FINANCIAL ACCOUNTING

1 ACCOUNTING

[1]"As a financial information system, accounting is a process of three activities: **identifying, recording, and communicating** the economic events of an organization (business or nonbusiness) to interested users of the information."

- "The first part of the process - **identifying** - involves **selecting those events that are considered evidence of economic activity relevant to a particular organization**."
- "Once identified and measured in dollars and cents, economic events are **recorded** to provide a permanent history of the financial activities of the organization. **Recording consists of keeping a chronological diary of measured events in an orderly and systematic manner**. In recording, economic events are also classified and summarized."
- "This identifying and recording activity is of little use unless the information is **communicated** to interested users. **The information is communicated through the preparation and distribution of accounting reports, the most common of which are called financial statements**. To make the reported financial information meaningful, accountants describe and report the recorded data **in a standardized way**. Information resulting from similar transactions is accumulated and totaled."

[2]"Many individuals mistakenly consider bookkeeping and accounting to be one and the same. This confusion is understandable because the accounting process includes the bookkeeping function. However, accounting also includes much more. **Bookkeeping** usually involves **only the recording of economic events** and is therefore just one part of the accounting process. In total, **accounting** involves **the entire process of identification, recording, and communication**."

1.1 Financial and Management Accounting

[3]"Although there is considerable overlap in the functions of management accounting and financial accounting, the two can be distinguished by who the principal users of their information will be. **Management accounting** provides **internal decision makers** who are charged with achieving the goals of profitability and liquidity with information about financing, investing, and operating activities. … **Financial accounting** generates reports and communicates them to **external decision makers** so that they can evaluate how well the business has achieved its goals. **These reports to external users are called financial statements**."

1.2 Purpose of Financial Reporting

The Statement of Financial Accounting Concepts No. 1[4] identifies three objectives of financial reporting.

- The first objective of financial reporting is **to provide information that is useful in making business and economic decisions**.
- The second objective of financial reporting is to provide **understandable information which will aid investors and creditors in predicting the future cash flows of a firm**. Investors and creditors want information about cash flows because the expectation of cash flows affects a firm's ability to pay interest and dividends, which in turn affects the market price of that firm's stocks and bonds.

[1] WEYGANDT, KIESO, KIMMEL, [2]1998, page 2f.
[2] WEYGANDT, KIESO, KIMMEL, [2]1998, page 6.
[3] NEEDLES, POWERS, [7]2001, page 7f.
[4] SFAC 1, 1978.

- The third objective of financial reporting is to **provide information relative to an enterprise's economic resources, the claims to those resources (obligations), and the effects of transactions, events, and circumstances that change resources and claims to resources**.

2 DOUBLE-ENTRY BOOKKEEPING SYSTEM - Balance Sheet, Income Statement, Statement of Cash Flows

With a simple example of a **'taxi company'** we will go through the following eight exercises and see the most important components of double-entry bookkeeping and deduct and explain the concepts of balance sheet, income statement and statement of cash flows.

2.1 Introduction

- **Bookkeeping**, by collecting, organizing and presenting data, is **a special kind of statistics**.
- In order to be useful for decision-making we must first **limit the scope of our inquiry**, i.e. we have to follow the **'economic entity assumption'**, which means that economic activity can be identified with a particular unit of accountability. In other words, the activity of a business enterprise can be kept separate and distinct from its owners and any other business unit.
- **'Transactions' are events, which have an effect on** or influence **the economic entity**.[5] Transactions may be identified as external or internal. External transactions involve economic events between the company and some outside enterprise or party (e.g., purchase of equipment, the payment of monthly rent to the landlord, and the sale to customers). Internal transactions are economic events that occur entirely within one company (e.g., use of office supplies, use of materials).
- **All transactions must be measured in monetary units**. This monetary unit assumption means that money is the common denominator of economic activity and provides an appropriate basis for accounting measurement and analysis. The monetary unit is relevant, simple, universally available, understandable, and useful.

2.2 Given Data-Set of a Taxi-Company

Utilization time of the taxi	years	3
Cash inflow for taxi rides per year	CHF	96'000
Taxi driver salary per year	CHF	48'000
Miscellaneous cash outflow per year (gasoline, repairs, etc.)	CHF	24'000
Liquidation proceeds after 3 years	CHF	-
Cash balance beginning 19.1	CHF	60'500
Purchase price (in cash) of the taxi beginning 19.1	CHF	60'000
Except the cash flows mentioned above there are no other cash transactions.		

2.3 Exercise 1

The **most essential performance figure for every company is liquidity**, i.e. in this example the stock amount or balance of the cashbook. Without liquidity the economic entity goes bankrupt.

Task

Do the bookkeeping of the cashbook (simple form) of the taxi company for all three years. Choose an appropriate format.

[5] The general practice of providing information that is of sufficient importance to influence the judgment and decisions of an informed user is known as the 'full disclosure principle'.

Proposal for solution: Bookkeeping of the cashbook (simple form)

CASHBOOK

date	text	amount
12/31/19.0	Cash balance beginning 19.1	60'500
year 19.1	Purchase price (in cash) of the taxi beginning 19.1	-60'000
	Cash inflow from taxi rides per year	96'000
	Taxi driver salary (in cash) per year	-48'000
	Miscellaneous cash outflows per year (gasoline, repairs, etc.)	-24'000
12/31/19.1	Cash balance end 19.1	24'500
year 19.2	Cash inflow from taxi rides per year	96'000
	Taxi driver salary (in cash) per year	-48'000
	Miscellaneous cash outflows per year (gasoline, repairs, etc.)	-24'000
12/31/19.2	Cash balance end 19.2	48'500
year 19.3	Cash inflow from taxi rides per year	96'000
	Taxi driver salary (in cash) per year	-48'000
	Miscellaneous cash outflows per year (gasoline, repairs, etc.)	-24'000
12/31/19.3	Cash balance end 19.3	72'500

CASHBOOK with balance column			
date	**text**	**amount**	**balance**
12/31/19.0	Cash balance beginning 19.1	60'500	60'500
year 19.1	Purchase price (in cash) of the taxi beginning 19.1	-60'000	500
	Cash inflow from taxi rides per year	96'000	96'500
	Taxi driver salary (in cash) per year	-48'000	48'500
	Miscellaneous cash outflows per year (gasoline, repairs, etc.)	-24'000	24'500
12/31/19.1	Cash balance end 19.1		24'500
year 19.2	Cash inflow from taxi rides per year	96'000	120'500
	Taxi driver salary (in cash) per year	-48'000	72'500
	Miscellaneous cash outflows per year (gasoline, repairs, etc.)	-24'000	48'500
12/31/19.2	Cash balance end 19.2		48'500
year 19.3	Cash inflow from taxi rides per year	96'000	144'500
	Taxi driver salary (in cash) per year	-48'000	96'500
	Miscellaneous cash outflows per year (gasoline, repairs, etc.)	-24'000	72'500
12/31/19.3	Cash balance end 19.3		72'500

Conclusion

The major problem by choosing this format is the minus sign of all cash outflows. Even if you use brackets '< >' there is a high probability that you make a mistake when you add and deduct the amounts to get to the balance.

