# PART 4

## Owners' Equity in Business

# CHAPTER 15

# Partnerships: Formation, operation and reporting

## CONTENTS

# ADDITIONAL PROBLEMS

## Problem 15.1 Formation and allocation of profits — method 1

On 1 November 2002, Ken Langer and Ann Walters formed a partnership. Langer contributed some business assets and the liabilities assumed by the partnership, which are listed below at both fair value and carrying amount.

| | Fair value | Carrying amount |
|---|---|---|
| Cash at bank | $ 52 800 | $ 52 800 |
| Marketable securities | 47 520 | 36 960 |
| Accounts receivable | 54 000 | 56 760 |
| Inventory | 135 960 | 132 000 |
| Equipment | 342 000 | 33 000 |
| Accounts payable | 105 600 | 105 600 |

Walters contributed a building worth $396 000, land worth $138 000, and a $330 000 mortgage was taken over by the partnership. They agreed to share profits and losses in the ratio of 6:4. During the first year of the partnership, Langer invested $66 000 in the business and withdrew $45 600. Walters invested $96 000 and withdrew $14 400. The partnership had a net profit of $81 600. Retained Profits accounts are not used.

***Required:***

A. Prepare the journal entries to record the initial investments of both partners.
B. Prepare a statement of financial position as at 1 November 2002.
C. Prepare a statement of partners' equity for the year ended 31 October 2003.

## Solution

A.

LANGER AND WALTERS

| | | | |
|---|---|---|---|
| 1/11/2002 | Cash at Bank | 52 800 | |
| | Marketable Securities | 47 520 | |
| | Accounts Receivable | 56 760 | |
| | Inventory | 135 960 | |
| | Equipment | 342 000 | |
| | Accounts Payable | | 105 600 |
| | Allowance for Doubtful Debts | | 2 760 |
| | Langer, Capital | | 526 680 |
| | | | |
| | Building | 396 000 | |
| | Land | 138 000 | |
| | Mortgage payable | | 330 000 |
| | Walters, Capital | | 204 000 |

B.

LANGER AND WALTERS
Statement of Financial Position
as at 1 November, 2002

| Assets | | | Liabilities and owners' equity | |
|---|---|---|---|---|
| Cash at bank | | $52 800 | Accounts payable | $105 600 |
| Marketable securities | | 47 520 | Mortgage payable | 330 000 |
| Accounts receivable | | 56 760 | Langer, Capital | 526 680 |
| Less: All. for | | | Walters, Capital | 204 000 |
| doubtful debts | 2 760 | 54 000 | | |
| Inventory | | 135 960 | | |
| Machinery and Equipment | | 342 000 | | |
| Building | | 396 000 | | |
| Land | | 138 000 | | |
| | | $1 166 280 | | $1 166 280 |

C.

LANGER AND WALTERS
Statement of Partners' Equity (Method 1)
for the year ending 31 October, 2003

| | Langer | Walters | Total |
|---|---|---|---|
| Capital balances, 1/11 | $526 680 | $204 000 | $730 680 |
| Add: Additional investment | 66 000 | 96 000 | 162 000 |
| Net profit allocation | 48 960 | 32 640 | 81 600 |
| | 641 640 | 332 640 | 974 280 |
| Less: Drawings | 45 600 | 14 400 | 60 000 |
| Capital balances, 30/9 | $596 040 | $318 240 | $914 280 |

## Problem 15.2 Allocation of profits — method 2

Selected accounts from the trial balance as at 30 June 2003 of the partnership of W. Earp, J. Earp and D. Holliday are as follows:

| | Debit | Credit |
|---|---|---|
| Loan — State Finance Ltd | | $13 050 |
| Profit and loss summary (after usual adjusting and closing entries for net profit determination) | | 41 925 |
| Salary, J. Earp | $7 500 | |
| W. Earp, Capital | | 49 500 |
| W. Earp, Retained profits | 1 050 | |
| J. Earp, Capital | | 24 750 |
| J. Earp, Retained profits | | 525 |
| D. Holliday, Capital | | 16 500 |
| D. Holliday, Retained profits | | 675 |
| Advance, D. Holliday (repayable in October 2004) | | 6 600 |

Further adjustments for the financial year ended 30 June 2003 have yet to be made as follows:

1. Interest accrued to State Finance Ltd — $1100.
2. The partnership accountant has duly paid J. Earp's agreed salary as part-time manager ($7500 per annum) but was uncertain how to charge it.
3. Partners have agreed to:
   (a) 6% per annum interest on fixed capitals.
   (b) 7% interest on total drawings for the year which were:

W. Earp$12 000
J. Earp6 750
D. Holliday8 250

   (c) 6% per annum interest on advance from Holliday.
   (d) Profits/losses to be shared 1/2, 1/3, 1/6 to W. Earp, J. Earp and D. Holliday respectively.

