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MAKE YOURSELF MONEYWISE

Moneywise^{WU} aims to improve young people's financial literacy by providing information, numerous practice-oriented assignments, and links to WU LearnPublic videos.

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Contents

MONEYWISE^{WU} – WHAT FOR?	4
1. A general overview: what do we use money for?	5
2. Some basics: the forms, price, and value of money	9
2.1. Why do we use money?	9
2.2. What forms of money are there?.....	11
2.3. The price of money	18
2.4. The value of money.....	20
3. How can you keep track of your income and expenses?	23
3.1. How to draft a budget.....	24
3.2. Recognizing and avoiding debt traps.....	27
4. Saving.....	30
4.1. Reasons to save.....	30
4.2. Ways to save.....	30
5. Finding affordable financing: the basics of loan financing	35
5.1. What is a loan?.....	35
5.2. What do private individuals need a loan for?.....	37
5.3. How can the bank safeguard against loan defaults?	39
5.4. What happens if the debtor is unable to pay back the loan?	40
6. Building wealth and investing sensibly	43
6.1. Shares.....	43
6.2. Bonds.....	45
6.3. Investment certificates	46
6.4. Real estate.....	48
6.5. Precious metals	48
6.6. Excursus: cryptocurrencies.....	49
7. Making provisions for the future and safeguarding against risks..	51
8. Becoming Moneywise^{WU}: summary	53
9. Glossary.....	55
Solutions	57

Note: Moneywise^{WU} is based on a chapter of the Austrian schoolbook *Das Betriebswirtschaftsbuch*, which is used at vocational schools for economic professions and published by Jugend & Volk. The publisher has consented to the use of this chapter for Moneywise^{WU} to support the financial education of young people.

Table of figures

Figure 1: Financial goals.....	5
Figure 2: Basic information regarding money	9
Figure 3: Bartering vs. money as a legal tender	10
Figure 4: Sample picture: cash.....	11
Figure 5: Process of opening a bank account and authorizations	12
Figure 6: Domestic and foreign currencies	16
Figure 7: Taking stock of your finances and creating a budget.....	23
Figure 8: Increasing income/decreasing spending	26
Figure 9: Structure of investment funds	47
Figure 10: The three pillars of retirement provisions	51

MONEYWISE^{WU} – WHAT FOR?

'Bucks,' 'dough,' 'stash,' 'loot,' and 'bread'

Money has probably more colloquial synonyms than any other word in our language. This is not surprising considering how important it is for us: we all use it every single day.

Money must be handled right! But what does 'right' mean?

Many people tend to lose sight of how much money they have, spending everything at once or carelessly taking out loans. Others like to watch every cent.

PRUDENCE AND KNOW-HOW

**It is important to manage your financial means prudently.
But what does 'prudent' mean when it comes to money?**

There is not just one right way to handle money because there are many personal factors to be considered. Nevertheless, there are some questions that are relevant to all of us and for which we should know the answers. These questions will be discussed here, including the following:

Central questions about money

1. What is money and what do we need it for in everyday life?
2. What are important financial goals we want to reach?
3. How can you keep track of your income and expenses?
4. Why do people save money and which savings options are there?
5. How can you build capital in the long term to provide for the future?
6. What do you have to consider when you take out a loan?

This website offers basic information regarding money everybody should know. Furthermore, some principles will be explained that will help you handle money well and reach your financial goals.



Leonie and Max will guide us through this textbook dedicated to the topic of money.

Find out more in just a second!

Note: you will find the solutions to all practice assignments at the end of this textbook!

1. A general overview: what do we use money for?

Everybody uses money. We use money to pay for things or receive money in return for a service we have delivered. Money is therefore a legal tender that facilitates the exchange of goods or services. However, money does not only play a part in paying for things in everyday life but also when it comes to reaching other goals many people pursue:

- Putting money aside for planned and unplanned expenses (saving).
- Acquiring something that costs more than one currently has at their disposal and borrowing money for this reason (taking out a loan). Keep in mind that you have to be able to afford a loan!
- Hoping that (at least) a part of the money saved will become more valuable so that one can build up wealth.
- Safeguarding against risks and making provisions for the future.