To circumvent this disadvantage it is better to use two columns: the column on the left side (called 'debit') is used for 'positive' cash inflows, the column on the right side (called 'credit') is used for 'negative' cash outflows. Because we know that the column on the right side is for cash outflows we can omit the minus sign.

Task

Do the bookkeeping of the cashbook (simple form) of the taxi company for all three years again. But use now two columns, i.e. a debit and credit column.

Proposal for solution: Bookkeeping of the cashbook (simple form) with two columns

CASHBOOK with debit & credit columns

date	text	amount DEBIT +	amount CREDIT -
12/31/19.0	Cash balance beginning 19.1	60'500	
year 19.1	Purchase price (in cash) of the taxi beginning 19.1		60'000
	Cash inflow from taxi rides per year	96'000	
	Taxi driver salary (in cash) per year		48'000
	Miscellaneous cash outflows per year (gasoline, repairs, etc.)		24'000
	Total	156'500	132'000
12/31/19.1	Cash balance end 19.1	24'500	
year 19.2	Cash inflow from taxi rides per year	96'000	
	Taxi driver salary (in cash) per year		48'000
	Miscellaneous cash outflows per year (gasoline, repairs, etc.)		24'000
		120'500	72'000
12/31/19.2	Cash balance end 19.2	48'500	
year 19.3	Cash inflow from taxi rides per year	96'000	
	Taxi driver salary (in cash) per year		48'000
	Miscellaneous cash outflows per year (gasoline, repairs, etc.)		24'000
		144'500	72'000
12/31/19.3	Cash balance end 19.3	72'500	

CASHBOOK with debit, credit & balance columns				
date	**text**	**amount DEBIT +**	**amount CREDIT -**	**balance**
12/31/19.0	**Cash balance beginning 19.1**	**60'500**		**60'500**
year 19.1	**Purchase price (in cash) of the taxi beginning 19.1**		**60'000**	**500**
	Cash inflow from taxi rides per year	**96'000**		**96'500**
	Taxi driver salary (in cash) per year		**48'000**	**48'500**
	Miscellaneous cash outflows per year (gasoline, repairs, etc.)		**24'000**	**24'500**
		156'500	**132'000**	
12/31/19.1	**Cash balance end 19.1**	**24'500**		**24'500**
year 19.2	**Cash inflow from taxi rides per year**	**96'000**		**120'500**
	Taxi driver salary (in cash) per year		**48'000**	**72'500**
	Miscellaneous cash outflows per year (gasoline, repairs, etc.)		**24'000**	**48'500**
		120'500	**72'000**	
12/31/19.2	**Cash balance end 19.2**	**48'500**		**48'500**
year 19.3	**Cash inflow from taxi rides per year**	**96'000**		**144'500**
	Taxi driver salary (in cash) per year		**48'000**	**96'500**
	Miscellaneous cash outflows per year (gasoline, repairs, etc.)		**24'000**	**72'500**
		144'500	**72'000**	
12/31/19.3	**Cash balance end 19.3**	**72'500**		**72'500**

Conclusion

The 'time axis' of all formats above progresses top-down, i.e. vertically. For purely didactic reasons we shift the 'time axis' around 90 degrees. Temporally we progress now from left to right. Even by doing this we still use the 'two-column-approach' so that we do not need the minus sign for outflows.

Task

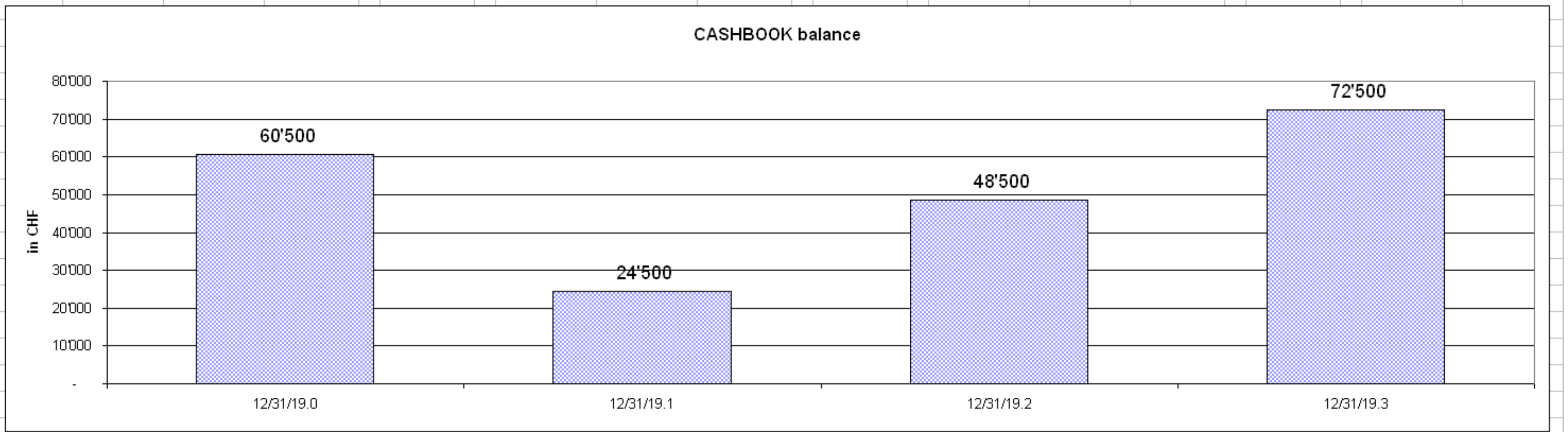
On next page the bookkeeping of the cashbook (simple form) of the taxi company for all three years is shown, now with the changes mentioned above.

