Docket No. 3006

DIRECT TESTIMONY OF

MARK D. LUFTIG

FOR

TEXAS POWER & LIGHT COMPANY

DECEMBER 1979

DIRECT TESTIMONY OF MARK D. LUFTIG

Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

A. My name is Mark D. Luftig. My business address is One New York Plaza, New York, New York 10004.

Q. BY WHOM ARE YOU EMPLOYED AND IN WHAT CAPACITY?

A. I am Vice President and Manager of the Utility Group in the Stock Research Department at Salomon Brothers.

Q. PLEASE DESCRIBE BRIEFLY YOUR EDUCATION AND YOUR BUSINESS EXPERIENCE.

A. I obtained my Bachelor of Arts degree (major in Economics) from Columbia University in 1958. Upon graduation, I undertook simultaneous programs in business and law. I obtained my Master's degree in business from Columbia Graduate School of Business in 1961 where I majored in accounting and a doctorate degree in law from Columbia Law School in 1962. From 1962 to 1968 I was engaged in the private practice of law. During that time, among other things, I participated in the formation and management of an investment advisory company and a mutual fund. I became associated with New York Telephone Company in 1968, and between 1968 and 1975 I served as Attorney, General Attorney-Rates and Regulatory Matters and as a member of the Company's Finance Committee. I also lectured on rate of return and participated in the preparation and trial of several general rate proceedings, as well as in a proceeding involving the investigation of the Bell System's capital structure. These cases, lectures, and my daily work were concerned with the performance of the utility industry as viewed by the financial commmunity. I joined Salomon Brothers in 1975 and became a Vice President in 1977.

Q. PLEASE DESCRIBE BRIEFLY THE BUSINESS OF SALOMON BROTHERS.

A. Salomon Brothers is an investment banking firm with offices throughout the United States, an office in Hong Kong and a subsidiary in England. We are

underwriters and brokers in addition to making markets at our own risk in all security markets. Because of our varied activities, we are in daily touch with thousands of analysts, portfolio managers and traders from banks, corporations, insurance companies, mutual funds, and others. This activity gives us an up-to-the-minute awareness of their thinking. We also give advice to corporations as to financial matters and with respect to the best ways to raise capital.

Q. WHAT IS THE VOLUME OF SECURITIES HANDLED BY SALOMON BROTHERS?

A. During its fiscal year, ended September 30, 1978, Salomon Brothers managed or co-managed 180 public offerings of corporate securities with a total value of $11.8 billion. Recent figures disclose that Salomon Brothers ranked first or second in total underwritings managed for 1978. Our firm is also a leader in the field of private placements. During fiscal 1978, the firm placed privately, securities aggregating $2.9 billion. We are also among the largest managers of new debt issues in the United States. During our 1978 fiscal year, we managed or co-managed 35 utility debt issues aggregating $2.9 billion. Our net worth at the close of our last fiscal year was over $200 million, ranking us second in size among all United States securities firms. During our 1978 fiscal year, we handled over $500 billion in purchase and sales of securities.

We also have investment banking relationships with a number of utilities and at any given time maintain positions in the various debt and equity issues of those utilities. This gives us an unusual insight into investors' current attitudes toward utility securities.

Q. PLEASE DESCRIBE THE FUNCTIONS OF AN UNDERWRITER.

A. An underwriter or underwriting syndicate buys a security issue from an issuing company and then resells it to the investing public at an "offering price" fixed by the underwriter. The difference between the purchase price and the offering price must compensate the underwriter for its costs and services in marketing the issue, as well as for the risk it assumes. If the issue cannot be completely resold

at the offering price fixed by the underwriter, it is the underwriter, rather than the issuing company, who bears the full measure of any loss.

Q. WHAT OTHER SERVICES DOES SALOMON BROTHERS PERFORM?

A. We provide a broad range of bond market, money market, and equity research, and advisory services for investors in, and issuers of securities. One of our specialties in this area is public utility stocks and bonds.

Q. WHAT ARE YOUR DUTIES WITH SALOMON BROTHERS?

A. As Vice President and Manager of the Utility Group, I direct and conduct complete financial, managerial, and technical research and analyses of electric utilities, and combination companies. In the course of my duties I meet with and give advice to financial officers of these corporations, and to investors as well. I am also responsible for writing reports about the industry. These reports are recieved by more than two thousand members of the financial investing community.

Among other things, my reports form the basis upon which our clients make investment decisions. The institutions which receive my reports and the portfolio managers and analysts with whom I regularly speak are among the major investment decision-makers. Their minimum return requirements and their interpretation of fundamental financial factors determine whether they are buyers or sellers of the securities of the companies I analyze in the course of my research. The decisions of these institutional investment managers, together with the prevailing economic and financial forces, determine the current cost of equity for companies. My value to these managers as a research analyst rests on my ability to enable them to do a better investment job with their clients' money. In sum, my job is to analyze utility companies, and to give advice to our clients with respect to buying or selling equity and debt holdings in utilities at given prices at given times. My job involves making judgements every day as to the cost of common equity of utilities and those judgments influence directly the movements

of millions of investment dollars.

Q. IN WHAT OTHER PROFESSIONAL ACTIVITIES HAVE YOU BEEN ENGAGED?

A. I am President and a member of the Executive Committee of the National Society of Rate of Return Analysts, Inc. and a member of the New York Society of Security Analysts. I am a Registered Principal with the National Association of Securities Dealers and a Registered Representative with the New York Stock Exchange. I am also a member of the Utility Finance Committee of the Public Utility Law Section of the American Bar Association and a member of the Public Utility Law Section of the New York State Bar Association. In addition, I am also on the faculty of the Lincoln Institute of Land Policy, a private foundation which, among other things, gives courses on taxation of utility property and rate of return. I have also lectured at and participated in Public Utility Symposiums before investors, utility executives, regulators and underwriters. My comments on utility financing have been quoted in The Wall Street Journal, The New York Times, many other newspapers, Business Week, Electrical Week, and Public Utility Fortnightly. I have testified before this Commission, the Connecticut Public Utilities Control Authority, the Illinois Commerce Commission, the Massachusetts Department of Public Utilities, the Michigan Public Service Commission, the Missouri Public Service Commission, and the New York Public Service Commission and I have filed testimony with the District of Columbia Public Service Commission, the Iowa Commerce Commission, the North Carolina Utilities Commission and the Federal Energy Regulatory Commission.

Q. ON WHAT SUBJECT HAVE YOU BEEN ASKED TO TESTIFY IN THIS PROCEEDING?

A. I have been asked to testify with respect to the cost of capital to Texas Power & Light (TP&L) and to recommend a fair rate of return on equity for TP&L.

Q. WHAT CONCLUSIONS DID YOU REACH?

A. After a thorough examination of the relevant data, and based upon my experience,

I have reached the following conclusions:

1. Utilities are viewed by investors as riskier investments than in the past and thus their costs of capital have increased in recent years.

2. While there has been some recent improvement in the level of TP&L's earnings, costs of capital have also increased, leaving a deficiency between earned return and required return.

3. TP&L continues to face a large construction program. Although the construction program appears to have peaked in 1979, the 1980 program is the second largest in the company's history and the 1980-81 program is projected to be as large as the 1977-78 program, both about $583 million.

4. TP&L will be able to attract capital on reasonable terms only if it can earn its full cost of capital and offer investors a prospective return commensurate with that which they can obtain elsewhere from investments of comparable risk.

5. To accomplish this, TP&L needs improved earnings over a sustained period. A number of guides to determining a fair rate of return on common equity which I have examined show that TP&L requires a return on book equity of at least 16.0%. This is the minimum return on book equity necessary to enable TP&L to maintain its financial integrity, and to attract capital by giving investors an opportunity to earn returns comparable to those available on investments of corresponding risk.

Q. WHAT ARE SOME OF THE SIGNIFICANT CHANGES THAT HAVE OCCURED IN THE CAPITAL MARKETS SINCE DECEMBER, 1977, WHEN YOU SUBMITTED TESTIMONY IN DOCKET NO. 1517?

A. Costs of capital have increased drastically. Debt costs have reached historical heights. The prime rate which was 7 3/4% in December, 1977, doubled to 15 1/4% - 15 1/2% currently. The discount rate doubled from 6% to 12% while new long-term triple A bond rates increased by almost 3 percentage points from

8 1/4% to 10 7/8%. Long-term government bonds, which are viewed as a proxy for a risk-free investment, increased from 7 3/4% to over 10%.

Not only has the cost of debt increased, it is also clear that costs of equity have also risen significantly.

Finally, in December, 1977, the one hundred electric utilities we follow on a regular basis were selling at 102% of book value and Texas Utilities was at 116% of book value. Using a June 30 book value, currently the group is at 83% of book value, while TU is at 96% of book value. In other words, the market prices of the Company's and industry's common shares have deteriorated drastically and in about the same proportions.