People often pursue the following financial goals:

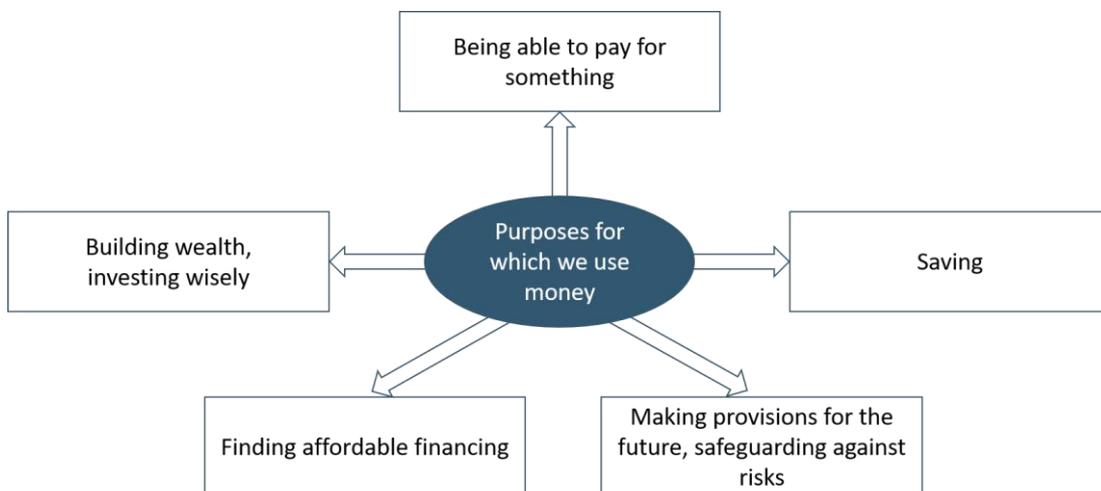


FIGURE 1: FINANCIAL GOALS

Goal 1: being solvent, i.e. able to pay

This means that you have enough money to pay for everyday goods and purchases. If you spend more money than you have, you will run up debts. If you can easily repay the debt with your income, having debts for a short while will not be a problem.

However, if you are unable to repay your debt, you will become over-indebted. **For this reason, it is important to always have a clear understanding of what you are earning and spending.**

Goal 2: saving

The best plans can fail if something unexpected occurs. This can be costly repair work for your car or a broken washing machine that has to be replaced right away, to name just two of many examples where suddenly a larger amount of money is required. If you have no savings at all, expenses like these can become a big financial burden.

Apart from such emergencies, it is always a good idea to save up for larger planned expenses, for instance a vacation, a language course abroad, or a new car, because with many expenses, it makes sense to pay for (at least part of) them with your own financial means instead of taking out a loan. A vacation paid for with a loan will long be over when you are still repaying the loan in monthly installments. **For some expenses, it makes sense to build financial reserves, i.e. to save.**

Goal 3: building wealth

Money saved is usually not intended for building up wealth in the long term because interest rates are usually too low for that. The interest on the money saved, i.e. the money you receive for your savings, is negligible. So if you have money left after having paid your monthly bills and saving a certain share, it is advisable to **invest the rest in a way that will (in all likelihood) make it more valuable in the long run.** There are various options for that, for instance buying shares or a house or apartment, i.e. an asset, which, it is assumed, will rise in value. It depends on various factors which option is the most suitable for an individual.

Goal 4: making provisions for the future and safeguarding against risks

While there is nothing wrong with living in the here and now, the future will arrive sooner than you might think. **To remain financially independent also in the future, it is necessary to make respective provisions already today.** For one thing, this means safeguarding against risks that would significantly impair your financial situation (e.g. damage to your property, for instance your motorbike in an accident, or detrimental effects on your health or life). For another, making provisions also means making sure that you have enough money after you retire (provisions for retirement).

Goal 5: finding affordable financing

If you want or have to purchase something for which you cannot pay right away, you need financing. To this end, there are various types of loans that can be used, including a loan taken out at a bank, a permanently granted credit line in your bank account, paying for something in installments, and paying with a credit card.



(1) Your personal financial goals

Take a sheet of paper. Make a personal ranking of the five financial goals described: what is very important to you right now and what is not as important? When could goals you care little about right now become more significant?

