Dirk Kaiser

Treasury Management

Lessons in Finance and Investment at

Masarykova univerzita

Ekonomicko-správní fakulta

Fall Term 2007/2008

MU ESF Brno / FH Bochum
Prof. Dr. Dirk Kaiser

Treasury Management
Page one

Prof. Dr. Dirk Kaiser
Short CV

1962	Born in Krefeld , Germany
1983 – 1989	UNIVERSITY OF BONN (studies in economics, diploma – the equivalent being a master's degree)
1989 – 1994	UNIVERSITY FOR DISTANCE TEACHING, HAGEN (assistant at the chair of banking & finance; dissertation, doctorate – the equivalent being a „Ph. D.")
1994 – 1996	Participations department of a bank in Düsseldorf
1996	Visiting lecturer at PORTLAND STATE UNIVERSITY, Oregon, USA
1996 – 1999	Director of the participations department of a tour operator in Düsseldorf
1999 – 2002	Director of the central mandate services department of a bank in Düsseldorf
since 2002	Professor for financial management, banks and insurances at FACHHOCHSCHULE BOCHUM UNIVERSITY OF APPLIED SCIENCES http://www.fh-bochum.de/fbw/personen/kaiser.html

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Short CV

Prof. Dr. Dirk Kaiser

Fall term 2007 / 2008 Consultancy hours

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Recommended Reading and Further References

(recommended reading)

Brealey, R. A. / Myers, S. C. / Allen, F. — **Principals of Corporate Finance, 8th Edition, New York: McGraw-Hill/Irwin (2006).**

Bodie, Z. / Kane, A. / Marcus, A. J. — **Essentials of Investments, 5th Edition. New York: McGraw-Hill/Irwin (2004).**

(further references in English)
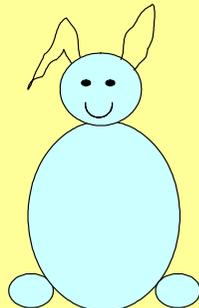
Copeland, T. E. / Weston, J. F. / Shastri, K. — **Financial Theory and Corporate Policy, 4th edition, Boston et al.: Pearson/Addison-Wesley (2005)**

Feibel, B. J. — **Investment Performance Measurement, New York: Wiley (2003).**

(only for participants who are interested in an additional German textbook)

Kaiser, D. — **Treasury Management – betriebswirtschaftliche Finanzierungs- und Investitionslehre ganzheitlich und praxisnah, Wiesbaden: Gabler (2008).**

Trilingual index

English–German–Czech index of
key terms in finance

English	German	Czech
ability to pay	Zahlungsfähigkeit	platební schopnost

Any volunteers?

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Trilingual index

Treasury Management
Slides

Treasury Management
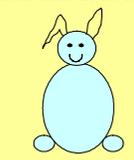## Recommended Reading and Further References

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Brealey, R. A. / Myers, S. C. / Allen, F.   **Principals of Corporate Finance, 8th Edition, New York: McGraw-Hill/Irwin (2006).**

Bodie, Z. / Kane, A. / Marcus, A. J.   **Essentials of Investments, 5th Edition. New York: McGraw-Hill/Irwin (2004).**

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Kaiser, D.   **Treasury Management – betriebswirtschaftliche Finanzierungs- und Investitionslehre ganzheitlich und praxisnah, Wiesbaden: Gabler (2008).**

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120 Finanzwirtschaft
References

At disposal?

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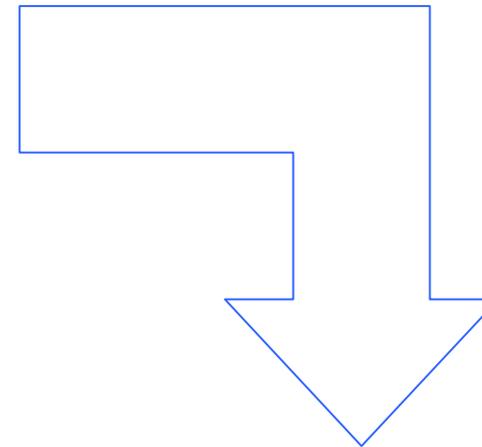
Treasury Management
Slides

Treasury Management
Survey

1 Basics (units 1–5, 10)

2 Cash flow from financial activities (units 6-8)

3 Cash flow from operations (unit 9)

4 Cash flow from investment activities (units 11-16)

3 CFs

- **Dominance**
- **Complete account of an investment**
- **Net present value**
- **Equivalent annuity**
- **Internal rate of return**
- **Payback period**

6 Ds

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Treasury Management
Survey

Treasury Management
Test

When?	**Monday, February 11, 2008**
Where?	**MU ESF, S 8**
How long?	**60 minutes in total**
Exercise 1	**Finance (reproductive)**
Exercise 2	**Finance (transfer)**
Exercise 3	**Investment calculus (reproductive)**
Exercise 4	**Investment calculus (transfer)**

Relevant is all what we have done in class, but nothing else.

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Treasury Management
Test

Treasury Management
Why?

1. Exchange

2. Money

FINANCE, INVESTMENT

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Treasury Management
Exchange and money

Preconditions of a Market Economy

(Fig. 1-1)

multiple wants

are not given

are given

Robinson economy

are ignored

are allowed to be realized

allocation of ressources via **directive**

market economy (=exchange economy)

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Exchange and money
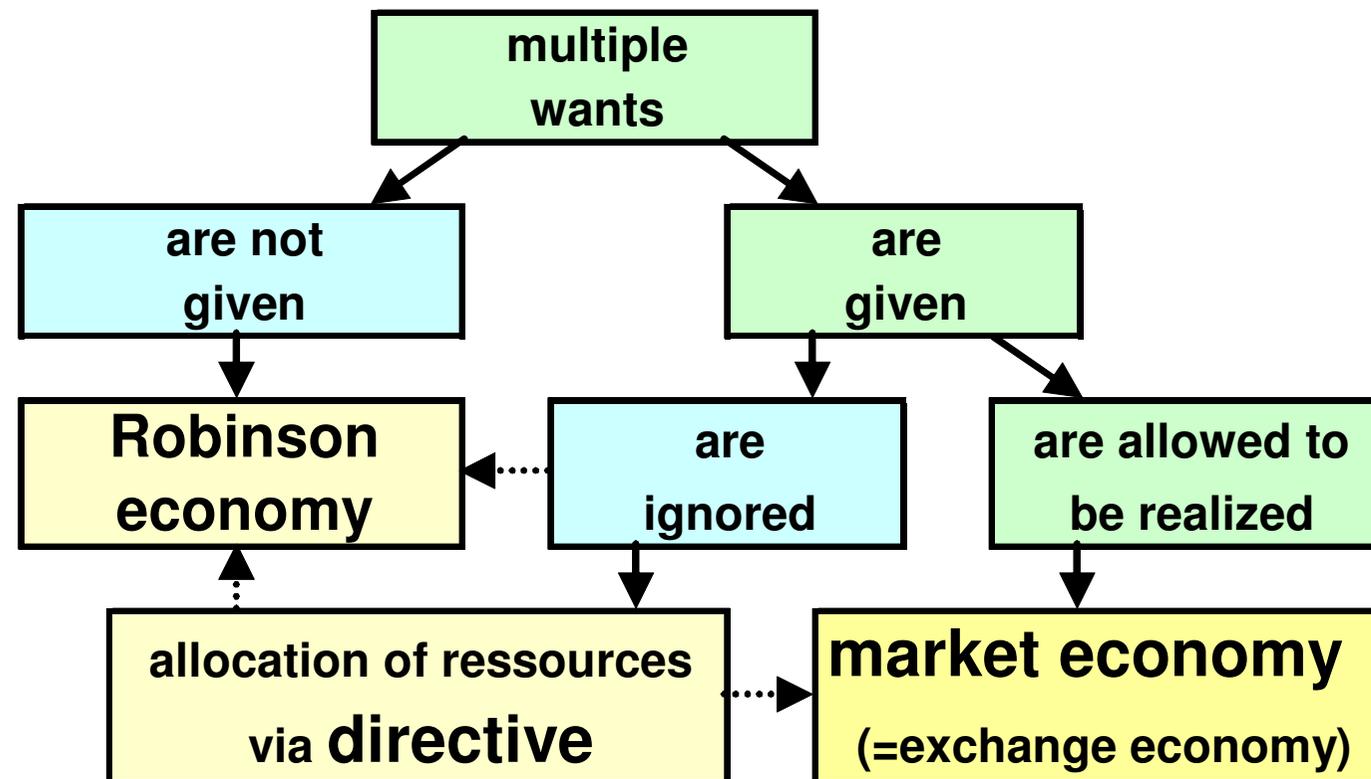
Timely Patterns of Exchange Contracts (Fig. 1-3)

pacta sunt servanda (Roman law vs. common law)

	t=0	t=2
spot contract	signing consideration quid pro quo	
financial contract	signing consideration	quid pro quo
forward contract	signing	consideration quid pro quo

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Exercise 1-1

Candice and Quentin find themselves in a simple exchange economy that is mostly equivalent to the one depicted in figure 1-3. In particular, two points in time (i.e.: t=0 and t=2) are at their disposal for signing, consideration and quid pro quo. However, Candice and Quentin are now allowed to sign exchange contracts not only in the present (t=0, early contracting), but also in the future (t=2, late contracting). To be sure, in both cases the signing has to take place until any goods or services are exchanged.

Find out the additional timely pattern(s) for exchange contracts that are induced by this weaker catalogue of assumptions!

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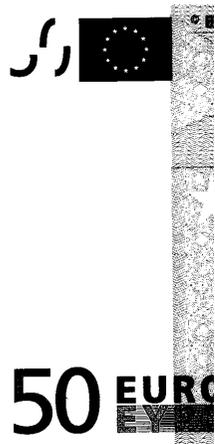Prof. Dr. Dirk Kaiser

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Candice and Quentin again find themselves in the simple market economy known from exercise 1-1 providing for two points in time (t=0 and t=2) and allowing for early and late ex ante contracting. In addition, both have agreed to introduce money as the generally accepted medium of exchange. In t=2, Quentin proposes to Candice a late spot contract providing for Candice to deliver one kilogram of marzipan and Quentin to pay CZK 1,000,000,000.

A good deal from Candice's perspective?

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The Functions of Money ^{(Mn. 10)}

1) **Medium of exchange**
2) **Store of value**
3) **Unit of account**
4) **Legal tender etc.**

Correct?
Complete?