***Required:***

A. Complete the Profit and Loss Summary account.
B. Prepare Profit Distribution account.
C. Complete each partner's Retained Profits account after all adjustments.

## Solution

A.

EARP, EARP AND HOLLIDAY

Profit and Loss Summary

| | | | | | |
|---|---|---|---|---|---|
| 30/6 | Interest on advance | 396 | 30/6 | Balance | 41 925 |
| 30/6 | Interest on loan | 1 100 | | | |
| 30/6 | Net profit for distribution | 40 429 | | | |
| | | $41 925 | | | $41 925 |

B.

Profit Distribution

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 30/6 | Salary – J Earp | | 7 500 | 30/6 | Net profit | | 40 429 |
| 30/6 | Interest on capital: | | | 30/6 | Interest on drawgs | | |
| | W Earp | 2970 | | | W Earp | 840 | |
| | J Earp | 1485 | | | J Earp | 473 | |
| | D Holliday | 990 | 5 445 | | D Holliday | 578 | 1 891 |
| 30/6 | Residual profits: | | | | | | |
| | W Earp (1/2) | | 14 687 | | | | |
| | J Earp (1/3) | | 9 792 | | | | |
| | D Holliday (1/6) | | 4 896 | | | | |
| | | | $42 320 | | | | $42 320 |

C.

W. Earp, Retained Profits

| | | | | | |
|---|---|---|---|---|---|
| 1/7 | Balance | 1 050 | 30/6 | Interest on capital | 2 970 |
| 30/6 | Interest on drawings | 840 | 30/6 | Residual profit | 14 687 |
| 30/6 | Drawings | 12 000 | | | |
| 30/6 | Balance | 3 767 | | | |
| | | $17 657 | | | $17 657 |
| | | | 30/6 | Balance | 3 767 |

J. Earp, Retained Profits

| | | | | | |
|---|---|---|---|---|---|
| 30/6 | Drawings (inc. sal) | 14 250 | 1/7 | Balance | 525 |
| 30/6 | Interest on drawings | 473 | 30/6 | Interest on capital | 1 485 |
| 30/6 | Balance | 4 579 | 30/6 | Residual profit | 9 792 |
| | | | 30/6 | Salary | 7 500 |
| | | $19 302 | | | $19 302 |
| | | | 30/6 | Balance | 4 579 |

D. Holliday, Retained Profits

| | | | | | |
|---|---|---|---|---|---|
| 30/6 | Drawings | 8 250 | 1/7 | Balance | 675 |
| 30/6 | Interest on drawings | 578 | 30/6 | Interest on capital | 990 |
| | | | 30/6 | Residual profit | 4 896 |
| | | | 30/6 | Balance | 2 267 |
| | | $8 828 | | | $8 828 |
| 30/6 | Balance | 2 267 | | | |

## Problem 15.3 Formation of partnership, allocation of profit

Jacqui Rander is the sole proprietor of Rander's Bookshop. Because she needs additional funds in the business and has an immediate personal need for $24 000 in cash, Rander agreed on 31 March 2002 to join in partnership with Max Nelson.

It is agreed that Rander will contribute all non-cash assets of her bookshop to the partnership and will withdraw (from funds supplied to the business by Nelson) $24 000 in cash. Nelson will invest $34 800 in the business. The partnership contract provides that profits shall be divided 45% to Rander and 55% to Nelson.

Information as to the assets and liabilities of Rander's Bookshop at 31 March 2002 and their fair values is as follows:

| | Carrying amount | Fair value |
|---|---|---|
| Accounts receivable | $ 21 420 | $ 19 200 |
| Allowance for doubtful debts | 2 016 | |
| Inventory | 41 880 | 46 620 |
| Shop equipment | 7 800 | 5 520 |
| Accumulated depreciation—shop equipment | (2 640 ) | |
| 10% loan payable (dated 1 October 1997: due 30 September 2003) | 15 120 | 15 840 |
| Accounts payable | 8 880 | 8 820 |

It is agreed that the new partnership of Rander–Nelson Bookshop will assume the present debts of Rander's Bookshop.