Taxi company

Exercise 1 — **Cashbook (simple form)** — **IDEA: statement about liquidity**

	stock 12/31/19.0		flow 19.1		stock 12/31/19.1		flow 19.2		stock 12/31/19.2		flow 19.3		stock 12/31/19.3	
	debit +	credit -	debit +	credit -	debit +	credit -	debit +	credit -	debit +	credit -	debit +	credit -	debit +	credit -
CASH	**60'500**			**60'000** [1]	**24'500**				**48'500**				**72'500**	
			96'000 [2]	**48'000** [3]			**96'000** [2]	**48'000** [3]			**96'000** [2]	**48'000** [3]		
				24'000 [4]				**24'000** [4]				**24'000** [4]		
	60'500	**-**			**24'500**	**-**			**48'500**	**-**			**72'500**	**-**
			96'000	**132'000**			**96'000**	**72'000**			**96'000**	**72'000**		

1) purchase price taxi (in cash)
2) cash inflow for taxi rides
3) taxi driver salary (in cash)
4) miscellaneous cash outflows



Conclusion

It is obvious that the performance figure 'cashbook balance' or better its change over time has some **drawbacks**:

- There are large fluctuations caused by business activities, i.e. cash outflows or 'investments' (i.e. purchase of taxi) today to get more cash inflows in the future.
- If the taxi company pays out the cashbook balance at the end of each year there would not be enough money left to 'reinvest' in a new taxi after three years.
- Without supplementary calculations it is not possible to show if the business activity develops positively or negatively and the reason why.
- There is no other kind of 'wealth' shown for the taxi company than the cashbook balance .
- There is **no control mechanism**.

2.4 Exercise 2

By doing the **bookkeeping of the cashbook in a simple form there is no control mechanism** if all amounts are correctly recorded. Moreover all economic actions always get together in form of a 'barter or swap', i.e. there is always a 'give' and 'take'.

Out of these 'problems' the 'double-entry' bookkeeping was developed: **every transaction must be recorded both as 'debit' and as 'credit'**.

Up to now we only used the item or account 'cashbook'. **To do a double-entry bookkeeping we have the problem where to put the 'cross entry' or the other 'side' of the original cashbook entry. For this purpose we 'introduce' a new account 'equity'**.
The equity account shows the amount the company owns the owner of the company.

'Bookkeeping rule' for the item 'cashbook' (double-entry form):

Debit (+)	Credit (-)
Cash Inflow	**Cash Outflow**

Task

On next page the bookkeeping of the cashbook (double-entry form) of the taxi company for all three years is shown.

Taxi company

Exercise 2 — **Cashbook (double-entry form)** — **IDEA: control (double-entry)**

	stock 12/31/19.0		flow 19.1		stock 12/31/19.1		flow 19.2		stock 12/31/19.2		flow 19.3		stock 12/31/19.3	
	debit +	credit -	debit +	credit -	debit +	credit -	debit +	credit -	debit +	credit -	debit +	credit -	debit +	credit -
CASH	60'500			60'000 [1]	24'500				48'500				72'500	
			96'000 [2]	48'000 [3]			96'000 [2]	48'000 [3]			96'000 [2]	48'000 [3]		
				24'000 [4]				24'000 [4]				24'000 [4]		
'Equity'		60'500	60'000 [1]			24'500				48'500				72'500
			48'000 [3]	96'000 [2]			48'000 [3]	96'000 [2]			48'000 [3]	96'000 [2]		
			24'000 [4]				24'000 [4]				24'000 [4]			
	60'500	60'500			24'500	24'500			48'500	48'500			72'500	72'500
			228'000	228'000			168'000	168'000			168'000	168'000		

1) purchase price taxi (in cash)
2) cash inflow for taxi rides
3) taxi driver salary (in cash)
4) miscellaneous cash outflows

Conclusion

- Because all cross entries (originated from the cashbook bookings) were booked in the new 'equity' account its balance amount must be the same as the balance amount of the cashbook account. Therefore the last point of drawbacks 'no control mechanism' has been eliminated.
- All other drawbacks have not been addressed up till now.

2.5 <u>Exercise 3</u>

A **good performance figure for the characterization of 'business activity'** would be a 'measure' which shows **for each time period**[6] **a more or less constant proportionate amount of the wealth added to the firm by its activities**.

The **major task of entrepreneurship is the transformation** of:

CASH	**in →**	**INVESTMENT OBJECTS**	**in →**	**CASH PLUS**

time lag ≈ Firm-specific Risk →

The major 'problem' of this task is that there is a shorter or longer **time lag between 'Cash' and 'Cash Plus'**.

To get to this 'superior' performance figure we must leave the narrow measurement of liquidity or cashbook and look at the whole 'wealth' of the economic entity.

Besides the cashbook, all 'investment objects' are now included in the analysis of wealth. Normally these investment objects are valued at **'historical cost'**[7].
The purchase of these **investment objects makes only sense if their utilization over time contributes to the success of the company**. This on the other side causes **in general a reduction of the value of these investment objects**[8], which means that a **'depreciation'** must be recorded (and a cross entry in the 'equity' account) in the corresponding time period (accrual basis accounting).[9]

If we look at the **balance change of the equity account** - after the booking of a meaningful depreciation - we can see **for each time period a more or less constant proportionate amount** of the wealth added to the firm by its activities. This 'measure' is known as **<u>'net income'</u>** in general, or net profit or loss.

The statement about cashbook, investment objects and equity is known as <u>'balance sheet'</u>. On its debit side it shows the <u>'assets'</u> of a company, on its credit side all its <u>'obligations'</u> (liabilities and equity).
The balance sheet is an **'instant picture'** of the 'wealth' and its corresponding 'obligations' of the company.

[6] The <u>'time period assumption'</u> implies that the economic activities of an enterprise can be divided into artificial time periods. These time periods vary, but the most common are monthly, quarterly, and yearly. The shorter the time period, the more difficult it becomes to determine the proper net income for the period.

[7] Generally Accepted Accounting Principles (GAAP) requires that most assets and liabilities be accounted for and reported on the basis of **acquisition price, e.g., at cost**. This kind of valuation has an important advantage over other valuation methods: **it is reliable**.