I wish to state at the outset that, to a large extent, I do not attribute the deterioration in TU's market/book ratio to faults in management, or in the Commission, but rather to inflation. I firmly believe that the Company's maintenance of financial flexibility and its decision to accelerate into a lignite construction program at a relatively early stage, and backed by the Commission's actions to support the Triple A bond rating, will result in millions of dollars in net savings to TP&L customers.

Q. PLEASE DESCRIBE BRIEFLY YOUR GENERAL APPROACH TO THE TASK OF DETERMINING A FAIR RATE OF RETURN ON COMMON EQUITY FOR TP&L.

A. First, I examined the financial and business condition of TP&L to determine the character and extent of the risk which potential investors in the common equity of the Company would be asked to evaluate. Then I made an analysis of general economic and business conditions to determine the climate affecting the cost of equity capital to TP&L. This is important because, in an economy in which the supply of capital is scarce in relation to demand, investor requirements, and thus capital costs, are generally higher than in an economy in which capital is more plentiful in relation to demand. Finally, I made a determination of the minimum fair rate of return on common equity for TP&L. By the decisions of this

Commission, the minimum fair rate of return is that which enables a utility to earn its cost of capital. The cost of capital to a company, such as TP&L, which has both long-term debt and equity is the weighted average cost of the company's debt and equity capital. Determination of the cost of senior securities (debt and preferred stock) poses relatively few problems, but the cost of common equity is far more difficult to ascertain.

To ascertain a fair rate of return on common equity, I first determined the minimum current cost of common equity to TP&L, based on a number of different guides used by sophisticated investors, a discounted cash flow analysis, a multiple regression model, an examination of what industrial companies were earning, and consideration of the spread, or so-called risk premium, between the return currently available on triple A - rated utility bonds and the additional return required to induce investors to invest in equity securities, which are subject to greater risk.

Q. BEFORE DISCUSSING YOUR ESTIMATE OF THE COST OF EQUITY CAPITAL TO TP&L SPECIFICALLY, WOULD YOU PLEASE COMMENT ON THE GENERAL FINANCIAL CONDITIONS THAT ARE RELEVANT TO THE PROPER DETERMINATION OF THE COST OF EQUITY CAPITAL?

A. In making a judgment as to what investors are requiring as a return on equity capital at a particular point in time, one must be cognizant of certain general economic factors, such as inflation rates, interest rates, levels of demand for capital and supply of investment funds, and general business conditions. These factors indicate whether, in general, investors will be requiring users of capital to pay relatively higher, or relatively lower, costs of capital. This is a useful starting point because it indicates whether the inherent uncertainty in estimating the cost of common equity should be resolved in a somewhat higher, or a somewhat lower, direction.

The state of the economy today is uncertain. Real GNP growth slowed in

the first quarter of 1979 and is currently close to a standstill. Most economists believe that we are either in a recession or are heading towards one. Unemployment continues at a relatively high level. Interest rates are up sharply. The discount rate of 12% is at its highest level in history. It was at 6% as late as January, 1978. From May, 1977 to November, 1979, the prime rate rose from 6 1/4% to 15 1/4% - 15 1/2%. As I have shown earlier, long term interest rates have also risen significantly. This increase in interest rates is attributable to a number of factors, including:

1. The level of federal budget deficits. While the level of the federal deficit for fiscal 1979 was less than $30 billion, it is likely to be closer to $50 billion in calendar 1980 and it could approach $100 billion in 1981.
2. Inflation increased in 1978. The Consumer Price Index rose by 8% in 1978 and, on an annualized basis by 13% in the first nine months of 1979. We are likely to experience double digit inflation at least through 1980. As recently as the late 1960's, 4% was considered to be "runaway".
3. Corporate demand for debt capital still remains very strong. The volume of new money requirements set a record in 1979, which we do not expect to be reduced substantially in 1980.

Q. HOW ARE INVESTORS REACTING TO THESE GENERAL FINANCIAL CONDITIONS?

A. Investors are cautious. They have lost faith in the ability of government to buffer or cushion sharp economic fluctuations since the shattering experience of the 1974-1975 period when we experienced double-digit inflation and near double-digit unemployment. An element of uncertainty exists with respect to the effectiveness of the government's economic policies and practices. Investors are viewing the rise in interest rates as inflationary. This also increases their return requirements on equity investments. The Federal Reserve, in an attempt to restrain growth in the money supply, and hence in the rate of inflation, has pushed

up interest rates in an attempt to discourage borrowers. President Carter's inflation and energy programs will necessarily lead to higher interest rates. The first effects are already being felt by the housing and automobile industries. The only event that has a reasonable chance of breaking the interest rate spiral is a continued slowing in the economy's growth rate and a recession. However, even a recession, if energy induced, might not break the interest rate spiral. In a classical recession, idle capacity usually results in a slowing of demand, reduced plant expansion, reduced borrowing and reduced prices. If the recession were energy induced, however, idle capacity could appear only in areas where there was no real demand. Growth in other areas could continue. The term "stagflation" has been coined to describe this kind of economy where low growth and inflation persist simultaneously.

This focuses investors' attention on high quality, very liquid investments. In my opinion, this will continue to make financing difficult and expensive for U.S. industry in general, and for public utilities in particular, over at least the next few years.

Even when utility stocks were selling in the market closer to their book values and when interest rates were lower than they are today, a number of utilities experienced difficulty raising needed captial, particularly if they were not of the highest investment quality. For example, we still see utilities being forced to cut their construction programs because of financing difficulties. Moreover, the cost of capital is very high by historic standards and is likely to remain so in the long term.

Q. WHAT WILL BE THE NATURE OF THE COMPETITION FOR CAPITAL THAT WILL BE FACED BY TEXAS POWER & LIGHT?

A. With its large construction program and large external financing requirements, Texas Power & Light will face rapidly and substantially increasing competition for new capital. Exhibit MDL-1 shows the tremendous increase in the demand for

credit over the years 1974 through 1979 and as projected through 1980, rising from an annual level of $180.9 billion in 1974 to a projected demand for 1980 of $392.3 billion. The demand of the highest quality borrowers available--the U.S. Government and U.S. Government agencies--has risen phenomenally. It is projected to be $96.5 billion for 1980, compared to $28.4 billion in 1974. The credit demands of other high quality borrowers, state and local governments and corporations, have also risen at tremendous rates. For example, the demand of state and local governments is projected to total $27.0 billion in 1980 or almost as much as in 1974 and 1975 combined. As shown by Exhibit MDL-2 net new corporate bond issues for 1980 are expected to total about about $30 billion compared with $23 billion in 1974. In summary, competition for capital funds in recent years has often been intense. Investors are well aware of this fact, and further they anticipate that this competition may intensify even more in the future.

Q. PLEASE PROVIDE SOME ASSESSMENT OF THE NATURE OF THE COMPETITION FOR FUNDS IN THE FUTURE.

A. Exhibit MDL-3 shows that the total amount of credit market debt outstanding more than doubled from 1966 through 1976 and that estimates are that it will just about double again by 1986. In addition, to support the corporate debt structure indicated in that table, net new issues of corporate stocks, which averaged only $.93 billion per year during the 1960's and $8.6 billion annually since the start of this decade, are likely to swell to $30 to $35 billion annually by the mid-1980's. This continual growth in the demand for capital has increasingly focused investors' attention on the subject of a capital shortage. A number of studies support the conclusion that a capital shortage will manifest itself as soon as the early and mid-1980's.

For investors, the capital shortage problem is closely linked with the problem of rising interest rates and inflation. They have been made wary by the

bitter experiences of the past decade, in which rising inflation pushed interest rates to new high levels and stock prices were depressed to the point where total market returns were often negative. As inflation accelerates, corporate balance sheets become more impoverished and corporate internal cash flows become inadequate to finance the rapidly increasing nominal dollar costs of doing business. This is particularly true for capital intensive utilities whose depreciation charges are inadequate to provide for replacement of existing plant. For example, if plant purchased 30 years ago for $100 million now costs $700 million to replace the same capacity, depreciation has recovered only one-seventh the needed replacement funds. In essence, high rates of inflation do not allow businesses to generate sufficient capital internally to meet their needs. Thus, to be reasonably assured of raising the capital needed to meet the demand for services in the years ahead, it is extremely important that TP&L maintain its credit position and attain an attractive return on common equity, not only to minimize its cost of capital, but also to maximize the sources of funds to which it may have access.

Q. DOES A LOWER BOND RATING LIMIT THE SOURCES OF FUNDS TO WHICH A COMPANY HAS ACCESS?

A. Yes, it certainly does. Primary emphasis is often placed on the limiting nature a lower bond rating has in terms of foreclosing from the market those large institutional investors which are restricted to bonds above a certain rating. However, there is another significant limiting result due to lower quality bond ratings, that is the foreclosure from the new equity markets which results when bond ratings fall.

