1 SOUTHERN BELL TELEPHONE AND TELEGRAPH COMPANY 2 REBUTTAL TESTIMONY OF DR. RANDALL S. BILLINGSLEY 3 BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION 4 DOCKET NO. 920260-TL 5 DECEMBER 18, 1992 6 IL Com 7 I. INTRODUCTION 8 9 0. PLEASE STATE YOUR NAME, OCCUPATION AND BUSINESS 10 ADDRESS. 11 12 A. MY NAME IS RANDALL S. BILLINGSLEY. I AM ASSOCIATE 13 PROFESSOR OF FINANCE AT VIRGINIA POLYTECHNIC 14 INSTITUTE AND STATE UNIVERSITY. I AM ALSO A 15 FINANCIAL CONSULTANT IN THE AREAS OF COST OF 16 CAPITAL ANALYSIS, SECURITY ANALYSIS AND VALUATION, 17 AND INVESTMENT ANALYSIS. MY BUSINESS ADDRESS IS: 18 DEPARTMENT OF FINANCE, THE R. B. PAMPLIN COLLEGE OF 19 BUSINESS, VIRGINIA POLYTECHNIC INSTITUTE AND STATE 20 UNIVERSITY, BLACKSBURG, VIRGINIA 24061-0221. 21 22 Q. HAVE YOU PREVIOUSLY SUBMITTED TESTIMONY IN THIS 23 PROCEEDING ON BEHALF OF SOUTHERN BELL TELEPHONE AND 24 TELEGRAPH COMPANY (SOUTHERN BELL)?

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DOCUMENT NUMBER-DATE 14639 DEC 18 1932 FPSC-RECORDS/REPORTING 1 A. YES, I HAVE.

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3 Q. WHAT IS THE PURPOSE OF YOUR REBUTTAL TESTIMONY? 4 5 A. I HAVE BEEN ASKED BY SOUTHERN BELL TO REVIEW THE

6 TESTIMONIES OF MR. JAMES A. ROTHSCHILD AND MR. MARK 7 A. CICCHETTI WITH RESPECT TO THEIR DETERMINATION OF SOUTHERN BELL'S REQUIRED RATE OF RETURN ON EQUITY 8 9 CAPITAL. FURTHER, I WILL REVIEW MR. CHARLES W. KING'S TESTIMONY CONCERNING THE APPROPRIATE RATE OF 10 11 RETURN "TRIGGER" FOR THE COMMISSION'S 12 RECONSIDERATION OF THE APPROPRIATE RATE OF RETURN 13 SHARING BAND BETWEEN SOUTHERN BELL AND RATEPAYERS.

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15 Q. HOW IS YOUR TESTIMONY ORGANIZED?

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17 A. FIRST, I PROVIDE A REBUTTAL OF MR. CICCHETTI'S
18 TESTIMONY ON BEHALF OF THE FLORIDA CABLE TELEVISION
19 ASSOCIATION WHEREIN HE ERRONEOUSLY ESTIMATES A COST
20 OF EQUITY CAPITAL OF 11.20% FOR SOUTHERN BELL. I
21 EXPLAIN THE REASONS FOR MR. CICCHETTI'S
22 UNDERESTIMATION OF THE COST OF EQUITY CAPITAL.
23

SECOND, I PROVIDE A REBUTTAL OF MR. ROTHSCHILD'S
TESTIMONY ON BEHALF OF THE CITIZENS OF THE STATE OF

FLORIDA WHEREIN HE INCORRECTLY ESTIMATES A COST OF
 EQUITY CAPITAL OF 11.00% FOR SOUTHERN BELL. I
 DEMONSTRATE THAT THE UNDERLYING ASSUMPTIONS OF HIS
 ANALYSIS ARE INCORRECT AND THAT THE APPLICATION OF
 HIS METHODOLOGICAL APPROACHES IS INHERENTLY FLAWED.
 THUS, HIS COST OF EQUITY CAPITAL ESTIMATE IS SHOWN
 TO BE SIGNIFICANTLY BIASED DOWNWARD.

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9 LAST, I REBUT MR. CHARLES W. KING'S TESTIMONY ON 10 BEHALF OF THE DEPARTMENT OF DEFENSE AND ALL OTHER 11 FEDERAL EXECUTIVE AGENCIES IN WHICH HE INCORRECTLY 12 RECOMMENDS THAT THE COMMISSION RECONSIDER THE RATE 13 OF RETURN SHARING BANDS WHENEVER THE YIELDS ON 14 10-YEAR TREASURY BONDS CHANGE BY MORE THAN 150 15 BASIS POINTS FROM THEIR LEVEL WHEN THE SHARING 16 BANDS WERE LAST ESTABLISHED. I SHOW THAT HIS 17 RECOMMENDED TRIGGER IS CONTRADICTED BY CURRENT 18 RESEARCH FINDINGS WITH REGARD TO RISK PREMIUMS AND 19 THE TRIGGER IS INCONSISTENT WITH THE COMMISSION'S 20 PRIOR STANDARD FOR EVALUATING CHANGES IN THE COST 21 OF EQUITY CAPITAL.

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23 II. SUMMARY OF REBUTTAL TESTIMONY24

25 Q. PLEASE SUMMARIZE YOUR REBUTTAL OF MR. CICCHETTI'S

1 TESTIMONY.

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3 A. MY EVALUATION OF MR. CICCHETTI'S DIRECT TESTIMONY 4 DISCUSSES HIS INCORRECT ASSUMPTIONS AND THE FLAWED 5 APPLICATION OF HIS COST OF EQUITY CAPITAL 6 ESTIMATION METHODOLOGIES. HIS MOST PROMINENT 7 ERRORS FALL INTO THREE CATEGORIES: A) AN INCORRECT AND HIGHLY SUBJECTIVE APPLICATION OF THE 8 9 MULTI-STAGE VERSION OF THE DISCOUNTED CASH FLOW 10 (DCF) MODEL; B) THE USE OF A GROUP OF FIRMS IN HIS 11 RISK PREMIUM ANALYSIS THAT ARE NOT COMPARABLE IN 12 RISK TO SOUTHERN BELL, AND C) A FAILURE TO 13 RECOGNIZE THE IMPLICATIONS OF THE INCREASINGLY 14 COMPETITIVE ENVIRONMENT FACED BY ALL OF THE 15 REGIONAL BELL HOLDING COMPANIES (RBHCS) IN GENERAL 16 AND SOUTHERN BELL IN PARTICULAR. I WILL SHOW HOW 17 MR. CICCHETTI'S ERRORS HAVE RESULTED IN AN 18 UNREALISTICALLY LOW ESTIMATE OF SOUTHERN BELL'S 19 COST OF EQUITY CAPITAL. FURTHER, I WILL RESPOND TO 20 MR. CICCHETTI'S SPECIFIC CRITICISMS OF MY 21 APPROACHES TO ESTIMATING THE COST OF EQUITY 22 AND SHOW THAT THEY ARE BASED ON HIS INCORRECT ASSUMPTIONS AND HIS INCOMPLETE UNDERSTANDING OF HOW 23 24 THESE APPROACHES SHOULD BE IMPLEMENTED.

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1 Q. WHAT ISSUES DOES YOUR REBUTTAL FOCUS ON IN MR.

## 2 ROTHSCHILD'S DIRECT TESTIMONY?

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4 A. MY REBUTTAL FOCUSES ON FOUR PRIMARY ERRORS AND/OR 5 MISCONCEPTIONS IN MR. ROTHSCHILD'S APPROACHES TO 6 ESTIMATING THE COST OF EQUITY FOR SOUTHERN BELL. 7 THESE ERRORS INCLUDE: A) NUMEROUS MISTAKES IN 8 APPLYING THE DCF MODEL; B) INAPPROPRIATE RELIANCE 9 ON THE DOW JONES INDUSTRIAL AVERAGE INDEX AS A 10 REASONABLENESS CHECK IN EVALUATING THE RISKINESS OF 11 SOUTHERN BELL; C) INCORRECT DEPENDENCE ON THE 12 CRITERION THAT THE EQUITY PRICE-TO-BOOK RATIO OF A 13 REGULATED UTILITY SHOULD BE EQUAL TO ONE UNDER 14 EFFICIENT REGULATION, AND D) MISUNDERSTANDING OF 15 THE EFFECT OF QUARTERLY DIVIDENDS ON STOCK PRICES. 16 FURTHER, I WILL RESPOND TO MR. ROTHSCHILD'S 17 INACCURATE CRITICISMS OF THE RESULTS PRESENTED IN 18 MY DIRECT TESTIMONY. I WILL ALSO POINT OUT THE 19 AREAS OF MR. ROTHSCHILD'S TESTIMONY THAT HAVE 20 ERRONEOUSLY BEEN INCLUDED FROM ANOTHER CASE, 21 MATERIAL THAT SHOULD CONSEQUENTLY BE DISCARDED BY 22 THIS COMMISSION AS IRRELEVANT. MY REBUTTAL WILL SHOW THAT MR. ROTHSCHILD'S ERRORS AND 23 24 MISCONCEPTIONS EXPLAIN HIS SIGNIFICANT 25 UNDERESTIMATION OF SOUTHERN BELL'S COST OF EQUITY

1 CAPITAL.

2

3 Q. WHAT ELEMENTS DO YOU CONCENTRATE ON IN YOUR
4 REBUTTAL OF MR. KING'S DIRECT TESTIMONY?

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MY REBUTTAL OF MR. KING'S TESTIMONY EVALUATES THE 6 A. 7 FLAWED RATE OF RETURN TRIGGER MECHANISM THAT HE 8 RECOMMENDS THE COMMISSION USE IN DECIDING WHEN TO 9 RECONSIDER THE BANDS ESTABLISHED FOR THE SHARING OF 10 RETURNS BETWEEN SOUTHERN BELL AND RATEPAYERS. MR. KING HAS MADE SEVERAL IMPORTANT ERRORS THAT 11 12 INCLUDE: A) INCORRECTLY USING THE RETURNS ON 13 10-YEAR TREASURY BONDS AS THE INTEREST RATE INDEX; 14 B) MAKING INCORRECT IMPLICIT ASSUMPTIONS CONCERNING 15 THE RELATIONSHIP BETWEEN CHANGES IN THE COST OF 16 EQUITY AND CHANGES IN THE COST OF DEBT SECURITIES; 17 C) INCORRECTLY CONCLUDING THAT A 150 BASIS POINT 18 CHANGE IN THE RETURN ON 10-YEAR TREASURY BOND 19 IMPLIES A SIGNIFICANT CHANGE IN THE COST OF EQUITY, 20 AND D) RECOMMENDING A CRITERION FOR IDENTIFYING 21 SIGNIFICANT CHANGES IN EQUITY COSTS THAT IS 22 INCONSISTENT WITH THE COMMISSION'S PRIOR STANDARD. 23 MY REBUTTAL CITES EVIDENCE FROM THE CAPITAL MARKETS 24 THAT SHOWS THAT MR. KING'S RECOMMENDED TRIGGER 25 MECHANISM IS INCORRECT.