[8] The reduction in the value of the investment object is under GAAP not directly booked in the corresponding asset account, but a new 'contra asset account' is created, known as 'accumulated depreciation'. For didactical purposes the correct GAAP practice is not shown in the proposed solution.

[9] The <u>'going concern assumption'</u> assumes that the company or business enterprise will have a long live. Although accountants do not believe that business companies will last for ever, but they do expect them to last as long enough to fulfill their objectives and commitments. The 'historical cost principle' would be of very little use if the liquidation of the company were assumed. Depreciation (and amortization) policies are justifiable and appropriate only if we assume some permanence to the enterprise.

'Bookkeeping rule' for all items, which concern assets and obligations:

Debit (+)	**Credit (-)**
improvement of the economic entity	**deterioration of the economic entity**

regarding a particular item or account

Assets — **"Assets are probable future economic benefits obtained or controlled by a particular entity as a result of past transactions or events."**[10]

Liabilities — **"Liabilities are probable future sacrifices of economic benefits arising from present obligations of a particular entity to transfer assets or provide services to other entities in the future as a result of past transactions or events."**[11]

Equity — **"Equity is the residual interest in the assets of an entity that remains after deducting its liabilities. In a business enterprise, the equity is the ownership interest."**[12]

Task

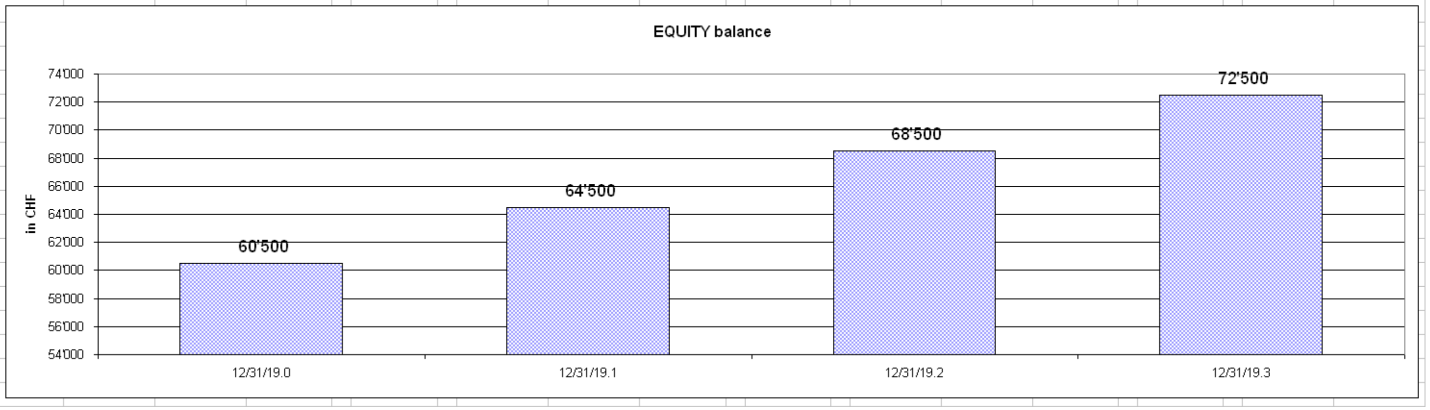
On next page the double-entry bookkeeping (balance sheet only) of the taxi company for all three years is shown.

[10] SFAC 3, 1980, § 19.
[11] SFAC 3, 1980, § 28.
[12] SFAC 3, 1980, § 43.

Taxi company
Exercise 3 **Double-entry bookkeeping (only BS)** **IDEA: statement about the entire 'wealth' and its decrease as a accrual (e.g., depreciation)**

	stock 12/31/19.0		flow 19.1		stock 12/31/19.1		flow 19.2		stock 12/31/19.2		flow 19.3		stock 12/31/19.3	
	debit +	credit -	debit +	credit -	debit +	credit -	debit +	credit -	debit +	credit -	debit +	credit -	debit +	credit -
BALANC SHEET														
CASH	60'500			60'000 [1]	24'500				48'500				72'500	
			96'000 [2]	48'000 [3]			96'000 [2]	48'000 [3]			96'000 [2]	48'000 [3]		
				24'000 [4]				24'000 [4]				24'000 [4]		
TAXI			60'000 [1]	20'000 [5]	40'000			20'000 [5]	20'000			20'000 [5]	-	
EQUITY		60'500				64'500				68'500				72'500
			48'000 [3]	96'000 [2]			48'000 [3]	96'000 [2]			48'000 [3]	96'000 [2]		
			24'000 [4]				24'000 [4]				24'000 [4]			
			20'000 [5]				20'000 [5]				20'000 [5]			
	60'500	60'500			64'500	64'500			68'500	68'500			72'500	72'500
			248'000	248'000			188'000	188'000			188'000	188'000		

[1] purchase price taxi (in cash)
[2] cash inflow for taxi rides
[3] taxi driver salary (in cash)
[4] miscellaneous cash outflows
[5] depreciation of taxi (straight-line over 3 years)



<u>Conclusion</u>

- The balance amount of the equity account of this kind of double-entry bookkeeping (balance sheet only) shows the net asset value (assets minus liabilities) of the company. The change of the equity account is a good indicator or performance figure to characterize the activities of the company.
- If the company at the end of each year were paying out the increase of the balance amount of the equity account to their owner(s) then it would be possible for the company to buy a new taxi at the end of the three years for the same amount as at the beginning of 19.1 (preservation of the financial position of the company).
- Without supplementary calculations it is not jet possible to show how the company achieved its performance.

2.6 <u>Exercise 4</u>

To show the changes in the equity account in more detail, all transactions or flows regarding the equity account (except investment by and distributions to owners) are not listed anymore in the equity account but in special items or accounts (separated by the reason of origin). This kind of 'segregation' of all equity flows is known as **<u>'income statement'</u>**. It shows the company's activities and how it achieved its performance. **On its debit side it shows the <u>'expenses'</u> or input of a company, on its credit side all its <u>'revenues'</u> or output for a certain time period.**
The income statement is **a flow statement or film of all business activities during a certain time period**.

'Bookkeeping rule' for all items, which are 'cross entries':
If not both of the debit and credit bookings are carried out in balance sheet items or accounts the 'missing' cross entry debit or credit booking has to be executed in one of the income statement items or accounts.

