Chapter 8

Overview of Working Capital Management

Learning Objectives

After studying Chapter 8, you should be able to:

- Explain how the definition of "working capital" differs between financial analysts and accountants.
- Understand the two fundamental decision issues in working capital management -- and the trade-offs involved in making these decisions.
- Discuss how to determine the optimal level of current assets.
- Describe the relationship between profitability, liquidity, and risk in the management of working capital.
- Explain how to classify working capital according to its “components” and according to “time” (i.e., either permanent or temporary).
- Describe the hedging (maturity matching) approach to financing and the advantages/disadvantages of short- versus long-term financing.
- Explain how the financial manager combines the current asset decision with the liability structure decision.

Topics

- Working Capital Concepts
- Working Capital Issues
- Financing Current Assets: Short-Term and Long-Term Mix
- Combining Liability Structure and Current Asset Decisions

Working Capital Concepts

Net Working Capital

Current Assets - Current Liabilities.

Gross Working Capital

The firm's investment in current assets.

Working Capital Management

The administration of the firm's current assets and the financing needed to support current assets.

Significance of Working Capital Management

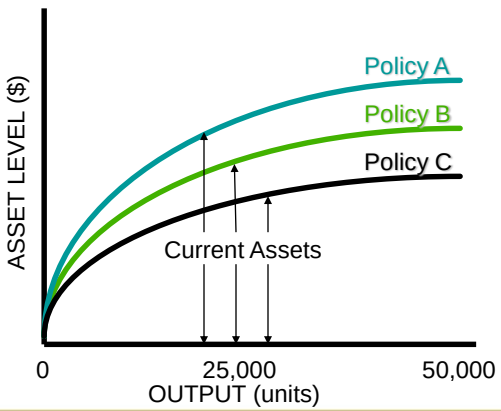
- In a typical manufacturing firm, current assets exceed one-half of total assets.
- Excessive levels can result in a substandard Return on Investment (ROI).
- Current liabilities are the principal source of external financing for small firms.
- Requires continuous, day-to-day managerial supervision.
- Working capital management affects the company's risk, return, and share price.

Working Capital Issues

Optimal Amount (Level) of Current Assets

Assumptions

- 50,000 maximum units of production
- Continuous production
- Three different policies for current asset levels are possible

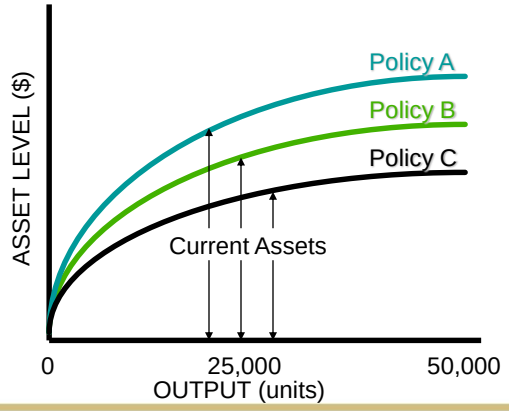


Impact on Liquidity

Optimal Amount (Level) of Current Assets

Liquidity Analysis	
Policy	*Liquidity*
A	High
B	Average
C	Low

Greater current asset levels generate more liquidity; all other factors held constant.



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Impact on Expected Profitability

Optimal Amount (Level) of Current Assets

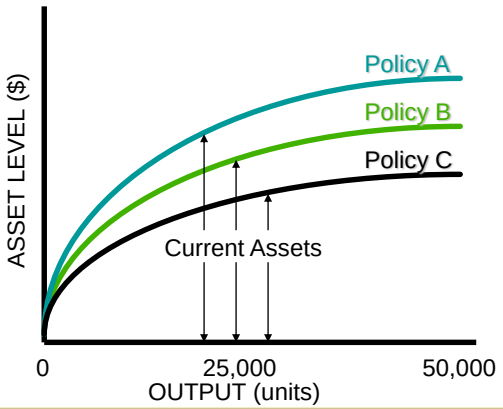
Return on Investment =

$$\frac{\text{Net Profit}}{\text{Total Assets}}$$

Let Current Assets = (Cash + Rec. + Inv.)

