Exhibit No.:	
Issue(s):	Cost of Debt/Capital Structure
Witness:	Ryan J. Martin
Sponsoring Party:	Union Electric Company
Type of Exhibit:	Direct Testimony
Case No.:	ER-2012-0166
Date Testimony Prepared:	February 3, 2012

MISSOURI PUBLIC SERVICE COMMISSION

CASE NO. ER-2012-0166

DIRECT TESTIMONY

OF

RYAN J. MARTIN

ON

BEHALF OF

UNION ELECTRIC COMPANY
d/b/a Ameren Missouri

St. Louis, Missouri
February, 2012

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DIRECT TESTIMONY

OF

RYAN J. MARTIN

CASE NO. ER-2012-0166

I. INTRODUCTION

Q. Please state your name and business address.

A. My name is Ryan J. Martin. My business address is One Ameren Plaza, 1901 Chouteau Avenue, St. Louis, MO 63103.

Q. By whom are you employed and in what capacity?

A. I am employed by Ameren Services Company, a wholly-owned subsidiary of Ameren Corporation ("Ameren"), as Assistant Treasurer and Manager of Corporate Finance. I also serve as Assistant Treasurer of Union Electric Company d/b/a/ Ameren Missouri ("Ameren Missouri" or the "Company"). Ameren Services Company provides various corporate support services to Ameren's subsidiaries, including Ameren Missouri, such as accounting, legal and financial/treasury services.

Q. What are your current job duties and responsibilities?

A. As Assistant Treasurer and Manager of Corporate Finance, I am responsible for managing the Ameren and subsidiary company short-term and long-term financing activities, including debt and equity issuances and credit facility arrangements, monitoring liquidity and key credit metrics, monitoring compliance with debt agreements, managing relationships with credit rating agencies and banks, and monitoring capital markets for key developments, emerging risks and opportunities, among other corporate-finance related activities.

Q. Please provide your educational background and relevant work experience.

A. See my Statement of Qualifications, attached as Appendix A to my direct testimony.

II. PURPOSE AND SUMMARY OF TESTIMONY

Q. What is the purpose of your direct testimony?

A. The purpose of my direct testimony is to recommend a reasonable capital structure for Ameren Missouri for ratemaking purposes and an appropriate overall fair rate of return for the Company's electric utility business. The capital structure that I recommend is based on Ameren Missouri's forecasted debt, preferred stock, and common stock balances as of July 31, 2012. The actual balances as of July 31, 2012 will be provided with the true-up data. My direct testimony also reflects, for informational purposes, Ameren Missouri's actual capital structure as of September 30, 2011, the end of the test year. In recommending a fair overall rate of return, I consider Ameren Missouri's embedded cost of long-term debt, its embedded cost of preferred stock, and the fair return on equity recommended by Ameren Missouri witness Robert B. Hevert in this case.

Q. Are you sponsoring any schedules in connection with your direct testimony?

A. Yes, I am sponsoring and have attached to my testimony the following schedules, which have been prepared as of and/or for the twelve months ending July 31, 2012, as appropriate:

- Schedule RJM-E1 – Capital Structure/Weighted Average Cost of Capital

- Schedule RJM-E2 – Embedded Cost of Long-Term Debt
- Schedule RJM-E3 – Cost of Short-Term Debt
- Schedule RJM-E4 – Embedded Cost of Preferred Stock

III. RATE OF RETURN AND COST OF CAPITAL CONSIDERATIONS

Q. What is the relationship between allowed rate of return and cost of capital in the context of utility ratemaking?

A. Under a traditional regulatory model, the interests of ratepayers and a utility's shareholders may be considered "balanced" when the Commission authorizes a rate of return on rate base equal to the utility's cost of capital. If the authorized rate of return is less than the utility's overall cost of capital, the financial strength and stability of the utility could degrade, making it difficult for the utility to raise necessary capital on a timely basis, at a reasonable cost, and under reasonable terms. Ultimately, the utility's inability to raise sufficient capital would impair service quality, or the increased cost incurred by a financially weakened utility would result in increased rates. Ratepayer interests are best served when the Commission-authorized rate of return is set equal to the utility's overall cost of capital.