To get a separation of the balance sheet and the income statement and without loosing the equality of the total amounts of the debit and credit side in each statement (i.e. control mechanism) **the <u>'difference' between revenues and expenses (net income)</u> must be booked as a cross entry in the equity account.**

Revenues	**"Revenues are inflows or other enhancements of assets of an entity or settlements of its liabilities (or a combination of both) during a period from delivering or producing goods, rendering services, or other activities that constitute the entity's ongoing major or central operations."[13]**
Expenses	**"Expenses are outflows or other using up of assets or incurrences of liabilities (or a combination of both) during a period from delivering or producing goods, rendering services, or carrying out other activities that constitute the entity's ongoing major or central operations."[14]**
Net income (comprehensive income)	**"Comprehensive income is the change in equity (net assets) of an entity during a period from transactions and other events and circumstances from nonowner sources. It includes all changes in equity during a period except those resulting from investments by owners and distributions to owners."[15]**

Task

On next page the double-entry bookkeeping (balance sheet and income statement) of the taxi company for all three years is shown.

[13] SFAC 3, 1980, § 63.
[14] SFAC 3, 1980, § 65.
[15] SFAC 3, 1980, § 56.

Taxi company

Exercise 4 **Double-entry bookkeeping (BS and IS)** **IDEA: Statement about the company's activities, i.e. income statement**

	stock 12/31/19.0		flow 19.1		stock 12/31/19.1		flow 19.2		stock 12/31/19.2		flow 19.3		stock 12/31/19.3	
	debit	credit	debit	credit	debit	credit	debit	credit	debit	credit	debit	credit	debit	credit
	+	-	+	-	+	-	+	-	+	-	+	-	+	-
BALANCE SHEET														
CASH	60'500			60'000 [1)]	24'500				48'500				72'500	
			96'000	48'000			96'000	48'000			96'000	48'000		
				24'000				24'000				24'000		
TAXI			60'000 [1)]	20'000	40'000			20'000	20'000			20'000	-	
EQUITY		60'500		4'000		64'500		4'000		68'500		4'000		72'500
	60'500	60'500			64'500	64'500			68'500	68'500			72'500	72'500
INCOME STATEMENT														
TAXI RIDES Cash Inflows				96'000				96'000				96'000		
SALARY Cash Outflow			48'000				48'000				48'000			
MISCELLANEOUS Cash Outflows			24'000				24'000				24'000			
DEPRECIATION			20'000				20'000				20'000			
NET INCOME			4'000				4'000				4'000			
			252'000	252'000			192'000	192'000			192'000	192'000		

company's activities

1) purchase price taxi (in cash)

2.7 Exercise 5

If the bookkeeping is done solely on transactions and events regarding the cashbook account (**cash basis accounting**) **there is no guarantee that the cross entry bookings in the income statement are within its proper time period. Therefore it is necessary when you set up a balance sheet that you do some (minor) 'adjustments' (accruals and deferrals)** so that the income statement correctly measures the results of operations during the period (**accrual basis accounting**).

The balance sheet accounts, which reflect these short time 'adjustments'[16], are known as follows:

- **asset side: prepaid expenses, accrued revenues**
- **liability side: accrued expenses, prepaid or unearned revenues**

The procedure mentioned above is known as **matching principle or expense recognition**[17], which can be depicted as follows:

INCOME STATEMENT

Expenses (→ Input)	**Revenues (Output ←)**

with respect to the same 'quantity' recognized as revenues"

as a result of this matching, net income becomes the 'price difference' between input and output

Task

Supplementary data to given data-set (only for exercise 5):		
Only ending 19.2 the taxi company has a stock of		
gasoline for contingency, worth	CHF	500
Only ending 19.2 there are prepaid taxi rides		
outstanding, worth	CHF	300

On next page the double-entry bookkeeping of the taxi company for all three years is shown, but with the supplementary data mentioned above included.

16 Inventory in raw materials, work-in-process, and finished goods, can be seen as well as investment objects or as 'adjustment'. Because the value of these item are normally high, they are booked in separate accounts.

17 As shown in the graph, preceding the matching principle, the 'revenue recognition principle' should be applied. Revenues are generally recognized when (1) realized or realizable and (2) earned (i.e. when the economic entity has substantially accomplished what it must do to be entitled to the benefits represented by the revenues). For more information on the topic of revenue recognition look at Exercise 7.

Taxi company

Exercise 5 — **Double-entry bookkeeping (BS and IS)** — **IDEA: Matching principle or expense recognition (and revenue recognition)**

	stock		flow		stock		flow		stock		flow		stock	
	12/31/19.0		19.1		12/31/19.1		19.2		12/31/19.2		19.3		12/31/19.3	
	debit	credit	debit	credit	debit	credit	debit	credit	debit	credit	debit	credit	debit	credit
	+	-	+	-	+	-	+	-	+	-	+	-	+	-
BALANCE SHEET														
CASH	60'500			60'000 [1]	24'500				48'500				72'500	
			96'000	48'000			96'000	48'000			96'000	48'000		
				24'000				24'000				24'000		
GASOLINE INVENTORY (prepaid expenses)							500		500			500	-	
TAXI			60'000 [1]	20'000	40'000			20'000	20'000			20'000	-	
prepaid TAX RIDES (or accrued expenses)								300		300	300			-
EQUITY		60'500		4'000		64'500		4'200		68'700		3'800		72'500
	60'500	60'500			64'500	64'500			69'000	69'000			72'500	72'500
INCOME STATEMENT														
TAXI RIDES REVENUES				96'000				96'000				96'000		
							300					300		
SALARY EXPENSES			48'000				48'000				48'000			
MISCELLANEOUS EXPENSES			24'000				24'000				24'000			
								500			500			
DEPRECIATION EXPENSES			20'000				20'000				20'000			
NET INCOME			4'000				4'200				3'800			
			252'000	252'000			193'000	193'000			192'600	192'600		

[1] purchase price taxi (in cash)

2.8 Exercise 6

If a company borrows money from another economic entity **this financing is booked as a liability - using a separate account - on the right side of the balance sheet**, which reflects the 'future sacrifice' of the borrowing company.

