

COST OF CAPITAL STUDY

YIELD CAPITALIZATION

2025 Assessment Year

APPENDIX C

Pipeline Industry

EQUITY RATE						9.50%	
CAPITAL ASSET PRICING MODEL							PAGE
CAPM Ex Ante			9.08%				4
DIVIDEND GROWTH MODELS Single Stage							
Value Line, based on Dividends Growth			8.10%				5
Value Line, based on Earnings Growth			13.50%				6
Value Line, based on Return on Equity			6.60%				7
DIVIDEND GROWTH MODELS Sustainable Growth							
Value Line, based on Dividends Growth			8.00%				5a
Value Line, based on Earnings Growth			8.80%				6a
FCFE GROWTH MODEL Multi Stage			9.40%				8
				RANGE	6.6% - 13.50%		
DEBT YIELD RATE						6.00%	9
Cost of Secured Debt (Operating Lease) Rate						5.25%	9
MARKET CAPITAL STRUCTURE							
Equity	65%	x	9.50%	=		6.18%	3
Debt	35%	x	6.00%	=	2.10%		3
Marginal Tax Rate	24%	=	(1-.24)	x	2.10%	<u>1.60%</u>	
WEIGHTED AVERAGE COST OF CAPITAL						7.77%	

SUPPORT FOR GUIDELINE COMPANIES

Washington State Department of Revenue

2025 Assessment Year

Pipeline Industry

Capital Structure at Book Value

Company	Ticker	Beta	Fin'l Strength	P/E Ratio	Div'd Yield	Common Stock	%	Preferred Stock	%	Long Term Debt	%	Total Debt & Equity
Enbridge Inc	enb.to	0.85	A	23.8	6.1%	67,298,000,000	39.6%	7,747,000,000	4.6%	95,047,000,000	55.9%	170,092,000,000
Kinder Morgan Inc	kmi	1.15	B++	23.1	4.2%	33,855,000,000	53.0%			30,000,000,000	47.0%	63,855,000,000
ONEOK Inc	oke	NMF	B++	20.6	4.0%	17,110,800,000	38.9%			26,880,000,000	61.1%	43,990,800,000
Pembina Pipeline Corp	ppl.to	1.05	B++	16.0	5.2%	17,052,000,000	51.9%	2,424,000,000	7.4%	13,390,000,000	40.7%	32,866,000,000
TC Energy Corp	trp	1.05	A	14.3	6.0%	31,989,400,000	36.9%	2,818,000,000	3.3%	51,899,800,000	59.9%	86,707,200,000
The Williams Cos Inc	wmb	1.10	B++	29.1	3.5%	11,453,400,000	31.6%			24,825,000,000	68.4%	36,278,400,000
Mean		1.04		21.2	4.8%	29,793,100,000	42.0%		5.1%	40,340,300,000	55.5%	
Harmonic Mean		1.03					40.6%		4.5%		53.9%	
Weighted Mean						178,758,600,000	41.2%	12,989,000,000	3.0%	242,041,800,000	55.8%	433,789,400,000
Median		1.05			4.7%		39.2%		4.6%		57.9%	

SUPPORT FOR CAPITAL STRUCTURE Market Value

Washington State Department of Revenue

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Pipeline Industry

Company	Ticker	Stock Price	Common Shares	Common Stock	%	Preferred Stock	%	Long Term Debt	%	Total Debt & Equity
Enbridge Inc	enb.to	60.12	2,185,000,000	131,362,200,000	61.4%	7,747,000,000	3.6%	74,850,000,000	35.0%	213,959,200,000
Kinder Morgan Inc	kmi	27.11	2,220,000,000	60,184,200,000	66.4%	-		30,423,000,000	33.6%	90,607,200,000
ONEOK Inc	oke	99.34	582,000,000	57,815,880,000	65.2%	-		30,800,000,000	34.8%	88,615,880,000
Pembina Pipeline Cor	ppl.to	53.11	580,000,000	30,803,800,000	74.1%	2,424,000,000	5.8%	8,348,250,000	20.1%	41,576,050,000
TC Energy Corp	trp	46.53	1,042,000,000	48,484,260,000	55.4%	2,818,000,000	3.2%	36,238,500,000	41.4%	87,540,760,000
The Williams Cos Inc	wmb	54.12	1,212,000,000	65,593,440,000	71.7%	-		25,830,000,000	28.3%	91,423,440,000
Mean					65.7%		4.2%		32.2%	
Harmonic Mean					65.1%		4.0%		30.5%	
Weighted Mean					64.2%	12,989,000,000	2.1%	206,489,750,000	33.6%	613,722,530,000
Median					65.8%		3.6%		34.2%	
Std Dev					6.8%		1.4%		7.3%	
Coefficient of Variation					10.4%		33.3%		22.6%	
Target					65%				35%	100%

SUPPORT FOR YIELD CAPITALIZATION EQUITY COMPONENT
CAPITAL ASSET PRICING MODEL

2025 Assessment Year

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

Ke = Cost of Equity 9.08%

to page 1

Rm =	rate of return	8.91%
Rf =	risk free rate	4.78%
Rp =	risk premium	4.13%
B =	Beta	1.04

page 7

Rp = Risk Premium 4.13%

to above

Shannon Pratt and Roger Grabowski	3.5 - 6%
Cost of Capital, App and Exam, 5th Ed, 2014	
Dr. Aswath Damodaran	4.33%
http://pages.stern.nyu.edu/~adamodar/2022/ImpliedPremium	4.13%

chart page 15
adjusted for Rf

Rf = Risk Free Rate 4.78%

to above

Value Line Investment Survey, Selected Yields January 12, 2024, page 829
as of 12-30-24

US Treasury Securities year end data	
5 year	4.37%
10 year	4.55%
30 year	4.77%

Federal Reserve Statistical Release (<http://www.federalreserve.gov/Releases/H15/Current/>)
As of 12-31-24 Treasury Constant Maturities

5 year	4.38%	
10 year	4.58%	
20 year	4.86%	
30 year	4.78%	
20 year TIPS	2.41%	2.45%
30 year TIPS	2.48%	2.30%

TIPS inflation indication

Inflation 2.30%

to appraisal template

The Livingston Survey December 20, 2024, page 2, 8

Inflation median (measured by the Consumer Price Index) over next 10 years	2.28%
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Gross Domestic Product (GDP) Nominal 4.10%

real GDP + inflation est

Federal Reserve Projected Long Run Real GDP Growth

Median Projection Value From Dec 18, 2024 Report, Table 1	1.80%
https://www.federalreserve.gov/monetarypolicy/files/fomcprojtabl20241218.pdf	

Congressional Budget Office Real GDP Economic Projections

The Budget and Economic Outlook 2025-2035		Table C-3, pg 29
Average Percentage Change Year To Year	2025-2029	2.20%
https://www.cbo.gov/system/files/2025-01/60870-Outlook	2030-2035	1.90%

Federal Reserve Bank of Philadelphia

The Livingston Survey, December 20, 2024, page 8	
Average Real GDP Growth Rate for Next 10 Years	2.11%
https://www.philadelphiafed.org/research-and-data/real-time-center/livingston-survey	