Q. Please define weighted cost of capital.

A. Weighted cost of capital equals the sum of the costs of the components of an entity's capital structure, weighted by the relative contribution of each capital source to the company's total capitalization.

Q. How did you calculate the weighted average cost of capital for Ameren Missouri?

A. As reflected in Schedule RJM-E1, I calculated Ameren Missouri's weighted average cost of capital by (1) multiplying the relative weighting or proportion of each component of Ameren Missouri's capital structure by the cost of that component and then (2) summing the weighted cost of each capital component.

Q. What is the primary standard for determining a fair rate of return?

A. According to the landmark *Bluefield* and *Hope* U.S. Supreme Court decisions,[1] a utility's rates must be set at a level that allows a utility to generate revenues sufficient to (1) maintain the financial integrity of its existing invested capital, (2) maintain its creditworthiness, (3) attract sufficient capital on competitive terms to continue to provide a source of funds for continued investment and enable the Company to meet the needs of its customers. When a utility is allowed to earn its cost of capital, it is generally afforded a reasonable opportunity to accomplish these objectives.

Q. From a finance perspective, why is it important that the Commission allow Ameren Missouri to earn its cost of capital?

A. By earning its cost of capital, Ameren Missouri will generate strong cash flows and maintain the financial strength and stability necessary to, among other things, attract investment to finance the business and provide reliable, high quality service to its customers at a reasonable cost. Strong cash flows and overall financial health allow the Company to offer an attractive and competitive risk-adjusted return to equity investors and also maintain strong credit metrics and investment grade credit ratings that afford the

[1] *Bluefield Water Works & Improvement Co. v. Public Service Commission of West Virginia*, 262 U.S. 679 (1923) and *Federal Power Commission v. Hope Natural Gas Company*, 320 U.S. 391 (1944).

Company access to debt capital at a reasonable cost and under reasonable terms and conditions.

IV. AMEREN MISSOURI'S CAPITAL STRUCTURE

Q. How do you believe the reasonableness of a public utility's capital structure should be evaluated?

A. In evaluating the reasonableness of a public utility's capital structure, one should determine whether the capital structure is consistent with the financial strength necessary for the utility to access the capital markets under reasonable terms under most economic conditions, and, if so, whether the cost of capital resulting from such a structure is reasonable. While debt, relative to equity, is generally a less expensive form of capital due in part to the tax deductibility of interest expense, incremental debt increases a firm's probability of default and the related costs of financial distress. Beyond a certain point, dependence on debt as a source of capital increases the risk associated with a utility's cash flow, which correspondingly increases a utility's overall cost of capital.

Q. What was Ameren Missouri's capital structure as of September 30, 2011, the end of the proposed test year in this case?

A. The table below shows Ameren Missouri's actual capital structure as of September 30, 2011:

		Balance	Percentage
Long-term debt	$	3,600,099,506	45.9%
Short-term-debt	$	-	0.0%
Preferred stock	$	81,827,509	1.1%
Common equity	$	4,155,014,121	53.0%
Total	$	7,836,941,136	100.0%

Q. How does Ameren Missouri's capital structure as of September 30, 2011, compare to the capital structure approved for Ameren Missouri by the Commission pursuant to the Commission's most recent rate order?

A. A comparison of Ameren Missouri's capital structure as of September 30, 2011, to the capital structure most recently approved by the Commission, which was based on actual balances as of February 28, 2001, is as follows:

	As of February 28, 2011			As of September 30, 2011		
		Balance	%		Balance	%
Long-term debt	$	3,596,395,455	46.7%	$	3,600,099,506	45.9%
Short-term-debt	$	-	0.0%	$	-	0.0%
Preferred stock	$	81,827,509	1.1%	$	81,827,509	1.1%
Common equity	$	4,022,480,793	52.2%	$	4,155,014,121	53.0%
Total	$	7,700,703,757	100.0%	$	7,836,941,136	100.0%

The approximately $133 million increase in common equity, and the 80 basis point increase in equity percentage, from February 28, 2011, to September 30, 2011, is primarily attributable to net income generated during the period, net of dividends paid.