(2) Using money for various goals

Leonie's and Max's parents are preparing for a family vacation in Stockholm: they exchange euros to Swedish krona, take out travel insurance, pay the travel agency's bill, and pay for the flights booked online with their credit card. Before booking the trip, they have calculated how much the vacation will cost and have saved up a certain amount of money every month for this purpose. They also have to make sure to be able to pay a monthly loan repayment rate this month. They have received gold coins from the grandparents for their birthday, but they do not want to sell these but keep them instead.



Which different purposes are Leonie's and Max's parents spending money on?

(3) Financial goals after graduating

Max will graduate from school next year and start working. He is planning on moving out from his parents' place after a while and renting his own small apartment. He also wants to have a car to be mobile and flexible. He plans to meet his friends regularly and do a lot of sports.



Think about

- the income and expenses Max will then have,
- which financial goals are already very important for him,
- which goals are not as urgent for the moment.

(4) Financial goals

Max has graduated and started a job. He is renting a small apartment and bought a used car from his aunt at a very affordable price, which he uses to drive to his workplace. Every month, he has about € 200 left to spend freely.

Use this example to work out which financial goals Max should meet in any case and which goals he should at least keep in mind for the near future. At the moment, he is not planning to purchase anything expensive, but, as is the case for many young people, he wants to start a family at some point and be able to move to a bigger apartment then.

2. Some basics: the forms, price, and value of money

To be able to handle money well, it is necessary to understand the basics of how money works.

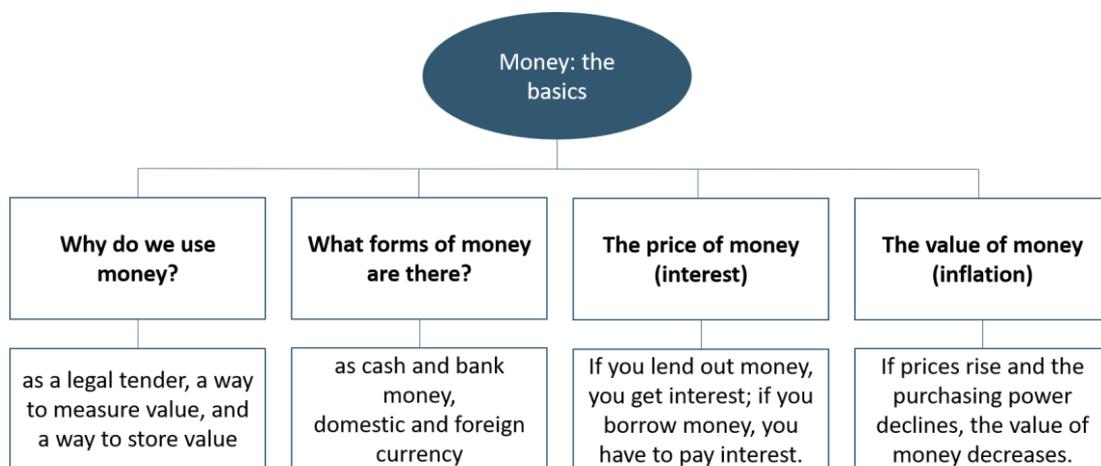


FIGURE 2: BASIC INFORMATION REGARDING MONEY

2.1. Why do we use money?

Money is a **legal tender**, which is especially relevant for [goal 1](#). Without money, it would be very difficult or even impossible to purchase the goods we need or want to have in everyday life. We would have to barter things, for instance exchanging clothes for meat, the way people did thousands of years ago. If, in such a scenario, the person selling the meat were not interested in clothes, we

could not close the deal. With money as a legal tender, however, many deals become possible.