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In the Year 1946…

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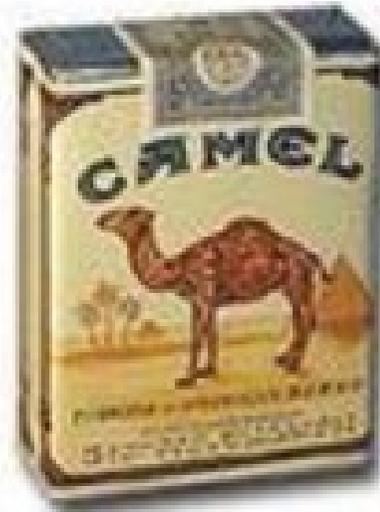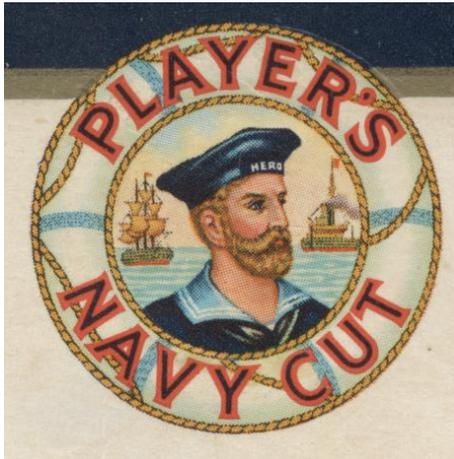
Patterns of Money Usage (Fig. 2-1)

	t=0	t=2
spot contract (PMU 1)	**signing consideration quid pro quo**	
financial contract (PMU 2)	**signing consideration**	
		quid pro quo
forward contract (PMU 1)	**signing**	
		consideration quid pro quo

→ **PMU 1: pattern of money usage 1 ("goods / services versus money")**

→ **PMU 2: pattern of money usage 2 ("money vs. money")**

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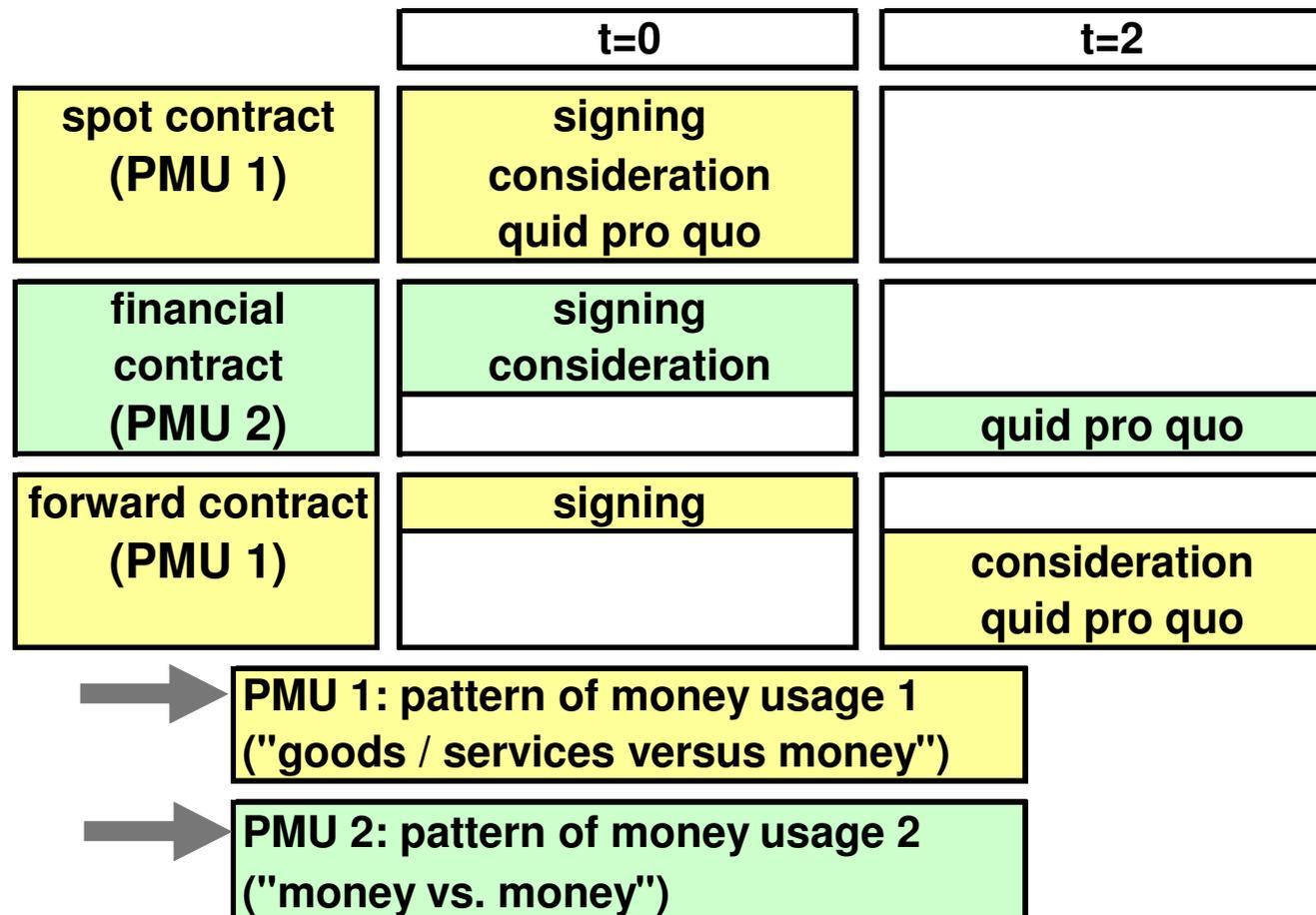
The only good currently traded between Candice and Quentin is marzipan. Both want to express changes in their individual marzipan stocks by means of the letter m, changes in their individual money stocks by means of e. Furthermore, both have agreed to represent a spot contract by means of the three-letter code SpC, a financial contract by means of FiC and a forward contract by means of FoC. Changes in their individual stocks of money and marzipan as well as contracts are to be indexed by $t = 0, 2$ in order to point out their timely dimension.

Express the contractual patterns from exercise 1-1 by using the aforementioned symbols!

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Liquidity
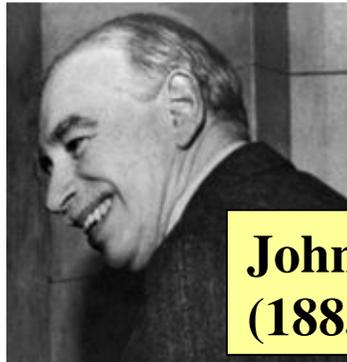
H. G. Moulton, 1918

John Maynard Keynes (1883-1946)

„Liquidity is tantamount to shiftabilty.“

Money is liquidity.

Austrian paradigm of informational updates and revisions of decisions

initial
information

informational
update

t=0
contracting

t=1
revision

t=2

Ability to Pay

Ability to pay all economic
financial obligations

Ability to cover all legal
financial obligations

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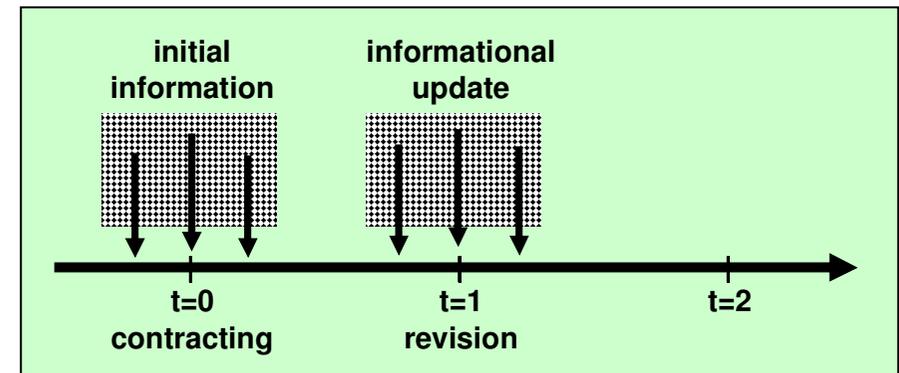
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Stock-Flow Equation

	initial stock
-	cumulated outflows
+	cumulated inflows
=	final stock

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Treasury Management
Monetary stocks and flows 1

Exercise 3-1

Candice and Quentin have found an internship with Masaryk-ovy pivovar a.s. (MP). Quentin is assessing the amounts of hop, malt and water coming in as well as the amount of beer leaving the brewery. Candice is driving the company's delivery truck in order to provide the local pubs with MP's famous lager. At the beginning of the 27th week of the year at 7:00 a.m. when they both clock in, 500 hectoliters of lager are in the container. During the week, Candice shows up 8 times with the truck, each time pumping off 20 hectoliters. On Tuesday, sladek Vaclav adds 300 hectoliters of fresh lager to the container.

What is the amount of beer in the container that Quentin will report to the company's controlling department on Friday at 3:45 p.m.?

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Monetary stocks and flows 1

Monetary Stocks

money	**=**	**cash (bills and coins)**
("cash &	**±**	**balances of bank accounts payable /**
cash equivalents")		**receivable on demand**

net financial assets	**=**	**money**
	+	**other financial claims**
	-	**other financial obligations**
		(except for equity)

net assets (equity)	**=**	**net financial assets**
	+	**non-financial assets**

net operating assets

Monetary flows: Schmalenbach's Bar Graph

(Fig. 3-1)

Eugen Schmalenbach, 1873-1955

Incoming payments		
Outgoing payments		
(1)	(2)	(3)

Financial accounting

Receipts		
Expenditures		
(4)	(5)	(6)

Income		
Expenses		
(7)	(8)	(9)

Revenues	
Cost	

Management accounting

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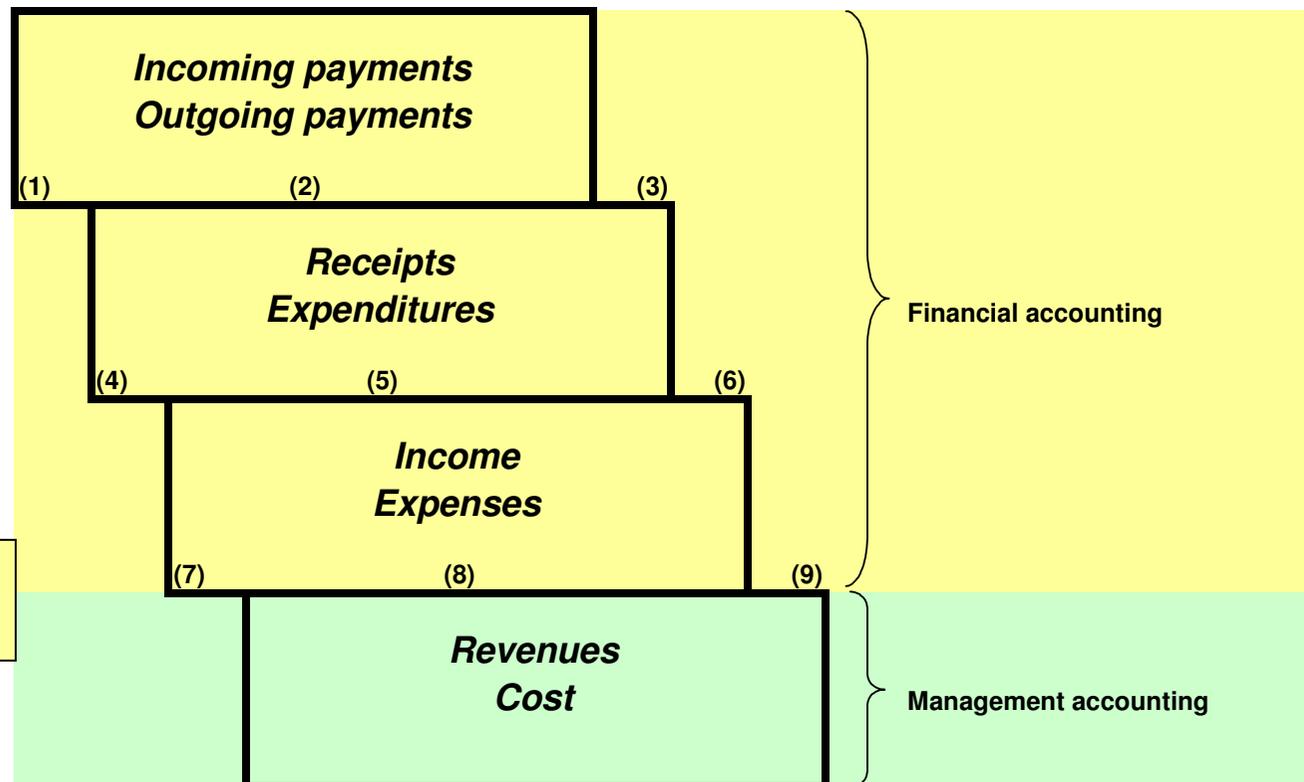
Exercise 3-2

During its financial year 2025, the Brněnské Marcipánové a Nugátové Kontor s.r.o. ("the company") has among others registered the transactions (1) to (6) as described underneath.