Q. What capital structure are you recommending in this case?

A. I recommend that Ameren Missouri's actual capital structure, as of the recommended true-up date of July 31, 2012, be used in this case.

Q. How do you expect Ameren Missouri's capital structure to change when the balances are trued-up through July 31, 2012?

A. Based on current projections, I expect Ameren Missouri's capital structure as of the July 31, 2012 true-up date to be as follows:

	As of July 31, 2012			As of September 30, 2011		
		Balance	%		Balance	%
Long-term debt	$	3,605,229,436	46.8%	$	3,600,099,506	45.9%
Short-term-debt	$	-	0.0%	$	-	0.0%
Preferred stock	$	81,827,509	1.1%	$	81,827,509	1.1%
Common equity	$	4,016,120,001	52.1%	$	4,155,014,121	53.0%
Total	$	7,703,176,946	100.0%	$	7,836,941,136	100.0%

Note that the equity percentage as of July 31, 2012, is expected to be nearly the same (10 basis points less) as the equity percentage approved by the Commission in the most recently decided rate case. The expected common equity decrease of approximately $139 million from September 30, 2011 to July 31, 2012, is attributable primarily to forecasted dividends to be paid during the period, net of net income expected to be earned.

Q. What constitutes a healthy capital structure for a regulated utility?

A. Again, a healthy capital structure for a regulated utility is one that results in a reasonable balance between the overall cost of capital and the expected costs of financial distress.

Q. Why do you believe that the capital structure recommended in your testimony is appropriate?

A. The capital structure recommended in my testimony reflects a reasonable balance between capital costs and financial strength and stability. It allows Ameren Missouri to take advantage of the lower costs of debt financing without elevating the risk of default and the related costs of financial distress to an unreasonable level that would impair the creditworthiness and financial integrity of the Company.

V. BALANCE AND EMBEDDED COST OF LONG-TERM DEBT

Q. How was the balance of long-term debt determined?

A. The long-term debt balance of $3,605,229,436 reflected in the proposed Ameren Missouri capital structure represents the projected total carrying value of the Company's long-term debt as of July 31, 2012. As detailed in Schedule RJM-E2, the carrying value of long-term debt was computed using the net proceeds method, which adjusts the face amount of long-term debt to properly account for unamortized discounts and premiums, long-term debt issuance expenses, and any gains or losses incurred in connection with long-term debt redemptions.

Q. Did you make any adjustments to Ameren Missouri's actual long-term debt balance in determining the long-term debt balance proposed in this proceeding?

A. I did not include in the proposed long-term debt balance the Company's obligations under capital leases related to the Chapter 100 financing of its Peno Creek (City of Bowling Green) and Audrain County gas-fired generating facilities. These transactions and related capital leases did not generate any proceeds, nor were they a source of new capital for the Company. This treatment is consistent with that reflected in the Company's prior rate case order.

Q. How was the embedded cost of long-term debt determined?

A. As reflected in Schedule RJM-E2, the embedded cost of long-term debt of 5.877% was computed by dividing forecasted annualized interest expense for the year ended July 31, 2012, by the forecasted average long-term debt carrying value as of such date.

Included in Ameren Missouri's forecasted long-term debt balance as of July 31, 2012, are two series of variable rate environmental improvement bonds with a forecasted total outstanding principal balance as of such date of $207.5 million. The interest rates of the issues are reset by a Dutch auction process every 35 days. The effective interest cost assumed for this indebtedness for purposes of this proceeding is consistent with expected rates for these securities as of July 31, 2012, including related auction broker/dealer fees.

