

## **Working Capital Management**

- **Alternative working capital policies**
- **Cash management**
- **Inventory and A/R management**
- **Working capital financing policies**
- **A/P (trade credit)**
- **Commercial paper**

## Definitions

- **Gross W.C.:** Total current assets.
- **Net W.C.:** Current assets – Current liabilities.
- **W.C. Policy:** Decisions as to (1) the level of each type of current asset, and (2) how current assets will be financed.
- **W.C. Management:** Controlling cash, inventories, and A/R, plus S-T liability management.

## Selected Ratios--SKI Inc.

	<u>SKI</u>	<u>Industry</u>
Current	1.75x	2.25x
Quick	0.83x	1.20x
Debt/Assets	58.76%	50.00%
Turnover of cash & securities	16.67x	22.22x
DSO (365-day basis)	45.63	32.00
Inv. turnover	4.82x	7.00x
F. A. turnover	11.35x	12.00x
T. A. turnover	2.08x	3.00x
Profit margin	2.07%	3.50%
ROE	10.45%	21.00%

**SKI appears to have large amounts of working capital given its level of sales.**

## How does SKI's working capital policy compare with the industry?

- Working capital policy is reflected in **current ratio, quick ratio, turnover of cash and securities, inventory turnover, and DSO.**
- These ratios indicate SKI has large amounts of working capital relative to its level of sales. SKI is either very conservative or inefficient.

## Is SKI inefficient or just conservative?

- **A conservative (relaxed) policy may be appropriate if it leads to greater profitability.**
- **However, SKI is not as profitable as the average firm in the industry. This suggests the company has excessive working capital.**

## Cash Conversion Cycle

The cash conversion model focuses on the length of time between when a company make payments to its creditors and when a company receives payment from its customers.

$$\text{CCC} = \frac{\text{Inventory}}{\text{conversion period}} + \frac{\text{Receivables}}{\text{collection period}} - \frac{\text{Payables}}{\text{deferral period}}$$

## Cash Conversion Cycle

$$\text{CCC} = \frac{\text{Days per year}}{\text{Inv. turnover}} + \text{Days sales outstanding} - \text{Payables deferral period}$$

$$\text{CCC} = \frac{365}{4.82} + 45.6 - 30$$

$$\text{CCC} = 75.7 + 45.6 - 30$$

$$\text{CCC} = 91.3 \text{ days.}$$

## Cash doesn't earn a profit, so why hold it?

1. **Transactions:** Must have some cash to operate.
2. **Precaution:** “Safety stock.” But lessened by line of credit, marketable securities.
3. **Compensating balances:** For loans and/or services provided.
4. **Speculation:** To take advantage of bargains, to take discounts, etc. Reduced by credit lines, securities.

## What's the goal of cash management?

- To meet above objectives, especially to have cash for transactions, yet not have any excess cash.
- To minimize transactions balances in particular, and also needs for cash to meet other objectives.

## **Reducing Cash and Securities without Harming Operations**

**Securities could be sold off and combined with existing cash used to reduce debt, to buy back stock, or to invest in operating assets.**

## Cash Budget: The Primary Cash Management Tool

- **Purpose:** Forecasts cash inflows, outflows, and ending cash balances. Used to plan loans needed or funds available to invest.
- **Timing:** Daily, weekly, or monthly, depending upon purpose of forecast. Monthly for annual planning, daily for actual cash management.

## **Data Required for Cash Budget**

- 1. Sales forecast.**
- 2. Information on collections delay.**
- 3. Forecast of purchases and payment terms.**
- 4. Forecast of cash expenses, taxes, etc.**
- 5. Initial cash on hand.**
- 6. Target cash balance.**

## SKI's Cash Budget for January and February

	<b>Net Cash Inflows</b>	
	<b>January</b>	<b>February</b>
<b>Collections</b>	<b><u>\$67,651.95</u></b>	<b><u>\$62,755.40</u></b>
<b>Purchases</b>	<b>44,603.75</b>	<b>36,472.65</b>
<b>Wages</b>	<b>6,690.56</b>	<b>5,470.90</b>
<b>Rent</b>	<b><u>2,500.00</u></b>	<b><u>2,500.00</u></b>
<b>Total payments</b>	<b><u>\$53,794.31</u></b>	<b><u>\$44,443.55</u></b>
<b>Net CF</b>	<b><u><u>\$13,857.64</u></u></b>	<b><u><u>\$18,311.85</u></u></b>

## Cash Budget (Continued)

	<u>January</u>	<u>February</u>
<b>Cash at start if no borrowing</b>	<b>\$ 3,000.00</b>	<b>\$16,857.64</b>
<b>Net CF (slide 13)</b>	<b><u>13,857.64</u></b>	<b><u>18,311.85</u></b>
<b>Cumulative cash</b>	<b>\$16,857.64</b>	<b>\$35,169.49</b>
<b>Less: target cash</b>	<b><u>1,500.00</u></b>	<b><u>1,500.00</u></b>
<b>Surplus</b>	<b><u><u>\$15,357.64</u></u></b>	<b><u><u>\$33,669.49</u></u></b>

## Should depreciation be explicitly included in the cash budget?

- **No.** Depreciation is a noncash charge. Only cash payments and receipts appear on cash budget.
- However, depreciation does affect **taxes**, which appear in the cash budget.