Q. HOW DOES INFLATION AFFECT BOND RATINGS?

A. In part, lower bond ratings can be traced to inflation, depreciation reserves which do not meet the cost of replacements, and the rise in interest rates combined with sharply increased amounts of debt which has adversely affected both cash flow

and fixed charge coverage. As a result of the deterioration in the quality of corporate securities, investors in recent years have been exhibiting a marked preference for quality. Maintaining quality ratings has proven particularly difficult for utilities because they cannot adjust their pricing mechanism at will, and because of the severe adverse impact inflation has had on their ability to control expenses. With interest rates surpassing the 1974-1975 levels, there is concern about a repeat of 1974 and 1975 market conditions. For example, between May 1974 and the end of 1975, only five Triple B-rated utilities were able to sell long-term bond issues, although many more would have liked to do so. Also, as an example of the penalty for a lower rating, in January 1975, two similar sized, intermediate-term issues, one rated Triple A and the other rated Triple B, were sold on the same day with an interest spread of 464 basis points between the two issues.

With the latest rise in interest rates, quality spreads have begun to widen. The spread between new long-term triple A and triple B issues was 70 basis points in December 1977. It has tripled to 212 basis points in November 1979. On a spot basis, in October 1979, a $170 million, 40-year, triple A bond issue and a smaller, $100 million, 35 year, single A bond issue were sold on the same day at a difference in cost to the companies of 236 basis points. Yield spreads are likely to continue to widen at least for the next few months.

Underscoring this strong preference for quality is Exhibit MDL-4, which shows the amount of publicly offered straight bonds, by credit rating, for the past ten years. The table shows that whereas 30% of publicly offered straight bonds were rated Baa or below in 1967, only 16% of such bonds carried a Baa or below rating in 1978. This occurred because it has become more difficult for lower-rated borrowers to float bond issues, and when they could do so, only relatively small issues could be sold.

Q. YOU HAVE TESTIFIED THAT A LOWER BOND RATING HAS A LIMITING

EFFECT ON THE ABILITY TO SELL BOTH NEW BONDS AND EQUITY. HOW HAS INVESTOR PERFORMANCE IN THE BOND MARKETS BEEN REFLECTED IN THE EQUITY MARKETS?

A. This selectivity on the part of investors has also been transferred to the equity markets, where a second trend has emerged. Here, persistent inflation has led many equity investors to question the real quality of reported earnings. At the same time, yields in the fixed-income area have begun to approach and even surpass the total returns available from common stock holdings. This phenomenon has caused many asset managers to question whether common equity investments really provide any protection against inflation and whether the prospective higher returns from common equities are worth the additional risk. For example, in seven of the past ten years, at least one major sector of the bond market has outperformed common stocks.

This past experience has caused hitherto equity-oriented institutions to effect a sharp cutback in the volume of stocks purchased in favor of fixed-income investments. Exhibit MDL-5 illustrates this, showing the net acquisition of corporate securities by investment groups. Every major investment group purchased more bonds than stocks during 1974. Indeed, some even sold stocks in order to buy bonds. Only private pension funds purchased more stocks than bonds in 1975 and 1976. In 1977 no group bought more stocks than bonds and two groups were net sellers of stocks. Similar trends continued into 1978 and 1979. This switch to bonds occurred because the investor, noting the attractive yields and lower risk available from fixed-income investments, judged these returns to be more attractive than the returns available from higher risk equities.

The above discussion highlights the extreme importance which adequate rates of return have for utilities in the present capital market environment. Returns must be sufficient to provide both adequate fixed charge coverages (to ensure acceptable bond ratings) and a level of earnings that will allow for

meaningful increases in retained earnings as well as reasonable dividend returns to stockholders.

Q. DOES THE QUALITY OF A COMPANY'S DEBT HAVE AN EFFECT ON ITS COST OF CAPITAL?

A. Yes. The rating of a company's bond affects the interest cost to the issuing company. Almost without exception, the higher the rating the lower these costs, and vice versa. Also, other things being equal, higher interest costs require a higher return on equity just to maintain a constant fixed charge coverage.

Bond ratings are also taken into account by equity investors. Thus, just as an investor will require a higher interest rate on bonds of a double A rated company than on those of a generally comparable company whose bonds are rated triple A, so will he require a higher equity return from the double A company than from the triple A rated company. Furthermore, investors demand higher returns on a given company's common equity than from its debt capital to compensate for the higher risk of common equity. Thus, since lower bond ratings increase a company's cost of debt, they also increase the cost of its own, more risky equity.

Q. WHAT DO INVESTORS SEE WHEN THEY VIEW TU'S AND TP&L'S FINANCIAL CONDITIONS?

A. For stock market data, they must look to TU. Investors see earnings per share increasing but not by enough to keep the market/book ratio of the stock from eroding continuously. Exhibit MDL-6 is a table showing the financial measurements to which I referred. Column 2 shows that TU's earnings per share increased from $1.32 in 1967 to $2.18 in 1974, decreased in 1975 to $2.02 and then resumed an upward trend. For the twelve months ended September 1979, they were $2.51.

This rise in earnings per share was not enough to prevent a continual erosion in TU's market/book ratio, however. The average price of $27.50 in 1967 equated to 313% of book value. The price declined to only 87% of book by the end of the test year (September 30, 1979). In January 1979, the company sold 5,000,000

shares of common stock at 97% of book value. It is likely that the next issue will be at a bigger discount from book value. Investors who paid $30 for the stock and lost a third of their investments are wary of investing more funds in TU. Average annual market prices, book values and market/book data are shown in columns 3, 4 and 5 of the exhibit.

Q. WHAT DO INVESTORS SEE IN TP&L'S RETURN ON EQUITY AND INTEREST COVERAGE?

A. Other things being equal, given the upward trend in interest rates since 1967, one would expect TP&L to be earning a higher return on equity, and to have maintained its interest coverage to pay investors for the increased risk associated with the higher interest rates, or at least to ameliorate it somewhat. Instead, interest coverage has declined and return on equity has deteriorated in relation to market requirements.

While investors' return requirements have increased with increased risk, earned returns on average common equity decreased from 17.6% in 1967 to only 11.4% in 1975. Return on average common equity improved to 15.2 percent in 1978 but for the twelve months ended September 30, 1979, return on average common equity was only 14.7%. These data are shown in the second column of Exhibit MDL-7.

Q. THE THIRD COLUMN ON EXHIBIT MDL-7 SHOWS PRE-TAX INTEREST COVERAGE. PLEASE DISCUSS ITS IMPORTANCE.

A. Pre-tax interest coverage for TP&L, which affords protection to its bondholders and is thus an important indicator of a company's financial strength, decreased from 6.9 times in 1967 to 3.3 times in 1975 and 1976, and then improved to 4.2 times in 1978. For the twelve months ended September 30, 1979, it was 4.0 times.

Q. IS IT APPROPRIATE TO LOOK AT TP&L'S COVERAGE USING ONLY ITS INCOME STATEMENT?

A. No. Texas Utilities Generating Company (TUGCO) and Texas Utilities Fuel

Company (TUFCO) are TU subsidiaries. TUGCO acts as agent for the three electric utilities in lignite mining and in operation of their jointly-owned generating stations and furnishes related services at cost, while TUFCO owns a natural gas pipeline system, acquires, stores, and delivers fuel gas and oil and provides other fuel services for the electric utility subsidiaries. Both of these companies are highly leveraged. (The net plant of both companies at September 30, 1979 was $441.8 million and they had only $2 million in equity capital.)

The debt of these companies is supported by the equity of the electric utility subsidiaries. Rating agencies and sophisticated investors are aware of this and include the pro rata share of the TUGCO and TUFCO debt for each of the electric utility subsidiaries in computing their interest coverages and capital structure ratios. When the Company's pro rata share of the TUFCO and TUGCO senior debt interest obligation is taken into consideration, the pre-tax interest coverage ratios of TP&L for 1977, 1978 and twelve months ended September 30, 1979, are reduced to 3.6, 3.9 and 3.5 times respectively, as illustrated in the last column of Exhibit MDL-7. It should be noted that the September 30, 1979, supplemental coverage of 3.5 times will be further reduced. By the time rates set in this proceeding go into effect, TUGCO will have issued an additional $200 million in Senior Notes. This in turn, will increase the supplemental interest obligation of TP&L.

Q. WHAT DO YOU BELIEVE TO BE AN APPROPRIATE BOND RATING FOR TEXAS POWER & LIGHT TO MAINTAIN?

A. TP&L, along with the other two subsidiaries of Texas Utilities Company, are presently the only remaining electric utilities with a triple A bond rating from both major rating agencies. In order for Texas Power & Light to maintain financial flexibility, that is, to retain the ability to issue either debt or equity when required, to be able to do so at difficult times and on reasonable terms, and

to maintain investor confidence, I believe it is advantageous for the Company to strive to maintain its top quality rating. It is possible for Texas Power & Light and the Texas Utilities system to finance with a double A rating. However, even this downgrading would cause problems for the Company. First of all, it is becoming more difficult to externally raise the enormous amounts of money required to provide the quantity and the quality of service to customers. Secondly, many of the institutional investors in TP&L's securities have both legal and self-imposed requirements as to the diversity and quality of the securities in which they invest. Thirdly, the spread in cost between triple A and double A debt is widening. On November 19, 1979, a double A bond was sold at a cost to the issuing company of over 12% or about 75 basis points over the triple A rate.

