IV. CORRECT SET OF RISK PROXY COMPANIES (JDPL Issues II-1-A; II-1-C; II-2-A; II-2-C)

Q. What risk proxy companies did you use to estimate the cost of capital input in studies of the forward-looking cost of providing unbundled network elements in Virginia?

A. I used the S&P Industrials as a proxy group for the risk of investing in the facilities required to provide unbundled network elements in Virginia.

Q. Why did you use the S&P Industrials as a proxy for the risk of investing in the facilities required to provide UNEs in Virginia?

A. I used the S&P Industrials as a proxy for the risk of investing in the facilities required to provide unbundled network elements for several reasons. First, there are no publicly-traded companies whose sole business is the provision of unbundled network elements to competitors. Companies that would most closely resemble a "network element leasing company" include companies such as Global Crossing, Level 3 Communications, and Metromedia Fiber Network. These companies provide telecommunications network services in the wholesale market. However, as I have noted, these companies do not have sufficient data for the application of traditional cost of equity techniques.

Second, the S&P Industrials are a broad sample of companies in competitive markets whose aggregate risk is average. Because the sample of companies in the S&P Industrials is broad, the use of the S&P Industrials significantly reduces the estimation error in the cost of capital that can arise when a small sample of companies is chosen from an industry that is undergoing unprecedented restructuring.

Third, the three remaining Regional Bell Holding Companies are simply too small a sample for the purpose of estimating the cost of capital. In addition, the RBHCs receive a very small percentage of their revenues from the leasing of unbundled network elements.

Finally, the risk of the RBHCs is approximately equal to the risk of the S&P Industrials, as evidenced by the fact that the RBHCs and the S&P Industrials have approximately the same average market value capital structure. Companies with similar risk generally use similar capital structures to finance their business activities.

Q. Does Mr. Hirshleifer agree with your use of the S&P Industrials as a proxy for the risk of investing in the facilities required to provide UNEs?

A. No. Mr. Hirshleifer asserts on page 17 of his rebuttal testimony that:

> It simply makes no sense to select a proxy group that has nothing in common with firms providing local retail phone service, much less a company set up solely for the purpose of leasing unbundled network elements at wholesale.

Q. Do you agree with Mr. Hirshleifer's assertion that the S&P Industrials have nothing in common with a company set up solely for the purpose of leasing unbundled network elements at wholesale?

A. No. Mr. Hirshleifer's assertion implies that companies must be in the same line of business to have the same degree of risk. This idea is false. Economists recognize that companies need not be in the same line of business to be considered similar in risk.

Indeed, the CAPM, which Mr. Hirshleifer has used to estimate the cost of equity, is based on the premise that all companies whose returns co-vary equally with the market portfolio are equal in risk, no matter what their line of business. Thus, Mr. Hirshleifer's assertion is inconsistent with his own testimony regarding the use of the CAPM to estimate the cost of equity.

Mr. Hirshleifer's claim also ignores the fact that the S&P Industrials are similar to a company set up solely for the purpose of leasing unbundled network elements in the most important dimension—namely, risk. As I have noted previously, from the investor's viewpoint, the company set up solely for the purpose of providing unbundled network elements to competitors faces higher operating leverage, higher risk of technological change, and greater regulatory uncertainty than the average company in the S&P Industrials.

Q. On page 19 of his rebuttal testimony Mr. Hirshleifer criticizes you for assuming "(without offering a shred of empirical support) that the risks faced by VZ-VA are the same as the average industrial company." Does Mr. Hirshleifer provide any empirical support for his assumption that his group of telecommunications holding companies faces the same risk as a company set up solely for the purpose of providing unbundled network elements to competitors?

A. No. Mr. Hirshleifer provides no evidence for this assumption. Indeed, his assertion that his group of telecommunications holding companies is in the same line of business as a network element leasing company is inconsistent with his own statements that the

network element leasing business is different from the local exchange, wireless, Internet service, and other businesses of his telecommunications holding companies.

