

IFM: Lecture 3

Short-term finance and the management of working capital

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Working capital management

- Working capital concerned with short-term resources and short-term funding
- Net working capital =
Current Assets less Current Liabilities
(inventory plus receivables less trade payables)
- The need for liquidity must be balanced against the need for profitability.

Working capital policies

- Policies cover level of investment in working capital and its components, and financing of working capital.
- Policies should take account of nature of business, credit policy, seasonal factors and manufacturing period.

Level of investment

- Aggressive policy on level of working capital will have lower levels of investment than a conservative policy.
- Aggressive policy will have higher risk and higher profitability.
- Conservative policy will have lower risk and lower profitability.

Short-term finance

- Overdraft
- Short-term loan
- Trade credit
- Short-term finance is cheaper than long-term finance (yield curve)
- Short-term finance is riskier than long-term finance. (from the perspective of a borrower)

Cash conversion cycle

- Inventory conversion period plus receivables conversion period less payables deferral period.
- Cash conversion cycle is the average time between paying for inputs and receiving cash from sales.
- Length of cash conversion cycle helps determine the level of working capital.

Overtrading

- Overtrading occurs when capital base is too small to support volume of trade.
 - accepts larger work, but finds that fulfillment requires more resources
- May be caused by rapid growth in turnover or erosion of capital base.
- Overtrading can be indicated by:
 - deterioration in key financial ratios
 - decreasing liquid resources
 - increasing reliance on short-term finance.

Overtrading (Continued)

- Solutions seek to bring capital base and trade volume back into balance
 - introduce new capital
 - consolidate business activity
 - better working capital management.
- Note that overtrading can result from aggressive working capital policies.

Cash management

- Reasons for having reserves of cash:
 - The transactions motive for holding cash is the need to have a cash reserve to balance short-term cash inflows and outflows
 - The precautionary motive for holding cash refers to the fact that a company may choose to have cash reserves in order to meet unexpected demands.
 - Companies may also build up cash reserves to take advantage of investment opportunities that may occur: this is the speculative motive for holding cash.

Cash management (Continued)

- Holding cash for short-term needs will incur opportunity cost of lost profit.
- Cash flow shortages can be eased by postponing expenditure, accelerating income and finding new cash resources.
- Optimum cash levels reflect liquidity needs
 - future cash needs and borrowing capability
 - efficiency of cash management
 - tolerance of risk.

Cash management (Continued)

- Invest short-term cash surpluses in appropriate short-term instruments.
- Must be no risk of capital loss.
- Choice of investment depends on:
 - size of the cash surplus
 - maturity of the short-term asset
 - yield required
 - any penalties for early encashment / withdrawal.

Cash management (Continued)

- Appropriate short-term instruments:
 - term deposits
 - treasury bills and short-dated gilts
 - bank certificates of deposit
 - local authority bonds.

Working capital management

- Can overall level of WC be optimised?
 - by minimising cash conversion cycle?
 - by adopting aggressive policies?
 - optimal compared to what?
 - or just the individual components?
- How can each component be optimised?
 - just-in-time inventory management?
 - offering discounts for cash payments?

Working capital management

The amount of working capital required by a company can be estimated from information on the value of relevant working capital inputs and outputs, such as raw material costs and credit purchases, together with information on the length of the components of the cash conversion cycle. Assume that Carmed plc expects credit sales of £18m in the next year and has budgeted production costs as follows:

	£m
Raw materials	4
Direct labour	5
Production overheads	<u>3</u>
Total production costs	<u>12</u>

Raw materials are in stock for an average of three weeks and finished goods are in stock for an average of four weeks. All raw materials are added at the start of the production cycle, which takes five weeks and incurs labour costs and production overheads at a constant rate. Suppliers of raw materials allow four weeks' credit, whereas customers are given 12 weeks to pay. If production takes place evenly throughout the year, what is the total working capital requirement?

Working capital management

Suggested answer

		£	£
Raw materials:	$4\text{m} \times (3/52) =$		230 769
Work-in-progress:			
raw materials:	$4\text{m} \times (5/52) =$	384 615	
labour costs:	$5\text{m} \times (5/52) \times 0.5 =$	240 385	
overheads:	$3\text{m} \times (5/52) \times 0.5 =$	<u>144 231</u>	
			769 231
Finished goods:	$12\text{m} \times (4/52) =$		923 077
Debtors:	$18\text{m} \times (12/52) =$		4 153 846
Creditors:	$4\text{m} \times (4/52) =$		<u>(307 692)</u>
Working capital required:			<u>5 769 231</u>

In this calculation it has been assumed that all raw materials are added at the start of the production process, whereas labour costs and overheads are incurred evenly as production proceeds. If, on average, work-in-progress is half-finished, labour and overheads have to be multiplied by 0.5 as only half the amounts of these costs are present in finished goods.

On the information given, Carmed needs £5.77m of working capital. The proportions of long- and short-term finance used will depend on the working capital policies of the company. Note that Carmed's cash conversion cycle is $(3 + 5 + 4) + 12 - 4 = 20$ weeks.