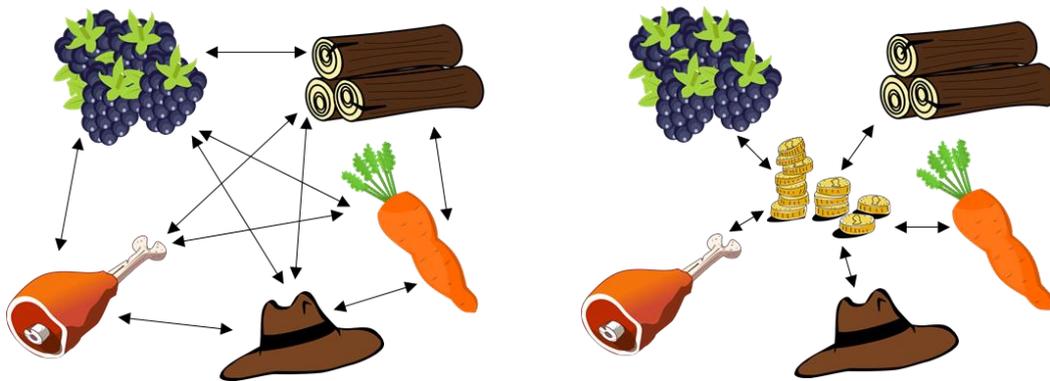


FIGURE 3: BARTERING VS. MONEY AS A LEGAL TENDER

With regard to [goal 2](#), [goal 3](#), [goal 4](#), and [goal 5](#), it is relevant that money is not only a legal tender but also a **way to measure value** and a **way to store value**. The value of goods and services can be expressed in monetary units, which also makes it easier to compare the value of different goods. When money is used to store value, the person saving it can measure the amount saved by expressing it in money. If a person lends money to somebody else, the amount lent, i.e. the loan, can also be expressed as a monetary value.



If you would like to learn more about why we use money and which functions money serves, visit the following MOOM module (in German):

Die Funktionen des Geldes (The functions of money)

<https://learnpublic.wu.ac.at/course-overview/learnpublic/funktion-des-geldes>

EVER THOUGHT
ABOUT IT?



(5) Legal tender or not?

Can you think of cases in which money is not accepted as a legal tender? Also state why.

- a) Monika gives her old bike to Stefanie, who gives her € 30 in exchange for the bike.
- b) Monika then goes to a coffeeshop and spends € 10 on coffee and cake.
- c) She saves the remaining € 20 for emergencies, storing the money in her desk's drawer.
- d) A few weeks later, she goes to the movie theater and pays € 20 for tickets and popcorn.

2.2. What forms of money are there?

Money comes as cash or bank money and is available as domestic or foreign currency.

Cash or bank money

Money does not only come as **cash in the form of bills and coins**.



FIGURE 4: SAMPLE PICTURE: CASH

Money can be stored in a bank account. A bank keeps track of the money a customer deposits (= credit) and withdraws (= debit) in order to establish whether this customer has a balance or debt with the bank. **Money on the bank account is bank money.** Customers can use the money deposited in their accounts by issuing orders to their bank (e.g. bank transfers) or withdrawing the money as cash at a cash machine or at the teller.



To find out more about the advantages and disadvantages of cash and bank money, visit the following **MOOM** module (in German):

Die Formen des Geldes (The forms of money)

<https://learnpublic.wu.ac.at/course-overview/learnpublic/formen-des-geldes>

Most of the time, deposits to and withdrawals from a bank account are carried out cashless through orders to the bank. If you earn a salary, for instance, it is deposited on your bank account, from which you can transfer money to your landlord to pay rent or to your children's bank accounts as pocket money.

This means that a bank account can be used to

- store money securely (because cash can be lost or stolen).

- pay without using cash, e.g. by making a transfer to another bank account. Nowadays, transfers are often done online with a computer or smartphone using online banking systems so that customers no longer have to go to the bank. If they still do so, they can use terminals to carry out transfers set up for this purpose.

To facilitate cross-border transactions, every bank has been assigned an International Bank Code (BIC) and every bank account has a unique International Bank Account Number (IBAN).

