Jun-07	Jul-07	Aug-07	Sep-07	Oct-07	Nov-07	Dec-07	4th Qtr Average	Annual Average	Yahoo P-E	Yahoo EPS 1st 12 mo
AES	AES Corp	high	\$22.32	\$23.10	\$21.88	\$23.19	\$24.24	\$24.04	\$23.39	\$20.33	\$20.62	\$21.75	\$23.09	\$22.54	\$21.48	\$21.23	NA	-0.15
		low	\$19.92	\$20.50	\$19.44	\$21.37	\$21.85	\$20.54	\$19.62	\$16.69	\$17.65	\$19.78	\$20.73	\$20.98				
AVA	Avista Corp	high	\$25.77	\$25.81	\$24.70	\$24.89	\$24.29	\$23.56	\$22.38	\$20.93	\$20.69	\$22.05	\$21.90	\$22.24	\$21.13	\$22.26	26.35	0.81
		low	\$24.34	\$23.07	\$22.91	\$23.50	\$22.88	\$21.17	\$19.53	\$18.19	\$18.90	\$20.00	\$19.58	\$21.01				
BKH	Black Hills Corp	high	\$37.90	\$39.63	\$37.53	\$40.00	\$42.59	\$41.73	\$41.53	\$44.48	\$43.09	\$44.74	\$44.29	\$45.41	\$42.85	\$40.13	16.34	2.64
		low	\$36.71	\$35.55	\$35.40	\$36.86	\$39.64	\$38.46	\$37.28	\$36.84	\$40.81	\$40.74	\$40.21	\$41.69				
CEG	Constellation Energy	high	\$72.65	\$83.16	\$88.20	\$95.48	\$95.57	\$92.39	\$98.20	\$88.94	\$90.45	\$97.22	\$101.24	\$104.29	\$40.21	\$41.69	19.24	5.3
		low	\$68.78	\$72.55	\$76.40	\$86.56	\$87.00	\$82.71	\$83.06	\$76.64	\$82.08	\$85.81	\$92.17	\$98.32				
CMS	CMS Energy	high	\$16.88	\$18.41	\$17.95	\$19.55	\$19.00	\$18.48	\$17.93	\$16.98	\$17.07	\$17.12	\$17.50	\$18.07	\$16.99	\$17.17	NA	-0.6
		low	\$15.98	\$16.63	\$16.73	\$17.77	\$17.66	\$16.60	\$15.85	\$14.98	\$15.75	\$15.85	\$16.17	\$17.23				
D	Dominion Resources Stock Split 11/07 2:1	high	\$84.00	\$88.30	\$89.42	\$93.63	\$92.92	\$89.28	\$89.02	\$92.00	\$88.02	\$91.83	\$93.55	\$98.76	\$92.25	\$87.84	14.16	3.302
		low	\$79.67	\$82.97	\$83.65	\$88.20	\$85.60	\$80.05	\$81.51	\$82.75	\$83.76	\$84.46	\$91.12	\$93.80				
DPL	DPL Inc	high	\$28.80	\$31.46	\$31.44	\$32.72	\$31.89	\$30.85	\$29.75	\$29.49	\$26.82	\$29.04	\$30.48	\$31.00	\$29.02	\$29.14	18.75	1.549
		low	\$27.11	\$28.70	\$29.58	\$30.68	\$30.26	\$27.85	\$26.38	\$25.41	\$25.98	\$25.71	\$28.70	\$29.20				
DTE	DTE Energy	high	\$49.42	\$48.69	\$48.55	\$51.82	\$54.74	\$53.43	\$51.74	\$50.53	\$49.98	\$51.19	\$50.00	\$51.15	\$48.38	\$48.76	8.95	4.92
		low	\$45.25	\$46.03	\$45.65	\$47.80	\$50.61	\$47.22	\$46.01	\$45.26	\$47.10	\$47.05	\$46.95	\$43.96				
DUK	Duke Energy	high	\$20.00	\$20.43	\$20.62	\$21.30	\$20.97	\$19.65	\$18.61	\$19.90	\$19.17	\$19.54	\$20.09	\$20.78	\$19.50	\$19.32	15.28	1.3
		low	\$18.40	\$19.43	\$19.06	\$20.05	\$19.05	\$18.06	\$17.00	\$16.91	\$18.13	\$18.25	\$18.61	\$19.70				
DYN	Dynegy Inc	high	\$7.25	\$8.81	\$9.74	\$10.53	\$10.95	\$9.81	\$10.66	\$9.70	\$9.50	\$9.60	\$9.25	\$8.46	\$8.29	\$8.73	19.60	0.38
		low	\$6.47	\$6.95	\$7.91	\$9.29	\$9.34	\$8.90	\$8.60	\$7.27	\$8.08	\$8.25	\$7.01	\$7.14				
EDE	Empire Dist Elec	high	\$25.00	\$26.11	\$24.97	\$26.13	\$25.09	\$23.83	\$23.67	\$24.29	\$23.27	\$24.07	\$24.34	\$23.50	\$23.18	\$23.58	16.36	1.38
		low	\$23.45	\$23.62	\$23.07	\$24.51	\$23.30	\$21.99	\$21.09	\$21.49	\$22.00	\$22.22	\$22.69	\$22.26				
EE	El Paso Electric	high	\$24.70	\$24.97	\$27.24	\$27.78	\$28.19	\$27.61	\$25.58	\$24.03	\$23.95	\$24.86	\$26.16	\$26.81	\$24.76	\$24.74	15.05	1.65
		low	\$23.15	\$23.39	\$22.95	\$26.19	\$25.76	\$24.08	\$22.78	\$20.76	\$22.11	\$22.27	\$23.42	\$25.05				
EIX	Edison Intl	high	\$46.28	\$51.00	\$50.83	\$54.27	\$60.26	\$58.75	\$59.57	\$57.18	\$58.02	\$58.31	\$58.55	\$58.00	\$55.89	\$53.13	14.92	3.55
		low	\$42.76	\$45.00	\$46.20	\$49.13	\$52.34	\$53.51	\$51.79	\$50.64	\$52.35	\$53.58	\$53.75	\$53.14				
GXP	Great Plains Energy	high	\$32.54	\$32.40	\$32.76	\$33.36	\$33.04	\$31.35	\$29.86	\$30.63	\$29.11	\$30.13	\$30.52	\$30.51	\$29.51	\$30.34	16.71	1.72
		low	\$31.04	\$30.90	\$30.24	\$32.37	\$30.34	\$28.82	\$27.50	\$26.89	\$27.87	\$28.04	\$28.94	\$28.89				
IDA	Idacorp Inc	high	\$39.19	\$38.39	\$35.06	\$35.18	\$34.89	\$33.67	\$32.38	\$36.57	\$33.90	\$36.45	\$35.74	\$36.72	\$34.66	\$34.01	16.70	2.053
		low	\$36.38	\$33.34	\$32.00	\$33.21	\$31.22	\$31.30	\$30.07	\$30.28	\$31.20	\$32.36	\$33.00	\$33.68				
ILA	Aquila Inc	high	\$4.81	\$4.68	\$4.23	\$4.31	\$4.30	\$4.39	\$4.16	\$4.10	\$4.12	\$4.19	\$4.19	\$4.04	\$3.99	\$4.11	21.08	0.18
		low	\$4.45	\$4.12	\$3.94	\$4.11	\$4.13	\$4.00	\$3.66	\$3.45	\$3.83	\$3.95	\$3.86	\$3.68				
LNT	Alliant Energy	high	\$38.22	\$44.00	\$46.30	\$46.53	\$45.47	\$43.48	\$40.80	\$39.62	\$39.03	\$40.57	\$42.00	\$43.41	\$40.48	\$40.43	10.76	3.73
		low	\$35.21	\$36.05	\$40.71	\$43.60	\$42.07	\$37.86	\$36.84	\$34.95	\$36.61	\$37.32	\$38.88	\$40.69				
MDU	MDU Resources Group	high	\$26.45	\$27.50	\$29.00	\$31.79	\$31.15	\$30.56	\$30.40	\$28.60	\$28.22	\$28.69	\$28.14	\$27.99	\$27.22	\$27.72	11.95	2.3
		low	\$24.39	\$25.84	\$25.25	\$28.84	\$29.50	\$27.40	\$26.50	\$24.64	\$26.05	\$26.57	\$25.89	\$26.02				

MONTANA DEPARTMENT OF REVENUE

Historical Stock Price Analysis From YAHOO Finance
Industry: Electric Utilities
2008 Assessment Year

Ticker	Company		Jan-07	Feb-07	Mar-07	Apr-07	May-07	Jun-07	Jul-07	Aug-07	Sep-07	Oct-07	Nov-07	Dec-07	4th Qtr Average	Annual Average	Yahoo P-E	Yahoo EPS 1st 12 mo
NI	NiSource Inc	high	\$24.49	\$24.80	\$24.80	\$25.23	\$25.43	\$22.31	\$21.68	\$21.16	\$19.73	\$20.82	\$20.35	\$19.47	\$19.23	\$21.49	16.38	1.15
		low	\$23.04	\$23.67	\$23.19	\$24.31	\$21.38	\$19.90	\$19.06	\$17.58	\$18.63	\$19.10	\$17.49	\$18.12				
NWEK	NorthWestern Corp	high	\$36.00	\$36.66	\$36.51	\$35.57	\$35.40	\$33.11	\$32.61	\$27.94	\$27.60	\$27.70	\$28.10	\$30.20	\$27.91	\$31.25	25.76	1.13
		low	\$35.30	\$35.54	\$35.32	\$34.92	\$32.10	\$30.25	\$26.66	\$24.45	\$26.50	\$26.88	\$26.95	\$27.64				
NRG	NRG Energy 2:1 Stock Split June	high	\$30.12	\$35.00	\$37.10	\$40.39	\$44.33	\$45.93	\$44.74	\$45.08	\$42.84	\$47.19	\$46.56	\$43.70	\$43.12	\$38.62	19.32	2.01
		low	\$27.22	\$29.78	\$32.62	\$35.98	\$39.22	\$40.38	\$36.40	\$23.03	\$38.08	\$41.96	\$38.79	\$40.50				
OGE	OGE Energy	high	\$40.48	\$41.30	\$39.23	\$39.65	\$39.12	\$37.16	\$37.59	\$34.62	\$34.25	\$38.30	\$37.81	\$37.45	\$36.10	\$36.41	14.36	2.475
		low	\$37.52	\$38.22	\$36.39	\$38.41	\$36.07	\$33.65	\$33.08	\$29.12	\$31.29	\$32.93	\$34.83	\$35.30				
PCG	PG&E Corp	high	\$47.95	\$49.32	\$49.44	\$52.17	\$51.95	\$49.52	\$46.77	\$47.00	\$48.78	\$49.52	\$49.39	\$47.61	\$46.39	\$46.99	16.23	2.65
		low	\$45.34	\$45.50	\$45.10	\$48.51	\$48.49	\$44.70	\$42.70	\$42.58	\$43.54	\$45.08	\$43.70	\$43.04				
PNM	PNM Resources	high	\$31.57	\$31.65	\$32.70	\$34.28	\$33.37	\$30.06	\$28.71	\$27.48	\$23.62	\$25.21	\$25.06	\$23.95	\$23.40	\$27.37	17.53	1.22
		low	\$29.62	\$29.46	\$29.32	\$32.31	\$28.50	\$26.50	\$25.11	\$21.05	\$21.19	\$23.05	\$21.71	\$21.41				
PNW	Pinnacle West Capital	high	\$51.67	\$49.05	\$48.89	\$50.68	\$49.45	\$46.66	\$41.30	\$41.76	\$40.70	\$42.62	\$43.64	\$44.50	\$41.88	\$44.14	12.99	3.2
		low	\$48.09	\$47.21	\$46.43	\$48.14	\$45.05	\$39.38	\$37.23	\$36.79	\$39.48	\$39.50	\$39.04	\$42.00				
POR	Portland General Electric	high	\$27.50	\$29.30	\$30.16	\$30.00	\$31.25	\$29.72	\$28.59	\$29.13	\$28.59	\$28.83	\$28.01	\$28.05	\$27.24	\$27.87	10.50	2.58
		low	\$25.56	\$26.16	\$27.90	\$28.12	\$28.68	\$26.40	\$26.59	\$25.50	\$26.30	\$26.55	\$25.74	\$26.24				
PPL	PPL Corp	high	\$36.66	\$39.68	\$41.53	\$45.58	\$49.44	\$47.63	\$50.32	\$52.79	\$50.07	\$52.11	\$51.80	\$54.58	\$50.62	\$45.33	18.90	2.7
		low	\$34.43	\$35.14	\$37.03	\$40.87	\$43.27	\$42.74	\$45.40	\$45.65	\$46.01	\$46.36	\$47.99	\$50.90				
PSD	Puget Energy	high	\$25.80	\$25.65	\$25.84	\$26.91	\$26.50	\$25.42	\$24.95	\$25.38	\$24.69	\$28.60	\$28.30	\$28.17	\$27.26	\$25.42	17.35	1.59
		low	\$24.23	\$24.20	\$24.00	\$25.62	\$24.86	\$23.58	\$23.10	\$22.47	\$23.19	\$23.40	\$27.90	\$27.20				
RRI	Reliant Resources	high	\$15.20	\$17.74	\$21.70	\$23.96	\$27.79	\$27.57	\$30.89	\$29.20	\$27.21	\$28.14	\$27.69	\$28.74	\$26.42	\$23.45	97.04	0.247
		low	\$13.52	\$14.76	\$16.59	\$20.37	\$21.58	\$23.65	\$25.13	\$22.72	\$24.87	\$24.55	\$24.11	\$25.29				
SO	Southern Co	high	\$37.25	\$36.95	\$37.09	\$38.90	\$38.46	\$36.20	\$35.30	\$37.70	\$37.48	\$37.23	\$38.75	\$39.35	\$37.17	\$36.31	16.87	2.27
		low	\$36.10	\$35.11	\$34.85	\$36.58	\$35.27	\$33.50	\$33.51	\$33.16	\$35.04	\$35.16	\$35.15	\$37.36				
SRE	Sempra Energy	high	\$58.01	\$62.53	\$63.03	\$66.38	\$65.44	\$62.40	\$62.25	\$57.67	\$60.33	\$61.80	\$62.88	\$64.21	\$60.98	\$59.53	17.55	3.54
		low	\$54.73	\$57.25	\$57.85	\$60.13	\$61.00	\$57.04	\$52.27	\$50.95	\$53.59	\$57.62	\$58.60	\$60.79				
SRP	Sierra Pacific Resources	high	\$17.36	\$18.26	\$17.75	\$18.56	\$19.60	\$19.15	\$18.15	\$16.37	\$16.04	\$16.98	\$17.64	\$17.76	\$16.75	\$17.00	17.10	0.99
		low	\$16.47	\$16.76	\$16.38	\$17.27	\$18.10	\$16.87	\$15.49	\$14.06	\$14.76	\$14.89	\$16.49	\$16.74				
TE	TECO Energy	high	\$17.49	\$17.28	\$17.48	\$18.38	\$18.58	\$17.66	\$17.71	\$17.01	\$16.63	\$16.92	\$17.49	\$17.91	\$16.85	\$16.91	12.39	1.38
		low	\$16.69	\$16.42	\$16.22	\$17.30	\$17.14	\$16.40	\$16.10	\$14.84	\$15.42	\$15.58	\$16.35	\$16.85				
UNS	Unisource Energy	high	\$37.85	\$39.17	\$38.41	\$40.01	\$39.94	\$36.95	\$33.72	\$31.44	\$30.82	\$32.30	\$31.91	\$32.72	\$31.03	\$34.01	21.10	1.473
		low	\$35.46	\$37.32	\$36.79	\$37.45	\$36.02	\$32.67	\$30.09	\$27.63	\$28.33	\$29.86	\$29.13	\$30.26				
XEL	Xcel Energy	high	\$23.62	\$24.73	\$24.94	\$25.03	\$24.46	\$23.19	\$21.35	\$21.40	\$22.41	\$22.62	\$23.13	\$23.50	\$22.30	\$22.50	17.55	1.27
		low	\$22.78	\$23.29	\$22.75	\$24.09	\$22.38	\$19.97	\$19.96	\$19.59	\$20.30	\$20.70	\$21.35	\$22.49				

MONTANA DEPARTMENT OF REVENUE

Support for Debt Rating
Industry: Electric Utilities
2008 Assessment Year

STANDARD & POOR'S BOND GUIDE
BOND YIELD TO MATURITY

Table with columns: Company Name, Coupon, CUSIP, Issue, Maturity Date, Rating, and monthly yield columns (Jan-07 to Dec-07), plus Avg Full Year and Avg 4th QTR. Rows list various utility companies and their bond offerings.

