### Basics of Financial Management

An introductory course in finance, management accounting and financial accounting

P. de Boer, M.P. Brouwers, W. Koetzier, O.A. Leppink

### **EXERCISES**

First edition

•

Noordhoff Uitgevers

# Basics of Financial Management

### **Exercises**

P. de Boer M.P. Brouwers W. Koetzier O.A. Leppink

First edition

Noordhoff Uitgevers Groningen/Houten

Cover design: G2K Designers, Groningen/Amsterdam Cover illustration: © iStockphoto

Any comments about this publication or others may be addressed to: Noordhoff Uitgevers bv, Afdeling Hoger Onderwijs, Antwoordnummer 13, 9700 VB Groningen, e-mail: info@noordhoff.nl

#### 0 1 2 3 4 5 6 / 15 14 13 12 11

© 2011 Noordhoff Uitgevers by Groningen/Houten, The Netherlands.

Subject to the exceptions in or pursuant to the Auteurswet (Copyright Act) of 1912, no part of this publication may be reproduced, stored in an automated retrieval system or made public in any way, either by electronic or by mechanical means, by photocopying, recording or otherwise, without the prior written permission of the publisher. To the extent that reprographic reproduction of this publication is permitted pursuant to Article 16h Auteurswet 1912 (Copyright Act 1912), the compensation payable is to be made to the Stichting Reprorecht (postbus 3060, 2130 KB Hoofddorp, www.cedar.nl/reprorecht). Anyone wishing to reproduce part(s) of this publication in anthologies, readers and other compilations (Article 16 Auteurswet 1912) may apply to the Stichting PRO (Stichting Publicatie- en Reproductierechten Organisatie, PO. Box 3060, 2130 KB Hoofddorp, www.cedar.nl/pro).

All rights reserved. No part of this publication may be reproduced, stored in a retrieval system, or transmitted, in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without the prior written permission of the publisher.

ISBN (ebook) 978-90-01-84415-8 ISBN 978-90-01-80580-7 NUR 782

## Preface

Together with the release of the second edition of *Basics of Financial Management*, we are launching a separate *Exercises* book. In the previous edition of *Basics* a number of exercises were included in the book. With this new *Exercises* book, the number of exercises is more than doubled.

Each chapter contains a large number of exercises that correspond to the theory in the same chapter of the *Basics* book. An indication of the paragraph in the *Basics* book where the related theory can be found is given for every exercise. The level of difficulty increases throughout the chapter, and the exercises can be divided into two categories:

- Warm-up questions, in which the student can test basic knowledge of every chapter; these questions can also be used to bridge the differences in starting levels among students;
- Exercises, aimed at making sure that the student has the level of knowledge required for the exam; furthermore, a number of exercises make cross-references between different topics.

The answers to all the warm-up questions and about 40% of the exercises can be found on the website. The exercises for which the answer is included on the website are indicated by an asterisk (\*). Interactive multiple-choice questions, cases and the teachers' manual can also be found on the website (www.basicsfinancialmanagement.noordhoff.nl).

In this edition the team of authors has been reinforced by Olaf Leppink. He is primarily responsible for the *Exercises* book and the digital support resources.

We hope this publication fully meets the needs and wishes of all users. Any comments or suggestions are warmly welcomed.

The authors Teteringen, Zwolle April 2011

## Table of contents

#### PART 1

Financial management in business 9

#### **1** Businesses and their role in the economy 11

Warm-up questions 12 Exercises 12

#### 2 Financial management 17

Warm-up questions 18 Exercises 18

#### 3 Financial statements 19

Warm-up questions 20 Exercises 21

#### 4 The business plan 25

Warm-up questions 26 Exercises 26

#### PART 2

Finance 33

#### 5 Capital budgeting 35

Warm-up questions 36 Exercises 36

#### 6 Working capital management 43

Warm-up questions 44 Exercises 44

#### 7 Equity 51

Warm-up questions 52 Exercises 52

#### 8 Liabilities 57

Warm-up questions 58 Exercises 58

#### 9 Financial statement analysis 63

Warm-up questions 64 Exercises 64

#### 10 Financial markets 75

Warm-up questions 76 Exercises 76

#### PART 3

Management accounting 81

#### **11 Costs** 83

Warm-up questions 84 Exercises 84

#### **12 Costing** 91

Warm-up questions 92 Exercises 93

#### **13 Cost allocation** 105

Warm-up questions 106 Exercises 108

#### **14 Budgets and variance analysis** 119

Warm-up questions 120 Exercises 122

#### PART 4

Financial accounting 131

#### **15 External reporting** 133

Warm-up questions 134 Exercises 135

#### **16 Financial statements** 139

Warm-up questions 140 Exercises 141

#### **17 Cash flow statement** 151

Warm-up questions 152 Exercises 152

#### **18** Inter-corporate investments 155

Warm-up questions 156 Exercises 157

Appendix Comparison of exercises in this exercises book with the exercises in the first edition of Basics of Financial Management  $\,160$ 