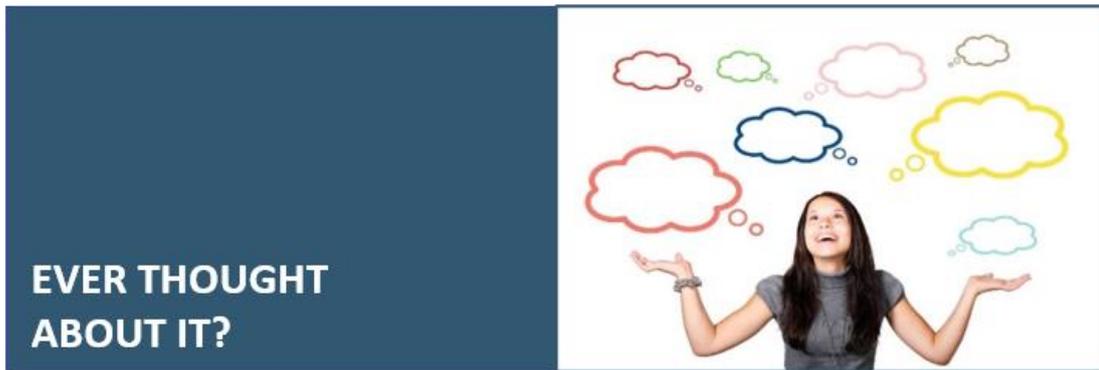
- receive money (e.g. pocket money or salary) in the form of bank money. Most employers are not willing to pay a salary or wages in cash but instead insist on transferring the money to a bank account.
- If a customer has a bank card that is also a debit card, he or she can use the card to withdraw cash at a cash machine. The card's PIN code should be stored separately from the debit card. If somebody finds or steals both the card and the code, he or she has full access to the account. If a bank card is stolen or gets lost, the owner should immediately call his or her bank to have the card cancelled.

The various banks' websites offer information on bank accounts for specific target groups (e.g. youth accounts for young people), their costs (many youth accounts can be opened for free), and the services that come with the different types of accounts (e.g. debit card).

In the process of **opening a bank account**, the people authorized to sign for this account are named. They can access the account's information and use the money on the account. To do so, they must provide a signature sample and ID. Underage teenagers may open their own bank account, but they are usually not permitted to withdraw money exceeding the account's balance. This means that they cannot overdraw their bank account unless a parent or legal guardian has also signed their name when the account was opened in order to approve an overdraft. By doing so, this person has assumed the responsibility to pay for the excess amount withdrawn and, if applicable, interest on this amount.



FIGURE 5: PROCESS OF OPENING A BANK ACCOUNT AND AUTHORIZATIONS



(6) Youth accounts

Johanna is 16 years old and currently completing an apprenticeship in a tourism enterprise in Tyrol. She lives at her parents' house. In the second year of her apprenticeship, she receives an apprentice pay of net € 480 per month. She opens a bank account at a bank.

Answer the following questions:

- a) Does Johanna need her parents' permission to open the bank account?
- b) What will Johanna use the bank account for?
- c) On which conditions may Johanna overdraw her account?
- d) Are the following cases examples of cash or bank money?
 - Johanna's apprentice pay is transferred to her bank account.
 - To go shopping, Johanna withdraws € 30 from her bank account using her debit card.

(7) Authorizations for bank accounts

Martin, who is 15 years old, has opened a bank account at a bank. He is the only person authorized to sign for this bank account. Which of the following statements is true?

- a) He is the only person who has access to the money on his account.
- b) As he is authorized to sign for this account, he can overdraw the account's balance.
- c) As Martin is not yet 18 years old, his parents can withdraw money from his account even though they are not authorized to sign for it.
- d) When Martin opens the account, he is entitled to receive a debit card for the account.

(8) Debit cards

- 1) Think about what course of action should be taken in the following situations.
- 2) Which of the following cases is particularly dangerous and should be avoided at all costs? Explain your answer.

Case 1: You lose your debit card.

Case 2: Somebody looks over your shoulder and sees the PIN code you enter to withdraw money from an ATM.

Case 3: You store your debit card together with a sheet of paper with the card's PIN code.

Case 4: Your debit card is stolen.

(9) Bank accounts

Which of the following statements is true? Correct the false statements.

- a) Even if you do not have a bank card with a debit function, you can withdraw money from your bank account.
- b) To open a bank account, you must provide proof that money will be deposited to this account on a regular basis.
- c) A youth account is always free since banks want to attract teenagers as customers.
- d) It is not necessary to check your account statements regularly because transactions are handled by a computer and errors can thus be ruled out.

(10) IBAN and BIC

Which of the following statements regarding IBAN and BIC is/are true?

- a) Every bank account has its own IBAN (international bank account number). The BIC specifies at which bank the account was opened.
- b) IBAN and BIC are only valid in the eurozone.
- c) You can still use the old account numbers and bank codes instead of IBAN and BIC when you wire money outside the eurozone.
- d) The IBAN identifies the respective bank and the BIC the account holder's account.