Return on Investment =

$$\frac{\text{Net Profit}}{\text{Current + Fixed Assets}}$$



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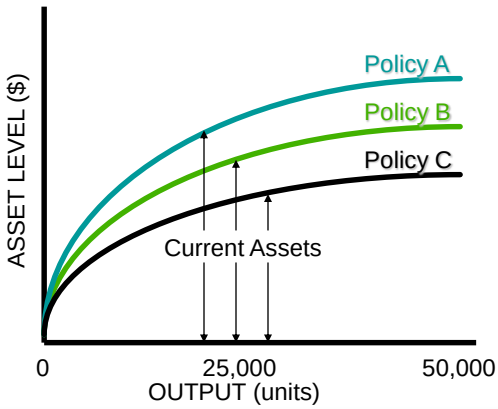
Impact on Expected Profitability

Optimal Amount (Level) of Current Assets

Profitability Analysis

Policy	*Profitability*
A	Low
B	Average
C	High

As current asset levels decline, total assets will decline and the ROI will rise.



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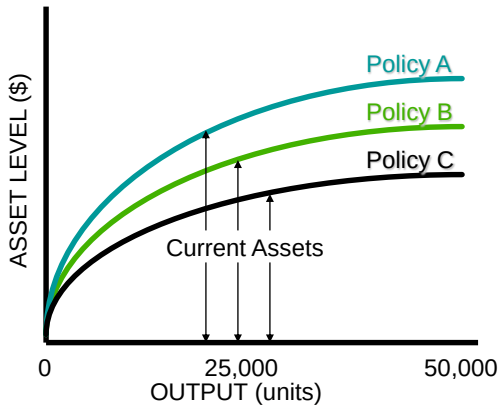
Impact on Risk

Optimal Amount (Level) of Current Assets

- Decreasing cash reduces the firm's ability to meet its financial obligations. More risk!
- Stricter credit policies reduce receivables and possibly lose sales and customers. More risk!
- Lower inventory levels increase stockouts and lost sales. More risk!



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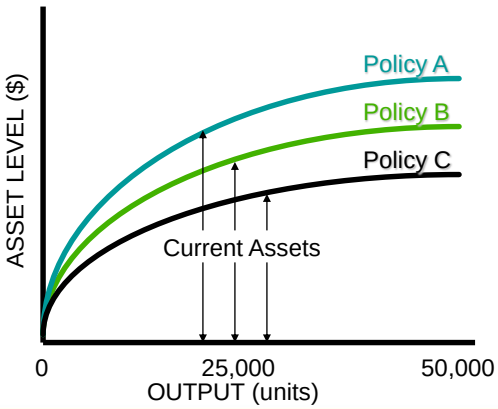
Impact on Risk

Optimal Amount (Level) of Current Assets

Risk Analysis

Policy	*Risk*
A	Low
B	Average
C	High

Risk increases as the level of current assets are reduced.



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Summary of the Optimal Amount of Current Assets

SUMMARY OF OPTIMAL CURRENT ASSET ANALYSIS

Policy	*Liquidity*	*Profitability*	*Risk*
A	High	Low	Low
B	Average	Average	Average
C	Low	High	High

1. Profitability varies inversely with liquidity.
2. Profitability moves together with risk. (risk and return go hand in hand!)

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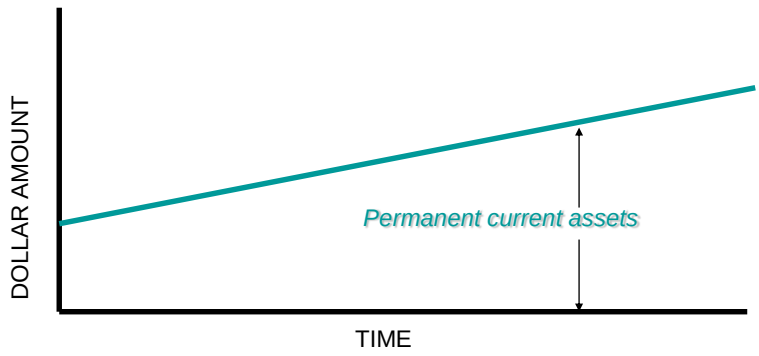
Classifications of Working Capital