Make up a three-column table and point out by means of this table to what extent these transactions have induced

- *incoming payments (+) or outgoing payments (-),*
- *receipts (+) or expenditures (-),*
- *income (+) or expenses (-).*

(1) The Jemná Čokoláda a.s. makes a money transfer to the company's current account amounting to CZK 6,500 for crude chocolate that was purchased on credit last year.

(2) Marzipan recorded at a book value of CZK 8,000 is sold for CZK 10,000 by the company. CZK 5,000 are paid instantaneously by the Jemná Čokoláda a.s. in cash, the remainder is purchased on credit.

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(3) Magda Pavlová, one of the company's apprentices, is sent to Brněnská Spořitelná with CZK 1,365.75 in cash in order to deposit the money with the company's current account.

(4) Pablo Guerrero, a promising artist, transfers rent for his studio on the company's premises at the amount of CZK 1,200 covering the period from November 1, 2025, to October 31, 2026, to the company's current account.

(5) By means of a letter dated February 1, 2025, Brněnská věcná pojišťovna a.s. recognises a damage caused by a fire in 2024 amounting to CZK 7,200. The money transfer to the company's current account, however, will take some time.

(6) In 2025, a second fire destroys chocolate coating at a book value of CZK 1,800. The causes of the fire will supposedly be clarified in January 2026. Until that date, Brněnská věcná pojišťovna a.s. once more does not recognise the damage.

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Monetary stocks and flows 1

Three Companies from Brno

(Case Studies I-III, Tab. 3-1)

	Cool, Fit & Partners	Brněnské Marcipánové a Nugátové Kontor	Jemná Čokoláda
Legal form	v.o.s.	s.r.o.	a.s.
Date of formation	January 1, 2025	September 1, 1873	July 1, 2025
Company purpose	Consulting; wholesale in personal computers	Wholesale in raw materials for the production of sweets	Production and sale of sweets
Slogan	„Stay cool – call the consultant"	„Raw materials for sweet producers - just in time"	„Not a day without chokolate!"
Domicile	Brno	Brno	Brno
Shareholders as of Dec. 31, 2025	Peter Cool (70%), Jane Fit (25%), Johnny B. Good (5%); all from Brno	Jiří Pátek (50%), Tomáš Pátek (50%), both from Brno	Všeobecný potraviny a.s., České Budějovice (100%)
Employees	5	15	150
Main bank relation; line of credit	Brněnská spořitelna (CZK 50,000)	Poštovní spořitelna (CZK 300,000)	Živnostenská spořitelna (CZK 1,000,000)
Further legal information	o Daddy Cool has guaranteed Brněnská spořitelna's loan o Mortgage on the company building in favour of Brněnská spořitelna o Faktorfinancování Ceská republika a.s. has entered an agreement with CFP on the continous purchase of accounts receivable up to CZK 100,000 against security cession of all A/R's	o Pavel Sladký, managing director of the kontor, is member of the board of directors of Jemná Čokoláda o Kontor is delivering against reservation of proprietory rights and in places against additional acceptance of a bill of exchange.	o Legally binding letter of comfort of sole shareholder in favour of Jemná Čokoláda o The board of directors has adopted rules of procedures for the officers of the company providing among other things that certain actions require BoD-approval.

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Cool, Fit & Partners

Balance Sheets (Tab. 3-2, 4-3)

Assets	CFP v.o.s., Balance Sheet as of January 01, 2025 TCZK	Liabilities	
Fixed assets	500	**Equity**	200
Property, plant	*300*	*Equity Cool*	*150*
Equipment	*200*	*Equity Fit*	*50*
Current assets	400	**Debt**	700
Merchandise	*330*	*Bank loan*	*700*
Current account	*70*		
Total assets	**900**	**Total liabilities**	**900**

Assets	CFP v.o.s., Balance Sheet as of December 31, 2025 before profit distribution, TCZK	Liabilities	
Fixed assets	550	**Equity**	300
Property, plant	*297*	*Equity Cool*	*130*
Equipment	*223*	*Equity Fit*	*50*
Financial assets 1	*10*	*Equity Good*	*20*
Financial assets 2	*20*	*Profit*	*100*
Current assets	410	**Debt**	660
Merchandise	*205*	*Bank loan*	*650*
Accounts receivable	*175*	*Accounts payable*	*10*
Term account	*10*		
Current account	*10*		
Cash	*10*		
Total assets	**960**	**Total liabilities**	**960**

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Brněnské Marcipánové a Nugátové Kontor

Income Statement (Tab. 4-1)

Income statement for the Brn?nské Marcipánové a Nugátové Kontor, Brno, for the time period from January 01, 2025, to December 31, 2025 (CZK mio)	2025	2024
1. Revenues	210	260
2. Changes in inventories of finished goods and work in progress	20	-10
3. Production for own fixed assets capitalized	6	4
4. Other operating income	16	2
5. Cost of purchased materials and services	142	151
6. Personnel expenses	42	31
7. Depreciation and amortization on tangible and intangible assets	38	42
8. Other operating expenses	10	4
9. Income from participations	2	2
10. Income from other financial assets	2	2
11. Other interest income	4	3
12. Depreciation and amortization on financial assets and financial current assets	0	2
13. Interest expenses	12	10
14. Profit before tax	16	23
15. Income tax	6	12
16. Other taxes	2	2
17. Net income / loss	8	9

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Liquidity Reserves

Examples

- **Term deposits**
- **Certificates of deposit**
- **Commercial paper**

- **Bonds**
- **Shares in investment funds**
- **Ordinary and preference shares**
- **Participation certificates**

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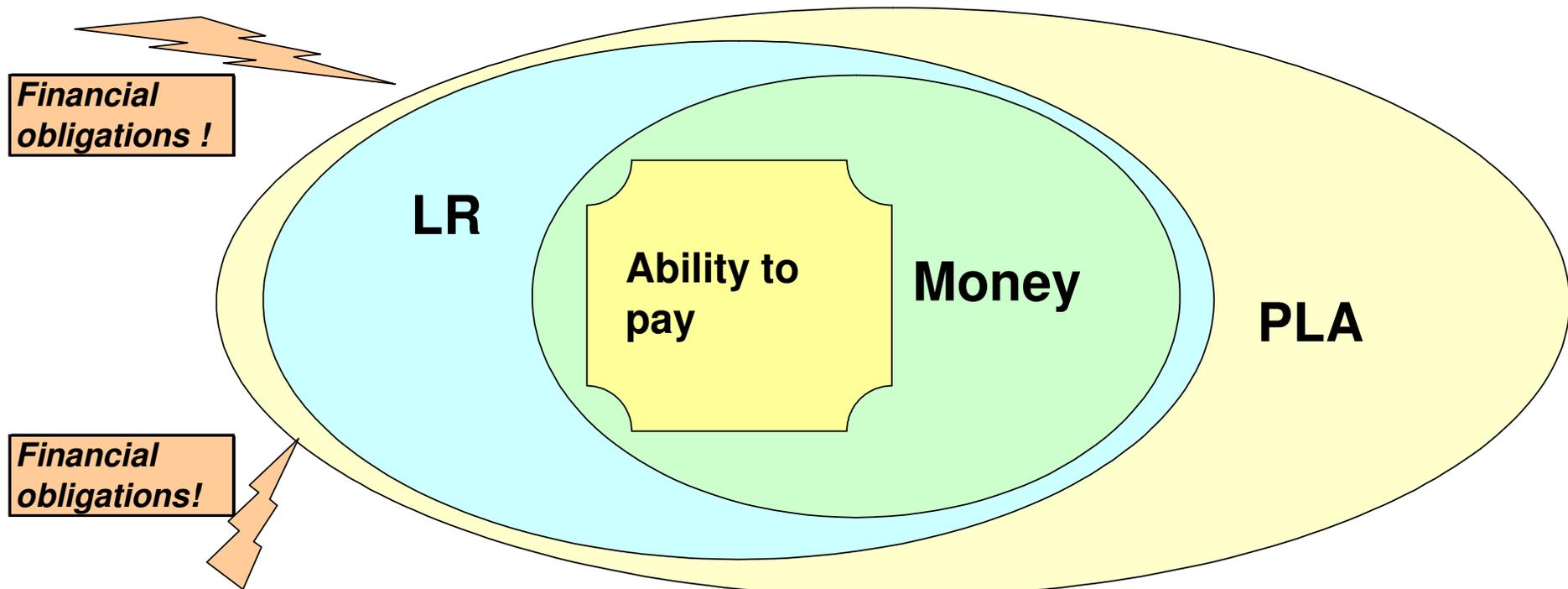
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Potential Liquid Assets

Examples

- **Guarantee (or surety)**
- **Letter of comfort (if legally binding)**
- **Liquid assets of a full partner (general partner) or of a limited partner who has not yet paid in his capital completely**

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Protecting the Company's Ability to Pay

(Fig. 3-3)

- Financial obligations !
- LR
- Ability to pay
- Money
- PLA
- Financial obligations!