1 2 III. REBUTTAL OF MR. CICCHETTI'S DIRECT TESTIMONY 3 4 A. INCORRECT APPLICATION OF THE DCF MODEL 5 6 0. WHAT SPECIFIC ERRORS DOES MR. CICCHETTI MAKE IN 7 APPLYING A MULTI-STAGE DCF MODEL THAT RESULT IN THE 8 UNDERESTIMATION OF SOUTHERN BELL'S COST OF EQUITY 9 CAPITAL? 10 11 A. MR. CICCHETTI'S ERRORS INCLUDE: 1) EXCLUSIVE 12 RELIANCE ON VALUE LINE FOR GROWTH RATE FORECASTS' 13 2) INCORRECT FOCUS ON THE EXPECTED GROWTH IN 14 DIVIDENDS RATHER THAN IN EARNINGS; 3) INCORRECT USE 15 OF THE B X R GROWTH RATE FORECAST APPROACH; 4) 16 ABSENCE OF ANY JUSTIFICATION FOR USING A 17 MULTI-STAGE MODEL; 5) INCORRECT USE OF THE ANNUAL 18 FORM OF THE DCF MODEL EVEN THOUGH THE FIRMS IN HIS 19 SAMPLE ALL PAY DIVIDENDS QUARTERLY; 6) INCORRECT 20 ASSERTION THAT THE EFFECTIVE RATE OF RETURN UNDER A 21 QUARTERLY DCF MODEL SHOULD BE CONVERTED INTO A NOMINAL RATE OF RETURN; 7) USE OF A FLOTATION COST 22 23 ESTIMATE THAT IS CONTRADICTED BY PUBLISHED 24 EMPIRICAL EVIDENCE, AND 8) INAPPROPRIATE DEPENDENCE 25 ON THE GROUP OF RBHCS, WHICH ARE NOT RELEVANT RISK

1 PROXIES FOR SOUTHERN BELL.

2

3 Q. WOULD YOU PLEASE ELABORATE ON THE NATURE AND
4 SIGNIFICANCE OF MR. CICCHETTI'S ERRORS IN
5 ESTIMATING FUTURE GROWTH?

6

7 A. YES. MR. CICCHETTI OBTAINS ALL OF HIS GROWTH RATE 8 FORECASTS FROM VALUE LINE. WHILE IT IS TRUE THAT 9 THIS PUBLICATION IS FREQUENTLY RELIED ON BY 10 INVESTORS, IT IS NOT THE MOST OBJECTIVE AND 11 BROAD-BASED SOURCE OF INVESTORS' EXPECTATIONS. 12 VALUE LINE PUBLISHES ITS OWN FORECAST OF A 13 COMPANY'S GROWTH. IN CONTRAST, THE INSTITUTIONAL 14 BROKERS ESTIMATE SYSTEM (IBES) OFFERS AN AVERAGE OF 15 SECURITY ANALYSTS' FORECASTED GROWTH RATES ON A 16 COMPANY-BY-COMPANY BASIS. AS SUCH, IBES PROVIDES A 17 MORE BROAD-BASED FORECAST OF GROWTH THAN DOES VALUE 18 LINE. CONSEQUENTLY, MY USE OF IBES IN ESTIMATING 19 EXPECTED GROWTH PROVIDES A MORE REPRESENTATIVE 20 MEASURE OF INVESTORS' EXPECTATIONS THAN DOES MR. 21 CICCHETTI'S RELIANCE ON A SINGLE ESTIMATE SUCH AS 22 VALUE LINE.

23

24 Q. MR. CICCHETTI ARGUES ON PAGE 54, LINES 11-14, OF
25 HIS DIRECT TESTIMONY THAT "THE EXPECTED GROWTH IN

1 EARNINGS IS NOT A VALID PROXY FOR THE EXPECTED 2 GROWTH IN DIVIDENDS BECAUSE ALL EARNINGS ARE NOT 3 PAID OUT AS DIVIDENDS WHEN THEY ARE EARNED." DO 4 YOU AGREE WITH HIS POSITION ON THE IMPORTANCE OF 5 DIVIDENDS?

6

7 A. NO, I DO NOT AGREE WITH HIS POSITION. WHILE IT IS 8 TRUE THAT THE DCF MODEL FOCUSES ON DIVIDENDS, THE 9 RELATIONSHIP BETWEEN DIVIDENDS AND EARNINGS OVER 10 THE LONG-RUN MAKES THE EXPECTED RATE OF GROWTH IN EARNINGS OF KEY IMPORTANCE IN COST OF EQUITY 11 12 ESTIMATION. EARNINGS ARE THE SOURCE OF DIVIDENDS 13 PAID TO INVESTORS. ANY EARNINGS THAT ARE NOT PAID OUT AS DIVIDENDS ARE REINVESTED IN THE FIRM AND 14 15 SHOULD CONTRIBUTE TO AN INVESTOR'S RETURN THROUGH 16 THE APPRECIATION OF THE STOCK'S PRICE THAT RESULTS FROM SUCH REINVESTMENT. 17

18

19 IT IS IMPORTANT IN COST OF EQUITY ANALYSIS TO RELY
20 ON THE MOST OBJECTIVE DATA AVAILABLE. MOST ALL
21 ANALYSTS' GROWTH FORECASTS ARE IN TERMS OF EARNINGS
22 RATHER THAN DIVIDENDS. THUS, THE MOST RELIABLE AND
23 OBJECTIVE FORECASTS ARE FOR FUTURE EARNINGS.

24

25 MR. CICCHETTI'S APPROACH IS TOO SIMPLISTIC IN

1 REOUIRING THAT THE DCF MODEL FOCUS EXCLUSIVELY ON 2 DIVIDENDS RATHER THAN ON THEIR SOURCE, EARNINGS. 3 HIS RELIANCE ON IMPLICIT DIVIDEND FORECASTS 4 INTRODUCES ADDITIONAL ESTIMATION BIAS BY USING A 5 DIVIDEND PAYOUT RATIO FORECAST TO DERIVE A DIVIDEND 6 GROWTH RATE FROM VALUE LINE'S EARNINGS FORECASTS. 7 THE BEST AND MOST WIDELY AVAILABLE DATA IN THE 8 INVESTMENT COMMUNITY IS FOR EXPECTED EARNINGS, NOT 9 EXPECTED DIVIDENDS.

10

11 Q. WHAT IS YOUR OPINION OF MR. CICCHETTI'S USE OF THE 12 SO-CALLED B X R APPROACH TO ESTIMATING GROWTH? 13

14 A. THE B X R APPROACH TO ESTIMATING GROWTH DOES NOT 15 PRODUCE THE MOST OBJECTIVE, REPRESENTATIVE MEASURE 16 OF INVESTORS' LONG-TERM GROWTH EXPECTATIONS. THE 17 OBSERVATION THAT GROWTH IS EQUAL TO A FIRM'S 18 RETENTION RATE (B) TIMES ITS RETURN ON BOOK EQUITY 19 (R) IS AN ACCOUNTING DEFINITION THAT HOLDS AFTER 20 THE FACT. INDEED, ANALYSTS MAY EVEN USE THIS 21 APPROACH TO FORECAST GROWTH. HOWEVER, THE EVIDENCE 22 INDICATES THAT INVESTORS USE ANALYSTS' OVERALL 23 GROWTH RATE FORECASTS IN VALUING EQUITY SECURITIES 24 AND THAT A SURVEY OF ANALYSTS PRODUCES THE MOST 25 **OBJECTIVE ASSESSMENT OF SUCH EXPECTATIONS.** 

1 RELIANCE ON B X R FORECASTS BY ONLY A SINGLE 2 FORECASTING ENTITY LIKE VALUE LINE REDUCES THE 3 RELIABILITY OF SUCH FORECASTS BY INCLUDING THE 4 ESTIMATION OF TWO VARIABLES (B AND R) INSTEAD OF 5 ONE (G) AND BY DEPENDING ON A SINGLE FORECAST 6 RATHER THAN A BROAD SURVEY SERVICE SUCH AS IBES. 7 8 0. IS MR. CICCHETTI'S ESTIMATED COST OF EQUITY CAPITAL 9 OF 11.20% FOR SOUTHERN BELL CONSISTENT WITH HIS B X 10 R APPROACH TO MEASURING INVESTORS' GROWTH

11 EXPECTATIONS?

12

13 A. NO, IT IS NOT. MR. CICCHETTI DEPENDS ON VALUE 14 LINE'S IMPLICIT AVERAGE LONG-TERM GROWTH FORECAST 15 FOR THE RBHCS OF 5.98% USING A PROJECTED RETURN ON 16 BOOK EQUITY OF 16.79% IN THE FINAL STAGE OF HIS DCF 17 IT IS IMPORTANT TO EMPHASIZE THAT THE MODEL. 18 FINAL OR LONG-TERM STAGE OF HIS DCF MODEL IS BY FAR 19 THE MORE INFLUENTIAL OF HIS MULTIPLE STAGES. YET 20 CONSIDER THE FUNDAMENTAL INCONSISTENCY IN HIS 21 ANALYSIS. MR. CICCHETTI ARGUES THAT SOUTHERN 22 BELL'S COST OF EQUITY IS 11.20% BUT HE ALSO DEPENDS 23 ON VALUE LINE'S ESTIMATE OF LONG-TERM RETURN ON 24 BOOK EQUITY OF 16.79%. IT IS UNCLEAR HOW MR. 25 CICCHETTI VIEWS THE RELATIONSHIP BETWEEN THE COST

1 OF EQUITY AND THE RETURN ON BOOK EQUITY. THERE IS 2 A BASIC INCONSISTENCY IN HIS USE OF THE B X R 3 APPROACH TO ESTIMATE EXPECTED GROWTH. THUS, BY 4 IMPLICATION HIS ESTIMATE OF SOUTHERN BELL'S COST OF 5 EQUITY CAPITAL IS BIASED.

6

7 Q. WHAT JUSTIFICATION DOES MR. CICCHETTI OFFER FOR
8 USING THE MULTI-STAGE VERSION OF THE DCF MODEL?
9

10 A. NO JUSTIFICATION IS OFFERED. IT APPEARS THAT MR. 11 CICCHETTI'S RELIANCE ON VALUE LINE AS A CONVENIENT, 12 ALTHOUGH LIMITED, SOURCE OF DATA FORCED HIM TO USE 13 A MULTI-STAGE APPROACH. INDEED, THE ESTIMATION OF MULTIPLE GROWTH RATES INTRODUCES GREATER 14 15 SUBJECTIVITY INTO COST OF EQUITY ESTIMATION, 16 ESPECIALLY WHEN THE FORECASTS RELY ONLY ON A SINGLE 17 FORECASTING ENTITY SUCH AS VALUE LINE. FOR THESE 18 REASONS I BELIEVE THAT MR. CICCHETTI'S MULTI-STAGE 19 DCF MODEL IS NOT SUFFICIENTLY OBJECTIVE OR ACCURATE 20 TO BE CONSIDERED SERIOUSLY BY THIS COMMISSION IN 21 DETERMINING SOUTHERN BELL'S COST OF EQUITY CAPITAL. 22 23 Q. IS MR. CICCHETTI'S DCF MODEL CONSISTENT WITH

24 INVESTORS' PERSPECTIVE ON VALUING EQUITY

25 SECURITIES?

NO, IT IS NOT. MR. CICCHETTI USES THE ANNUAL FORM 2 A. OF THE DCF MODEL EVEN THOUGH THE RBHCS IN HIS GROUP 3 4 OF COMPARABLE FIRMS PAY DIVIDENDS ON A QUARTERLY BASIS. INVESTORS VALUE EQUITY SECURITIES IN LIGHT 5 6 OF NOT ONLY WHAT THEY EXPECT TO GET (I.E., 7 DIVIDENDS AND/OR FUTURE PRICE), BUT ALSO IN LIGHT 8 OF WHEN THEY EXPECT TO GET IT. OTHER THINGS BEING 9 EQUAL, INVESTORS WILL PAY A HIGHER PRICE FOR A STOCK THAT PAYS DIVIDENDS QUARTERLY THAN FOR A 10 STOCK THAT PAYS DIVIDENDS ANNUALLY. THIS IS DUE TO 11 INVESTORS' ABILITY TO EARN A HIGHER RETURN WITH 12 13 QUARTERLY DIVIDENDS THROUGH THE MORE FREQUENT OPPORTUNITY TO REINVEST DIVIDENDS THAN IS THE CASE 14 15 WITH THE ANNUAL PAYMENT OF DIVIDENDS. THUS, MR. CICCHETTI'S USE OF THE ANNUAL FORM OF THE DCF MODEL 16 17 DOES NOT ACCURATELY PORTRAY INVESTORS' PERSPECTIVE 18 AND CONSEQUENTLY SIGNIFICANTLY UNDERESTIMATES 19 SOUTHERN BELL'S COST OF EQUITY CAPITAL. THE 20 IMPORTANCE OF THIS ERROR IS DRAMATIZED BY LINKE AND 21 ZUMWALT'S PUBLISHED (FINANCIAL MANAGEMENT, AUTUMN, 22 1984, PP. 15 - 20) ESTIMATE THAT FAILURE TO ADJUST 23 FOR THE QUARTERLY PAYMENT OF DIVIDENDS CAN UNDERESTIMATE A UTILITY'S COST OF EQUITY CAPITAL BY 24 50 TO OVER 200 BASIS POINTS. 25

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2 Q. ON PAGES 58-59 OF HIS DIRECT TESTIMONY, MR.
3 CICCHETTI ARGUES THAT NOT CONVERTING THE EFFECTIVE
4 RETURN PRODUCED BY A QUARTERLY DCF MODEL INTO A
5 NOMINAL RETURN IS "INCONSISTENT AND UNFAIR TO
6 RATEPAYERS." WHAT IS HIS ESSENTIAL POINT AND WHY
7 IS IT INCORRECT?