# PART 1

# Financial management in business

## 1 Businesses and their role in the economy

#### Warm-up questions

- \$ §1.1 **1.1** Provide a description of the term 'business'.
- ♦ §1.1 1.2 'Businesses strive for maximum profit'. What qualifications should be added to this statement?
- ♦ §1.1 **1.3** What is the difference between 'effectiveness' and 'efficiency'?
- ♦ §1.1 **1.4** How can the continuity or future of a business be safeguarded?
- ♦ §1.2 **1.5** What are 'public-sector goods and services', and who provides these goods and services?
- ♦ §1.3 **1.6** What is the difference between job production, mass production and batch production?
- ♦ §1.3 **1.7** What is the distinction between wholesale and retail trade?
- ♦ §1.4 Under the classical system, tax is levied twice on distributed profit. Explain why.
- ♦ §1.4 **1.9** Which type of company can trade shares on the stock exchange?
- ♦ §1.5 1.10 A Dutch bicycle wholesaler buys 100 bicycles from the manufacturer at €550 each and sells them to a retailer for €600 each. The amounts are exclusive of 19% VAT.
  - **a** What is the amount to be paid in VAT to the tax authorities relating to these transactions?
  - **b** How much profit does the wholesaler make on this batch of bicycles?
- ♦ §1.6 **1.11** Indicate whether, in the following cases, we are dealing with expansion in the same industry, with vertical integration or with horizontal integration.
  - **a** A garden centre is going to sell Christmas goods as well.
  - **b** A provider of mobile telephony takes over a competitor, which also provides mobile telephony.
  - c A mail order firm is going to carry out deliveries themselves.

#### Exercises

- ♦ §1.1 E1.1 Indicate whether the following factors are an indicator of efficiency or effectiveness:
  - a hours of overtime
  - **b** customer satisfaction
  - c sales volume
  - d value of returned finished goods

- ♦ §1.2 E1.2 Indicate whether each of the following organisations is a profit or non-profit organisation.
  - a The International Federation of Red Cross and Red Crescent Societies
  - **b** easyJet.com
  - **c** Microsoft Corporation
  - d Open University
- ♦ §1.3 E1.3 Below are the balance sheets and profit and loss accounts of six businesses. All the figures in the balance sheets are expressed as a percentage of the balance sheet total; all figures shown in the profit and loss account are expressed as a percentage of sales. The businesses are:
  - a tobacco wholesaler
  - an accountancy firm
  - a supermarket
  - a brickyard
  - · a jewellery store
  - a coach operator

(1)	(2)	(3)	(4)	(5)	(6)
69%	42%	70%	7%	86%	57%
0%	56%	22%	52%	0%	20%
28%	0%	0%	40%	10%	21%
3%	2%	8%	1%	4%	2%
100%	100%	100%	100%	100%	100%
50%	22%	11%	15%	40%	30%
36%	48%	64%	49%	48%	58%
14%	30%	25%	36%	12%	12%
100%	100%	100%	100%	100%	100%
100%	100%	100%	100%	100%	100%
0%	54%	81%	97%	0%	19%
100%	46%	19%	3%	100%	81%
71%	23%	10%	1%	38%	10%
7%	3%	4%	1%	15%	12%
14%	20%	4%	1%	45%	60%
8%	2%	1%	0%	2%	-1%
	69% 0% 28% 3% 100% 50% 36% 14% 100% 100% 71% 7% 14%	69% 42%   0% 56%   28% 0%   3% 2%   100% 100%   50% 22%   36% 48%   14% 30%   100% 100%   100% 100%   100% 46%   71% 23%   7% 3%   14% 20%	69% 42% 70%   0% 56% 22%   28% 0% 0%   3% 2% 8%   100% 100% 100%   50% 22% 11%   36% 48% 64%   14% 30% 25%   100% 100% 100%   100% 100% 100%   100% 46% 19%   71% 23% 10%   7% 3% 4%	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$

Which number matches which company?