Q. On page 31 of his rebuttal testimony, Mr. Hirshleifer argues that the network element leasing business is less risky than the businesses of the telecommunications holding companies. Does he provide any evidence for this contention?

A. No. Mr. Hirshleifer merely assumes that his contention is correct. He provides no evidence in support of his contention.

Q. Do you agree with Mr. Hirshleifer's use of a group of telecommunications holding companies as proxies for the risk of investing in a network element leasing company?

A. No. Mr. Hirshleifer ignores several problems with the use of telecommunications holding companies as a proxy for the risk of investing in a company set up solely for the purpose of leasing unbundled network elements to competitors. First, Mr. Hirshleifer ignores the fact that there are only four telecommunications holding companies in his proxy group. A sample of this size is simply too small to provide reliable cost of capital estimates.

Second, Mr. Hirshleifer ignores the basic fact that revenues from the leasing of unbundled network elements are an insignificant portion of the total revenues of his telecommunications holding companies. Given the diversified nature of his group of telecommunications holding companies, there is no reason to believe that they are more similar in risk to a business set up solely for the purpose of providing unbundled network elements than are the S&P Industrials.

1

2 **Q. Mr. Hirshleifer argues that major brokerage firms "view other telephone holding**
3 **companies as the best proxies for the subject telephone holding company."**
4 **[Hirschleifer Rebuttal at 18.] Is this a good reason for using the telecommunications**
5 **holding companies as a proxy for the network element leasing business?**
6 A. No. Although brokerage firms may use telecommunications holding companies as
7 proxies for other telecommunications holding companies, they do not use
8 telecommunications holding companies as risk proxies for the business of leasing
9 unbundled network elements. Indeed, the business of leasing unbundled network
10 elements is generally not considered in financial analysts' reports because there are no
11 publicly-traded firms that are solely in the business of leasing UNEs.
12

13 **Q. Mr. Hirshleifer asserts that the telephone holding companies can never be less risky**
14 **than the business of leasing unbundled network elements because "[o]verall risk can**
15 **never fall because of the acquisition of systematically riskier businesses."**
16 **[Hirschleifer Rebuttal at 31.] Do you agree with Mr. Hirshleifer's assertion?**
17 A. No. Mr. Hirshleifer's assertion is incorrect. The telecommunications holding companies
18 can be less risky than the business of leasing UNEs if either of the following is true:
19 (1) the cash flows of the telecommunications holding company's various businesses are
20 less than perfectly correlated; and (2) there are significant synergies among the
21 telecommunications holding companies various businesses. Because the cash flows of
22 the telecommunications holding companies are less than perfectly correlated, and there
23 are enormous synergies in offering a complete package of telecommunications services—
24 as opposed to a single offering of unbundled network elements—the risk of investing in

1 the telecommunications holding companies is significantly less than the risk of investing
2 in a company offering only a single service such as unbundled network elements.
3
4 In addition, Mr. Hirshleifer ignores the ability of the telecommunications holding
5 companies to diversify away some of the risk of technological change in the
6 telecommunications industry by offering services based on a variety of
7 telecommunications technologies, as compared to offering service based only on fixed
8 wireline technology. Many telecommunications holding companies, for example, offer
9 all distance wireless and Internet Protocol telecommunications service in addition to fixed
10 wireline telecommunications service. These companies face less technological risk than
11 an incumbent LEC offering UNEs to its competitors.
12
13 Finally, Mr. Hirshleifer fails to recognize that new entrants, such as Global
14 Crossing, Level 3 Communications, and Metromedia Fiber Network that operate
15 primarily in the wholesale market are considered to be more risky than companies such as
16 the RBHCs, which offer a wider package of services.
17
18 **Q. Did your use of the S&P Industrials as a cost of capital proxy increase your estimate**
19 **of the cost of capital in this proceeding?**
20 A. No. In my direct testimony, I estimated the average DCF cost of equity for the S&P
21 Industrials. The S&P Industrial group includes three major telecommunications holding
22 companies, BellSouth, SBC, and Verizon. The weighted average DCF result for these
23 companies is 15.46%. My direct testimony also demonstrates that the average market
24 value capital structure for the telecommunications holding companies does not differ

materially from the average market value capital structure of the S&P Industrial group. Thus, my use of the S&P Industrials as a cost of capital proxy group did not increase my cost of capital recommendation in this proceeding.[13/]

V. THE GROWTH ASSUMPTION IN THE DCF MODEL (JDPL Issues II-1-A; II-1-C; II-2-A; II-2-C)

Q. What DCF Model did you use to estimate the cost of equity input in your studies of the cost of providing unbundled network elements?