8

1

9 A. MR. CICCHETTI'S ESSENTIAL POINT IS THAT THE 10 **OPPORTUNITY TO REINVEST DIVIDENDS QUARTERLY IMPLIES** 11 AN EFFECTIVE OR AN ECONOMICALLY MEANINGFUL RATE OF 12 RETURN THAT IS IN EXCESS OF THE STATED OR NOMINAL 13 RATE OF RETURN THAT MUST BE EARNED PERIODICALLY IN 14 ORDER FOR THE EFFECTIVE RATE OF RETURN TO BE 15 THUS, MR. CICCHETTI ARGUES THAT GRANTING REALIZED. 16 A UTILITY THE EFFECTIVE ANNUAL RATE OF RETURN THAT 17 IS RELEVANT TO INVESTORS OVERSTATES THE APPROPRIATE 18 NOMINAL RATE OF RETURN THAT ALLOWS INVESTORS TO 19 EARN THE GIVEN EFFECTIVE RATE OF RETURN. HIS 20 RECOMMENDATION IS INCORRECT DUE TO THE WAY IN WHICH 21 UTILITIES ARE REGULATED.

22

23 MR. CICCHETTI'S RECOMMENDED ADJUSTMENT WOULD BE
 24 CORRECT IF THE REGULATORY PROCESS REFLECTED THE
 25 ASSUMPTIONS NECESSARY FOR HIS ADJUSTMENT TO BE

1 REOUIRED. MR. CICCHETTI STATES ON PAGES 58 - 59 OF 2 HIS DIRECT TESTIMONY THAT THE COMPANY'S ACCRUAL OF 3 EARNINGS ON RATEPAYERS' MONTHLY PAYMENT OF BILLS IS 4 REFLECTED IN THE 12-MONTH AVERAGE EQUITY BALANCE. 5 HE THUS ARGUES THAT THE EFFECTIVE RATE OF RETURN 6 PRODUCED BY THE QUARTERLY DCF MODEL MUST BE REDUCED 7 IN RECOGNITION OF THE COMPANY'S EARNINGS ON THE 8 MONTHLY RECEIPT OF CUSTOMERS' BILLS. YET THIS 9 POSITION IS INCORRECT BECAUSE MR. CICCHETTI HAS 10 FAILED TO CONSIDER THAT SOUTHERN BELL'S CAPITAL 11 STRUCTURE AND DEBT COSTS ARE HISTORICAL, NOT 12 PROSPECTIVE. AS SHOWN IN THE LINKE AND ZUMWALT 13 ARTICLE CITED BY MR. CICCHETTI, THE USE OF A 14 HISTORICAL FINANCIAL STRUCTURE REOUIRES AN UPWARD 15 ADJUSTMENT TO THE QUARTERLY DCF RESULT.

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17 I HAVE USED THE QUARTERLY DCF MODEL BECAUSE IT 18 REFLECTS THE INVESTOR'S PERSPECTIVE MORE 19 REALISTICALLY THAN DOES MR. CICCHETTI'S ANNUAL FORM 20 OF THE DCF. MOST FIRMS DO NOT PAY DIVIDENDS 21 ANNUALLY AND THE APPROPRIATE FORM OF THE DCF MODEL 22 MUST BE CONSISTENT WITH THE ACTUAL TIMING OF THE 23 DIVIDEND STREAM RECEIVED BY INVESTORS. MR. 24 CICCHETTI'S RECOMMENDED ADJUSTMENT IS INCORRECT 25 SINCE SOUTHERN BELL IS NOT REGULATED IN THE MANNER

NECESSARY FOR THIS ADJUSTMENT TO BE REQUIRED AS SET 1 2 FORTH IN THE LINKE AND ZUMWALT ARTICLE. CONTRARY 3 TO MR. CICCHETTI'S POSITION IN HIS TESTIMONY, IT WOULD BE "INCORRECT AND UNFAIR TO RATEPAYERS" TO 4 5 MAKE SUCH AN ADJUSTMENT SINCE IT WOULD 6 UNDERESTIMATE A UTILITY'S COST OF EQUITY CAPITAL 7 AND THEREBY IMPAIR ITS ABILITY TO ATTRACT CAPITAL 8 ON REASONABLE TERMS. FURTHERMORE, IF THE 9 COMMISSION WERE TO ADOPT MR. CICCHETTI'S ADJUSTMENT 10 TO THE ALLOWED RATE OF RETURN, INVESTORS WILL 11 DEMAND A HIGHER RETURN TO OFFSET THE COST OF THIS 12 ADJUSTMENT. 13 14 O. WHAT JUSTIFICATION DOES MR. CICCHETTI OFFER FOR THE 15 3% FLOTATION COST ESTIMATE USED IN HIS DCF MODEL 16 ANALYSIS? 17 18 A. NO EVIDENCE IS PROVIDED TO SUPPORT THE 19 REASONABLENESS OF THE 3% COST USED IN HIS ANALYSIS.

20

21 Q. DO YOU HAVE REASON TO BELIEVE THAT THE 3% ESTIMATE
22 PROVIDES EQUITY INVESTORS WITH ADEQUATE

23 COMPENSATION FOR THE COST OF SELLING STOCK?

24

25 A. NO, I BELIEVE THAT 3% IS UNREALISTICALLY LOW AND

THAT THE USE OF THIS FIGURE CONTRIBUTES TO MR. 1 2 CICCHETTI'S UNDERESTIMATION OF SOUTHERN BELL'S COST 3 OF EQUITY CAPITAL. TWO EMPIRICAL STUDIES INDICATE 4 THAT A 5% FLOTATION COST IS REALISTIC. RESEARCH BY 5 SMITH (JOURNAL OF FINANCIAL ECONOMICS, 1977, PP. 6 273-307) FINDS THAT EXPLICIT FLOTATION COSTS AMOUNT 7 TO BETWEEN 4% AND 5% OF THE AMOUNT OF AN EQUITY 8 ISSUE. FOCUSING ON THE UTILITY INDUSTRY, RESEARCH 9 BY PETTWAY (PUBLIC UTILITY FORTNIGHTLY, MAY 10, 10 1984, PP. 35-39) FINDS THAT THE SALE OF EQUITY 11 SECURITIES GENERALLY ALSO INVOLVES IMPLICIT FLOTATION COSTS IN THE FORM OF A 2% TO 3% DECLINE 12 13 IN THE PRICE OF THE STOCK THAT RESULTS FROM MARKET 14 PRESSURE. THUS, A TOTAL FLOTATION COST OF 5% IS A 15 CONSERVATIVE ESTIMATE. MR. CICCHETTI'S 3% ESTIMATE 16 IS LOW IN LIGHT OF THE AVAILABLE EVIDENCE. 17 18 0. WHAT JUSTIFICATION DOES MR. CICCHETTI PROVIDE FOR 19 USING THE RBHCS AS PROXIES FOR SOUTHERN BELL IN

- 20 ESTIMATING ITS COST OF EQUITY CAPITAL?
- 21

22 A. NO JUSTIFICATION IS PROVIDED.

23

24 Q. DO YOU BELIEVE THAT THE RBHCS ARE RELEVANT
 25 BENCHMARKS FOR ESTIMATING SOUTHERN BELL'S COST OF

1 EQUITY CAPITAL?

2

3 A. NO, I DO NOT. MR. CICCHETTI DOES NOT

4 SYSTEMATICALLY COMPARE THE RISK CHARACTERISTICS OF 5 SOUTHERN BELL AND ANY OF THE RBHCS. IT IS EASY TO 6 FALL INTO THE TRAP OF ASSUMING THAT THE RISK OF A 7 SUBSIDIARY MUST BE COMPARABLE TO THE RISK OF ITS 8 PARENT COMPANY. YET A MAJOR LESSON OF MODERN 9 PORTFOLIO THEORY IS THAT THE RISK OF AN INDIVIDUAL 10 INVESTMENT CANNOT SAFELY BE USED TO MAKE GENERALIZATIONS ABOUT THE RISK OF THE ENTIRE 11 12 PORTFOLIO. THE RISK OF ANY GIVEN MEMBER OF A 13 PORTFOLIO CAN BE HIGHER OR LOWER THAN THAT OF THE 14 OVERALL PORTFOLIO. SINCE SOUTHERN BELL DOES NOT 15 HAVE MARKET-TRADED EQUITY, ALL COST OF CAPITAL 16 EXPERTS IN THIS PROCEEDING AGREE THAT IT IS 17 NECESSARY TO USE OTHER FIRMS WITH SUCH EQUITY AS 18 PROXIES FOR SOUTHERN BELL. I HAVE USED GENERALLY 19 ACCEPTED MEASURES OF INVESTMENT RISK TO COMPOSE A 20 GROUP OF 20 FIRMS COMPARABLE IN RISK TO SOUTHERN 21 BELL RATHER THAN SIMPLY ASSUMING THAT THE RBHCS ARE 22 COMPARABLE IN RISK.

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- 24

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1 B. INCORRECT RISK PREMIUM ANALYSIS 2 3 Q. DO YOU AGREE WITH MR. CICCHETTI'S USE OF MOODY'S 4 NATURAL GAS DISTRIBUTION INDEX AS A REPRESENTATIVE 5 **PROXY FOR THE INVESTMENT RISK OF SOUTHERN BELL?** 6 7 A. NO. MR. CICCHETTI DOES NOT PROVIDE ANY CONVINCING 8 EVIDENCE THAT NATURAL GAS DISTRIBUTION COMPANIES ARE COMPARABLE IN RISK TO SOUTHERN BELL. 9 10 INTERESTINGLY, MR. CICCHETTI'S USE OF THIS INDEX 11 CONTRADICTS HIS USE OF THE RBHCS AS COMPARABLE IN 12 RISK TO SOUTHERN BELL. SCHEDULE 6 OF HIS DIRECT 13 TESTIMONY INDICATES THAT THE AVERAGE SYSTEMATIC 14 RISK (BETA) OF HIS INDEX OF GAS DISTRIBUTION 15 COMPANIES IS .63 WHILE SCHEDULE 3 INDICATES THAT 16 THE AVERAGE BETA FOR THE RBHCS IS .82. OBVIOUSLY 17 HIS INDEX AND THE RBHCS ARE NOT COMPARABLE IN TERMS 18 OF SYSTEMATIC RISK. YET BOTH ARE BEING OFFERED BY MR. CICCHETTI AS COMPARABLE IN RISK TO SOUTHERN 19 20 BELL. CONSEQUENTLY, THERE IS A SIGNIFICANT 21 INTERNAL INCONSISTENCY IN MR. CICCHETTI'S APPROACH 22 TO ESTIMATING SOUTHERN BELL'S COST OF EQUITY 23 CAPITAL. THE INDEX OF GAS DISTRIBUTION COMPANIES 24 AND THE RBHCS ARE NOT COMPARABLE TO EACH OTHER AND 25 CONSEQUENTLY CANNOT BOTH BE COMPARABLE IN RISK TO

1 SOUTHERN BELL.

2

3 Q. MR. CICCHETTI'S RISK PREMIUM ANALYSIS USES A DCF
4 MODEL TO ESTIMATE THE COST OF EQUITY CAPITAL FOR
5 THE INDEX OF GAS DISTRIBUTION COMPANIES. WHAT IS
6 YOUR ASSESSMENT OF MR. CICCHETTI'S APPLICATION OF
7 THE DCF METHODOLOGY IN THIS CONTEXT?