Furthermore, once a downgrading has occurred and credit deterioration has begun, it is difficult to stop, much less reverse. Investors become uncertain as to the stability of such issues and become concerned about the future speculative characteristics and the smaller margins of protection of the bonds. Investor confidence and the probability of investors purchasing these as well as subsequent securities are impaired. Such investor reactions intensify the probability of additional downgradings. If TP&L were to be downgraded to a double A rating, the chances of being lowered to a single A would not be that slim. Bonds which are rated single A are judged to be of medium quality. However, for TP&L, a lowering of its rating for a second time would create special difficulties with respect to the continuous increase in investors' concerns since the Company was originally a highly rated company. Investors who suffered through the first downgrading would not soon forget this experience, and a downgrading to a single A would tend to confirm investors' suspicions that as soon as there is further financial stringency, the bonds will be downgraded again. During the credit crunch of 1974, single A companies were unable to finance in the manner they wished and, as a result, they were forced to cut construction programs and to

incur high short term debt positions. Similarly today, companies have been forced to cut construction programs because of financial constraints.

A poignant example is Commonwealth Edison. That Company's first mortgage bonds were downgraded from Aaa to A by Moody's Investor Service in two steps, both in 1979. At the same times, its debentures were downgraded from Aa to Baa. The Company was forced to cut its construction program and entered November 1979, with $485 million in unfilled financing requirements for the year and an inability to sell mortgage bonds.

Q. WHAT INTEREST COVERAGES AND OTHER FINANCIAL STANDARDS DOES TP&L REQUIRE TO MAINTAIN A TRIPLE A RATING?

A. The standards are the same as I reported in Docket 1517. The Company needs to maintain a pre-tax interest coverage of 4.0 times or over and a post-tax coverage of 3.0 times or more on an ongoing basis. The earnings elements of these coverages should not include excessive amounts of AFUDC. The interest element must include the Company's pro rata share of the TUFCO and TUGCO interest. Additional important standards are: a high quality level of earnings, an average of 50% internal cash generation, a common equity ratio of 40% or more, and a realistic regulatory environment.

TP&L's pre-tax interest coverage for the test year will have to be higher than 4.0 times in order for it to achieve a 4.0 times coverage in the period that rates will be in effect which will be a period of high interest rates.

Q. WHAT HAS HAPPENED TO THE QUALITY OF TP&L'S EARNINGS?

A. Relevant data are shown on Exhibit MDL-8. During the 1967 to 1979 time period, TP&L's capital requirements increased by a factor of seven times, from about $51 million in 1967 to $364 million for the twelve months ending September 30, 1979. AFUDC as a percent of income available to common increased from 6.3% in 1967 to 28.1% in 1976.

The effects of AFUDC on cash earnings can be readily seen by comparing

returns on average common equity including and excluding AFUDC. TP&L's return on equity in 1967 was 17.6%. This included a relatively small proportion of AFUDC, so that excluding AFUDC return on average common equity was 16.5%. However, in 1976, those returns were 12.4% and only 8.9% respectively.

The percentage of AFUDC to income available to common decreased from the 1976 level to 19.3% for the twelve months ended September 30, 1979, partly as a result of this Commission's finding of the need to improve cash flow and quality of earnings, and its allowance of portions of CWIP in rate base without AFUDC offsets. In my opinion, these were principal factors in TP&L's ability to maintain its triple A rating when coverage fell below the minimum levels I have outlined.

Q. HOW HAS TP&L PERFORMED WHEN COMPARED WITH THE INDUSTRIALS WITH WHOM IT MUST COMPETE FOR CAPITAL?

A. At one time, it was commonly accepted "doctrine" or "dogma" that securities of utilities were a less risky investment than securities of industrial companies such as those which form the S&P 400 Industrials. Today, one could argue about the relative risk of a utility such as TP&L versus the S&P 400 Industrials. I believe utilities to be at least as risky as that average, and the consensus of the large institutional investors with whom I communicate on a day-to-day basis is that an investment in most utility common stocks, including TP&L, is as risky or more risky than investing in the S&P 400.

It is clear why such a situation exists today. On a relative basis, TP&L has fared much worse than industrials with which it must compete for the investors' dollar.

Exhibit MDL-9 shows similar data for the S&P 400 Industrials for the period 1967-1978, as is shown for TU and TP&L in Exhibits MDL-6 and MDL-7. For the industrials, earnings per share more than doubled from $5.62 to $13.12, an increase of 133% versus a much smaller increase for TU. While the market price

of TU common shares decreased by 27% during that period, the S&P Index increased by 12%. The market/book value ratio for S&P is considerably above TU's average market/book ratio. The S&P composite market to book ratio decreased from 2.05 times to 1.25 times still 25% above book value. TU's market/book ratio has fallen from 3.13 times to 1.00 times in the same time frame and at the end of the test year was 8% below book value. Return on equity for the S&P Index increased from 12.0% to 15.4%; and produced fixed charge coverage of more than 8 times which is adequate. These important financial ratios have been more favorable for the S&P 400 Industrials than for TP&L.

Q. DO YOU HAVE ANY OTHER BROAD GROUPS OF COMPANIES WITH WHICH TO COMPARE TP&L'S RETURN ON EQUITY?

A. Yes. In April of each year Citibank in its Monthly Economic Newsletter shows the return on net worth for leading manufacturing companies. As shown in Exhibit MDL-10, Citibank's Leading Manufacturing Companies by Industrial Group earned 15.9% on net worth for 1978 and 15.0% or better in four of the five years. Earnings for the first nine months of 1979 generally have been very strong for this group.

Q. PLEASE SUMMARIZE YOUR VIEWS CONCERNING TP&L'S CURRENT FINANCIAL CONDITION.

A. TP&L's financial health was good in the late 1960's. It slipped badly in the mid 1970's, but has been improving. The overall erosion that has taken place between 1967 and 1979 is demonstrated in part by the following comparison:

	1967	Test Year Ending Sept. 30 1979
Average Market Price of Common Stock(TU)	$27.50	$19.25
Average Market to Book Ratio (TU)	3.13	0.93
Return on Average Common Equity	17.6%	14.7%
Return on Average Common Equity Excl. AFUDC	16.5%	11.8%
AFUDC as % of Income Available to Common	6.3%	19.3%
Pre-tax Interest Coverage	6.9x	4.0x
Pre-tax supplemental Interest Coverage	--	3.5x

I have previously shown that TP&L's financial condition has also eroded relative to industrials.

Q. WHAT CAUSED THIS EROSION OF TP&L'S FINANCIAL POSITION?

A. Many of the fundamental changes encountered by the entire utility industry were also experienced by TP&L. For example, in the late 1960's, the industry's position shifted from one of decreasing incremental cost to one of rising incremental cost. This made it necessary for utility companies to request frequent, and sometimes substantial, rate increases which too often produced inadequate and delayed rate relief.

Regulatory delay and inadequacy alone would have posed a major problem for the industry, but that problem was exacerbated by the onset during the 1970's of very high rates of inflation; required suspension of sales promotion; conservation; spiraling fuel costs and the need to convert to alternative fuels; unsettled capital markets accompanied by high interest rates; a high degree of investor selectivity; and environmental concerns. The accident at Three Mile Island and the reduction in General Public Utility's (GPU) dividend that followed made investors realize that utility dividends were not sacrosanct and that, under certain

circumstances, investors could be asked to assume greater risks than they had anticipated and that they were being paid to assume. The combination of these factors, among other things, has, over recent years, led investors to conclude that the utility industry involves increased risk. This realization has increased the cost of both debt and common equity to utilities generally and to TP&L specifically.

Q. MR. LUFTIG, I WOULD LIKE NOW TO TURN TO YOUR DETERMINATION OF A FAIR RETURN ON COMMON EQUITY FOR TEXAS POWER & LIGHT. PLEASE DEFINE THE COST OF COMMON EQUITY OR FAIR RATE OF RETURN.

A. The cost of common equity is the investor's required rate of return, or the capitalization rate, on common stock, competitively determined in the capital markets, after adjustments for flotation costs and market pressure. This capitalization rate is the discount rate which equates the sum of all expected dividends in the future combined with the market price investors eventually expect to realize, to the present market price. While this is a simple enough concept, it is difficult to measure precisely since measurement requires an assessment of the expectations and requirements of the investors who determine the market price. Stated another way, the cost of common equity to a company is the return the investor requires to commit his capital to that particular enterprise, as opposed to alternate investment opportunities. A fair return on equity must be sufficient to allow the company to compete for capital with alternative investment opportunities at reasonable costs and without diluting investors' equity. These guidelines have been established by the Supreme Court of the United States:

> ". . . it is important that there be enough revenue not only for operation expenses, but also for the capital costs of the business. These include service on the debt and dividends on the stock . . . By that standard, the return to the equity owner should be commensurate with returns on investments in other enterprises having corresponding risks. That return, moreover, should be sufficient to assure confidence in the financial integrity of the enterprise, so as to maintain its credit and to attract capital." (Emphasis added) FPC v. Hope Natural Gas Co., 320 US 591, 603 (1944)

Q. WHAT ARE SOME OF THE FACTORS INVESTORS TAKE INTO CONSIDERATION IN ASSESSING RETURN REQUIREMENTS?

A. The return on any given security required by investors is a function of the returns which are available on alternate investments. When examining all of the investment alternatives, an investor has a number of factors he must explore: the business and financial risk of the enterprise, the risk inherent in the type of security, and the time span over which the investment is to be made.