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Monetary stocks and flows 2

Exercise 3-3

In addition to tables 3-1, 3-2 and 4-3, here is further information concerning CFP:

- **The shares of the Pazourek kamenolom a.s. (financial assets 1) and the Terra nostra pekarna a.s. (financial assets 2) are listed on the stock exchange; as of December 31, 2025, the quotations are 130% and 120%, respectively, over book value.**

- **The termination period remaining of the term account as of December 31, 2025, is 120 days.**

- **Private wealth of Peter Cool after contribution of his capital amounts to CZK 500,000; CZK 100,000 can be considered as liquid. For Jane Fit, the corresponding amounts are CZK 400,000 and CZK 200,000, respectively, for Johnny B. Good, CZK 100,000 and CZK 50,000, respectively.**

- **Daddy Cool's attitude towards the project of his son and his son's friends has become critical.**

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Cash flow statement 1

i) **Determine the amounts of CFP's money stock, financial assets, non-financial assets and net assets!**

ii) **As of December 31, 2025: Which assets might be taken into consideration as liquidity reserves, which ones as potential liquid assets? Which amounts will the Treasury of the company most probably attribute to LR and PLA, respectively?**

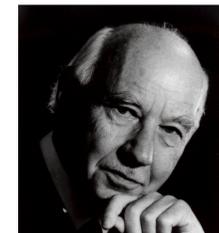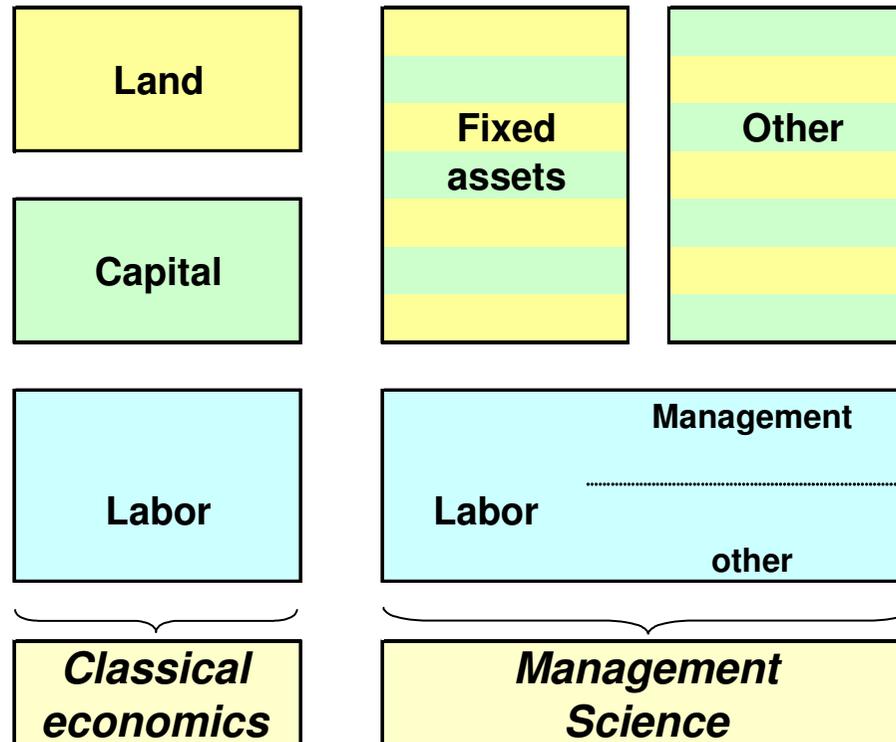# Structuring the Production Factors: Classical and for Management Purposes
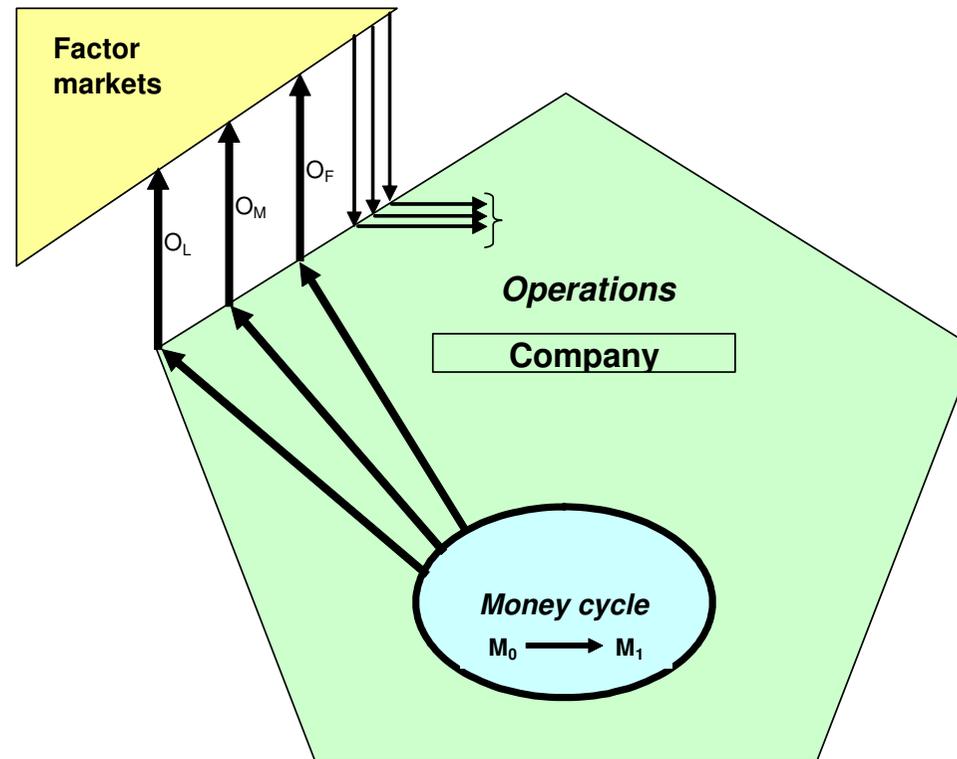
(Fig. 4-1)

Adam Smith, 1723-1790

David Ricardo, 1773-1823

Land

Capital

Labor

Classical economics

Fixed assets

Other

Management

Labor

other

Management Science

Erich Gutenberg, 1897-1984

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Cash flow statement 1

Constructing the Money Cycle

Step 1

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Treasury Management
Cash flow statement 1

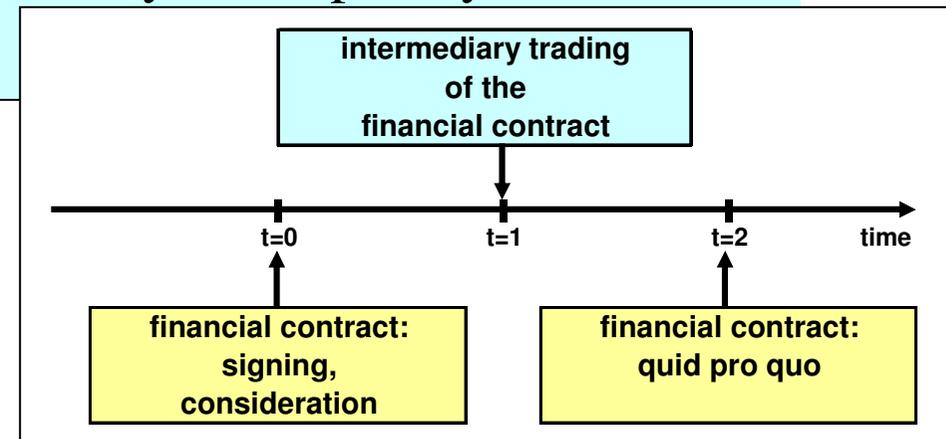# Constructing the Money Cycle

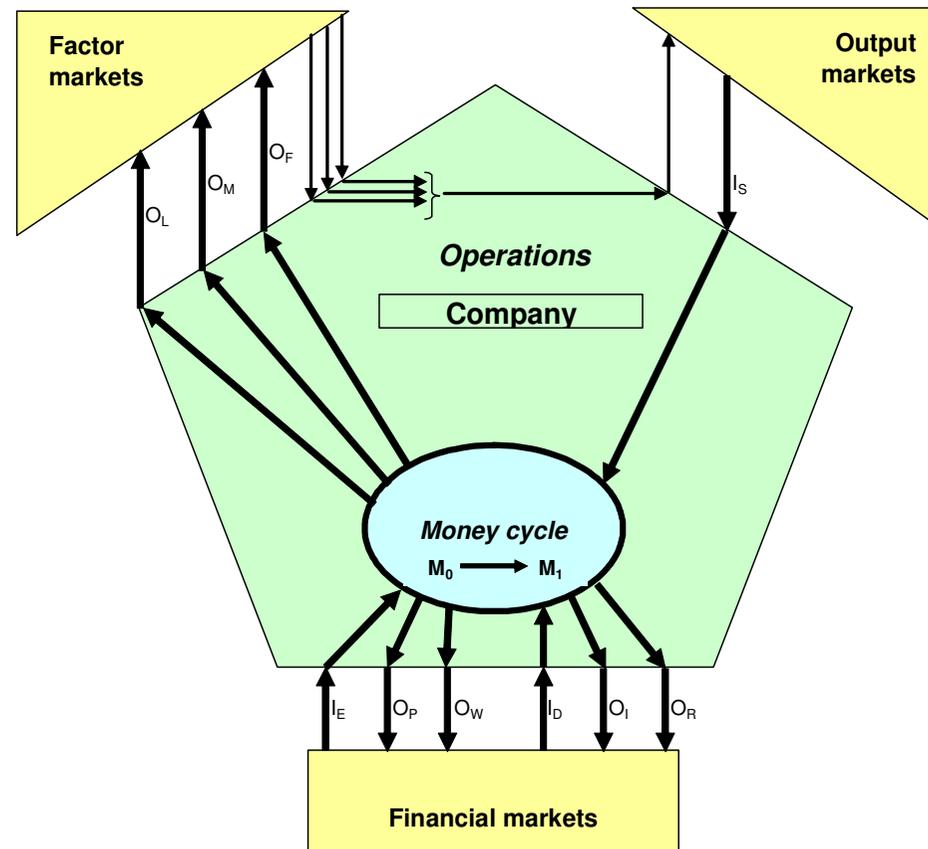## Step 2
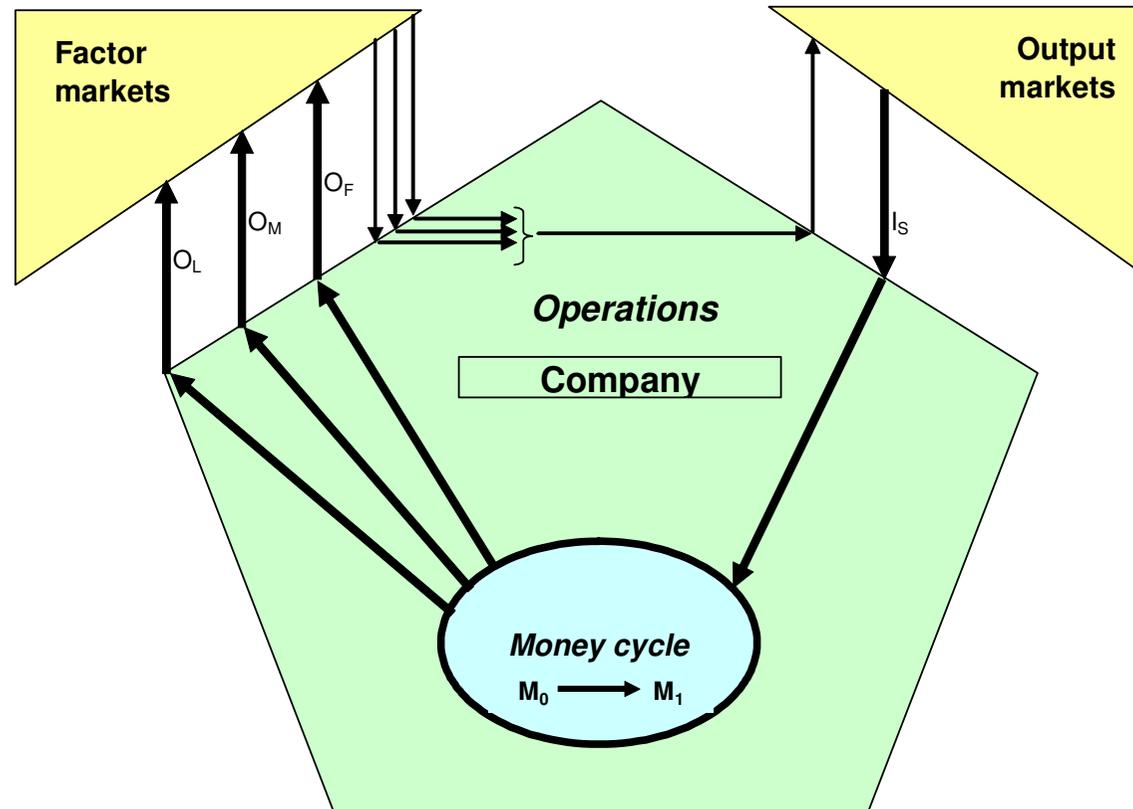
Primary and Secondary Markets (Fig. 4-2)

