Advanced Accounting
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Lesson 8
More about Liquidity and Working Capital

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Liquidity and Working Capital

Additional Liquidity Measures

- ✓ Current Assets composition
- ✓ Cash Flow Measures
- ✓ Financial Flexibility
- ✓ Management's Discussion and Analysis
- ✓ What-if Analysis

Net Trade Cycle Analysis

- ✓ Net trade cycle affects a company's working capital requirements.
- ✓ It is determined according to:
  1) the time it takes to collect accounts receivables, on average;
  2) the time required to sell inventories (on an ending-balance basis);
  3) the time the company takes in paying its obligations to suppliers.
- ✓ All the measures need to be expressed on a consistent basis.

Net Trade Cycle Analysis

(+) Days' Sales in Receivables	$\text{Accounts receivable} \div \frac{\text{Sales}}{360}$
(+) Days' Sales in Inventory	$\text{Inventories} \div \frac{\text{Cost of goods sold}}{360}$
(-) Days' Purchases in Payables	$\frac{\text{Accounts payable}}{\text{Purchases} \div 360}$
= ***NET TRADE CYCLE (DAYS)***	

- ✓ The longer the net trade cycle, the larger is the working capital requirement.
- ✓ The judgement of adequacy of a company's working capital requirement needs comparisons using industry current ratios and trade cycle measures.

Net Trade Cycle Analysis

Illustration

Selected information from Technology Resources for the end of Year 1:

Sales for Year 1	$360,000
Receivables	40.000
Inventories*	50.000
Accounts payable†	20.000
Cost of goods sold (including depreciation of $30,000)	320.000

*Beginning inventory is $100,000.

†These relate to purchases included in cost of goods sold.

We estimate Technology Resources' purchases per day as:

Ending inventory	$ 50,000
Cost of goods sold	320.000
	370.000
Less: Beginning inventory	(100,000)
Cost of goods purchased and manufactured	270.000
Less: Depreciation in cost of goods sold	(30,000)
Purchases	$240,000

Purchases per day = $240,000/360 = $666.67

Net Trade Cycle Analysis

Then, the net trade cycle is computed as:

$$\text{Accounts receivable} = \frac{\$40{,}000}{\$360{,}000 \div 360} = 40.00 \text{ days}$$

$$\text{Inventories} = \frac{\$50{,}000}{\$320{,}000 \div 360} = 56.24 \text{ days}$$

96.24 days 57

$$\text{Less: Accounts payable} = \frac{\$20{,}000}{\$240{,}000 \div 360} = 30.00 \text{ days}$$

Net trade cycle (days) = 66.24 days 67

Additional Liquidity Measures

Current Assets Composition

Current assets	Year 1		Year 2	
Cash	$ 30,000	30%	$ 20,000	20%
Accounts receivable	40,000	40	30,000	30
Inventories	30,000	30	50,000	50
Total current assets	$100,000	100%	$100,000	100%

- ✓ Indicator of working capital liquidity.
- ✓ Comparison year-to-year or between different companies.