- *Components*
  - Cash, marketable securities, receivables, and inventory
- *Time*
  - Permanent
  - Temporary

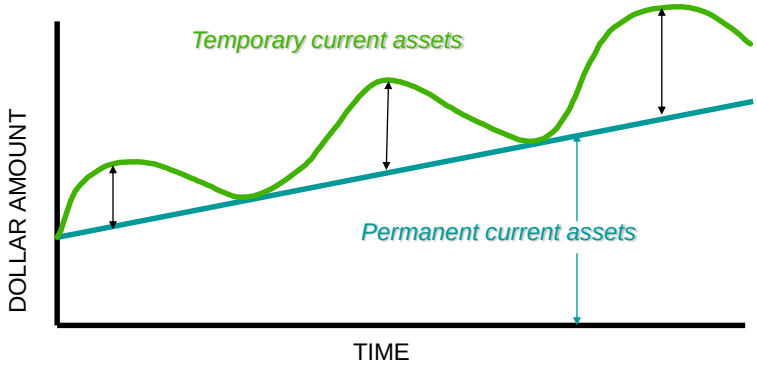
Permanent Working Capital

The amount of current assets required to meet a firm's long-term minimum needs.



Temporary Working Capital

The amount of current assets that varies with seasonal requirements.



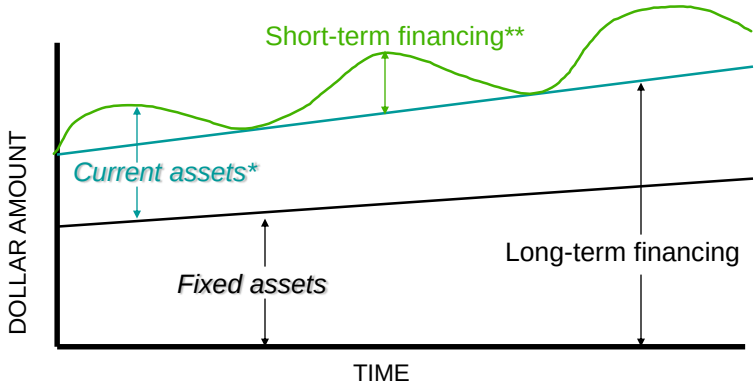
Financing Current Assets: Short-Term and Long-Term Mix

Spontaneous Financing: Trade credit, and other payables and accruals, that arise spontaneously in the firm's day-to-day operations.

- Based on policies regarding payment for purchases, labor, taxes, and other expenses.
- We are concerned with managing non-spontaneous financing of assets.

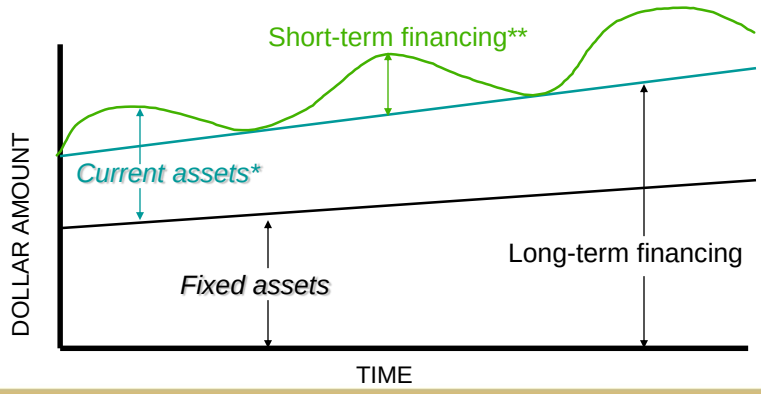
Hedging (or Maturity Matching) Approach

A method of financing where each asset would be offset with a financing instrument of the same approximate maturity.



Hedging (or Maturity Matching) Approach

* Less amount financed spontaneously by payables and accruals.
** In addition to spontaneous financing (payables and accruals).



Financing Needs and the Hedging Approach

- Fixed assets and the non-seasonal portion of current assets are financed with long-term debt and equity (long-term profitability of assets to cover the long-term financing costs of the firm).
- Seasonal needs are financed with short-term loans (under normal operations sufficient cash flow is expected to cover the short-term financing cost).