MONTANA DEPARTMENT OF REVENUE

Support for Debt Rating
 Industry: Electric Utilities
 2008 Assessment Year

STANDARD & POOR'S BOND GUIDE
 BOND YIELD TO MATURITY

Company Name	Coupon	CUSIP	Issue	Maturity Date	S&P Bond												Avg Full Year	Avg 4th QTR						
					Rating	Jan-07	Feb-07	Mar-07	Apr-07	May-07	Jun-07	Jul-07	Aug-07	Sep-07	Oct-07	Nov-07			Dec-07					
Indianapolis Pwr & Lt	7.05	455434BB5	1st	2/1/2024	NR	6.56																		
Otter Tail Corp.	5.62	689648AN3	Sr Nts	10/1/2017	NR	5.95	5.89	5.86	5.88	5.96	6.04	5.90	5.82	5.61	5.62	5.62	5.62	5.62	5.62	5.62	5.62	5.62	5.62	5.62
Otter Tail Corp.	6.8	689648AP8	Sr Nts	10/1/2032	NR	6.96	6.92	6.92	6.93	6.98	7.03	6.94	6.91	6.79	6.79	6.79	6.79	6.79	6.79	6.79	6.79	6.79	6.79	6.79
Tennessee Valley Authority	7.14	880591DL3	PwrBonds '00F	5/23/2012	NR	5.03	4.79	4.94	4.84	5.22	5.33	5.26	4.89	4.84	4.77	4.77	4.77	4.77	4.77	4.77	4.77	4.77	4.77	4.77
Tennessee Valley Authority	5.98	880591CK6	Pwr Bonds '96A	4/1/2036	NR	5.36	5.18	5.37	5.28	5.49	5.62	5.59	5.32	5.31	5.15	5.15	5.15	5.15	5.15	5.15	5.15	5.15	5.15	5.15
Tennessee Valley Authority	5.88	880591CS9	Pwr Bonds '97C	4/1/2036	NR	5.35	5.15	5.32	5.23	5.43	5.59	5.49	5.30	5.31	5.16	5.16	5.16	5.16	5.16	5.16	5.16	5.16	5.16	5.16
Tennessee Valley Authority	6.15	880591CP5	Pwr Bonds '98B	1/15/2038	NR	5.35	5.18	5.33	5.28	5.45	5.62	5.52	5.33	5.35	5.20	5.20	5.20	5.20	5.20	5.20	5.20	5.20	5.20	5.20
Tennessee Valley Authority	8.25	880591BL5	Pwr Bonds '92D	4/15/2042	NR	7.17	7.04	7.00	7.04	7.11	7.15	7.25	7.16	6.95	6.87	6.87	6.87	6.87	6.87	6.87	6.87	6.87	6.87	6.87
Tennessee Valley Authority	6.235	880591CF7	Pwr Bonds '95B	7/15/2045	NR	6.13	5.93	6.01	5.93	6.09	6.41	6.19	5.98	5.99	5.88	5.88	5.88	5.88	5.88	5.88	5.88	5.88	5.88	5.88
TXU Corp.	4.8	873168AJ7	Sr Nts'O'	11/15/2009	NR	5.81	5.56	5.53	5.55	5.72	6.03	5.83	5.85	6.30	4.36	4.64	4.64	4.64	4.64	4.64	4.64	4.64	4.64	4.64
UtiliCorp United	9	918005AE9	Sr Nts	11/15/2021	NR	8.79	8.75	8.75	8.75	8.75	8.74	8.74	8.74	8.74	8.74	8.74	8.74	8.74	8.74	8.74	8.74	8.74	8.74	8.74
			Counts of data			523	518	517	517	512	508	502	499	497	492	490	486	482						

NOTES:

January data hand entered from S&P Bond Guide remainder data downloaded from the S&P website and supplemented from month end Bond Guides when available
 means the data was not available in S&P Guide
 means issuance matured or called

	Annual	4th Qtr
AAA's	5.38%	5.13%
AA's	5.71%	5.40%
A's	5.66%	5.43%
BBB's	5.77%	5.55%
BB's	6.38%	6.19%
B's	7.10%	7.46%
CCC's	7.20%	7.74%
NR's	6.44%	6.31%
Investment Grade (BBB & above)		
ALL	5.83%	5.64%
BBB+ thru AAA	5.65%	5.43%
BB thru AAA	5.74%	5.51%

MONTANA DEPARTMENT OF REVENUE

Direct Capitalization Rate Study

Industry: Gas Pipelines

2008 Assessment Year

Equity Measures Calculated:

E/P estimates:

All	Median	
2.61%	6.02%	Yahoo
5.09%	5.40%	Value Line
3.85%	5.71%	Average of E/Ps

Inverse of P/E Ratios:

5.38%	5.87%	Yahoo
5.23%	5.57%	Value Line
5.31%	5.72%	Average of Inverse of the P/E
6.64%	6.25%	Inverse of median P/E, Value Line
4.58%	5.72%	Average of all above except median P/E
Mean =	4.99%	
Median =	5.23%	

Equity Measure NUOI = 6.50%

Debt Measure Calculated:

	Annual	4th Qtr
	6.17%	5.97% All
	5.66%	5.38% BBB & Above
	5.97%	5.77% BBB's
Mean =	5.94%	5.71%
Median =	5.97%	5.77%

Debt Measure = 5.80%

Industry Market Capital Structure Net Utility Operating Income (NUOI) Rate					
Equity	82.00%	x	6.50%	=	5.33%
Debt	18.00%	x	5.80%	=	1.04%
	100%				6.37%
Direct Cap Rate NUOI					= 6.50%

Gross Cash Flow / Price:

Mean	Median	
9.66%	9.00%	Value Line
Equity Measure Gross =	10.50%	

Industry Market Capital Structure Gross Cash Flow Rate (GCF)					
Equity	82.00%	x	10.50%	=	8.61%
Debt	18.00%	x	5.80%	=	1.04%
	100%				9.65%
Direct Cap Rate GCF					= 9.75%

MONTANA DEPARTMENT OF REVENUE

Yield Capitalization Rate Study
Industry: Gas Pipelines
 2008 Assessment Year

Dividend Growth Model	All																														
	18.00%																														
Capital Asset Pricing Model	<u>9.70%</u>																														
	Mean = 13.85%																														
	Median = 13.85%																														
<u>Equity Measure FCF =</u>	9.50%																														
<u>Debt Measure Calculated =</u>	5.80%																														
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="6">Yield Cap Rate Free Cash Flow - Gas Pipelines</th> </tr> </thead> <tbody> <tr> <td style="width: 10%;">Equity</td> <td style="width: 15%;">82.00%</td> <td style="width: 5%;">x</td> <td style="width: 15%;">9.50%</td> <td style="width: 5%;">=</td> <td style="width: 10%;">7.79%</td> </tr> <tr> <td>Debt</td> <td>18.00%</td> <td>x</td> <td>5.80%</td> <td>=</td> <td>1.04%</td> </tr> <tr> <td></td> <td align="center"><u>100%</u></td> <td></td> <td></td> <td></td> <td align="center"><u>8.83%</u></td> </tr> <tr> <td colspan="5">Weighted Average Cost of Capital (WACC) =</td> <td align="right">9.00%</td> </tr> </tbody> </table>		Yield Cap Rate Free Cash Flow - Gas Pipelines						Equity	82.00%	x	9.50%	=	7.79%	Debt	18.00%	x	5.80%	=	1.04%		<u>100%</u>				<u>8.83%</u>	Weighted Average Cost of Capital (WACC) =					9.00%
Yield Cap Rate Free Cash Flow - Gas Pipelines																															
Equity	82.00%	x	9.50%	=	7.79%																										
Debt	18.00%	x	5.80%	=	1.04%																										
	<u>100%</u>				<u>8.83%</u>																										
Weighted Average Cost of Capital (WACC) =					9.00%																										
Assumed Growth Rate = Inflation <i>see appendix for calculation</i>	Growth = 2.44%																														

MONTANA DEPARTMENT OF REVENUE

Support for Industry Capital Structure
Industry: Gas Pipelines
2007 Assessment Year

COMPANY	TICKER SYMBOL	(VL) FIN STR	(VL) SHARES (000)	(YAHOO) AVG PRICE COMMON 4th Quarter	(VL) BOOK VALUE PER SHARE H/D	MKT VALUE COMMON (000) DxE	(VL) BOOK VALUE COMMON (000)	(VL) BOOK VALUE PREFERRED (000)	MKT VALUE PREFERRED (000) xL	(VL) BOOK VALUE DEBT (000)
ONEOK Partners LP	OKS	A	82,900	61.760	26.402	5,119,904	2,188,700	0	0	2,019,600
Devon Energy	DVN	B++	444,000	87.688	38.946	38,933,620	17,292,000	150,000	150,000	5,568,000
ENCANA Corp	ECA	B++	777,900	67.340	22.453	52,383,786	17,466,000	0	0	6,577,000
Southwestern Energy	SWN	B++	169,000	50.630	8.489	8,556,470	1,434,600	0	0	136,600
Boardwalk	BWP	B+	108,300	31.375	11.750	3,397,913	1,272,500	0	0	1,350,900
Buckeye	BPL	B+	39,700	50.937	20.401	2,022,186	809,900	0	0	994,100
Kinder Morgan Egy Ptnrs L.P.	KMP	B+	224,600	51.492	17.418	11,565,028	3,912,000	109,700	109,700	4,427,000
Plains All American	PAA	B+	109,400	52.220	27.210	5,712,868	2,976,800	0	0	2,626,300
Enterprise Products	EPD	B	432,400	31.238	14.987	13,507,455	6,480,200	0	0	5,295,600
Teppco Partners	TPP	B	89,800	39.105	15.657	3,511,629	1,406,000	(85,700)	(85,700)	1,603,300

SUMS & AVERAGES - ALL
SUMS & AVERAGES - B++ - A
MEDIAN VALUE - ALL

144,710,859 55,238,700 259,700 259,700 30,598,400
104,993,780 38,381,300 150,000 150,000 14,301,200
7,134,669 2,582,750 2,322,950

* All Negative values left out of calculations

INDUSTRY MARKET STRUCTURE

ALL

EQUITY	82.00%	144,710,859
DEBT	18.00%	30,858,100
TOTAL	100.00%	175,568,959

INDUSTRY MARKET STRUCTURE

B++ - A

EQUITY	88.00%	104,993,780
DEBT	12.00%	14,451,200
TOTAL	100.00%	119,444,980

MONTANA DEPARTMENT OF REVENUE

Support for Industry Capital Structure
Industry: Gas Pipelines
2008 Assessment Year

COMPANY	TICKER SYMBOL	MKT/BOOK ratio for DEBT	MKT VALUE DEBT (000) KxL	EPS (YAHOO) l1st 12mo	E/P (YAHOO) N/E	EPS (VL)	E/P (VL) P/E	CF/S (VL)	CF/P (VL) R/E	P/E (YAHOO)	Inverse of P/E (YAHOO) 1/T	P/E (VL)	Inverse of P/E (VL) 1/V	Median P/E (VL)	Inverse of Median P/E (VL) 1/X	ValueLine Beta	S&P Beta
ONEOK Partners LP	OKS	1	2,019,600	3.77	6.10%	2.29	3.71%	NA		16.46	6.08%			16.00	6.25%	0.65	0.3061
Devon Energy	DVN	1	5,568,000	6.36	7.25%	6.31	7.20%	12.05	13.74%	14.42	6.93%	14.33	6.98%	11.00	9.09%	0.95	0.9326
ENCANA Corp	ECA	1	6,577,000	4.55	6.76%	5.40	8.02%	10.15	15.07%	13.84	7.23%	13.14	7.61%	13.14	7.61%	0.85	0.7962
Southwestern Energy	SWN	1	136,600	1.06	2.09%	1.25	2.47%	2.95	5.83%	55.05	1.82%	36.11	2.77%	18.00	5.56%	1.25	1.2404
Boardwalk	BWP	1	1,350,900	1.89	6.02%	1.90	6.06%	2.45	7.81%	17.05	5.87%						0.587
Buckeye	BPL	1	994,100	2.92	5.73%	2.90	5.69%	4.20	8.25%	17.21	5.81%	15.66	6.39%	14.00	7.14%	0.75	0.3955
Kinder Morgan Egy Ptnrs L.P.	KMP	1	4,427,000	(0.12)	-0.23%	1.70	3.30%	5.25	10.20%	NA		27.93	3.58%	19.00	5.26%	0.65	0.1169
Plains All American	PAA	1	2,626,300	2.57	4.92%	3.20	6.13%	4.70	9.00%	20.05	4.99%	17.29	5.78%			0.70	0.4809
Enterprise Products	EPD	1	5,295,600	0.91	2.91%	1.00	3.20%	2.45	7.84%	35.23	2.84%	29.36	3.41%			0.55	0.3181
Teppco Partners	TPP	1	1,603,300	2.72	6.96%	2.00	5.11%	3.60	9.21%	14.50	6.90%	18.65	5.36%	18.00	5.56%	0.65	0.2198

SUMS & AVERAGES - ALL			30,598,400		2.61%		5.09%		9.66%		5.38%		5.23%		6.64%	0.78	0.54
SUMS & AVERAGES - B++ - A			14,301,200		5.55%		5.35%		11.55%		5.51%		5.79%		7.13%	0.93	0.82
MEDIAN VALUE - ALL			2,322,950		6.02%		5.40%		9.00%		5.87%		5.57%		6.25%	0.70	0.44

* All Negative values left out of calculations

Industry Beta **0.800**

MONTANA DEPARTMENT OF REVENUE

2008 Capital Asset Pricing Model
 Industry: Gas Pipelines
 2008 Assessment Year

$$K_E = R_F + \beta (R_M - R_F)$$

	Gas Pipelines
K_E = Cost of Equity	9.70%
R_F = Risk Free Rate	4.50%
β = Beta	0.80
R_M = Market Rate of Return	11.00%
R_p = Equity Risk Premium ($R_M - R_F$)	6.50%

R_m = Investor's Market Rate of Return

Ibbotson, SBBI, Large Company, Average Annual Return, * Arithmetic Average, Ex Post
 Ibbotson, SBBI, Large Company, Average Annual Return, * Geometric Average, Ex Post
 3 Stage Dividend Growth Model, S & P 500, Ex Ante

R_M =	12.30%
R_M =	10.40%
R_M =	10.00%
Mean =	10.90%
Median =	10.40%
R_M =	11.00%

R_f = Risk Free Rate

Internal Revenue Service, Rev Rule 2007-70 Table 2 December 2007
Rev Rule 2007-70 Table 2 2007

Annual Rates		R_f =	
Short Term - AFR			3.40%
Mid Term - AFR			3.67%
Long Term - AFR			4.34%

The ValueLine Investment Survey

U.S. Treasury Securities December 28 2007

3 Month		R_f =	2.89%
6 Month		R_f =	3.31%
1 Year		R_f =	3.31%

Federal Reserve Statistical Release

Treasury constant Maturities, 2007

Market yield on U.S. Treasury securities, Annual Averages

3-month constant maturity, quoted on investment basis		R_f =	4.48%
6-month constant maturity, quoted on investment basis		R_f =	4.62%
1-year constant maturity, quoted on investment basis		R_f =	4.53%

U.S. Treasury Securities Long-Term December 31, 2007

		Mean =	3.84%
		Median =	3.67%
30 year constant maturity	R_f = 4.45%	Weighted Mean =	3.92%
20 year constant maturity	R_f = 4.50%		
		R_f =	4.50%

MONTANA DEPARTMENT OF REVENUE

Dividend Growth Model
Industry: Gas Pipelines
 2008 Assessment Year

$$K_E = D1 / P_0 + G_A$$

KE= Cost of Equity

Po= Current Price Per Share

D1= Expected Dividends

G= Sustainable Growth

Company Name	Ticker	Stock Price (Po)	Expected Dividend (D1)	Dividend Yield (D1/P0)	Dividend Growth (G1)	Ke 1 Year
ONEOK Partners LP	OKS	16.460	na		4.50%	
Devon Energy	DVN	14.420	0.56	3.88%	14.00%	17.88%
ENCANA Corp	ECA	13.840	0.82	5.92%	23.00%	28.92%
Southwestern Energy	SWN	55.050	nil		nil	
Boardwalk	BWP	17.050	1.74	10.21%	nmf	
Buckeye	BPL	17.210	3.23	18.77%	5.50%	24.27%
Kinder Morgan Egy Ptrns L.P.	KMP	51.492	3.65	7.09%	6.50%	13.59%
Plains All American	PAA	20.050	3.29	16.41%	8.50%	24.91%
Enterprise Products	EPD	35.230	2.06	5.85%	9.50%	15.35%
Teppco Partners	TPP	14.500	2.8	19.31%	2.50%	21.81%

Weighted Mean = 18.14%

Median = 21.81%

Mean = 20.96%

KE = 18.00%

MONTANA DEPARTMENT OF REVENUE

Historical Stock Price Analysis From YAHOO Finance
Industry: Gas Pipelines
2008 Assessment Year

Ticker	Company		Jan-07	Feb-07	Mar-07	Apr-07	May-07	Jun-07	Jul-07	Aug-07	Sep-07	Oct-07	Nov-07	Dec-07	4th Qtr Average	Annual Average	Yahoo P-E	Yahoo EPS 1st 12
			high	low	high	low	high	low	high	low	high	low	high	low				mo
BPL	Buckeye	high	\$52.21	\$52.75	\$50.21	\$54.75	\$54.80	\$53.49	\$55.19	\$54.50	\$51.60	\$55.54	\$55.26	\$51.06	\$50.94	\$50.90	17.21	2.92
		low	\$46.00	\$48.85	\$48.51	\$49.37	\$49.89	\$48.79	\$51.80	\$44.40	\$48.77	\$48.51	\$47.75	\$47.50				
BWP	Boardwalk	high	\$35.79	\$37.35	\$39.20	\$37.46	\$36.69	\$35.88	\$37.79	\$36.99	\$33.93	\$33.33	\$32.53	\$32.25	\$31.38	\$33.88	17.05	1.89
		low	\$30.13	\$34.50	\$35.39	\$35.94	\$32.65	\$33.81	\$32.18	\$28.80	\$30.50	\$29.76	\$30.38	\$30.00				
CHK	Chesapeake Energy Corp.	high	\$30.11	\$31.83	\$31.49	\$34.40	\$36.22	\$37.75	\$37.55	\$36.64	\$36.18	\$39.74	\$41.19	\$39.75	\$38.21	\$34.24	12.61	3.17
		low	\$27.27	\$28.88	\$29.05	\$30.88	\$33.51	\$34.25	\$33.12	\$31.38	\$32.05	\$34.90	\$36.61	\$37.04				
COG	Cabot Oil & Gas'A'	high	\$65.45	\$71.83	\$70.91	\$37.47	\$39.93	\$42.50	\$38.46	\$35.25	\$37.66	\$39.85	\$40.17	\$41.15	\$37.08	\$43.56	25.79	1.61
		low	\$55.73	\$63.58	\$64.67	\$33.64	\$35.51	\$36.48	\$31.38	\$29.99	\$32.50	\$34.83	\$33.03	\$33.47				
CPE	Callon Petroleum	high	\$15.00	\$14.31	\$14.37	\$14.76	\$14.73	\$15.19	\$15.68	\$14.28	\$14.45	\$14.75	\$15.95	\$17.21	\$14.85	\$14.07	21.63	0.77
		low	\$12.54	\$13.15	\$12.77	\$13.26	\$13.59	\$13.62	\$13.94	\$11.50	\$11.55	\$13.33	\$13.74	\$14.11				
DGAS	Delta Natural Gas	high	\$25.35	\$25.48	\$25.10	\$25.25	\$25.91	\$26.08	\$25.83	\$25.37	\$25.23	\$25.50	\$25.44	\$25.84	\$25.01	\$24.94	16.44	1.54
		low	\$24.68	\$24.30	\$24.30	\$24.70	\$25.00	\$23.89	\$24.69	\$23.50	\$23.89	\$24.45	\$24.10	\$24.75				
DVN	Devon Energy	high	\$70.91	\$71.24	\$70.44	\$75.29	\$79.77	\$83.92	\$83.97	\$80.50	\$85.20	\$94.75	\$94.65	\$92.12	\$87.69	\$77.19	14.42	6.36
		low	\$63.24	\$64.78	\$62.80	\$69.30	\$72.21	\$75.34	\$73.80	\$69.01	\$74.69	\$82.69	\$80.05	\$81.87				
DYN	Dynergy Inc	high	\$7.25	\$8.81	\$9.74	\$10.53	\$10.95	\$9.81	\$10.66	\$9.70	\$9.50	\$9.60	\$9.25	\$8.46	\$8.29	\$8.73	19.60	0.38
		low	\$6.47	\$6.95	\$7.91	\$9.29	\$9.34	\$8.90	\$8.60	\$7.27	\$8.08	\$6.25	\$7.01	\$7.14				
ECA	ENCANA Corp	high	\$49.01	\$49.86	\$51.49	\$54.99	\$63.21	\$66.87	\$65.18	\$63.13	\$64.16	\$69.89	\$75.85	\$69.59	\$67.34	\$58.43	13.84	4.55
		low	\$42.38	\$47.19	\$45.87	\$50.58	\$51.79	\$59.88	\$59.22	\$55.13	\$58.33	\$60.86	\$63.82	\$64.03				
EGN	Energen Corp.	high	\$46.95	\$49.35	\$51.43	\$57.00	\$60.49	\$59.93	\$58.90	\$57.46	\$57.99	\$64.49	\$65.53	\$70.41	\$63.45	\$55.38	14.31	4.50
		low	\$43.78	\$45.75	\$46.55	\$51.05	\$55.86	\$53.54	\$51.04	\$48.24	\$53.01	\$56.81	\$60.42	\$63.05				
EEP	Enbridge Energy Partners L	high	\$52.95	\$54.07	\$56.43	\$61.82	\$60.83	\$56.92	\$58.47	\$56.08	\$52.00	\$53.59	\$54.16	\$52.16	\$51.35	\$53.44	21.19	2.44
		low	\$48.25	\$51.60	\$52.00	\$55.45	\$53.69	\$52.30	\$54.90	\$48.27	\$48.38	\$48.71	\$50.50	\$49.00				
ENB.TO	Enbridge Inc.	high	\$41.48	\$38.54	\$39.00	\$37.90	\$38.35	\$38.24	\$38.74	\$37.97	\$37.00	\$40.97	\$40.96	\$40.20	\$38.55	\$37.58	22.97	1.77
		low	\$38.21	\$36.76	\$36.50	\$36.48	\$36.09	\$35.21	\$35.68	\$33.62	\$34.90	\$36.25	\$35.75	\$37.16				
EOG	EOG Resources	high	\$69.75	\$69.95	\$73.09	\$77.71	\$79.21	\$81.49	\$76.92	\$75.83	\$75.25	\$89.71	\$90.73	\$91.63	\$84.44	\$74.59	23.44	3.90
		low	\$59.21	\$64.40	\$64.00	\$71.15	\$73.80	\$71.33	\$68.30	\$65.29	\$66.86	\$72.20	\$80.79	\$81.57				
EP	El Paso Energy Partners LP	high	\$15.63	\$15.66	\$14.89	\$15.83	\$17.25	\$17.43	\$18.56	\$17.51	\$17.58	\$17.79	\$18.37	\$17.72	\$16.91	\$16.08	16.24	1.06
		low	\$14.26	\$14.23	\$13.71	\$14.41	\$14.80	\$16.25	\$16.05	\$15.00	\$15.49	\$16.45	\$15.29	\$15.83				
EPD	Enterprise Products	high	\$29.99	\$30.64	\$32.75	\$33.35	\$33.35	\$32.10	\$33.70	\$31.69	\$32.19	\$32.32	\$32.45	\$31.88	\$31.24	\$30.94	35.23	0.91
		low	\$28.06	\$29.48	\$30.15	\$31.65	\$30.22	\$30.24	\$30.00	\$26.14	\$29.45	\$30.14	\$30.72	\$29.92				
EQT	Equitable Resources	high	\$43.69	\$44.55	\$50.50	\$53.39	\$52.77	\$53.70	\$53.37	\$54.42	\$52.46	\$56.71	\$56.75	\$55.58	\$54.04	\$49.61	24.69	2.19
		low	\$39.26	\$42.00	\$41.19	\$47.96	\$49.75	\$48.11	\$46.31	\$44.57	\$48.42	\$52.12	\$51.54	\$51.55				
KMP	Kinder Morgan Egy Ptnrs L.I	high	\$50.78	\$51.71	\$53.50	\$57.00	\$57.35	\$55.87	\$56.70	\$53.29	\$51.35	\$54.00	\$52.47	\$54.71	\$51.49	\$52.10	NA	(0.12)
		low	\$47.28	\$49.79	\$50.31	\$52.68	\$53.17	\$52.11	\$52.55	\$46.61	\$49.40	\$48.51	\$49.24	\$50.02				