A. I used a single-stage DCF Model in which growth is assumed to remain constant over the life of the company.

Q. Does Mr. Hirshleifer agree with your use of the single-stage DCF Model to estimate the cost of equity input in UNE cost studies?

A. No. On page 13 of his rebuttal testimony, Mr. Hirshleifer states,

> The fallacy of Dr. Vander Weide's growth assumptions is easily demonstrated. If any one of the companies in Dr. Vander Weide's S&P group experienced super-normal growth in excess of the market-wide rate of growth forever, that one company would eventually grow to become the entire economy.

[13/] Although a sample of only three companies is too small to draw firm conclusions regarding the cost of equity for the network element leasing business, the fact that the average DCF result for this small sample exceeds my recommended cost of equity demonstrates that my choice of the S&P Industrials as a proxy for the network element leasing business did not bias my result upwards.

Q. Do you agree with Mr. Hirshleifer's contention that the single-stage DCF Model cannot be used to estimate the cost of equity because a company cannot grow at a rate in excess of the economy-wide growth rate forever?

A. No. As I describe on page 44 of my rebuttal testimony, Mr. Hirshleifer fails to recognize that:

> (1) Companies do not have to grow at the same rate forever for the single-stage DCF Model to be a reasonable approximation of how prices are determined in capital markets;
>
> (2) It is common for companies to grow at rates significantly greater than the rate of growth in GNP for long periods of time; and
>
> (3) Evidence suggests that investors expect the telecommunications holding companies to grow at a rate significantly greater than 6.29% in the long run.

Q. On page 16 of his rebuttal testimony, Mr. Hirshleifer argues that, if investors believed that dividends would grow at high rates forever, the company's stock price would rise. Do you agree with this argument?

A. No. Mr. Hirshleifer provides no evidence that investors do not already assume that dividends will grow at a constant rate for long periods of time. If investors already make this assumption, then the stock price already incorporates this assumption, and, hence, will not rise.

1 **Q. Mr. Hirshleifer claims on page 13 of his rebuttal testimony that you have provided**
2 **no support for your assumption that investors expect that the I/B/E/S growth rates**
3 **can be achieved in the long run. Is he correct?**
4 A. No. As I note on page 46 of my rebuttal testimony and demonstrate in Vander Weide
5 Rebuttal Schedule 4, the average long-run internal growth rate implied by Value Line's
6 long-run forecasted rate of return on equity and retention ratio for Mr. Hirshleifer's
7 telecommunications holding companies is 15.6%, a number in excess of both the average
8 analysts' long-term growth rate for these companies and Mr. Hirshleifer's estimate of the
9 economy-wide growth rate.
10
11 **Q. Does Mr. Hirshleifer provide any evidence that his own three-stage growth**
12 **assumptions are reasonable?**
13 A. No. Mr. Hirshleifer's three-stage growth assumptions are completely arbitrary. He
14 provides no evidence whatsoever that investors believe that his growth assumptions for
15 the telecommunications holding companies are reasonable.
16
17 **Q. Do you have any evidence that Mr. Hirshleifer's three-stage DCF Model, in fact,**
18 **produces unreasonable results?**
19 A. Yes. In my rebuttal testimony, I provide extensive evidence that Mr. Hirshleifer's three-
20 stage Model produces results that are inconsistent with the common sense standard that
21 the cost of equity should increase with the level of risk. In particular, I demonstrate that:
22 (1) Mr. Hirshleifer's three-stage DCF Model produces a cost of capital estimate, 9.54%,
23 that is substantially less than AT&T's own 15.306% internal estimate of the forward-
24 looking cost of capital for its telecommunications network; and (2) Mr. Hirshleifer's