VI. BALANCE OF SHORT-TERM DEBT

Q. How was the balance of short-term debt determined?

A. The balance of short-term debt of $0 reflected in the proposed Ameren Missouri capital structure represents the forecasted average short-term debt balance during the year ending July 31, 2012, net of cash and construction work in progress balances. As reflected of Schedule RJM-E3, the Company expects to have no net short-term borrowings during the period.

VII. BALANCE AND EMBEDDED COST OF PREFERRED STOCK

Q. How was the balance of preferred stock determined?

A. The preferred stock balance of $81,827,509 reflected in Ameren Missouri's proposed capital structure reflects the expected carrying value of, and the net proceeds received for, Ameren Missouri's preferred stock outstanding as of July 31, 2012. The calculation of the preferred stock balance is shown in Schedule RJM-E4.

Q. How was the embedded cost of Ameren Missouri's preferred stock determined?

A. As reflected in Schedule RJM-E4, the embedded cost of preferred stock of 4.180% was computed by dividing forecasted annualized dividends by the net proceeds received for forecasted preferred stock outstanding as of July 31, 2012.

Q. Did you consider expenses incurred in connection with Ameren Missouri's issuance of preferred stock in calculating the embedded cost of this component of the Company's capital structure?

A. Yes. As reflected in Schedule RJM-E4, considered in the embedded cost of preferred stock is not only the cost of dividends but also the cost of preferred stock issuance, including discounts, premiums, expenses, and any losses incurred in connection in redeeming prior preferred stock series. Unlike similar costs incurred in connection with the issuance and redemption of long-term debt, these expenses are not amortized over the life of the security due to the perpetual nature of preferred stock. Nonetheless, it is important and appropriate to consider these costs in order to accurately quantify the true economic cost of Ameren Missouri's preferred stock and establish a fair overall rate of return for the Company.

VIII. BALANCE AND EMBEDDED COST OF COMMON EQUITY

Q. How was the balance of Ameren Missouri's common equity determined?

A. The common equity balance of $4,016,120,001 reflected in Ameren Missouri's proposed capital structure reflects Ameren Missouri's forecasted book value of common equity as of July 31, 2012. Common equity is generally reflected net of accumulated other comprehensive income ("AOCI"), but AOCI is projected to be zero as of July 31, 2012.

Q. How was the cost of common equity determined?

A. In his testimony in this case, Mr. Hevert states that the cost of common equity capital for Ameren Missouri's integrated electric operations is currently within the range of 10.500% to 11.000% and recommends that the Commission allow Ameren Missouri to earn a return on common equity of 10.750%. As a consequence, in forecasting Ameren Missouri's overall weighted average cost of capital for its electric business, I have assumed a cost of common equity of 10.750%, and Ameren Missouri requests that the Commission approve a return on common equity of 10.750% in this case.

IX. FAIR RATE OF RETURN

Q. What do you propose is a fair overall rate of return for Ameren Missouri in this case?

A. I believe a return of 8.400%, which is equivalent to Ameren Missouri's forecasted weighted average cost of capital as of July 31, 2012, is fair and reasonable. The calculation of the Company forecasted weighted average cost of capital, considering the debt, preferred stock, and common equity balances and costs set forth above, is reflected on Schedule RJM-E1.

X. CONCLUSION

Q. Does this conclude your direct testimony?

A. Yes, it does.

BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF MISSOURI

In the Matter of Union Electric Company d/b/a Ameren Missouri's Tariffs to Increase Its Revenues for Electric Service.	)))	Case No. ER-2012-0166

AFFIDAVIT OF RYAN J. MARTIN

STATE OF MISSOURI)
) **ss**
CITY OF ST. LOUIS)

Ryan J. Martin, being first duly sworn on his oath, states:

1. My name is Ryan J. Martin. I work in the City of St. Louis, Missouri, and I am employed by Ameren Services Company, a wholly-owned subsidiary of Ameren Corporation, as Assistant Treasurer and Manager of Corporate Finance.

