

Cash conversion cycle and financing strategies

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1. CASH CONVERSION CYCLE

Measure of Liquidity Based on the Funding Structure of Working Capital Requirement

Liquidity in Euros:

$$\text{NLB} = \text{WC} - \text{WCR} \geq 0$$

Liquidity in % of Revenues:

$$\frac{\text{NLB}}{\text{Revenues}} = \frac{\text{WC}}{\text{Revenues}} - \frac{\text{WCR}}{\text{Revenues}}$$

And Liquidity Ratio:

$$\text{HV Liquidity ratio} = \frac{\text{Working Capital}}{\text{Working Capital Requirements}}$$

NLB = Net Liquid Balance

WC = Working Capital

WCR = Working Capital Requirements

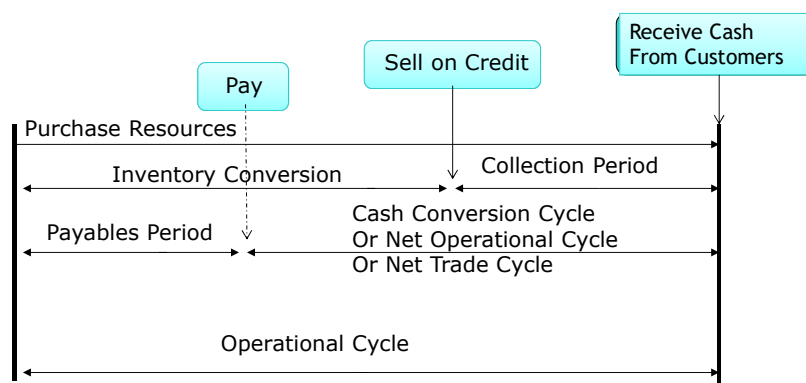
Session Outline

2.4. Improving liquidity through better management of the operating cycle

2.5. Financing strategies

2.4. IMPROVING LIQUIDITY THROUGH BETTER MANAGEMENT OF THE OPERATING CYCLE

Cash Conversion Cycle



Operational Efficiency to Improve Liquidity



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Traditional Trade Cycle (Example with the core WCR only)

$$+ \text{ Days in Inventory} = \frac{\text{Inventory}}{\text{Cost of Goods Sold}} \times 365$$

$$+ \text{ Collection Period} = \frac{\text{Trade Accounts Receivables}}{\text{Revenues}} \times 365$$

$$- \text{ Payment Period} = \frac{\text{Trade Accounts Payables}}{\text{Purchases including services}} \times 365$$

Some authors use 365 days in a year.
Other authors use 360 days

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Cash Conversion Cycle (Simplified using the core WCR only)

$$+ \text{ Days of Sales in Inventory} = \frac{\text{Inventory}}{\text{Revenues}} \times 365$$

$$+ \text{ Collection Period} = \frac{\text{Trade Accounts Receivables}}{\text{Revenues}} \times 365$$

$$- \text{ Days of Sales Payables Outstanding} = \frac{\text{Trade Accounts Payables}}{\text{Revenues}} \times 365$$

Some authors use 365 days in a year.
Other authors use 360 days

Traditional 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
	<u>370,000</u>
Less: Beginning inventory	✓ (100,000)
Cost of goods purchased and manufactured	270,000
Less: Depreciation in cost of goods sold	✓ (30,000)
Purchases	<u>\$240,000</u>

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

Then, the net trade cycle is computed as:

Accounts receivable	=	$\frac{\$40,000}{\$360,000 \div 360}$	=	40.00 days
Inventories	=	$\frac{\$50,000}{\$320,000 \div 360}$	=	56.24 days
				<u>96.24 days</u>
Less: Accounts payable	=	$\frac{\$20,000}{\$240,000 \div 360}$	=	30.00 days
Net trade cycle (days)	=			<u>66.24 days</u>

Source: K R Subramanyam and John J Wild (2009), Financial Statements Analysis, 10th Edition

