

Aufgabe 10.17: Statements of Cash Flows, Reconciliation and Derivative Method

PUETTENBECK GmbH is a car battery trading and service business. The company sells and assembles batteries which it buys from its supplier. The company provides the balance sheet as below:

| Püttenbeck GmbH's STATEMENT of FINANCIAL POSITION as at 31.12.20X4 | | | |
|---|-------------------|------------------------|-------------------|
| A | | | C, L |
| <i>Non-current assets</i> | [EUR] | <i>Owners' capital</i> | [EUR] |
| P, P, E | 500.000,00 | Share capital | 200.000,00 |
| Intangibles | | Reserves | 50.000,00 |
| Financial assets | | R/E | 70.000,00 |
| <i>Current assets</i> | | <i>Liabilities</i> | |
| Inventory | 87.500,00 | Interest bear liab | 100.000,00 |
| A/R | | A/P | 158.000,00 |
| Prepaid expenses | 10.000,00 | Provisions | |
| Cash/Bank | 10.500,00 | Tax liabilities | 30.000,00 |
| | 608.000,00 | | 608.000,00 |

Exhibit 1: Balance sheet

The amount in the Inventory account results from 350 batteries.

The following activities are recorded in 20X5:

- (1) PUETTENBECK GmbH pays income taxes to the full amount at the beginning of the accounting period 20X5.
- (2) PUETTENBECK GmbH orders 5,000 batteries from its supplier. The cost of acquisition per battery equals to 275.00 EUR. The payment of the batteries is half by instant bank transfer and half later (accounts payables).
- (3) PUETTENBECK GmbH pays half of its debts from the previous accounting periods to its supplier.
- (4) PUETTENBECK GmbH sells and assembles 5,200 batteries during the accounting period 20X5. The customers pay 380.00 EUR/battery and service during the accounting period. Consider a first-in-first-out cost formulas for the batteries.
- (5) PUETTENBECK GmbH's labour equals 250,000.00 EUR for all employees. The payment goes straight per bank transfer.
- (6) Rent for the workshop equals to 10,000.00 EUR/quarter (/3m). The payment is one quarter in advance. The rent for the next accounting period increases by 10%.
- (7) Depreciation on the workshop facilities equals to 50,000.00 EUR per the accounting period.
- (8) PUETTENBECK GmbH pays its proprietors 40,000 EUR dividend which is taken from the profit of the year 20X4.
- (9) There is a tax prepayment of 3% of the revenue required by the German Revenue Service.

Required: Prepare a statement of cash flows along the direct method with reconciliation and by derivative method. Ignore VAT! Ignore interest on the long term debts.

Solution:

Observe the accounts after recording the business activities:

| | | | | | | | | | | | |
|-----|--|------------|--|---------|--|------------|--|---|--|--|--|
| D | | | | P, P, E | | | | C | | | |
| OV | | 500.000,00 | | c/d | | 500.000,00 | | | | | |
| b/d | | 500.000,00 | | | | | | | | | |

| | | | | | | | | | | | |
|-----|--|--------------|--|-----------|--|--------------|--|---|--|--|--|
| D | | | | Inventory | | | | C | | | |
| OV | | 87.500,00 | | (4a) | | 87.500,00 | | | | | |
| (2) | | 1.375.000,00 | | (4b) | | 1.333.750,00 | | | | | |
| | | | | c/d | | 41.250,00 | | | | | |
| | | 1.462.500,00 | | | | 1.462.500,00 | | | | | |
| b/d | | 41.250,00 | | | | | | | | | |

| | | | | | | | | | | | |
|------|--|-----------|--|------------------|--|-----------|--|---|--|--|--|
| D | | | | Prepaid expenses | | | | C | | | |
| OV | | 10.000,00 | | (6a) | | 10.000,00 | | | | | |
| (6c) | | 11.000,00 | | c/d | | 11.000,00 | | | | | |
| | | 21.000,00 | | | | 21.000,00 | | | | | |
| b/d | | 11.000,00 | | | | | | | | | |