SUPPORT FOR YIELD CAPITALIZATION EQUITY COMPONENT
DIVIDEND GROWTH MODEL

Washington State Department of Revenue

2025 Assessment Year

Pipeline Industry

Based on Dividend Growth

Ke = (D1 / Po) + G

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

Company	Ticker	Stock Price (Po)	Expected Dividend (D1)	Dividend Yield (D1/Po)	Dividend Growth (G)	Ke with Short Term Growth
Enbridge Inc	enb.to	60.120	3.77	6.27%	2.50%	8.77%
Kinder Morgan Inc	kmi	27.110	1.17	4.32%	5.00%	9.32%
ONEOK Inc	oke	99.340	4.12	4.15%	3.50%	7.65%
Pembina Pipeline Corp	ppl.to	53.110	2.82	5.31%	3.00%	8.31%
TC Energy Corp	trp	46.530	2.40	5.16%	2.50%	7.66%
The Williams Cos Inc	wmb	54.120	2.02	3.73%	3.50%	7.23%
Mean Range						8.16%
Harmonic Mean Range						8.09%
Median Range						7.98%
Max						9.32%
Min						7.23%
Std Dev Range						0.79%
Coefficient of Variation						9.66%
Say						8.10%

SUPPORT FOR YIELD CAPITALIZATION EQUITY COMPONENT
DIVIDEND GROWTH MODEL

Washington State Department of Revenue
2025 Assessment Year
Pipeline Industry

Based on Dividend Growth

Ke = (D1 / Po) + G

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

Company	Ticker	Stock Price (Po)	Expected Dividend (D1)	Dividend Yield (D1/Po)	Dividend Growth (G)	Dividend Growth LT	Ke Sustainable
Enbridge Inc	enb.to	60.12	3.77	6.27%	2.50%	2.50%	8.77%
Kinder Morgan Inc	kmi	27.11	1.17	4.32%	5.00%	4.10%	8.42%
ONEOK Inc	oke	99.34	4.12	4.15%	3.50%	3.50%	7.65%
Pembina Pipeline Corp	ppl.to	53.11	2.82	5.31%	3.00%	3.00%	8.31%
TC Energy Corp	trp	46.53	2.40	5.16%	2.50%	2.50%	7.66%
The Williams Cos Inc	wmb	54.12	2.02	3.73%	3.50%	3.50%	7.23%
Mean Range							8.01%
Harmonic Mean Range							7.97%
Median Range							7.98%
Max							8.77%
Min							7.23%
Std Dev Range							0.58%
Coefficient of Variation							7.27%
Say							8.00%

SUPPORT FOR YIELD CAPITALIZATION EQUITY COMPONENT
DIVIDEND GROWTH MODEL

Washington State Department of Revenue

2025 Assessment Year

Pipeline Industry

Based on Earnings Growth

Ke = (D1 / Po) + G

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

Company	Ticker	Stock Price (Po)	Expected Dividend (D1)	Dividend Yield (D1/Po)	Earnings Growth (G)	Ke with Short Term Growth
Enbridge Inc	enb.to	60.120	3.77	6.27%	5.00%	11.27%
Kinder Morgan Inc	kmi	27.110	1.17	4.32%	9.00%	13.32%
ONEOK Inc	oke	99.340	4.12	4.15%	14.50%	18.65%
Pembina Pipeline Corp	ppl.to	53.110	2.82	5.31%	3.50%	8.81%
TC Energy Corp	trp	46.530	2.40	5.16%	12.00%	17.16%
The Williams Cos Inc	wmb	54.120	2.02	3.73%	9.50%	13.23%
Mean Range						13.74%
Harmonic Mean Range						12.91%
Median Range						13.27%
Max						18.65%
Min						8.81%
Std Dev						3.65%
Coefficient of Variation						26.57%
Say						13.50%

SUPPORT FOR YIELD CAPITALIZATION EQUITY COMPONENT
DIVIDEND GROWTH MODEL

Washington State Department of Revenue
2025 Assessment Year
Pipeline Industry

Based on Dividend Growth

Ke = (D1 / Po) + G

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

Company	Ticker	Stock Price (Po)	Expected Dividend (D1)	Dividend Yield (D1/Po)	Earnings Growth (G)	Dividend Growth LT	Ke Sustainable
Enbridge Inc	enb.to	60.12	3.77	6.27%	5.00%	4.10%	10.37%
Kinder Morgan Inc	kmi	27.11	1.17	4.32%	9.00%	4.10%	8.42%
ONEOK Inc	oke	99.34	4.12	4.15%	14.50%	4.10%	8.25%
Pembina Pipeline Corp	ppl.to	53.11	2.82	5.31%	3.50%	3.50%	8.81%
TC Energy Corp	trp	46.53	2.40	5.16%	12.00%	4.10%	9.26%
The Williams Cos Inc	wmb	54.12	2.02	3.73%	9.50%	4.10%	7.83%
Mean Range							8.82%
Harmonic Mean Range							8.75%
Median Range							8.61%
Max							10.37%
Min							7.83%
Std Dev Range							0.90%
Coefficient of Variation							10.22%
Say							8.80%

SUPPORT FOR YIELD CAPITALIZATION EQUITY COMPONENT
DIVIDEND GROWTH MODEL

Washington State Department of Revenue

2025 Assessment Year

Pipeline Industry

Based on Return on Equity $K_e = (D1 / P_o) + G$
 K_e = Cost of Equity
 $D1$ = Expected Dividends
 $E1$ = Expected Earnings
 P_o = Current Price
 G = Sustainable Growth
 b = Retained Earnings % = (1 - Payout Ratio)
ROE = Return on Equity = ($E1 / P_o$)

Company	Ticker	Stock Price (P_o)	Expected Dividend ($D1$)	Expected Earnings ($E1$)	Dividend Yield ($D1/P_o$)	Retained Earnings (b)	ROE ($E1/P_o$)	Growth ($b*ROE$)	K_e Dividends	K_e Earnings
Enbridge Inc	enb.to	60.120	3.77	3.05	6.27%	NMF	5.07%	NMF	NMF	NMF
Kinder Morgan Inc	kmi	27.110	1.17	1.30	4.32%	1.0%	4.80%	0.05%		4.84%
ONEOK Inc	oke	99.340	4.12	6.00	4.15%	23.0%	6.04%	1.39%	5.54%	7.43%
Pembina Pipeline Corp	ppl.to	53.110	2.82	3.30	5.31%	8.0%	6.21%	0.50%	5.81%	6.71%
TC Energy Corp	trp	46.530	2.40	3.75	5.16%	13.0%	8.06%	1.05%	6.21%	9.11%
The Williams Cos Inc	wmb	54.120	2.02	2.40	3.73%	5.0%	4.43%	0.22%		4.66%
Mean									5.85%	6.55%
Harmonic Mean									5.84%	6.14%
Median									5.81%	6.71%
Std Dev									0.34%	1.86%
Coefficient of Variation									5.75%	28.40%