***Required:***

A. Make the necessary journal entries to record the formation of Rander–Nelson Bookshop at 31 March 2002.

B. At the end of April, after normal balance-day adjusting entries, the Profit and Loss Summary account of the partnership shows a credit balance of $3480. The partners' Drawings accounts have debit balances as follows: Rander, $1440; Nelson, $1200. Make the journal entries necessary to complete the closing of the partnership books at the end of April. Retained Profits accounts are not used.

C. Prepare a statement of partners' equity for the month of April.

## Solution

A.

RANDER-NELSON BOOKSHOP

| | | | | |
|---|---|---|---|---|
| 2002 | | | | |
| Mar. | 31 | Accounts Receivable | 21 420 | |
| | | Inventory | 46 620 | |
| | | Shop Equipment | 5 520 | |
| | | Allowance for doubtful debts | | 2 220 |
| | | Loan Payable | | 15 840 |
| | | Accounts Payable | | 8 820 |
| | | J Rander, Capital | | 46 680 |
| | | Cash at Bank | 34 800 | |
| | | M Nelson, Capital | | 34 800 |
| | | J Rander, Capital | 24 000 | |
| | | Cash at Bank | | 24 000 |

(*continued*)

B.

| | | | | |
|---|---|---|---|---|
| April | 30 | Profit and Loss Summary | 3 480 | |
| | | Profit Distribution | | 3 480 |
| | | Profit Distribution | 3 480 | |
| | | J Rander, Capital | | 1 566 |
| | | M Nelson, Capital | | 1 914 |
| | | J Rander, Capital | 1 440 | |
| | | M Nelson, Capital | 1 200 | |
| | | J Rander, Drawings | | 1 440 |
| | | M Nelson, Drawings | | 1 200 |

C.

RANDER-NELSON BOOKSHOP
Statement of Partners' Equity
for the month ended 30 April, 2002

| | Rander | Nelson | Total |
|---|---|---|---|
| Capital balances (1/4/2002) | $22 680 | $34 800 | $57 480 |
| Net profit allocation | 1 566 | 1 914 | 3 480 |
| | 24 246 | 36 714 | 60 960 |
| Less: Drawings | 1 440 | 1 200 | 2 640 |
| Capital balances (30/4/X6) | $22 806 | $35 514 | $58 320 |

## Problem 15.4 Determination and allocation of profits

Brown, Ball and Black are in partnership sharing profits and losses in the proportion of a half, one-third and one-sixth respectively. Their capitals at 1 July 2002, the date of commencement of business, were Brown $84 000, Ball $70 000 and Black $35 000, all contributed in cash.

The partners did not keep a complete set of accounting records, and at 30 June 2003 their assets and liabilities were valued as follows before adjustments (a) to (d) below: Inventory $115 500; Accounts Receivable $49 560; Bills Receivable $17 920; Plant and Equipment $40 320; Premises $64 400; Bills Payable $8400; Accounts Payable $34 160; Bank Overdraft $18 620.

Drawings made by the partners in anticipation of profits for the year ended 30 June 2001 amounted to Brown $7000, Ball $5600 and Black $4200. Brown paid in an additional $16 800 capital on 1 January 2003.

***Required:***

A. Prepare a statement of distribution of profit for the year to each partner after making the following adjustments:
   (a) depreciation on plant and equipment, 10%, and on business premises, 2% (use straight-line method)
   (b) allowance for doubtful debts equal to 4% of accounts receivable and bills receivable
   (c) interest on drawings: Brown $168; Ball $154; Black $140
   (d) interest on capital at 6% per annum.

B. Prepare a statement of financial position for the partnership as at 30 June 2003.

## Solution

A.