Q. IN YOUR OPINION, WHAT IS THE RETURN INVESTORS PRESENTLY REQUIRE TO COMMIT THEIR FUNDS TO TU COMMON EQUITY?

A. To put my answer in context you must understand that I am in daily contact with institutional investors. These investors set prices by trading in the securities of TU and similar companies. They own approximately 30% of the stock listed on the New York Stock Exchange and account for about 70% of the trading on that exchange. They also own 80% of the corporate bonds outstanding and account for virtually all trading in those securities. These institutional investors provide a tremendous discipline to the market by their activities. For example, the dividend yield and market to book ratio of one utility company's common stock will not be allowed to be materially different from those of other utilities whose regulatory climate, earnings potential, etc. are perceived to be similar to it. Dividend yield and market to book will be determined by the market price these investors will pay for the stock. It is apparent from their actions that currently, these investors are not willing to invest new funds in the common equities of utilities unless they can anticipate market returns at least in the range of 15-16%, and where current market returns are not sufficient to meet these requirements, investors will discount the price of the stock to achieve their required return. Given the disappointing results which these equities have exhibited in the past, it is neither surprising nor unreasonable for them to require returns of this magnitude to compensate them for the increased risk which they

are being asked to bear. The lower portion of that range is reserved for companies like TU and TP&L that have exhibited relatively better past earnings performance, that are located in states where regulation has been more responsive to the need of the utilities to earn higher equity returns, and whose bonds are rated triple A or double A. I will use 15% in my analysis. Again, these returns are market returns to investors and do not include any adjustment for flotation costs or market pressure.

Q. WHY ARE YOUR OPINIONS SO HEAVILY INFLUENCED BY THE MARKET RETURN REQUIRED BY INSTITUTIONAL INVESTORS?

A. I don't know of a more meaningful factor, or place to begin, in an analysis of a fair rate of return. You can go through a lot of abstract mathematical exercises using formulas that are supposed to represent the minds of investors, but the only direct evidence of what investors think is the communication of their views, objectives and requirements as expressed to their financial advisors who guide them regularly on the commitment of billions of dollars of investment funds.

Q. DO YOU ACCEPT THE MARKET RETURN REQUIREMENT OF INSTITUTIONAL INVESTORS AT FACE VALUE FOR PURPOSES OF YOUR ANALYSIS?

A. I use a number of guides or tests to evaluate the reasonableness of that requirement. For example, I have already shown that the S&P 400 and leading manufacturing companies have been achieving returns of 15% or more and that investors believe utilities to be as risky as the S&P Industrials. Another test is the so-called discounted cash flow, or DCF, test. By this test, under certain simplifying assumptions which have been accepted by many regulatory agencies and economists, the capitalization rate to which I referred can be expressed as the sum of dividend yield and expected growth in earnings or dividends per share. TP&L does not have publicly traded stock and it is necessary and appropriate to use, as a proxy, market data with respect to TU stock.

Q. WHAT IS TU'S DIVIDEND YIELD?

A. Dividend yield is the ratio of dividends to market price per share. The DCF method calls for use of the current yield. I reviewed the average yield for September, October, and November, 1979, the last three months available to me which is much more indicative of current yield and investor expectations than is the historic average over a period of one to three years, which no investor would view as the yield currently available to him.

The average dividend yield on TU's common stock for these most recent three months was 9.0%.

It is at least as appropriate to use 9.6%, which is derived by substituting a $1.76 annual dividend, which many investors anticipate will be declared in February 1980, for the current $1.64 dividend. At least a portion of the higher dividend is in the price of the stock.

For purposes of my analysis, I have averaged the 9.0% and 9.6% and will use 9.3%.

Q. WHAT IS A REASONABLE GROWTH RATE TO USE FOR TU IN THIS CASE?

A. Beginning in 1977 and continuing through 1979, TU has increased its dividend at an annual rate of 12 cents a share, or approximately 7 1/2% a year. The 5 year growth rate from 1974 to 1979 is 7.9%. With a 60% payout ratio, investors expect that dividend increases of this magnitude will continue on an annual basis at least for the next several years. As I stated previously, investors are expecting a 7.3% increase to $1.76 in February, 1980. Value Line Investment Service in its November 2, 1979 report, forecasts a 7.5% average annual dividend increase for TU over the next five years.

Through 1978, earnings per share grew at an average annual rate of 7.9% over the last three years, and at 4.8% a year over the past 5 years, a rate which included an earnings decrease in 1975. Value Line projects a 6.5% annual growth in earnings over the next five years and $2.85 earnings per share for 1980. Street estimates of TU's earnings for 1980 are in the 2.85-3.00 range. Most sophisti-

cated investors believe a projected five year growth rate in earnings of at least 6 1/2% to be reasonable.

I believe a growth rate of around 6 to 6 1/2% is a very conservative one for this commission to use in this proceeding. Even if earnings failed to keep pace for a period, investors expect that dividends will continue to grow.

Q. IS THERE ANY RELATIONSHIP BETWEEN A COMPANY'S GROWTH RATE AND ITS RETENTION RATE?

A. Yes. It is expressed commonly as g = br. This says that the growth rate from retained earnings (g) is equal to the retention rate (b) times return on book equity (r). A 40% retention rate, which I believe is reasonable for TU over the next few years, and the 15% market return on equity required by investors, if earned, would produce a growth rate of 6%. The growth rate should be improved in the near term by an increasing return on common equity but would be restricted if sales of common stock are made below book value.

Q. WHAT ARE INVESTORS' RETURN REQUIREMENTS BASED UPON THE DIVIDEND YIELD AND GROWTH RATE YOU HAVE BEEN DISCUSSING?

A. Based upon an average three month dividend yield of 9.3% and a 6 to 6 1/2% growth rate, investors' return requirements are about 15.3 to 15.8%.

Q. DO YOU HAVE ANY OTHER STATISTICAL AIDS TO HELP EVALUATE THE COST OF COMMON EQUITY TO TP&L?

A. Yes, almost three years ago I developed a computerized multiple regression model of 100 electric utility common stocks. The independent variables are: estimated return on equity, dividend/book ratio, regulatory ranking and quality of earnings. The regression equation has been explaining approximately 75% of the difference in the market/book ratio (the dependent variable) of these 100 companies.

As of November 30, 1979, the last model run, the industry was at 83% of June 30, 1979 book values. If it is assumed that TU fit the industry format, then all other things being equal, TU would require an expected market return on

equity of 14.6% for its stock to sell at book value.

While in my opinion, historical data, equations such as g = br, and the regression model should not be used to compute return on equity initially, these tools are helpful in evaluating and verifying independently obtained market data.

Q. HAVE YOU MADE ANY OTHER CHECKS OF THE COST OF COMMON EQUITY?

A. Yes. As I stated earlier, investors require certain spreads between the returns they can receive from the bonds of a company and the returns they demand on the more risky investment in that company's common stock. Investors require a spread of 450-500 basis points to purchase common stocks rather than the bonds of a utility or a 50% greater return on the stock than on the bond in order to invest in the stock. On this basis, with Triple A rated utility bonds currently yielding about 10 7/8%, the market return requirements for the common stock of that company are in the range of 15.4% - 15.9%.

Q. IS IT IMPORTANT FOR A COMPANY TO BE ABLE TO SELL NEW STOCK AT OR ABOVE BOOK VALUE?

A. Selling equity below book value has five adverse effects:

1. It makes existing shareholders surrender a portion of their investment to the new shareholders;
2. It dilutes earnings per share and growth in earnings per share;
3. It makes it more difficult for a company to meet the same dividend requirement on an increased number of outstanding shares;
4. It creates investor resistance toward further equity offerings; and
5. It fails to meet one requirement of the Hope case, the ability to attract capital on reasonable terms.

Exhibit MDL-11 shows the effect on a company's earnings per share of selling stock at, below, and above book value. For purposes of illustration, I have assumed a company earning 16% on equity, with stockholder equity of $1 million, and with 50,000 shares outstanding at a book value of $20 per share. Earnings per

share then are $3.20, and the company pays a $2.24 annual dividend. As shown in column 3, if the company sells an additional 50,000 shares at the book value of $20, then the book value and earnings per share will remain constant, and the $2.24 dividend continues to be 70% of earnings. I have next shown the situation where the company is forced to sell these shares below book value; in this case, $15 per share. The average book value per share then declines to $17.50, earnings per share decline from $3.20 to $2.80, and the $2.24 dividend rises to 80% of earnings. The next time the company needs to raise equity there will be a smaller earnings base per share, and investors will be more hesitant to subscribe for the new shares. If the company is forced to sell equity below book value a third time, the thinning dividend coverage and lack of future earnings and dividend growth prospects will discourage buyers. In the last column of the table, I have demonstrated the effects of selling an additional 50,000 shares at a premium over book value; in this case, at $25 per share. As expected, book value per share increases to $22.50 and because of the higher earnings base per share, earnings improve to $3.60. Now both the earnings per share and the dividend growth potential have been enhanced.