say 6.60%

**SUPPORT FOR YIELD CAPITALIZATION EQUITY COMPONENT
FREE CASH FLOW TO EQUITY MODEL MULTI STAGE**

Washington State Department of Revenue

2025 Assessment Year

Pipeline Industry

Company	Ticker	Stock Price	Expected Earnings	P/E	Payout Ratio	ROE	Ke
Enbridge Inc	enb.to	60.12	3.05	19.71	NMF	9.50%	7.52%
Kinder Morgan Inc	kmi	27.11	1.30	20.85	90.00%	9.00%	7.35%
ONEOK Inc	oke	99.34	6.00	16.56	68.00%	19.50%	11.63%
Pembina Pipeline Corp	ppl.to	53.11	3.30	16.09	85.00%	10.50%	9.85%
TC Energy Corp	trp	46.53	3.75	12.41	64.00%	11.50%	14.12%
The Williams Cos Inc	wmb	54.12	2.40	22.55	84.00%	25.00%	6.08%
Mean				18.03	78.20%	14.17%	9.43%
Harmonic Mean				17.33	76.79%	12.25%	8.67%
Median				18.13	84.00%	11.00%	8.68%
Industry Summary				18.00	78.00%	13.00%	

Say 9.40%

SUPPORT FOR DEBT RATING AND DEBT YIELD

Washington State Department of Revenue

2025 Assessment Year

Pipeline Industry

Company	Ticker	Moody's Ratings	S&P Ratings
Enbridge Inc	enb.to	Baa2	BBB+
Kinder Morgan Inc	kmi	Baa2	BBB
ONEOK Inc	oke	Baa2	BBB
Pembina Pipeline Corp	ppl.to		BBB
TC Energy Corp	trp	Baa2	BBB+
The Williams Cos Inc	wmb	Baa2	BBB
Overall Average Debt Rating		Baa2	BBB

Mergent's Bond Record February 2025				
Corporate	Aaa	Aa	A	Baa
October	4.95%	5.17%	5.33%	5.63%
November	5.14%	5.33%	5.49%	5.78%
December	5.20%	5.37%	5.53%	5.80%
4th Qtr Average	5.10%	5.29%	5.45%	5.74%
Public Utilities	Aaa	Aa	A	Baa
October		5.29%	5.41%	5.61%
November		5.43%	5.55%	5.75%
December		5.45%	5.58%	5.77%
4th Qtr Average		5.39%	5.51%	5.71%
Industrials	Aaa	Aa	A	Baa
October	4.95%	5.05%	5.24%	5.65%
November	5.14%	5.23%	5.43%	5.80%
December	5.20%	5.28%	5.47%	5.83%
4th Qtr Average	5.10%	5.19%	5.38%	5.76%

	20Y	25Y	30Y
Bloomberg S&P Bond Yields			
December 2024: BBB	6.05%	5.97%	6.00%

Debt Yield Rate	6.00%
Cost of Secured Debt (Operating Lease) Rate	5.25%

SUPPORT FOR DIRECT CAPITALIZATION EQUITY COMPONENT

2025 Assessment Year

Pipeline Industry

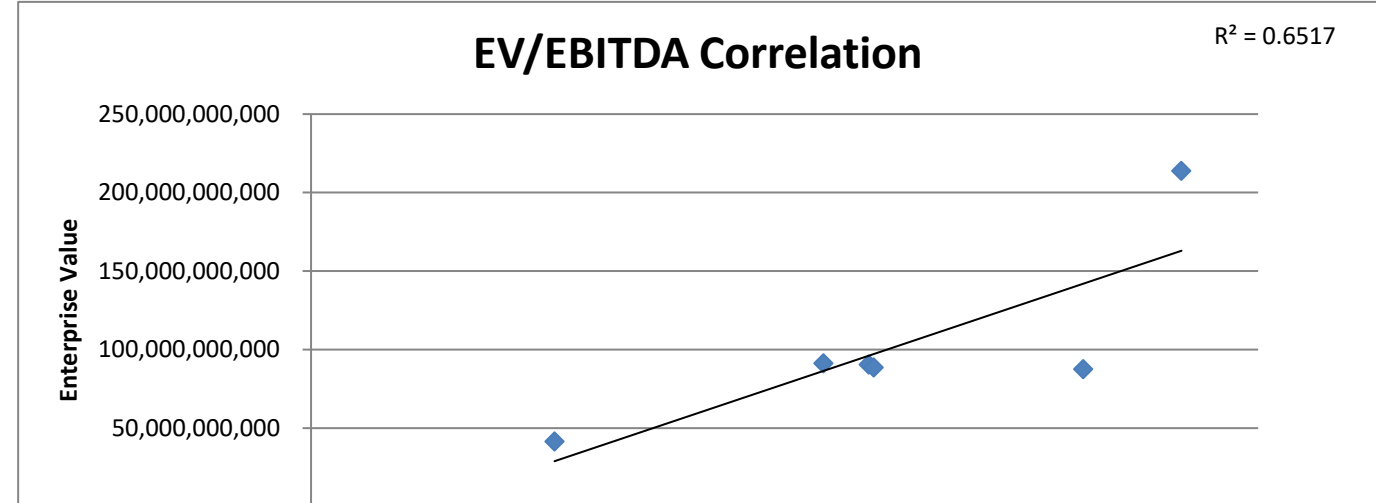
Company	Ticker	Stock Price	2024		2025		2024		2025	
			Actual Earnings Ratio (EPS/P)		Projected Earnings Ratio (PEPS/P)		Cash Flow Ratio (CF/P)		Projected Cash Flow Ratio	
Enbridge Inc	enb.to	60.120	2.80	4.7%	3.05	5.1%	5.00	8.3%	4.90	8.2%
Kinder Morgan Inc	kmi	27.110	1.17	4.3%	1.30	4.8%	2.24	8.3%	2.35	8.7%
ONEOK Inc	oke	99.340	5.10	5.1%	6.00	6.0%	6.95	7.0%	8.00	8.1%
Pembina Pipeline Corp	ppl.to	53.110	3.00	5.6%	3.30	6.2%	4.25	8.0%	4.65	8.8%
TC Energy Corp	trp	46.530	3.20	6.9%	3.75	8.1%	5.30	11.4%	6.05	13.0%
The Williams Cos Inc	wmb	54.120	2.00	3.7%	2.40	4.4%	3.85	7.1%	4.50	8.3%
Mean			5.1%		5.8%		8.3%		9.2%	
Harmonic Mean			4.9%		5.5%		8.1%		8.9%	
Median			4.9%		5.6%		8.1%		8.5%	
Max			6.9%		8.1%		11.4%		13.0%	
Min			3.7%		4.4%		7.0%		8.1%	
Std Dev			1.1%		1.3%		1.6%		1.9%	
Coefficient of Variation			22.1%		22.9%		19.1%		20.8%	
Say			5.0%		5.8%		8.3%		9.2%	