To distinguish between the **operating[18] activities** and the **peripheral activities** of a company, **the income statement is subdivided as follows:**

- **the first subdivision shows all items or accounts regarding the operating income,**
- **the second subdivision includes all (new and separat) items or accounts regarding the peripheral 'gains' and 'losses'.**

A major point to stress is that **all transactions based on the financing** of the company **are excluded from the operating activities**!

Gains — **"Gains are increases in equity (net assets) from peripheral or incidental transactions of an entity and from all other transactions and other events and circumstances affecting the entity during a period except those that result from revenues or investments by owners."[19]**

Losses — **"Losses are decreases in equity (net assets) from peripheral or incidental transactions of an entity and from all other transactions and other events and circumstances affecting the entity during a period except those that result from expenses or distributions to owners."[20]**

Task

Supplementary data to given data-set (only for exercise 6):		
Beginning 19.2 the taxi company buys parking lots for	CHF	50'000
The purchase is financed by raising a mortage of	CHF	40'000
and by paying the rest in cash.		
Cash inflow from the rent of the parking lots per year	CHF	3'000
Interests on the mortage per year	CHF	1'700

On next page the double-entry bookkeeping of the taxi company for all three years is shown, but including the supplementary data mentioned above.

18 Activities that constitute the entity's ongoing major or central operations.
19 SFAC 3, 1980, § 67.
20 SFAC 3, 1980, § 68.

Taxi company

Exercise 6 — **Double-entry bookkeeping (BS and IS)** — **IDEA: Investments / external financing / Finanzierung / 'peripheral' activities**

		stock 12/31/19.0		flow 19.1		stock 12/31/19.1		flow 19.2		stock 12/31/19.2		flow 19.3		stock 12/31/19.3	
		debit +	credit -	debit +	credit -	debit +	credit -	debit +	credit -	debit +	credit -	debit +	credit -	debit +	credit -
BALANCE SHEET															
CASH		60'500			60'000 [1]	24'500				39'800				65'100	
				96'000	48'000			96'000	48'000			96'000	48'000		
					24'000				24'000				24'000		
								40'000 [7]	50'000 [6]						
								3'000	1'700			3'000	1'700		
TAXI				60'000 [1]	20'000	40'000			20'000	20'000			20'000	-	
PROPERTY								50'000 [6]		50'000				50'000	
MORTAGE									40'000 [7]		40'000				40'000
EQUITY			60'500		4'000		64'500		5'300		69'800		5'300		75'100
		60'500	60'500			64'500	64'500			109'800	109'800			115'100	115'100
INCOME STATEMENT															
TAXI RIDES REVENUES	operating income				96'000				96'000				96'000		
SALARY EXPENSES	operating income			48'000				48'000				48'000			
MISCELLANEOUS EXPENSES	operating income			24'000				24'000				24'000			
DEPRECIATION EXPENSES	operating income			20'000				20'000				20'000			
RENTS	'peripheral' activities								3'000				3'000		
INTEREST EXPENSES	'peripheral' activities							1'700				1'700			
NET INCOME				4'000				5'300				5'300			
				252'000	252'000			288'000	288'000			198'000	198'000		

[1] purchase price taxi (in cash)
[6] purchase of parking lots
[7] mortage

2.9 Exercise 7

It is common practice nowadays that goods or services must not be paid immediately after the delivery (cash purchase or sale). The cash transaction is normally executed according to the terms of payment later on. - A delivery note comes along with goods or services delivered. Then an invoice with payment term is sent.
A crucial question for many companies is **when revenues should be recognized**. **Revenues are generally recognized when (1) realized or realizable and (2) earned** (i.e. when the economic entity has substantially accomplished what it must do to be entitled to the benefits represented by the revenues).
Generally, an objective test - confirmation by a sale to independent interests - is used to indicate the point at which revenue is recognized. Usually, only at the date of sale is there an objective and verifiable measure of revenue - the sales price. **So, recognition at the time of sale provides a uniform and reasonable test**.

Unfortunately for our bookkeeping at the point of sale no cash transaction has occurred yet. On the other side we want to recognize the revenues. To solve this problem **two new items or accounts are added in the balance sheet:**

- **accounts receivable (short term asset) and**
- **accounts payable (short term liability)**.

By applying this revenue recognition principle the income statement reflects better the success out of the activities accomplished by the company.

Task

Supplementary data to given data-set (only for exercise 7):		
Because the taxi company has only regular customers		
the collection of the taxi rides are not done in cash		
(beginning 19.2), but monthly invoices are sent		
(payment term: within 30 days).		
Invoices sent to customers	CHF	96'000
Payments from customers for 19.2 and 19.3	CHF	?
Beginning 19.2 the taxi company has not to pay the		
purchase of gasoline in cash, but receives a monthly invoice		
from the gas station (payment term: within 30 days).		
Received invoices of gasoline	CHF	14'400
Other miscellaneous cash outflows per year	CHF	9'600
Payments to suppliers of gasoline for 19.2 and 19.3	CHF	?

On next page the double-entry bookkeeping of the taxi company for all three years is shown, but with the supplementary data mentioned above included.

Taxi company

Exercise 7 — **Double-entry bookkeeping (BS and IS)** — **IDEA: Accounts receivable / accounts payable**

	stock		flow		stock		flow		stock		flow		stock	
	12/31/19.0		19.1		12/31/19.1		19.2		12/31/19.2		19.3		12/31/19.3	
	debit	credit	debit	credit	debit	credit	debit	credit	debit	credit	debit	credit	debit	credit
	+	-	+	-	+	-	+	-	+	-	+	-	+	-
BALANCE SHEET														
CASH	60'500			60'000 [1]	24'500				41'700				65'700	
			96'000	48'000				48'000				48'000		
				24'000				9'600				9'600		
							88'000 [8]	13'200 [9]			96'000 [8]	14'400 [9]		
ACCOUNTS RECEIVABLE							96'000	88'000 [8]	8'000		96'000	96'000 [8]	8'000	
TAXI			60'000 [1]	20'000	40'000			20'000	20'000			20'000	-	
ACCOUNTS PAYABLE							13'200 [9]	14'400		1'200	14'400 [9]	14'400		1'200
EQUITY		60'500		4'000		64'500		4'000		68'500		4'000		72'500
	60'500	60'500			64'500	64'500			69'700	69'700			73'700	73'700
INCOME STATEMENT														
TAXI RIDES REVENUES				96'000				96'000				96'000		
SALARY EXPENSES			48'000				48'000				48'000			
MISCELLANEOUS EXPENSES			24'000				9'600				9'600			
GASOLINE EXPENSES							14'400				14'400			
DEPRECIATION EXPENSES			20'000				20'000				20'000			
NET INCOME			4'000				4'000				4'000			
			252'000	252'000			293'200	293'200			302'400	302'400		

[1] purchase price taxi (in cash)
[8] payments from customers
[9] payments to suppliers

2.10 Exercise 8

With the two financial statements developed above, i.e. **balance sheet and income statement, we got very good indicators for evaluating the activity of the company, how it develops and the reason why**.
But, **by going away from the cash basis accounting to the accrual basis accounting, we lost our reference to the change of liquidity**. To solve this drawback the **third part of financial statements, i.e. statement of cash flows**[21], was introduced.

