

TELUS: THE COST OF CAPITAL

Professor Stephen R. Foerster revised this case (originally prepared by Professors James E. Hatch and David C. Shaw) solely to provide material for class discussion. The authors do not intend to illustrate either effective or ineffective handling of a managerial situation. The authors may have disguised certain names and other identifying information to protect confidentiality.

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OVERVIEW

Barb Williams and Rick Thomas, two managers from service firms, were attending a weeklong executive education course at a well-known business school in November 2001. Both had read an article dealing with the cost of capital as preparation for the next day's classroom session. As they vigorously discussed the concept, it became clear that they had several differences of opinion. Their assignment was to calculate the cost of capital for Telus Corporation (Telus). Telus was a leading telecommunications company providing a variety of data, voice, and wireless services to both businesses and consumers. The data they gathered are presented in Exhibits 1 to 5.

Rick: What we really want to know is the hurdle rate that Telus should use for its capital investment projects.

Barb: Yes, and we should decide whether the rate ought to be different for different types of projects, such as the purchase of labor-saving equipment or the building of fibre optics underground telecommunications corridors.

Rick: Looking at the balance sheet, I can see that the firm raises funds from quite a few different sources. The best place to start is to look at the cost of the capital raised from each of these sources. The current liabilities except for the "short-term obligations" are mostly trade credit, so their cost is zero.



Barb: Well, the long-term debt isn't interest free, and some of it is quite expensive. For example, the 2021 Telus bonds were issued with a 10.65 per cent coupon. The newspaper says that long-term government bonds are yielding 5.82 per cent.

Rick: But shouldn't we be using current yields that are much lower than the firm paid in the past? My calculations tell me that based on an average coupon rate of 11.00 per cent on all of the long-term Telus bond issues outstanding, with average maturities of about 15 years and average asking prices of about \$118.00 the current average yield is actually 8.81 per cent.¹

Barb: Notice that Telus borrows money from the banks and through the short-term money market as well. Some of its short-term debt is obtained by issuing commercial paper, but most of it is from bank borrowings.

Rick: Well, the prime rate from banks is 4.50 per cent and I suppose that Telus might qualify for the prime rate wouldn't they? The three-month commercial paper rate is extremely low, currently 2.28 per cent, which is even more attractive to the firm. In case we need more information, I also noted that the current rate on 91-day, government treasury bills is 2.15 per cent.

Barb: Telus was able to issue two major preferred stocks at a cost of only 5.00 per cent in the past. That's a lot cheaper than the debt, even though about \$4.00 for every \$100 par value share went to the underwriter.

Rick: The two major preferred issues outstanding were issued at par values of \$100 per share and \$25 per share respectively, and are currently trading to yield about 5.90 per cent each. The company has not issued preferreds for a long time and may not intend to issue them again. Preferreds have a higher after-tax cost than debt according to our instructor, and that makes them less attractive for most issuers.

Barb: Well, if that's true, maybe we can ignore the preferred in our calculations.

Rick: Calculating the cost of common stock is reasonably straightforward. Since the common shareholders are getting regular dividends, we should use the dividend yield.

Barb: No, no! All of the earnings after the dividends to the preferred shareholders belong to the common shareholder, not just the dividends. We should use the earnings-per-share divided by the market price.

¹After allowing for a fee to the underwriter, the cost to the long term debt financing would be 9.31 per cent.

Rick: What about issuing costs? Although the current stock price has dropped to around \$25.00 per share, Telus would likely have to pay the underwriter and others about \$1.75 per share to issue new stock at this price.

Barb: It's not likely that Telus will raise more than one-quarter of its new equity by issuing stock. The rest of the new equity will be retained earnings, which have no cost.

Rick: Retained earnings aren't free capital. They belong to the shareholders. Surely they must expect some type of return!

Barb: I notice from the firm's financial statements that the return on common equity for the company was 7.36 per cent in 2000 and 8.17 per cent in 1999. I realize this is an accounting rate of return computed on the book value of the equity, but I wonder if it can be used to compute the cost of equity capital?