Source: VL/Year End Stock Price

SUPPORT FOR DIRECT CAPITALIZATION EQUITY COMPONENT

2025 Assessment Year

Company	Ticker	Stock Price	Enterprise Value	EBITDA Historical	Annual Change VL	EBITDA Forecast	EV / EBITDA Forecast	Revenue Forecast	EV / Sales Forecast	Cashflow Forecast	Debt Service	EV / CF Forecast	
Enbridge Inc	enb.to	60.120	213,959,200,000	11,254,500,000	-2.00%	11,029,410,000	19.40	37,691,250,000	5.68	10,706,500,000	4,491,000,000	14.08	
Kinder Morgan Inc	kmi	27.110	90,607,200,000	6,738,000,000	4.91%	7,068,883,929	12.82	17,094,000,000	5.30	5,217,000,000	1,825,380,000	12.87	
ONEOK Inc	oke	99.340	88,615,880,000	6,196,000,000	15.11%	7,132,086,331	12.42	26,190,000,000	3.38	4,656,000,000	1,848,000,000	13.62	
Pembina Pipeline Corp	ppl.to	53.110	41,576,050,000	2,819,250,000	9.41%	3,084,591,176	13.48	7,975,000,000	5.21	2,697,000,000	500,895,000	13.00	
TC Energy Corp	trp	46.530	87,540,760,000	8,574,000,000	14.15%	9,787,301,887	8.94	12,920,800,000	6.78	6,304,100,000	2,174,310,000	10.33	
The Williams Cos Inc	wmb	54.120	91,423,440,000	5,558,000,000	16.88%	6,496,363,636	14.07	12,059,400,000	7.58	5,454,000,000	1,549,800,000	13.05	
Harmonic Mean		Mean						13.52	5.66				12.82
		Median						12.85	5.30				12.70
		Median						13.15	5.49				13.03
		Std Dev						3.39	1.45				1.31
Source:		Say						11.00	4.00				11.00
Value Line & Morning Star													



Forecast EV/EBITDA By Rank

Guideline Companies	EV/EBITDA forecast	
TC Energy Corp	8.94	11.10 Low Harmonic mean 11.40 Low Average 12.42 Low Median 11.00 Say
ONEOK Inc	12.42	
Kinder Morgan Inc	12.82	
Pembina Pipeline Corp	13.48	
The Williams Cos Inc	14.07	15.65 High Average 14.07 High Median 15.24 High Harmonic mean 15.00 Say
Enbridge Inc	19.40	

SUPPORT FOR DIRECT CAPITALIZATION EQUITY COMPONENT

2025 Assessment Year

Pipeline Industry

Company	Ticker	Stock Price	Revenues Multiple		Cash Flow Multiple		Earnings Multiple		Book Value Multiple	
Enbridge Inc	enb.to	60.120	21.60	2.78	5.00	12.02	2.80	21.47	30.80	1.95
Kinder Morgan Inc	kmi	27.110	6.80	3.99	2.24	12.10	1.17	23.17	15.25	1.78
ONEOK Inc	oke	99.340	36.50	2.72	6.95	14.29	5.10	19.48	29.40	3.38
Pembina Pipeline Corp	ppl.to	53.110	12.40	4.28	4.25	12.50	3.00	17.70	29.40	1.81
TC Energy Corp	trp	46.530	11.80	3.94	5.30	8.78	3.20	14.54	30.70	1.52
The Williams Cos Inc	wmb	54.120	8.65	6.26	3.85	14.06	2.00	27.06	9.45	5.73
Mean			4.00		12.29		20.57		2.69	
Harmonic Mean			3.69		11.98		19.78		2.17	
Median			3.96		12.30		20.47		1.88	
Max			6.26		14.29		27.06		5.73	
Min			2.72		8.78		14.54		1.52	
Say			4.00		12.25		20.50		2.60	

Source: VL/Year End Stock Price

DATA INPUT

Washington State Department of Revenue

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Pipeline Industry

			Historic Figures (2024)											
Guideline Companies		Stock Price 12/31/24	Beta Levered	Fin'l Strength	Revenues Per Share	Cash Flow Per Share	Earnings Per Share	Dividends Per Share	Bk Value Per Share	Common Shares	LTD (BV)	Trailing P/E Ratio	Div Yield	Operating Margin
Name	Ticker	Yahoo	V L	V L	V L	V L	V L	V L	V L	V L	V L	V L	V L	V L
Enbridge Inc	enb.to	60.12	0.85	A	21.60	5.00	2.80	3.66	30.80	2,185,000,000	95,047,000,000	23.8	5.9%	33.5%
Kinder Morgan Inc	kmi	27.11	1.15	B++	6.80	2.24	1.17	1.15	15.25	2,220,000,000	30,000,000,000	23.1	4.3%	45.0%
ONEOK Inc	oke	99.34	1.50	B++	36.50	6.95	5.10	3.96	29.40	582,000,000	26,880,000,000	20.6	4.2%	29.0%
Pembina Pipeline Corp	ppl.to	53.11	1.05	B++	12.40	4.25	3.00	2.74	29.40	580,000,000	13,390,000,000	16.0	5.3%	39.0%
TC Energy Corp	trp	46.53	1.05	A	11.80	5.30	3.20	2.78	30.70	1,042,000,000	51,899,800,000	14.3	5.1%	27.1%
The Williams Cos Inc	wmb	54.12	1.10	B++	8.65	3.85	2.00	1.90	9.45	1,212,000,000	24,825,000,000	29.1	3.4%	59.0%
Average											average	21.2		38.8%
Harmonic Mean											harmonic mean	20.0		36.1%
Median											median	21.9		36.3%

			Projected (Next Year) 2025									Longer Term Forecasts		Income Statement	
Calculated Debt	All Div'ds to Net Profits	Rtn on Shrholders Equity	Revenues Per Share	Cash Flow Per Share	Earnings Per Share	Dividends Per Share	Bk Value Per Share	All Div'ds to Net Profits	Rtn on Shrholders Equity	CF Projection 28-30	Earnings Projection 28-30	Earnings Growth 28-30	Dividend Growth 28-30	Operating Income	Current Assets
Formula	V L	V L	V L	V L	V L	V L	V L	VL	V L	V L	V L	VL	VL	Yahoo	Yahoo
98.23%	NMF	9.5%	17.25	4.90	3.05	3.77	32.75	NMF	9.50%	6.55	4.00	5.0%	2.5%	7,379,250,000	9,872,250,000
96.52%	99%	8.20%	7.70	2.35	1.30	1.17	14.50	90%	9.00%	3.15	1.80	9.0%	5.0%	4,384,000,000	2,521,000,000
95.95%	77%	17.5%	45.00	8.00	6.00	4.12	31.15	68%	19.50%	13.15	10.00	14.5%	3.5%	5,062,000,000	4,238,000,000
99.94%	92%	10.0%	13.75	4.65	3.30	2.82	30.85	85%	10.50%	5.95	4.25	3.5%	3.0%	2,172,750,000	1,179,750,000
100.81%	87%	10.5%	12.40	6.05	3.75	2.40	32.85	64%	11.50%	8.30	5.50	12.0%	2.5%	5,786,000,000	5,733,000,000
97.63%	95%	20.5%	9.95	4.50	2.40	2.02	9.60	84%	25.00%	6.05	3.20	9.5%	3.5%	3,339,000,000	2,661,000,000
90%			12.7%			average			78%			7.19			
			11.4%			Median			77%			6.30			
			10.3%			Harmonic mean			84%			6.00			