MONTANA DEPARTMENT OF REVENUE

Historical Stock Price Analysis From YAHOO Finance
Industry: Gas Pipelines
2008 Assessment Year

Ticker	Company		Jan-07	Feb-07	Mar-07	Apr-07	May-07	Jun-07	Jul-07	Aug-07	Sep-07	Oct-07	Nov-07	Dec-07	4th Qtr Average	Annual Average	Yahoo P-E	Yahoo EPS 1st 12 mo
NFG	Nat'l Fuel Gas	high	\$40.94	\$43.79	\$43.60	\$47.87	\$47.65	\$46.94	\$46.72	\$46.02	\$47.00	\$49.29	\$49.06	\$50.29	\$47.67	\$44.70	11.77	3.96
		low	\$36.94	\$40.60	\$40.46	\$43.28	\$44.91	\$42.75	\$43.19	\$40.95	\$43.20	\$45.20	\$45.63	\$46.56				
NFX	Newfield Exploration Co	high	\$45.36	\$44.59	\$43.29	\$46.31	\$51.60	\$54.28	\$51.38	\$49.92	\$49.47	\$55.00	\$54.04	\$54.73	\$51.28	\$46.74	31.18	1.69
		low	\$39.30	\$39.83	\$39.37	\$41.15	\$43.03	\$44.75	\$45.52	\$41.82	\$43.20	\$47.52	\$46.98	\$49.42				
NGT	Eastern AmerNat'lGasTrSPi	high	\$28.65	\$29.40	\$27.70	\$27.36	\$26.75	\$26.41	\$27.91	\$27.34	\$27.00	\$27.50	\$27.60	\$27.43	\$26.70	\$26.53	13.36	1.99
		low	\$27.03	\$26.54	\$23.58	\$25.15	\$25.36	\$24.85	\$25.01	\$25.16	\$25.28	\$26.27	\$26.05	\$25.35				
OKE	ONEOK Inc.	high	\$43.65	\$43.85	\$46.33	\$49.15	\$54.90	\$54.82	\$55.27	\$52.09	\$47.80	\$50.20	\$52.16	\$48.11	\$47.84	\$47.26	17.98	2.49
		low	\$41.00	\$41.00	\$39.26	\$44.21	\$47.93	\$47.91	\$50.45	\$41.85	\$45.60	\$46.91	\$45.96	\$43.71				
OKS	ONEOK Partners LP	high	\$64.36	\$67.25	\$69.28	\$73.00	\$73.00	\$70.95	\$71.47	\$68.99	\$65.00	\$65.44	\$65.91	\$62.78	\$61.76	\$65.05	16.46	3.77
		low	\$61.25	\$63.16	\$63.39	\$67.00	\$65.10	\$66.15	\$65.99	\$56.00	\$59.33	\$58.72	\$59.41	\$58.30				
PAA	Plains All American	high	\$55.04	\$55.75	\$59.33	\$59.74	\$62.42	\$64.82	\$65.24	\$61.81	\$57.75	\$57.09	\$55.64	\$52.84	\$52.22	\$56.36	20.05	2.57
		low	\$49.56	\$53.58	\$54.90	\$56.32	\$57.24	\$60.70	\$60.45	\$52.01	\$52.76	\$52.70	\$46.25	\$48.80				
PBR	Petroleo Brasileiro ADR Stock Split 2:1 07/07	high	\$51.91	\$50.27	\$50.97	\$53.85	\$55.44	\$62.37	\$71.65	\$65.57	\$77.12	\$97.28	\$119.16	\$118.40	\$98.28	\$65.99	20.90	5.66
		low	\$45.18	\$44.50	\$41.38	\$49.35	\$49.26	\$53.03	\$61.13	\$48.75	\$62.37	\$72.85	\$87.85	\$94.16				
PETD	Petroleum Development	high	\$51.96	\$55.20	\$54.19	\$55.24	\$53.28	\$52.75	\$51.13	\$49.84	\$45.97	\$49.75	\$53.94	\$61.91	\$50.02	\$48.59	27.09	2.22
		low	\$40.53	\$50.72	\$48.12	\$51.91	\$48.06	\$44.59	\$39.64	\$35.73	\$37.29	\$43.00	\$41.65	\$49.87				
PVA	Penn Virginia	high	\$73.75	\$74.31	\$74.05	\$83.27	\$83.64	\$85.66	\$43.17	\$42.79	\$44.50	\$48.60	\$49.56	\$45.82	\$44.71	\$57.15	29.67	1.48
		low	\$63.90	\$69.23	\$66.25	\$73.01	\$76.70	\$38.32	\$35.68	\$37.32	\$37.77	\$42.40	\$40.94	\$40.94				
REP	Repsol-YPF ADR	high	\$35.07	\$33.48	\$34.07	\$35.74	\$36.95	\$39.22	\$41.33	\$39.73	\$36.43	\$39.65	\$40.06	\$37.73	\$37.07	\$35.53	10.55	3.49
		low	\$31.70	\$31.56	\$30.33	\$32.85	\$32.65	\$34.93	\$36.36	\$34.36	\$33.45	\$35.15	\$35.47	\$34.36				
STR	Questar Corp Stock Split 2:1 07/07	high	\$41.41	\$43.16	\$45.58	\$50.00	\$54.32	\$55.84	\$58.75	\$52.54	\$53.27	\$57.36	\$57.16	\$56.59	\$54.38	\$49.43	19.45	2.84
		low	\$37.98	\$39.67	\$40.83	\$44.61	\$48.16	\$51.49	\$49.50	\$44.42	\$48.52	\$50.67	\$51.46	\$53.02				
SWN	Southwestern Energy	high	\$38.68	\$40.93	\$41.64	\$45.11	\$48.23	\$50.52	\$46.45	\$43.50	\$44.44	\$51.74	\$56.42	\$57.00	\$50.63	\$43.46	55.05	1.06
		low	\$31.14	\$37.01	\$35.55	\$40.75	\$40.84	\$43.75	\$38.03	\$35.67	\$36.92	\$41.70	\$47.70	\$49.22				
TPP	Teppco Partners	high	\$41.92	\$43.60	\$44.53	\$46.20	\$46.20	\$45.00	\$46.01	\$43.54	\$40.49	\$40.81	\$40.53	\$39.89	\$39.11	\$41.72	14.50	2.72
		low	\$39.88	\$41.24	\$42.00	\$43.59	\$42.15	\$42.54	\$42.69	\$37.04	\$38.01	\$37.41	\$38.82	\$37.17				
TRP	TransCanada P.L.	high	\$35.30	\$33.37	\$34.35	\$36.00	\$37.22	\$37.10	\$38.07	\$36.47	\$36.87	\$42.54	\$43.94	\$41.44	\$40.21	\$36.01	18.19	2.10
		low	\$32.47	\$31.75	\$31.33	\$32.91	\$35.29	\$33.50	\$34.05	\$32.92	\$34.08	\$36.65	\$38.20	\$38.48				
VLO	Valero Energy Corp.	high	\$54.46	\$59.67	\$66.02	\$73.10	\$77.24	\$77.89	\$78.68	\$69.93	\$72.30	\$75.75	\$73.00	\$71.25	\$68.39	\$66.44	7.02	9.55
		low	\$47.66	\$54.62	\$54.75	\$63.53	\$70.00	\$71.85	\$66.02	\$60.00	\$66.38	\$65.97	\$60.80	\$63.57				
WMB	Williams Cos	high	\$27.23	\$28.71	\$29.05	\$30.23	\$32.45	\$32.62	\$35.84	\$34.25	\$36.25	\$36.94	\$37.74	\$36.64	\$35.25	\$31.32	24.21	1.49
		low	\$25.17	\$26.46	\$25.90	\$27.61	\$28.18	\$29.58	\$30.60	\$29.16	\$31.00	\$33.10	\$33.07	\$34.00				
XTO	XTO Energy Inc. Stock Split 5:4 12/07	high	\$50.80	\$53.79	\$55.83	\$57.70	\$59.18	\$63.99	\$62.00	\$59.91	\$64.28	\$67.17	\$67.49	\$53.20	\$58.14	\$55.97	15.03	3.51
		low	\$43.86	\$49.16	\$49.25	\$54.26	\$54.11	\$58.10	\$53.57	\$50.50	\$54.15	\$60.98	\$59.52	\$40.46				

MONTANA DEPARTMENT OF REVENUE

Direct Capitalization Rate Summary

Industry: Liquid Pipelines

2008 Assessment Year

Equity Measures Calculated:

E/P estimates:

ALL	Median
9.76%	9.41% Yahoo
9.00%	9.39% Value Line
9.38%	9.40% Average of E/Ps

Inverse of P/E Ratios:

9.67%	8.97% Yahoo
9.19%	9.22% Value Line
9.43%	9.09% Average of Inverse of the P/E
9.05%	10.00% Inverse of median P/E, Value Line
9.41%	9.25% Average of all above except median P/E

Mean = 9.33% 9.40%

Median = 9.19% 9.39%

Equity Measure NUOI = 9.30%

Debt Measure Calculated:

Annual 4th Qtr

6.17%	5.99% All
5.62%	5.32% BBB & Above
5.90%	5.66% BBB's

Mean = 5.90% 5.66%

Median = 5.90% 5.66%

Debt Measure = 5.60%

Industry Market Capital Structure Net Utility Operating Income (NUOI) Rate					
Equity	94.00%	x	9.30%	=	8.74%
Debt	6.00%	x	5.60%	=	0.34%
	100%				9.08%
Direct Cap Rate NUOI					= 9.25%

Gross Cash Flow / Price:

All	Median
12.93%	12.80% Value Line

Equity Measure Gross = 13.00%

Industry Market Capital Structure Gross Cash Flow Rate (GCF)					
Equity	94.00%	x	13.00%	=	12.22%
Debt	6.00%	x	5.60%	=	0.34%
	100%				12.56%
Direct Cap Rate GCF					= 12.75%

MONTANA DEPARTMENT OF REVENUE

Yield Capitalization Rate Summary
Industry: Liquid Pipelines
 2008 Assessment Year

Dividend Growth Model		All	12.50%																									
Capital Asset Pricing Model			11.00%																									
	Mean =		11.75%																									
	Median =		11.75%																									
Equity Measure FCF =			11.00%																									
Debt Measure Calculated:			5.60%																									
<table border="1" style="width: 100%; border-collapse: collapse; margin: 10px 0;"> <thead> <tr> <th align="center" colspan="5">Yield Cap Rate Free Cash Flow - Liquid Pipelines</th> </tr> </thead> <tbody> <tr> <td align="center">Equity</td> <td align="center">94.00%</td> <td align="center">x</td> <td align="center">11.00%</td> <td align="center">= 10.34%</td> </tr> <tr> <td align="center">Debt</td> <td align="center">6.00%</td> <td align="center">x</td> <td align="center">5.60%</td> <td align="center">= 0.34%</td> </tr> <tr> <td></td> <td align="center"><u>100%</u></td> <td></td> <td></td> <td align="center"><u>10.68%</u></td> </tr> <tr> <td align="right" colspan="4">Weighted Average Cost of Capital (WACC)=</td> <td style="text-align: right;">10.75%</td> </tr> </tbody> </table>				Yield Cap Rate Free Cash Flow - Liquid Pipelines					Equity	94.00%	x	11.00%	= 10.34%	Debt	6.00%	x	5.60%	= 0.34%		<u>100%</u>			<u>10.68%</u>	Weighted Average Cost of Capital (WACC)=				10.75%
Yield Cap Rate Free Cash Flow - Liquid Pipelines																												
Equity	94.00%	x	11.00%	= 10.34%																								
Debt	6.00%	x	5.60%	= 0.34%																								
	<u>100%</u>			<u>10.68%</u>																								
Weighted Average Cost of Capital (WACC)=				10.75%																								
Where Assumed Growth Rate = Inflation <i>see appendix for calculation</i>		Growth =	2.44%																									

MONTANA DEPARTMENT OF REVENUE

Support for Industry Capital Structure
Industry: Liquid Pipelines
2008 Assessment Year

COMPANY	TICKER SYMBOL	(VL) FIN STR	(VL) SHARES (000)	(YAHOO) AVG PRICE COMMON	(VL) BOOK VALUE PER SHARE	MKT VALUE COMMON (000) CxD	(VL) BOOK VALUE COMMON (000)	(VL) BOOK VALUE PREFERRED (000)	(VL) BOOK VALUE DEBT (000)	MKT/BOOK ratio for DEBT
Company	Ticker	FIN								
BP p.l.c. ADS	BP	A++	3,251,700	74.00	26.60	240,625,800	86,496,000	21,000	11,086,000	1.00
ChevronTexaco Corp	CVX	A++	2,442,700	89.43	28.22	218,454,732	68,935,000	0	7,679,000	1.00
Exxon Mobil	XOM	A++	5,729,000	90.35	19.87	517,586,505	113,844,000	0	6,645,000	1.00
Total SA	TOT	A++	2,264,600	80.17	41.90	181,552,982	94,887,000	0	18,786,000	1.00
Royal Dutch SHELL-A	RDSA	A++	3,149,400	82.88	33.57	261,006,525	105,726,000	0	9,713,000	1.00
ConocoPhillips Inc	COP	A+	1,646,100	82.94	50.21	136,519,304	82,646,000	0	23,091,000	1.00
Occidental Petroleum	OXY	A+	839,900	70.34	22.84	59,079,966	19,184,000	0	2,619,000	1.00
Sunoco Inc	SUN	A+	121,300	70.19	17.11	8,513,845	2,075,000	0	1,705,000	1.00
USX-Marathon Group	MRO	A+	695,500	58.47	21.00	40,662,408	14,607,000	0	3,061,000	1.00
Anadarko Petroleum	APC	A	467,500	58.72	31.90	27,451,600	14,913,000	0	11,520,000	1.00
Frontier Oil Corp.	FTO	A	110,300	43.95	7.03	4,848,053	775,900	0	150,000	1.00
Hess Corp	HES	A	315,000	75.45	25.75	23,766,750	8,111,000	0	3,745,000	1.00
Murphy Oil	MUR	A	187,700	74.92	21.59	14,062,484	4,052,700	0	840,300	1.00
Valero Energy Corp.	VLO	A	603,800	68.39	30.81	41,293,882	18,605,000	0	4,657,000	1.00
Petroleo Brasileiro ADR	PBR	B++	2,193,500	98.28	26.59	215,584,492	58,329,000	0	15,526,000	1.00
Holly Corp	HOC	B++	55,300	55.91	8.43	3,091,731	466,100	0	0	1.00
Tesoro Corp.	TSO	B++	139,800	52.37	17.90	7,320,860	2,502,000	0	1,029,000	1.00
Repsol-YPF ADR	REP	B+	1,220,900	37.07	19.51	45,258,763	23,815,400	0	9,290,200	1.00

SUMS & AVERAGES

2,046,680,680 719,970,100 21,000 131,142,500

MEDIAN

* All Negative values left out of calculations

INDUSTRY MARKET STRUCTURE		
EQUITY	94.00%	2,046,680,680
DEBT	6.00%	131,184,500
TOTAL		2,177,865,180

MONTANA DEPARTMENT OF REVENUE

Support for Industry Capital Structure
Industry: Liquid Pipelines
2007 Assessment Year

COMPANY	TICKER SYMBOL	MKT VALUE PREFERRED & DEBT	EPS (YAHOO) last 12mo	E/P (YAHOO) M/E	EPS (VL)	E/P (VL) O/E	CF/S (VL)	CF/P (VL) Q/D	P/E (YAHOO)	Inverse of P/E (YAHOO) 1/S	P/E (VL)	Inverse of P/E (VL) 1/U	Median P/E (VL)	Inverse of Med. P/E (VL) 1/U	VL Beta	S&P Beta
Company	Ticker															
BP p.l.c. ADS	BP	11,107,000	5.98	8.08%	5.90	7.97%	9.20	12.43%	11.15	8.97%	10.48	9.54%	15.00	6.67%	0.90	0.7694
ChevronTexaco Corp	CVX	7,679,000	8.19	9.15%	8.35	9.34%	12.35	13.81%	11.54	8.67%	12.01	8.33%	16.00	6.25%	0.90	0.9301
Exxon Mobil	XOM	6,645,000	6.92	7.66%	7.00	7.75%	9.50	10.52%	13.65	7.33%	12.36	8.09%	17.00	5.88%	0.90	0.8646
Total SA	TOT	18,786,000	7.55	9.42%	7.15	8.92%	10.50	13.10%	11.29	8.86%	11.24	8.90%	15.00	6.67%	1.10	0.9274
Royal Dutch SHELL-A	RDSA	9,713,000			9.48	11.44%	10.50	12.67%			8.61	11.61%	16.00	6.25%	1.00	1.376
ConocoPhillips Inc	COP	23,091,000	6.45	7.78%	8.95	10.79%	12.25	14.77%	13.70	7.30%	8.88	11.26%	9.50	10.53%	0.90	0.6421
Occidental Petroleum	OXY	2,619,000	5.77	8.20%	4.75	6.75%	7.75	11.02%	13.96	7.16%	13.33	7.50%	9.00	11.11%	1.05	0.6852
Sunoco Inc	SUN	1,705,000	8.44	12.02%	8.05	11.47%	12.45	17.74%	8.31	12.03%	8.37	11.95%	9.50	10.53%	1.05	1.0628
USX-Marathon Group	MRO	3,061,000	6.30	10.78%	6.10	10.43%	8.20	14.03%	10.01	9.99%	8.96	11.16%	9.50	10.53%	1.05	1.2837
Anadarko Petroleum	APC	11,520,000	12.12	20.64%	3.90	6.64%	7.25	12.35%	4.92	20.33%	12.39	8.07%	12.00	8.33%	0.95	0.8551
Frontier Oil Corp.	FTO	150,000	4.65	10.58%	4.90	11.15%	5.50	12.51%	8.26	12.11%	9.84	10.16%	11.00	9.09%	1.05	0.5576
Hess Corp	HES	3,745,000	5.27	6.98%	5.75	7.62%	9.75	12.92%	18.65	5.36%	15.42	6.49%	9.50	10.53%	0.95	0.4579
Murphy Oil	MUR	840,300	3.37	4.50%	4.05	5.41%	6.35	8.48%	25.13	3.98%	16.12	6.20%	17.00	5.88%	0.90	0.5305
Valero Energy Corp.	VLO	4,657,000	9.55	13.97%	7.90	11.55%	10.90	15.94%	7.02	14.25%	8.17	12.24%	9.00	11.11%	1.00	0.533
Petroleo Brasileiro ADR	PBR	15,526,000	5.66	5.76%	5.00	5.09%	6.50	6.61%	20.90	4.78%	19.98	5.01%			1.45	1.5558
Holly Corp	HOC	0	5.90	10.55%	5.80	10.37%	6.85	12.25%	8.38	11.93%	10.21	9.79%	9.00	11.11%	1.00	0.5419
Tesoro Corp.	TSO	1,029,000	5.49	10.48%	5.14	9.82%	7.25	13.84%	8.39	11.92%	11.62	8.61%	7.50	13.33%	1.10	1.3407
Repsol-YPF ADR	REP	9,290,200	3.49	9.41%	3.50	9.44%	6.60	17.80%	10.55	9.48%	9.55	10.47%	10.00	10.00%	1.00	0.9793