## What are some other potential cash inflows besides collections?

- Proceeds from the **sale of fixed assets.**
- Proceeds from **stock and bond sales.**
- **Interest** earned.
- Court **settlements.**

## How could bad debts be worked into the cash budget?

- **Collections would be reduced** by the amount of the bad debt losses.
- For example, if the firm had 3% bad debt losses, collections would total only **97% of sales**.
- **Lower collections would lead** to higher borrowing requirements.

**SKI's forecasted cash budget indicates that the company's cash holdings will exceed the targeted cash balance every month, except for October and November.**

- **Cash budget indicates the company is holding too much cash.**
- **SKI could improve its EVA by either investing cash in more productive assets, or by returning cash to its shareholders.**

## What reasons might SKI have for maintaining a relatively high amount of cash?

- If sales turn out to be considerably less than expected, SKI could face a cash shortfall.
- A company may choose to hold large amounts of cash if it does not have much faith in its sales forecast, or if it is very conservative.
- The cash may be used, in part, to fund future investments.

## Categories of Inventory Costs

- **Carrying Costs:** Storage and handling costs, insurance, property taxes, depreciation, and obsolescence.
- **Ordering Costs:** Cost of placing orders, shipping and handling costs.

(More...)

■ **Costs of Running Short:** Loss of sales, loss of customer goodwill, and the disruption of production schedules.

Reducing the average amount of inventory generally reduces carrying costs, increases ordering costs, and may increase the costs of running short.

## Is SKI holding too much inventory?

- SKI's inventory turnover (4.82) is considerably lower than the industry average (7.00). The firm is carrying a lot of inventory per dollar of sales.
- By holding excessive inventory, the firm is increasing its costs, which reduces its ROE. Moreover, this additional working capital must be financed, so EVA is also lowered.

**If SKI reduces its inventory, without adversely affecting sales, what effect will this have on its cash position?**

- **Short run: Cash will increase as inventory purchases decline.**
- **Long run: Company is likely to take steps to reduce its cash holdings and increase its EVA.**

**Do SKI's customers pay more or less promptly than those of its competitors?**

- **SKI's DSO (45.6 days) is well above the industry average (32 days).**
- **SKI's customers are paying less promptly.**
- **SKI should consider tightening its credit policy in order to reduce its DSO.**

## Elements of Credit Policy

1. **Credit Period:** How long to pay? Shorter period reduces DSO and average A/R, but it may discourage sales.
2. **Cash Discounts:** Lowers price. Attracts new customers and reduces DSO.
3. **Credit Standards:** Tighter standards tend to reduce sales, but reduce bad debt expense. Fewer bad debts reduce DSO.
4. **Collection Policy:** How tough? Tougher policy will reduce DSO but may damage customer relationships.

**Does SKI face any risk if it tightens its credit policy?**

**YES!** A tighter credit policy may discourage sales. Some customers may choose to go elsewhere if they are pressured to pay their bills sooner.