Balance Sheet				Cash Flow Statement	Other Financials	
PP & E Gross	Intangibles (excl. GW)	Current Liabilities	Long Term Debt Less Current Maturities	Depreciation & Amortization	Carrying Value Debt	Fair Value Debt
Yahoo	Yahoo	Yahoo	Yahoo	Yahoo	10-K	10-K
126,799,500,000	18,534,750,000	17,859,000,000	70,060,500,000	3,875,250,000	76,200,000,000	74,850,000,000
60,195,000,000	1,760,000,000	5,101,000,000	29,660,000,000	2,354,000,000	31,519,000,000	30,423,000,000
52,274,000,000	3,039,000,000	4,719,000,000	31,018,000,000	1,134,000,000	32,100,000,000	30,800,000,000
20,845,500,000	1,128,000,000	2,181,000,000	8,348,250,000	646,500,000	9,492,000,000	9,486,750,000
115,539,000,000	-	10,511,000,000	56,024,000,000	2,788,000,000	35,948,250,000	36,238,500,000
57,395,000,000	6,743,000,000	5,312,000,000	24,736,000,000	2,219,000,000	26,456,000,000	25,830,000,000

STOCK PRICE

Washington State Department of Revenue

2025 Assessment Year

Pipeline Industry

56.72
2024 Year End

Enbridge Inc	enb.to							
Date	Open	High	Low	Close	Adj. Close*	Volume		
31-Dec-24	60.66	61.07	60.61	61.01	60.12	2,514,900		60.12
Kinder Morgan Energy	kmi							
Date	Open	High	Low	Close	Adj. Close*	Volume		
31-Dec-24	27.42	27.74	27.35	27.4	27.11	7,862,400		27.11
ONEOK Inc	oke							
Date	Open	High	Low	Close	Adj. Close*	Volume		
31-Dec-24	101	101.43	100.04	100.4	99.34	2,318,700		99.34
Pembina Pipeline Corp	ppl.to							
Date	Open	High	Low	Close	Adj. Close*	Volume		
31-Dec-24	52.86	53.12	52.78	53.11	53.11	1,675,300		53.11
TransCanada Corp	trp							
Date	Open	High	Low	Close	Adj. Close*	Volume		
31-Dec-24	46.14	46.61	46.11	46.53	46.53	1,280,100		46.53
Williams Cos	wmb							
Date	Open	High	Low	Close	Adj. Close*	Volume		
31-Dec-24	54.29	54.57	54	54.12	54.12	3,821,200		54.12

Source:

finance.yahoo.com

Historical Stock Quotes

IMPLIED PREMIUMS FOR US MARKET

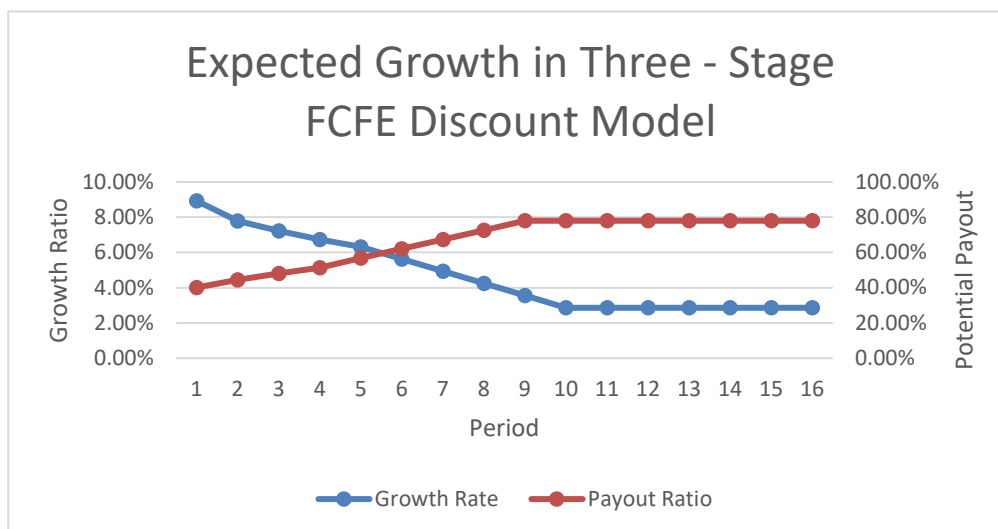
These implied premiums are calculated using the S&P 500.