SUMS & AVERAGES

131,163,500

Mean

9.76%

9.00%

12.93%

9.67%

9.19%

9.05%

1.01

0.88

MEDIAN

Median

9.41%

9.39%

12.80%

8.97%

9.22%

10.00%

1.00

0.86

* All Negative values left out of calculations

Industry Beta Conclusion

1.00

MONTANA DEPARTMENT OF REVENUE

Capital Asset Pricing Model
Industry: Liquid Pipelines
 2008 Assessment Year

$$K_E = R_F + \beta (R_M - R_F)$$

	Liquids
K_E = Cost of Equity	11.00%
R_F = Risk Free Rate	4.50%
β = Beta	1.00
R_M = Market Rate of Return	11.00%
R_P = Equity Risk Premium ($R_M - R_F$)	6.50%

R_m = Investor's Market Rate of Return

Ibbotson, SBBI, Large Company, Average Annual Return, *Arithmetic Average, Ex Post
 Ibbotson, SBBI, Large Company, Average Annual Return, *Geometric Average, Ex Post
 3 Stage Dividend Growth Model, S & P 500, Ex Ante

R_M = 12.30%
R_M = 10.40%
R_M = 10.00%

Mean = 10.90%
 Median = 10.40%

R_M = 11.00%

R_f = Risk Free Rate

Internal Revenue Service, Rev Rule 2007-70 Table 2 December 2007
 Rev Rule 2007-70 Table 2 2007

Annual Rates		R_f
Short Term - AFR		3.40%
Mid Term - AFR		3.67%
Long Term - AFR		4.34%

The ValueLine Investment Survey
 U.S. Treasury Securities December 28 2007

3 Month	R_f = 2.89%
6 Month	R_f = 3.31%
1 Year	R_f = 3.31%

Federal Reserve Statistical Release
 Treasury constant Maturities, 2007
 Market yield on U.S. Treasury securities, Annual Averages

3-month constant maturity, quoted on investment basis	R_f = 4.48%
6-month constant maturity, quoted on investment basis	R_f = 4.62%
1-year constant maturity, quoted on investment basis	R_f = 4.53%

U.S. Treasury Securities Long-Term December 31, 2007

30 year constant maturity	R_f = 4.45%
20 year constant maturity	R_f = 4.50%

Mean = 3.84%
 Median = 3.67%
 Weighted Mean = 3.92%

R_f = 4.50%

MONTANA DEPARTMENT OF REVENUE

Dividend Growth Model
Industry: Liquid Pipelines
 2008 Assessment Year

$$K_E = D1 / P_0 + G_A$$

KE= Cost of Equity
D1= Expected Dividends

Po= Current Price Per Share
G= Sustainable Growth

Company Name	Ticker	Stock Price (Po)	Expected Dividend (D1)	Dividend Yield (D1/P0)	Dividend Growth (G _i)	Ke 1 Year
Anadarko Petroleum	APC	58.720	0.40	0.68%	8.50%	9.18%
BP p.l.c. ADS	BP	74.000	2.62	3.54%	6.00%	9.54%
ChevronTexaco Corp	CVX	89.432	2.32	2.59%	6.00%	8.59%
ConocoPhillips Inc	COP	82.935	1.68	2.03%	7.00%	9.03%
Exxon Mobil	XOM	90.345	1.43	1.58%	7.00%	8.58%
Frontier Oil Corp.	FTO	43.953	0.20	0.46%	25.00%	25.46%
Hess Corp	HES	75.450	0.40	0.53%	nil	
Holly Corp	HOC	55.908	0.48	0.86%	19.00%	19.86%
Murphy Oil	MUR	74.920	0.74	0.99%	9.50%	10.49%
Occidental Petroleum	OXY	70.342	1.03	1.46%	14.00%	15.46%
Petroleo Brasileiro ADR	PBR	98.283	0.37	0.38%	nmf	
Royal Dutch SHELL-A	RDSA	82.875	2.95	3.56%	4.50%	8.06%
Repsol-YPF ADR	REP	37.070	1.00	2.70%	9.00%	11.70%
Sunoco Inc	SUN	70.188	1.14	1.62%	8.00%	9.62%
Tesoro Corp.	TSO	52.367	0.4	0.76%	nmf	
Total SA	TOT	80.170	2.9	3.62%	8.50%	12.12%
USX-Marathon Group	MRO	58.465	0.96	1.64%	11.50%	13.14%
Valero Energy Corp.	VLO	68.390	0.52	0.76%	20.50%	21.26%

Weighted Mean 12.64%
 Mean 12.81%
 Median 10.49%

K_E = 12.50%

MONTANA DEPARTMENT OF REVENUE

Historical Stock Price Analysis From YAHOO Finance
Industry: Liquid Pipelines
2008 Assessment Year

Ticker	Company		Jan-07	Feb-07	Mar-07	Apr-07	May-07	Jun-07	Jul-07	Aug-07	Sep-07	Oct-07	Nov-07	Dec-07	4th Qtr Average	Annual Average	Yahoo P-E	Yahoo EPS 1st 12 mo
			high low	high low	high low	high low	high low	high low	high low	high low	high low	high low	high low	high low	high low	high low	high low	high low
APC	Anadarko Petroleum	high low	\$44.17 \$40.16	\$44.87 \$39.55	\$43.58 \$38.40	\$48.16 \$43.00	\$49.99 \$44.56	\$55.82 \$48.55	\$54.97 \$48.30	\$52.46 \$45.47	\$54.27 \$48.70	\$60.49 \$53.15	\$61.22 \$53.10	\$68.00 \$56.36	\$58.72	\$49.89	4.92	12.12
BP	BP p.l.c. ADS	high low	\$67.27 \$61.29	\$64.40 \$60.97	\$65.86 \$58.62	\$69.75 \$64.42	\$69.96 \$65.69	\$72.49 \$65.93	\$75.25 \$68.79	\$70.33 \$61.10	\$72.11 \$66.76	\$78.58 \$67.24	\$79.77 \$69.81	\$76.50 \$72.10	\$74.00	\$68.54	11.15	5.98
CHK	Chesapeake Energy	high low	\$30.11 \$27.27	\$31.83 \$28.88	\$31.49 \$29.05	\$34.40 \$30.88	\$36.22 \$33.51	\$37.75 \$34.25	\$37.55 \$33.12	\$36.64 \$31.38	\$36.18 \$32.05	\$39.74 \$34.90	\$41.19 \$36.61	\$39.75 \$37.04	\$38.21	\$34.24	12.61	3.17
CVX	ChevronTexaco Corp	high low	\$73.44 \$68.48	\$74.96 \$68.02	\$74.98 \$64.99	\$79.07 \$74.05	\$83.56 \$77.42	\$85.19 \$79.12	\$95.00 \$83.60	\$89.50 \$78.25	\$95.50 \$85.91	\$94.53 \$86.72	\$91.48 \$81.92	\$95.20 \$86.74	\$89.43	\$81.98	11.54	8.19
COP	ConocoPhillips Inc	high low	\$71.50 \$61.59	\$68.44 \$64.01	\$70.49 \$63.83	\$71.66 \$66.24	\$77.93 \$68.70	\$81.40 \$74.54	\$90.84 \$78.88	\$82.81 \$73.75	\$89.74 \$80.93	\$88.82 \$80.50	\$85.49 \$74.18	\$89.89 \$78.73	\$82.94	\$76.45	13.70	6.45
FTO	Frontier Oil Corp.	high low	\$28.68 \$25.47	\$30.96 \$28.03	\$33.75 \$27.32	\$36.33 \$31.95	\$40.54 \$34.17	\$45.75 \$38.67	\$49.10 \$36.54	\$41.45 \$31.61	\$47.82 \$39.39	\$47.01 \$39.54	\$49.13 \$42.26	\$45.45 \$40.33	\$43.95	\$37.97	8.26	4.65
HES	Hess Corp	high low	\$54.86 \$45.96	\$56.60 \$52.03	\$58.00 \$49.05	\$59.27 \$54.98	\$61.48 \$56.08	\$61.24 \$54.55	\$67.22 \$58.34	\$62.09 \$53.12	\$69.87 \$59.27	\$72.70 \$63.58	\$74.95 \$64.29	\$105.85 \$71.33	\$75.45	\$61.95	18.65	5.27
HOC	Holly Corp	high low	\$54.55 \$48.28	\$57.16 \$52.11	\$61.80 \$52.00	\$65.35 \$57.83	\$71.25 \$62.39	\$77.53 \$66.34	\$80.55 \$65.03	\$68.30 \$51.61	\$69.00 \$59.56	\$67.39 \$58.77	\$65.45 \$45.00	\$52.84 \$46.00	\$55.91	\$60.67	8.38	5.90
MRO	USX-Marathon Group 2:1 Stock Split June	high low	\$45.75 \$41.50	\$47.07 \$44.34	\$51.74 \$43.78	\$52.25 \$49.00	\$62.38 \$50.24	\$67.04 \$58.04	\$65.21 \$53.58	\$55.75 \$46.97	\$59.55 \$52.00	\$62.08 \$55.37	\$62.75 \$51.99	\$63.07 \$55.53	\$58.47	\$54.04	10.01	6.30
MUR	Murphy Oil	high low	\$50.91 \$45.45	\$53.00 \$48.86	\$54.92 \$50.01	\$58.70 \$52.87	\$61.44 \$54.64	\$60.50 \$56.13	\$65.62 \$59.60	\$65.62 \$56.37	\$70.67 \$59.11	\$79.73 \$69.95	\$76.46 \$66.57	\$85.94 \$70.87	\$74.92	\$61.41	25.13	3.37
OXY	Occidental Petroleum	high low	\$48.86 \$42.06	\$48.75 \$45.60	\$50.46 \$44.85	\$52.81 \$49.07	\$55.66 \$50.25	\$59.73 \$54.47	\$64.28 \$55.88	\$58.22 \$50.66	\$65.86 \$56.60	\$71.49 \$63.29	\$74.33 \$65.31	\$79.25 \$68.38	\$70.34	\$57.34	13.96	5.77
RDS/A	Royal Dutch SHELL-A	high low	\$70.91 \$65.89	\$69.60 \$64.85	\$67.60 \$62.71	\$70.69 \$65.15	\$75.69 \$69.14	\$81.62 \$74.80	\$85.48 \$78.51	\$78.16 \$69.56	\$84.45 \$78.37	\$88.31 \$78.96	\$86.30 \$79.04	\$84.99 \$79.65	\$82.88	\$75.35	NA	NA
SUN	Sunoco Inc	high low	\$63.38 \$56.68	\$67.46 \$59.77	\$71.88 \$61.80	\$79.24 \$70.03	\$79.95 \$71.87	\$86.40 \$76.09	\$85.00 \$65.56	\$74.19 \$60.69	\$78.20 \$70.26	\$78.80 \$69.30	\$75.36 \$62.80	\$72.62 \$62.25	\$70.19	\$70.82	8.31	8.44
TOT	Total SA	high low	\$72.65 \$66.13	\$70.97 \$66.99	\$70.44 \$63.89	\$74.68 \$69.57	\$76.85 \$72.20	\$81.55 \$73.34	\$87.34 \$76.50	\$79.37 \$68.01	\$82.38 \$74.38	\$81.41 \$76.66	\$84.46 \$77.14	\$83.88 \$77.47	\$80.17	\$75.34	11.29	7.55
TSO	Tesoro Corp. 2:1 Stock Split May	high low	\$41.27 \$31.47	\$46.46 \$40.70	\$51.40 \$44.37	\$62.94 \$50.06	\$62.20 \$59.20	\$64.65 \$54.09	\$62.00 \$47.47	\$51.41 \$42.64	\$52.95 \$45.45	\$65.98 \$45.40	\$60.44 \$47.48	\$50.37 \$44.53	\$52.37	\$51.04	8.39	5.49
XOM	Exxon Mobil	high low	\$76.27 \$70.64	\$76.10 \$71.18	\$76.35 \$69.02	\$80.88 \$75.28	\$84.32 \$79.05	\$86.58 \$80.85	\$93.62 \$84.12	\$87.90 \$78.76	\$93.66 \$83.88	\$95.27 \$89.67	\$90.95 \$83.37	\$95.10 \$87.71	\$90.35	\$82.94	13.65	6.92
PBR	Petroleo Brasileiro ADR 2:1 Stock Split July	high low	\$51.91 \$45.18	\$50.27 \$44.50	\$50.97 \$41.38	\$53.85 \$49.35	\$55.44 \$49.26	\$62.37 \$53.03	\$71.65 \$61.13	\$65.57 \$48.75	\$77.12 \$62.37	\$97.28 \$72.85	\$119.16 \$87.85	\$118.40 \$94.16	\$98.28	\$65.99	20.90	5.66
REP	Repsol-YPF ADR	high low	\$35.07 \$31.70	\$33.48 \$31.56	\$34.07 \$30.33	\$35.74 \$32.85	\$36.95 \$32.65	\$39.22 \$34.93	\$41.33 \$36.36	\$39.73 \$34.36	\$36.43 \$33.45	\$39.65 \$35.15	\$40.06 \$35.47	\$37.73 \$34.36	\$37.07	\$35.53	10.55	3.49
VLO	Valero Energy Corp.	high low	\$54.46 \$47.66	\$59.67 \$54.62	\$66.02 \$54.75	\$73.10 \$63.53	\$77.24 \$70.00	\$77.89 \$71.85	\$78.68 \$66.02	\$69.93 \$60.00	\$72.30 \$66.38	\$75.75 \$65.97	\$73.00 \$60.80	\$71.25 \$63.57	\$68.39	\$66.44	7.02	9.55
WMB	Williams Cos	high low	\$27.23 \$25.17	\$28.71 \$26.46	\$29.05 \$25.90	\$30.23 \$27.61	\$32.45 \$28.18	\$32.62 \$29.58	\$35.84 \$30.60	\$34.25 \$29.16	\$36.25 \$31.00	\$36.94 \$33.10	\$37.74 \$33.07	\$36.64 \$34.00	\$35.25	\$31.32	24.21	1.49

MONTANA DEPARTMENT OF REVENUE

Support for Debt Rating
Industry: Liquid Pipelines
2008 Assessment Year

**STANDARD & POOR'S BOND GUIDE
BOND YIELD TO MATURITY**

Company Name	Coupon	CUSIP	Issue	Maturity Date	S&P Bond Rating	S&P Bond												Avg Full Year	Avg 4th QTR	
						Jan-07	Feb-07	Mar-07	Apr-07	May-07	Jun-07	Jul-07	Aug-07	Sep-07	Oct-07	Nov-07	Dec-07			
Pogo Producing Co.	6.88	730448AT4	Sr Sub Nts	10/1/2017	B+	7.67	7.25	7.21	7.18	7.11	8.97	6.87	6.80	6.83	6.73	6.73	6.73	7.01%	6.73%	
Range Resources Corp.	7.38	75281AAB5	Sr Sub Nts	7/15/2013	B+	7.05	6.88	6.94	6.87	6.71	7.16	7.85	7.10	6.89	6.99	7.26	7.04	7.05%	7.10%	
Encore Acquisition Co.	7.25	29255WAH3	Sr Sub Nts	12/1/2017	B	7.94	7.69	7.95	7.70	7.68	8.41	9.01	8.35	8.12	7.92	8.09	7.94	8.07%	7.98%	
KCS Energy, Inc.	7.125	482434AF4	Sr Nts	4/1/2012	B	8.20	7.60	7.36	7.30	7.12	7.43	8.16	8.18	8.06	7.94	8.30	8.18	7.82%	8.14%	
Quicksilver Resources Inc.	7.12	74837RAC8	Sr Sub Nts	4/1/2016	B	7.54	7.35	7.35	7.20	7.20	7.67	8.35	7.77	7.44	7.44	7.86	7.40	7.55%	7.57%	
Whiting Petroleum Corp.	7.25	966387AB6	Sr Sub Nts	5/1/2012	B	7.42	7.24	7.68	7.61	7.71	8.52	9.16	7.89	8.04	7.64	8.06	7.65	7.88%	7.73%	
Whiting Petroleum Corp.	7.25	966387AC6	Sr Sub Nts	5/1/2013	B	7.39	7.24	7.61	7.61	7.64	8.34	9.36	8.02	7.86	7.64	8.05	7.59	7.86%	7.76%	
Whiting Petroleum Corp.	7	966387AE2	Sr Sub Nts	2/1/2014	B	7.27	7.13	7.47	7.47	7.52	8.19	8.68	7.69	7.96	7.55	7.82	7.20	7.66%	7.52%	
Energy Partners, Ltd.	8.75	29270JAC9	Sr Nts	8/1/2010	B-	8.24	7.81	7.03	6.95	6.85	6.85	6.85	6.85	6.85	6.85	6.85	6.85	6.85%	6.85%	
EXCO Resources, Inc.	7.25	269279AB1	Sr(Sec)Nts	1/15/2011	B-	6.80	6.80	7.16	7.16	7.00	7.41	8.78	7.07	7.33	7.78	8.35	8.67	7.53%	8.27%	
Ferrelgas Partners L.P.	8.75	31529MAA6	Sr Nts	6/15/2012	B-	8.39	7.75	7.85	7.78	7.83	8.00	8.93	8.23	8.03	7.95	8.47	8.00	8.10%	8.14%	
Stone Energy Corp.	8.25	861642AE6	Sr Sub Nts	12/15/2011	B-	8.82	8.30	8.34	8.17	7.58	8.24	8.94	8.52	8.45	8.46	9.15	8.24	8.43%	8.62%	
Stone Energy Corp.	6.75	861642AG1	Sr Sub Nts	12/15/2014	B-	8.14	7.83	7.88	7.85	7.72	8.20	8.70	8.42	8.31	8.15	8.47	8.13	8.15%	8.25%	
Delta Petroleum Corp.	7	247907AC2	Sr Nts	4/1/2015	CCC+	8.55	8.37	8.76	8.58	8.69	9.44	10.25	10.66	10.03	9.52	10.81	9.84	9.46%	10.06%	
ANR Pipeline	8.88	001814AV4	Nts	3/15/2010	NR	7.15	7.14	7.18										7.16%		
Giant Industries, Inc.	8	374508AG4	SrSub Nts	5/15/2014	NR	6.70	6.62	6.57	7.17	6.98	6.49							6.76%		
Houston Exploration Co. (The)	7	442120AE1	Sr Sub Nts	6/15/2013	NR	6.85	6.89	6.99	6.89	6.79	6.94	8.47	7.98	7.82	7.89	8.19	7.79	7.46%	7.96%	
Kerr-McGee Corp.	7	492386AD9	Deb	11/1/2011	NR	6.99	6.99	6.99	6.99	6.99	6.99	6.99	6.99	6.99	6.99	6.99	6.99	6.99%	6.99%	
KN Energy	6.8	482620AV3	Sr Nts	3/1/2008	NR	5.64	5.53	5.63	5.18	5.14	5.14	5.14	5.14	5.14	5.14	5.14	5.14	5.26%	5.14%	
Occidental Petroleum Corp.	7.375	674599BQ7	Sr Nts	11/15/2008	NR	5.51	5.51	5.51	5.51	5.51	5.51	5.51	5.51	5.51	5.51	5.51	5.51	5.51%	5.51%	
Pogo Producing Co.	8.25	730448AP2	Sr Sub Nts	4/15/2011	NR	7.67	7.53	7.73	7.85	7.86	7.62	7.77	7.44	7.43	7.43	7.43	7.43	7.58%	7.43%	
Vintage Petroleum, Inc.	8.25	927460AK1	Sr Nts	5/1/2012	NR	7.23	7.23	7.23	7.28									7.24%		
			Counts of data			217	217	217	216	215	213	213	208	207	203	199	198	197	217	200