three-stage DCF methodology produces lower cost of equity estimates for high-risk companies than for low-risk companies. Indeed, Mr. Hirshleifer's three-stage DCF methodology produces lower DCF results for companies in the S&P 500 (8.71%) than for companies offering local exchange service (10.02%), and lower DCF results for companies offering local exchange service than for natural gas and electric utilities (11.56% and 12.17%, respectively). Furthermore, Mr. Hirshleifer's three-stage DCF Model produces lower DCF results for companies with high betas, for companies with high growth, and for companies with low dividend yields. Each of these results is contrary to the reasonable expectation that required return increases with increased risk.

Q. Did Mr. Hirshleifer respond to your tests of the reasonableness of his cost of capital methodology in his rebuttal testimony in New York (Case 98-C-1357, dated October 19, 2000)?

A. Yes. Mr. Hirshleifer responded in several ways. First, he argued that I ignored his analytical procedures and used data that are different from the DCF and beta results he shows in his attachments. Second, he argued that the DCF and CAPM approaches are distinct models and that there is no reason why there should be a direct relationship between the beta input to the CAPM and the cost of equity results from the DCF Model. Third, he argued that my use of DCF results for various types of companies ignores the need to average results and also ignores his decision to delete companies that had dividend yields lower than 1.5%. Fourth, he argued that there are problems in my statistical analysis of the relationship between dividend yields and growth rates and Mr. Hirshleifer's DCF results. Last, Mr. Hirshleifer argued that, in at least one instance, I used groups with very few companies.

Q. Did you "ignore" Mr. Hirshleifer's analytical procedures in your tests of the reasonableness of his DCF results?

A. No. I used precisely the same analytical procedures that Mr. Hirshleifer used in his direct testimony in this proceeding. The major difference between the DCF analysis I used in my tests of reasonableness and Mr. Hirshleifer's DCF analysis is my consideration of whether the DCF results for individual companies were related to risk as measured by beta, industry classification, growth, and dividend yield. Mr. Hirshleifer claims that individual results are meaningless and that one can only obtain meaningful results by averaging across all companies.

Q. Do you agree with Mr. Hirshleifer's assertion that individual DCF results are meaningless and that one can only obtain meaningful results by averaging across all companies in a group?

A. No. While I realize that individual DCF results are measured with error, I strongly believe that there should be at least some relationship between individual DCF results and the risk indicators for those companies. If the individual DCF results are not related in any way to risk, then the average of those results will also be unrelated to risk and, hence, will be equally meaningless. It is a fundamental premise of finance theory that risk and required return are strongly related.

1 **Q. Can you give an example of how Mr. Hirshleifer's DCF results, even for groups of**
2 **companies, fail to satisfy the basic relationship between risk and return?**
3 A. Yes. In Table 1 of my rebuttal testimony in this proceeding, for example, I show the
4 average three-stage DCF Model results for various groups of companies using data for the
5 same time as Mr. Hirshleifer used in his testimony. The data in this table indicate that
6 Mr. Hirshleifer's three-stage DCF Model produces DCF results that are inversely related
7 to risk. In particular, groups of companies with higher risk have lower DCF results, and
8 groups of companies with lower risk have higher DCF results. The inverse relationship
9 found in Mr. Hirshleifer's results is entirely contrary to the positive relationship between
10 risk and return required by common sense.
11
12 **Q. Could the inverse relationship between risk and return for these groups of**
13 **companies be explained by Mr. Hirshleifer's comment that you looked at individual**
14 **companies, while he recommends looking at the average result for a group of**
15 **companies?**
16 A. No. The results shown in Table 1 of my rebuttal testimony all relate to average DCF
17 results for groups of companies, not to the DCF results for individual companies.
18
19 **Q. Can the inverse relationship between risk and return shown in Table 1 of your**
20 **rebuttal testimony be explained by your inclusion of companies with dividend yields**
21 **of less than 1.5%?**
22 A. No. Even if I had included only those companies with dividend yields greater than 1.5%,
23 the Hirshleifer model results would still reveal an inverse relationship between risk and
24 return. For example, Mr. Hirshleifer does not explain why, using his three-stage DCF