Q. WHAT FACTORS SHOULD BE TAKEN INTO CONSIDERATION IN RECOMMENDING AN APPROPRIATE MARKET TO BOOK RATIO?

A. Two principal factors, both related to the issuance of new stock, must be taken into account in determining a minimum reasonable market to book ratio. The announcement that a firm intends to issue new stock tends to drive down the price of outstanding stock as a result of investors reacting negatively to potential dilution, supply/demand adjustments, investors deferring stock purchases while awaiting the offering, etc. This phenomenon is referred to as market pressure. A second principal factor is that the company incurs certain costs in connection with the sale such as legal and printing expenses, underwriter's fees, registrar's fees, etc. My experience is that these factors aggregate about 10% of the market

Salomon Brothers

Stock Research

Summary of Supply and Demand for Credit ($ Billions)

	Annual Net Increases in Amounts Outstanding							*Amt. Out*
	1974	1975	1976	1977	1978	1979e	1980p	*31Dec79e*
Net Demand								
Privately Held Mortgages	42.2	42.0	70.4	109.0	116.5	118.5	100.7	*1,102.9*
Corporate & Foreign Bonds	29.1	39.1	39.1	37.4	33.5	32.8	42.7	*475.6*
Subtotal Long-Term Private	71.3	81.1	109.5	146.4	150.0	151.3	143.4	*1,578.5*
Short-Term Business Borrowing	50.4	-16.0	9.8	47.0	78.5	112.9	81.5	*577.3*
Short-Term Other Borrowing	16.3	14.4	40.7	49.6	66.0	62.3	43.9	*486.6*
Subtotal Short-Term Private	66.7	-1.6	50.5	96.6	144.5	175.2	125.4	*1,063.9*
Privately Held Federal Debt	28.4	82.6	71.8	73.3	83.8	66.9	96.5	*760.0*
Tax-Exempt Notes and Bonds	14.5	16.3	17.1	31.1	32.9	22.0	27.0	*328.0*
Subtotal Government Debt	42.9	98.9	88.9	104.4	116.7	88.9	123.5	*1,088.0*
Total Net Demand for Credit	**180.9**	**178.4**	**248.9**	**347.4**	**411.2**	**415.4**	**392.3**	***3,730.4***
Net Supply[1]								
Thrift Institutions	25.8	53.7	70.0	81.8	80.2	66.7	58.8	*738.1*
Insurance, Pensions, Endowments	29.0	40.9	53.1	67.3	70.2	75.1	81.4	*690.6*
Investment Companies	1.7	3.7	4.6	6.7	8.3	23.2	20.7	*57.4*
Other Nonbank Finance	3.9	-4.3	8.7	17.6	15.9	25.6	19.5	*185.6*
Subtotal Nonbank Finance	60.4	94.0	136.4	173.4	174.6	190.6	180.4	*1,671.7*
Commercial Banks[2]	52.6	29.9	59.6	83.5	107.0	124.3	100.0	*1,091.9*
Business Corporations	8.8	11.6	7.7	4.9	4.5	10.3	12.2	*121.4*
State & Local Government	1.1	2.4	4.9	11.3	14.7	5.2	3.0	*72.5*
Foreign[3]	18.5	7.1	19.6	44.1	57.4	21.7	34.6	*249.0*
Subtotal	141.4	145.0	228.2	317.2	358.2	352.1	330.2	*3,206.5*
Residual (mostly household direct)	39.5	33.4	20.7	30.2	53.0	63.3	62.1	*523.9*
Total Net Supply of Credit	**180.9**	**178.4**	**248.9**	**347.4**	**411.2**	**415.4**	**392.3**	***3,730.4***
Percentage Growth in Outstandings								
Total Credit	9.3	8.4	10.8	13.6	14.2	12.5	10.5	
Government	7.8	16.8	12.9	13.4	13.2	8.9	11.4	
Household	7.0	6.3	11.6	14.9	14.9	12.8	9.1	
Corporate	14.2	3.6	7.4	11.9	14.1	16.1	11.8	
Long-Term	8.2	8.6	10.7	12.9	11.7	10.6	9.1	
Short-Term	12.5	-0.3	8.5	14.9	19.4	19.7	11.8	
Held by Nonbank Finance	7.2	10.4	13.7	15.3	13.4	12.9	10.8	
Commercial Banks	8.3	4.3	8.3	10.7	12.4	12.8	9.2	
Foreign	23.0	7.2	18.5	35.1	33.8	9.5	13.9	
Household Direct	13.9	10.3	5.8	8.0	13.0	13.7	11.9	
Economic Correlations								
Growth in Real GNP	-1.4	-1.3	5.9	5.3	4.4	2.7	-1.5	
Nominal GNP	8.1	8.2	11.3	11.6	12.0	11.8	9.5	

[1]Excludes funds for equities, cash and miscellaneous demands not tabulated above.
[2]Includes loans transferred to books of nonoperating holding and other bank-related companies.
[3]Includes US branches of foreign banks.

e - estimate
p - projected

Source: Salomon Brothers

Salomon Brothers

Stock Research

Sources and Uses of Corporate Funds[1] ($ Billions)

	Annual Net Increases in Amounts Outstanding							Amt. Out.
	1974	1975	1976	1977	1978	1979e	1980p	31Dec79e
Analysis in Brief								
• Profits before Taxes and IVA	102.7	100.7	129.6	143.3	165.9	185.0	165.0	
• Plus Inventory Valuation Adj.	-40.4	-12.4	-14.6	-15.2	-25.2	-40.0	-27.0	
• Repatriated Foreign Profits	4.8	3.1	4.2	5.2	5.2	7.0	7.5	
• Less Federal Tax Payments	41.3	42.6	45.2	59.8	65.2	77.0	80.0	
• Dividends	25.9	28.3	32.9	37.0	41.6	47.5	50.5	
• Plus Depreciation	77.0	84.1	91.4	103.1	113.0	122.0	132.0	
• Internal Cash Generation	76.9	104.6	132.5	139.6	152.1	149.5	147.0	
• Physical Investment	146.0	115.8	154.0	186.7	212.7	242.3	233.5	
Plus Net Trade & Consumer Credit	5.2	1.2	8.5	12.0	13.3	15.3	5.5	
• Less Internal Cash Generation	76.9	104.6	132.5	139.6	152.1	149.5	147.0	
Equals Operational Requirements	74.3	12.4	30.0	59.1	73.9	108.1	92.0	
Plus Reqs. for Financial Assets	11.0	28.0	30.7	27.6	24.4	15.4	20.0	
Equals External Requirements	85.3	40.4	60.7	86.7	98.3	123.5	112.0	
Uses of Funds								
• Plant & Equipment[2]	113.0	106.9	121.2	143.3	170.0	192.0	209.5	
• Land[3]	10.2	10.0	11.1	11.9	13.0	14.5	13.0	
• Mineral Rights	6.5	1.3	4.0	2.5	2.0	3.0	4.0	
• Direct Foreign Investment	1.2	6.0	3.9	5.0	3.8	4.5	5.0	
• Residential Construction	2.2	2.0	3.0	4.8	4.2	2.8	2.0	
Inventories, Adjusted for Valuation	12.9	-10.4	10.8	19.2	19.7	25.5	0.0	
• Total Physical Investment	146.0	115.8	154.0	186.7	212.7	242.3	233.5	
Net Trade & Consumer Credit[3]	5.2	1.2	8.5	12.0	13.3	15.3	5.5	*163.6*
Demand Deposits & Currency	1.2	6.2	1.5	0.8	5.3	4.0	5.0	*66.0*
Time Deposits[3]	3.8	-3.0	-2.0	4.8	5.5	-2.0	2.0	*29.2*
U.S. Governments	0.9	9.5	2.3	-5.8	-7.1	-0.5	4.5	*1.0*[3]
Federal Agencies	1.4	-0.8	0.0	-0.4	0.7	-0.3	2.0	*3.2*
Open Market Paper[3]	4.2	2.2	4.1	7.6	7.5	8.0	4.5	*55.2*
State & Local Securities	0.6	-0.2	-1.1	0.0	0.2	0.3	0.2	*4.0*
Repurchase Agreements	-5.8	-0.8	2.3	1.2	5.5	2.5	1.5	*16.3*
Foreign Deposits	-0.2	0.8	1.7	1.3	2.0	0.9	1.0	*13.0*
Other Assets (net)	4.9	14.1	21.9	18.1	4.8	2.5	-0.7	
Total Uses	162.2	145.0	193.2	226.3	250.4	273.0	259.0	
Sources of Funds								
Internal Cash Generation	76.9	104.6	132.5	139.6	152.1	149.5	147.0	
Mortgage Debt	13.7	9.5	12.9	18.9	23.3	25.5	23.5	*233.3*
Bank Term Loans[3]	12.7	-2.5	-3.0	2.3	11.7	20.5	12.0	*102.5*
Bank Short-Term Loans	17.1	-8.3	5.8	19.3	19.7	28.6	19.5	*170.6*
Finance Company Loans	5.8	2.2	5.2	10.3	8.3	10.0	7.0	*64.1*
U.S. Government Loans	1.5	0.2	0.2	0.0	1.7	1.2	1.0	*6.9*
Net Sales of Open Market Paper[3]	5.6	-2.3	3.5	2.8	4.9	11.0	8.0	*36.1*
Net New Tax-Exempt Bond Issues	1.6	2.6	2.5	3.5	3.2	3.0	3.5	*18.9*
Net New Taxable Bond Issues[3]	23.2	29.1	24.1	23.7	22.0	21.4	29.5	*353.5*[3]
Net New Stock Issues[3]	4.1	9.9	9.5	5.9	3.5	2.3	8.0	*810.0*
Total External Sources	85.3	40.4	60.7	86.7	98.3	123.5	112.0	
Total Sources	162.2	145.0	193.2	226.3	250.4	273.0	259.0	