NOTES:

January data hand entered from S&P Bond Guide remainder data downloaded from the S&P website and supplemented from month end Bond Guides when available.

means the data was not available in S&P Guide

means issuance matured or called

	Annual	4th Qtr
AAA's		
AA's	5.40%	4.99%
A's	5.74%	5.44%
BBB's	5.90%	5.66%
BB's	6.83%	6.90%
B's	7.54%	7.54%
CCC's	9.46%	10.06%
NR's	6.74%	6.61%
Investment Grade (BBB & above)		
ALL	6.17%	5.99%
BBB+ thru AA	5.62%	5.32%
BBB's	5.90%	5.66%

MONTANA DEPARTMENT OF REVENUE

**Direct Capitalization Rate Study
Industry: Railroads
2008 Assessment Year**

Equity Measures Calculated:

E/P estimates:	
ALL	Median
6.19%	6.27% Yahoo
6.09%	6.21% Value Line
6.14%	6.24% Average of E/Ps
Inverse of P/E Ratios:	
6.32%	6.34% Yahoo
6.90%	6.88% Value Line
6.61%	6.61% Average of Inverse of the P/E
6.52%	6.26% Inverse of median P/E, Value Line
6.37%	6.42% Average of all above except median P/E
<hr/>	
Mean =	6.40%
Median =	6.32%

Debt Measure Calculated:

	Annual	4th Qtr
	5.92%	5.74% All
	5.81%	5.62% BBB & Above
	5.83%	5.65% BBB's
Mean =	5.85%	5.67%
Median =	5.83%	5.65%
Debt Measure =		5.60%

Equity Measure NUOI = 6.35%

Industry Market Capital Structure Net Utility Operating Income (NUOI) Rate					
Equity	81.00%	x	6.35%	=	5.14%
Debt	19.00%	x	5.60%	=	1.06%
	100%				6.21%
Direct Cap Rate NUOI					= 6.25%

Gross Cash Flow / Price:

Mean	Median	
11.05%	11.05%	Value Line

Equity Measure Gross = 11.00%

Industry Market Capital Structure Gross Cash Flow Rate (GCF)					
Equity	81.00%	x	11.00%	=	8.91%
Debt	19.00%	x	5.60%	=	1.06%
	100%				9.97%
Direct Cap Rate GCF					= 10.00%

MONTANA DEPARTMENT OF REVENUE

Yield Capitalization Rate Study
 Industry: Railroads
 2008 Assessment Year

Dividend Growth Model		All
		18.00%
Capital Asset Pricing Model		11.00%
	Mean =	14.50%
	Median =	14.50%
Equity Measure FCF =		11.00%
Debt Measure Calculated =		5.60%

Yield Cap Rate Free Cash Flow					
Equity	81.00%	x	11.00%	=	8.91%
Debt	19.00%	x	5.60%	=	1.06%
	100%				9.97%
Weighted Average Cost of Capital (WACC) =					10.00%

Assumed Growth Rate = Inflation **Growth = 2.44%**
see addendum for calculation

MONTANA DEPARTMENT OF REVENUE

Support for Industry Capital Structure
Industry: Railroads
2006 Assessment Year

COMPANY	TICKER SYMBOL	(VL) FIN STR	(VL) SHARES (000)	(YAHOO) AVG PRICE COMMON 4th Quarter	(VL) BOOK VALUE PER SHARE H/D	MKT VALUE COMMON (000) DxE	(VL) BOOK VALUE COMMON (000)	(VL) BOOK VALUE PREFERRED (000)	MKT VALUE PREFERRED (000) LxL	(VL) BOOK VALUE DEBT (000)
Burlington Northern	BNI	A	357,900	84.650	29.047	30,296,235	10,396,000	0	0	6,912,000
Can. National Railway	CNI	B++	512,400	54.428	16.488	27,889,078	8,448,600	0	0	4,632,000
Can. Pacific Railway	CP	B+	155,500	67.148	26.859	10,441,566	4,176,600	0	0	2,419,600
CSX Corp.	CSX	B++	437,800	34.977	20.425	15,312,785	8,942,000	0	0	5,362,000
Genesee & Wyoming	GWR	B+	41,600	27.348	12.505	1,137,691	520,200	0	0	241,300
Kansas City South'n	KSU	B	75,900	35.402	20.760	2,686,987	1,575,700	6,700	6,700	1,631,800
Norfolk Southern	NSC	B+	397,400	51.207	24.195	20,349,529	9,615,000	0	0	6,109,000
Union Pacific	UNP	A	276,000	124.813	55.478	34,448,480	15,312,000	0	0	6,000,000

SUMS & AVERAGES - ALL
MEDIAN VALUE

142,562,350 58,986,100 6,700 6,700 33,307,700

* All Negative values left out of calculations

INDUSTRY MARKET STRUCTURE

ALL		
COMMON	81.00%	142,562,350
DEBT	19.00%	33,314,400
TOTAL	100.00%	175,876,750

MONTANA DEPARTMENT OF REVENUE

Support for Industry Capital Structure
Industry: Railroads
2007 Assessment Year

COMPANY	TICKER SYMBOL	MKT/BOOK ratio for DEBT	MKT VALUE DEBT (000) KxL	EPS	E/P	EPS	E/P	CF/S	CF/P	P/E	Inverse of P/E	P/E	Inverse of P/E	Median P/E	Inverse of Median P/E	ValueLine Beta	S&P Beta
				(YAHOO) 1st 12mo	(YAHOO) N/E	(VL)	(VL)	(VL)	(VL)	(YAHOO)	(VL)	(VL)	(VL)	(VL)	(VL)		
Burlington Northern	BNI	1	6,912,000	5.06	5.98%	5.22	6.17%	8.95	10.57%	16.57	6.04%	14.06	7.11%	14.00	7.14%	1.05	1.1884
Can. National Railway	CNI	1	4,632,000	3.57	6.56%	3.40	6.25%	4.90	9.00%	13.04	7.67%	12.92	7.74%	13.00	7.69%	1.05	1.7329
Can. Pacific Railway	CP	1	2,419,600	4.84	7.20%	4.35	6.48%	7.65	11.39%	13.38	7.47%	13.56	7.37%			1.05	1.3559
CSX Corp.	CSX	1	5,362,000	2.89	8.26%	2.55	7.29%	4.95	14.15%	15.07	6.64%	15.64	6.39%	17.00	5.88%	1.15	1.1364
Genesee & Wyoming	GWR	1	241,300	1.37	5.01%	1.50	5.48%	3.00	10.97%	17.22	5.81%	15.06	6.64%	15.06	6.64%	1.35	2.33
Kansas City South'n	KSU	1	1,631,800	1.41	3.97%	1.50	4.24%	4.05	11.44%	23.86	4.19%	18.72	5.34%			1.25	1.4313
Norfolk Southern	NSC	1	6,109,000	3.61	7.05%	3.65	7.13%	5.70	11.13%	13.69	7.30%	11.98	8.35%	17.00	5.88%	1.10	1.4158
Union Pacific	UNP	1	6,000,000	6.83	5.47%	7.05	5.65%	12.20	9.77%	18.48	5.41%	16.09	6.22%	17.00	5.88%	1.00	1.2784

SUMS & AVERAGES - ALL
MEDIAN VALUE

33,307,700

6.19%

6.09%

11.05%

6.32%

6.90%

6.52%

1.13

1.4836

6.27%

6.21%

11.05%

6.34%

6.88%

6.26%

1.08

1.3859

* All Negative values left out of calculations

Industry Beta

1.00

MONTANA DEPARTMENT OF REVENUE

Capital Asset Pricing Model
Industry: Railroads
2008 Assessment Year

$$K_E = R_F + \beta (R_M - R_F)$$

	Railroads
K_E = Cost of Equity	11.00%
R_F = Risk Free Rate	4.50%
β = Beta	1.00
R_M = Market Rate of Return	11.00%
R_p = Equity Risk Premium ($R_M - R_F$)	6.50%

R_m = Investor's Market Rate of Return

Ibbotson, SBBi, Large Company, Average Annual Return, *Arithmetic Average, Ex Post
Ibbotson, SBBi, Large Company, Average Annual Return, *Geometric Average, Ex Post
3 Stage Dividend Growth Model, S & P 500, Ex Ante

R_M = 12.30%
R_M = 10.40%
R_M = 10.00%

Mean = 10.90%
Median = 10.40%

R_M = 11.00%

R_f = Risk Free Rate

Internal Revenue Service, Rev Rule 2007-70 Table 2 December 2007
Rev Rule 2007-70 Table 2007

Annual Rates		
Short Term - AFR		R_f = 3.40%
Mid Term - AFR		R_f = 3.67%
Long Term - AFR		R_f = 4.34%

The ValueLine Investment Survey
U.S. Treasury Securities December 28 2007

3 Month	R_f = 2.89%
6 Month	R_f = 3.31%
1 Year	R_f = 3.31%

Federal Reserve Statistical Release
Treasury constant Maturities, 2007
Market yield on U.S. Treasury securities, Annual Averages

3-month constant maturity, quoted on investment basis	R_f = 4.48%
6-month constant maturity, quoted on investment basis	R_f = 4.62%
1-year constant maturity, quoted on investment basis	R_f = 4.53%

U.S. Treasury Securities Long-Term December 31, 2007

30 year constant maturity	R_f = 4.45%	Mean = 3.84%
20 year constant maturity	R_f = 4.50%	Median = 3.67%
		Weighted Mean = 3.92%

R_f = 4.50%

MONTANA DEPARTMENT OF REVENUE

Dividend Growth Model
Industry: Railroads
2008 Assessment Year

$$K_E = D1 / P_0 + G_A$$

KE= Cost of Equity
D1= Expected Dividends
Po= Current Price Per Share
G= Sustainable Growth

Company Name	Ticker	Stock Price (Po)	Expected Dividend (D1)	Dividend Yield (D1/P0)	Dividend Growth (G ₁)	Ke 1 Year
Burlington Northern	BNI	84.65	1.40	1.65%	16.00%	17.65%
Can. National Railway	CNI	54.43	0.90	1.65%	23.50%	25.15%
Can. Pacific Railway	CP	67.15	0.90	1.34%	17.50%	18.84%
CSX Corp.	CSX	34.98	0.60	1.72%	22.50%	24.22%
Genesee & Wyoming	GWR	27.35	nil		nil	
Kansas City South'n	KSU	35.40	nil		nil	
Norfolk Southern	NSC	51.21	0.90	1.76%	15.00%	16.76%
Union Pacific	UNP	124.81	1.76	1.41%	4.50%	5.91%

Weighted Mean= 18.29%
Median= 18.25%
Mean= 18.09%

K_E = 18.00%

MONTANA DEPARTMENT OF REVENUE

Historical Stock Price Analysis From YAHOO Finance
Industry: Railroads
2008 Assessment Year

Ticker	Company		Jan-07	Feb-07	Mar-07	Apr-07	May-07	Jun-07	Jul-07	Aug-07	Sep-07	Oct-07	Nov-07	Dec-07	4th Qtr Average	Annual Average	Yahoo P-E	Yahoo
																		EPS Ist 12 mo
BNI	Burlington Northern	high	\$81.56	\$85.90	\$84.36	\$95.47	\$95.42	\$94.90	\$94.20	\$85.67	\$84.07	\$88.65	\$87.89	\$89.16	\$84.65	\$84.14	16.57	5.06
		low	\$71.51	\$78.19	\$76.25	\$79.74	\$86.06	\$83.85	\$81.30	\$73.86	\$79.12	\$80.79	\$80.77	\$80.64				
CNI	Can. National Railway	high	\$42.96	\$45.60	\$43.21	\$44.34	\$50.44	\$54.84	\$51.38	\$51.75	\$52.75	\$56.88	\$55.45	\$49.00	\$54.43	\$51.56	13.04	3.57
		low	\$45.90	\$47.55	\$46.43	\$51.75	\$54.97	\$55.97	\$58.49	\$54.50	\$57.94	\$57.42	\$55.65	\$52.17				
CP	Can. Pacific Railway	high	\$55.11	\$56.29	\$56.62	\$65.70	\$72.52	\$73.95	\$90.15	\$75.74	\$71.05	\$74.38	\$70.49	\$68.69	\$67.15	\$64.89	13.38	4.84
		low	\$51.21	\$52.27	\$52.76	\$55.36	\$62.51	\$66.45	\$69.23	\$62.59	\$64.95	\$67.36	\$60.17	\$61.80				
CSX	CSX Corp.	high	\$37.00	\$42.53	\$42.10	\$46.23	\$47.38	\$46.63	\$51.88	\$49.85	\$43.09	\$46.49	\$44.88	\$21.47	\$34.98	\$40.42	15.07	2.89
		low	\$33.50	\$36.63	\$35.46	\$39.36	\$42.95	\$43.27	\$44.97	\$39.25	\$38.09	\$41.43	\$40.17	\$15.42				
GBX	Greenbrier Cos Inc.	high	\$29.97	\$31.55	\$28.50	\$26.90	\$32.15	\$32.50	\$38.99	\$33.60	\$30.39	\$30.65	\$26.40	\$24.69	\$24.90	\$27.78	15.96	1.37
		low	\$26.20	\$27.75	\$24.95	\$21.44	\$22.77	\$28.75	\$28.54	\$26.25	\$26.00	\$25.26	\$21.17	\$21.23				
GWR	Genesee & Wyoming	high	\$28.37	\$28.60	\$26.90	\$29.50	\$32.78	\$33.40	\$31.57	\$27.91	\$29.52	\$29.95	\$29.49	\$28.80	\$27.35	\$27.74	17.22	1.37
		low	\$25.31	\$25.53	\$24.20	\$25.80	\$26.58	\$26.95	\$25.45	\$24.57	\$26.78	\$27.60	\$24.08	\$24.17				
KSU	Kansas City South'n	high	\$30.69	\$35.19	\$36.64	\$39.50	\$41.45	\$43.00	\$41.95	\$37.62	\$33.33	\$39.52	\$38.82	\$37.50	\$35.40	\$35.01	23.86	1.41
		low	\$28.15	\$30.01	\$30.57	\$35.00	\$37.02	\$37.02	\$32.77	\$27.66	\$30.30	\$31.25	\$32.10	\$33.22				
NSC	Norfolk Southern	high	\$53.84	\$52.68	\$52.30	\$56.68	\$58.81	\$59.19	\$59.77	\$54.57	\$52.90	\$54.58	\$51.78	\$53.99	\$51.21	\$51.90	13.69	3.61
		low	\$47.05	\$46.68	\$45.38	\$49.70	\$52.18	\$51.16	\$50.70	\$46.42	\$48.40	\$50.38	\$48.48	\$48.03				
PRPX	Portec Rail Products Inc	high	\$10.10	\$10.67	\$10.65	\$12.25	\$12.42	\$13.13	\$14.05	\$12.90	\$12.25	\$12.98	\$12.46	\$11.60	\$11.28	\$11.23	17.06	0.61
		low	\$9.50	\$9.61	\$9.99	\$9.97	\$11.39	\$11.78	\$11.33	\$9.56	\$10.37	\$11.26	\$9.70	\$9.70				
PWX	Providence & Worcester R F	high	\$19.50	\$19.20	\$18.16	\$21.61	\$20.60	\$20.25	\$19.55	\$18.80	\$18.25	\$19.90	\$20.74	\$21.47	\$18.52	\$18.50	NA	(0.11)
		low	\$18.61	\$16.70	\$17.00	\$17.46	\$18.96	\$19.00	\$18.50	\$14.35	\$16.35	\$17.50	\$16.11	\$15.42				
RAIL	Freightcar America Inc.	high	\$58.75	\$59.70	\$50.80	\$52.12	\$52.25	\$52.78	\$55.21	\$47.47	\$46.27	\$44.20	\$42.74	\$49.00	\$42.94	\$47.68	5.63	6.19
		low	\$52.40	\$49.25	\$46.85	\$44.55	\$44.94	\$47.24	\$47.23	\$41.01	\$37.83	\$37.60	\$31.91	\$52.17				
UNP	Union Pacific	high	\$101.23	\$105.84	\$105.70	\$119.22	\$121.14	\$122.79	\$129.36	\$120.70	\$117.31	\$130.00	\$128.89	\$137.56	\$124.81	\$113.23	18.48	6.83
		low	\$89.58	\$96.50	\$95.51	\$100.41	\$112.03	\$112.08	\$114.71	\$99.38	\$105.06	\$110.07	\$121.00	\$121.36				

MONTANA DEPARTMENT OF REVENUE

Support for Debt Rating
Industry: Railroads
2008 Assessment Year

STANDARD & POOR'S BOND GUIDE
BOND YIELD TO MATURITY

NOTES:

January data hand entered from S&P Bond Guide remainder data downloaded from the S&P website and supplemented from month end Bond Guides when available.

means the data was not available in S&P Guide

means issuance matured or called

	Annual	4th Qtr
A-	5.44%	5.76%
BBB+	5.88%	5.59%
BBB	5.84%	5.66%
NR	6.75%	6.59%
Investment Grade (BBB & above)		
ALL	5.92%	5.74%
BBB+ thru A-	5.81%	5.62%
BBB thru A-	5.83%	5.65%
NR	6.75%	6.59%

MONTANA DEPARTMENT OF REVENUE

Direct Capitalization Rate Study

Industry: Telecommunications, Telephone Exchange Carriers

2008 Assessment Year

Equity Measures Calculated:

E/P estimates:		
ALL	B and Above	
6.50%	5.29% Yahoo	
5.63%	5.61% Value Line	
6.07%	5.45% Average of E/Ps	
Inverse of P/E Ratios:		
7.05%	5.61% Yahoo	
7.09%	6.97% Value Line	
7.07%	6.29% Average of Inverse of the P/E	
5.31%	5.31% Inverse of median P/E, Value Line	
6.57%	5.87% Average of all above except median P/E	
Mean =	6.32%	5.76%
Median =	6.50%	5.61%

Debt Measure Calculated:

	Annual	4th Qtr	
	6.77%	6.80%	ALL
	5.90%	5.65%	BBB & ABOVE
	6.25%	6.17%	BBB's
Mean =	6.31%	6.21%	
Median =	6.25%	6.17%	
Debt Measure =		6.30%	

Equity Measure NUOI = 6.60%

Industry Market Capital Structure Net Utility Operating Income (NUOI) Rate					
Equity	73.00%	x	6.60%	=	4.82%
Debt	27.00%	x	6.30%	=	1.70%
	100%				6.52%
Direct Cap Rate NUIO =					6.75%

Gross Cash Flow / Price:

Mean	Median	
18.44%	17.96%	Value Line

Equity Measure Gross = 18.00%

Industry Market Capital Structure Gross Cash Flow Rate (GCF)					
Equity	73.00%	x	18.00%	=	13.14%
Debt	27.00%	x	6.30%	=	1.70%
	100%				14.84%
Direct Cap Rate GCF =					15.00%

MONTANA DEPARTMENT OF REVENUE

**Direct Capitalization Rate Study
Industry: Telecommunications - Wireless
2008 Assessment Year**

Equity Measures Calculated:

E/P estimates:		
ALL	Median	
3.44%	4.19% Yahoo	
3.94%	3.79% Value Line	
3.69%	3.99% Average of E/Ps	
Inverse of P/E Ratios:		
3.57%	4.36% Yahoo	
4.79%	3.92% Value Line	
4.18%	4.14% Average of Inverse of the P/E	
4.10%	3.23% Inverse of median P/E, Value Line	
3.94%	4.07% Average of all above except median P/E	
Mean =	3.97%	3.90%
Median =	3.94%	3.92%

Debt Measure Calculated:

	Annual	4th Qtr	
	6.77%	6.80%	ALL
	5.90%	5.65%	BBB & ABOVE
	6.25%	6.17%	BBB's
Mean =	6.31%	6.21%	
Median =	6.25%	6.17%	
Debt Measure =		6.30%	

Equity Measure NUOI = 6.00%

Industry Market Capital Structure NUOI Rate					
Equity	80.00%	x	6.00%	=	4.80%
Debt	20.00%	x	6.30%	=	1.26%
	100%				6.06%
Direct Cap Rate NUOI =					6.25%

Gross Cash Flow / Price:

Mean	Median	
15.21%	14.38%	Value Line

Equity Measure Gross = 15.00%

Industry Market Capital Structure Gross Cash Flow Rate (GCF)					
Equity	80.00%	x	15.00%	=	12.00%
Debt	20.00%	x	6.30%	=	1.26%
	100%				13.26%
Direct Cap Rate GCF =					13.50%

MONTANA DEPARTMENT OF REVENUE

Yield Capitalization Rate Study
Industry: Telecommunications
 2008 Assessment Year

	Exchange Carriers	Wireless			
Dividend Growth Model	13.00%	7.70%			
Capital Asset Pricing Model	11.00%	11.00%			
	Mean = 12.00%	9.35%			
	Median = 12.00%	9.35%			
Equity Measure FCF =	12.00%	9.50%			
Debt Measure =	6.30%	6.30%			
Yield Cap Rate Free Cash Flow - Telecommunications, Exchange Carriers					
Equity	73.00%	x	12.00%	=	8.76%
Debt	27.00%	x	6.30%	=	1.70%
	100%				10.46%
Weighted Average Cost of Capital (WACC) =					10.50%
			Yield Cap Rate Free Cash Flow - Telecommunications, Wireless Carriers		
Equity	80.00%	x	9.50%	=	7.60%
Debt	20.00%	x	6.30%	=	1.26%
	100%				8.86%
Weighted Average Cost of Capital (WACC) =					9.00%
Where Assumed Growth Rate = Inflation			Growth = 2.44%		
<i>see appendix for calculation</i>					

MONTANA DEPARTMENT OF REVENUE

Support for Industry Capital Structure
 Industry: Telecommunications, Exchange Carriers
 2008 Assessment Year

	TICKER SYMBOL	(VL) FINANCIAL STRENGTH	VL SHARES (000)	(YAHOO) AVG PRICE COMMON	(VL) BOOK VALUE PER SHARE	MKT VALUE COMMON (000) DxE	(VL) BOOK VALUE COMMON (000) FxD	(VL) BOOK VALUE PREFERRED (000)	(VL) BOOK VALUE DEBT (000)	MKT/BOOK ratio for DEBT	MKT VALUE PREFERRED & DEBT
AT&T Corp	T	A+	3,882,000	40.28	29.76	156,360,490	115,528,320	0	50,063,000	1.00	50,063,000
Verizon Communications	VZ	A+	2,909,900	44.15	16.68	128,467,235	48,537,132	0	28,646,000	1.00	28,646,000
CenturyTel Inc	CTL	B++	113,300	43.32	28.11	4,908,345	3,184,863	7,400	2,412,900	1.00	2,420,300
Sprint Nextel Corp	S	B+	2,897,000	16.17	18.34	46,834,833	53,130,980	0	21,011,000	1.00	21,011,000
Citizens Communications	CZN	B	322,300	13.01	3.28	4,193,123	1,057,144	0	4,460,800	1.00	4,460,800
Embarq Corp	EQ	B	149,700	52.10	(3.19)	7,798,871	(468,581)	0	6,421,000	1.00	6,421,000
D&E Communications	DECC	B	14,400	14.68	12.89	211,440	185,616	0	199,900	1.00	199,900
Hickory Tech Corp	HTCO	B	13,200	9.30	2.28	122,738	30,096	0	141,500	1.00	141,500
Windstream Corporation	WIN	B	476,800	13.48	0.99	6,424,880	472,032	0	5,456,200	1.00	5,456,200
Alaska Communic Sys Grp	ALSK	C++	42,300	15.21	(0.68)	643,383	(24,634)	0	437,200	1.00	437,200
Cincinnati Bell	CBB	C+	247,500	5.03	(3.72)	1,244,925	(920,700)	129,400	2,065,900	1.00	2,195,300
Qwest Communications Intl	Q	C+	1,889,900	7.31	(0.76)	13,818,319	(1,436,324)	0	13,206,000	1.00	13,206,000

SUMS & AVERAGES - Companies with positive price per share, book value per share, and cash flow per share
 * All Negative values left out of calculations
 Local Carrier consist of CTL,ALSK,CZN,EQ, DECC,HTCO,CBB,Q

ALL	371,028,582	222,101,649	136,800	134,521,400	134,658,200
B and Above	355,321,955	221,069,039	7,400	118,812,300	118,819,700
Local Carriers	39,366,024	4,929,751	136,800	34,801,400	34,938,200

MONTANA DEPARTMENT OF REVENUE

Support for Industry Capital Structure
Industry: Telecommunications, Exchange Carriers
2008 Assessment Year

	TICKER SYMBOL	EPS (YAHOO)	E/P (YAHOO) M/E	EPS (VL)	E/P (VL) O/E	CF/S (VL)	CF/P (VL) O/E	P/E (YAHOO)	inverse of P/E (YAHOO)	P/E (VL)	inverse of P/E (VL) 1/U	Median P/E (VL)	Inverse of Median P/E (VL) 1/X	ValueLine Beta	S&P Beta
AT&T Corp	T	1.91	4.74%	2.80	6.95%	5.75	14.28%	21.37	4.68%	12.67	7.89%	17.00	5.88%	1.00	1.1549
Verizon Communications	VZ	1.88	4.26%	2.37	5.37%	8.20	18.57%	23.01	4.35%	16.54	6.05%	15.00	6.67%	0.95	0.9815
CenturyTel Inc	CTL	3.29	7.59%	3.06	7.06%	8.10	18.70%	12.20	8.20%	11.73	8.53%	16.00	6.25%	0.85	0.8498
Sprint Nextel Corp	S	0.05	0.31%	0.05	0.31%	3.25	20.10%	279.57	0.36%	38.53	2.60%	46.00	2.17%	1.10	1.3225
Citizens Communications	CZN	0.66	5.10%	0.57	4.38%	2.20	16.91%	18.16	5.51%	17.18	5.82%			0.90	0.9167
Embarq Corp	EQ	4.49	8.62%	4.30	8.25%	11.25	21.59%	10.64	9.40%	10.50	9.52%				
D&E Communications	DECC	0.84	5.72%	0.78	5.31%			16.40	6.10%			18.00	5.56%	0.70	0.7364
Hickory Tech Corp	HTCO	0.39	4.19%	0.54	5.81%			23.55	4.25%					0.90	0.6257
Windstream Corporation	WIN	0.95	7.05%	0.95	7.05%	2.10	15.58%	12.99	7.70%	11.91	8.40%				
Alaska Communic Sys Grp	ALSK	0.71	4.67%	0.72	4.73%	2.20	14.46%	20.38	4.91%	18.51	5.40%			0.85	0.6631
Cincinnati Bell	CBB	0.33	6.56%	0.32	6.36%	0.95	18.89%	12.99	7.70%	13.13	7.62%			1.40	1.5491
Qwest Communications Intl	Q	1.40	19.19%	0.44	6.02%	1.85	25.30%	4.65	21.51%	11.04	9.06%			1.30	1.8228

SUMS & AVERAGES - Companies with positive price per share
* All Negative values left out of calculations
Local Carrier consist of CTL,ALSK,CZN,EQ, DECC,HTCO,CBE

6.50%	5.63%	18.44%	7.05%	7.09%	5.31%	1.00	1.06
5.29%	5.61%	17.96%	5.61%	6.97%	5.31%	0.91	1.05
5.93%	5.92%	17.06%	6.35%	7.58%	5.90%	0.84	0.78

Beta of Exchange Carriers 1.00

INDUSTRY MARKET STRUCTURES

ALL COMPANIES POSITIVE SUBSET			B & ABOVE POSITIVE SUBSET	
COMMON	73.00%	\$371,028,582	75.00%	\$355,321,955
DEBT	27.00%	134,658,200	25.00%	118,819,700
TOTAL		\$505,686,782	TOTAL	\$474,141,655

MONTANA DEPARTMENT OF REVENUE

**Support for Industry Capital Structure
Industry: Telecommunications, Wireless
2007 Assessment Year**

	TICKER SYMBOL	(VL) FINANCIAL STRENGTH	(VL) SHARES (000)	(YAHOO) AVG PRICE COMMON	(VL) BOOK VALUE PER SHARE	MKT VALUE COMMON (000) DxE	(VL) BOOK VALUE COMMON (000) FxD	(VL) BOOK VALUE PREFERRED (000)	(VL) BOOK VALUE DEBT (000)	MKT/BOOK ratio for DEBT	MKT VALUE PREFERRED & DEBT
AT&T Corp	T	A+	3,882,000	40.28	29.76	156,360,490	115,528,320	0	50,063,000	1.00	50,063,000
Verizon Communications	VZ	A+	2,909,900	44.15	16.68	128,467,235	48,537,132	0	28,646,000	1.00	28,646,000
Sprint Nextel Corp	S	B+	2,897,000	16.17	18.34	46,834,833	53,130,980	0	21,011,000	1.00	21,011,000
U.S. Cellular	USM	B+	87,900	89.56	34.06	7,872,178	2,993,874	0	1,001,800	1.00	1,001,800
Telephone & Data Sys	TDS	B	116,800	65.93	30.57	7,700,040	3,570,576	600	2,620,600	1.00	2,621,200
Vodafone Grp	VOD	B	5,283,500	37.76	25.07	199,504,960	132,457,345	0	35,035,000	1.00	35,035,000

SUMS & AVERAGES - Companies with positive price per share, book value per share, and cash flow per share

546,739,736 356,218,227 600 138,377,400 138,378,000

INDUSTRY MARKET STRUCTURE

* All Negative values left out of calculations

POSITIVE SUBSET		
COMMON	80.00%	\$546,739,736
DEBT	20.00%	138,378,000
TOTAL		\$685,117,736

MONTANA DEPARTMENT OF REVENUE

**Support for Industry Capital Structure
Industry: Telecommunications, Wireless
2008 Assessment Year**

	TICKER SYMBOL	EPS (YAHOO)	E/P (YAHOO) M/E	EPS (VL)	E/P (VL) O/E	CF/S (VL)	CF/P (VL) Q/E	P/E (YAHOO)	Inverse of P/E (YAHOO) 1/S	P/E (VL)	inverse of P/E (VL) 1/U	Median P/E (VL)	Inverse of Median P/E (VL) 1/X	ValueLine Beta
AT&T Corp	T	1.91	4.74%	2.80	6.95%	5.75	14.28%	21.37	4.68%	12.67	7.89%	17.00	5.88%	1.00
Verizon Communications	VZ	1.88	4.26%	2.37	5.37%	8.20	18.57%	23.01	4.35%	16.54	6.05%	15.00	6.67%	0.95
Sprint Nextel Corp	S	0.05	0.31%	0.05	0.31%	3.25	20.10%	279.57	0.36%	38.53	2.60%	46.00	2.17%	1.10
U.S. Cellular	USM	3.84	4.29%	2.95	3.29%	9.85	11.00%	21.51	4.65%	25.49	3.92%	31.00	3.23%	0.90
Telephone & Data Sys	TDS	2.72	4.13%	2.50	3.79%	9.55	14.49%	22.87	4.37%	28.57	3.50%	39.00	2.56%	1.05
Vodafone Grp	VOD	1.11	2.94%	(0.98)	-2.60%	4.85	12.84%	33.27	3.01%					1.05

SUMS & AVERAGES - Companies with positive price per share, book value per share, and cash flow per share

mean	3.44%		3.94%		15.21%		3.57%		4.79%		4.10%		1.01
median	4.19%		3.79%		14.38%		4.36%		3.92%		3.23%		1.03

Beta of Wireless Industry

* All Negative values left out of calculations

	TICKER SYMBOL	S&P Beta
AT&T Corp	T	1.1549
Verizon Communications	VZ	0.9815
Sprint Nextel Corp	S	0.8498
U.S. Cellular	USM	0.8866
Telephone & Data Sys	TDS	0.5408
Vodafone Grp	VOD	1.0205

SUMS & AVERAGES - Companies with positive price per share, book value per share, and cash flow per share

0.91
0.93
1.00

* All Negative values left out of calculations

MONTANA DEPARTMENT OF REVENUE

Capital Asset Pricing Model
 Industry: Telecommunications
 2008 Assessment Year

$$K_E = R_F + \beta (R_M - R_F)$$

	Exchange Carriers	Wireless
K_E = Cost of Equity	11.00%	11.00%
R_F = Risk Free Rate	4.50%	4.50%
β = Beta	1.00	1.00
R_M = Market Rate of Return	11.00%	11.00%
R_P = Equity Risk Premium ($R_M - R_F$)	6.50%	6.50%

R_m = Investor's Market Rate of Return

Ibbotson, SBBI, Large Company, Average Annual Return, **Arithmetic** Average, Ex Post

Ibbotson, SBBI, Large Company, Average Annual Return, **Geometric** Average, Ex Post

3 Stage Dividend Growth Model, S & P 500, Ex Ante

R_M =	12.30%
R_M =	10.40%
R_M =	10.00%
Mean =	10.90%
Median =	10.40%
R_M =	11.00%

R_f = Risk Free Rate

Internal Revenue Service, Rev Rule 2007-70 Table 2 December 2007
 Rev Rule 2007-70 Table . 2007

Annual Rates		R_f =	
Short Term - AFR			3.40%
Mid Term - AFR			3.67%
Long Term - AFR			4.34%

The ValueLine Investment Survey

U.S. Treasury Securities December 28 2007

3 Month	R_f =	2.89%
6 Month	R_f =	3.31%
1 Year	R_f =	3.31%

Federal Reserve Statistical Release

Treasury constant Maturities, 2007

Market yield on U.S. Treasury securities, Annual Averages

3-month constant maturity, quoted on investment basis	R_f =	4.48%
6-month constant maturity, quoted on investment basis	R_f =	4.62%
1-year constant maturity, quoted on investment basis	R_f =	4.53%

U.S. Treasury Securities Long-Term December 31, 2007

30 year constant maturity	R_f = 4.45%	Weighted Mean =	align="center">3.92%
20 year constant maturity	R_f = 4.50%		
		R_f =	4.50%

MONTANA DEPARTMENT OF REVENUE

Dividend Growth Model
Industry: Telecommunications
 2008 Assessment Year

$$K_E = D1 / P_0 + G_A$$

KE= Cost of Equity
 D1= Expected Dividends
 P₀= Current Price Per Share
 G= Sustainable Growth

Major Exchange Carriers:

Company Name	Ticker	Stock Price (P ₀)	Expected Dividend (D1)	Dividend Yield (D1/P ₀)	Dividend Growth (G _i)	Ke
AT&T Corp	T	40.28	1.60	3.97%	5.50%	9.47%
Verizon Communications	VZ	44.15	1.72	3.90%	1.50%	5.40%
CenturyTel Inc	CTL	43.32	0.27	0.62%	6.50%	7.12%
Sprint Nextel Corp	S	16.17	0.10	0.62%	nil	
Alaska Communic Sys Grp	ALSK	15.21	0.92	6.05%	12.00%	18.05%
Citizens Communications	CZN	13.01	1.00	7.69%	nmf	
Embarq Corp	EQ	52.10	2.60	4.99%	20.00%	24.99%
D&E Communications	DECC	14.68	na		2.50%	
Hickory Tech Corp	HTCO	9.30	na		1.00%	
Windstream Corporation	WIN	13.48	1.00	7.42%	nmf	
Cincinnati Bell	CBB	5.03	nil		nmf	
Qwest Communications Intl	Q	7.31	nil		nil	

Mean = 13.01%
 Median = 9.47%

Estimated Cost of Equity = 13.00%

Wireless Sector:

Company Name	Ticker	Stock Price (P ₀)	Expected Dividend (D1)	Dividend Yield (D1/P ₀)	Dividend Growth (G _i)	Ke
AT&T Corp	T	40.28	1.60	3.97%	5.50%	9.47%
Vodafone Grp	VOD	37.76	1.35	3.58%	9.50%	13.08%
Verizon Communications	VZ	44.15	1.72	3.90%	1.50%	5.40%
Sprint Nextel Corp	S	16.17	0.10	0.62%	nil	
Telephone & Data Sys	TDS	65.93	0.39	0.59%	2.50%	3.09%
U.S. Cellular	USM	89.56	nil		nil	