BROWN, BALL AND BLACK

Total equity at start (1/7/00) = $84 000 + $70 000 + $35 000 = $189 000
Total equity at end (30/6/01) = Net assets at end

<u>Net assets at end:</u>

| | | |
|---|---|---|
| Inventory | $115 500 | |
| Accounts receivable | 49 560 | |
| Bills receivable | 7 920 | |
| Plant and machinery | 40 320 | |
| Business premises | 64 400 | |
| Bills payable | (8 400) | |
| Accounts payable | (34 160) | |
| Bank overdraft | (18 620) | |
| Allowance for doubtful debts | (2 699) | [4% × $67 480] |
| Accumulated depreciation - plant | (4 032) | [10% × $40 320] |
| Accumulated deprecation - premises | (1 288) | [2% × $64 400] |
| | $218 501 | |

Hence, partnership net profit can be calculated using the format of a statement of partner's equity:

| | | |
|---|---|---|
| Beginning equity | $189 000 | |
| + Capital contribution | 16 800 | |
| + Net profit | 29 501 | *missing figure |
| | 235 301 | |
| – Drawings | 16 800 | |
| Ending equity | $218 501 | |

(*continued*)

Allocation of $29 501 net profit

| | Brown | Ball | Black | Total |
|---|---|---|---|---|
| Interest on capital | $5 544* | $4 200 | $2 100 | $11 844 |
| Less: Interest on drawings | (168) | (154) | (140) | (462) |
| Total net interest | 5 376 | 4 046 | 1 960 | 11 382 |
| Residual profit: | | | | |
| Brown (1/2) | 9 059 | | | |
| Ball (1/3) | | 6 040 | | |
| Black (1/6) | | | 3 020 | 18 119 |
| | $14 435 | $10 086 | $4 980 | $29 501 |

*($84 000 × 6% = $5 040) + ($16 800 × 6 × 6% mths = $504) = $5 544

B.

BROWN, BALL AND BLACK
Statement of Financial Position as at 30 June 2003

| | | | |
|---|---|---|---|
| Partners' equity | | | |
| A Brown, Capital (Incl additional capital) | | $100 800 | |
| B Ball, Capital | | 70 000 | |
| R Black, Capital | | 35 000 | $205 800 |
| A Brown, Retained profits | | 7 435 | |
| B Ball, Retained profits | | 4 486 | |
| R Black, Retained profits | | 780 | 12 701 |
| | | | 218 501 |
| Liabilities | | | |
| Accounts payable | | 34 160 | |
| Bills payable | | 8 400 | |
| Bank overdraft | | 18 620 | 61 180 |
| | | | $279 681 |
| Current assets | | | |
| Inventory | | $115 500 | |
| Accounts receivable | $49 560 | | |
| Bills receivable | 17 920 | | |
| | 67 480 | | |
| Less: All. for doubtful debts | 2 699 | 64 781 | $180 281 |
| Non-current assets | | | |
| Plant and equipment | $40 320 | | |
| Accumulated depreciation | 4 032 | 36 288 | |
| Premises | 64 400 | | |
| Accumulated depreciation | 1 288 | 63 112 | 99 400 |
| | | | $279 681 |

## Problem 15.5 Comprehensive problem

Able, Babel and Cable are in a hardware business trading as ABC Company. The partnership agreement includes the following provisions:

1. Interest on capital is to be allowed at 6% per annum.
2. Salaries are to be allowed: Able, nil; Babel, $8000; Cable, $6000.
3. Interest is to be allowed on advances by partners at 8% per annum.

A trial balance at 30 June 2003, after the activities of the preceding year had been recorded but before the stocktake, is shown below.

ABC COMPANY
**Trial Balance**
as at 30 June 2003

| | Debit | Credit |
|---|---|---|
| Cost of goods sold | $300 000 | |
| Cash at bank | 6 000 | |
| Accounts receivable | 120 000 | |
| Allowance for doubtful debts | | $ 3 000 |
| Inventory | 225 000 | |
| Furniture, plant and equipment | 200 000 | |
| Accumulated depreciation—furniture, plant and equipment | | 125 000 |
| Prepaid insurance | 2 500 | |
| Prepaid rent | 4 000 | |
| Accounts payable | | 100 000 |
| Advance from Able (due for payment on 15 April 2002) | | 80 000 |
| Able, Capital | | 80 000 |
| Babel, Capital | | 40 000 |
| Cable, Capital | | 40 000 |
| Able, Retained profits | | 2 000 |
| Babel, Retained profits | | 13 000 |
| Cable, Retained profits | | 10 000 |
| Sales revenue | | 440 000 |
| Selling and general expenses | 75 000 | |
| Discount received | | 500 |
| Proceeds from sale of motor vehicle | | 12 000 |
| Carrying amount of motor vehicle sold | 13 000 | |
| | $945 500 | $945 500 |