Self-Liquidating Nature of Short-Term Loans

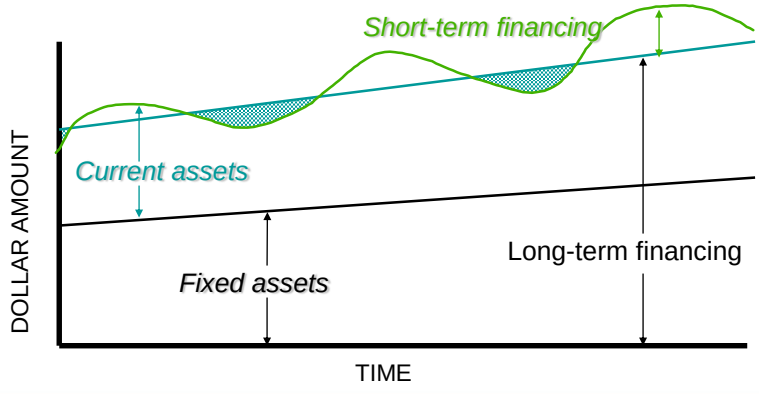
- Seasonal orders require the purchase of inventory beyond current levels.
- Increased inventory is used to meet the increased demand for the final product.
- Sales become receivables.
- Receivables are collected and become cash.
- The resulting cash funds can be used to pay off the seasonal short-term loan and cover associated long-term financing costs.

Risks vs. Costs Trade-Off (Conservative Approach)

- Long-Term Financing Benefits
  - Less worry in refinancing short-term obligations
  - Less uncertainty regarding future interest costs
- Long-Term Financing Risks
  - Borrowing *more than* what is necessary
  - Borrowing at a higher overall cost (usually)
- Result
  - Manager accepts *less* expected profits in exchange for taking *less* risk.

Risks vs. Costs Trade-Off (Conservative Approach)

Firm can reduce risks associated with short-term borrowing by using a larger proportion of long-term financing.



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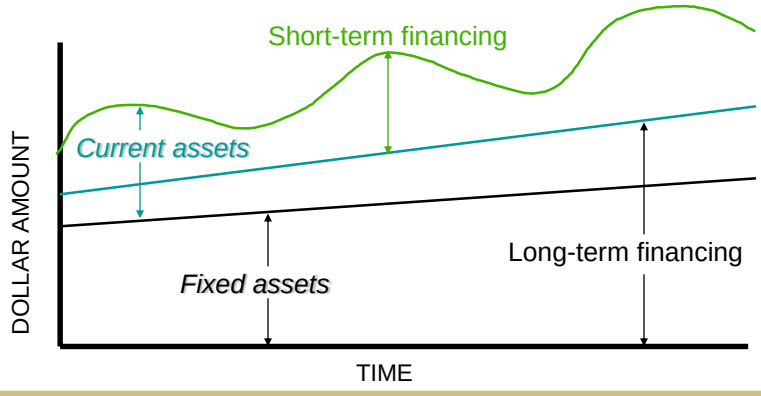
Comparison with an Aggressive Approach

- Short-Term Financing Benefits
  - Financing long-term needs with a lower interest cost than short-term debt
  - Borrowing *only* what is necessary
- Short-Term Financing Risks
  - Refinancing short-term obligations in the future
  - Uncertain future interest costs
- Result
  - Manager accepts *greater* expected profits in exchange for taking *greater* risk.

Risks vs. Costs Trade-Off (Aggressive Approach)

Firm increases risks associated with short-term borrowing by using a larger proportion of short-term financing.



Summary of Short- vs. Long-Term Financing

Financing Maturity / Asset Maturity	SHORT-TERM	LONG-TERM
SHORT-TERM (*Temporary*)	Moderate Risk-Profitability	Low Risk-Profitability
LONG-TERM (*Permanent*)	High Risk-Profitability	Moderate Risk-Profitability

Combining Liability Structure and Current Asset Decisions

- The level of current assets and the method of financing those assets are ***interdependent***.
- A conservative policy of "high" levels of current assets allows a more aggressive method of financing current assets.
- A conservative method of financing (all-equity) allows an aggressive policy of "low" levels of current assets.