LEVEL 1: CORPORATE FINANCE

Reading 29 (3rd out of 6): SOURCES OF CAPITAL

Difficulty: **medium**

Benchmark Study Time: **3.5h**

2022

THIS E-BOOK:

- is a selective summary of the corresponding Reading in your CFA® Program Curriculum,
- provides place for your own notes,
- helps you structure your study and revision time!

How to use this e-book to maximize your knowledge retention:

1. **Print** the e-book in duplex and bind it to keep all important info for this Reading **in one place.**
2. **Read** this e-book, best twice, to grasp the idea of what this Reading is about.
3. **Study** the Reading from your curriculum. **Here add** your notes, examples, formulas, definitions, etc.
4. **Review** the Reading using this e-book, e.g. write your summary of key concepts or revise the formulas at the end of this e-book (if applicable).
5. **Done?** Go to your study plan and change the Reading's status to **green**:
   (it will make your Chance-to-Pass-Score™ grow ☺).
6. **Come back** to this e-book from time to time to **regularly review for knowledge retention!**

NOTE: While studying or reviewing this Reading, you can use the tables at the end of this e-book and mark your study/review sessions to hold yourself accountable.

LIQUIDITY MANAGEMENT

Definition

A company's liquidity is the ability to meet its short-term obligations with the aid of assets converted to cash.

Sources of liquidity

Sources of liquidity:

- primary sources of liquidity,
- secondary sources of liquidity.

The difference between primary and secondary sources is as follows: the use of primary sources doesn't affect normal operations of the company, while the use of secondary sources affects both the company's operational and financial situation.

Primary sources of liquidity include:

- cash and cash equivalents, namely: cash available in bank accounts, investment income, liquidation of near-cash securities and other cash flows;
- short-term funds including trade credit, bank lines of credit, and short-term investment portfolios;
- proper management of cash flows. Central and effective liquidity management system allows you to increase your company's liquidity.

Secondary sources of liquidity include:

- negotiating debt contracts so as to lower the interest rates or write off a part of debt;
- liquidating assets, that is selling assets in order to obtain cash;
- filing for bankruptcy protection and reorganization.

HERE KNOWLEDGE RETENTION HAPPENS | WRITE: notes, examples, formulas, definitions, relations, etc.

Drags & Pulls on liquidity

How does the company's liquidity affect cash flows?

A drag on liquidity is when there are delays on cash inflows, for example money from business partners comes with a delay.

A pull on liquidity is when disbursements are paid too quickly, for example when the company settles liabilities to suppliers too quickly.

The main drags on liquidity are:

- uncollected receivables – the more they are delayed, the greater the chance they won't be fully collected;
- obsolete inventory – the longer they are not used, the greater the chance you won't sell them at all;
- a tight credit – if the economic situation is difficult, short-term debt becomes expensive and difficult to get from the bank.

The main pulls on liquidity are:

- early-payment – if the company pays its suppliers and employees before the due dates, it loses the ability to use capital;
- reduced credit limits – if the company makes payments very late, suppliers may cut the amount of trade credit;
- limits on short-term credit lines – if a bank limits the credit line, you may experience the liquidity squeeze;
- low liquidity positions – many companies are struggling with a low level of liquidity. The solution may be to improve their financial situation or consider a secured loan to increase its working capital.

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LIQUIDITY RATIOS

Current ratio & Quick ratio

In order to measure the level of liquidity, we can use:

- current ratio,
- quick ratio.

As a general rule, the higher these ratios, the higher the liquidity.

Remember:

- Because the value of the liquidity ratios can vary considerably between industries, it is good to compare these ratios for companies operating in the same industry.
- It is important to pay attention to trends over time. You have to observe whether the ratios are declining, increasing or stable. The dynamics of ratios can tell us a lot about the company's liquidity.
- Too high ratios may indicate poor cash management.

Current ratio

$$\text{current ratio} = \frac{\text{current assets}}{\text{current liabilities}}$$

Quick ratio (acid-test ratio)

$$\text{quick ratio} = \frac{\text{cash} + (\text{short-term marketable investments}) + \text{receivables}}{\text{current liabilities}}$$

Other ratios

Ratios that tell us how individual components of current assets are managed:

- accounts receivable turnover,
- number of days of receivables,
- inventory turnover,
- number of days of inventory,
- accounts payable turnover,
- number of days of payables.

