

## Chapter 16

### Fifo / Lifo

Tango is company that trades in oil. They mainly trade in West Texas Intermediate, also know as Texas Light Sweet, an internationally widely traded type of oil.

Sales – and the purchase price of the product - fluctuate over time. In the table below we see the sales and purchase transactions for June.

Date	Transaction	Units (Barrels)	Price per Barrel
June 02	Purchase	100,000	\$46
June 06	Sale	70,000	\$48
June 11	Sale	90,000	\$50
June 15	Purchase	200,000	\$49
June 20	Purchase	150,000	\$50
June 25	Sale	300,000	\$52

On June 01, the opening inventory consisted of 80,000 barrels with a purchase price of \$45 per barrel.

### Required:

- Profit for June using First in First out (Fifo) for inventory valuation.
- The value of the ending inventory using Fifo.
- What can you say about June's profit if Last in First out (Lifo) were used? Would it be higher, lower or the same? And why?
- Explain how using Fifo as opposed to Lifo influences the cash flow of the business.
- In this example we have ignored Value added tax (VAT). Explain how VAT would influence the profit calculation.

### Solutions Fifo Lifo

#### A. Fifo Profit

$$70,000 \times (48 - 45) = 210,000$$

$$10,000 \times (50 - 45) = 50,000$$

$$80,000 \times (50 - 46) = 320,000$$

$$20,000 \times (52 - 46) = 120,000$$

$$200,000 \times (52 - 49) = 600,000$$

$$80,000 \times (52 - 50) = \underline{160,000}$$

$$\mathbf{1,460,000}$$

$$\text{B. Ending inventory} = 70,000 \times 50 = 3,500,000$$

C. Lifo profit will be lower due to rising purchase prices

$$70,000 \times (48 - 46) = 140,000$$

$$30,000 \times (50 - 46) = 120,000$$

$$60,000 \times (50 - 45) = 300,000$$

$$150,000 \times (52 - 50) = 300,000$$

$$150,000 \times (52 - 49) = \underline{450,000}$$

**1,310,000**

D. No influence on cash flow (except for effects of taxation which are ignored in this exercise).

E. VAT has no influence on profit.