Rick: I would guess that the funds generated by depreciation are free and they are available in large amounts. For example, last year's earnings were over \$457 million after deduction of preferred dividends. Depreciation was over \$1 billion. Capital expenditures for next year are expected to be about \$1.5 billion, so perhaps the bulk of the money can come from depreciation.

Barb: The assigned reading mentioned the beta of a stock. The beta is calculated by regressing the return for Telus against the return on the market index. I went to the library's Bloomberg system and found the beta, estimated based on three years of monthly data ending November 2001, to be 0.75 with an R-squared of 0.13. The beta seems to be an index of the riskiness of the common stock, but it has to be converted into a required return somehow. What I don't understand is how that return compares with the one we get by simply dividing the earnings-per-share by the stock price.

Rick: What do we do once we have the costs of all sources of financing? Do we just take their average?

Barb: Somehow, the average cost doesn't make sense to me. I think we should just use the cost of the next source of financing. For example, Telus expects to issue \$30 million in debt next month. Maybe the interest rate on that issue should be used as the hurdle rate for any new projects that are undertaken with those funds.

Rick: After we get this cost of capital, would you advise Telus to use the net-present value method or the internal-rate of return method to evaluate projects?

Barb: I don't think it matters. The two methods both give the same answer.

Rick: Well, let's get on with this calculation. We have a long night ahead of us.
I wish someone would just "Telus" the cost of capital!

Exhibit 1

BALANCE SHEET AS OF DECEMBER 31, 2000¹
(\$ millions)

ASSETS

Current Assets	\$ 1,749.0
Capital Assets (Net)	11,531.0
Deferred Charges	216.0
Future Income Taxes	1,024.0
Leases Receivable	81.0
Investments	18.0
Goodwill	1,795.0
Other	<u>1.0</u>

TOTAL ASSETS \$ 16,415.0

LIABILITIES AND EQUITY

Current Liabilities:

Account Payable and Accrued Liabilities	\$ 1,326.0
Short-term Obligations ⁽²⁾	5,033.0
Other Short-term Liabilities	<u>310.0</u>
Total Current Liabilities	6,669.0
Long-Term Debt	3,047.0
Other Long-term Liabilities	281.0
Preferred Shares	70.0

Common Shareholders' Equity	
Common Shares ⁽³⁾	4,785.0
Retained Earnings	<u>1,563.0</u>
Total Common Shareholders' Equity	6,348.0

TOTAL LIABILITIES AND EQUITY \$ 16,415.0

¹ This balance sheet has been simplified somewhat for the ease of discussion.

² These were several notes, all of which expired within one year, carrying an average interest rate of 5.86 per cent.

³ At the end of 2000, there were approximately 287 million common shares outstanding.

Exhibit 2

INCOME STATEMENT FOR YEAR ENDED DECEMBER 31, 2000¹
(\$ Millions)

Revenues	\$ 6,433
Operating Expenses	<u>5,156</u>
Net Operating Earnings	1,277
Other Income	30
Interest Expense	<u>317</u>
Earnings Before Taxes, Non-controlling Interest and Goodwill Amortization	990
Income Taxes	<u>496</u>
Earnings Before Non-controlling Interest and Goodwill Amortization	494
Non-controlling Interest	<u>9</u>
Income Before Goodwill Amortization	485
Goodwill Amortization	<u>24</u>
NET INCOME	461
Preferred Share Dividends	<u>4</u>
Common Share Earnings	<u><u>\$ 457</u></u>

¹This income statement has been simplified somewhat for the ease of discussion.