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Accounts receivable turnover

$$\text{accounts receivable turnover} = \frac{\text{credit sales}}{\text{average receivables}}$$

Number of days of receivables

$$\text{number of days of receivables} = \frac{\text{accounts receivable}}{\text{average day's sales on credit}} = \frac{\text{accounts receivable}}{\frac{\text{sales on credit}}{365}}$$

Inventory turnover

$$\text{inventory turnover} = \frac{\text{cost of goods sold}}{\text{average inventory}}$$

Number of days of inventory

$$\text{number of days of inventory} = \frac{\text{inventory}}{\text{average day's cost of goods sold}} = \frac{\text{inventory}}{\frac{\text{cost of goods sold}}{365}}$$

Accounts payable turnover

$$\text{accounts payable turnover} = \frac{\text{purchases}}{\text{average accounts payable}}$$

Number of days of payables

$$\text{number of days of payables} = \frac{\text{accounts payable}}{\text{average day's purchases}} = \frac{\text{accounts payable}}{\frac{\text{purchases}}{365}}$$

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Operating cycle

Operating cycle

Operating cycle measures the time needed to convert raw materials into cash obtained from the sale of finished products.

$$(\text{operating cycle}) = (\text{number of days of inventory}) + (\text{number of days of receivables})$$

Net operating cycle

The net operating cycle, also known as the cash conversion cycle, measures the time from paying the suppliers for materials to collecting cash from the sale of goods produced from these supplies.

$$(\text{net operating cycle}) = (\text{number of days of inventory}) + \\ + (\text{number of days of receivables}) - (\text{number of days of payables})$$

Managing the cash position

The aim of managing a cash position is to achieve the situation in which the cash position is not negative. The ideal situation is when inflows equal outflows. In the case of a negative balance, it is necessary to use debt and this is quite expensive. In addition, it is very difficult to estimate the amount of loan needed because companies tend to borrow more money than they need.

There are many models that allow you to estimate the necessary amount of cash, for example Baumol-Tobin model or Miller-Orr model. Of course, you must remember that the demand for cash should be examined individually and there is no one general model that can show you the exact demand for cash in a given period.

When managing the cash position, a company needs to:

1. define a minimum cash balance it should maintain,
2. identify typical cash flows,
3. create and use effective cash forecasting system,
4. monitor the use of cash.

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Investing short-term funds

The main goal of the working capital management should be safety or maintaining the company's liquidity at an appropriate level. But there is also a secondary objective, namely an efficient allocation of funds in appropriate financial instruments. So, when appropriate cash amount is secured, the funds not needed for the company's daily transactions should be invested. Companies should create portfolios that are very liquid, not very risky and with short maturities. These portfolios should include, above all, money market instruments and corporate bonds.

When a company invests resources in various portfolios, it is exposed to various types of risks like:

- credit risk,
- market risk, also called interest rate risk,
- liquidity risk,
- foreign exchange risk.

Short-term investments:

- U.S. Treasury Bills
- Federal agency securities
- Bank certificates of deposit (CDs)
- Banker's acceptances (BAS)
- Eurodollar time deposits
- Bank sweep services
- Repurchase agreements (Repos)
- Commercial paper (CP)
- Mutual funds and money market mutual funds
- Tax-advantaged securities

Trade credit

Usually when purchasing a product or service the company does not pay for it right away, but rather at a later date (it gets a **trade credit**). Very often such a trade credit includes a discount available to the buyer if s/he repays the credit before it is due.

The notation **1/10, net 25** means that:

- if the buyer pays within 10 days, s/he will receive a discount of 1% of the value of purchases,
- if the buyer pays at a later date, s/he will receive no discount,
- the deadline for payment is 25 days from today.

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MANAGING ACCOUNTS RECEIVABLE

When the company sells its products or services to the buyer and the buyer doesn't pay for purchased products or services right away, but at a later date (gets the trade credit), the total amount that has not yet been paid to the company is called **accounts receivable**.

Credit terms:

- ordinary terms,
- cash before delivery,
- cash on delivery,
- bill-to-bill,
- monthly billing.

Receivables management

Receivables management consists mainly of:

- granting credits and processing transactions,
- monitoring credit balances,
- measuring the performance of the trade credit.

The **goals of receivables management** system include:

- efficient and accurate management of accounts,
- controlling assets and payment dates,
- collecting payments from customers,
- ongoing communication between relevant departments in the company,
- regular reporting to assess the process of managing receivables.

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MANAGING INVENTORY

The company should aim to keep its inventory at a relatively constant level of appropriate size. The inventory level should be neither too low nor too high. If the level of inventory is too low, the company will not be able to sell as much as it would be if the stock was big enough. On the other hand, if the level of inventory held by the company is too high, the costs associated with maintaining this inventory is also too high. Moreover, some products may lose value if they are stored too long.

Motives of maintaining inventory

- **transactions motive** = to hold the inventory only at the level that allows to pursue planned sales activities
- **precautionary motive** = to avoid losses that may result from having insufficient amounts of inventory in the event of a sudden increase in demand
- **speculative motive** = to gain from favorable changes in inventory prices or to avoid a situation where the company loses because of too high prices of inventory in the future

Types of costs associated with inventory

- ordering costs,
- carrying costs,
- stock-out costs, and
- policy costs.