[1] Nonfarm, nonfinancial corporations.

[2] NIA data, compares with Survey data of:

	112.4	112.8	120.5	135.7	153.6	173.6	187.3
Percentage change							
Survey	+12.7	+0.4	+6.8	+12.6	+13.2	+13.0	+7.9
NIA	+10.6	-5.4	+13.4	+18.2	+18.6	+12.9	+9.1

[3] Our own estimates. All else from Federal Reserve Board of Governors, **Flow-of-Funds**.

[4] At market.

e - estimate
p - projected

Source: Salomon Brothers

Salomon Brothers

Stock Research

THE GROWTH OF CREDIT MARKET DEBT OVER TWO DECADES

(Billions of Dollars)

	Outstandings			Avg. Annual Increase During 5 Years Ended:		
Type of Debt	1966	1976	1986E	1966	1976	1986E
Mortgages	294	663	1400	23	65	135
Corporate Bonds	134	353	700	8	26	60
U.S. Govt. & Fed. Ags.	224	455	900	3	40	77
State & Local	106	246	450	6	17	33
Money Market	16	75	150	2	7	33
Loans*	216	531	1050	19	39	90
Miscellaneous	71	130	200	-	-	-
Total	1060	2452	4850	-	-	-

*Loans include all types of bank loans, consumer credit at depository institutions, and other loans.

E - Estimate

Source: Salomon Brothers

Salomon Brothers
Stock Research

PUBLICLY OFFERED STRAIGHT BONDS
BY CREDIT RATING
(Billions of Dollars)

Rating	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978
Aaa	$ 3.0	$ 2.5	$2.1	$ 6.2	$ 5.9	$ 5.3	$ 3.7	$ 7.9	$ 8.2	$ 5.9	$ 8.8	$ 5.2
Aa	3.2	2.7	3.0	5.3	5.4	4.2	3.8	8.1	8.4	7.3	5.2	5.0
A	2.8	1.9	2.6	8.8	6.8	4.5	3.6	7.1	11.0	7.6	4.8	4.4
Baa & Below	4.4	2.5	1.8	2.5	2.4	1.2	0.6	1.5	2.5	3.1	2.7	2.9
Not Rated	1.4	1.3	0.0	0.3	0.9	0.7	0.6	0.2	0.8	0.6	0.4	.3
Total	$14.8	$10.9	$9.5	$23.1	$21.3	$15.9	$12.3	$24.8	$30.9	$24.5	$22.0	$17.8

% of Total												
Aaa	20%	23%	22%	27%	28%	33%	30%	32%	26%	24%	40%	29%
Aa	22	25	32	23	25	27	31	32	27	30	24	28
A	19	17	27	38	32	28	29	29	36	31	22	25
Baa & Below	30	23	19	11	11	8	5	6	8	13	12	16
Not Rated	9	12	0	1	4	4	5	1	3	2	2	2

Source: Salomon Brothers

Exhibit MDL-4
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Salomon Brothers

Stock Research

NET ACQUISITIONS OF CORPORATE SECURITIES BY INVESTOR GROUPS
(Billions of Dollars)

	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978
Life Insurance Companies										
Bonds	2.5	2.2	6.1	6.9	5.7	4.9	9.2	14.8	17.2	17.5
Stocks	0.5	1.7	5.2	6.2	-0.9	-4.0	6.1	6.2	-0.5	.5
Private Pension Funds										
Bonds	0.6	2.1	-0.7	-0.8	1.6	4.7	2.8	1.3	6.5	9.2
Stocks	5.4	4.6	8.9	7.3	5.3	2.3	5.8	7.3	4.5	5.3
State & Local Retirement Funds										
Bonds	3.4	4.0	4.1	4.4	3.6	7.0	4.1	3.3	4.0	5.4
Stocks	1.8	2.1	3.2	3.5	3.4	2.6	2.4	3.1	3.7	2.7
Other Institutions and Foreigners										
Bonds	1.7	5.7	5.4	3.0	-2.0	4.9	10.1	7.2	4.5	4.2
Stocks	4.4	3.4	4.3	4.4	3.1	-1.1	3.0	1.3	3.3	5.2
Individual & Misc.* Investors										
Bonds	7.3	10.4	11.3	6.3	5.1	7.7	13.7	11.5	5.4	-1.8
Stocks	-9.0	-5.3	-6.6	-5.9	-6.7	-2.5	-2.9	-3.3	-6.6	-3.5

*Including closed-end corporate bond funds, personal and common bank-administered trust funds, and foundations and endowments.

Foreign Bonds includes corporates, governments, and international agencies.

Sources: Salomon Brothers; Life Insurance Fact Book

TEXAS UTILITIES COMPANY
Market Data
1967 - 1979

Year (1)	Earnings Per Share (a) (2)	Average Market Price Per Share (b) (3)	Book Value Per Share (Year End) (4)	Average Market/ Book Ratio (5)
1967	$1.32	$27.50	$8.80	313%
1968	1.35	27.50	9.34	294
1969	1.51	27.125	10.42	260
1970	1.66	27.50	11.18	246
1971	1.74	29.625	12.45	238
1972	1.95	30.00	13.40	224
1973	2.01	28.875	15.09	191
1974	2.18	19.675	16.30	121
1975	2.02	20.50	17.07	120
1976	2.29	19.75	18.09	109
1977	2.40	21.00	19.10	110
1978	2.54	20.125	20.14	100
1979*	2.51	19.25	20.81	93

* 12 Months ended September 30, 1979.

(a) On average shares outstanding.

(b) Average of monthly high/low figures rounded to the nearest one-eighth.

Source: Texas Power & Light

TEXAS POWER & LIGHT COMPANY
Return on Common Equity and Interest Coverage

Year (1)	Return on Average Common Equity(a) (2)	Pre-Tax Interest Coverage (3)	Pre-Tax Interest Coverage Including Supplemental Interest(b) (4)
1967	17.6%	6.9x	
1968	15.8	6.4x	
1969	16.6	6.5x	
1970	16.8	5.8x	
1971	16.3	4.9x	
1972	16.7	5.0x	
1973	15.3	4.6x	
1974	14.4	4.1x	
1975	11.4	3.3x	
1976	12.4	3.3x	3.3x
1977	13.9	3.8x	3.6x
1978	15.2	4.2x	3.9x
1979*	14.7	4.0x	3.5x

* 12 months ended September 30, 1979

(a) Includes return granted on unamortized investment credits.

(b) Includes pro rata portion of TUFCO and TUGCO interest on Senior Notes.

Source: Texas Power & Light

TEXAS POWER & LIGHT COMPANY
Total Construction Costs, AFUDC, and Return on Common Equity
1967-1979
($000 Omitted)

Year (1)	Total Construction Costs (Incl. AFUDC) (2)	Total Construction Costs (Excl. AFUDC) (3)	AFUDC As % of Income Avail. For Common(a) (4)	Return On Average Common Equity(a) (5)	Return on Average Common Equity (Excl. AFUDC)(a) (6)
1967	$ 51,169	$ 49,372	6.3%	17.6%	16.5%
1968	64,257	62,746	5.5	15.8	15.0
1969	75,823	72,715	9.7	16.6	15.0
1970	87,922	83,937	10.8	16.8	15.0
1971	100,604	94,693	14.2	16.3	14.0
1972	107,764	102,796	10.4	16.7	15.0
1973	152,542	147,142	10.7	15.3	13.7
1974	203,771	192,165	20.2	14.4	11.5
1975	264,776	250,272	26.8	11.4	8.3
1976	261,171	242,063	28.1	12.4	8.9
1977	278,075	257,408	23.3	13.9	10.7
1978	305,095	286,975	17.1	15.2	12.6
1979*	364,284	342,802	19.3	14.7	11.8

* 12 months ended September 30, 1979.