Model, the 10.93% average DCF result for those companies in the S&P 500 with dividend yields greater than 1.5%, or the 10.06% DCF estimate for telecommunications holding companies with local exchange operations that have a dividend yield greater than 1.5%, should be significantly less than the 12.17% average DCF result his three-stage model produces for electric companies. I am not aware of any analyst who would claim that the average electric company is more risky than either the average S&P 500 company or the average telecommunications company with local exchange operations; yet, this is the anomalous result obtained using Mr. Hirshleifer's three-stage DCF Model.

Q. Do you agree with Mr. Hirshleifer's assertion on page 64 of his New York rebuttal testimony that there should be no relationship between the beta input to the CAPM and the cost of equity result from the DCF Model?

A. No. Although the CAPM and the DCF are distinct models, financial analysts generally agree that the beta input to the CAPM is a general measure of risk, and that, on average, there should be a direct relationship between this measure of risk and the cost of equity. My regression analysis tests whether there is, in fact, a direct relationship on average between Mr. Hirshleifer's three-stage DCF Model results and a common estimate of beta. The data shown on Table 2 of my rebuttal testimony in this proceeding show that, in fact, there is an inverse relationship between risk as measured by beta and Mr. Hirshleifer's three-stage DCF Model results. This relationship does not necessarily hold for each company in the group, but it holds on average across all companies in the sample group. Mr. Hirshleifer's response simply does not explain away the unreasonableness of a model that produces results that are inversely related to risk as measured by beta.

Q. Do you agree with Mr. Hirshleifer's assertion on page 71 of his New York rebuttal testimony that higher dividend yields on average indicate higher expected returns?

A. No. It has been common wisdom in the financial community that investors with low risk preferences should invest in companies with high dividend yields because these companies have lower risk. The common sense behind this recommendation from the financial community is that dividends are more certain than capital gains. Thus, companies with high dividend yields generally should have lower costs of capital than companies with low dividend yields. In contrast, Mr. Hirshleifer's three-stage DCF Model produces the opposite result: low risk companies with high dividend yields have higher three-stage DCF Model results than high-risk companies with low dividend yields.

Q. Mr. Hirshleifer argued in his New York rebuttal testimony at page 71 that the finance literature supports his contention that high dividend yields are associated with higher expected returns. Has Mr. Hirshleifer correctly characterized this literature?

A. No. The finance literature suggests that, for companies with the *same* risk, high dividend yields may be associated with higher required returns. This result makes sense, because dividends are taxed at a higher rate than capital gains. However, it is important to emphasize that the result only holds for companies of the *same* risk. When one considers all companies with different levels of risk, the finance literature indicates that companies with high dividend yields have lower expected returns.

1 **Q. Mr. Hirshleifer also claimed in his New York rebuttal testimony at page 71 that you**
2 **have suggested that increases in the dividend yield reflect an increase in the cost of**
3 **capital. Is that correct?**
4 A. No. The issue in tests of reasonableness is: does a low-risk company with a high
5 dividend yield have a lower or higher cost of equity than a high-risk company with a low
6 dividend yield? I demonstrate in Table 3 of my rebuttal testimony in this proceeding that
7 Mr. Hirshleifer's three-stage DCF Model produces results that are inconsistent with the
8 proposition that high-risk companies have higher required rates of return. In prior
9 testimony before this Commission, I used evidence that dividend yields for the *same*
10 companies had increased over time to suggest that their cost of equity may have increased
11 (that is, a higher dividend yield plus the same growth equals a higher cost of equity). I
12 specifically did not suggest that companies with higher dividend yields should have
13 higher costs of equity than other companies with lower dividend yields.
14
15 **Q. Mr. Hirshleifer also argued in his New York rebuttal testimony at page 70 that your**
16 **regression of the five-year I/B/E/S growth rates against the DCF results from his**
17 **three-stage DCF Model is irrelevant because he uses the I/B/E/S growth rate only**
18 **for an initial period. Do you agree?**
19 A. No. Companies with high I/B/E/S growth rates are generally considered to be companies
20 with higher risk. Thus, one should generally expect that high I/B/E/S growth rate
21 companies should have higher required rates of return on equity. Contrary to this
22 expectation, Mr. Hirshleifer's three-stage DCF Model produces the unreasonable result
23 that companies with high I/B/E/S growth rates have lower costs of equity, as indicated by