Traditional approach to Inventory Efficiency Management

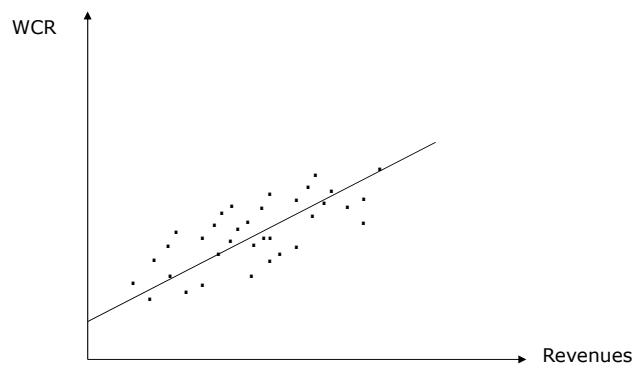
$$\text{Days of Inventory Materials} = \frac{\text{Materials Inventory}}{\text{Materials Purchases}} \times 365$$

$$\text{Days of Inventory of Work in Progress} = \frac{\text{WIP Inventory}}{\text{Cost of Production}} \times 365$$

$$\text{Days of Inventory Final Products} = \frac{\text{Final Product Inventory}}{\text{Cost of Goods Sold}} \times 365$$

$$\text{Days of Inventory Merchandise} = \frac{\text{Merchandise Inventory}}{\text{Merchandise Purchase}} \times 365$$

Correlation between WCR and Revenues



Best ratio to analyze efficiency of operational efficiency in managing the cash conversion cycle:

$$\text{Cash Conversion Cycle in Days of Revenues} = \frac{\text{WCR}}{\text{Revenues}} \times 365$$

Cash Conversion Cycle in Days of Revenues

$$\begin{aligned}
 &+ \text{Days Sales in Inventory} = \frac{\text{Inventory}}{\text{Revenues}} \times 365 \\
 &+ \text{Collection Period} = \frac{\text{Trade Receivables}}{\text{Revenues}} \times 365 \\
 &+ \text{Days of advances from customers} = \frac{\text{Advances from customers}}{\text{Revenues}} \times 365 \\
 &+ \text{Taxes Receivable Days of Sales Outstanding} = \frac{\text{Taxes Receivables}}{\text{Revenues}} \times 365 \\
 &+ \text{Prepaid Expenses Days of Sales Outstanding} = \frac{\text{Prepaid Expenses}}{\text{Revenues}} \times 365
 \end{aligned}$$

$$\begin{aligned}
 &- \text{Days of Sales Payables Outstanding} = \frac{\text{Trade Payables}}{\text{Revenues}} \times 365 \\
 &- \text{Days of advances to suppliers} = \frac{\text{Advances to suppliers}}{\text{Revenues}} \times 365 \\
 &- \text{Taxes Payable Days of Sales Outstanding} = \frac{\text{Taxes Payables}}{\text{Revenues}} \times 365 \\
 &- \text{AExp. \& DRev}^* \text{ Days of Sales Outstanding} = \frac{\text{Accrued Expenses \& Deferred Revenues}}{\text{Revenues}} \times 365
 \end{aligned}$$

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* Accrued expenses and Deferred revenues

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Cash Conversion Cycle - Influence of the Sector

Industry Name	Cash Conversion Cycle in Days of Sales
Real Estate (General/Diversified)	697
Real Estate (Development)	291
Homebuilding	288
R. E. I. T.	158
Aerospace/Defense	113
Chemical (Diversified)	103
Tobacco	102
Semiconductor Equip	96
Drugs (Pharmaceutical)	95
Healthcare Products	93
Apparel	92
Machinery	87
Broadcasting	86
Healthcare Information and Technology	84
Steel	81
Shipbuilding & Marine	78
...	...
Retail (General)	11
Restaurant/Dining	10
Telecom (Wireless)	9
Oil/Gas (Production and Exploration)	8
Retail (Grocery and Food)	7
Air Transport	5
Cable TV	3
Retail (Online)	2
Advertising	-2
Green & Renewable Energy	-3
Telecom. Services	-6
Beverage (Soft)	-17
Computers/Peripherals	-22
Healthcare Support Services	-22
Total Market (without financials)	36

○ Industry influences the Cash Conversion Cycle

○ Within each Industry the Cash Conversion Cycle has a high variance showing that management has a crucial impact in term of efficiency

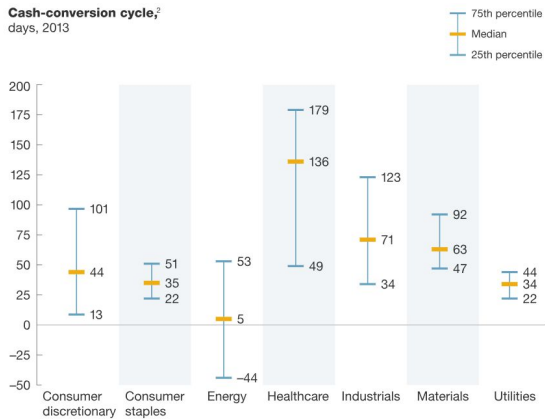
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Source: Value Line as of January 2018

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Cash Conversion Cycle Influence of management

Cash-conversion cycle,²
days, 2013



¹We also see significant variation within subsectors.