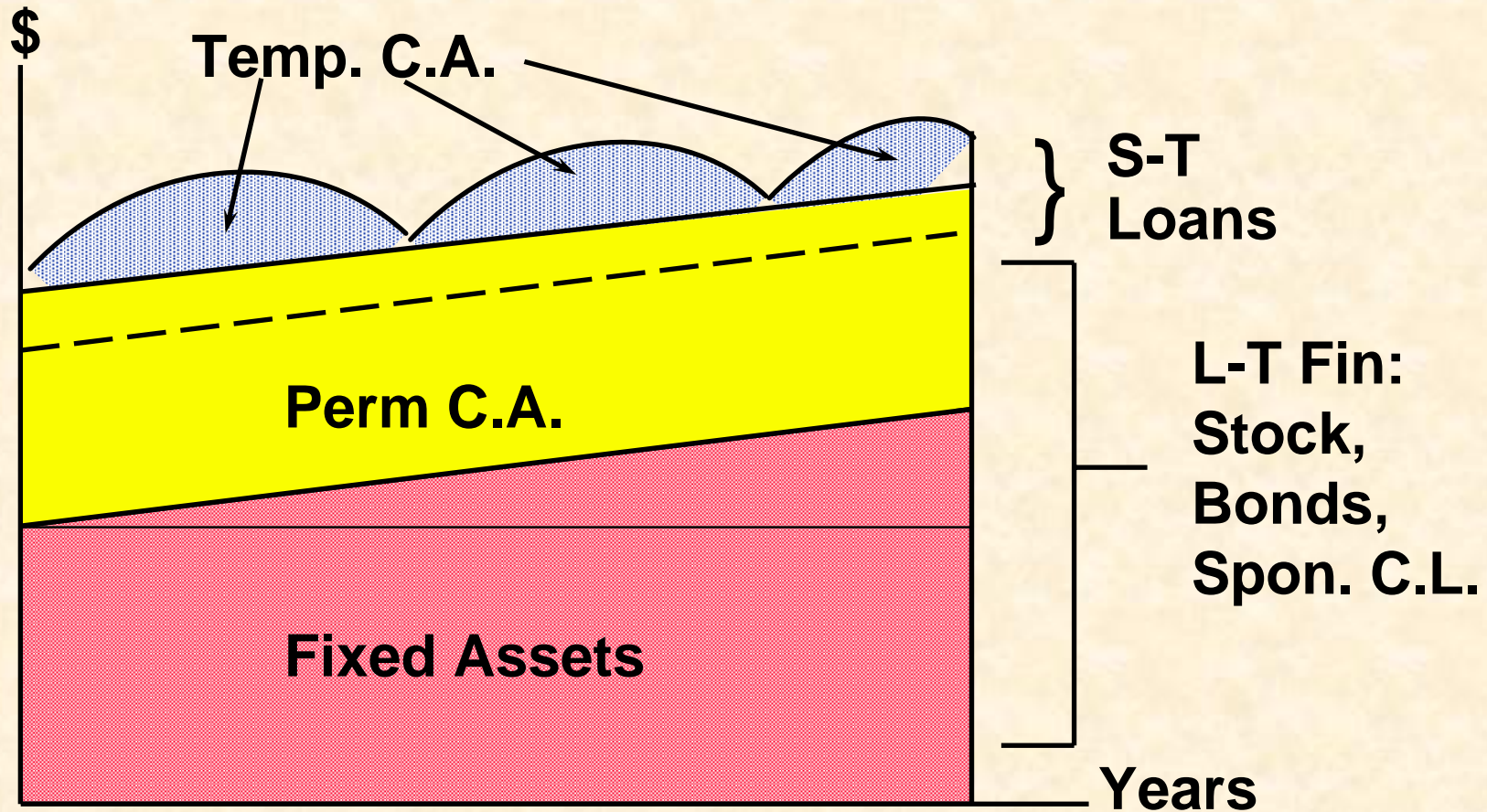
**If SKI succeeds in reducing DSO without adversely affecting sales, what effect would this have on its cash position?**

- **Short run: If customers pay sooner, this increases cash holdings.**
- **Long run: Over time, the company would hopefully invest the cash in more productive assets, or pay it out to shareholders. Both of these actions would increase EVA.**