2. Attached hereto and made a part hereof for all purposes is my Direct Testimony on behalf of Ameren Missouri consisting of 11 pages, and Schedules RJM-E1 through RJM-E4, all of which have been prepared in written form for introduction into evidence in the above-referenced docket.

3. I hereby swear and affirm that my answers contained in the attached testimony to the questions therein propounded are true and correct.

Ryan J Martin
Ryan J. Martin

Subscribed and sworn to before me this 2nd day of February, 2012.

Mary Hoyt
Notary Public

My commission expires: 4-11-2014

Mary Hoyt - Notary Public
Notary Seal, State of
Missouri - Jefferson County
Commission #10397820
My Commission Expires 4/11/2014

APPENDIX A

STATEMENT OF QUALIFICATIONS
RYAN J. MARTIN

My name is Ryan J. Martin. My business address is One Ameren Plaza, 1901 Chouteau Avenue, St. Louis, Missouri, 63103. I am employed by Ameren Services Company as Assistant Treasurer and Manager of Corporate Finance. As Assistant Treasurer and Manager of Corporate Finance, I am responsible for managing the Ameren and subsidiary company short-term and long-term financing activities, including debt and equity issuances and credit facility arrangements, monitoring the company's liquidity position and key credit metrics, monitoring compliance with our debt agreements, managing relationships with credit rating agencies and banks, and monitoring capital markets for key developments, emerging risks, and opportunities, among other corporate-finance related activities.

I received my Bachelor of Business Administration degree, with a concentration in Accountancy, in 1995 from the University of Notre Dame. I received my Master of Business Administration degree, with concentrations in finance, marketing, and strategy, in 2004 from Northwestern University's Kellogg School of Management.

I have more than sixteen years of experience in various audit, accounting, financial reporting, and finance roles. I began my career in 1995 at Arthur Andersen LLP and worked in the firm's Audit and Business Advisory practice for six years. I left Arthur Andersen in 2000 to join Career Education Corporation, a Chicago-based public company that owns and operates for-profit, post-secondary schools. At Career Education

Corporation, I managed the company's accounting and financial reporting functions and at various times was also responsible for accounts payable, payroll, and insurance. In 2007, I joined Ameren Services Company as Assistant Controller. In that role, I managed the Company's general accounting function and plant accounting function and was also responsible for accounting research and policy. In March of 2010, I transitioned to the Finance department of Ameren Services Company as the Assistant Treasurer and Manager of Corporate Finance.

Union Electric Company d/b/a Ameren Missouri
Weighted Average Cost of Capital

at 7/31/2012:

CAPITAL COMPONENT	AMOUNT	PERCENT OF TOTAL	COST	WEIGHTED COST
Long-Term Debt	$3,605,229,436	46.802%	5.877%	2.751%
Short-Term Debt	$0	0.000%	0.000%	0.000%
Preferred Stock	$81,827,509	1.062%	4.180%	0.044%
Common Equity	$4,016,120,001	52.136%	10.750%	5.605%
TOTAL	**$7,703,176,946**	**100.000%**		**8.400%**