²The cash conversion cycle (CCC) measures the time—in days—that it takes for a company to convert resource inputs into cash flows. In other words, the CCC reflects the length of time it takes a company to sell inventory, collect receivables, and pay its bills.

Ryan Davies and David Merin,
Uncovering cash and insights
from working capital,
Corporate Finance Practice,
Mckinsey, 2014, p.2

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Questions

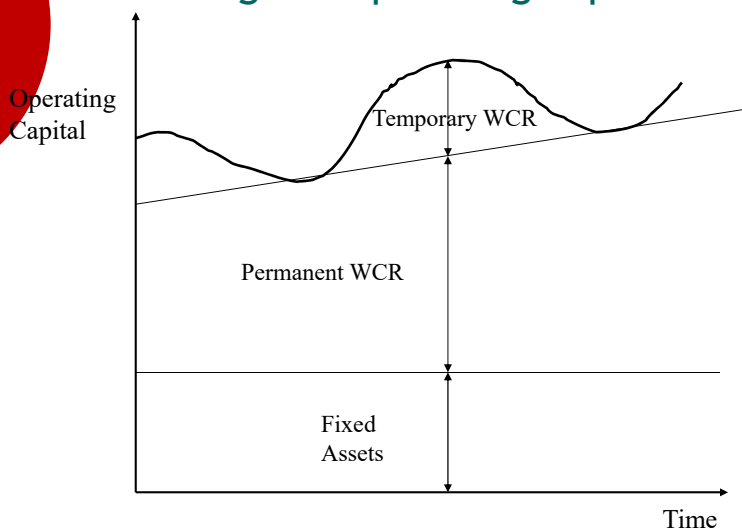
- Is the management of the cash conversion cycle efficient?
 - Benchmarking with peers?
 - Is possible to improve?
 - Which areas?
 - What possible actions?

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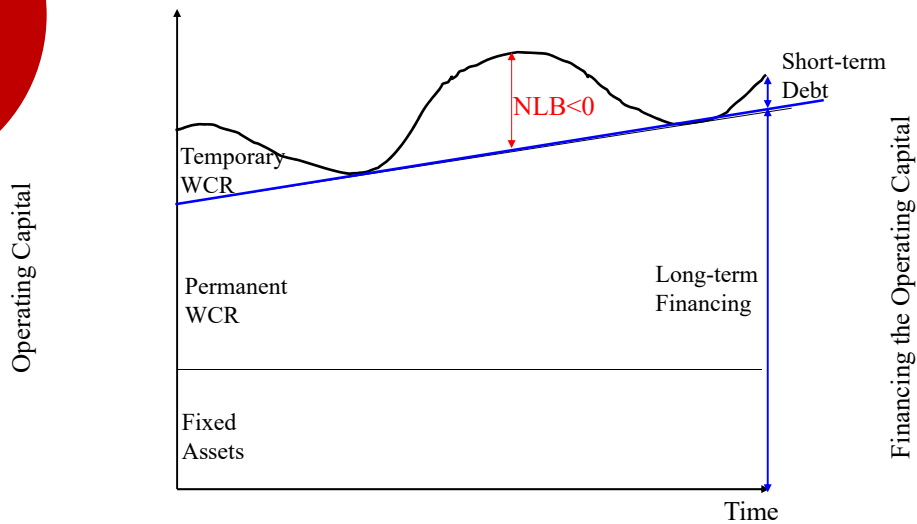
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2. FINANCING STRATEGIES

