

HỌ TÊN
Nguyễn Văn A

Mã SV
F122

ĐÁP ÁN ĐỀ THI KẾT THÚC HỌC PHẦN
Học kỳ 1, năm học 2022 - 2023

Mã học phần: 7TC0120
Tên học phần: Định giá doanh nghiệp
Mã nhóm lớp học phần: 221_7TC0120_01

Ngày kiểm duyệt: 14/11/2022
Trưởng (Phó) Khoa/Bộ môn kiểm duyệt đề thi:



TS. Mai Thanh Loan

INPUT

	Value	Unit	Reference
Financial Statement Summary			
Income statement			Appendix 1
Balance Sheet			Appendix 2
Cash flow			Appendix 3
Time of Valuation			20x1
3-stage valuation model	FCFF		
Increasing growth stage	3	years	20x2-20x4
Reinvestment rate	18%	/year	increasing
ROC	5%	/year	increasing
Declining fast growth stage	4	years	20x5-20x8
Reinvestment rate	4%	/year	decreasing
ROC	2%	/year	decreasing
Stable growth stage			from 20x9
Reinvestment rate	50%	/year	stable
ROC	12%	/year	stable
Estimating WACC			
Capital structure - calculating Debt ratio (wD)			20x2-20x9
Based on market value			
Based on book value			20x1, Appendix 1
Choose the smaller			
Cost of equity	CAPM		
Estimating beta of AAA	0,77		Appendix 4
Current risk-free rate of return	6,00%		ending 20x1
Historical Vietnam risk-free rate of return	7,60%		
Historical VN-Index return	17,50%		
Cost of debt			
Current cost of debt	6,13%	/year	20x2-20x8
Stable growth stage	10,00%	/year	from 20x9
Corporate income tax rate			
Effective Corporate income tax rate	16,47%		20x2-20x8, Appendix 2
Normal tax rate	20,00%		from 20x9
Estimating free cash flow			
Adjusted EBIT	74,77	Billions VND	20x1, Appendix 2
Market data			
Price	33.900	VND/share	ending 20x1
Number of outstanding shares	29,6	million shares	ending 20x1

OUT PUT

Estimating WACC			
Cost of equity	13,59%		
Capital structure - calculating Debt ratio (wD)	24,69%		20x2-20x9
MV of debt = BV of debt	329,02	Billions VND	20x1, Appendix 1
MV of equity	1.003,44	Billions VND	
BV of equity	776,94	Billions VND	
Based on book value	29,75%		
Based on market value	24,69%		
Reinvestment rate	17,45%		20x1, Appendix 3
Depreciation	64,20	Billions VND	20x1, Appendix 3
Long-term investment	109,29	Billions VND	20x1, Appendix 1
Change in working capital (excluding cash & sec)	(34,67)	Billions VND	20x0 & 20x1
ROC	7,36%		20x1
Average Equity	660,19	Billions VND	20x0 & 20x1
Average Debt	437,03	Billions VND	20x0 & 20x1
Average Cash	233,54	Billions VND	20x0 & 20x1
Average Securities	15,00	Billions VND	20x0 & 20x1

Billions VND

Year	Ending 20x1	20x2	20x3	20x4	20x5	20x6	20x7	20x8	20x9
Chỉ tiêu	Present	1	2	3	4	5	6	7	8
Growth rate		4,38%	9,28%	15,98%	14,13%	12,36%	10,67%	9,07%	6,00%
Reinvestment rate	17,45%	35,45%	53,45%	71,45%	69,38%	67,31%	65,24%	63,17%	50,00%
ROC	7,36%	12,36%	17,36%	22,36%	20,36%	18,36%	16,36%	14,36%	12,00%
Adjusted EBIT		78,04	85,28	98,91	112,88	126,83	140,36	153,09	162,28
Corporate income tax rate		16,47%	16,47%	16,47%	16,47%	16,47%	16,47%	16,47%	20,00%
FCFF = EBIT * (1 - t)(1 - reinvestment rate)		42,08	33,16	23,59	92,34	34,63	40,76	47,10	64,91
WACC		11,50%	11,50%	11,50%	11,50%	11,50%	11,50%	11,50%	10,23%
PV of FCFF		37,74	26,67	17,02	59,75	20,10	21,21	21,99	

Equity value	Ending 20x1	
PV of FCFF	204	Billions VND
TV	716	Billions VND
PV of TV	334	Billions VND
Value of assets serving for business activities	920	Billions VND
Value of cash, securities	367	Billions VND
Total value of AAA	1.287	Billions VND
Debt	457	Billions VND
Equity	830	Billions VND
Value per share	28,055	VND

Should the investor sell AAA share? Why? (1 mark)

Intrinsic value < Market value --> SELL due to high added value from market