LISBON SCHOOL OF ECONOMICS & MANAGEMENT
UNIVERSIDADE DE LISBOA

GESTÃO FINANCEIRA I & GESTÃO FINANCEIRA

CADERNO DE EXERCÍCIOS 6

Capítulo 18

Financial Modeling and Pro Forma Analysis

(de BERK, DEMARZO e HARFORD'S "FUNDAMENTALS OF CORPORATE FINANCE")

LICENCIATURA

2015-2016

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Chapter 18
Financial Modeling and Pro Forma Analysis

Forecasting Financial Statements

Use the following Income Statement and Balance Sheet for Jim's Espresso for Problems 4–7:

Income Statement		Balance Sheet	
Sales	200,000	**Assets**	
Costs Except Depr.	(100,000)	Cash and Equivalents	15,000
EBITDA	100,000	Accounts Receivable	2,000
Depreciation	(6,000)	Inventories	4,000
EBIT	94,000	Total Current Assets	21,000
Interest Expense (net)	(400)	Property, Plant, and Equipment	10,000
Pretax Income	93,600	Total Assets	31,000
Income Tax	(32,760)	**Liabilities and Equity**	
Net Income	60,840	Accounts Payable	1,500
		Debt	4,000
		Total Liabilities	5,500
		Stockholders' Equity	25,500
		Total Liabilities and Equity	31,000

18.4 Jim's expects sales to grow by 10% next year. Using the percent of sales method, forecast:
a. Costs (excluding depreciation).
b. Depreciation.
c. Net income.
d. Cash.
e. Accounts Receivable.
f. Inventory.
g. Property, plant, and equipment.

18.5 Assume that Jim's pays out 90% of its net income. Use the percent of sales method to forecast:
a. Stockholders' equity.
b. Accounts Payable.

18.6 What is the amount of net new financing needed for Jim's?

18.7 If Jim's adjusts its payout policy to 70% of net income, how will the net new financing change?

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Forecasting a Planned Expansion

Use the following Income Statement and Balance Sheet for KMS for Problems 12–15

(and remember the slides from the lectures and the example in this chapter of the textbook:

	Year	2013	% of Sales
2	**Income Statement ($000s)**		
3	**Sales**	74,889	100%
4	Costs Except Depreciation	−58,413	78%
5	**EBITDA**	16,476	22%
6	Depreciation	−5,492	7.333%
7	**EBIT**	10,984	15%
8	Interest Expense (net)	−306	NM*
9	**Pretax Income**	10,678	14%
10	Income Tax (35%)	−3,737	NM
11	**Net Income**	6,941	9%

*NM indicates representing the item as a percent of sales is not meaningful.

	Year	2013	% of Sales
2	**Balance Sheet ($000s)**		
3	**Assets**		
4	Cash and Equivalents	11,982	16%
5	Accounts Receivable	14,229	19%
6	Inventories	14,978	20%
7	**Total Current Assets**	41,189	55%
8	Property, Plant, and Equipment	49,427	66%
9	**Total Assets**	90,616	121%
10	**Liabilities and Stockholders' Equity**		
11	Accounts Payable	11,982	16%
12	Debt	4,500	NM
13	**Total Liabilities**	16,482	NM
14	**Stockholders' Equity**	74,134	NM
15	**Total Liabilities and Equity**	90,616	121%

18.12 Assume that KMS's market share will increase by 0.25% per year rather than the 1% used in the chapter (see Table 18.5) and that its prices remain as in the chapter. What production will KMS require each year? When will an expansion become necessary (that is, when will production volume exceed 1100)?

18.13 **Under the assumption that KMS's market share will increase by 0.25% per year, you determine that the plant will require an expansion in 2015. The expansion will cost $20 million. Assuming that the financing of the expansion will be delayed accordingly, calculate the projected interest payments (assuming that KMS still uses a 10-year bond and interest rates remain the same as in the chapter) through 2018.**

18.14 **Under the assumption that KMS's market share will increase by 0.25% per year (and the investment and financing will be adjusted as described in Problem 13), you project the following depreciation:**

Year	2013	2014	2015	2016	2017	2018
Depreciation	**5,492**	**5,443**	**7,398**	**7,459**	**7,513**	**7,561**

Using this information, project net income through 2018 (that is, reproduce Table 18.8 under the new assumptions.

18.15 **Assuming that KMS's market share will increase by 0.25% per year (implying that the investment, financing, and depreciation will be adjusted as described in problems 13 and 14), and that the working capital assumptions used in the chapter still hold, calculate KMS's working capital requirements through 2018 (that is, reproduce Table 18.9 under the new assumptions).**

18.20 **Forecast KMS's free cash flows (reproduce Table 18.3), assuming KMS's market share will increase by 0.25% per year; investment, financing, and depreciation will be adjusted accordingly; and working capital will be as you projected in Problem 15.**