(11) Account balance

An account statement gives an initial balance of € 50 and the following details:

Credit/debit	Amount
Intersport GmbH	-120.00
T-Mobile	-40.00
Mom Christmas	50.00
Movie center	-30,00

Which of the following statements is correct?

- a) The account has a positive balance.
- b) The account has been overdrawn by € 90.
- c) You have to read the bank statement's bottom-most line in order to find out the account's balance.
- d) The account statement must be wrong as it is impossible to withdraw more money from an account than has been deposited.

Domestic or foreign currency

The money officially recognized as the legal tender in a given country is this country's currency. As Austria is a member state of the euro area, its officially recognized currency is the euro. Some EU countries (among them Austria) have, step by step, introduced a common currency to boost the economy and the European Union. The last step, the introduction of cash, was made in 2002.

The area where the euro is the official currency (the euro area or eurozone) currently (as of May 2020) consists of 19 countries. It was first founded in 1999, starting out with 11 member states. Greece joined the eurozone in 2001, Slovenia in 2007, Cyprus and Malta in 2008, Slovakia in 2009, Estonia in 2011, Latvia in 2014, and Lithuania in 2015.

Also see: https://europa.eu/european-union/about-eu/euro_en

Other countries have other currencies (within the eurozone, they are foreign currencies; examples: Swiss francs in Switzerland, US dollars in the USA). The amount you have to pay in a given currency (e.g. euros) to get another currency (e.g. Swiss francs) is expressed in the exchange rate.

The exchange rate is the price of a currency, e.g. US dollars, expressed in a different currency, e.g. euros. An exchange rate of 1 euro = 1.12 US dollars (exchange rate of 5 May 2019) means that on this day, 1 euro had the same monetary value as 1.12 US dollars.

When buying or selling foreign currency (FC), it has to be kept in mind that there are different exchange rates and sometimes fees are charged for the exchange of currencies. First of all, a distinction is made between cash, in which case an **exchange rate for cash** applies, and other forms of money (e.g. money transfers, checks, credit card transactions), in which case an **exchange rate for bank money** applies. Another factor that makes a difference is whether a bank buys or sells a foreign currency, i.e. there is a buying and a selling rate for both the exchange rate for cash and for bank money. The buying rate applies when a bank buys foreign currency; the selling rate applies when a bank sells foreign currency.

