

1. (7) Figure 9.1

In March of 2011, Macklemore Corp. considered an acquisition of Blue Scholar Learning, Inc. (BSL), a privately-held educational software firm. As a first step in deciding what price to bid for BSL, Macklemore's CFO, Ryan Lewis, has prepared a five-year financial projection for the company assuming the acquisition takes place. Use this projection and BSL's 2010 actual financial figures to answer the questions below.

**Blue Scholar Learning, Inc. (BSL)**  
**5-year Financial Projection**  
(\$ millions)

	<i>Actual</i> 2010	2011	2012	2013	2014	2015
<b>Income statement</b>						
Net sales	\$ 1,996	\$ 2,267	\$ 2,508	\$ 2,827	\$ 3,138	\$ 3,571
Cost of sales	644	742	830	959	1,087	1,241
Gross income	1,352	1,525	1,678	1,868	2,051	2,330
Depreciation	492	785	1,061	1,301	1,009	917
Interest expense	171	178	191	175	142	110
Operating expenses	212	239	270	306	334	374
Net income before tax	477	323	156	86	566	929
Provision for taxes	186	126	61	34	221	363
Net income after tax	\$ 291	\$ 197	\$ 95	\$ 52	\$ 345	\$ 566
<b>Balance sheet</b>						
Total current assets	1,121	1,234	1,412	1,650	1,923	2,179
Gross property and equipment	4,180	5,149	6,410	7,449	8,200	9,016
Accumulated depreciation	868	1,654	2,714	4,015	5,024	5,941
Net property and equipment	3,312	3,495	3,696	3,434	3,176	3,075
Goodwill	1,069	1,069	1,069	1,069	1,069	1,069
Total assets	5,502	5,798	6,177	6,153	6,168	6,323
Accounts payable	104	77	91	110	117	135
Short-term debt	335	482	842	814	585	393
Current portion long-term debt	41	140	165	200	223	267
Accrued expenses	86	97	120	134	174	168
Total current liabilities	566	796	1,218	1,258	1,099	963
Long-term debt	1,694	1,554	1,389	1,189	966	699
Deferred taxes	335	344	370	454	505	496
Shareholders' equity	2,907	3,104	3,200	3,252	3,598	4,165
Total liabilities and equity	\$ 5,502	\$ 5,798	\$ 6,177	\$ 6,153	\$ 6,168	\$ 6,323
Free cash flows			\$ (130)	\$ 215	\$ 464	\$ 490

What is BSL's free cash flow (in \$ millions) for 2011?

- ☐ - \$938
- ☐ - \$792
- ☐ - \$7
- ☐ \$122
- ☐ \$1,091
- ☐ None of the above.

4. (1) The following table presents forecasted financial and other information for Scott's Miracle-Gro Co.:

	<u>2012</u>	<u>2013</u>	<u>2014</u>
Projected EBIT	\$317	\$339	\$363
Earnings after tax	\$197	\$210	\$225
Free cash flow	\$135	\$144	\$155

Scott's WACC = 8.2%

Expected growth rate in FCFs from 2014 into the indefinite future = 4%

Warranted MV firm / FCF in 2014 = 19.4

Warranted P/E in 2014 = 18.7

What is an appropriate estimate of Scott's terminal value of equity as of the end of 2014?

- ☐ Ⓐ \$225 million
- ☐ Ⓑ \$3,833.0 million
- ☐ Ⓒ \$4,207.5 million
- ☐ Ⓓ \$4,365.0 million
- ☐ Ⓔ \$6,788.1 million
- ☐ Ⓕ None of the above.

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Estimate the present value of BSL's free cash flow (in \$ millions) for the years 2011 - 2015. Macklemore's WACC is 8.0 percent. BSL's WACC is 11.5 percent, and the average of the two companies' WACCs, weighted by sales, is 8.2 percent.

- Ⓐ - \$1.29
- Ⓑ \$628.24
- Ⓒ \$720.58
- Ⓓ \$726.68
- Ⓔ \$743.94
- Ⓕ None of the above.

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Total liabilities and equity	\$ 5,502	\$ 5,798	\$ 6,177	\$ 6,153	\$ 6,168	\$ 6,323
Free cash flows			\$ (130)	\$ 215	\$ 464	\$ 490

Estimate BSL's value (in \$ millions) at the end of 2010 assuming it is worth the book value of its assets at the end of 2015. Macklemore's WACC is 8.0 percent. BSL's WACC is 11.5 percent, and the average of the two companies' WACCs, weighted by sales, is 8.2 percent.

- ☐ \$628.24
- ☐ \$3,669.01
- ☐ \$4,297.25
- ☐ \$4,412.94
- ☐ \$4,984.28
- ☐ \$6,951.24
- ☐ None of the above.

12. (1) Key facts and assumptions concerning FM Foods, Inc. at December 31, 2011, appear below.

**Facts and Assumptions**

Yield to maturity on long-term government bonds	4.4%
Yield to maturity on company long-term bonds	6.3%
Coupon rate on company long-term bonds	7.0%
Market price of risk, or excess return	6.5%
Estimated company equity beta	1.20
Stock price per share	\$40.00
Number of shares outstanding	240.0 million
Book value of equity	\$5,240 million
Book value of interest-bearing debt	\$1,250 million
Tax rate	35.0%

Estimate the appropriate weight of debt to be used when calculating FM's weighted average cost of capital.

- ☐ 11.5%
- ☐ 19.3%
- ☐ 80.7%
- ☐ 88.5%
- ☐ 100.0%
- ☐ None of the above.

14. (U) Key facts and assumptions concerning FM Foods, Inc. at December 31, 2011, appear below.

#### Facts and Assumptions

Yield to maturity on long-term government bonds	4.4%
Yield to maturity on company long-term bonds	6.3%
Coupon rate on company long-term bonds	7.0%
Market price of risk, or excess return	6.5%
Estimated company equity beta	1.20
Stock price per share	\$40.00
Number of shares outstanding	240.0 million
Book value of equity	\$5,240 million
Book value of interest-bearing debt	\$1,250 million
Tax rate	35.0%

Estimate FM's weighted-average cost of capital.

- ☐ 6.46%
- ☐ 6.58%
- ☐ 11.27%
- ☐ 11.32%
- ☐ 11.52%
- ☐ None of the above.

17. (1) Key facts and assumptions concerning FM Foods, Inc. at December 31, 2011, appear below.

#### Facts and Assumptions

Yield to maturity on long-term government bonds	4.4%
Yield to maturity on company long-term bonds	6.3%
Coupon rate on company long-term bonds	7.0%
Market price of risk, or excess return	6.5%
Estimated company equity beta	1.20
Stock price per share	\$40.00
Number of shares outstanding	240.0 million
Book value of equity	\$5,240 million
Book value of interest-bearing debt	\$1,250 million
Tax rate	35.0%

Estimate FM's after-tax cost of debt capital.

- ☐ 2.21%  
☐ 4.10%  
☐ 4.55%  
☐ 6.30%  
☐ 7.00%  
☐ None of the above.