his three-stage DCF Model. There is simply no way to explain this result, other than to conclude that his three-stage DCF Model does not capture the way investors value stocks.

Q. Mr. Hirshleifer argued at page 68 of his New York rebuttal that you did not follow his approach in your tests of reasonableness because you selected groups with very few companies. Do you agree with his criticism?

A. No. I disagree with Mr. Hirshleifer's criticism in two regards. First, since Mr. Hirshleifer's entire analysis is based on the DCF results for only four telecommunications companies and CAPM results for five telecommunications companies, the best way to follow Mr. Hirshleifer's approach would be to select a group of very few companies. Second, most of my tests of reasonableness analyze large groups of companies. Indeed, the majority of my tests relate to Mr. Hirshleifer's sample of companies from the S&P 500, a group that is significantly larger than Mr. Hirshleifer's samples of four or five.

Q. In summary, Dr. Vander Weide, do you agree with Mr. Hirshleifer's view that your tests of reasonableness support his cost of equity rather than yours?

A. No. Not one of my tests of reasonableness supports Mr. Hirshleifer's cost of equity methods or results. In fact, all of my tests of reasonableness support the reasonableness of my approach to estimating the cost of equity and the reasonableness of my recommendation. Mr. Hirshleifer's responses to my tests of reasonableness in his New York rebuttal testimony illustrate his failure to grasp the basic relationship between risk and return in financial markets.

1 **Q. In your rebuttal testimony, you note that Mr. Hirshleifer's 9.54% cost of capital**
2 **estimate for telephone network operations is significantly less than AT&T's internal**
3 **estimate of the cost of capital for telephone operations. How has Mr. Hirshleifer**
4 **responded to this criticism of his testimony?**
5 A. Mr. Hirshleifer argued in his New York rebuttal testimony that he finds it "ironic" that I
6 would agree with AT&T's internal cost of capital estimate, when I have disagreed with
7 AT&T's cost of capital estimates in all TELRIC proceedings. Second, Mr. Hirshleifer
8 argued that I have failed to explain how AT&T's 1997 view regarding the forward-
9 looking cost of capital is relevant to today's estimate of the cost of capital for the network
10 element leasing business.
11
12 **Q. Can you explain why you might agree with AT&T's internal cost of capital estimate**
13 **at the same time you disagree with AT&T's cost of capital estimates in TELRIC**
14 **proceedings?**
15 A. Yes. Since AT&T's internal 15.306% cost of capital estimate is 577 basis points higher
16 than Mr. Hirshleifer's 9.54% cost of capital estimate in this proceeding, AT&T's internal
17 estimate of the cost of capital is obviously based on more reasonable assumptions and
18 cost of capital methodologies than Mr. Hirshleifer's 9.54% estimate in this proceeding.
19
20 **Q. Can you explain why AT&T's internal cost of capital estimate could be so much**
21 **higher than its cost of capital estimate in this proceeding?**
22 A. Yes. In this proceeding, AT&T has an interest in using a low weighted average cost of
23 capital as an input in its model of the forward-looking cost of providing unbundled
24 network elements. In contrast, in analyzing its own incremental cost of building a

telecommunications network, AT&T had an economic interest in using a realistic estimate of the cost of capital. If they were to use either too high or too low an estimate of the cost of capital in analyzing their own incremental cost of building a telecommunications network, they would make incorrect investment decisions in their own network.