*Additional information*

1. Merchandise of $400 purchased on credit was received on 30 June 2003, but had not been recorded in the accounts; nevertheless, it had been included in the physical stocktake of $223 000.
2. Insurance and rents to be expensed were assessed at $1200 and $2200 respectively.
3. Depreciation expense to be brought to account, $8700.
4. Wages owed but not paid amounted to $3600.
5. Partners Babel's and Cable's salaries had not been brought to account.
6. Interest on Able's advance had not been brought to account.
7. Verification of accounts receivable revealed that the balance of the allowance for doubtful debts should be increased to $3600. The increase is related to sales revenue recognised in the current period.

***Required:***

A. Prepare the statement of financial performance for the period ended 30 June 2003.
B. Prepare a Profit Distribution account for the same period.
C. Set out the statement of financial position as at 30 June 2003, properly classified.

A.

ABC COMPANY
Statement of Financial Performance
for the year ended 30 June 2003

| | | |
|---|---|---|
| Sales revenue | | $440 000 |
| Cost of goods sold | | 300 000 |
| Gross profit | | 140 000 |
| Proceeds from sale of motor vehicle | | 12 000 |
| Discount received | | 500 |
| | | 152 500 |
| Expenses: | | |
| Selling and general expenses | $75 000 | |
| Inventory losses (225 000 + 400 − 223 000) | 2 400 | |
| Carrying amount of motor vehicle sold | 13 000 | |
| Insurance expense | 1 200 | |
| Rent expense | 2 200 | |
| Depr. of furniture, plant and equipment | 8 700 | |
| Wages expense accrued | 3 600 | |
| Doubtful debts expense | 600 | |
| Interest on advance | 6 400 | 113 100 |
| Operating profit of partnership | | $39 400 |

B.

Profit Distribution

| | | | |
|---|---|---|---|
| Salaries: Babel | 8 000 | Net profit | 39 400 |
| Cable | 6 000 | | |
| Interest on capital: | | | |
| Able | 4 800 | | |
| Babel | 2 400 | | |
| Cable | 2 400 | | |
| Residual Profit: | | | |
| Able | 5 267 | | |
| Babel | 5 267 | | |
| Cable | 5 266 | | |
| | 39 400 | | 39 400 |

C.

ABC COMPANY
Statement of Financial Position
as at 30 June 2003

| | | | |
|---|---|---|---|
| Current assets | | | |
| Cash at bank | | 6 000 | |
| Accounts receivable | 120 000 | | |
| Allowance for doubtful debts | 3 600 | 116 400 | |
| Inventory | | 223 000 | |
| Prepaid insurance | | 1 300 | |
| Prepaid rent | | 1 800 | |
| Total current assets | | | 348 500 |
| Non-current assets | | | |
| Furniture, plant and equipment | | 200 000 | |
| Accumulated depreciation | | 133 700 | 66 300 |
| Total assets | | | $414 800 |
| Less Current Liabilities | | | |
| Accounts payable | | 100 400 | |
| Wages payable | | 3 600 | |
| Advance from Able | | 80 000 | |
| Interest payable in advance | | 6 400 | |
| Total liabilities | | | 190 400 |
| Net assets | | | $224 400 |
| Partners' equity | | | |
| Able, Capital | | 80 000 | |
| Babel, Capital | | 40 000 | |
| Cable, Capital | | 40 000 | 160 000 |
| Able, Retained profits* | | 12 067 | |
| Babel, Retained profits* | | 28 667 | |
| Cable, Retained profits* | | 23 666 | 64 400 |
| Total partners' equity | | | $224 400 |

* Retained profits for each partner:

| | Able | Babel | Cable |
|---|---|---|---|
| Beginning balance | $2 000 | $13 000 | $10 000 |
| Salary | - | 8 000 | 6 000 |
| Interest on capital | 4 800 | 2 400 | 2 400 |
| Residual profits shared equally | 5 267 | 5 267 | 5 266 |
| | 12 067 | 28 667 | 23 666 |