Union Electric Company d/b/a Ameren Missouri
Embedded Cost of Long-Term Debt

at July 31, 2012

					FACE AMOUNT	UNAMORTIZED BALANCES			CARRYING	ANNUALIZED	ANNUALIZED AMORTIZATION			ANNUALIZED	EMBEDDED
SERIES	COUPON (a)	ISSUED	MATURITY	PRINCIPAL	OUTSTANDING	DISC/(PREM)	ISSUE EXP.	LOSS	VALUE	COUPON INT.(b)	DISC/(PREM)	ISSUE EXP	LOSS	INT. EXP.	COST
C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
Senior Secured Notes	5.250%	22-Aug-02	01-Sep-12	$173,000,000	$173,000,000	$1,687	$10,207			$9,082,500	$20,244	$122,484			
Senior Secured Notes	4.650%	07-Oct-03	01-Oct-13	$200,000,000	$200,000,000	$46,354	$185,150			$9,300,000	$39,732	$158,700			
Senior Secured Notes	5.500%	18-May-04	15-May-14	$104,000,000	$104,000,000	$65,010	$136,884			$5,720,000	$35,460	$74,664			
Senior Secured Notes	4.750%	09-Apr-03	01-Apr-15	$114,000,000	$114,000,000	$41,312	$201,664			$5,415,000	$15,492	$75,624			
Senior Secured Notes	5.400%	08-Dec-05	01-Feb-16	$260,000,000	$260,000,000	$260,236	$676,691			$14,040,000	$72,624	$188,844			
Senior Secured Notes	6.400%	15-Jun-07	15-Jun-17	$425,000,000	$425,000,000	$183,844	$1,545,564			$27,200,000	$37,392	$314,352			
Senior Secured Notes	6.000%	08-Apr-08	01-Apr-18	$250,000,000	$250,000,000	$427,788	$1,053,524			$15,000,000	$75,492	$185,916			
Senior Secured Notes	5.100%	28-Jul-03	01-Aug-18	$200,000,000	$200,000,000	$42,408	$688,680			$10,200,000	$7,068	$114,780			
Senior Secured Notes	6.700%	19-Jun-08	01-Feb-19	$450,000,000	$450,000,000	$809,718	$2,047,578			$30,150,000	$124,572	$315,012			
Senior Secured Notes	5.100%	23-Sep-04	01-Oct-19	$300,000,000	$300,000,000	$61,576	$1,151,626			$15,300,000	$8,592	$160,692			
Senior Secured Notes	5.000%	27-Jan-05	01-Feb-20	$85,000,000	$85,000,000	$336,600	$357,390			$4,250,000	$44,880	$47,652			
First Mortgage Bonds	5.450%	15-Oct-93	01-Oct-28	$44,000,000	$44,000,000	$157,722	$289,642			$2,398,000	$9,756	$17,916			
Senior Secured Notes	5.500%	10-Mar-03	15-Mar-34	$184,000,000	$184,000,000	$1,432,600	$1,257,360			$10,120,000	$66,120	$58,032			
Senior Secured Notes	5.300%	21-Jul-05	01-Aug-37	$300,000,000	$300,000,000	$794,400	$2,329,500			$15,900,000	$31,776	$93,180			
Senior Secured Notes	8.450%	20-Mar-09	15-Mar-39	$350,000,000	$350,000,000	$1,035,840	$3,090,240			$29,575,000	$38,844	$115,884			
Environmental Improvement, Series 1992	0.548%	01-Dec-92	01-Dec-22	$47,500,000	$47,500,000		$225,308			$336,300		$21,804			
Environmental Improvement, Series 1998 ABC	0.876%	04-Sep-98	01-Sep-33	$160,000,000	$160,000,000		$1,169,113			$1,738,000		$55,452			
TOTAL LONG-TERM DEBT				**$3,646,500,000**	**$3,646,500,000**	**$5,697,095**	**$16,416,121**	**$19,157,348**	**$3,605,229,436**	**$205,724,800**	**$628,044**	**$2,120,988**	**$3,406,884**	**$211,880,716**	**5.877%**

Carrying Value = Face Amount Outstanding less Unamortized Discount, Issuance Expenses, and Loss on Reacquired Debt
C10 = C6 - C7 - C8 - C9
Annualized Interest Expense = Annual Coupon Interest plus Annual Amortization of Discount, Issuance Expenses, and Loss on Reacquired Debt
C15 = C11 + C12 + C13 + C14
Embedded Cost = Annualized Interest Expense divided by Carrying Value
C16 = C15 / C10

(a) Coupon rate for variable rate auction securities reflects prevailing rates as of 9/30/11 and includes ongoing broker dealer fees.
(b) Annualized coupon interest (C11) includes annual bond insurance premiums, where applicable.