Definition 4-1
a)   PRIMARY MARKETS are markets where exchange contracts are signed (t=0) and where they are by means of consideration and quid pro quo (t=0 and t=2) fulfilled.
b)   SECONDARY MARKETS are markets where exchange contracts that were signed already, but that are not yet completely fulfilled, are traded in the meantime (t=1).

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Treasury Management
Cash flow statement 1

Constructing the Money Cycle

Step 3

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Treasury Management
Cash flow statement 1

Candice (like "consideration") and Quentin (like "quid pro quo") would both like to sign a financial contract; formally speaking: $FiC_0 = FiC_0(e_0, e_2)$. Both have agreed on an ordinary debt contract. Still in t=0, Candice pays the consideration amounting to CZK 10,000 to Quentin, so that from her point of view the following is valid: $e_0^{Candice} = -10,000.00 \; [CZK]$. The debt contract obliges Quentin to the following payments in t=2: (1) redemption of the consideration at face value; (2) a fixed interest rate amounting to $r_D = 0.068$ per period (interest formally due in t=1 has to be capitalized).

i)   *What is the amount due to Candice in t=2?*

ii)   *Now imagine it had not been Quentin but the Cool, Fit & Partners v.o.s. (CFP) that had received the consideration of this financial contract. Assume CFP's perspective and "translate" the contract into the language of the money cycle!*
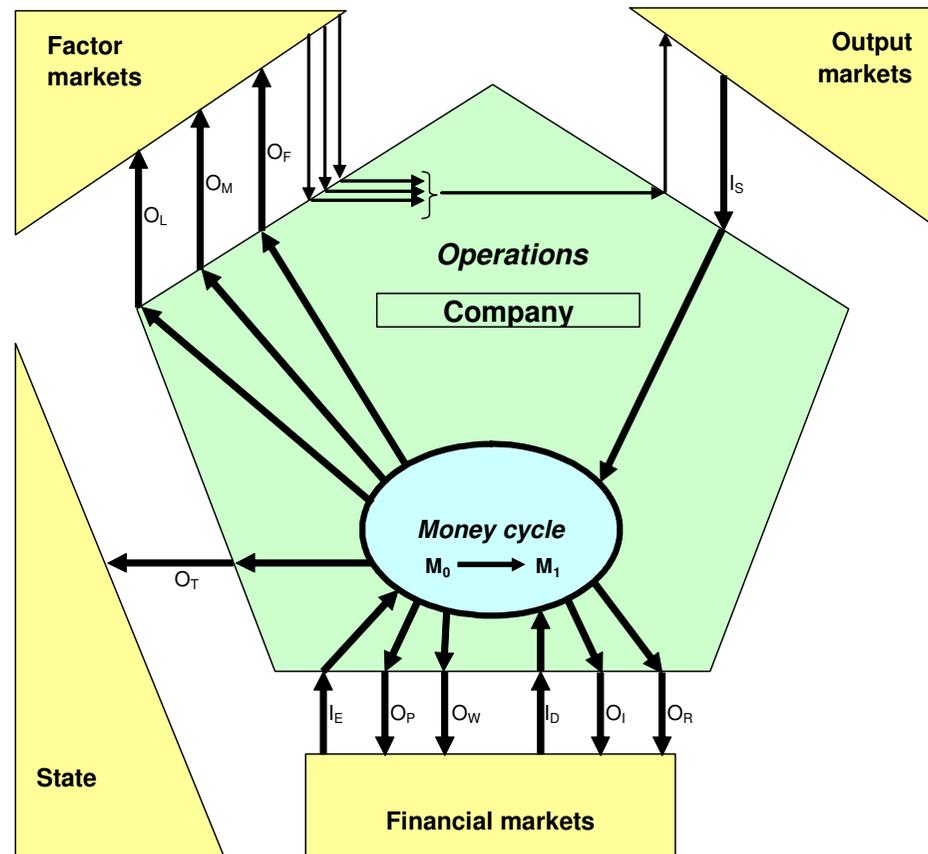
Starting point is the debt contract from exercise 4-1. Due to new information, Candice finds herself in a state of increased demand for for money in t=1. For this reason, she revises her initial decision and sells the contract for an instant payment of CZK 10,720.15 in t=1 to a third party.

i) *Associate the contractual actions described above with the concepts of primary market and secondary market!*

ii) *Express the secondary trading described above by means of the symbols known to you from exercise 2-2!*

iii) *What is the current interest rate on the secondary market in t=1?*

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Cash flow statement 1

Constructing the Money Cycle

Step 4

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Cash flow statement 1

Ops and Money Cycle (Fig. 4-3)
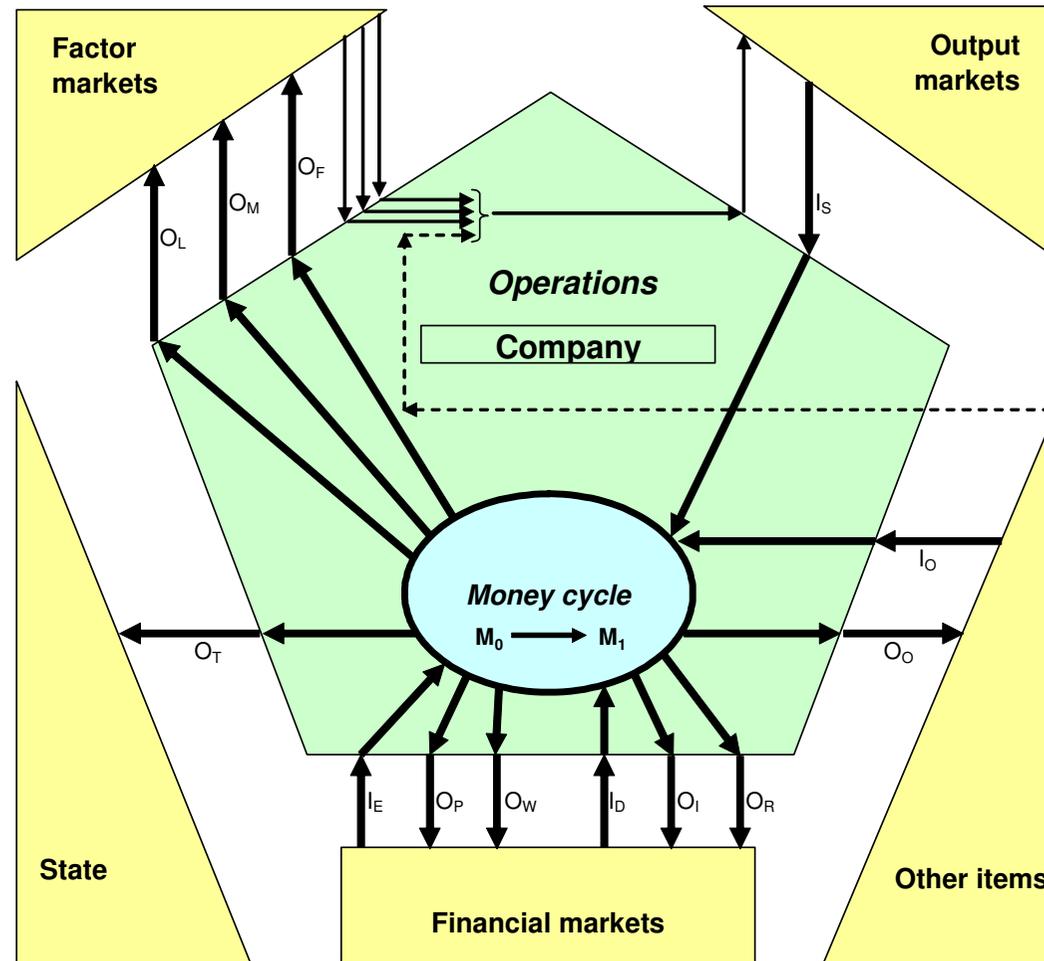
Application of the Stock-Flow Equation

	Initial stock of money	M_0
±	**Incoming / outgoing payments factor markets**	$+I_F-O_F-O_M-O_L$
+	**Incoming payments output markets**	$+I_S$
±	**Incoming / outgoing payments other items**	$+I_O-O_O$
±	**Incoming / outgoing payments financial markets**	$+I_E-O_P-O_W+I_D-O_I-O_R$ $-O_E+I_P+I_W-O_D+I_I+I_R$
-	**Taxes**	$-O_T$
=	**Final stock of money**	M_1

Theoretical
Cash Flow Statement

CF from operating activities ("Internal funding")	$+I_S+I_O-O_M-O_L-O_O-O_T$
+ CF from investing activities ("Investments")	$-O_F+I_F-O_E+I_P+I_W$ $-O_D+I_I+I_R$
+ CF from financing activities ("External funding")	$+I_E-O_P-O_W+I_D-O_I-O_R$
= Net increase / decrease in money stock	$=M_1-M_0$

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Cash flow statement 2

Exercise 4-4

The Cool, Fit & Partners v.o.s. (CFP) has in 2006 encountered the subsequent transactions:

(1) **With the intent of a longlasting investment, shares of the Flintstone kamenolom a.s. amounting to CZK 10,000 as well as shares of the Terra nostra pekarna a.s. amounting to CZK 20,000 are bought against money transfer from the company's current account.**

(2) **Because of not being in use anymore, pneumatic post equipment is sold to a museum at its book value of CZK 25,000 against payment in cash.**

(3) **Personal computers (merchandise) invoiced at CZK 75,000 are delivered to CFP. € 25,000 are paid in cash. Another CZK 40,000 are settled by money transfer from the company's current account. The remainder is covered by the use of commercial credit.**

(4) **As of July 1, Johnny B. Good joins the company as third general partner. He deposits his share capital amounting to € 20,000 in cash.**

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Cash flow statement 2

(5) As of July 1, Peter Cool withdraws CZK 10,000 of his capital against receival of an equivalent amount from the company's cash.