Basically the statement of cash flows **shows the net change in cash and cash-equivalents**[22] **and the reason, why it happened**: So, a company reports in its statement of cash flows **cash receipts, cash payments, and net change in cash resulting from:**

- **operating**[23] **activities,**
- **investing activities, and**
- **financing activities.**

To subdivide the cash flows into these three classifications you must look which cross entry account is affected by the originated cash transaction.

Cash flow from operating activities (direct method) involve the cash effects of transactions that enter into the determination of net income (e.g., cash inflows: receipts from sale of goods or services, receipts of interests and dividends, sale of 'trading' securities; cash outflows: payments for inventory, employees and other suppliers, payment of interests and taxes, purchase of 'trading' securities).

Cash flow from investing activities generally involve long-term assets items (e.g., cash inflows: principal collections from loans, sale of plant & equipment, sale of 'available-for-sale' and 'held-to-maturity' securities; cash outflows: making of loans, purchase of plant & equipment, purchase of 'available-for-sale' and 'held-to-maturity' securities).

Cash flow from financing activities involve (non-operating) liability and stockholders' equity items (e.g., cash inflows: proceeds from issuing short and long-term debt, proceeds from issuing 'equity'; cash outflows: repayment of short and long-term debt, repayment of 'equity', payment of dividends to the owner(s)).,

Only cash flow from operating activities can be calculated in a different, indirect or reconciliatory way. The indirect method derives the net cash provided by operating activities by adjusting net income for revenue and expense items not resulting from cash transactions (e.g., Net income; add depreciation, amortization, and loss on sale of long-term assets; deduct gain on long-term assets; add (deduct) decrease (increase) in accounts receivable, inventory, prepaid expenses, and accrued revenues; deduct (add) decrease (increase) in accounts payable, accrued expenses, prepaid or unearned revenues).

[21] see SFAS 95
[22] Short-term, highly liquid investments that (1) are readily convertible to known amounts of cash and (2) are so near their maturity (less than 90 days) that they present negligible risk of changes in value because of changes in interest rates.
[23] It has to be especially mentioned that for the statement of cash flows the meaning of 'operating' is not the same as for the income statement. **For the statement of cash flows 'operating' looks at all cash transactions regarding the entire income statement (including gains and losses)**.

The information in a **statement of cash flows should help investors, creditors, and others to assess the following**:

- **The entity's ability to generate future cash flows;**
- **The entity's ability to pay dividends and meet obligations;**
- **The reasons for the difference between net income and net cash flow from operating activities;**
- **The cash and noncash investing and financing transactions during the period.**

<u>Task</u>

On next page the statement of cash flows - based on exercise 6 and 7 - of the taxi company for all three years is shown.

Taxi company
Based on exercise 6 (page 1 of 2)

Statement of Cash Flows — **IDEA: Cash Flow from Operating, Investing & Financing Activities**

		stock 12/31/19.0		flow 19.1		stock 12/31/19.1		flow 19.2		stock 12/31/19.2		flow 19.3		stock 12/31/19.3	
		debit +	credit -	debit +	credit -	debit +	credit -	debit +	credit -	debit +	credit -	debit +	credit -	debit +	credit -
BALANCE SHEET															
CASH	CASH FLOW	60'500		96'000 a)	60'000 d) 48'000 b) 24'000 c)	24'500		96'000 a) 40'000 k) 3'000 g)	48'000 b) 24'000 c) 50'000 i) 1'700 h)	39'800		96'000 a) 3'000 g)	48'000 b) 24'000 c) 1'700 h)	65'100	
TAXI	from Investing Activities			60'000 d)	20'000 f)	40'000			20'000 f)	20'000			20'000 f)	-	
PROPERTY	from Investing Activities							50'000 i)		50'000				50'000	
MORTAGE	from Financing Activities								40'000 k)		40'000				40'000
EQUITY	from Financing Activities		60'500		4'000 e)		64'500		5'300 e)		69'800		5'300 e)		75'100
		60'500	60'500			64'500	64'500			109'800	109'800			115'100	115'100
INCOME STATEMENT															
TAXI RIDES REVENUES	from Operating Activities				96'000 a)				96'000 a)				96'000 a)		
SALARY EXPENSES	from Operating Activities			48'000 b)				48'000 b)				48'000 b)			
MISCELLANEOUS EXPENSES	from Operating Activities			24'000 c)				24'000 c)				24'000 c)			
DEPRECIATION EXPENSES	from Operating Activities			20'000				20'000				20'000			
RENTS	from Operating Activities								3'000 g)				3'000 g)		
INTEREST EXPENSES	from Operating Activities							1'700 h)				1'700 h)			
NET INCOME				4'000				5'300				5'300			
				252'000	252'000			288'000	288'000			198'000	198'000		

Taxi company

Based on exercise 6 — Statement of Cash Flows — IDEA: Cash Flow from Operating, Investing & Financing Activities

(page 2 of 2)

	flow 19.1 debit +	flow 19.1 credit -		flow 19.2 debit +	flow 19.2 credit -		flow 19.3 debit +	flow 19.3 credit -	
Cash (beginning of year)	60'500			24'500			39'800		
(direct method)									
Cash Flow from Operating Activities									
Taxi Rides Cash Inflows	96'000 [a)]			96'000 [a)]			96'000 [a)]		
Salary Cash Outflows		48'000 [b)]			48'000 [b)]			48'000 [b)]	
Miscellaneous Cash Outflows		24'000 [c)]			24'000 [c)]			24'000 [c)]	
Rents Cash Inflows				3'000 [g)]			3'000 [g)]		
Interests Cash Outflows			24'000		1'700 [h)]	25'300		1'700 [h)]	25'300
Cash Flow from Investing Activities									
Purchase of Taxi		60'000 [d)]			-			-	
Purchase of parking lots			-60'000		50'000 [i)]	-50'000		-	-
Cash Flow from Financing Activities									
Mortage increase			-	40'000 [k)]		40'000	-		-
Cash (end of year)		24'500			39'800			65'100	
	156'500	156'500		163'500	163'500		138'800	138'800	