Union Electric Company d/b/a Ameren Missouri
Cost of Short-term Debt

MONTH C1	BALANCE OF SHORT-TERM DEBT (a) C2	BALANCE OF TOTAL CWIP C3	BALANCE OF CWIP ACCRUING AFUDC C4	NET AMOUNT OUTSTANDING C5	INTEREST RATE C6
August 2011	$0	$727,366,371	$651,602,972	$0	--
September	$0	$753,721,430	$669,124,665	$0	--
October	$0	$782,909,001	$684,203,851	$0	
November	$0	$701,945,000	$641,176,430	$0	
December	$0	$675,472,000	$616,995,243	$0	
January 2012	$0	$705,016,001	$643,981,569	$0	
February	$0	$746,355,001	$681,741,781	$0	
March	$98,868,000	$783,392,000	$715,572,425	$0	
April	$54,980,000	$816,662,000	$745,962,185	$0	
May	$76,613,001	$787,946,001	$719,732,178	$0	
June	$171,600,000	$783,364,001	$715,546,850	$0	
July	$67,553,001	$804,901,001	$735,219,355	$0	
AVERAGE	**$39,134,500**	**$755,754,151**	**$685,071,625**	**$0**	

C5 Net Amount Outstanding = Balance of Short-Term Debt less Balance of CWIP Accruing AFUDC
C5 = C2 - C4

(a) Short-term debt amounts are net of cash and short-term investments. Negative amounts are excluded.

Union Electric Company d/b/a Ameren Missouri
Embedded Cost of Preferred Stock

at July 31, 2012

SERIES, TYPE, PAR C1	DIVIDEND C2	ISSUED C3	MATURITY C4	SHARES OUTSTANDING C5	PAR ISSUED/ OUTSTANDING C6	PREMIUM C7	ISSUANCE EXPENSE/DISCOUNT C8	NET PROCEEDS C9	ANNUAL DIVIDEND C10	EMBEDDED COST C11
$4.50 Series, Perpetual, $100 par	$4.500	01-May-41	-	213,595	$21,359,500	($825,000)	$440,294	$21,744,206	$961,178	
$5.50 Series, Perpetual, $100 par	$5.500	01-Oct-41	-	14,000	$1,400,000			$1,400,000	$77,000	
$3.70 Series, Perpetual, $100 par	$3.700	01-Oct-45	-	40,000	$4,000,000	($70,000)	$69,396	$4,000,604	$148,000	
$3.50 Series, Perpetual, $100 par	$3.500	01-May-46	-	130,000	$13,000,000	($910,000)	$252,772	$13,657,228	$455,000	
$4.30 Series, Perpetual, $100 par	$4.300	01-Jul-46	-	40,000	$4,000,000			$4,000,000	$172,000	
$4.75 Series, Perpetual, $100 par	$4.750	01-Oct-49	-	20,000	$2,000,000			$2,000,000	$95,000	
$4.00 Series, Perpetual, $100 par	$4.000	01-Nov-49	-	150,000	$15,000,000	($384,000)	$326,896	$15,057,104	$600,000	
$4.56 Series, Perpetual, $100 par	$4.560	01-Nov-63	-	200,000	$20,000,000	($266,000)	$297,633	$19,968,367	$912,000	
TOTAL PREFERRED STOCK					**$80,759,500**	**($2,455,000)**	**$1,386,991**	**$81,827,509**	**$3,420,178**	**4.180%**

issuance expenses, discount/premium, and any loss incurred in acquiring/redeeming prior series are not amortized due to the perpetual nature of the company's preferred stock

Net Proceeds = Par Value Outstanding plus Premium less Issuance Expense and Discount
C9 = C6 + C7 - C8
Embedded Cost = Annual Dividend divided by Net Proceeds
C11 = C10 / C9