Mean = 6.21%
 Median = 7.43%

Estimated Cost of Equity = 7.70%

MONTANA DEPARTMENT OF REVENUE

Support for Debt Rating
 Industry: Telecommunications
 2008 Assessment Year

STANDARD & POOR'S BOND GUIDE
 BOND YIELD TO MATURITY

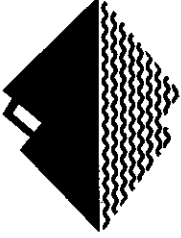
Company Name	Coupon	CUSIP	Issue	Maturity Date	S&P Bond Rating	Jan-07	Feb-07	Mar-07	Apr-07	May-07	Jun-07	Jul-07	Aug-07	Sep-07	Oct-07	Nov-07	Dec-07	Avg Full Year	Avg 4th QTR	
GTE South Inc	7.5	36233TAF6	Deb 'D'	3/15/2026	NR	7.20	7.20	7.20	7.20	7.20	7.20	7.20	7.20	7.20	7.20	7.20	7.20	7.20%	7.20%	
LCI International	7.25	501813AA7	Sr Nts	6/15/2007	NR	6.50	6.30	5.91	7.06									6.44%		
Mountain States Tel&Tel	6	624284AJ4	Deb	3/1/2007	NR	7.03	6.57	5.94	5.91	5.88								6.27%		
Nextel Partners, Inc.	8.12	65333FAR8	Sr Nts	7/1/2011	NR	7.01	6.94	6.89	6.90	6.92	6.87							6.92%		
Pac-West Telecomm, Inc.	13.5	69371YAB7	Sr Nts	2/1/2009	NR	49.99	49.99	49.99	49.99	49.99	49.99	49.99	49.99	49.99	49.99	49.99	49.99	49.99%	49.99%	
Primus Telecommunications Group, Inc.	12.75	741929AJ2	Sr Nts	10/15/2009	NR	24.57	24.85	17.26	16.30	15.85	15.11	15.47	14.12	14.48	13.94	15.25	16.03	16.94%	15.07%	
Rural Cellular Corp.	9.75	781904AF4	Sr Sub Nts	1/15/2010	NR	8.67	8.54	8.50	8.48	8.33	8.30	8.48						8.47%		
U S WEST Communications	8.875	912920AA3	Deb	6/1/2031	NR	8.48	8.45	8.45	8.43	8.45								8.46%	8.48%	
NEXTEL Communications, Inc.	7.38	65332VBD4	Sr Nts	8/1/2015	BBB	7.00	6.80	6.78	6.80	7.02	7.39	7.89	7.26	7.10	7.21	7.21	7.64	7.18%	7.35%	
Counts of data						197	197	196	196	193	190	186	184	183	183	181	182	177	197	182

NOTES:

means the data was not available in S&P Guide
 means issuance matured or called

	Annual	4th Qtr
AAA's		
AA's	6.83%	6.69%
A's	5.89%	5.64%
BBB's	6.64%	6.64%
BB's	7.83%	8.58%
B's	7.88%	8.68%
CCC's	8.20%	8.40%
NR's	9.18%	9.80%
Investment Grade (BBB & above)		
ALL	6.77%	6.80%
BBB+ thru AAA	5.90%	5.65%
BB thru AAA	6.25%	6.17%

MONTANA DEPARTMENT OF REVENUE



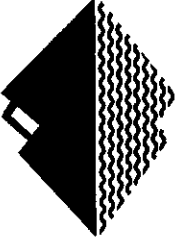
Montana Department of
REVENUE

Direct Capitalization Rate Study

**Industry: Cooperatives
2008 Assessment Year**

Industry Market Capital Structure		Direct Cap Rate Net Operating Income		Direct Cap Rate	
		Electric Coops			
Equity		46.47%	X	6.30%	=
Debt		53.53%	X	5.35%	=
		100%			5.79%
				Direct Cap Rate	6.00%
Industry Market Capital Structure		Direct Cap Rate Net Operating Income		Direct Cap Rate	
		Telephone Coops			
Equity		68.87%	X	6.60%	=
Debt		31.13%	X	5.64%	=
		100%			6.30%
				Direct Cap Rate	6.50%
Industry Market Capital Structure		Direct Cap Rate Net Operating Income		Direct Cap Rate	
		ALL Coops			
Equity		52.68%	X	6.41%	=
Debt		47.32%	X	5.40%	=
		100%			5.93%
				Direct Cap Rate	6.00%

MONTANA DEPARTMENT OF REVENUE



Montana Department of
REVENUE

Direct Capitalization Rate Study

**Industry: Cooperatives
2008 Assessment Year**

Industry Market Capital Structure		Direct Cap Rate Gross Cash Flow		Cash Flow Rate	
Electric Coops					
Equity		46.47%	X	14.50%	=
Debt		53.53%	X	5.35%	=
		100%			9.60%
					9.75%
Industry Market Capital Structure		Direct Cap Rate Gross Cash Flow		Cash Flow Rate	
Telephone Coops					
Equity		68.87%	X	18.00%	=
Debt		31.13%	X	5.64%	=
		100%			1.75%
					14.15%
					14.25%
Industry Market Capital Structure		Direct Cap Rate Gross Cash Flow		Cash Flow Rate	
ALL Coops					
Equity		52.68%	X	15.77%	=
Debt		47.32%	X	5.40%	=
		100%			10.86%
					11.00%

Support for Capital Structure and Rate Data For 2008

COOP	Number	Total Margins & Equity <small>Rus Form Line 35</small>		Total Long-Term Debt <small>Rus Form Line 42</small>		Interest on Long-Term Debt <small>Rus Form Line 15</small>	Capital Structure		Debt Rate	
		Balance Sheet	Balance Sheet	Equity	Debt					
ELECTRIC COOPS										
	700 Beartooth	4,892,103	9,531,059	542,939	33.92%	66.08%	5.70%			
	701 Big Horn County	7,331,307	6,406,877	339,781	53.36%	46.64%	5.30%			
	702 Big Horn Rural	11,899,461	7,214,550	399,253	62.26%	37.74%	5.53%			
	703 Big Flat	5,741,179	1,999,535	69,583	74.17%	25.83%	3.48%			
	706 Fall River Rural	24,934,068	49,349,768	2,441,549	33.57%	66.43%	4.95%			
	709 Fergus	13,995,216	14,311,890	560,377	49.44%	50.56%	3.92%			
	712 Flathead	45,678,233	133,811,111	8,638,580	25.45%	74.55%	6.46%			
	715 Glacier	14,606,651	17,866,117	903,096	45.66%	54.34%	5.19%			
	718 Golden West	1,720,769	3,551,675	185,611	32.64%	67.36%	5.23%			
	721 Grand	14,403,978	15,968,083	903,096	47.43%	52.57%	5.66%			
	724 Hill County	12,276,475	8,555,719	366,019	58.93%	41.07%	4.28%			
	727 Lincoln	6,579,758	10,318,239	556,742	40.54%	59.46%	4.39%			
	730 Lower Yellowstone	14,267,553	10,681,826	523,520	34.25%	65.75%	5.40%			
	733 Marias River	5,957,915	2,961,510	162,976	37.09%	62.91%	4.30%			
	736 McCone	7,225,354	12,255,197	527,258	98.37%	1.63%	54.44%			
	737 McKenzie	42,416,717	703,418	382,959	40.54%	59.46%	4.39%			
	739 Mid-Yellowstone	2,813,239	4,126,634	180,980	34.25%	65.75%	5.40%			
	742 Missoula	15,875,995	30,472,646	1,646,995	41.16%	58.84%	4.67%			
	745 Northern	4,318,428	6,173,290	288,005	42.95%	57.05%	5.20%			
	748 Northern Lights	28,761,551	36,203,032	1,984,753	67.35%	32.65%	7.15%			
	751 Park	13,394,924	6,493,701	464,172	66.74%	33.26%	5.44%			
	754 Sheridan	12,930,177	6,442,637	350,579	67.29%	32.71%	4.89%			
	757 Southeast	3,993,370	1,940,779	94,835	52.37%	47.63%	6.00%			
	760 Sun River	12,830,912	11,970,573	700,008	55.45%	44.55%	4.26%			
	763 Tongue River	6,932,059	12,997,337	531,683	36.16%	63.84%	5.14%			
	765 Powder River Energy Corp. (*)	124,341,131	99,912,033	4,254,282	53.27%	46.73%	5.89%			
	766 Valley	2,839,434	5,013,082	257,696	29.53%	70.47%	4.75%			
	769 Vigilante	12,360,977	10,842,024	638,458	46.53%	53.47%	5.59%			
	772 Yellowstone Valley	14,994,086	35,782,846	1,700,225	66.41%	33.59%	7.27%			
	775 Ravalli County Electric Coop	11,084,842	12,737,721	712,658						
	778 Upper Missouri G & T	15,687,138	7,935,521	576,527						
		B.S. LINE 58	B.S.LINE 46	I.S. LINE 22						
		39,569,314	28,632,841	1,671,786	57.89%	42.11%	5.84%			
		10,735,942	5,660,792	298,312	65.48%	34.52%	5.27%			
		56,681,096	36,344,325	2,221,680	60.93%	39.07%	6.11%			
		71,865,024	3,750,099	483,706	95.04%	4.96%	12.90%			
		45,624,719	6,945,720	264,243	86.79%	13.21%	3.80%			
		19,241,090	13,836,119	694,039	67.20%	32.80%	4.73%			
		49,315,424	24,074,014	1,343,160			5.59%			
		1,065,052	13,582,398	548,589	7.27%	92.73%	4.04%			
	Electric Coop Totals	517,085,000	595,750,410	31,885,195	49.21%	50.79%	6.91%			
	Electric Coop avg.(simple)				46.47%	53.53%	5.35%			
	Electric Coop avg.(weighted)									
	Telephone Coop Totals	293,897,661	132,826,308	7,485,515	62.94%	37.06%	6.03%			
	Telephone Coop avg.(simple)				68.87%	31.13%	5.64%			
	Telephone Coop avg.(weighted)									
	Combined Totals	810,982,661	728,576,718	39,370,710	51.88%	48.12%	6.72%			
	Combined avg.(simple)				52.68%	47.32%	5.40%			
	Combined avg.(weighted)									

(*) Coop large/operates mostly out of state

TELEPHONE COOPS

500 Blackfoot	39,569,314	28,632,841	1,671,786	57.89%	42.11%	5.84%
503 InterBel	10,735,942	5,660,792	298,312	65.48%	34.52%	5.27%
505 Mid Rivers	56,681,096	36,344,325	2,221,680	60.93%	39.07%	6.11%
510 Nermont (Auditor's report)	71,865,024	3,750,099	483,706	95.04%	4.96%	12.90%
515 Northern N/A(NO DEBT)						
520 Range	45,624,719	6,945,720	264,243	86.79%	13.21%	3.80%
522 Reservation (Need Rus Form)	19,241,090	13,836,119	694,039	67.20%	32.80%	4.73%
525 Three Rivers	49,315,424	24,074,014	1,343,160			5.59%
530 Triangle						
540 West River	1,065,052	13,582,398	548,589	7.27%	92.73%	4.04%

Table Showing The Implied Risk Premium Using Macroeconomic Data
 This type of calculation can also be found in Chapter 9 of Ibbotson's SBBi, Supply Side Model

3 Stage Dividend Growth Model

Assumptions:

Stages	Years	Growth	Model 1
1st Stage	1-5 years	Constant @:	14.10%
2nd Stage	6-15 years	Linear from:	12.10% to 6.55%
3rd Stage	15 years -perpetuity	GDP Growth: Real / Inflation	3.00% to 4.00%
		GDP Growth*: Real + Inflation	6.55%

OR
±
to

Model 2
12.60%
10.00% to 5.32%
2.32% to 2.55%
5.32%

S & P GICS Composite 1500 Valuations as of 11/30/06, 12/2006
 Monthly Investment Review
 Linear from 1st Stage to 3rd Stage

Inflation Range = Federal Reserve, Treasuries Inflation - Indexed
 *GDP Growth = Real growth + Inflation
 50 year United States Historical: Real = 3.5% Inflation = 3.0%,
 GDP Growth = 6.5%

Model 1

Year	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Starting Industry	Start Price	Expected Dividends	1st Stage Growth Rates					2nd Stage Growth Rates										
S & P 500	\$(1,468.36)	\$ 31.55	14.100%	14.100%	14.100%	14.100%	14.100%	13.41%	12.728%	12.041%	11.355%	10.669%	9.983%	9.296%	8.610%	7.924%	7.238%	6.552%
			\$ 36.00	\$ 41.07	\$ 46.86	\$ 53.47	\$ 61.01	\$ 69.20	\$ 78.00	\$ 87.39	\$ 97.32	\$ 107.70	\$ 118.45	\$ 129.46	\$ 140.61	\$ 151.75	\$ 162.74	\$ 173.40
			28															
			Implied Market Return = 10.33%															

Model 2

Year	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Starting Industry	Start Price	Expected Dividends	1st Stage Growth Rates					2nd Stage Growth Rates										
S & P 500	\$(1,468.36)	\$ 31.13	12.600%	12.600%	12.600%	12.600%	12.600%	11.94%	11.277%	10.615%	9.953%	9.291%	8.630%	7.968%	7.306%	6.644%	5.983%	5.321%
			\$ 35.06	\$ 39.47	\$ 44.45	\$ 50.05	\$ 56.35	\$ 63.08	\$ 70.20	\$ 77.65	\$ 85.37	\$ 93.31	\$ 101.36	\$ 109.44	\$ 117.43	\$ 125.23	\$ 132.73	\$ 139.79
			Implied Market Return = 8.99%															

Conclusions:

Implied Market Rate Range = 8.99% to 10.33%
 Mean 9.66%
 Median 9.66%
 Market Rate Used 10.00%

2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047
6.552%	6.552%	6.552%	6.552%	6.552%	6.552%	6.552%	6.552%	6.552%	6.552%	6.552%	6.552%	6.552%	6.552%	6.552%	6.552%	6.552%	6.552%	6.552%	6.552%	6.552%	6.552%
\$184.76	\$196.86	\$209.76	\$223.50	\$238.15	\$253.75	\$270.37	\$288.09	\$306.96	\$327.07	\$348.50	\$371.33	\$395.66	\$421.58	\$449.20	\$478.63	\$509.98	\$543.40	\$579.00	\$616.93	\$657.35	\$700.41

2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047
5.321%	5.321%	5.321%	5.321%	5.321%	5.321%	5.321%	5.321%	5.321%	5.321%	5.321%	5.321%	5.321%	5.321%	5.321%	5.321%	5.321%	5.321%	5.321%	5.321%	5.321%	5.321%
\$147.23	\$155.06	\$163.31	\$172.00	\$181.15	\$190.79	\$200.94	\$211.64	\$222.90	\$234.76	\$247.25	\$260.41	\$274.26	\$288.86	\$304.23	\$320.41	\$337.46	\$355.42	\$374.33	\$394.25	\$415.23	\$437.32

2048	2049	2050	2051	2052	2053	2054	2055	2056	2057	2058	2059	2060	2061	2062	2063	2064	2065	2066
6.552%	6.552%	6.552%	6.552%	6.552%	6.552%	6.552%	6.552%	6.552%	6.552%	6.552%	6.552%	6.552%	6.552%	6.552%	6.552%	6.552%	6.552%	6.552%
\$746.30	\$795.20	\$847.29	\$902.80	\$961.95	\$ 1,024.97	\$ 1,092.12	\$ 1,163.67	\$ 1,239.91	\$1,321.14	\$1,407.70	\$1,499.92	\$1,598.19	\$1,702.90	\$1,814.46	\$1,933.34	\$2,060.00	\$2,194.96	\$2,338.76

2048	2049	2050	2051	2052	2053	2054	2055	2056	2057	2058	2059	2060	2061	2062	2063	2064	2065	2066
5.321%	5.321%	5.321%	5.321%	5.321%	5.321%	5.321%	5.321%	5.321%	5.321%	5.321%	5.321%	5.321%	5.321%	5.321%	5.321%	5.321%	5.321%	5.321%
\$460.59	\$485.10	\$510.91	\$538.10	\$566.73	\$ 596.88	\$ 628.64	\$ 662.09	\$ 697.32	\$ 734.43	\$ 773.51	\$ 814.67	\$ 858.01	\$ 903.67	\$ 951.75	\$1,002.40	\$1,055.73	\$1,111.91	\$1,171.07

2067	2068	2069	2070	2071	2072	2073	2074	2075	2076	2077	2078	2079	2080	2081	2082	2083	2084	2085
3rd Stage Growth Rates																		
6.552%	6.552%	6.552%	6.552%	6.552%	6.552%	6.552%	6.552%	6.552%	6.552%	6.552%	6.552%	6.552%	6.552%	6.552%	6.552%	6.552%	6.552%	6.552%
\$2,491.99	\$2,655.25	\$2,829.21	\$3,014.57	\$3,212.06	\$3,422.50	\$3,646.73	\$3,885.64	\$4,140.21	\$4,411.46	\$4,700.47	\$5,008.43	\$5,336.55	\$5,686.18	\$6,058.71	\$6,455.64	\$6,878.59	\$7,329.24	\$7,809.41

2067	2068	2069	2070	2071	2072	2073	2074	2075	2076	2077	2078	2079	2080	2081	2082	2083	2084	2085
3rd Stage Growth Rates																		
5.321%	5.321%	5.321%	5.321%	5.321%	5.321%	5.321%	5.321%	5.321%	5.321%	5.321%	5.321%	5.321%	5.321%	5.321%	5.321%	5.321%	5.321%	5.321%
\$1,233.39	\$1,299.02	\$1,368.14	\$1,440.93	\$1,517.61	\$1,598.36	\$1,683.41	\$1,772.98	\$1,867.32	\$1,966.68	\$2,071.33	\$2,181.54	\$2,297.62	\$2,419.88	\$2,548.64	\$2,684.26	\$2,827.09	\$2,977.51	\$3,135.95

2086	2087	2088	2089	2090	2091	2092	2093	2094	2095	2096	2097	2098	2099	2100	2101	2102
6.552%	6.552%	6.552%	6.552%	6.552%	6.552%	6.552%	6.552%	6.552%	6.552%	6.552%	6.552%	6.552%	6.552%	6.552%	6.552%	6.552%
\$8,321.04	\$8,866.20	\$9,447.07	\$10,065.99	\$10,725.46	\$11,428.14	\$12,176.86	\$12,974.62	\$13,824.66	\$14,730.38	\$15,695.44	\$16,723.73	\$17,819.38	\$18,986.82	\$20,230.74	\$21,556.16	\$22,968.41

2086	2087	2088	2089	2090	2091	2092	2093	2094	2095	2096	2097	2098	2099	2100	2101	2102
5.321%	5.321%	5.321%	5.321%	5.321%	5.321%	5.321%	5.321%	5.321%	5.321%	5.321%	5.321%	5.321%	5.321%	5.321%	5.321%	5.321%
\$3,302.81	\$3,478.55	\$3,663.65	\$3,858.59	\$4,063.91	\$4,280.15	\$4,507.89	\$4,747.76	\$5,000.39	\$5,266.46	\$5,546.69	\$5,841.82	\$6,152.67	\$6,480.05	\$6,824.86	\$7,188.01	\$7,570.48

2103	2104	2105	2106	2107	2108	2109	2110	2111	2112	2113	2114	2115	2116	2117	2118	2119
6.552%	6.552%	6.552%	6.552%	6.552%	6.552%	6.552%	6.552%	6.552%	6.552%	6.552%	6.552%	6.552%	6.552%	6.552%	6.552%	6.552%
\$24,473.18	\$26,076.54	\$27,784.95	\$29,605.28	\$31,544.87	\$33,611.53	\$35,813.59	\$38,159.92	\$40,659.97	\$43,323.80	\$46,162.16	\$49,186.48	\$52,408.93	\$55,842.50	\$59,501.02	\$63,399.23	\$67,552.83

2103	2104	2105	2106	2107	2108	2109	2110	2111	2112	2113	2114	2115	2116	2117	2118	2119
5.321%	5.321%	5.321%	5.321%	5.321%	5.321%	5.321%	5.321%	5.321%	5.321%	5.321%	5.321%	5.321%	5.321%	5.321%	5.321%	5.321%
\$ 7,973.31	\$ 8,397.56	\$ 8,844.40	\$ 9,315.01	\$ 9,810.66	\$10,332.69	\$10,882.49	\$11,461.55	\$12,071.41	\$12,713.73	\$13,390.23	\$14,102.73	\$14,853.13	\$15,643.47	\$16,475.86	\$17,352.54	\$18,275.87