Exhibit 3

SELECTED DATA ON TELUS COMMON STOCK, 1969 TO 2000

Year	Common EPS	Common DIV/SH	Closing Stock Price Dec. 31	Total Return ⁽¹⁾
1969	0.51	0.30	14.40	7.20%
1970	0.51	0.30	12.80	-9.03%
1971	0.54	0.32	13.00	4.06%
1972	0.61	0.32	11.30	-10.62%
1973	0.58	0.32	9.80	-10.44%
1974	0.50	0.40	9.40	0.00%
1975	0.69	0.42	11.00	21.49%
1976	0.74	0.46	13.13	23.55%
1977	0.77	0.50	15.25	19.95%
1978	0.78	0.54	17.00	15.02%
1979	0.96	0.58	17.00	3.41%
1980	1.02	0.60	17.00	3.53%
1981	1.11	0.71	15.25	-6.12%
1982	1.05	0.80	17.25	18.36%
1983	1.18	0.80	22.00	32.17%
1984	1.03	0.83	22.00	3.77%
1985	1.10	0.86	26.50	24.36%
1986	1.23	0.86	27.50	7.02%
1987	1.34	0.87	26.25	-1.38%
1988	1.45	0.91	28.13	10.63%
1989	1.58	0.95	18.00	-32.63%
1990	1.72	1.02	19.25	12.61%
1991	1.78	1.10	22.88	24.57%
1992	1.78	1.15	19.63	-9.18%
1993	1.81	1.19	25.38	35.35%
1994	1.88	1.23	24.00	-0.59%
1995	2.00	1.27	25.00	9.46%
1996	1.90	1.31	29.65	23.84%
1997	2.29	1.35	44.50	54.64%
1998	(1.45)	1.40	41.95	-2.58%
1999	1.46	1.40	35.15	-12.87%
2000	1.85	1.40	41.55	22.19%

$$^1 r_t = (D_t + P_t - P_{t-1})/P_{t-1}$$

Where: r_t = Return of year t
 D_t = Dividend in year t
 P_t = Price of common stock at the end of year t
 P_{t-1} = Price at beginning of year t

Exhibit 4

MARKET INDEX, SELECTED DATA 1973 TO 2000

Year	Index Value Dec. 31	Dividend Paid Index Stocks	Total Return (1)
1973	1,207.52	38.28	-0.51%
1974	885.85	49.16	-22.57%
1975	973.78	48.01	15.35%
1976	1,012.10	47.37	8.80%
1977	1,059.59	50.12	9.64%
1978	1,310.00	57.90	29.10%
1979	1,813.20	72.35	43.93%
1980	2,268.70	83.03	29.70%
1981	1,954.20	87.74	-9.99%
1982	1,985.00	80.00	5.67%
1983	2,552.30	82.18	32.72%
1984	2,400.30	88.81	-2.48%
1985	2,900.60	90.79	24.63%
1986	3,066.20	91.68	8.87%
1987	3,160.10	97.33	6.24%
1988	3,390.00	113.90	10.88%
1989	3,969.80	129.02	20.91%
1990	3,256.80	124.74	-14.82%
1991	3,512.40	111.69	11.28%
1992	3,350.40	102.19	-1.70%
1993	4,321.40	97.66	31.90%
1994	4,213.60	100.71	-0.16%
1995	4,713.50	107.00	14.40%
1996	5,927.03	108.46	28.05%
1997	6,699.44	109.87	14.89%
1998	6,485.94	107.67	-1.58%
1999	8,413.75	110.22	31.42%
2000	8,933.68	112.56	7.52%
Arithmetic Average Return, 1973 to 2000			11.86%

$${}^1r_t = (D_t + V_t - V_{t-1}) / V_{t-1}$$

Where: R_t = Rate of return earned by the Index stocks during period
 DIV_t = Dividend adjusted to Index paid on Index stocks during period t
 V_t = Value of Index at the end of period t
 V_{t-1} = Value of Index at beginning of period t

Exhibit 5

**AVERAGE ANNUAL RETURNS IN NORTH AMERICAN CAPITAL MARKETS
OVER THE PERIOD 1926 TO 2000**

	U.S.		Canada	
	Arithmetic Average	Geometric Average	Arithmetic Average	Geometric Average
Long-Term Government Bonds	5.7%	5.3%	6.4%	6.0%
Equities (Market)	13.0%	11.0%	11.8%	10.2%

Source: L. Booth, "Equity Market Risk Premiums in the U.S. and Canada", *Canadian Investment Review*, Fall, 2001.