| | | | | | | | | | | | |
|------|--|--------------|--|-----------|--|--------------|--|---|--|--|--|
| D | | | | Cash/Bank | | | | C | | | |
| OV | | 10.500,00 | | (1) | | 30.000,00 | | | | | |
| (4c) | | 1.976.000,00 | | (2) | | 687.500,00 | | | | | |
| | | | | (3) | | 79.000,00 | | | | | |
| | | | | (5) | | 250.000,00 | | | | | |
| | | | | (6b) | | 41.000,00 | | | | | |
| | | | | (8) | | 40.000,00 | | | | | |
| | | | | (9) | | 59.280,00 | | | | | |
| | | | | c/d | | 799.720,00 | | | | | |
| | | 1.986.500,00 | | | | 1.986.500,00 | | | | | |
| b/d | | 799.720,00 | | | | | | | | | |

| | | | | | | | | | | | |
|-----|--|------------|--|----------------|--|------------|--|---|--|--|--|
| D | | | | Issued capital | | | | C | | | |
| c/d | | 200.000,00 | | OV | | 200.000,00 | | | | | |
| | | | | b/d | | 200.000,00 | | | | | |

| | | | | | | | | | | | |
|-----|--|-----------|--|----------|--|-----------|--|---|--|--|--|
| D | | | | Reserves | | | | C | | | |
| c/d | | 50.000,00 | | OV | | 50.000,00 | | | | | |
| | | | | b/d | | 50.000,00 | | | | | |

| | | | | | | | | | | | |
|-----|--|------------|--|-----------------------|--|------------|--|---|--|--|--|
| D | | | | Retained earnings R/E | | | | C | | | |
| (8) | | 40.000,00 | | OV | | 70.000,00 | | | | | |
| c/d | | 30.000,00 | | | | 70.000,00 | | | | | |
| | | 70.000,00 | | b/d | | 30.000,00 | | | | | |
| c/d | | 180.325,00 | | P&L | | 150.325,00 | | | | | |
| | | 180.325,00 | | b/d | | 180.325,00 | | | | | |

| | | | | | | | | | | | |
|-----|--|------------|--|-----------------------|--|------------|--|---|--|--|--|
| D | | | | Accounts payables A/P | | | | C | | | |
| (3) | | 79.000,00 | | OV | | 158.000,00 | | | | | |
| c/d | | 766.500,00 | | (2) | | 687.500,00 | | | | | |
| | | 845.500,00 | | b/d | | 766.500,00 | | | | | |

| | | | | | | | | | | | |
|-----|--|-----------|--|----------------------------|--|-----------|--|---|--|--|--|
| D | | | | Income tax liabilities ITL | | | | C | | | |
| (1) | | 30.000,00 | | OV | | 30.000,00 | | | | | |
| (9) | | 59.280,00 | | P&L | | 64.425,00 | | | | | |
| c/d | | 5.145,00 | | | | 94.425,00 | | | | | |
| | | 94.425,00 | | b/d | | 5.145,00 | | | | | |

| | | | | | | | | | | | |
|------|--|--------------|--|-------------------|--|--------------|--|---|--|--|--|
| D | | | | Cost of sales COS | | | | C | | | |
| (4a) | | 87.500,00 | | c/d | | 1.421.250,00 | | | | | |
| (4b) | | 1.333.750,00 | | | | 1.421.250,00 | | | | | |
| | | 1.421.250,00 | | b/d | | 1.421.250,00 | | | | | |

| | | | | | | | | | | | |
|-----|--|--------------|--|---------------|--|--------------|--|---|--|--|--|
| D | | | | Sales revenue | | | | C | | | |
| P&L | | 1.976.000,00 | | (4c) | | 1.976.000,00 | | | | | |

| | | | | | | | | | | | |
|-----|--|------------|--|--------|--|------------|--|---|--|--|--|
| D | | | | Labour | | | | C | | | |
| (5) | | 250.000,00 | | P&L | | 250.000,00 | | | | | |

Exhibit 2: Accounts

| Rent | | Depreciation | |
|----------------|----------------|---------------|---------------|
| D | C | D | C |
| (6a) 10.000,00 | (6c) 11.000,00 | (7) 50.000,00 | P&L 50.000,00 |
| (6b) 41.000,00 | c/d 40.000,00 | | |
| 51.000,00 | 51.000,00 | | |
| b/d 40.000,00 | P&L 40.000,00 | | |

| Acc depr | | Profit and Loss account P&L | |
|---------------|---------------|-----------------------------|--------------------|
| D | C | D | C |
| c/d 50.000,00 | (7) 50.000,00 | Labour 250.000,00 | Sales 1.976.000,00 |
| | b/d 50.000,00 | COS 1.421.250,00 | |
| | | Depr 50.000,00 | |
| | | Rent 40.000,00 | |
| | | EBT c/d 214.750,00 | |
| | | 1.976.000,00 | 1.976.000,00 |
| | | ITL 64.425,00 | b/d 214.750,00 |
| | | R/E 150.325,00 | |
| | | 214.750,00 | 214.750,00 |