8

9 A. MR. CICCHETTI'S RISK PREMIUM ANALYSIS IS FLAWED BY 10 THE INCORRECT APPLICATION OF THE DCF MODEL. ALL OF 11 THE MISTAKES MADE IN HIS MULTI-STAGE DCF MODEL ARE 12 REPEATED IN THE APPLICATION OF THE DCF MODEL TO THE 13 RISK PREMIUM ANALYSIS. THUS, MR. CICCHETTI MAKES 14 NUMEROUS ERRORS IN ESTIMATING EXPECTED GROWTH, USES A LOW FLOTATION COST ESTIMATE, AND FAILS TO 15 16 RECOGNIZE THE QUARTERLY PAYMENT OF DIVIDENDS. 17 18 C. MISINTERPRETATION OF 19 THE COMPETITIVE ENVIRONMENT 20

21 Q. ON PAGE 34, LINES 10-13, OF HIS DIRECT TESTIMONY
22 MR. CICCHETTI OFFERS HIS OPINION THAT
23 "...MEANINGFUL COMPETITION WITHIN THE LOCAL LOOP IS
24 STILL UNCERTAIN AND IS YEARS AWAY AT BEST." DO YOU
25 AGREE WITH MR. CICCHETTI'S INTERPRETATION OF

COMPETITIVE ENVIRONMENT FACED BY LOCAL EXCHANGE
 COMPANIES?

3

AS A COST OF EQUITY ANALYST I CONCERN MYSELF 4 A. NO. ONLY WITH THE OPINIONS OF INVESTORS CONCERNING THE 5 6 IMPACT OF COMPETITION ON THE VALUATION OF EQUITY 7 SECURITIES. THE INVESTMENT COMMUNITY DOES NOT 8 AGREE WITH MR. CICCHETTI'S CASUAL APPRAISAL OF 9 COMPETITION IN THE LOCAL LOOP. FOR EXAMPLE, A 10 RECENT EQUITY RESEARCH STUDY DONE BY SALOMON 11 BROTHERS ("THE BELL REGIONAL HOLDING COMPANIES --PUTTING COMPETITION IN PERSPECTIVE," S. GEORGES, 12 JUNE 1992) INDICATES THAT INVESTORS HAVE BECOME 13 14 FIXATED ON "...THE INCREASING THREAT OF COMPETITION 15 IN THE BASIC LOCAL TELEPHONE BUSINESS" (P.1).

16

17 FURTHER, MR. CICCHETTI IGNORES THE IMPLICATIONS OF 18 AT&T'S RECENT EFFORTS TO ACQUIRE ABOUT A THIRD OF 19 MCCAW CELLULAR COMMUNICATIONS FOR ABOUT \$3.73 20 BILLION. THIS DEVELOPMENT DRAMATIZES HOW IMMINENT 21 IS DIRECT COMPETITION BETWEEN THE RBHCS AND AT&T. 22 MCCAW IS THE DOMINANT PROVIDER OF WIRELESS SERVICES 23 IN A NUMBER OF METROPOLITAN AREAS. THIS 24 TRANSACTION CONSEQUENTLY WILL BRING AT&T INTO 25 SIGNIFICANT COMPETITION WITH THE RBHCS IN THE AREA

1 OF WIRELESS SERVICES. INDEED, ACCORDING TO A 2 RECENT WALL STREET JOURNAL ARTICLE ("AT&T SEEKING TO ENTER THE CELLULAR ERA," NOVEMBER 5, 1992, 3 4 P.A3), AT&T CHAIRMAN ROBERT E. ALLEN HAS REPEATEDLY SPOKEN OF THE GROWTH OPPORTUNITIES IN LOCAL 5 6 SERVICES. THUS, THE EVIDENCE CONTRADICTS MR. 7 CICCHETTI'S ASSERTION THAT "...MEANINGFUL 8 COMPETITION WITHIN THE LOCAL LOOP IS STILL 9 UNCERTAIN AND IS YEARS AWAY AT BEST." THE 10 INVESTMENT COMMUNITY AND AT&T HAVE A DIFFERENT 11 OPINION THAN MR. CICCHETTI. 12 13 D. RESPONSES TO MR. CICCHETTI'S 14 CRITICISMS OF MR. BILLINGSLEY'S 15 DIRECT TESTIMONY 16 17 Q. WHAT ARE MR. CICCHETTI'S CRITICISMS OF YOUR 18 APPLICATION OF THE DCF MODEL TO ESTIMATE THE COST 19 OF EQUITY CAPITAL FOR SOUTHERN BELL? 20 MR. CICCHETTI ARGUES ON PAGE 53, LINES 1-13, OF HIS 21 A. 22 DIRECT TESTIMONY THAT I: 1) INCORRECTLY RELIED ON 23 ESTIMATES OF EARNINGS GROWTH INSTEAD OF DIVIDEND 24 GROWTH; 2) PERFORMED MY DCF ANALYSIS ON COMPANIES 25 THAT ARE NOT COMPARABLE IN RISK TO SOUTHERN BELL,

1 AND 3) RELIED ON A QUARTERLY DCF MODEL THAT

2 PRODUCED AN EFFECTIVE COST OF EQUITY ESTIMATE THAT
3 SHOULD HAVE BEEN CONVERTED INTO A NOMINAL RATE.
4

5 Q. HOW DO YOU RESPOND TO THESE CRITICISMS?

7 A. MY REBUTTAL TESTIMONY HAS ALREADY EXPLAINED WHY IT
8 IS APPROPRIATE AND DESIRABLE TO USE ESTIMATES OF
9 EXPECTED EARNINGS GROWTH RATHER THAN EXPECTED
10 DIVIDEND GROWTH AND HAS DISCUSSED WHY CURRENT
11 REGULATORY PRACTICES RENDER THE

12 EFFECTIVE-TO-NOMINAL RATE CONVERSION UNNECESSARY.
13 THUS, I WILL FOCUS MY RESPONSE ON MR. CICCHETTI'S
14 CRITICISM OF MY GROUP OF FIRMS COMPARABLE IN RISK
15 TO SOUTHERN BELL.

16

6

17 MR. CICCHETTI'S PRIMARY OBJECTION TO THE GROUP OF 18 FIRMS USED IN MY DCF ANALYSIS IS THAT BECAUSE THEY 19 "...ARE NON-REGULATED INDICATES THE FIRMS ARE NOT 20 "CLOSE ENOUGH" TO BE COMPARABLE TO SOUTHERN BELL" 21 (DIRECT TESTIMONY, P.55, LINES 16-18). YET MR. 22 CICCHETTI PROVIDES NO EVIDENCE THAT THE GROUP OF 23 FIRMS ARE NOT COMPARABLE TO SOUTHERN BELL. MR. 24 CICCHETTI FAILS TO APPRECIATE THAT MY CLUSTER OF 25 FIRMS WAS IDENTIFIED FROM A BROAD LIST OF FIRMS

THAT WERE BOTH REGULATED AND UNREGULATED. THE 1 COMPREHENSIVE SET OF RISK CRITERIA GROUPED FIRMS OF 2 COMPARABLE RISK WITHOUT PURPOSELY INCLUDING OR 3 EXCLUDING REGULATED FIRMS. THUS, FIRMS WERE 4 IDENTIFIED WITHOUT ANY PRECONCEIVED ASSUMPTIONS OR 5 BIASES CONCERNING THE RELATIVE RISKINESS OF 6 REGULATED VS. UNREGULATED FIRMS. I LET THE DATA 7 DETERMINE COMPARABILITY USING GENERALLY ACCEPTED 8 MEASURES OF RISK RATHER THAN DEPEND UNCRITICALLY ON 9 CONVENTIONAL WISDOM TO ESTABLISH A GROUP OF 10 SUPPOSEDLY COMPARABLE FIRMS. OBJECTIVITY DEMANDS 11 NOTHING LESS. 12

13

14 Q. WHAT IS MR. CICCHETTI'S CRITICISM OF YOUR RISK
15 PREMIUM ANALYSIS?

16

17 A. MR. CICCHETTI'S CRITICISM IS ESSENTIALLY THE SAME AS THAT AIMED AT MY DCF ANALYSIS. HE CRITICIZES MY 18 USE OF THE S&P 500 INDEX ON THE GROUNDS THAT 19 "INDUSTRIAL COMPANIES IN GENERAL, AND THE COMPANIES 20 THAT COMPRISE THE S&P 500 IN PARTICULAR, ARE 21 RISKIER THAN SOUTHERN BELL" (DIRECT TESTIMONY, 22 23 P.55, LINES 19-21). YET NO EVIDENCE IS PROVIDED TO SUPPORT THIS SPECULATION. I BELIEVE THAT THE 24 EXPECTATIONAL RISK PREMIUM OF THE S&P 500 OVER 25

AAA-RATED UTILITY BOND YIELDS PROVIDES A USEFUL 1 TEST FOR ASSESSING THE REASONABLENESS OF MY DCF 2 COST OF EQUITY ESTIMATE FOR SOUTHERN BELL. 3 4 IV. REBUTTAL OF MR. ROTHSCHILD'S DIRECT TESTIMONY 5 6 7 A. INCORRECT APPLICATION OF THE DCF MODEL 8 9 Q. DO YOU AGREE WITH THE WAY IN WHICH MR. ROTHSCHILD 10 APPLIED THE DCF MODEL TO ESTIMATE THE COST OF 11 EQUITY CAPITAL FOR SOUTHERN BELL? 12 MR. ROTHSCHILD MAKES NUMEROUS CONCEPTUAL 13 A. NO. 14 ERRORS IN HIS APPLICATION OF THE DCF MODEL. THESE ERRORS CONTRIBUTE TO HIS SIGNIFICANT 15 UNDERESTIMATION OF SOUTHERN BELL'S COST OF EQUITY 16 17 CAPITAL. 18 WHAT ERRORS DOES MR. ROTHSCHILD MAKE IN HIS DCF 19 0. 20 ANALYSIS? 21 22 A. MR. ROTHSCHILD MAKES FIVE TYPES OF MAJOR CONCEPTUAL 23 ERRORS IN HIS DCF ANALYSIS. THESE ERRORS INCLUDE: 24 1) MISTAKES IN ESTIMATING EXPECTED GROWTH; 2) 25 INCORRECT USE OF THE ANNUAL FORM OF THE DCF MODEL

IN THE PRESENCE OF QUARTERLY DIVIDEND PAYMENTS; 3)
 IMPROPER RELIANCE OF THE RBHCS AND BELLSOUTH AS
 COMPARABLE IN RISK TO SOUTHERN BELL; 4) INCORRECT
 ASSERTION THAT HIS COMPLEX DCF MODEL ACCURATELY
 EVALUATES THE RBHCS, AND 5) NO ALLOWANCE FOR EQUITY
 FLOTATION COSTS.

7

8 Q. HOW DOES MR. ROTHSCHILD ESTIMATE THE EXPECTED
9 GROWTH RATE USED IN HIS SIMPLE AND COMPLEX
10 APPLICATIONS OF THE DCF MODEL?