Year	Earnings Yield	Dividend Yield	S&P 500	Earnings*	Dividends*	Dividends + Buybacks	Change in Earnings	Change in Dividends	T.Bill Rate	T.Bond Rate	Bond-Bill	Implied Growth	Implied Premium (t)	Implied Growth	Implied Premium (t)	Implied Premium (t)	ERP/Riskfree
1980	11.04%	4.74%	135.76	14.99	6.44		3.01%	7.81%	11.24%	12.43%	1.19%	11.01%	5.03%		5.03%		0.40
1981	12.39%	5.57%	122.55	15.18	6.83		1.31%	6.08%	14.71%	13.98%	-0.73%	11.42%	5.73%		5.73%		0.41
1982	9.83%	4.93%	140.64	13.82	6.93		-8.95%	1.58%	10.54%	10.47%	-0.07%	7.96%	4.90%		4.90%		0.47
1983	8.06%	4.32%	164.93	13.29	7.12		-3.84%	2.76%	8.80%	11.80%	3.00%	9.09%	4.31%		4.31%		0.37
1984	10.07%	4.68%	167.24	16.84	7.83		26.69%	9.85%	9.85%	11.51%	1.66%	11.02%	5.11%		5.11%		0.44
1985	7.42%	3.88%	211.28	15.68	8.20		-6.91%	4.74%	7.72%	8.99%	1.27%	7.89%	4.03%	6.75%	3.84%		0.43
1986	5.96%	3.38%	242.17	14.43	8.19		-7.93%	-0.15%	6.16%	7.22%	1.06%	5.54%	3.36%	6.96%	3.58%		0.50
1987	6.49%	3.71%	247.08	16.04	9.17		11.10%	11.99%	5.47%	8.86%	3.39%	9.66%	4.18%	8.58%	3.99%		0.45
1988	8.20%	3.68%	277.72	24.12	10.22		50.42%	11.49%	6.35%	9.14%	2.79%	9.76%	4.12%	7.67%	3.77%		0.41
1989	6.80%	3.32%	353.4	24.32	11.73		0.83%	14.80%	8.37%	7.93%	-0.44%	9.58%	3.85%	7.46%	3.51%		0.44
1990	6.58%	3.74%	330.22	22.65	12.35		-6.87%	5.26%	7.81%	8.07%	0.26%	7.39%	3.92%	7.19%	3.89%		0.48
1991	4.58%	3.11%	417.09	19.30	12.97		-14.79%	5.03%	7.00%	6.70%	-0.30%	6.34%	3.27%	7.81%	3.48%		0.52
1992	4.16%	2.90%	435.71	20.87	12.64		8.13%	-2.59%	5.30%	6.68%	1.38%	4.67%	2.83%	9.83%	3.55%		0.53
1993	4.25%	2.72%	466.45	26.90	12.69		28.89%	0.41%	3.50%	5.79%	2.29%	4.73%	2.74%	8.00%	3.17%		0.55
1994	5.89%	2.91%	459.27	31.75	13.36		18.03%	5.34%	5.00%	7.82%	2.82%	7.23%	3.06%	7.17%	3.55%		0.45
1995	5.74%	2.30%	615.93	37.70	14.17		18.74%	6.00%	3.50%	5.57%	2.07%	5.65%	2.44%	6.50%	3.29%		0.59
1996	4.83%	2.01%	740.74	40.63	14.89		7.77%	5.10%	5.00%	6.41%	1.41%	6.13%	2.11%	7.92%	3.20%		0.50
1997	4.08%	1.60%	970.43	44.09	15.52		8.52%	4.25%	5.35%	5.74%	0.39%	5.45%	1.67%	8.00%	2.73%		0.48
1998	3.11%	1.32%	1229.23	44.27	16.20		0.41%	4.37%	4.33%	4.65%	0.32%	4.60%	1.38%	7.20%	2.26%		0.49
1999	3.07%	1.14%	1469.25	51.68	16.71		16.74%	3.16%	5.37%	6.44%	1.07%	5.75%	1.20%	12.50%	2.05%		0.32
2000	3.94%	1.23%	1320.28	56.13	16.27		8.61%	-2.65%	5.73%	5.11%	-0.62%	3.71%	1.65%	12.00%	2.87%		0.56
2001	3.85%	1.37%	1148.09	38.85	15.74	30.08	-30.79%	-3.24%	1.80%	5.05%	3.25%	3.56%	1.73%	10.30%	3.62%	2.91%	0.72
2002	5.23%	1.83%	879.82	46.04	16.08	29.83	18.51%	2.15%	1.20%	3.81%	2.61%	3.57%	2.29%	8.00%	4.10%	4.73%	1.08
2003	4.87%	1.61%	1111.91	54.69	17.88	31.58	18.79%	11.19%	1.00%	4.25%	3.25%	5.35%	2.12%	11.00%	3.69%	4.74%	0.87
2004	5.58%	1.60%	1211.92	67.68	19.407	40.60	23.75%	8.54%	2.18%	4.22%	2.04%	4.90%	2.02%	8.50%	3.65%	4.86%	0.86
2005	5.47%	1.79%	1248.29	76.45	22.38	61.17	12.96%	15.32%	4.31%	4.39%	0.08%	6.16%	2.20%	8.00%	4.08%	5.22%	0.93
2006	6.18%	1.77%	1418.3	87.72	25.05	73.16	14.74%	11.93%	4.88%	4.70%	-0.18%	5.93%	1.97%	12.50%	4.16%	6.12%	0.89
2007	5.62%	1.89%	1468.36	82.54	27.73	95.36	-5.91%	10.70%	3.31%	4.02%	0.71%	5.03%	2.06%	5.00%	4.37%	4.59%	1.09
2008	7.24%	3.11%	903.25	65.39	28.05	67.52	-20.78%	1.15%	1.59%	2.21%	0.62%	2.11%	4.05%	4.00%	6.43%	6.92%	2.91
2009	5.35%	2.00%	1115.10	59.65	22.31	37.43	-8.78%	-20.46%	0.14%	3.84%	3.70%	0.28%	2.60%	7.20%	4.36%	4.64%	1.14
2010	6.65%	1.84%	1257.64	83.66	23.12	55.53	40.25%	3.63%	0.13%	3.29%	3.16%	3.33%	2.24%	6.95%	5.20%	6.09%	1.58
2011	7.72%	2.07%	1257.60	97.05	26.02	71.28	16.01%	12.54%	0.03%	1.88%	1.85%	2.75%	2.71%	7.18%	6.01%	8.34%	3.20
2012	7.18%	2.13%	1426.19	102.47	30.44	75.90	5.58%	16.99%	0.05%	1.76%	1.71%	2.93%	2.47%	5.27%	5.78%	7.30%	3.28
2013	5.81%	1.96%	1848.36	107.45	36.28	88.13	4.86%	19.19%	0.07%	3.04%	2.97%	5.01%	2.03%	4.28%	4.96%	4.99%	1.63
2014	5.49%	1.92%	2058.90	113.01	39.44	101.98	5.17%	8.71%	0.05%	2.17%	2.12%	2.77%	2.24%	5.58%	5.78%	5.48%	2.66
2015	5.20%	2.11%	2043.94	106.32	43.16	106.10	-5.92%	9.43%	0.21%	2.27%	2.06%	2.96%	2.46%	5.51%	6.12%	5.16%	2.70
2016	4.86%	2.01%	2238.83	108.86	45.03	108.67	2.39%	4.33%	0.51%	2.45%	1.94%	2.64%	2.41%	5.54%	5.69%	4.50%	2.32
2017	4.67%	1.86%	2673.61	124.94	49.73	108.28	14.77%	10.44%	1.39%	2.41%	1.02%	3.22%	2.36%	7.05%	5.08%	4.75%	2.11
2018	5.92%	2.14%	2506.85	148.34	53.61	136.65	18.73%	7.80%	2.37%	2.68%	0.31%	3.24%	2.50%	4.12%	5.96%	5.55%	2.22
2019	5.03%	1.82%	3230.78	162.35	58.80	150.50	9.44%	9.68%	1.55%	1.92%	0.37%	2.57%		3.96%	5.20%	5.06%	2.71
2020	3.68%	0.02	3756.07	138.12	56.70	12778.00%	-14.92%	-3.57%	0.09%	0.93%	0.84%	0.74%	1.65%	5.42%	4.72%	4.94%	5.08
2021	4.33%	1.24%	4766.18	206.38	59.20	147.24	47.67%	4.41%	0.06%	1.51%	1.45%	1.71%	1.72%	6.47%	4.24%	4.90%	2.81
2022	5.72%	1.78%	3839.50	219.49	68.34	181.99	6.35%	15.44%	4.42%	3.88%	-0.54%	5.59%	2.16%	6.41%	5.94%	5.11%	1.53
2023	4.61%	1.47%	4769.83	219.7	70.3	164.25	0.10%	2.87%	5.20%	3.88%	-1.32%	3.73%	1.97%	8.74%	4.60%	4.57%	1.19

Three Stage Free Cash Flow to Equity Discount Model

Company	Enbridge Inc	4.10%	GDP
Ticker	enb.to	18.0	Industry P/E use median
		78.0%	Target Dividend Payout Ratio
		13.0%	Target ROE