Exhibit 2: Accounts continued

See the balance sheet of PÜTTENBECK GmbH as at 31.12.20X5 below:

| Püttenbeck GmbH's STATEMENT of FINANCIAL POSITION as at 31.12.20X5 | | | |
|--|---------------------|------------------------|---------------------|
| A | | C, L | |
| <i>Non-current assets</i> | [EUR] | <i>Owners' capital</i> | [EUR] |
| P, P, E | 450.000,00 | Share capital | 200.000,00 |
| Intangibles | | Reserves | 50.000,00 |
| Financial assets | | R/E | 180.325,00 |
| <i>Current assets</i> | | <i>Liabilities</i> | |
| Inventory | 41.250,00 | Interest bear liab | 100.000,00 |
| A/R | | A/P | 766.500,00 |
| Prepaid expenses | 11.000,00 | Provisions | |
| Cash/Bank | 799.720,00 | Tax liabilities | 5.145,00 |
| | 1.301.970,00 | | 1.301.970,00 |

Exhibit 3: Balance sheet

Preparing cash flow statement along the direct method with reconciliation of operating profit with profit.

As there is a prepayment on income tax it is wise to start with the profit after taxes for reconciliation:

**Püttenbeck GmbH's
RECONCILIATION of EARNINGS
after TAXATION with CFoA
for year ended 31.12.20X5**

| | | |
|------------------------------|-------------------|--|
| EAT | 150.325,00 | |
| add: depreciation | 50.000,00 | |
| | <u>200.325,00</u> | |
| Finance payments | 0,00 | |
| | <u>200.325,00</u> | |
| Changes in working capital | | |
| (1) Changes in A/R, prep ex. | (1.000,00) | |
| (2) Changes in inventory | 46.250,00 | |
| (3) Changes in A/P | 583.645,00 | |
| | <u>829.220,00</u> | |
| Changes in VAT | | |
| (1) VAT receivable | 0,00 | |
| (2) VAT payable | 0,00 | |
| | <u>829.220,00</u> | |

Exhibit 4: Reconciliation statement

Note, the changes in A/P are linked to income tax payables also.

The cash flow statement is displayed by exhibit 5:

**Püttenbeck GmbH's
STATEMENT of CASH FLOWS
for the period ended 31.12.20X5**

| | | |
|--|-------------|--------------------------|
| <i>Cash flow from operating activities</i> | | |
| per reconciliation | 829.220,00 | |
| | | 829.220,00 |
| <i>Cash flow from investing activities</i> | | |
| Investments | <u>0,00</u> | |
| | | 0,00 |
| <i>Cash flow from financing activities</i> | | |
| Dividend | (40.000,00) | |
| | | <u>(40.000,00)</u> |
| | | <u>789.220,00</u> |

Exhibit 5: Statement of cash flows

Preparing the cash flow statement along the derivative method requires to prepare the delta balance sheet:

| Delta-SFP for 20X5 | | | |
|--------------------|-------------------|-------|-------------------|
| D | | | C |
| 20X5 | [EUR] | 20X5 | [EUR] |
| Δ-P,P,E | (50.000,00) | Δ-R/E | 110.325,00 |
| Δ-Inventory | (46.250,00) | Δ-A/P | 608.500,00 |
| Δ-prepaid exp | 1.000,00 | Δ-ITL | (24.855,00) |
| Δ-Cash | 789.220,00 | | |
| | <u>693.970,00</u> | | <u>693.970,00</u> |

Exhibit 6: Delta balance sheet

At first, the changes in property, plant and equipment would be changed to depreciation:

| Delta-SFP for 20X5 | | | |
|--------------------|-------------------|-------|-------------------|
| D | | | C |
| 20X5 | [EUR] | 20X5 | [EUR] |
| Δ-P,P,E | -50000 | Δ-R/E | 110.325,00 |
| Δ-Inventory | (46.250,00) | Δ-A/P | 608.500,00 |
| Δ-prepaid exp | 1.000,00 | Δ-ITL | (24.855,00) |
| Δ-Cash | 789.220,00 | | |
| | <u>743.970,00</u> | | <u>693.970,00</u> |
| | | Depr | 50.000,00 |