Two basic approaches to inventory management

- **economic order quantity-reordered point method (EOQ-ROP)** = classical approach to inventory management based on the expected demand for goods and the balance between ordering costs and carrying costs

- **just-in-time method (JIT)** = the main goal is to minimize the storage time of the so-called in-process inventory by ordering it just in time, that is when it is going to be used

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MANAGING ACCOUNTS PAYABLE

When the company doesn't pay for purchased products or services right away, but at a later date (gets the trade credit), the total amount that has not yet been paid to suppliers is called **accounts payable**.

To have an **effective system of managing accounts payable**, the company should consider:

- the degree of centralization of financial management in the company,
- the number of suppliers,
- the size of suppliers,
- the location of suppliers,
- the cost of trade credit and other financing sources,
- the length of disbursement float if the company uses checks,
- the use of the Internet while managing payments, and finally
- inventory management.

e.g. number and size of suppliers:

- A small number of large suppliers can increase the company's dependence on them and conditions they offer.
- A large number of small suppliers, assuming that the company itself is big, allows to stretch out payables.

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SOURCES OF SHORT-TERM FINANCING

Sources of short-term financing

- bank sources,
- nonbank sources.

Bank sources include:

- lines of credit, for example uncommitted line or regular line or overdraft line,
- revolving credit agreement,
- factoring,
- banker's acceptances,
- collateralized loan,
- discounted receivables.

Nonbank sources include:

- nonbank finance companies,
- commercial papers.

One of the main factors that a company seeking short-term financing takes into consideration is the cost of different sources of financing.

Remember:

The cost of financing does not consist of interest only!

To calculate the cost of financing, we should take into account:

1. interest, but also
2. additional fees and costs, such as the commitment fee, the dealer's commission or backup costs, and
3. the time of interest payment, namely whether the interest is paid in arrears or in advance.

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Summarizing key concepts:

☐ Sources of liquidity: primary sources of liquidity, secondary sources of liquidity

My summary:

☐ Drags & Pulls on liquidity

My summary:

☐ Liquidity ratios

My summary:

☐ Operating cycle vs Net operating cycle

My summary:

☐ Managing the cash position

My summary:

☐ Investing short-term funds

My summary:

☐ Company's management of accounts payable, accounts receivable, inventory

My summary:

☐ Trade credit

My summary:

☐ Sources of short-term financing

My summary:

Reviewing formulas:

$$\text{current ratio} = \frac{\text{current assets}}{\text{current liabilities}}$$

Write down the formula:

$$\text{quick ratio} = \frac{\text{cash} + (\text{short-term marketable investments}) + \text{receivables}}{\text{current liabilities}}$$

Write down the formula:

$$\text{accounts receivable turnover} = \frac{\text{credit sales}}{\text{average receivables}}$$

Write down the formula:

$$\text{number of days of receivables} = \frac{\text{accounts receivable}}{\text{average day's sales on credit}} = \frac{\text{accounts receivable}}{\frac{\text{sales on credit}}{365}}$$

Write down the formula:

$$\text{inventory turnover} = \frac{\text{cost of goods sold}}{\text{average inventory}}$$

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$$\text{number of days of inventory} = \frac{\text{inventory}}{\text{average day's cost of goods sold}} = \frac{\text{inventory}}{\frac{\text{cost of goods sold}}{365}}$$

Write down the formula:

$$\text{accounts payable turnover} = \frac{\text{purchases}}{\text{average accounts payable}}$$

Write down the formula:

$$\text{number of days of payables} = \frac{\text{accounts payable}}{\text{average day's purchases}} = \frac{\text{accounts payable}}{\frac{\text{purchases}}{365}}$$

Write down the formula:

$$(\text{operating cycle}) = (\text{number of days of inventory}) + (\text{number of days of receivables})$$

Write down the formula:

$$(\text{net operating cycle}) = (\text{number of days of inventory}) + \\ + (\text{number of days of receivables}) - (\text{number of days of payables})$$

Write down the formula:

Keeping myself accountable:

TABLE 1 | STUDY

When you sit down to study, you may want to **try the Pomodoro Technique** to handle your study sessions: study for 25 minutes, then take a 5-minute break. Repeat this 25+5 study-break sequence all throughout your daily study session.

✓ Tick off as you proceed.

POMODORO TIMETABLE: study-break sequences (25' + 5')													
date		date		date		date		date		date		date	
25'		25'		25'		25'		25'		25'		25'	
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25'		25'		25'		25'		25'		25'		25'	
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TABLE 2 | REVIEW

Never ever neglect revision! Though it's not the most popular thing among CFA candidates, regular revision is what makes the difference. If you want to pass your exam, **schedule & do your review sessions.**

REVIEW TIMETABLE: When did I review this Reading?													
date		date		date		date		date		date		date	
date		date		date		date		date		date		date	