2120	2121	2122	2123	2124	2125
6.552%	6.552%	6.552%	6.552%	6.552%	6.552%
\$71,978.55	\$76,694.23	\$81,718.85	\$87,072.66	\$92,777.23	\$98,855.53

2120	2121	2122	2123	2124	2125
5.321%	5.321%	5.321%	5.321%	5.321%	5.321%
\$19,248.32	\$20,272.53	\$21,351.23	\$22,487.33	\$23,683.88	\$24,944.10

Industry Name	Number of Firms	Beta	Cost of Equity	E/(D+E)	Std Dev in Stock	Cost of Debt	Tax Rate	After-tax Cost of Debt	D/(D+E)	Pre Tax Cost of Capital	After Tax Cost of Capital
Advertising	40	1.6	11.69%	71.03%	93.79%	6.02%	14.93%	3.61%	28.97%	12.63%	9.35%
Aerospace/Defense	69	1.19	9.74%	86.07%	42.67%	5.27%	21.13%	3.16%	13.93%	11.33%	8.82%
Air Transport	49	1.4	10.70%	67.50%	41.21%	5.27%	17.38%	3.16%	32.50%	12.87%	8.25%
Apparel	57	0.87	8.19%	83.44%	66.77%	6.02%	25.25%	3.61%	16.56%	11.02%	7.44%
Auto & Truck	28	1.54	11.42%	50.46%	28.35%	4.77%	22.92%	2.86%	49.54%	17.12%	7.18%
Auto Parts	56	1.45	10.96%	68.15%	53.41%	5.52%	17.75%	3.31%	31.85%	13.12%	8.53%
Bank	504	0.63	7.04%	70.34%	24.47%	4.52%	27.88%	2.71%	29.66%	13.22%	5.75%
Bank (Canadian)	8	0.67	7.24%	94.42%	14.51%	4.27%	19.07%	2.56%	5.58%	7.90%	6.98%
Bank (Midwest)	38	0.85	8.11%	71.53%	18.18%	4.27%	27.80%	2.56%	28.47%	13.72%	6.53%
Beverage	44	0.89	8.26%	89.70%	52.03%	5.52%	16.73%	3.31%	10.30%	9.13%	7.75%
Biotechnology	103	1.51	11.23%	91.66%	72.36%	6.02%	4.11%	3.61%	8.34%	10.64%	10.59%
Building Materials	49	1.07	9.14%	77.23%	56.45%	5.52%	23.79%	3.31%	22.77%	12.48%	7.81%
Cable TV	23	1.56	11.50%	62.56%	46.29%	5.27%	20.04%	3.16%	37.44%	14.70%	8.38%
Canadian Energy	13	0.8	7.85%	85.71%	27.90%	4.77%	27.13%	2.86%	14.29%	10.61%	7.14%
Chemical (Basic)	19	1.52	11.32%	86.51%	64.99%	6.02%	16.97%	3.61%	13.49%	12.08%	10.28%
Chemical (Diversified)	37	1.16	9.56%	87.88%	33.99%	5.02%	26.20%	3.01%	12.12%	11.58%	8.77%
Chemical (Specialty)	90	1.06	9.12%	84.80%	52.19%	5.52%	19.01%	3.31%	15.20%	10.62%	8.24%
Coal	18	1.71	12.23%	87.63%	41.81%	5.27%	10.36%	3.16%	12.37%	12.00%	11.11%
Computer Software/Svcs	376	1.56	11.49%	96.68%	96.12%	6.02%	10.75%	3.61%	3.32%	11.47%	11.23%
Computers/Peripherals	144	1.86	12.94%	94.55%	82.49%	6.02%	8.41%	3.61%	5.45%	12.69%	12.43%
Diversified Co.	107	1.03	8.97%	86.24%	43.83%	5.27%	19.54%	3.16%	13.76%	10.42%	8.17%
Drug	368	1.78	12.58%	92.77%	85.41%	6.02%	5.95%	3.61%	7.23%	12.08%	11.91%
E-Commerce	56	2.08	13.98%	96.74%	76.02%	6.02%	15.82%	3.61%	3.26%	14.04%	13.64%
Educational Services	39	1.27	10.11%	98.66%	50.83%	5.52%	20.74%	3.31%	1.34%	10.25%	10.02%
Electric Util. (Central)	25	0.93	8.49%	57.90%	18.40%	4.27%	26.66%	2.56%	42.10%	16.14%	5.99%
Electric Utility (East)	27	0.84	8.05%	66.35%	19.07%	4.27%	29.51%	2.56%	31.65%	14.84%	6.32%
Electric Utility (West)	17	0.88	8.22%	62.38%	15.80%	4.27%	31.69%	2.56%	37.62%	17.05%	6.09%
Electrical Equipment	86	1.35	10.49%	55.29%	59.10%	5.52%	14.92%	3.31%	44.71%	12.47%	7.28%
Electronics	179	1.32	10.32%	87.59%	80.61%	6.02%	13.25%	3.61%	12.41%	10.68%	9.49%
Entertainment	93	1.53	11.37%	72.90%	98.22%	6.02%	15.50%	3.61%	27.10%	12.49%	9.27%
Entertainment Tech	38	2.06	13.88%	97.29%	52.14%	5.52%	9.03%	3.31%	2.71%	13.75%	13.59%
Environmental	89	1	8.80%	68.81%	90.86%	6.02%	11.44%	3.61%	31.19%	9.62%	7.18%
Financial Svcs. (Div.)	294	1.14	9.48%	34.07%	48.82%	5.27%	17.36%	3.16%	65.93%	14.68%	5.32%
Food Processing	123	0.77	7.70%	84.72%	38.83%	5.02%	19.34%	3.01%	15.28%	9.48%	6.99%
Food Wholesalers	19	0.79	7.81%	67.43%	47.08%	5.27%	31.85%	3.16%	32.57%	15.64%	6.30%
Foreign Electronics	10	1.08	9.21%	82.70%	20.69%	4.52%	33.95%	2.71%	17.30%	13.49%	8.09%
Furn/Home Furnishings	39	1.1	9.29%	76.08%	41.33%	5.27%	23.96%	3.16%	23.92%	12.80%	7.82%
Grocery	15	0.99	8.76%	76.80%	28.91%	4.77%	28.20%	2.86%	23.20%	13.27%	7.39%
Healthcare Information	38	0.91	8.37%	88.73%	47.09%	5.27%	14.55%	3.16%	11.27%	9.07%	7.78%
Heavy Construction	12	1.25	9.99%	96.53%	43.26%	5.27%	29.84%	3.16%	3.47%	10.68%	9.75%
Home Appliance	11	0.95	8.59%	82.20%	28.66%	4.77%	15.98%	2.86%	17.80%	9.91%	7.57%
Homebuilding	36	1.64	11.90%	43.70%	40.57%	5.27%	23.61%	3.16%	56.30%	18.49%	6.98%
Hotel/Gaming	75	1.25	10.03%	73.79%	66.57%	6.02%	12.97%	3.61%	26.21%	10.80%	8.35%
Household Products	28	0.89	8.30%	85.38%	43.77%	5.27%	29.49%	3.16%	14.62%	11.40%	7.55%

Industry Name	Number of Firms	Beta	Cost of Equity	E/(D+E)	Std Dev in Stock	Cost of Debt	Tax Rate	After-tax Cost of Debt	D/(D+E)	Pre Tax Cost of Capital	After Tax Cost of Capital
Human Resources	35	1.38	10.61%	93.01%	53.99%	5.52%	23.43%	3.31%	6.99%	11.51%	10.10%
Industrial Services	196	1.22	9.86%	80.78%	71.93%	6.02%	16.12%	3.61%	19.22%	11.06%	8.66%
Information Services	38	1.05	9.04%	90.86%	33.76%	5.02%	19.94%	3.01%	9.14%	10.04%	8.49%
Insurance (Life)	40	0.94	8.54%	92.27%	42.35%	5.27%	27.97%	3.16%	7.73%	10.04%	8.13%
Insurance (Prop/Cas.)	87	0.89	8.29%	98.80%	26.89%	4.77%	19.80%	2.86%	1.20%	8.43%	8.22%
Internet	266	1.97	13.47%	98.20%	92.64%	6.02%	6.76%	3.61%	1.80%	13.35%	13.29%
Investment Co.	18	0.71	7.42%	99.46%	13.96%	4.27%	0.00%	2.56%	0.54%	7.38%	7.39%
Investment Co. (Foreign)	15	1.31	10.28%	100.00%	23.12%	4.52%	2.20%	2.71%	0.00%	10.28%	10.28%
Machinery	126	1.19	9.72%	80.82%	45.67%	5.27%	22.70%	3.16%	19.18%	12.21%	8.46%
Manuf. Housing/RV	18	1.92	13.21%	87.53%	43.47%	5.27%	16.88%	3.16%	12.47%	13.67%	11.95%
Maritime	52	0.87	8.21%	66.36%	26.20%	4.77%	5.49%	2.86%	33.64%	7.29%	6.41%
Medical Services	178	1.1	9.28%	83.91%	65.30%	6.02%	16.18%	3.61%	16.09%	10.39%	8.36%
Medical Supplies	274	1.43	10.89%	92.56%	71.34%	6.02%	11.47%	3.61%	7.44%	10.93%	10.34%
Metal Fabricating	37	1.19	9.72%	90.77%	53.39%	5.52%	18.27%	3.31%	9.23%	10.51%	9.13%
Metals & Mining (Div.)	78	1.05	9.07%	93.84%	87.77%	6.02%	7.73%	3.61%	6.16%	8.99%	8.73%
Natural Gas (Div.)	31	0.93	8.46%	76.90%	29.43%	4.77%	22.37%	2.86%	23.10%	11.67%	7.17%
Natural Gas Utility	26	0.78	7.74%	60.12%	31.45%	5.02%	25.92%	3.01%	39.88%	14.99%	5.85%
Newspaper	18	1.21	9.83%	66.65%	27.94%	4.77%	22.27%	2.86%	33.35%	13.98%	7.51%
Office Equip/Supplies	25	1.13	9.44%	75.64%	38.54%	5.02%	27.71%	3.01%	24.36%	13.89%	7.87%
Oil/Gas Distribution	15	0.72	7.45%	71.71%	17.26%	4.27%	5.20%	2.56%	28.29%	6.81%	6.07%
Oilfield Svcs/Equip.	113	1.1	9.29%	89.88%	44.27%	5.27%	20.11%	3.16%	10.12%	10.38%	8.67%
Packaging & Container	35	1.12	9.40%	65.58%	43.46%	5.27%	21.03%	3.16%	34.42%	13.40%	7.25%
Paper/Forest Products	39	0.93	8.47%	71.00%	36.74%	5.02%	14.27%	3.01%	29.00%	10.15%	6.89%
Petroleum (Integrated)	26	1.02	8.91%	92.62%	35.52%	5.02%	32.20%	3.01%	7.38%	10.63%	8.47%
Petroleum (Producing)	186	1	8.81%	83.97%	64.45%	6.02%	14.95%	3.61%	16.03%	9.79%	7.97%
Pharmacy Services	19	1.07	9.13%	91.08%	34.38%	5.02%	21.25%	3.01%	8.92%	10.21%	8.58%
Power	58	1.87	12.99%	89.32%	94.92%	6.02%	8.06%	3.61%	10.68%	12.46%	11.99%
Precious Metals	84	1.11	9.34%	93.29%	65.41%	6.02%	4.90%	3.61%	6.71%	9.04%	8.96%
Precision Instrument	103	1.66	11.97%	90.58%	99.31%	6.02%	16.50%	3.61%	9.42%	12.40%	11.18%
Property Management	12	0.91	8.36%	53.43%	22.35%	4.52%	15.99%	2.71%	46.57%	11.91%	5.73%
Publishing	40	1.35	10.50%	74.49%	42.89%	5.27%	15.56%	3.16%	25.51%	11.79%	8.63%
R.E.I.T.	147	0.9	8.34%	71.18%	27.38%	4.77%	1.16%	2.86%	28.82%	6.27%	6.76%
Railroad	16	1.23	9.91%	79.33%	31.95%	5.02%	32.19%	3.01%	20.67%	14.52%	8.48%
Recreation	73	1.54	11.38%	78.00%	48.17%	5.27%	18.25%	3.16%	22.00%	12.89%	9.58%
Reinsurance	11	1.01	8.88%	93.94%	20.75%	4.52%	10.70%	2.71%	6.06%	8.99%	8.50%
Restaurant	75	0.93	8.47%	87.46%	47.71%	5.27%	20.74%	3.16%	12.54%	10.01%	7.80%
Retail (Special Lines)	164	1.26	10.04%	88.98%	46.60%	5.27%	22.68%	3.16%	11.02%	11.43%	9.28%
Retail Automotive	16	1.58	11.58%	70.35%	27.92%	4.77%	36.04%	2.86%	29.65%	18.83%	8.99%
Retail Building Supply	9	1.23	9.92%	83.76%	25.89%	4.77%	37.24%	2.86%	16.24%	14.36%	8.77%
Retail Store	42	1.11	9.34%	85.26%	44.82%	5.27%	24.46%	3.16%	14.74%	11.57%	8.43%
Securities Brokerage	31	1.66	11.97%	44.81%	42.27%	5.27%	22.95%	3.16%	55.19%	18.03%	7.11%
Semiconductor	138	2.59	16.44%	95.67%	63.57%	6.02%	11.65%	3.61%	4.33%	16.23%	15.88%
Semiconductor Equip	16	2.51	16.04%	91.82%	37.16%	5.02%	25.66%	3.01%	8.18%	16.83%	14.97%
Shoe	20	1.47	11.05%	97.44%	37.82%	5.02%	32.17%	3.01%	2.56%	11.59%	10.84%
Steel (General)	26	1.71	12.21%	90.08%	37.43%	5.02%	30.16%	3.01%	9.92%	13.99%	11.30%

<i>Industry Name</i>	<i>Number of Firms</i>	<i>Beta</i>	<i>Cost of Equity</i>	<i>E/(D+E)</i>	<i>Std Dev in Stock</i>	<i>Cost of Debt</i>	<i>Tax Rate</i>	<i>After-tax Cost of Debt</i>	<i>D/(D+E)</i>	<i>Pre Tax Cost of Capital</i>	<i>After Tax Cost of Capital</i>
Steel (Integrated)	14	1.97	13.48%	84.10%	64.44%	6.02%	23.94%	3.61%	15.90%	15.14%	11.91%
Telecom. Equipment	124	1.98	13.49%	94.78%	75.79%	6.02%	12.78%	3.61%	5.22%	13.45%	12.97%
Telecom. Services	152	1.34	10.42%	74.79%	73.68%	6.02%	12.42%	3.61%	25.21%	10.92%	8.71%
Thrift	234	0.59	6.83%	79.24%	23.92%	4.52%	20.69%	2.71%	20.76%	9.71%	5.97%
Tobacco	11	0.7	7.37%	92.99%	74.35%	6.02%	27.57%	3.61%	7.01%	8.79%	7.11%
Toiletries/Cosmetics	21	0.85	8.11%	86.04%	37.37%	5.02%	18.34%	3.01%	13.96%	9.54%	7.39%
Trucking	32	1.04	9.01%	67.21%	35.04%	5.02%	31.50%	3.01%	32.79%	16.38%	7.04%
Utility (Foreign)	6	1.01	8.87%	97.00%	22.63%	4.52%	0.00%	2.71%	3.00%	8.60%	8.68%
Water Utility	16	0.78	7.75%	66.25%	33.61%	5.02%	33.23%	3.01%	33.75%	16.35%	6.15%
Wireless Networking	74	2.2	14.58%	87.65%	67.14%	6.02%	11.52%	3.61%	12.35%	14.20%	13.22%
Market	7364	1.24	9.97%	79.93%	57.01%	5.52%	16.25%	3.31%	20.07%	11.23%	8.64%

Last Updated in January 2008
By Aswath Damodaran

Montana Department of Revenue 2008 Capitalization Rate Study
 Inflation Rate for 2008

Download Page		H15 Selected Interest Rates for Feb 26, 2008				http://federalreserve.gov					
Series Description:	Market yield on U.S. Treasury securities at 1-year constant maturity, quoted on investment basis	Market yield on U.S. Treasury securities at 5-year constant maturity, quoted on investment basis	Market yield on U.S. Treasury securities at 5-year constant maturity, quoted on investment basis, inflation-indexed	Market yield on U.S. Treasury securities at 10-year constant maturity, quoted on investment basis	Market yield on U.S. Treasury securities at 10-year constant maturity, quoted on investment basis, inflation-indexed	Market yield on U.S. Treasury securities at 20-year constant maturity, quoted on investment basis	Market yield on U.S. Treasury securities at 20-year constant maturity, quoted on investment basis, inflation-indexed				
Unit:	Percent__Per_Year	Percent__Per_Year	Percent__Per_Year	Percent__Per_Year	Percent__Per_Year	Percent__Per_Year	Percent__Per_Year				
Multiplier:	1	1	1	1	1	1	1				
Currency:	NA	NA	NA	NA	NA	NA	NA				
Unique Identifier:	H15/H15/RIFLGFCY1	H15/H15/RIFLGFCY5	H15/H15/RIFLGFCY05	H15/H15/RIFLGFCY10	H15/H15/RIFLGFCY10	H15/H15/RIFLGFCY20	H15/H15/RIFLGFCY20				
								Inflation on 10 year	Average	Inflation on 20 year	Average
2007-10-02	4.24	4.38	2.2	4.67	2.34	4.95	2.37	2.33	2.32	2.58	2.5515
2007-10-16	4.14	4.23	2.02	4.57	2.23	4.88	2.31	2.34		2.57	
2007-10-26	3.97	4.04	1.84	4.39	2.08	4.72	2.17	2.31		2.55	
2007-11-02	3.93	4.04	1.77	4.39	2.03	4.71	2.14	2.36		2.57	
2007-11-09	3.72	3.89	1.52	4.32	1.9	4.68	2.07	2.42		2.61	
2007-11-16	3.58	3.77	1.43	4.22	1.84	4.61	2.05	2.38		2.56	
2007-11-22	3.3	3.48	1.18	4.04	1.66	4.49	1.95	2.38		2.54	
2007-11-30	3.25	3.39	1.13	3.94	1.6	4.4	1.87	2.34		2.53	
2007-12-07	3.17	3.35	1.19	3.97	1.69	4.46	2.01	2.28		2.45	
2007-12-14	3.2	3.49	1.32	4.12	1.83	4.61	2.13	2.29		2.48	
2007-12-21	3.28	3.52	1.27	4.12	1.79	4.58	2.06	2.33		2.52	
2007-12-28	3.42	3.63	1.34	4.21	1.87	4.66	2.13	2.34		2.53	
2008-01-04	3.18	3.29	1.02	3.94	1.62	4.43	1.91	2.32		2.52	
2008-01-11	3.04	3.13	0.96	3.85	1.59	4.4	1.89	2.26		2.51	
2008-01-18	2.83	2.97	0.86	3.72	1.47	4.32	1.8	2.25		2.52	
2008-01-25	2.31	2.74	0.75	3.58	1.34	4.28	1.73	2.24		2.55	
2008-02-01	2.23	2.84	0.74	3.67	1.36	4.35	1.74	2.31		2.61	
2008-02-08	2.08	2.72	0.72	3.66	1.38	4.39	1.77	2.28		2.62	
2008-02-15	2.04	2.73	0.68	3.72	1.43	4.49	1.89	2.29		2.6	
2008-02-22	2.1	2.89	0.71	3.85	1.5	4.58	1.97	2.35		2.61	
											Average of 10 & 20 year 2.43575