Q. Doesn't Verizon also have an economic interest in using a high weighted average cost of capital in its cost studies?

A. Perhaps. However, in stark contrast to AT&T, Verizon uses the same cost of capital for internal investment decisions as it has used in its TELRIC cost models. In other words, when Verizon is making investment decisions for its own network, it uses the same 12.95% as it has used in its cost studies here.

Q. Could the dramatic difference between AT&T's internal estimate of its cost of capital in 1997 and Mr. Hirshleifer's estimate of the cost of capital for telephone operations in 2000 be explained by a decline in interest rates over the last three years?

A. No. The average yield on A-rated industrial debt increased by approximately 50 basis points from 1997 to June 2000, the time of Mr. Hirshleifer's studies (8.00% in June 2000 compared to an average of 7.47% for calendar year 1997).

Q. Could the 577 basis point difference between AT&T's 15.306% estimate of the cost of money and Mr. Hirshleifer's 9.54% estimate of the cost of money for telephone operations be explained by differences in risk between AT&T's telephone operations and those of Verizon?

A. No. AT&T's investment in telephone operations is very similar in risk to Verizon's. Both include investments in switches, cable, and the electronics of communications networks. Even if an investment in AT&T's long distance operations were slightly more risky than an investment in Verizon's local exchange operations, this difference certainly could not explain the magnitude of the difference between AT&T's internal estimates of the cost of capital and Mr. Hirshleifer's estimate of Verizon's cost of capital. Recall, once again, that AT&T had a direct economic interest in using a realistic estimate of the cost of capital in its internal calculations, but has an interest in this proceeding in presenting a low estimate of the cost of capital. Furthermore, unlike AT&T, Verizon has used the ***same*** estimate of the cost of capital in making internal investment decisions as it has presented in UNE proceedings.

VI. COST OF DEBT
(JDPL Issues II-1-A; II-1-C; II-2-A; II-2-C)

Q. How did you estimate the cost of debt for the business of leasing unbundled network elements?

A. I used the average yield to maturity on A-rated industrial bonds as my estimate of the cost of debt for the business of leasing unbundled network elements.

1 **Q. Why did you use the average yield to maturity on A-rated industrial bonds as your**
2 **estimate of the cost of debt for the business of leasing unbundled network elements?**
3 A. I used the average yield to maturity on A-rated industrial bonds because my proxy group
4 has an average A bond rating, and companies investing in the long-term assets required to
5 lease unbundled network elements would very likely finance the debt component of their
6 investment with A-rated industrial bonds.
7
8 **Q. Does Mr. Hirshleifer agree with your use of the yield to maturity on A-rated**
9 **industrial bonds to estimate the cost of debt for the business of leasing unbundled**
10 **network elements?**
11 A. No. On page 32 of his rebuttal testimony, Mr. Hirshleifer states,

12 Dr. Vander Weide does not even attempt to demonstrate that those debt
13 costs approximate the cost of debt in the telephone industry, much less for
14 the business of leasing of unbundled network elements at wholesale to
15 CLECs.

16 **Q. Do you agree with Mr. Hirshleifer's claim that you have not correctly measured the**
17 **cost of debt input in unbundled network element cost studies?**
18 A. No. First, Mr. Hirshleifer fails to recognize that companies with the same bond rating
19 generally incur the same cost of debt. Since it is reasonable to believe that an incumbent
20 LEC building a telecommunications network for the sole purpose of providing UNEs
21 would have approximately an A bond rating, my cost of debt is a reasonable
22 approximation of the forward-looking cost of debt for such a company.

23 Second, since my estimate of the cost of debt is virtually identical to
24 Mr. Hirshleifer's estimate of the cost of debt for comparable time periods, my use of the

yield to maturity on A-rated industrial bonds is not a source of difference between our cost of capital estimates. Mr. Hirshleifer's 7.86% estimate of the cost of debt is based on data at June 30, 2000. My 7.55% estimate of the cost of debt is the average yield on A-rated industrial bonds for March 2001. Thus, my estimate of the cost of debt is slightly less than Mr. Hirshleifer's estimate.