	19.1 debit +	19.1 credit -		19.2 debit +	19.2 credit -		19.3 debit +	19.3 credit -	
(indirect method)									
Cash Flow from Operating Activities									
Net Income	4'000 [e)]			5'300 [e)]			5'300 [e)]		
Depreciation	20'000 [f)]		24'000	20'000 [f)]		25'300	20'000 [f)]		25'300

Taxi company
Based on exercise 7
(page 1 of 2)

Statement of Cash Flows — **IDEA: Cash Flow from Operating, Investing & Financing Activities**

		stock 12/31/19.0		flow 19.1		stock 12/31/19.1		flow 19.2		stock 12/31/19.2		flow 19.3		stock 12/31/19.3	
		debit +	credit -	debit +	credit -	debit +	credit -	debit +	credit -	debit +	credit -	debit +	credit -	debit +	credit -	debit +	credit -
BALANCE SHEET																	
CASH	CASH FLOW	60'500		96'000 a)	60'000 d) 48'000 b) 24'000 c)	24'500		88'000 a)	48'000 b) 9'600 c) 13'200 g)	41'700		96'000 a)	48'000 b) 9'600 c) 14'400 g)	65'700	
ACC. RECEIVABLE	from Opera-ting							96'000 h)	88'000 h)	8'000		96'000 h)	96'000 h)	8'000	
TAXI	from Invest-ing			60'000 d)	20'000 f)	40'000			20'000 f)	20'000			20'000 f)	-	
ACC. PAYABLE	from Opera-ting							13'200 i)	14'400 i)		1'200	14'400 i)	14'400 i)		1'200
EQUITY	from Finan-cing		60'500		4'000 e)		64'500		4'000 e)		68'500		4'000 e)		72'500
		60'500	60'500			64'500	64'500			69'700	69'700			73'700	73'700
INCOME STATEMENT																	
TAXI RIDES REVENUES	from Operating Activities				96'000				96'000				96'000		
SALARY EXPENSES				48'000 b)				48'000 b)				48'000 b)			
MISCELLANEOUS EXPENSES				24'000 c)				9'600 c)				9'600 c)			
GASOLINE EXPENSES								14'400				14'400			
DEPRECIATION EXPENSES				20'000				20'000				20'000			
NET INCOME				4'000				4'000				4'000			
				252'000	252'000			293'200	293'200			302'400	302'400		

Taxi company
Based on exercise 7 — **Statement of Cash Flows** — **IDEA: Cash Flow from Operating, Investing & Financing Activities**
(page 2 of 2)

		flow 19.1			flow 19.2			flow 19.3		
		debit +	credit -		debit +	credit -		debit +	credit -	
Cash (beginning of year)		60'500			24'500			41'700		
	(direct method)									
Cash Flow from Operating Activities										
Taxi Rides Cash Inflows		96'000 [a)]			88'000 [a)]			96'000 [a)]		
Salary Cash Outflows			48'000 [b)]			48'000 [b)]			48'000 [b)]	
Miscellaneous Cash Outflows			24'000 [c)]			9'600 [c)]			9'600 [c)]	
Gasoline Cash Outflows			-	24'000		13'200 [g)]	17'200		14'400 [g)]	24'000
Cash Flow from Investing Activities										
Purchase of Taxi			60'000 [d)]	-60'000		-			-	
Cash Flow from Financing Activities										
e.g., dividend payments to owner(s)				-			-			-
Cash (end of year)			24'500			41'700			65'700	
		156'500	156'500		112'500	112'500		137'700	137'700	

		19.1			19.2			19.3		
		debit	credit		debit	credit		debit	credit	
	(indirect method)	+	-		+	-		+	-	
Cash Flow from Operating Activities										
Net Income		4'000 [e)]			4'000 [e)]			4'000 [e)]		
Depreciation		20'000 [f)]			20'000 [f)]			20'000 [f)]		
Changes in Acc. Receivable						8'000 [h)]			- [h)]	
Changes in Acc. Payable				24'000	1'200 [i)]		17'200	- [i)]		24'000

3 CONCEPTUAL FRAMEWORK UNDERLYING FINANCIAL ACCOUNTING of US GAAP

The conceptual framework is like a constitution and delivers a coherent system of interrelated objective and fundamentals that lead to consistent standards and that prescribes the nature, function, and limits of financial accounting and financial statements.
It consists of three levels:

- **First level - basic objectives**: The objectives of financial reporting are concerned with the **goals and purposes of accounting:** to provide information that is: (1) useful to those making investment and credit decisions who have a reasonable understanding of business and economic activities; (2) helpful to present potential investors, creditors, and other users in assessing the amounts timing, and uncertainty of future cash flows; and (3) about economic resources, the claims to those resources, and the changes in them.
- **Third level - recognition and measurement concepts**: This level establishes the **ways these goals and purposes (first level) are implemented**. These concepts explain which, when, and how financial elements and events should be recognized, measured, and reported by the accounting system (e.g., basic assumptions, basic principles, and constraints).
- **Second level - qualitative characteristics and elements**: **Between these two levels it is necessary to provide certain conceptual building blocks that explain the qualitative characteristics of accounting information and define the elements of financial statements**. These conceptual building blocks form a bridge between the why of accounting (the objectives) and the how of accounting (recognition and measurement). This involves determining which alternative provides the most useful information for decision making purposes (decision usefulness). The FASB has identified the qualitative characteristics of accounting information that distinguish better (more useful) information from inferior (less useful) information for decision making purposes. An important aspect of developing any theoretical structure is the body of basic elements or definitions to be included in the structure (e.g., assets, liabilities, equity, revenues, expenses gains, losses, etc.).

On next page an illustration[24] of the conceptual framework is presented.

[24] KIESO, WEYGANDT, ^{9}1998, page 51.

Conceptual Framework for Financial Reporting