11

IN HIS SIMPLE DCF MODEL HE USES THE B X R METHOD 12 A. 13 UNDER THE ASSUMPTION THAT IS IT "... THE ONLY PROPER 14 WAY TO DETERMINE GROWTH FOR USE IN THE SIMPLIFIED 15 DCF MODEL" (DIRECT TESTIMONY, P.21, LINES 9-10). 16 THE PROJECTED R OR RETURN ON BOOK EQUITY IS 17 OBTAINED FROM VALUE LINE AND IS ALSO INFERRED FROM 18 DATA PROVIDED BY ZACK'S RESEARCH. THE DECISION TO 19 USE ZACK'S ESTIMATED GROWTH RATE INDIRECTLY IS 20 BASED ON THE ASSUMPTION THAT SUCH RATES "... ARE NOT 21 INTENDED TO BE SUSTAINABLE GROWTH RATES" (DIRECT 22 TESTIMONY, P. 28, LINES 4-5). FURTHER, MR. 23 ROTHSCHILD CONTENDS THAT THE FORMATION OF ANALYSTS' 24 FORECASTS DURING AN "ATYPICALLY GOOD OR ATYPICALLY 25 BAD YEAR" WOULD PRODUCE ATYPICAL FORECASTS. THUS,

HE ARGUES THAT THE FORECASTS CANNOT BE USED
 DIRECTLY. FUTURE RETURNS ON BOOK EQUITY IN THE
 COMPLEX DCF MODEL ARE ALSO DETERMINED USING THE B X
 R APPROACH. THE PROJECTED RETENTION RATE (B) IN
 BOTH THE SIMPLE AND THE COMPLEX DCF MODELS IS THE
 CURRENT AVERAGE RATE FOR THE RBHCS.

7

8 Q. DO YOU AGREE WITH MR. ROTHSCHILD'S RELIANCE ON THE
9 B X R APPROACH FOR ESTIMATING THE EXPECTED RATE OF
10 EARNINGS GROWTH?

11

NO, I DO NOT. AS ELABORATED ON IN MY REBUTTAL OF 12 A. 13 MR. CICCHETTI'S DIRECT TESTIMONY, THE B X R 14 APPROACH DOES NOT PRODUCE THE MOST OBJECTIVE, 15 REPRESENTATIVE MEASURE OF INVESTORS' LONG-TERM 16 GROWTH EXPECTATIONS. MR. ROTHSCHILD'S USE OF VALUE 17 LINE'S B AND R FORECASTS SUFFERS FROM ALL OF THE 18 SHORTCOMINGS NOTED PREVIOUSLY. VALUE LINE DOES NOT 19 PROVIDE THE MOST OBJECTIVE, BROAD-BASED MEASURE OF 20 INVESTORS' EXPECTATIONS.

21

ADDITIONALLY, MR. ROTHSCHILD'S USE OF ZACK'S
EARNINGS FORECASTS IS INCONSISTENT WITH HIS
ARGUMENT THAT ANALYSTS' FORECASTS CANNOT BE USED
BECAUSE THEY REFLECT ANY "ATYPICAL" CONDITIONS

PRESENT AT THE TIME THE FORECAST IS MADE. THE FACT
 THAT MR. ROTHSCHILD USES ZACK'S GROWTH FORECASTS
 INDIRECTLY DOES NOT FREE HIM FROM HIS OWN
 CRITICISM.

5

6 Q. ABSTRACTING FROM MR. ROTHSCHILD'S INCONSISTENT
7 DEPENDENCE ON ZACK'S EARNINGS FORECASTS, DO YOU
8 AGREE THAT SUCH FORECASTS CANNOT BE USED BECAUSE
9 THEY CAN REFLECT ATYPICAL CONDITIONS THAT
10 INVALIDATE THEIR USE AS A LONG-TERM, STEADY-STATE
11 RATE OF EARNINGS GROWTH?

12

13 A. ABSOLUTELY NOT. IT IS COMMON PRACTICE FOR SECURITY ANALYSTS TO NORMALIZE BASE YEAR EARNINGS IF THOSE 14 15 EARNINGS DEPART FROM THE "NORM". INDEED, THE IBES 16 SURVEY OF ANALYSTS' EARNINGS FORECASTS EXPLICITLY 17 **REQUESTS A LONG-TERM NORMALIZED ANNUAL GROWTH RATE.** 18 SIMILARLY, WHILE NOT A SURVEY OF ANALYSTS' 19 EXPECTATIONS, VALUE LINE INDICATES THAT IT TOO 20 NORMALIZES THE EARNINGS THAT ARE RELIED ON IN ITS 21 LONG-TERM GROWTH FORECASTS. THUS, IT IS DIFFICULT 22 TO UNDERSTAND HOW MR. ROTHSCHILD CAN ARGUE THAT 23 ANALYSTS' GROWTH RATE FORECASTS REFLECT ANY CURRENT 24 ATYPICAL CONDITIONS WHEN THE GENERAL, DOCUMENTED 25 PRACTICE IS TO NORMALIZE BASE YEAR EARNINGS TO

1 REMOVE ANY SUCH ATYPICAL EFFECTS.

2 3 O. APART FROM YOUR CONCERNS ABOUT MR. ROTHSCHILD'S MISESTIMATION OF GROWTH, DO YOU AGREE WITH THE WAY 4 5 IN WHICH THE GROWTH RATE IS USED IN THE DCF MODEL? 6 7 A. NO. MR. ROTHSCHILD MULTIPLIES THE FIRST DIVIDEND BY 8 (1 + .5G) RATHER THAN BY THE MORE CONVENTIONAL (1 + .5G)9 G), WHERE G IS THE EXPECTED RATE OF GROWTH IN 10 EARNINGS. THIS APPROACH SYSTEMATICALLY 11 UNDERESTIMATES THE RESULTING COST OF EQUITY 12 CAPITAL. THE COMMON ANNUAL FORM OF THE DCF MODEL 13 IS K = [D(1 + G)/P] + G, WHERE D IS THE MOST RECENT 14 ANNUAL DIVIDEND AND P IS THE MARKET PRICE OF THE 15 EQUITY SECURITY. THUS, USING ONLY ONE-HALF OF G IN 16 THE FIRST PART OF THE EQUATION CLEARLY BIASES THE 17 ESTIMATED COST OF EQUITY FOR SOUTHERN BELL 18 DOWNWARD. 19 20 Q. WHAT IS MR. ROTHSCHILD'S JUSTIFICATION FOR USING

21 THE ANNUAL FORM OF THE DCF MODEL IN BOTH HIS SIMPLE
22 AND HIS COMPLEX ANALYSIS?

23

24 A. NO JUSTIFICATION IS GIVEN IN HIS DIRECT TESTIMONY.25

Q. UNDER WHAT CIRCUMSTANCES WOULD IT BE APPROPRIATE TO
 USE THE ANNUAL FORM OF THE DCF MODEL?

3

ONLY WHEN THE FIRM OR FIRMS BEING EVALUATED PAY 4 A. 5 DIVIDENDS ANNUALLY. THUS, MR. ROTHSCHILD'S ANALYSIS IS FLAWED SINCE THE FIRMS USED IN HIS COST 6 7 OF CAPITAL ESTIMATION PROCESS PAY DIVIDENDS ON A QUARTERLY BASIS. CONSISTENT WITH MY OBSERVATIONS 8 9 CONCERNING MR. CICCHETTI'S MISTAKES IN THIS AREA, THE USE OF THE ANNUAL DCF MODEL IN THE PRESENCE OF 10 11 THE QUARTERLY PAYMENT OF DIVIDENDS SERIOUSLY UNDERESTIMATES THE COST OF EQUITY CAPITAL. 12 THIS, 13 IN PART, EXPLAINS MR. ROTHSCHILD'S UNREASONABLY LOW 14 ESTIMATE OF SOUTHERN BELL'S COST OF EQUITY CAPITAL. 15

16 Q. WHAT REASONS DOES MR. ROTHSCHILD GIVE FOR APPLYING
17 HIS DCF ANALYSES TO THE RBHCS AND TO BELLSOUTH AS
18 FIRMS OF COMPARABLE RISK TO SOUTHERN BELL?

19

20 A. NO CLEAR RATIONALE IS OFFERED IN HIS DIRECT
21 TESTIMONY. THE ONLY JUSTIFICATION GIVEN FOR USING
22 THE RBHCS AND BELLSOUTH IS THAT "...THEIR BUSINESS
23 CONSISTS PRIMARILY OF REGULATED PUBLIC UTILITIES
24 THAT OBTAIN MOST OF THEIR INCOME BY PROVIDING
25 REGULATED TELEPHONE SERVICE" (DIRECT TESTIMONY, P.

7, LINES 12-14). THUS, AS IN MR. CICCHETTI'S 1 FLAWED ANALYSIS, NO EFFORT IS MADE TO 2 SYSTEMATICALLY COMPARE SOUTHERN BELL WITH EITHER 3 THE RBHCS OR WITH BELLSOUTH TO EMPIRICALLY DOCUMENT 4 THE ASSUMED COMPARABILITY. MR. ROTHSCHILD ONLY 5 6 CASUALLY NOTES THAT "ALL COMPANIES HAVE CERTAIN 7 UNIQUE CHARACTERISTICS THAT MAKE THEM, IN ONE WAY OR ANOTHER, DIFFERENT FROM SOUTHERN BELL" (DIRECT 8 9 TESTIMONY, P. 7, LINES 10-11).

10

11 OBJECTIVE COST OF CAPITAL ANALYSIS DEMANDS MORE THAN UNDOCUMENTED SPECULATION THAT THE MARKET VIEWS 12 13 THE RBHCS, BELLSOUTH AND SOUTHERN BELL AS COMPARABLE IN RISK SIMPLY BECAUSE THEY ARE ALL IN 14 THE SAME GENERAL INDUSTRY. MR. ROTHSCHILD'S 15 16 ANALYSIS DEFIES COMMON SENSE BY IMPLICITLY ARGUING 17 THAT ALL OF THE FIRMS IN A GIVEN INDUSTRY ARE OF 18 COMPARABLE RISK SIMPLY BY VIRTUE OF THEIR 19 MEMBERSHIP IN THAT COMMON INDUSTRY.

20

21 Q. ARE THERE ANY REASONS WHY THE RBHCS AND BELLSOUTH
22 SHOULD NOT BE USED IN ESTIMATING SOUTHERN BELL'S
23 COST OF EQUITY CAPITAL USING THE DCF METHOD?
24

25 A. YES. AS DISCUSSED IN MY DIRECT TESTIMONY (PP.

31-32), THE RBHCS POSSESS CHARACTERISTICS THAT ARE 1 2 INCONSISTENT WITH THE ASSUMPTIONS UNDERLYING THE CONSTANT GROWTH DCF MODEL. THE RBHCS ARE INVOLVED 3 IN A WIDE VARIETY OF UNREGULATED ACTIVITIES. 4 OF PARTICULAR RELEVANCE IS THEIR SIGNIFICANT 5 6 INVESTMENT IN CELLULAR SERVICES. WHILE THIS 7 INVESTMENT IN AN INFANT TECHNOLOGY IS CURRENTLY 8 GENERATING LITTLE INCOME, IT IS WIDELY EXPECTED TO 9 CONTRIBUTE SIGNIFICANTLY OVER THE LONG-RUN. AS 10 SUCH, MANY ANALYSTS HAVE TRIED TO ESTIMATE THE PORTION OF A RBHC'S STOCK PRICE THAT IS 11 ATTRIBUTABLE TO THE MARKET'S EXPECTATIONS 12 13 CONCERNING THE FUTURE PROFITS TO BE CONTRIBUTED BY 14 CELLULAR SERVICES. HOWEVER, THE GROWTH PROSPECTS 15 OF EARNINGS FROM CELLULAR SERVICES ARE THOUGHT TO 16 EXTEND BEYOND THE TIME HORIZON THAT IS EXPLICITLY 17 IDENTIFIED IN PUBLISHED LONG-TERM GROWTH FORECASTS. 18 THUS, THE PRICE AND THE EXPECTED GROWTH RATE USED IN THE DCF MODEL ARE MISMATCHED AND THE IMPLIED 19 20 COST OF EQUITY IS UNDERSTATED DUE TO THE VIOLATION 21 OF THE CONSTANT GROWTH RATE ASSUMPTION INHERENT IN 22 THE DCF MODEL.