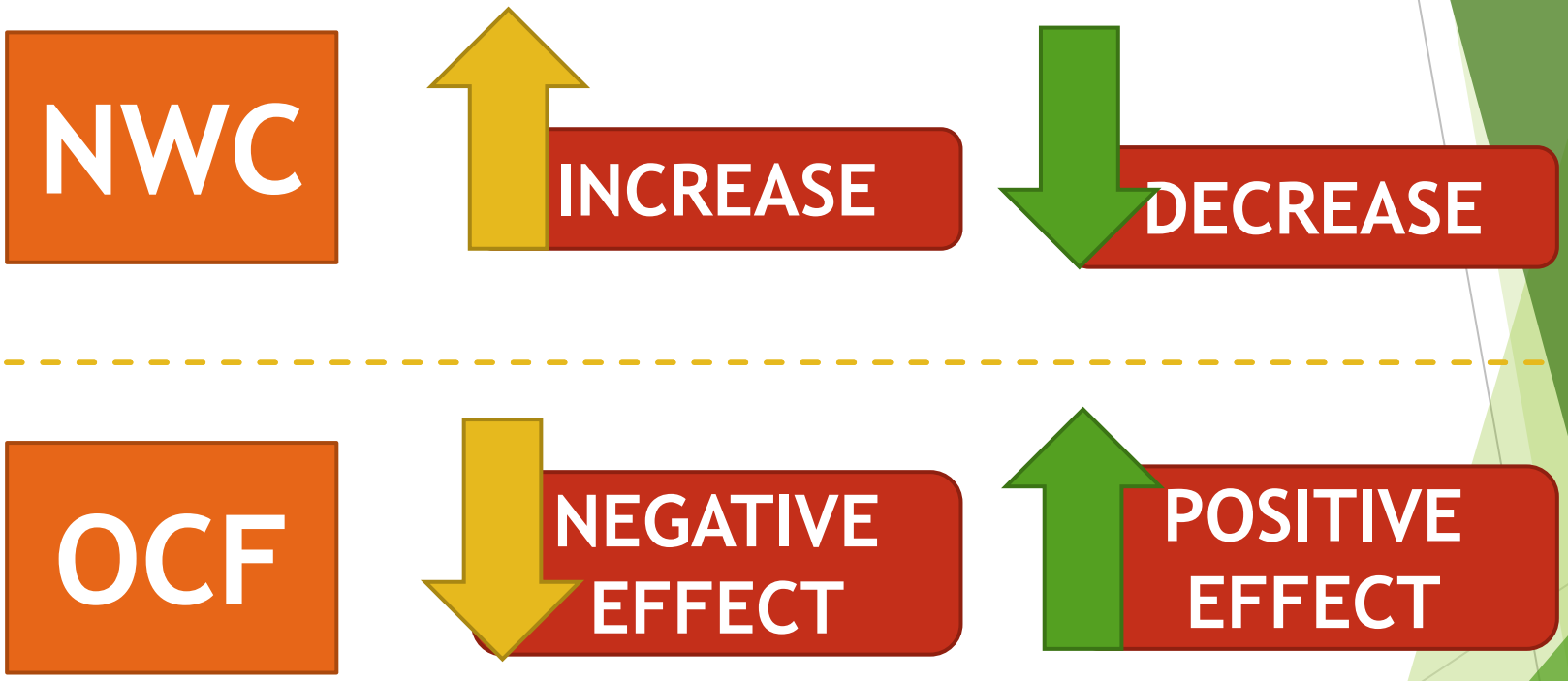
Additional Liquidity Measures

Cash Flow Ratio

$$\frac{\text{Operating cash flow}}{\text{Current liabilities}}$$

- ✓ It overcomes the static nature of the current ratio since its numerator reflects a flow variable.

The Net Working Capital



The Net Working Capital

Additional Liquidity Measures

Financial Flexibility

- Ability to take steps to counter unexpected interruptions in the flow of funds:
  - borrowing from various sources;
  - raising equity capital;
  - selling and redeploy assets;
  - adjusting the level and direction of operations to meet changing circumstances.
- Includes levels of prearranged financing and open lines of credit.

Additional Liquidity Measures

Financial Flexibility

- It depends on:
  - Profitability and stability;
  - Size and industry position;
  - Asset composition and capital structure.
- Additional factors to be considered:
  - ratings of a company's commercial paper, bonds, and preferred stock;
  - any restrictions on its sale of assets;
  - the extent expenses are discretionary;
  - ability to respond quickly to changing conditions (such as strikes, demand shifts, and breaks in supply sources).

Additional Liquidity Measures

What-If Analysis

- Use the following selected financial data from Consolidated Technology, Inc. for the year ended December 31, Year 1:

Cash	$ 70,000
Accounts receivable	150,000
Inventory	65,000
Fixed assets	200,000
Accumulated depreciation	43,000
Accounts payable	130,000
Notes payable	35,000
Accrued tax liability	18,000
Capital stock	200,000

Sales	$750,000
Cost of sales	520,000
Purchases	350,000
Depreciation	25,000
Net income	20,000

Additional Liquidity Measures

What-If Analysis

- ✓ Consolidated Technologies anticipates 10% growth in sales for Year 2.
- ✓ All revenue and expense items are expected to increase by 10%, except for depreciation, which remains the same.
- ✓ All expenses are paid in cash as they are incurred, and Year 2 ending inventory is projected at $150,000.
- ✓ By the end of Year 2, Consolidated Technologies expects to have notes payable of $50,000 and a zero balance in accrued taxes.
- ✓ The company maintains a minimum cash balance of $50,000 as a managerial policy.

Additional Liquidity Measures

What-If Analysis

1. Consolidated Technologies is considering a change in credit policy where ending accounts receivable reflect 90 days of sales. What impact does this change have on the company's cash balance? Will this change affect the company's need to borrow?

2. What if Consolidated Technologies worked to achieve an average accounts receivable turnover of 4.0 (instead of using ending receivables as in the previous case)? What impact does this change have on the company's cash balance?

3. What if, in addition to the conditions prevailing in Case 10.2, the company's suppliers require payment within 60 days? What is the effect of this payment requirement on the cash balance?