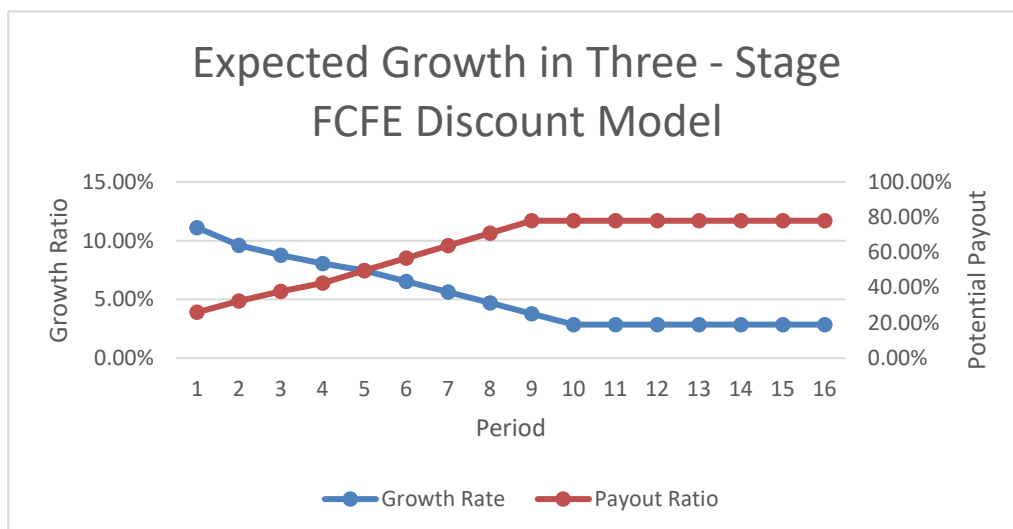
	Year	Growth Rate	Reinvestment Rate	Payout Ratio	Earnings	FCFE	Terminal Value	Cash Flow
Historic	0		68.68%	31.32%	2.80			(60.12)
Stage 1	1	8.93%	59.90%	40.10%	3.05	1.22		1.22
	2	7.79%	55.57%	44.43%	3.29	1.46		1.46
	3	7.22%	51.83%	48.17%	3.53	1.70		1.70
	4	6.74%	48.56%	51.44%	3.76	1.94		1.94
	5	6.31%	43.24%	56.76%	4.00	2.27		2.27
Stage 2	6	5.62%	37.93%	62.07%	4.22	2.62		2.62
	7	4.93%	32.62%	67.38%	4.43	2.99		2.99
	8	4.24%	27.31%	72.69%	4.62	3.36		3.36
	9	3.55%	22.00%	78.00%	4.79	3.73		3.73
	10	2.86%	22.00%	78.00%	4.92	3.84	91.13	94.97
Stage 3	11+	2.86%	22.00%	78.00%	5.06	3.95		
$K_e = 7.52\%$								



Three Stage Free Cash Flow to Equity Discount Model

Company	Kinder Morgan	4.10%	GDP
Ticker	kmi	18.0	Industry P/E use median
		78.0%	Target Dividend Payout Ratio
		13.0%	Target ROE

	Year	Growth Rate	Reinvestment Rate	Payout Ratio	Earnings	FCFE	Terminal Value	Cash Flow
Historic	0		85.47%	14.53%	1.17			(27.11)
Stage 1	1	11.11%	73.96%	26.04%	1.30	0.34		0.34
	2	9.62%	67.48%	32.52%	1.43	0.46		0.46
	3	8.77%	62.03%	37.97%	1.55	0.59		0.59
	4	8.06%	57.41%	42.59%	1.68	0.71		0.71
	5	7.46%	50.32%	49.68%	1.80	0.89		0.89
Stage 2	6	6.54%	43.24%	56.76%	1.92	1.09		1.09
	7	5.62%	36.16%	63.84%	2.03	1.29		1.29
	8	4.70%	29.08%	70.92%	2.12	1.50		1.50
	9	3.78%	22.00%	78.00%	2.20	1.72		1.72
	10	2.86%	22.00%	78.00%	2.26	1.77	41.92	43.68
Stage 3	11+	2.86%	22.00%	78.00%	2.33	1.82		
							$K_e =$	7.35%

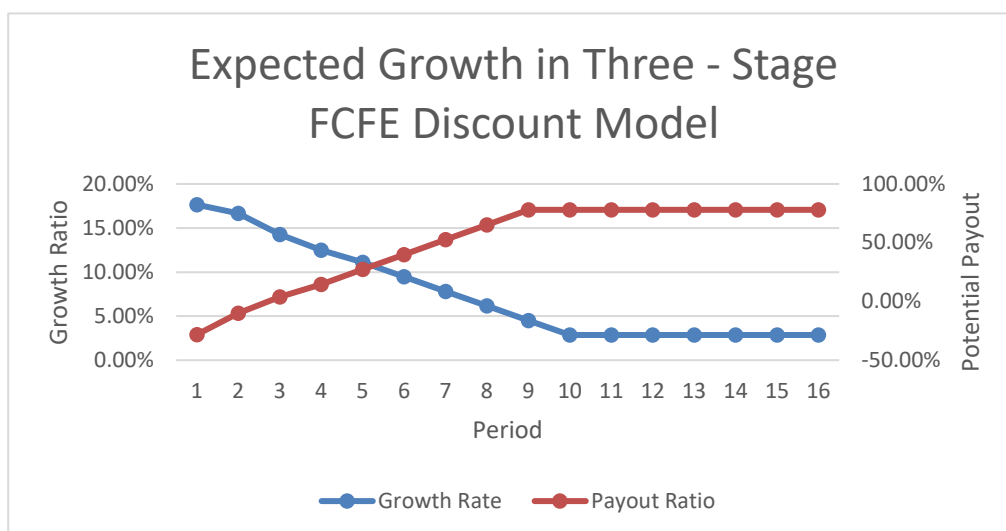


Three Stage Free Cash Flow to Equity Discount Model

Company	ONEOK Inc	4.10%	GDP
Ticker	oke	18.0	Industry P/E use median
		78.0%	Target Dividend Payout Ratio
		13.0%	Target ROE

	Year	Growth Rate	Reinvestment Rate	Payout Ratio	Earnings	FCFE	Terminal Value	Cash Flow
Historic	0		135.75%	-35.75%	5.10			(99.34)
Stage 1	1	17.65%	128.21%	-28.21%	6.00	(1.69)		-1.69
	2	16.67%	109.89%	-9.89%	7.00	(0.69)		-0.69
	3	14.29%	96.15%	3.85%	8.00	0.31		0.31
	4	12.50%	85.47%	14.53%	9.00	1.31		1.31
	5	11.11%	72.78%	27.22%	10.00	2.72		2.72
Stage 2	6	9.46%	60.08%	39.92%	10.95	4.37		4.37
	7	7.81%	47.39%	52.61%	11.80	6.21		6.21
	8	6.16%	34.69%	65.31%	12.53	8.18		8.18
	9	4.51%	22.00%	78.00%	13.09	10.21		10.21
	10	2.86%	22.00%	78.00%	13.47	10.50	249.35	259.85
Stage 3	11+	2.86%	22.00%	78.00%	13.85	10.81		