23

24 Q. DOES THE USE OF MR. ROTHSCHILD'S COMPLEX DCF MODEL
25 MAKE IT ACCEPTABLE TO ANALYZE THE RBHCS AND

BELLSOUTH EVEN IN LIGHT OF THE PROBLEMS THAT YOU
 HAVE IDENTIFIED?

3

NO. WHILE MR. ROTHSCHILD'S COMPLEX MODEL FORECASTS 4 A. EARNINGS, DIVIDENDS, AND BOOK VALUES FOR THE NEXT 5 40 YEARS, IT IS STILL TIED TO THE SAME B X R 6 APPROACH USED IN HIS SIMPLIFIED DCF MODEL. THE 7 ONLY SIGNIFICANT DISTINCTION IS IN APPEARING TO 8 ACCOMMODATE INITIAL ATYPICAL CONDITIONS BY ALLOWING 9 10 BOOK VALUE TO GROW AT A DIFFERENT RATE FROM THAT OF EARNINGS AND DIVIDENDS. HOWEVER, THE B X R 11 ANALYSIS STILL INDIRECTLY RELIES ON ANALYSTS' 12 FORECASTS (ZACK'S) AND VALUE LINE AND THUS 13 CONTINUES TO VIOLATE THE ASSUMPTIONS OF THE DCF 14 15 MODEL.

16

17 Q. DO YOU AGREE THAT MR. ROTHSCHILD'S COMPLEX DCF
18 MODEL SERVES AS A CHECK ON THE VALIDITY OF THE
19 SIMPLE DCF MODEL?

20

21 A. NO, I DO NOT. I DISAGREE WITH MR. ROTHSCHILD'S
22 ASSERTION THAT HIS "...COMPLEX DCF MODEL BOTH SHOWS
23 THAT THE GROWTH RATE I HAVE USED IN MY SIMPLIFIED
24 DCF IS A SUSTAINABLE GROWTH RATE, AND IT PROVIDES A
25 MECHANISM TO KEEP THE RESULTS OF THE DCF MODEL

VALID..." (DIRECT TESTIMONY, P.34, LINES 8-10). 1 SINCE BOTH THE SIMPLE AND THE COMPLEX DCF MODELS 2 ULTIMATELY MAKE THE SAME UNDERLYING ASSUMPTIONS, 3 AND BOTH ARE APPLIED TO THE RBHCS AND TO BELLSOUTH, 4 THE COMPLEX DCF IS INVALID FOR THE SAME REASONS AS 5 HIS SIMPLE DCF MODEL. AS SUCH, MR. ROTHSCHILD'S 6 COMPLEX MODEL DOES NOT SERVE AS AN INDEPENDENT 7 CHECK ON THE VALIDITY OF HIS SIMPLE DCF MODEL. 8 UNFORTUNATELY, NEITHER OF MR. ROTHSCHILD'S DCF 9 10 MODELS PROVIDE AN ACCURATE ESTIMATE OF SOUTHERN BELL'S COST OF EQUITY CAPITAL. 11

12

13 Q. WHAT ADJUSTMENT DOES MR. ROTHSCHILD MAKE IN HIS DCF
14 ANALYSIS FOR THE IMPACT OF FLOTATION COSTS ON THE
15 COST OF SOUTHERN BELL'S COST OF EQUITY CAPITAL?
16

17 A. NO ADJUSTMENT IS MADE.

18

19 Q. WHAT EFFECT DOES MR. ROTHSCHILD'S OMISSION HAVE ON
20 HIS ESTIMATE OF SOUTHERN BELL'S COST OF EQUITY
21 CAPITAL?

22

23 A. CONSISTENT WITH THE OBSERVATIONS IN MY DIRECT
24 TESTIMONY (PP. 24-26), MR. ROTHSCHILD'S FAILURE TO
25 ADJUST FOR FLOTATION COSTS IS ONE REASON THAT HE

UNDERESTIMATES SOUTHERN BELL'S COST OF EQUITY
 CAPITAL.

3

4 Q. WHAT JUSTIFICATION IS PROVIDED FOR IGNORING 5 FLOTATION COSTS?

6

NO JUSTIFICATION IS PROVIDED. THIS IS ESPECIALLY 7 A. CURIOUS GIVEN MR. ROTHSCHILD'S EXPLICIT ADJUSTMENT 8 9 FOR FLOTATION COSTS IN HIS ESTIMATE OF SOUTHERN BELL'S COST OF EQUITY CAPITAL IN DOCKET NO. 10 11 880069-TL (DIRECT TESTIMONY, JANUARY 16, 1992, PP. 43-44 AND SCHEDULE 7). I DO NOT UNDERSTAND WHY MR. 12 ROTHSCHILD RECOGNIZED FLOTATION COSTS IN HIS PRIOR 13 14 ANALYSIS OF SOUTHERN BELL BUT IGNORES THEM IN THE CURRENT PROCEEDING. HIS CURRENT APPROACH TO 15 16 ESTIMATING THE COST OF EQUITY CAPITAL IS 17 INCONSISTENT WITH HIS PRIOR APPROACH. 18 19 B. INAPPROPRIATE RELIANCE ON THE DOW JONES INDUSTRIAL AVERAGE 20 21

22 Q. WHAT INSIGHTS DO MR. ROTHSCHILD'S "COMPARABLE
23 EARNINGS OBSERVATIONS" CONCERNING THE HISTORICAL
24 RETURNS ON THE DOW JONES INDUSTRIAL AVERAGE (DJIA)
25 YIELD INTO THE COST OF EQUITY CAPITAL OF SOUTHERN

1 BELL?

2

THE COMPARATIVE ANALYSIS PROVIDES NO RELIABLE 3 A. INSIGHTS INTO THE COST OF EQUITY CAPITAL FOR 4 SOUTHERN BELL. MR. ROTHSCHILD COMPARES THE 10-YEAR 5 MOVING AVERAGE OF THE ACTUAL EARNED RETURN ON BOOK 6 EOUITY FOR THE DJIA FROM 1929 TO 1991 TO HIS 7 ESTIMATED 11% DCF COST OF EQUITY FOR SOUTHERN BELL 8 9 (DIRECT TESTIMONY, SCHEDULE 6, P.1, AND PP. 54-56). AFTER OBSERVING THAT THE 10-YEAR AVERAGE BOOK 10 11 RETURN FOR THE DJIA HAS BEEN "BETWEEN 10% AND 12% SINCE THE LATE 1950'S," MR. ROTHSCHILD CONCLUDES 12 THAT "...MY RECOMMENDED COST OF EQUITY IN THIS CASE 13 14 IS WELL WITHIN THAT RANGE" (DIRECT TESTIMONY, P.54, LINE 25- P.55, LINE 1). THE INCORRECT IMPLICATION 15 16 IS THAT THE EARNED RETURNS ON THE DJIA ARE 17 SUPPOSEDLY A RELEVANT BENCHMARK FOR EVALUATING THE 18 COST OF EQUITY CAPITAL OF SOUTHERN BELL.

19

FURTHER, EARNED OR HISTORICAL RETURNS ARE NOT WHAT
THE MARKET FOCUSES ON IN DETERMINING THE
COMPARABILITY OF FIRMS' RISKINESS. ONLY EXPECTED
OR PROSPECTIVE RETURNS ARE COMPARABLE FOR FIRMS OF
COMPARABLE RISK. THUS, MR. ROTHSCHILD'S
OBSERVATIONS ON THE DJIA'S HISTORICAL RETURNS ARE

IRRELEVANT TO THE ESTIMATION OF SOUTHERN BELL'S 1 COST OF EQUITY CAPITAL BECAUSE THE RETURNS ARE 2 EXCLUSIVELY HISTORICAL AND BECAUSE SOUTHERN BELL IS 3 NOT COMPARABLE TO THE FIRMS CONSTITUTING THE DJIA. 4 5 C. IMPROPER RELIANCE ON THE PRICE-TO-BOOK 6 7 EOUAL TO ONE CRITERION 8 9 Q. DO YOU AGREE WITH MR. ROTHSCHILD'S ARGUMENT THAT A 10 PRICE-TO-BOOK RATIO OF ONE INDICATES THAT A REGULATED UTILITY IS EARNING A RETURN ON BOOK 11 EQUITY THAT IS EQUAL TO ITS COST OF EQUITY? 12 13 NO. THE USEFULNESS OF THE MARKET-TO-BOOK RATIO 14 A. DEPENDS ON A UTILITY BEING FULLY AND PERFECTLY 15 16 REGULATED. HOWEVER, WHEN ALL OF A UTILITY'S ACTIVITIES ARE NOT COMPLETELY AND PERFECTLY 17 18 REGULATED, ITS STOCK PRICE WILL REFLECT THE 19 ANTICIPATED RETURNS ON BOTH REGULATED AND 20 UNREGULATED BUSINESS VENTURES. FURTHER, THE BOOK 21 VALUE OF EQUITY IS AN ACCOUNTING MEASURE THAT NEED 22 NOT BEAR MUCH RESEMBLANCE TO THE ECONOMIC OR MARKET 23 VALUE OF THAT EQUITY. THUS, THE MARKET-TO-BOOK 24 RATIO CANNOT BE RELIABLY USED TO DRAW INFERENCES 25 CONCERNING THE RELATIONSHIP BETWEEN A UTILITY'S

1 COST OF EQUITY AND ITS RETURN ON EQUITY.

2

MR. ROTHSCHILD'S CONFUSION CONCERNING THE 3 IRRELEVANCE OF THE PRICE-TO-BOOK RATIO IS REVEALED 4 5 BY HIS ASSERTION THAT "THE EARNED RETURN ON BOOK EQUITY IS NOT THE COST OF EQUITY. IT IS , HOWEVER, 6 THE EARNED RETURN ON BOOK EOUITY THAT WILL BE THE 7 END RESULT OF THE RATES ALLOWED FROM THESE 8 PROCEEDINGS" (DIRECT TESTIMONY, P. 55, LINES 5-7). 9 IN THE ABSENCE OF A FULLY AND PERFECTLY REGULATED 10 11 UTILITY, THE ALLOWED RETURN ON EQUITY SHOULD SIMPLY BE SET EQUAL TO THE MARKET-DETERMINED COST OF 12 13 EQUITY. 14 15 D. MISUNDERSTANDING OF THE TIME 16 VALUE OF MONEY: STOCK PRICES 17 AND QUARTERLY DIVIDENDS 18 19 Q. DO YOU AGREE WITH MR. ROTHSCHILD'S OPINION THAT 20 "...THE IMPACT OF THE PAYMENT OF OUARTERLY 21 DIVIDENDS IS TO CAUSE THE DCF MODEL TO OVERSTATE, 22 NOT UNDERSTATE THE RETURN ON BOOK EQUITY WHICH 23 SHOULD BE ALLOWED TO PUBLIC UTILITIES" (DIRECT 24 TESTIMONY, P. 66, LINES 11-13)?