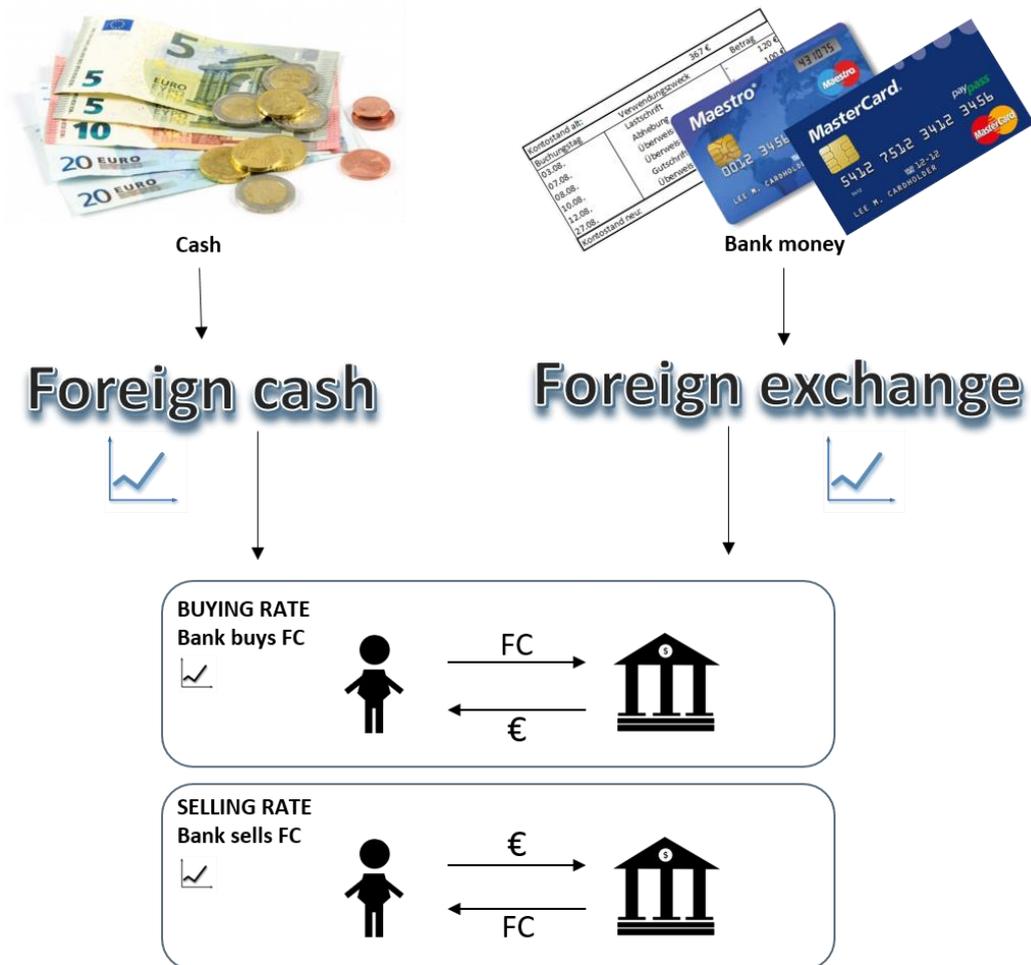


FIGURE 6: DOMESTIC AND FOREIGN CURRENCIES

Euros in US dollars, US dollars in euros

Exchange rate for US dollars in cash on 5 May 2019:

For 1 euro, you received 1.1004 US dollars (selling rate: the bank sells US dollars in cash) on this day.

For 1 euro, you had to pay 1.1316 US dollars (buying rate: the bank buys US dollars in cash).

So if you exchanged € 1,000 in cash into US dollars (i.e. the bank sells US dollars), you received USD 1,100.40. If you did not spend the US dollars in cash and exchanged the money back to euros, you received 1,100.40 divided by 1.1316 = € 972.43. So by exchanging the money, you lost about € 27.

This example also shows that people save a lot of money within the eurozone thanks to its common currency because they do not have to spend money on exchanging currencies.

To find out more about the risks of international trade, you can complete the tasks in the following MOOM module (in German):



Welche Risiken sind mit dem internationalen Handel verbunden? (What are the risks associated with international trade?)

<https://learnpublic.wu.ac.at/welthandel3/tlf-lrn/welcherisikensindmitdeminternationalenhandelverbunden/welcherisikensindmitdeminternationalenhandelverbunden-video>

You will find further examples for risks associated with international trade in the following MOOM module (in German):



Risikobereiche (Risk areas)

<https://learnpublic.wu.ac.at/welthandel3/tlf-lrn/welcherisikensindmitdeminternationalenhandelverbunden/risikobereichebeiiinternationalenaustauschbeziehungen>



(12) Exchange rates

Find out the current exchange rates for US dollars, Czech koruna, and Japanese yen.

Assuming you want to exchange € 1,000 into these three currencies in cash, calculate how many US dollars, Czech koruna, and Japanese yen you would get.

Note: use the online currency calculator of the Vienna Stock Exchange:
<https://www.wienerbourse.at/en/market-data/exchange-rates/price-list-currencies/currency-calculator/>

(13) Buying and selling foreign currencies

You are thinking about spending your vacation in Croatia, Turkey, or the United Kingdom this year. None of these countries belongs to the eurozone.

Find out current exchange rates and calculate how much money you would get in the respective currencies if you exchanged € 500.

2.3. The price of money

Interest is the **price you have to pay for borrowing money**. A person or institution lending money, e.g. a person saving money at a bank or a bank who has given a loan to a customer, receives interest. A person or institution borrowing money, e.g. a person taking out a loan at a bank to buy a car or a bank accepting savings deposits by a customer, has to pay interest. Interest is always calculated for a specific period of time (for instance 2% for a year: 2% p.a.). If the money transaction has a duration exceeding this period (for instance if a loan is granted or a deposit stays on an account for a period longer than a year), further interest is paid on the money received as interest. We call this compound interest.