Exhibit 7: Delta balance sheet

By the next step the profit appropriation is undone.

| Delta-SFP for 20X5 | | | |
|--------------------|-------------------|------------------|-------------------|
| D | | | C |
| 20X5 | [EUR] | 20X5 | [EUR] |
| Δ-P,P,E | -50000 | Δ-R/E | 110325 |
| Δ-Inventory | (46.250,00) | Δ-A/P | 608.500,00 |
| Δ-prepaid exp | 1.000,00 | Δ-ITL | (24.855,00) |
| Δ-Cash | 789.220,00 | | |
| | <u>743.970,00</u> | | <u>583.645,00</u> |
| Dividend | 40.000,00 | Depr | 50.000,00 |
| | | Δ-R/E | 150.325,00 |
| | <u>783.970,00</u> | | <u>783.970,00</u> |

Exhibit 8: Delta balance sheet

| D | | Delta-SFP for 20X5 | | C |
|--------------------|---------------------|--------------------|---------------------|---|
| 20X5 | [EUR] | 20X5 | [EUR] | |
| Δ-P,P,E | -50000 | Δ-R/E | 110325 | |
| Δ-Inventory | (46.250,00) | Δ-A/P | 608.500,00 | |
| Δ-prepaid exp | 1.000,00 | Δ-ITL | (24.855,00) | |
| Δ-Cash | 789.220,00 | | | |
| | <u>743.970,00</u> | | <u>583.645,00</u> | |
| Dividend | 40.000,00 | Depr | 50.000,00 | |
| | <u>783.970,00</u> | Δ-R/E | 150325 | |
| | | | <u>633.645,00</u> | |
| Labour | 250.000,00 | Sales | 1.976.000,00 | |
| COS | 1.421.250,00 | | | |
| Depr | 50.000,00 | | | |
| Rent | 40.000,00 | | | |
| IT | 64.425,00 | | | |
| | <u>2.609.645,00</u> | | <u>2.609.645,00</u> | |

Exhibit 9: Delta balance sheet

By the next step depreciation is cancelled out. There is a further balancing off of the tax items which gives the tax payments being $30,000 + 59,280 = 89,280.00$ EUR.

| D | | Delta-SFP for 20X5 | | C |
|--------------------|---------------------|--------------------|---------------------|---|
| 20X5 | [EUR] | 20X5 | [EUR] | |
| Δ-P,P,E | -50000 | Δ-R/E | 110325 | |
| Δ-Inventory | (46.250,00) | Δ-A/P | 608.500,00 | |
| Δ-prepaid exp | 1.000,00 | Δ-ITL | -24855 | |
| Δ-Cash | 789.220,00 | | <u>608.500,00</u> | |
| | <u>743.970,00</u> | | | |
| Dividend | 40.000,00 | Depr | 50000 | |
| | <u>783.970,00</u> | Δ-R/E | 150325 | |
| | | | <u>608.500,00</u> | |
| Labour | 250.000,00 | Sales | 1.976.000,00 | |
| COS | 1.421.250,00 | | | |
| Depr | 50000 | | | |
| Rent | 40.000,00 | | | |
| IT | 64.425 | | | |
| | <u>2.495.220,00</u> | | <u>2.584.500,00</u> | |
| Tax payment | 89.280,00 | | | |
| | <u>2.584.500,00</u> | | <u>2.584.500,00</u> | |

Exhibit 10: Delta balance sheet

The cash flow statement is displayed below:

Püttenbeck GmbH's
STATEMENT of CASH FLOWS
for the period ended 31.12.20X5

| | | |
|--|---------------------|--------------------------|
| <i>Cash flow from operating activities</i> | | |
| Materials (inventory) | 46.250,00 | |
| Prepaid rent | (1.000,00) | |
| Labour | (250.000,00) | |
| Cost of sales, materials | (1.421.250,00) | |
| Rent | (40.000,00) | |
| Tax payments | (89.280,00) | |
| short-term finance, supplier | 608.500,00 | |
| Revenue | <u>1.976.000,00</u> | |
| | | 829.220,00 |
| <i>Cash flow from investing activities</i> | | |
| Investments | <u>0,00</u> | |
| | | 0,00 |
| <i>Cash flow from financing activities</i> | | |
| Dividend | (40.000,00) | |
| | | <u>(40.000,00)</u> |
| | | <u>789.220,00</u> |

Exhibit 11: Statement of cash flows