## Working Capital Financing Policies

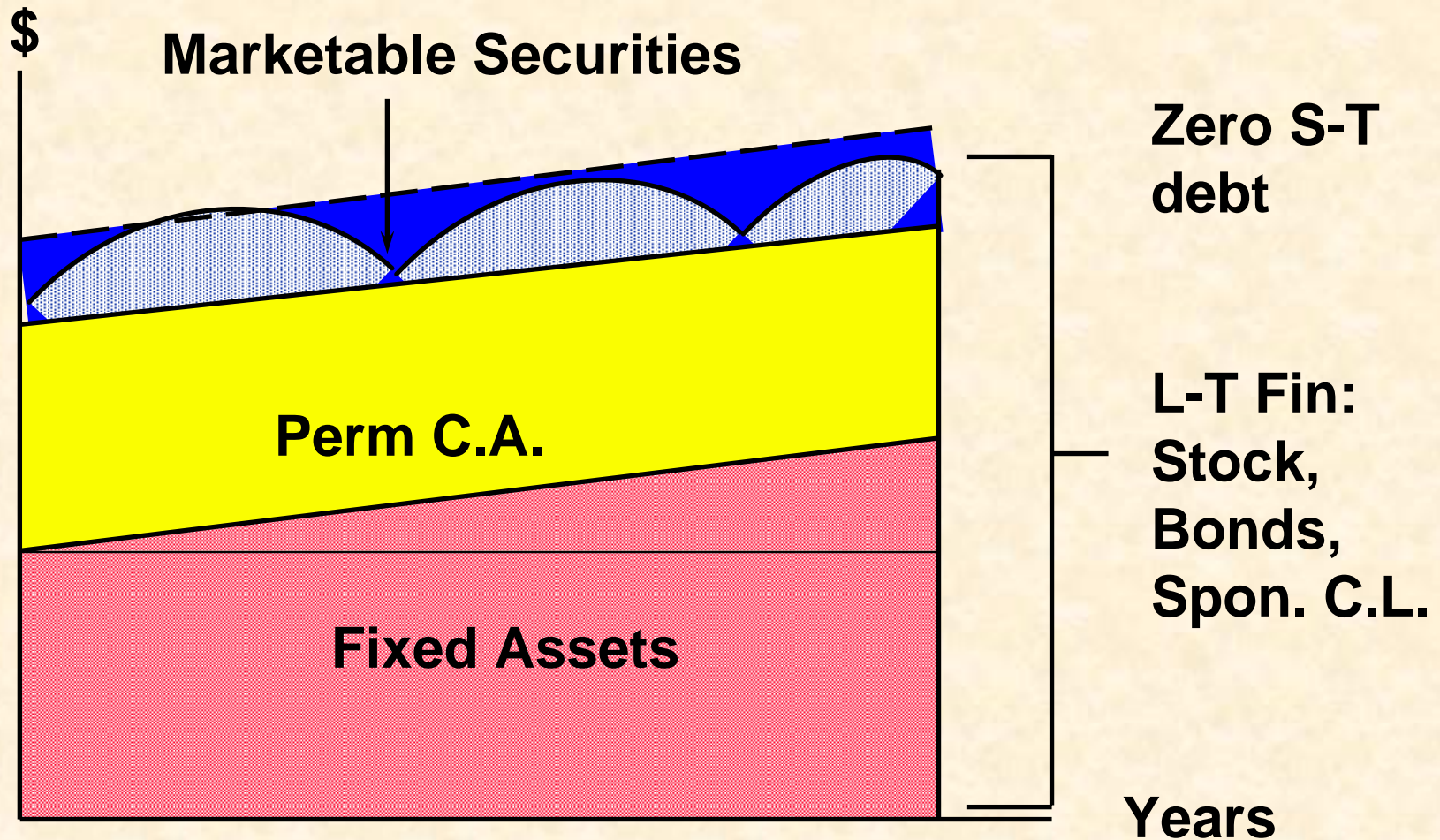
- **Moderate:** Match the maturity of the assets with the maturity of the financing.
- **Aggressive:** Use short-term financing to finance permanent assets.
- **Conservative:** Use permanent capital for permanent assets and temporary assets.

# Moderate Financing Policy



**Lower dashed line, more aggressive.**

# Conservative Financing Policy



## What is short-term credit, and what are the major sources?

- **S-T credit:** Any debt scheduled for repayment within one year.
- **Major sources:**
  - **Accounts payable (trade credit)**
  - **Bank loans**
  - **Commercial paper**
  - **Accruals**

## ■ Is S-T credit riskier than L-T?

To the company, yes. Required repayment always looms. May have trouble **rolling over** loans.

## ■ Advantages of short-term credit:

Low cost--visualize yield curve.  
Can get funds relatively quickly.  
Can repay without penalty.

## Is there a cost to accruals? Do firms have much control over amount of accruals?

- Accruals are **free** in that no explicit interest is charged.
- Firms have **little control** over the level of accruals. Levels are influenced more by industry custom, economic factors, and tax laws.

## What is trade credit?

- **Trade credit** is credit furnished by a firm's **suppliers**.
- Trade credit is often the **largest source of short-term credit**, especially for small firms.
- **Spontaneous**, easy to get, but **cost can be high**.

**B&B buys \$512,106 gross, or \$506,985 net, on terms of 1/10, net 30, and pays on Day 40. How much free and costly trade credit, and what's the cost of costly trade credit?**

$$\begin{aligned}\text{Net daily purchases} &= \$506,985/365 \\ &= \$1,389.\end{aligned}$$

## Gross/Net Breakdown

- Company buys **goods** worth \$506,985. That's the cash price.
- They must pay \$5,121 more if they don't take discounts.
- Think of the extra \$5,121 as a **financing cost** similar to the interest on a loan.
- Want to compare that cost with the cost of a bank loan.

Payables level if **take discount:**

$$\text{Payables} = \$1,389(10) = \$13,890.$$

Payables level if **don't take discount:**

$$\text{Payables} = \$1,389(40) = \$55,560.$$

**Credit Breakdown:**

Total trade credit = **\$55,560**

Free trade credit = **13,890**

Costly trade credit = **\$41,670**

## Commercial Paper (CP)

- **Short term notes issued by large, strong companies.** B&B couldn't issue CP--it's too small.
- CP trades in the market at rates just above T-bill rate.
- CP is bought with surplus cash by banks and other companies, then held as a marketable security for liquidity purposes.