25

MOST SURPRISINGLY, MR. ROTHSCHILD REVEALS A NO. 1 A. MISUNDERSTANDING OF THE TIME VALUE OF MONEY WHEN HE 2 ARGUES THAT "BECAUSE DIVIDENDS ARE PAID OUARTERLY, 3 THE AVERAGE COMMON STOCK PRICE FOR ANY COMPANY IS 4 LOWER THAN IT WOULD BE IF THE DIVIDEND WERE PAID 5 ANNUALLY" (DIRECT TESTIMONY, P. 64, LINES 12-14). 6 INVESTORS ARE WILLING TO PAY HIGHER, NOT LOWER 7 PRICES FOR STOCKS THAT PAY DIVIDENDS QUARTERLY 8 9 RATHER THAN ANNUALLY. THIS IS DUE TO INVESTORS' 10 IMPROVED REINVESTMENT OPPORTUNITIES UNDER OUARTERLY 11 COMPOUNDING. MR. ROTHSCHILD IS ARGUING THAT THE 12 **OPPOSITE HOLDS: INVESTORS WILL PENALIZE STOCKS THAT** 13 PAY DIVIDENDS QUARTERLY. IF THAT STRANGE RESULT 14 WERE TO OCCUR, THEN THE LOWER PRICE WOULD BE 15 ASSOCIATED WITH A HIGHER COST OF EQUITY TO THE 16 AFFECTED FIRM. HOWEVER, INVESTORS DO NOT LIVE IN 17 SUCH A WORLD.

18

E. RESPONSES TO MR. ROTHSCHILD'S CRITICISMS
 OF DR. BILLINGSLEY'S DIRECT TESTIMONY
 21

22 Q. WHAT ARE MR. ROTHSCHILD'S SPECIFIC CRITICISMS OF
23 YOUR APPROACHES TO ESTIMATING SOUTHERN BELL'S COST
24 OF EQUITY?

25

MR. ROTHSCHILD INCORRECTLY ARGUES ON PAGES 11-13 OF 1 A. HIS DIRECT TESTIMONY THAT: 1) THE EXPECTED GROWTH 2 RATES USED IN MY DCF ANALYSIS ARE NOT SUSTAINABLE 3 BECAUSE THEY ARE ALLEGEDLY "ATYPICALLY LOW DUE TO 4 THE RECESSION"; 2) THE USE OF THE QUARTERLY DCF 5 MODEL OVERSTATES DIVIDEND YIELDS, AND 3) MY RISK 6 PREMIUM METHOD IS LIMITED BY ITS USE OF MY DCF 7 METHODOLOGY AND BY THE RISK ADJUSTMENT PROCEDURE. 8 9

10 I WILL SHOW THAT EACH OF THESE CRITICISMS ARE
11 INVALID AND MERELY REFLECT MR. ROTHSCHILD'S
12 MISCONCEPTIONS AND ERRORS IN ESTIMATING THE COST OF
13 EQUITY CAPITAL.

14

THE RECENT RECESSION HAS CERTAINLY BROUGHT 15 Q. ATYPICALLY BAD ECONOMIC CONDITIONS. WHAT ARE YOUR 16 17 **REASONS FOR BELIEVING THAT THE EXPECTED EARNINGS** GROWTH RATES EMPLOYED IN YOUR DCF MODEL ARE 18 19 SUSTAINABLE OVER THE LONG-TERM AND THAT THE 20 RECESSION HAS NOT PRODUCED AN ATYPICALLY LOW 21 EARNINGS BASE THAT DRAWS INTO QUESTION THE CONSTANT 22 GROWTH ASSUMPTION OF THE DCF MODEL?

23

24 A. AS NOTED ABOVE, THE IBES MEASURES OF ANALYSTS'25 EARNINGS FORECASTS USED IN MY DCF ANALYSIS ARE

BASED ON SURVEYS THAT EXPLICITLY REQUEST ANALYSTS 1 TO NORMALIZE THEIR EARNINGS DATA IN LIGHT OF 2 CURRENT ECONOMIC CONDITIONS. THUS, THERE IS NO 3 REASON TO BELIEVE THAT THE ATYPICAL CONDITIONS HAVE 4 BIASED THESE EARNINGS FORECASTS. FURTHER, MY GROUP 5 OF 20 FIRMS COMPARABLE IN RISK TO SOUTHERN BELL 6 OFFER NO REASON TO EXPECT THAT CURRENT ANALYSTS' 7 LONG-TERM GROWTH RATE FORECASTS WILL NOT BE 8 9 SUSTAINABLE.

10

11 Q. HOW DOES YOUR APPLICATION OF THE QUARTERLY DCF
12 MODEL PREVENT THE OVERESTIMATION OF THE COST OF
13 CAPITAL THAT MR. ROTHSCHILD CONTENDS?

14

AS PREVIOUSLY DISCUSSED, MR. ROTHSCHILD IS 15 A. 16 OPERATING UNDER THE SERIOUS MISCONCEPTION THAT 17 STOCKS THAT PAY DIVIDENDS QUARTERLY COMMAND LOWER 18 PRICES THAN STOCKS PAYING DIVIDENDS ANNUALLY. I PRESENT A QUARTERLY DCF MODEL BECAUSE IT MORE 19 20 ACCURATELY PORTRAYS THE CASH FLOW PROFILE 21 ENCOUNTERED BY INVESTORS. AS STOCKS PAY DIVIDENDS 22 MORE FREQUENTLY, THERE IS NOT A NEGATIVE RESPONSE 23 BY STOCKHOLDERS. THE DIVIDEND YIELDS USED IN MY 24 DCF MODEL ARE REPRESENTATIVE OF ECONOMIC REALITY. 25 CONSEQUENTLY, MR. ROTHSCHILD'S ARGUMENT THAT MY DCF

MODEL IS FLAWED DUE TO THE LACK OF ADJUSTMENT FOR
 THIS NON-EXISTENT EFFECT IF FALLACIOUS.

3

4 Q. MR. ROTHSCHILD ARGUES THAT YOUR RISK PREMIUM
5 ANALYSIS IS INCORRECT BECAUSE IT RELIES ON "...THE
6 SAME FLAWED DCF METHODOLOGY TO QUANTIFY THE COST OF
7 EQUITY FOR THE S&P 500 AS THE METHOD HE USED TO
8 QUANTIFY THE COST OF EQUITY FOR HIS 20 "CLUSTER"
9 COMPANIES" (DIRECT TESTIMONY, P. 67, LINES 16-18).
10 HOW DO YOU RESPOND TO THIS CRITICISM?

11

MY REBUTTAL OF MR. ROTHSCHILD'S METHODOLOGICAL 12 A. APPROACHES HAS DEMONSTRATED THAT MY DCF MODEL IS 13 CORRECT AND ACCURATE IN THE CONTEXT OF MY RISK 14 PREMIUM ANALYSIS. HIS INCORRECT CRITICISMS 15 CONTEND THAT I HAVE OVERSTATED THE DIVIDEND YIELD 16 DUE TO A INCORRECT HANDLING OF THE QUARTERLY 17 DIVIDEND EFFECT AND THAT I HAVE USED GROWTH RATES 18 19 THAT ARE UNREPRESENTATIVE OF LONG-TERM 20 EXPECTATIONS. YET MY REBUTTAL TESTIMONY HAS SHOWN THAT MR. ROTHSCHILD MISUNDERSTANDS THE EFFECT OF 21 22 **OUARTERLY DIVIDEND PAYMENTS BECAUSE HE INCORRECTLY** 23 BELIEVES THAT STOCKHOLDERS PENALIZE FIRMS THAT CHOOSE TO PAY DIVIDENDS QUARTERLY RATHER THAN 24 ANNUALLY. FURTHER, I HAVE EXPLAINED THAT THE IBES 25

GROWTH RATES RELIED ON IN MY DCF AND RISK PREMIUM 1 ANALYSES ARE FORMED USING NORMALIZED EARNINGS THAT 2 INVALIDATE MR. ROTHSCHILD'S CRITICISMS CONCERNING 3 THE EFFECTS OF THE RECESSION ON THE USEFULNESS OF 4 SUCH FORECASTS. MR. ROTHSCHILD'S CRITICISMS OF THE 5 DCF ASPECT OF MY RISK PREMIUM ANALYSIS ARE AS 6 INCORRECT IN THIS CONTEXT AS THEY WERE IN 7 CRITICIZING MY CLUSTER-BASED DCF ANALYSIS. 8

9

10 Q. ON PAGE 68 OF HIS DIRECT TESTIMONY MR. ROTHSCHILD
11 CRITICIZES YOUR USE OF THE S&P 500 AS A BASE IN
12 YOUR RISK PREMIUM ANALYSIS. OF WHAT RELEVANCE IS
13 THE S&P 500 IN YOUR ANALYSIS?

14

THE S&P 500 IS A BROAD MEASURE OF THE OVERALL STOCK 15 A. MARKET AND CONSEQUENTLY PROVIDES A RELIABLE 16 INDICATION OF THE OVERALL RISK/RETURN TRADE-OFF 17 THAT PREVAILS IN THE MARKET. MY RISK PREMIUM IS 18 DEFINED USING AAA-RATED UTILITY BONDS TO RELATE IT 19 20 TO THE RELEVANT CONTEXT OF UTILITIES. THUS, IT 21 SERVES AS A VALUABLE INDICATION OF THE 22 REASONABLENESS OF MY DCF ANALYSIS OF FIRMS COMPARABLE IN RISK TO SOUTHERN BELL. 23 24

25 Q. MR. ROTHSCHILD INDICATES THAT YOU PERFORMED A

HISTORICAL RISK PREMIUM ANALYSIS OF THE S&P 500'S
 ACHIEVED RETURNS RELATIVE TO UTILITY BOND RETURNS
 FROM 1937 TO 1991. IT IS ALSO INDICATED THAT YOU
 CONDUCTED SIMILAR ANALYSIS USING THE S&P UTILITIES
 INDEX. IS THIS AN ACCURATE REPRESENTATION OF THE
 APPROACH THAT YOU IMPLEMENTED?

7

NO. MY RISK PREMIUM ANALYSIS DID NOT USE 8 A. HISTORICAL (ACHIEVED) RETURNS ON THE S&P 500 OR THE 9 S&P UTILITIES INDEX. APPARENTLY MR. ROTHSCHILD HAS 10 INADVERTENTLY INCLUDED SOME "OLD" TESTIMONY THAT 11 APPLIES TO ANOTHER WITNESS IN ANOTHER PROCEEDING. 12 HIS OBSERVATIONS IN THIS AREA ARE INACCURATE AND 13 14 SHOULD BE DISCARDED BY THIS COMMISSION IN THEIR EVALUATION OF SOUTHERN BELL'S COST OF EQUITY 15 CAPITAL. THIS ERROR, IN COMBINATION WITH HIS OTHER 16 17 SIGNIFICANT CONCEPTUAL ERRORS AND MISCONCEPTIONS, EXPLAINS WHY HE HAS UNDERESTIMATED SOUTHERN BELL'S 18 19 COST OF EQUITY CAPITAL SO SEVERELY.

20

21 V. REBUTTAL OF MR. KING'S DIRECT TESTIMONY
22

23 A. INAPPROPRIATE INTEREST RATE INDEX24

25 Q. WHAT MECHANISM DOES MR. KING RECOMMEND THAT THIS

1 COMMISSION USE IN DETERMINING WHEN IT IS

2 APPROPRIATE TO RECONSIDER THE BANDS ESTABLISHED FOR
3 SHARING EARNED RETURNS BETWEEN SOUTHERN BELL AND
4 RATEPAYERS?

5

MR. KING RECOMMENDS THAT "... THE YIELDS ON 10-YEAR 6 A. TREASURY BONDS BE USED AS A TRIGGER FOR THE 7 COMMISSION'S RECONSIDERATION OF THE RATE OF RETURN 8 BANDS" (DIRECT TESTIMONY, P. 11, LINES 6-7). 9 FURTHER, HE ARGUES THAT "... IF THOSE YIELDS CHANGE 10 BY MORE THAN 150 BASIS POINTS (1.5 PERCENTAGE 11 POINTS) SINCE THE SHARING BANDS WERE LAST 12 DETERMINED, THE COMMISSION SHOULD INITIATE AN 13 14 INVESTIGATION TO DETERMINE WHETHER THERE SHOULD BE AN ADJUSTMENT IN THE SHARING BANDS" (DIRECT 15 TESTIMONY, P. 11, LINES 7-10). 16

17

18 Q. HOW DOES MR. KING JUSTIFY THE USE OF THE RETURNS ON
10-YEAR TREASURY BONDS AS AN INTEREST RATE INDEX
20 THAT INDICATES WHEN THE COST OF EQUITY CAPITAL HAS
21 CHANGED SIGNIFICANTLY?