<sup>♦ §1.4</sup> E1.4 Mr Brown and Mr Green have combined their activities in a partnership, which buys and sells computers. Mr Brown's profit share is 1/3, Mr Green's 2/3. Brown has €3,000 in a personal savings account, while Green has a securities portfolio worth €2,000.

The balance sheet of the partnership as at 31 December 2010 is as follows:

Fixed assets		Capital Brown	€ 2,000
Equipment	€30,000	Capital Green	€ 4,000
Delivery van	€10,000		
Current assets		Bank loan	€65,000
Inventory computers Accounts receivable	€30,000 €14,000	Trade accounts payable	€14,000
Cash and cash equivalents	€ 1,000 €85,000		€85,000

#### Balance sheet as at 31 December 2010

Due to losses suffered in the past, Brown and Green have virtually no residual capital at their disposal.

The trade accounts payable relate to outstanding debts owed to a computer supplier. In accordance with the retention of title invoked by the supplier, the computers remain his property until all outstanding debts have been settled. The approximate forced sale value of the equipment is €18,000; the forced sale value of the delivery van is €6,000. The computers can be sold at book value.

Approximately half of all outstanding accounts receivable are uncollectible debts.

The bank loan must be repaid by 1 January 2011. Unfortunately, the cash position of Green and Brown is poor.

- **a** Calculate the loss suffered by the bank if the credit agreement is cancelled.
- **b** Suppose that Mr Green is a limited partner. Answer question **a** again.

◆ §1.4 \*E1.5 Alex Guinness is the sole proprietor of a pub. He makes €60,000 profit a year. Mr Guinness is considering becoming a limited liability company. He would become the director and sole shareholder and award himself a salary of €40,000.

The general rate of income tax in Alex's country of domicile is 30% for earnings up to €50,000; any income in excess of this €50,000 threshold is taxed at 50%. The dividend income tax rate is set at 20%. The corporate tax rate is 25%. The classical system is used. Alex plans to distribute his profit in full each year.

- **a** Does it make financial sense to turn Alex's business into a limited liability company?
- **b** Calculate the profit level at which it becomes more fiscally rewarding for Alex to operate as a limited liability company than as a sole proprietorship.
- §1.4 E1.6 Elspeth Darjeeling is planning to open a small store selling exotic varieties of tea. She has the requisite sales experience and is highly knowledgeable about her subject. However, she lacks the requisite legal knowledge to make a well informed decision about the legal

form of her new business. Her friend Earl Grey has offered to join forces with her. She can choose between a sole proprietorship, a partnership and a limited liability company.

Help Elspeth to make a decision by mapping out the consequences of choosing each of the three legal forms with regard to liability, continuity, disclosure requirements (financial figures) and fiscal position.

♦ §1.4 \*E1.7 All amounts in this exercise are exclusive of 19% VAT. A branch of computer trading company Online is situated at Wall Street 21 in the Netherlands. For the first quarter of 2011 Online has sent invoices covering the sale of 250 computers; 200 of these were destined for customers in the Netherlands and 50 for customers in Belgium. The selling price was €500 each. Online received invoices covering the purchase of 200 computers at €200 each.

At Wall Street 23 Dr Swieten has a medical practice. For the first quarter of 2011 he has sent bills to health insurers for a total amount of €75,000. On account of a renovation of his surgery he received an invoice of €20,000 from a building contractor.

What amount must Online and Dr Swieten pay the tax authorities in VAT in repect of the first quarter of 2011?

♦ §1.5 E1.8 In the first quarter of 2011 the Dutch Company Presse Paper conducts the following transactions. The amounts are exclusive of 19% VAT.

Purchases		
Supplier	Place of business	Amount
Wholesaler Negotiate Buerosachen	Meppel Bonn	€15,000 € 5,000
Sales Customer	Place of business	Amount
Inwsurance company Polis Cycle manufacturer Tempo Travel agency Soleil Various private customers	Amersfoort Heerenveen Brussels	€ 2,000 € 3,500 € 1,500 €12,000

- **a** What amount must Presse Paper pay in VAT to the tax authorities for the first quarter?
- **b** What consequences does the levy of VAT have for the customers of Presse Paper?