Financing the operating capital



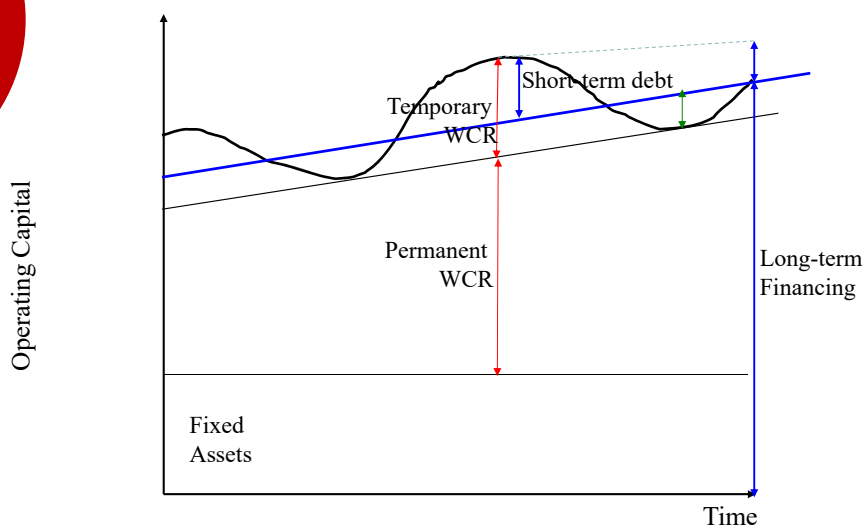
Maturity Matching Financing Strategy



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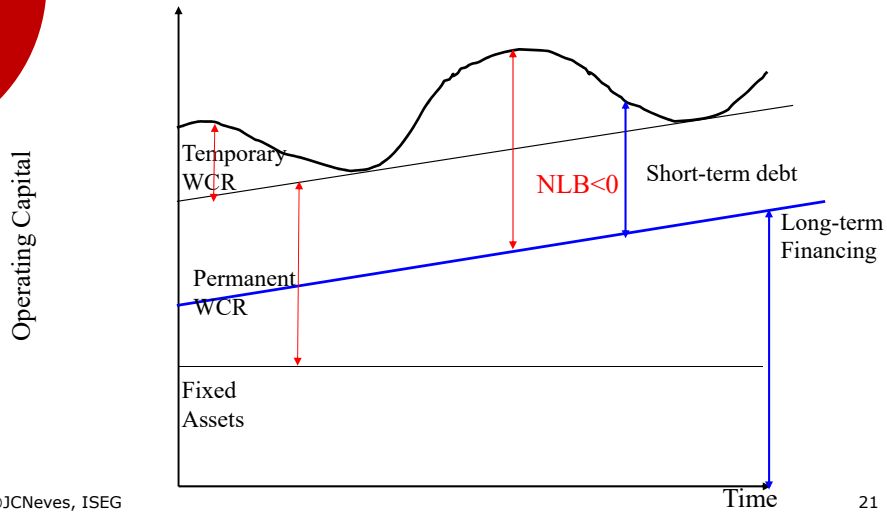
Conservative Financing Strategy



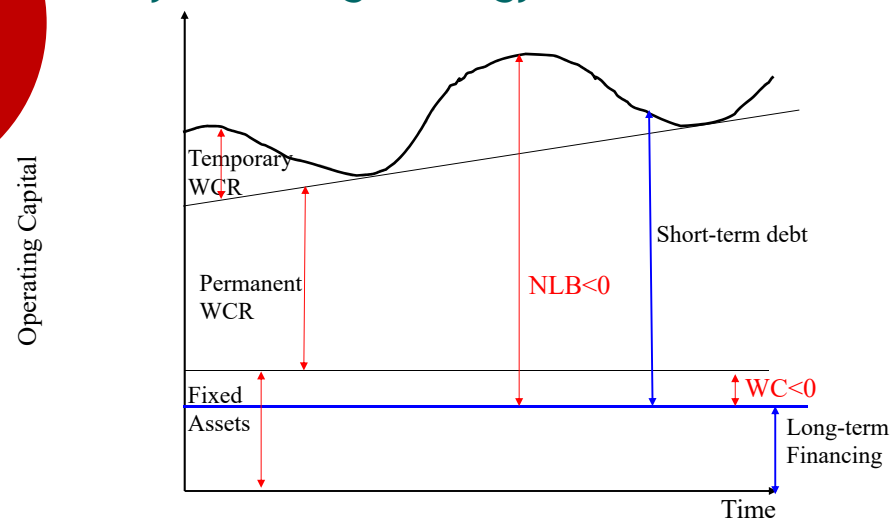
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Aggressive Financing Strategy



Risky Financing Strategy





Questions

- How is the liquidity of the company?
- Is the financing policy consistent with the corporate strategy and inherent risk?
- Any suggestion for changing the financing strategy?