(6) CFP invoices CZK 40,000 for consultancy services rendered in connection with the foundation of Jemná Čokoláda a.s. and receives the corresponding amount on the company's current account.

(7) CFP invoices CZK 10,000 for consultancy services rendered to university absolvents at the occasion of a graduate recruitment fair. The organiser of the fair transfers the corresponding amount to the current account of the company.

(8) Rent for a part of the company building used by third parties amounting to CZK 20,000 becomes due and is transferred to the company's current account.

(9) Personal computers (merchandise) debited with CZK 400,000 are sold for CZK 650,000. CZK 475,000 of the amount due are received on the company's current account. For the coverage of the remaining CZK 175,000, commercial credit is extended to the customer.

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(10) New personal computers (merchandise) invoiced at CZK 200,000 as well as equipment invoiced at CZK 50,000 are bought against money transfer from the company's current account.

(11) On November 1, 2025, a term deposit with a maturity of 180 days amounting to CZK 10,000 is credited from the company's current account.

(12) Salaries amounting to CZK 180,000 in total are transferred to the employees' current accounts.

(13) Interest due amounting to CZK 35,000 in connection with a bank loan is credited from the company's current account.

(14) Redemption due amounting to CZK 50,000 is covered by money transfer from the company's current accunt.

(15) In order to prepare for the closing of the annual accounts, fixed assets are written off as follows: property, plant: CZK 3,000; equipment: CZK 2,000.

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Cash flow statement 2

(i) *Make up a three-column table and point out by means of this table to what extent these transactions have induced*

- *incoming payments (+) or outgoing payments (-),*
- *receipts (+) or expenditures (-),*
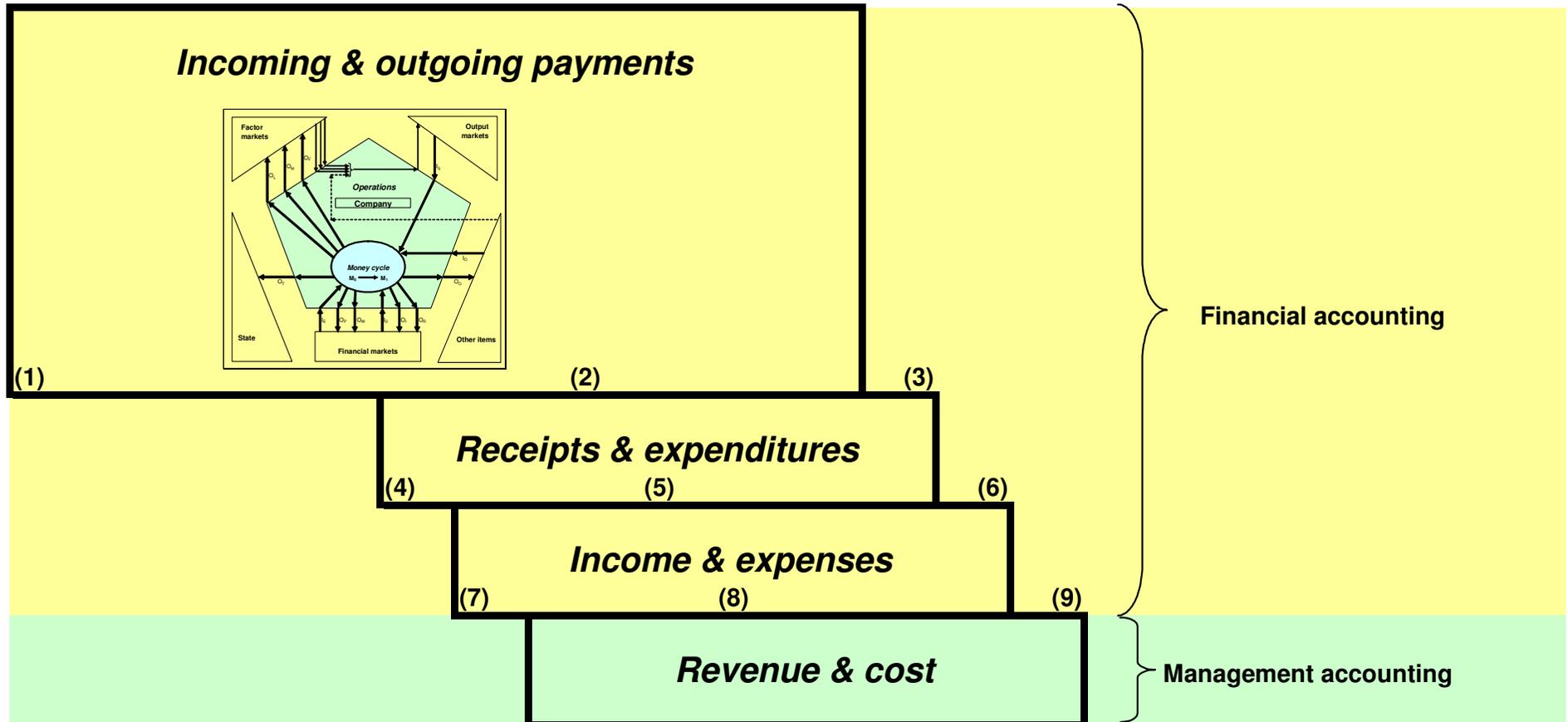- *income (+) or expenses (-).*

(ii) *"Translate" the 15 CFP-transactions into the language of the money cycle"*

(iii) *Make up CFP's theoretical cash flow statement for the financial year 2025!*

(iv) *Compare CFP's theoretical cash flow statement to a cash flow statement according to IAS/IFRS!*

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Treasury Management
Cash flow statement 2
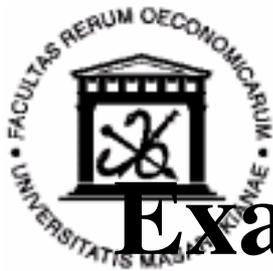
Example for a Cash Flow Statement according to IAS/IFRS (here: Metro Group)

Consolidated cash flow statement (€ million)	2006	2005
EBIT	1.983	1.738
Depreciation and amortization of tangible and intangible assets	1.250	1.200
Change in provisions for pensions and other provisions	273	-19
Change in net working capital	1.137	66
Income taxes paid	-543	-499
Elimination of negative difference first-time consolidation	-410	0
Other	-427	-452
Cash flow from operating activities of continuing operations	3.263	2.034
Cash flow from operating activities of discontinued operations	0	150
Total cash flow from operating activities $(+I_S+I_O-O_M-O_L-O_O-O_T)$	**3.263**	**2.184**
First-time consolidation	108	19
Company acquisitions	-205	0
Investments in tangible assets (excl. Finance leases)	-1.824	-1.922
Other investments	-268	-253
Company divestments	0	48
Divestment of stores	484	670
Disposals of fixed assets	403	313
Cash flow from investing activities of continuing operations	-1.302	-1.125
Cash flow from investing activities of discontinued operations	0	-43
Total cash flow from investing activities $-O_F+I_F-O_E+I_P+I_W-O_D+I_F+I_R$	**-1.302**	**-1.168**
Profit distribution		
- to parent company stockholders	-334	-334
- to other stockholders	-122	-72
Raising of financial liabilities	1.423	935
Redemption/repayment of financial liabilities	-1.571	-1.415
Interest paid	-610	-637
Interest received	169	137
Profit and loss transfers and other financing activities	50	-6
Cash flow from financing activities of continuing operations	-995	-1.392
Cash flow from financing activities of discontinued operations		23
Total cash flow from financing activities $+I_E-O_P-O_W+I_D-O_I-O_R$	**-995**	**-1.369**
Total cash flows	**966**	**-353**
Exchange rate effects on cash and cash equivalents	-1	13
Overal change in cash and cash equivalents	965	-340
Cash and cash equivalents on January 1 M_0	**1.767**	**2.107**
Cash and cash equivalets on December 31 M_1	**2.732**	**1.767**

Bar Graph plus Money Cycle

Incoming & outgoing payments

(1)   (2)   (3)

Receipts & expenditures

(4)   (5)   (6)

Income & expenses

(7)   (8)   (9)

Revenue & cost

Financial accounting

Management accounting

Uncertainty vs. Risk

FRANK KNIGHT (1885-1972):
Risk, Uncertainty,
and Profit (1921)

GEORGE L. S. SHACKLE (1967):
The Years of High Theory
(1926 – 1939)

Uncertainty in the
broader sense

The Century of Decision Theory

„**True" uncertainty,**
"**unmeasurable uncertainty"**
(the distribution is not known)

„**risk" proper,**
„**measurable uncertainty"**
(the distribution is known)

Financial Risks

RISK CAUSED BY TIMELY DEVELOPMENT

(In finance: Risk that is caused by timely differences between consideration and quid pro quo.)

RISK CAUSED BY LACK OF INFORMATION

(But: How much information is possible? Borderline to risk caused by timely development is difficult to determine.)

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Covenants

Examples
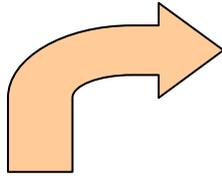
Financial contracts can be expected to be more complex.
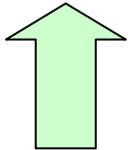
Additional risk caused by timely development

- **Admission to the circle of MIS addressees**
- **Transfer of property rights**
- **Mortgage**
- **Chattel mortgage**
- **Security cession**
- **Guarantee (or surety)**
- **Letter of comfort (if legally binding)**

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Exercise 6-3

Consider the three companies from Brno as presented in the preceding slides.

Explore the information available for regulations that could serve as covenants in financial contracts!

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Emission Finance

⇒ **Financial contracts that comply with**
all of the three subsequent criteria:

✓ **certified as a security**

✓ **fungible (homogeneous, ISIN)**

✓ **sufficient free float**

If at least one of these additional criteria is not fulfilled, it is STANDARD FINANCE.

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Exercise 6-4a

Consider the subsequent financial instruments:

- **shares in the Cool, Fit & Partners v.o.s.**

- **shares in the Brněnské Marcipánové a Nugátové Kontor s.r.o.**

- **shares in the Jemná Čokoláda a.s.**

- **bonds issued by the Brněnské Marcipánové a Nugátové Kontor s.r.o.**

- **participation certificates issued by the Cool, Fit & Partners v.o.s.**

- **bills of exchange**

Which of these instruments could basically be used for emission finance?

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Secondary Market Liquidity:
The Stock Exchange

secondary market trading of securities

t=0   t=1   t=2   time

emission finance: floating of financial contracts

emission finance: final redemption of financial contracts

Emission finance is a *necessary*, but not a *sufficient* condition for secondary market trading of the contracts on the stock exchange. A listing requires an admission.

In finance, stock exchanges are usually
- ➤ **publicly chartered and**
- ➤ **highly organised**

secondary markets for emission finance.

(With regard to forward contracts, stock exchanges may also serve as primary markets.)

A listing on the stock exchange increases the secondary market liquidity of emission finance.