22

23 A. NO JUSTIFICATION IS PROVIDED. MR. KING ONLY
24 PRESENTS A CHART THAT DISPLAYS THE YIELDS ON
25 MOODY'S AA-RATED PUBLIC UTILITY BONDS AND 10-YEAR

TREASURY BONDS FROM JULY OF 1988 TO SEPTEMBER OF 1 1992 (DIRECT TESTIMONY, ATTACHMENT C). ON THE 2 BASIS OF THIS CHART ALONE HE INCORRECTLY IMPLIES 3 THAT SINCE THE YIELDS ON BOTH OF THESE TYPES OF 4 SECURITIES HAVE FALLEN BY ABOUT 200 BASIS POINTS, 5 SOUTHERN BELL'S COST OF EQUITY CAPITAL MUST HAVE 6 FALLEN BY A COMPARABLE AMOUNT. FURTHER, WITHOUT 7 ANY EXPLANATION, HE CONCLUDES THAT THE APPROPRIATE 8 INTEREST RATE INDEX FOR COST OF EQUITY ANALYSIS IS 9 THE YIELD ON 10-YEAR TREASURIES. ONE CAN ONLY 10 PRESUME THAT MR. KING MAKES THIS CHOICE BECAUSE HIS 11 CHART APPEARS TO SHOW SOME POSITIVE RELATIONSHIP 12 BETWEEN YIELDS ON AA-RATED UTILITIES AND 10-YEAR 13 14 TREASURIES.

15

16 Q. DO YOU AGREE WITH MR. KING'S USE OF THE YIELD ON
10-YEAR TREASURIES AS A RELEVANT BENCHMARK IN
18 EVALUATING CHANGES IN SOUTHERN BELL'S COST OF
19 EQUITY?

20

21 A. NO. MR. KING'S CHOICE OF THE YIELDS ON 10-YEAR
22 TREASURIES IS ARBITRARY AND INCORRECT. TWO
23 STANDARDS DEFINE AN APPROPRIATE BENCHMARK FOR
24 EVALUATING CHANGES IN A GIVEN TARGET COST OF
25 FINANCING: 1) THE BENCHMARK SHOULD APPROXIMATE THE

MATURITY OF THE TARGET CAPITAL MARKET COST AS
 CLOSELY AS POSSIBLE, AND 2) THE BENCHMARK SHOULD BE
 OF COMPARABLE RISK TO THE TARGET CAPITAL MARKET

4 INSTRUMENT.

5

6 Q. IS MR. KING'S CHOSEN INTEREST RATE INDEX CONSISTENT
7 WITH THE STANDARDS FOR CHOOSING AN APPROPRIATE
8 BENCHMARK THAT YOU HAVE IDENTIFIED?

9

10 A. NO. THEY ARE NOT. FIRST, MR. KING RECOMMENDS A
11 TREASURY YIELD BENCHMARK WITH A 10-YEAR MATURITY
12 WHILE THE TARGET'S (SOUTHERN BELL'S) COST OF EQUITY
13 CAPITAL IS OF INFINITE (I.E., VERY LONG-TERM)
14 MATURITY. AT THE VERY LEAST, HE SHOULD HAVE USED
15 30-YEAR MATURITY TREASURY BONDS.

16

SECOND, TREASURIES ARE DEBT SECURITIES THAT MAKE 17 CONTRACTUALLY PREDETERMINED COUPON PAYMENTS THAT 18 ARE GUARANTEED BY THE U.S. GOVERNMENT. 19 IN 20 CONTRAST, FIRMS HAVE NO CONTRACTUAL OBLIGATION TO 21 PAY DIVIDENDS ON EQUITIES. THUS, EVEN THOUGH 22 EQUITIES ARE WIDELY RECOGNIZED AS RISKIER THAN DEBT 23 SECURITIES, MR. KING MAKES NO ADJUSTMENT FOR THIS 24 DIFFERENCE WHEN DRAWING INFERENCES ABOUT EQUITY 25 COSTS BASED ON DEBT COSTS.

1 LASTLY, MR. KING'S COMPARISON OF THE YIELDS ON 2 AA-RATED UTILITIES AND 10-YEAR TREASURIES IMPLIES 3 THAT HE VIEWS AA-RATED UTILITY DEBT AS COMPARABLE 4 5 TO THE DEBT OF SOUTHERN BELL. YET THIS IS NOT SOUTHERN BELL'S DEBT SECURITIES ARE RATED 6 TRUE. 7 AAA, NOT AA. 8 B. INCORRECT CRITERION FOR IDENTIFYING 9 SIGNIFICANT CHANGES IN THE COST OF EQUITY 10 11 12 Q. DOES MR. KING RECOGNIZE THAT IT IS INAPPROPRIATE TO 13 USE CHANGES IN DEBT COSTS DIRECTLY TO ESTIMATE 14 CHANGES IN EQUITY COSTS? 15 YES. IN DISCUSSING THE RECENT REDUCTION IN 10-YEAR 16 A. TREASURY BOND YIELDS HE OBSERVES THAT "WHILE IT MAY 17 BE INAPPROPRIATE TO TRANSLATE THIS 200 BASIS POINT 18 19 REDUCTION IN DEBT COSTS TO EQUITY, THERE CAN BE 20 LITTLE DOUBT THAT THE ENVIRONMENT OF THE CAPITAL 21 MARKETS HAS CHANGED SIGNIFICANTLY DURING THIS FOUR 22 YEAR INTERVAL" (DIRECT TESTIMONY, P.3, LINE 26-23 P.4, LINE 2). HE THEREFORE CONCLUDES THAT SOUTHERN 24 BELL'S APPROPRIATE RETURN SHOULD BE RECALIBRATED. 25

1 Q. DO YOU AGREE WITH MR. KING'S OPINION THAT RECENT CHANGES IN THE CAPITAL MARKETS HAVE CHANGED 2 SOUTHERN BELL'S COST OF EQUITY CAPITAL 3 SIGNIFICANTLY ENOUGH TO REQUIRE RECALIBRATION? 4 5 I ACCEPT MR. KING'S PREMISE THAT A 200 BASIS 6 A. NO. POINT REDUCTION IN DEBT COSTS CANNOT BE USED 7 DIRECTLY TO ESTIMATE AN ASSOCIATED CHANGE IN THE 8 COST OF EQUITY CAPITAL. HOWEVER, MR. KING DOES NOT 9 ACT ON HIS OWN PREMISE AND FAILS TO ALLOW FOR THE 10 DIFFERENCE IN THE VARIABILITY OF DEBT AND EQUITY 11 COSTS. CONSEQUENTLY, THERE IS NO EVIDENCE TO 12 SUPPORT HIS CONCLUSION THAT SOUTHERN BELL'S COST OF 13 14 CAPITAL HAS DECLINED SIGNIFICANTLY. 15 C. INAPPROPRIATENESS OF THE 16 **150 BASIS POINT TRIGGER** 17 18 19 Q. DO YOU ACCEPT MR. KING'S 150 BASIS POINT VARIATION IN 10-YEAR TREASURY YIELDS AS AN APPROPRIATE 20 21 CRITERION FOR IDENTIFYING SIGNIFICANT CHANGES IN THE COST OF EQUITY CAPITAL? 22 23 NO, I DO NOT. AS I OBSERVED ABOVE, THERE IS 24 A. CAPITAL MARKET EVIDENCE THAT CHANGES IN DEBT COSTS 25

ARE NOT ACCOMPANIED BY EQUIVALENT CHANGES IN EQUITY 1 IN THE CONTEXT OF MR. KING'S TESTIMONY, HIS COSTS. 2 OBSERVED 200 BASIS POINT DECLINE IN DEBT COSTS IS 3 4 NOT ACCOMPANIED BY A 200 BASIS POINT DECLINE IN EQUITY COSTS. AS DISCUSSED IN MY DIRECT TESTIMONY 5 (P. 37, LINES 14-21), HARRIS (FINANCIAL MANAGEMENT, 6 1986) FINDS EVIDENCE THAT THE EQUITY RISK PREMIUM 7 TENDS TO MOVE AN AVERAGE OF -.51 OF CONTEMPORANEOUS 8 CHANGES IN THE RETURN ON A BENCHMARK DEBT SECURITY. 9 THAT IS, IF INTEREST RATES DECLINE BY 200 BASIS 10 11 POINTS, THE EQUITY RISK PREMIUM INCREASES BY 102 12 BASIS POINTS. THE PRACTICAL IMPLICATION IS THAT EQUITY COSTS SHOULD HAVE FALLEN BY ABOUT HALF (OR 13 14 ABOUT 98 BASIS POINTS) OF THE OBSERVED DECLINE IN THE RETURN ON A BENCHMARK DEBT SECURITY. 15 IT IS 16 IMPORTANT TO NOTE THAT THE MAGNITUDE OF THIS 17 RELATIONSHIP IS CONSERVATIVE IN LIGHT OF RECENT 18 RESEARCH BY HARRIS AND MARSTON (FINANCIAL 19 MANAGEMENT, 1992). THEIR WORK PROVIDES EVIDENCE 20 THAT EQUITY COSTS MAY FALL BY EVEN LESS THAN HALF 21 OF A GIVEN DECLINE IN DEBT COSTS.

22

23 MR. KING'S USE OF A 150 BASIS POINT VARIATION IN
24 THE YIELD ON 10-YEAR TREASURIES AS AN INDICATION
25 THAT EQUITY COSTS HAVE CHANGE SIGNIFICANTLY IS

CONTRADICTED BY PUBLISHED EVIDENCE ON THE MAGNITUDE 1 OF THE RELATIONSHIP BETWEEN CHANGES IN THE COSTS OF 2 DEBT AND EQUITY. THE EVIDENCE SHOWS THAT A 150 3 BASIS POINT CHANGE IN THE COST OF DEBT IS 4 ASSOCIATED AT MOST WITH ABOUT A 75 BASIS POINT 5 CHANGE IN THE COST OF EQUITY. SUCH A CHANGE IS NOT 6 SIGNIFICANT ENOUGH TO WARRANT THE RECONSIDERATION 7 OF THE SHARING BANDS PREVIOUSLY ESTABLISHED BY THE 8 9 COMMISSION. 10 D. APPLICATION OF TRIGGER MECHANISM 11 12 TO SOUTHERN BELL 13 HOW SHOULD THIS TRIGGER BE APPLIED TO SOUTHERN 14 0. 15 BELL? 16 I AM A FINANCIAL ECONOMIST, NOT AN EXPERT IN 17 A.

18 REGULATORY POLICY. I HAVE OBSERVED, HOWEVER, THAT
19 THIS COMMISSION IN PREVIOUS DECISIONS HAS RELIED ON
20 A COST OF EQUITY BAND OF 100 BASIS POINTS OVER AND
21 UNDER THE AUTHORIZED RETURN ON EQUITY. THIS WOULD
22 IMPLY A BAND OF ABOUT 200 BASIS POINTS ON AAA-RATED
23 DEBT YIELDS BEFORE ACTION WOULD BE NEEDED TO BE
24 CONSIDERED BY THIS COMMISSION.

25

1	Q.	DOES	THIS	CONCLUDE	YOUR	REBUTTAL	TESTIMONY?
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3	A.	YES,	IT D	OES.			
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