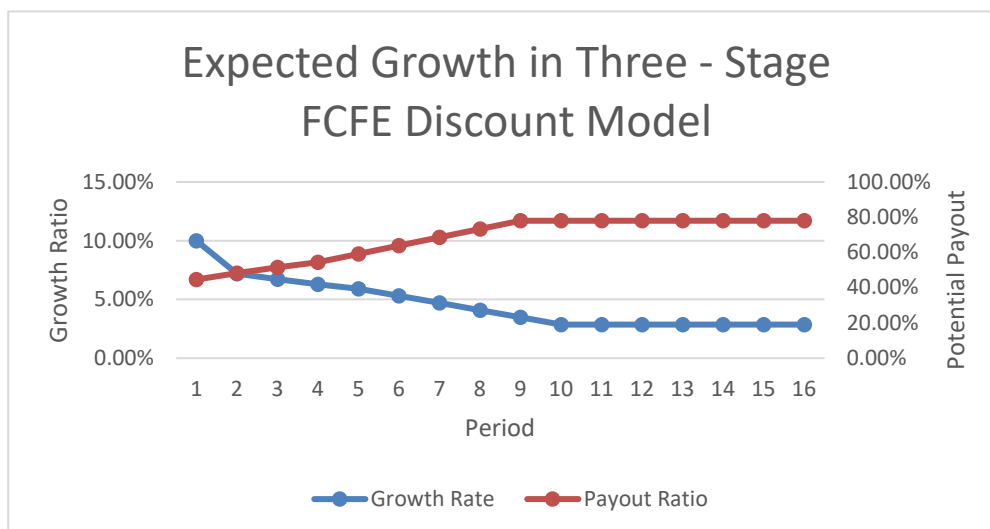
$K_e = 11.63\%$



Three Stage Free Cash Flow to Equity Discount Model

Company	Pembina Pipelin	4.10%	GDP
Ticker	ppl.to	18.0	Industry P/E use median
		78.0%	Target Dividend Payout Ratio
		13.0%	Target ROE

	Year	Growth Rate	Reinvestment Rate	Payout Ratio	Earnings	FCFE	Terminal Value	Cash Flow
Historic	0		76.92%	23.08%	3.00			(53.11)
Stage 1	1	10.00%	55.36%	44.64%	3.30	1.47		1.47
	2	7.20%	51.64%	48.36%	3.54	1.71		1.71
	3	6.71%	48.40%	51.60%	3.78	1.95		1.95
	4	6.29%	45.53%	54.47%	4.01	2.19		2.19
	5	5.92%	40.82%	59.18%	4.25	2.51		2.51
Stage 2	6	5.31%	36.12%	63.88%	4.48	2.86		2.86
	7	4.70%	31.41%	68.59%	4.69	3.21		3.21
	8	4.08%	26.71%	73.29%	4.88	3.57		3.57
	9	3.47%	22.00%	78.00%	5.05	3.94		3.94
	10	2.86%	22.00%	78.00%	5.19	4.05	96.10	100.15
Stage 3	11+	2.86%	22.00%	78.00%	5.34	4.16		
							$K_e =$	9.85%

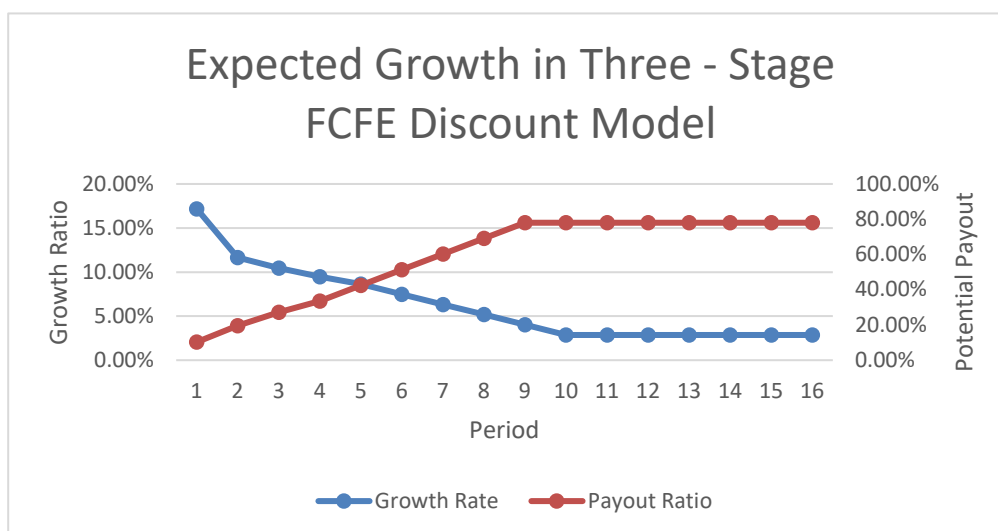


Three Stage Free Cash Flow to Equity Discount Model

Company	TC Energy Corp	4.10%	GDP
Ticker	trp	18.0	Industry P/E use median
		78.0%	Target Dividend Payout Ratio
		13.0%	Target ROE

	Year	Growth Rate	Reinvestment Rate	Payout Ratio	Earnings	FCFE	Terminal Value	Cash Flow
Historic	0		132.21%	-32.21%	3.20			(46.53)
Stage 1	1	17.19%	89.74%	10.26%	3.75	0.38		0.38
	2	11.67%	80.37%	19.63%	4.19	0.82		0.82
	3	10.45%	72.77%	27.23%	4.63	1.26		1.26
	4	9.46%	66.48%	33.52%	5.06	1.70		1.70
	5	8.64%	57.58%	42.42%	5.50	2.33		2.33
Stage 2	6	7.49%	48.69%	51.31%	5.91	3.03		3.03
	7	6.33%	39.79%	60.21%	6.29	3.78		3.78
	8	5.17%	30.90%	69.10%	6.61	4.57		4.57
	9	4.02%	22.00%	78.00%	6.88	5.36		5.36
	10	2.86%	22.00%	78.00%	7.07	5.52	130.96	136.48
Stage 3	11+	2.86%	22.00%	78.00%	7.28	5.67		

$K_e = 14.12\%$



Three Stage Free Cash Flow to Equity Discount Model

Company **The Williams Companies** 4.10% GDP
 Ticker **wmb** 18.0 Industry P/E use median
 78.0% Target Dividend Payout Ratio
 13.0% Target ROE

	Year	Growth Rate	Reinvestment Rate	Payout Ratio	Earnings	FCFE	Terminal Value	Cash Flow
Historic	0		153.85%	-53.85%	2.00			(54.12)
Stage 1	1	20.00%	64.10%	35.90%	2.40	0.86		0.86
	2	8.33%	59.17%	40.83%	2.60	1.06		1.06
	3	7.69%	54.95%	45.05%	2.80	1.26		1.26
	4	7.14%	51.28%	48.72%	3.00	1.46		1.46
	5	6.67%	45.43%	54.57%	3.20	1.75		1.75
Stage 2	6	5.91%	39.57%	60.43%	3.39	2.05		2.05
	7	5.14%	33.71%	66.29%	3.56	2.36		2.36
	8	4.38%	27.86%	72.14%	3.72	2.68		2.68
	9	3.62%	22.00%	78.00%	3.85	3.01		3.01
	10	2.86%	22.00%	78.00%	3.96	3.09	73.40	76.49
Stage 3	11+	2.86%	22.00%	78.00%	4.08	3.18		
							$K_e = 6.08\%$	