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Initial Public Offering (IPO; Going Public))

An Initial Public Offering („IPO" in short, very often also called "Going Public") is the first listing of the shares of a certain company on the stock exchange.

from several days to many years

possible variations: intermediate securitization, application for ISIN, or floating

t=0   t=1 t=2   time

origination (not necessarily: emission) of the shares

first listing of the company on the stock exchange
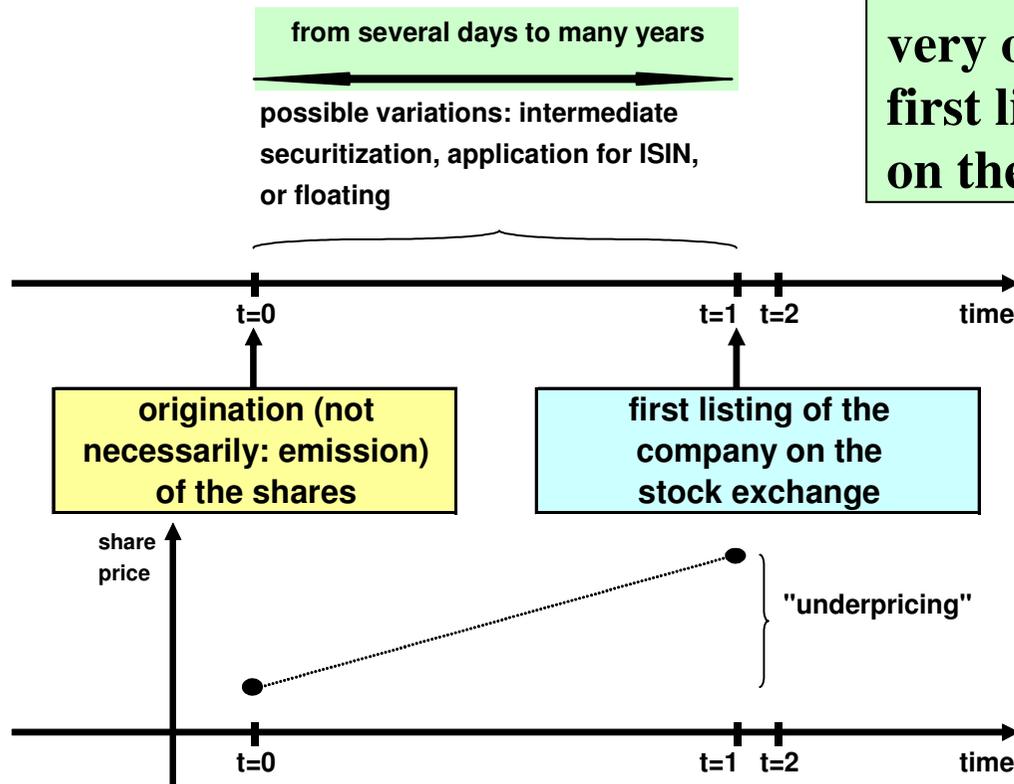
Possible: (i) delay between origination and securitization etc.; (ii) delay between securitization etc. and first listing
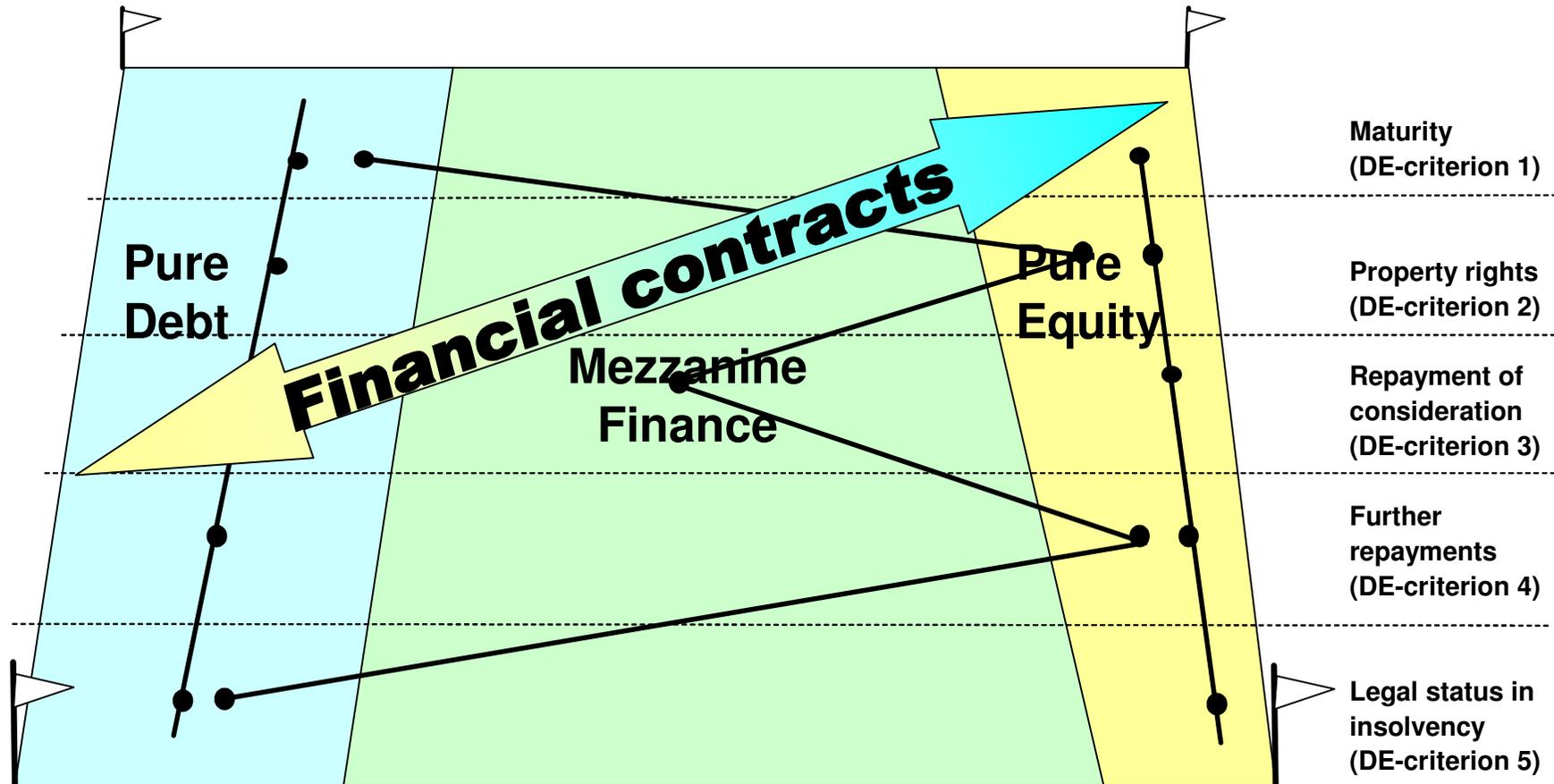
share price

"underpricing"

t=0   t=1 t=2   time

Difference between first quotation and emission price: „underpricing" (common scenario)

After the formation of the Jemná Čokoláda a.s. on July 1, 2025, its sole shareholder, the Všeobecný potraviny a.s., has induced its subsidiary to securitize its shares and apply for an International Securities Identification Number. After successful completion, the floating of 40% of the share capital was put into practice on February 1, 2030. The Initial Public Offering took place on February 4, 2030.

Analyze the financial effects of this IPO on the Jemná Čokoláda a.s.!

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Debt and Equity

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Exercise 6-7

i) *Make up a debt-equity-profile of preference shares according to the five aforementioned criteria!*

ii) *Subdivide the subsequent financial contracts into debt and equity according to the legal status in in-solvency:*

- preference share
- ordinary share
- partner in a v.o.s.
- silent partner
- participation certificate

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Exercise 6-8

For the short fiscal year 2025, the Jemná Čokoláda a.s. reports the subsequent data:

		incoming payment (+) outgoing payment (-)	income (+) expenses (-)
(1)	sales	+1,500	+1,500
(2)	materials	-800	-800
(3)	wages	-200	-200
(4)	taxes	-100	-100
(5)	issuance of participation certificates	+10	±0
(6)	admission of a silent partner	+1	±0
(7)	issuance of preference shares	+11	±0
(8)	interest	-50	-50
(9)	profit distribution	-340	±0
(10)	depreciation and write-off	±0	-60
(11)	appreciation	±0	+20
(12)	formation of provisions for bad debts	±0	-30
	Total	32	280

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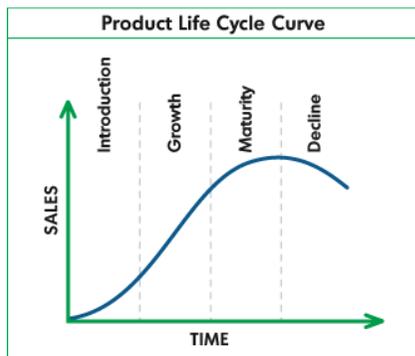Treasury Management
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i)   *Make up Jemná Čokoláda's theoretical cash flow statement for the short fiscal year 2025!*

ii)   *Classify the amount of money that Jemná Čokoláda has in the short fiscal year 2025 generated by financial activities by means of a two-column two-rows matrix with the two rows standing for standard and emission finance, respectively, and the two rows for equity and debt, respectively!*

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Entrepreneurship, Equity and the Life-Cycle of a Company (Fig. 6-6)

**Joseph A. Schumpeter,
February 08, 1883 (Třešť)
January 08, 1950 (Taconic)**

Product Life Cycle Curve

Joel Dean, 1906-1979

New company → Formation

Equity

Going Concern → Increase in capital → by further contribution made by old shareholders

Increase in capital → by integration of new shareholders

Dissolution
Insolvency

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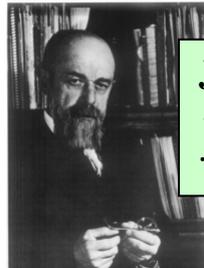Prof. Dr. Dirk Kaiser