Third, Mr. Hirshleifer has provided no evidence that a company building a telecommunications network for the sole purpose of providing UNEs would use the embedded historical maturities of debt in the capital structures of the former Bell Atlantic and GTE. The former Bell Atlantic and GTE capital structures contained many long-term debt issues that were only several years from maturity, and were therefore priced as short-term debt. It is much more likely that a company building a telecommunications network for the sole purpose of providing UNEs would use primarily long-term debt at current prevailing market rates to finance the debt portion of its investment.

Finally, Mr. Hirshleifer failed to include the debt flotation costs that would certainly be incurred by companies issuing debt for the purpose of building a telecommunications network for the sole purpose of providing UNEs. This issue is also discussed in my rebuttal testimony.

VII. CAPITAL STRUCTURE
(JDPL Issues II-1-A; II-1-C; II-2-A; II-2-C)

Q. What capital structure did you use to estimate the cost of capital in this proceeding?

A. I used a market value capital structure that conservatively approximates the average market value capital structure of the S&P Industrials and the RBHCs over the last five- and ten-year periods.

Q. Does Mr. Hirshleifer agree with your use of a market-weighted capital structure that conservatively approximates the average market value capital structures of the S&P Industrials and the RBHCs to estimate the cost of capital in this proceeding?

A. No. Mr. Hirshleifer argues on page 34 of his rebuttal testimony that the market value capital structure should only be an upper bound for cost of capital estimates because the network element leasing business is a "far less risky business than the overall combined businesses of the publicly-traded Verizon holding company, or the S&P Industrials."

Q. Do you agree with Mr. Hirshleifer's contention that the business of providing unbundled network elements in the wholesale market is much less risky than the businesses of Verizon or the S&P Industrials?

A. No. As I have noted previously, the publicly-traded Verizon holding company owns a portfolio of businesses with significant operating and marketing synergies. Because of these operating and marketing synergies, it is significantly less risky to provide a bundle of telecommunications services than to be in the stand-alone business of leasing unbundled network elements.

1 **Q. On page 34 of his rebuttal testimony, Mr. Hirshleifer claims that Verizon and the**
2 **other telecommunications holding companies have not issued more debt because**
3 **their other telecommunications businesses are too risky. Do you agree with his**
4 **claim?**
5 A. No. Mr. Hirshleifer's statement is pure speculation. He provides no evidence whatsoever
6 to support his claim that Verizon and the other telecommunications companies would
7 have issued more debt if they were only in the local exchange business. Indeed, I have
8 demonstrated in my rebuttal testimony that the local exchange companies have market
9 value capital structures containing 17% to 21% debt and 83% to 79% equity.[14/] Thus, the
10 local exchange subsidiaries have approximately the same market value capital structure as
11 the parent companies.
12
13 **Q. How does Mr. Hirshleifer defend his use of a book value capital structure to**
14 **estimate the cost of capital in this proceeding?**
15 A. On page 34 of his rebuttal testimony, Mr. Hirshleifer states,
16 > At the time that the equity proceeds were recorded on their books at what
17 > was then market value, the telephone holding companies were much more
18 > focused on the traditional monopolistic local exchange business.
19
20 **Q. Do you agree with Mr. Hirshleifer's assertion that equity proceeds were recorded on**
21 **the telephone holding company's books at what was then market value?**
22 A. No. Mr. Hirshleifer's statement is incredibly naïve. The telephone holding companies
23 book equity consists primarily of earnings that were retained over the more than 100 years

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[14/] *See* Vander Weide Rebuttal Schedule 2.

of their existence. These retained earnings were undoubtedly recorded at book value, not market value.

Q. Does this conclude your surrebuttal testimony?

A. Yes, it does.

Declaration of James Vander Weide

I declare under penalty of perjury that the foregoing is true and correct. Executed this

19th day of September , 2001.

James Vander Weide

James Vander Weide