(a) Includes return granted on unamortized investment tax credits.

Source: Texas Power & Light

Exhibit MDL-8
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Salomon Brothers

Stock Research

S&P 400 INDUSTRIALS
STOCK MARKET DATA
1967-1978

Year	Earnings Per Share	Market Price Per Share	Market/ Book Ratio	Return on Equity	Fixed Charge Coverage
1967	$ 5.62	$ 95.73	205%	12.0%	11.0X
1968	6.16	106.54	217	12.6	10.6
1969	6.13	107.00	210	12.0	8.9
1970	5.41	89.23	171	10.4	7.3
1971	5.97	107.60	199	11.1	7.6
1972	6.83	122.57	216	12.0	8.1
1973	8.89	118.96	196	14.7	8.5
1974	9.61	90.59	139	14.7	8.0
1975	8.58	92.56	134	12.4	7.1
1976	10.64	111.17	152	14.5	7.4
1977	11.57	109.40	138	14.6	7.9
1978	13.12	107.12	125	15.4	8.0

Sources: Standard & Poor's; Salomon Brothers

Salomon Brothers

Stock Research

PERCENT RETURN ON NET WORTH* OF LEADING MANUFACTURING COMPANIES
(1974-1978)

	Industrial Group	1974 %	1975 %	1976 %	1977 %	1978 %
1.	Baking	12.0	17.0	16.1	18.5	20.1
2.	Dairy Products	13.2	14.3	14.7	14.8	15.6
3.	Meat Packing	6.7	12.7	12.9	10.4	10.5
4.	Sugar	21.3	23.2	11.4	9.1	12.0
5.	Other Food Products	14.4	14.1	16.1	15.3	16.5
6.	Soft Drinks	19.0	20.6	22.4	22.7	22.8
7.	Brewing	12.3	10.3	11.5	10.3	11.4
8.	Distilling	14.1	11.5	16.3	11.9	14.2
9.	Tobacco Products	16.4	17.9	17.2	19.3	19.8
10.	Textile Products	9.1	3.4	9.6	9.0	9.6
11.	Clothing & Apparel	9.8	9.3	12.3	11.2	14.7
12.	Shoes, Leather, etc.	11.5	10.7	15.0	13.6	16.3
13.	Rubber & Allied Products	9.7	7.8	7.5	10.4	6.2
14.	Lumber & Wood Products	15.9	10.0	15.5	16.1	19.7
15.	Furniture & Fixtures	8.2	7.0	9.8	8.8	9.6
16.	Paper and Allied Products	18.3	12.7	14.8	14.2	14.0
17.	Printing & Publishing	14.5	12.9	13.9	17.4	18.4
18.	Chemical Products	18.8	15.8	16.1	14.5	15.0
19.	Paint & Allied Products	11.7	9.0	10.9	12.5	8.1
20.	Drugs & Medicines	21.0	20.4	20.0	18.8	21.5
21.	Soap, Cosmetics	17.9	18.0	18.3	19.4	20.8
22.	Petroleum Products & Refining	19.6	13.9	14.8	14.2	14.3
23.	Cement	8.8	7.1	9.8	13.0	19.7
24.	Glass Products	10.6	9.8	17.3	13.6	13.6
25.	Other Stone & Clay Products	9.1	8.2	10.6	11.6	17.5
26.	Iron & Steel	17.1	10.0	8.7	6.5	9.6
27.	Nonferrous Metals	15.1	7.4	8.5	7.8	10.2
28.	Hardware & Tools	17.7	13.6	16.3	15.9	18.4
29.	Building, Heating & Plumbing Equip.	14.2	12.3	21.0	22.4	21.8
30.	Other Metal Products	14.0	13.0	15.0	15.4	13.6
31.	Farm, Construction, Material Hand. Eqpt.	14.8	18.7	17.9	17.5	18.3
32.	Office Equipment & Computers	16.3	15.9	17.4	18.3	22.5
33.	Other Machinery	12.2	11.6	13.6	15.4	17.0
34.	Electrical Equipment & Electronics	13.1	12.7	16.2	17.2	18.0
35.	Household Appliances	5.3	6.2	17.4	19.0	15.7
36.	Autos & Trucks	6.1	5.7	18.3	20.3	17.2
37.	Automotive Parts	10.4	9.6	15.3	16.4	17.8
38.	Aerospace	13.8	11.7	13.6	16.3	19.7
39.	Instruments, Photographic Goods, etc.	16.1	14.3	15.7	16.2	19.1
40.	Miscellaneous Manufacturing	9.5	8.4	15.2	12.3	16.4
41.	Total	15.2	12.6	15.0	15.0	15.9

Source: Citibank Monthly Economic Newsletter - April Issues.

*Net worth includes common and preferred shareholders' equity.

EXAMPLE OF EFFECTS OF SELLING ADDITIONAL EQUITY AT BOOK VALUE, BELOW BOOK VALUE AND ABOVE BOOK VALUE

	Present	Sale at Book Value ($20)	Sale Below Book Value ($15)	Sale Above Book Value ($25)
Stockholder Equity	$1,000,000	$2,000,000	$1,750,000	$2,250,000
Shares Outstanding	50,000	100,000	100,000	100,000
Book Value Per Share	$20	$20	$17.50	$22.50
Return on Equity	16%	16%	16%	16%
Earnings Per Share	$3.20	$3.20	$2.80	$3.60
Dividend Per Share	$2.24	$2.24	$2.24	$2.24
Payout	70%	70%	80%	62%

Source: Salomon Brothers

REQUIRED RETURNS ON BOOK EQUITY
TO YIELD A GIVEN MARKET RETURN

Market/Book Ratio	Return On Equity		
1.00	15.0%	15.5%	16.0%
1.05	15.5	16.0	16.5
1.10	16.0	16.5	17.0
1.15	16.4	16.9	17.4
1.20	16.9	17.4	17.9

*Based on the relationship ROE = P/B (k-g) + g when:

ROE - required return on book equity

k = required return on market equity

g = growth rate

P/B = market book ratio

The derivation of this formula is shown on pages 2 and 3.

The table assumes growth rates of 5.5%, 6.0% and 6.5% associated with 15.0%, 15.5%, and 16.0% required market returns.

Source: Salomon Brothers

Salomon Brothers

Stock Research

Derivation of Formula Used to Convert Market Return to Book Return

I. Definition of Symbols

P = market price of a share of stock

B = book value per share

D = dividends per share

THUS

P/B = market to book ratio

k = annual required rate of return on equity capital = market return

ROE = return on book equity

g = growth rate of earnings per share. This is the same as the growth rates of dividends and retained earnings, since the payout ratio is assumed constant.

II. Derivation

A. If for simplicity, we assume continuous growth in dividends at annual rate g, then

$$k = \frac{D}{P} + g \qquad (1)$$

B. By definition,

$$ROE = \frac{\text{earnings}}{B} = \frac{D + \text{retained earnings}}{B} \qquad (2)$$

Neglecting changes in ROE, and assuming all growth comes from retained earnings (thus neglecting the effect of the sale of new shares above or below book),

$$\frac{\text{retained earnings}}{B} = g \qquad (3)$$

From (2) and (3),

$$ROE = \frac{D}{B} + g \qquad (4)$$

Salomon Brothers

Stock Research

C. Rearranging (1),

$$D = P\,(k-g) \qquad (5)$$

Substituting this form of D in (2),

$$ROE = \frac{P}{B}\,(K-g) + g \qquad (6)$$

III. Demonstration that if allowed return on equity (ROE) is equal to investors' return requirement (K); the market price (P) will equal book value (B).

Rearranging (1)

$$P = \frac{D}{K-g} \qquad (7)$$

Rearranging (4)

$$B = \frac{D}{ROE-g} \qquad (8)$$

Dividing (7) by (8)

$$\frac{P}{B} = \frac{ROE-g}{K-g} \qquad (9)$$

Therefore if K = ROE, P must equal B.

If an issuing company is to issue new stock and receive net proceeds at least equal to book value P must be greater than B to allow to market pressure and selling costs and therefore ROE should be higher than K.

STATE OF NEW YORK :

COUNTY OF NEW YORK:

BEFORE the undersigned authority on this day personally appeared MARK D. LUFTIG, who, having been placed under oath by me, did swear follows:

"My name is MARK D. LUFTIG. I am of legal age and a resident of the State of New York. The foregoing testimony, and exhibits offered on behalf of Texas Power & Light Company, are true and correct and the opinions stated therein are to the best of my knowledge and belief accurate, true, and correct."

Mark D. Luftig

MARK D. LUFTIG

SUBSCRIBED AND SWORN TO BEFORE ME by the said Mark D. Luftig 7th day of December, A.D. 1979.

Catherine Morgan

NOTARY PUBLIC in and for the
State of New York
My Commissions expires 3/30/81

CATHERINE MORGAN
Notary Public, State of New York
No. 24-4507063
Qualified in Kings County
Commission Expires March 30, 19 81