Treasury Management
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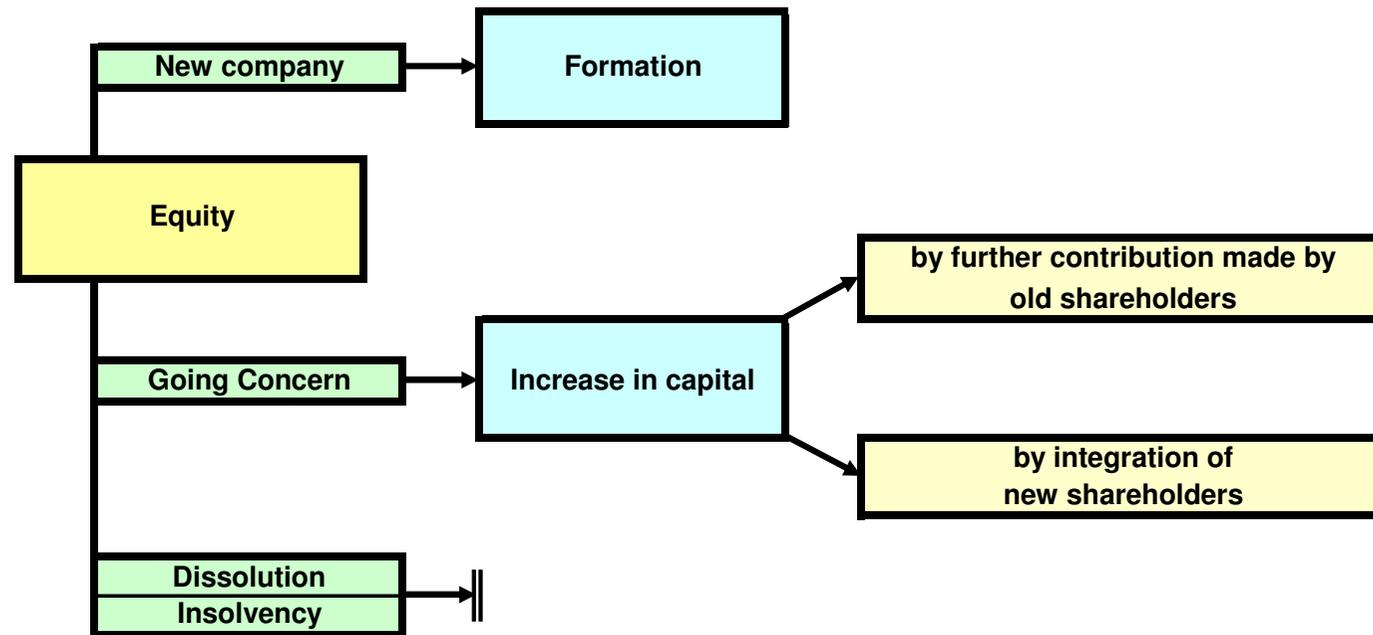
Some More Famous Scientists Born in Bohemia or Moravia
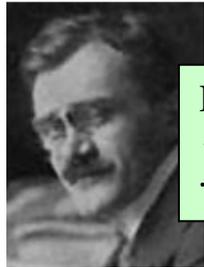
Karel Engliš, Economist,
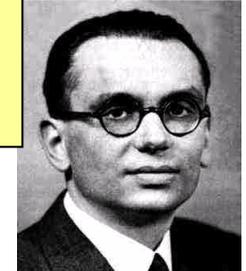★ August 17, 1880 (Hrabyně)
† June 15, 1961 (Hrabyně)

Kurt Gödel, Logician,
★ April 28, 1906 (Brno)
† January 14, 1978 (Princeton)

Josef Macek, Economist,
★ September 13, 1887 (Krumpach u Zábřehu)
† February 19, 1972 (Vancouver)

Gregor Mendel, Biologist,
★ July 22, 1822 (Vražné-Hynčice)
† January 06, 1884 (Brno)

Ota Šik, Economist,
★ September 11, 1919 (Plzeň)
† August 22, 2004 (Sankt Gallen)

Three economists to rediscover!?

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Examples for Debt Finance

- ✓ credit on current account

- ✓ raising of a mortgage loan

- ✓ integration of a silent partner

- ✓ issuance of corporate bonds

- ✓ issuance of commercial paper (certificates of deposit)

- ✓ participation certificates

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CF from financial activities 3

The Maturity of Debt

EQUITY:
long-term finance
by nature

„MATURITY" refers to:
1) remaining term (term to maturity)
   or
2) notice period,
respectively

1 year   5 years

maturity

short-term finance   **medium-term finance**   **long-term finance**

Exercise 6-12

The Vitaggi s.r.o., a sister company of the Jemná Čokoláda within the Všeobecný potraviny's group of companies producing packet soup, reports the subsequent data for the fiscal year 2025 (CZK mio.):

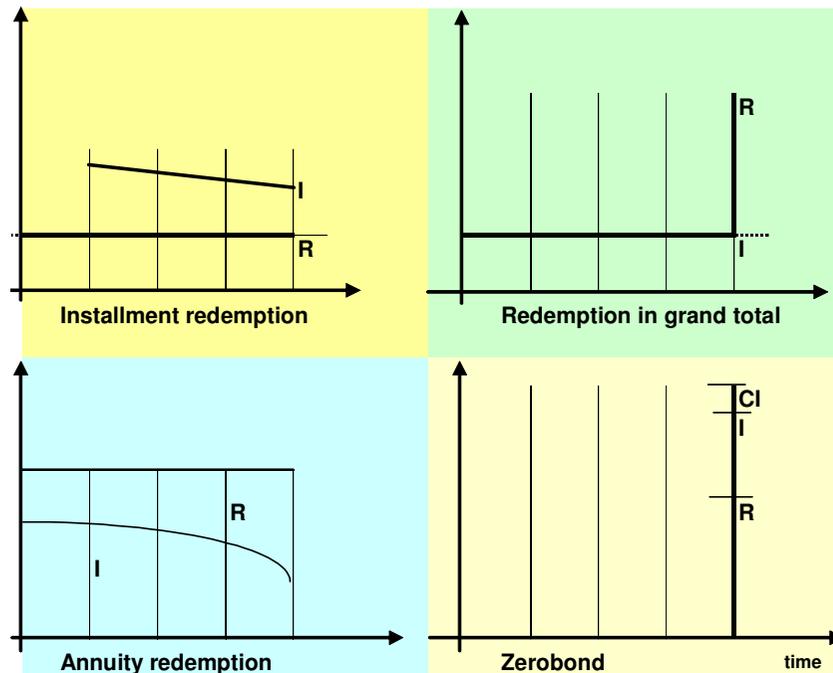|		income (+) expenses (-)	incoming payment (+) outgoing payment (-)
(1)	sales	+1,600	+1,600
(2)	materials	-950	-950
(3)	wages	-200	-200
(4)	taxes	-100	-100
(5)	issuance of participation certificates with a term of 6 years	±0	+4
(6)	emission of corporate bonds with a maturity of 8 years	±0	+3
(7)	absorption of the 2025 increase in capital by the parent company Všeobecný potraviny a.s.	±0	+8

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(8)	raising of a bank credit on October 1, 2025, with a maturity of 6 months	±0	+5
(9)	interest	-50	-50
(10)	profit distribution	±0	-210
(11)	depreciation and write-off	-55	±0
(12)	appreciation	+20	±0
(13)	formation of provisions for bad debts	-25	±0

Classify the amount of money that Vitaggi has in the fiscal year 2025 generated with the aid of debt contracts by means of a one-column three-rows table with the three rows standing for short-term, medium-term and long-term finance, respectively!

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The Repayment of Debt (Fig. 6-10)

DE-criterion 3

Installment redemption

Redemption in grand total

Annuity redemption

Zerobond — time

Different methods for the calculation / approximation of the internal rate of return

DE-criterion 4

Fixed income debt

Roll-over credit (standard finance)

Floating rate notes (emission finance)

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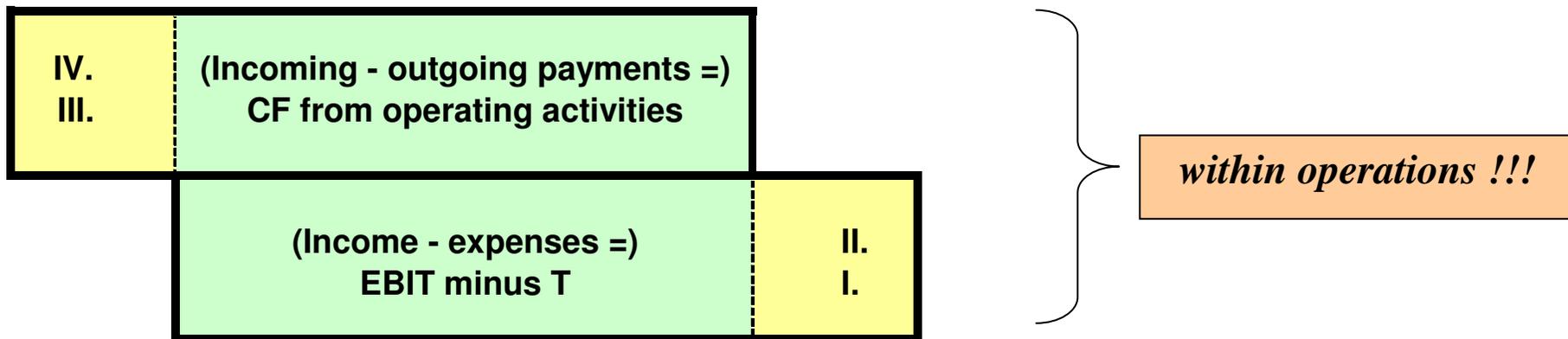CF from financial activities 3

Exercise 7-2

Make up a source income statement for the Brněnské Marcipánové a Nugátové Kontor by restructuring the 2025 income statement according to the following form!

Source income statement (form)	2025	2024
Revenues		
Changes in inventories of finished goods and work in progress		
Production for own fixed assets capitalized		
Cost of purchased materials and services		
Personnel expenses		
Depreciation and amortization on tangible and intangible assets		
Core operating profit		
Other operating income		
Other operating expenses		
Other operating profit		
Operating profit ("EBIT")		
Income from participations		
Income from other financial assets		
Other interest income		
Depreciation and amortization on financial assets and financial current assets		
Interest expenses		
Financial profit ("I")		
Extraordinary income		
Extraordinary expenses		
Extraordinary items		
Earnings before tax ("EBT")		
Income tax ⎫ ("T")		
Other taxes ⎭		
Earnings after tax ("EAT")		

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Treasury Management
CF from operating activities

Schmalenbach's Bar Graph revisited (Fig. 7-1)

IV. III.	(Incoming - outgoing payments =) CF from operating activities

(Income - expenses =) EBIT minus T	II. I.

within operations !!!

	EBIT minus T	
+	expenses that do not affect cash & cash equivalents (correction type I)	within operations!!!
-	income that does not affect cash & cash equivalents (correction type II)	
-	non-expense applications of cash & cash equivalents (correction type III)	
+	non-expense originations of cash & cash equivalents (correction type IV)	
=	Cash flow from operating activities	

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CF from operating activities

Exercise 7-3

Starting point is exercise 4-4. As you can easily check, this is CFP's source income statement for the fiscal year 2025.

Bridge the gap between EBIT minus T and cash flow from operating activities by making up a calculation considering for the four different types of corrections!

Source income statement for CFP v.o.s., Brno, for the time period from January 01, 2025, to December 31, 2025 (TCZK)	
	2025
Revenues	700
Changes in inventories of finished goods and work in progress	0
Production for own fixed assets capitalized	0
Cost of purchased materials and services	400
Personnel expenses	180
Depreciation and amortization on tangible and intangible assets	5
Core operating profit	**115**
Other operating income	20
Other operating expenses	0
Other operating profit	**20**
Operating profit ("EBIT")	**135**
Income from participations	0
Income from other financial assets	0
Other interest income	0
Depreciation and amortization on financial assets and financial current assets	0
Interest expenses	35
Financial profit ("I")	**-35**
Earnings before tax ("EBT")	**100**
Income tax }("T")	0
Other taxes	0
Earnings after tax ("EAT")	**100**

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