To delve further into this topic and find out why there is such a thing as interest in the first place, look through the following MOOM module (in German):

Warum gibt es überhaupt Zinsen? (Why is there such a thing as interest?)

<https://learnpublic.wu.ac.at/kreditzinsen/tlf-irn/m4modul1/m1video>

You also have to pay interest in a lot of money transactions not handled by banks, for instance when you pay for something you buy from an online shop in installments.

Some loans are granted without interest (for instance between friends), which means that the debtor pays back the exact amount he or she borrowed.

The amount of interest is usually indicated as a percentage and also called interest rate. Usually, the interest rate is stated per year (p.a.). An interest rate can be **fixed or variable**. Variable means that it can change. A fixed interest rate stays the same for the entire term of a loan, while a variable interest rate can change over time depending on how interest rates develop overall on the market. In recent years, the interest rate has been so low that interest rates can hardly fall any more.



Find out more about fixed and variable interest rates in the following MOOM module (in German):

Verzinsung (Interest rates)

<https://learnpublic.wu.ac.at/verzinsung/tlf-irn/m4modul4/m4video>



The amount of interest can change over time. Take a look at the following MOOM module (in German) to find out why:

Warum können sich die Zinssätze über die Zeit ändern? (Why can interest rates change over time?)

<https://learnpublic.wu.ac.at/zinssatz/tf-lrn/m4modul3/m3video>

Moreover, there is a difference between the **nominal interest rate** and the **effective interest rate**. If there are additional fees or contract conditions that have an impact on the overall costs or yield, the actual amount of interest on a money transaction can differ from the interest rate stated. For instance, if you take out a loan at an interest rate of 5% p.a. (= nominal interest rate), you will also have to pay a handling fee and other costs, which is why in reality, you will be paying more for your loan than just 5% interest per year. If these costs are considered when calculating the interest rate, you will get the effective interest rate of this transaction. To compare various offers for loans with different conditions, it makes more sense to compare effective instead of nominal interest rates.



Find out more about the components of interest rates and the factors influencing interest rates in the following MOOM module (in German):

**Welche Faktoren bestimmen die Höhe des Zinssatzes?
(Which factors determine interest rates?)**

<https://learnpublic.wu.ac.at/hoehезinssatz/tf-lrn/m4modul2?m=submit>

In Austria, interest yield is subject to a capital gains tax. This is a tax levied by the government on profits from capital owned. In the case of interest for money deposited in a bank, the bank withholds the capital gains tax at the end of a billing period (end of quarter or year) and transfers this amount to the tax authorities. The interest yield from which this tax has been deducted (capital gains) is added to the deposit on the bank account, and from the next billing period, interest is also paid on this interest (compound interest).



(14) Interest

Sandra deposits € 500 in a savings account. If she leaves the money in this account for one year, she will get interest in the amount of 1% p.a., after two years, she will get 1.5% for the duration of these two years. Sandra decides to leave the money in her savings account for two years. Estimate the amount of money in this savings account after two years.

At the moment (2020), interest rates for money saved are very low, which also means that compound interest is low. Where higher interest rates apply, for instance loans, compound interest has a greater impact.

(15) Amount of capital gains tax

Find out the current rate of the capital gains tax. Compare this value to five years ago: has it changed?

(16) How much does a loan cost? Do some research

Visit a bank branch and ask about loan offers for private customers. Report about:

- the effective interest rates private customers have to pay,
- the ways interest rates are calculated (interest payment at the beginning or end of a given period),
- the most substantial commissions and fees.

2.4. The value of money

If you can buy fewer goods or services with a certain amount of money, for instance € 100, than a year ago, the money has lost value. The cause for this can be that too much money is circulating in relation to the goods and services offered. When money loses value, we call this inflation. A situation in which too much money is circulating arises when the European Central Bank allows central banks in Europe to print more money or when banks give out many loans, which increases the amount of bank money considerably. Usually, the amount of money circulating can be reduced by limiting the number of loans granted and making loans more expensive.

The amount of inflation is expressed by the inflation rate. The inflation rate is calculated based on the Consumer Price Index (CPI). To this end, the prices of certain goods and services are compared with the respective prices of the previous month or year on a monthly basis. This comparison shows by how much prices have increased. The goods and services considered in this comparison are referred to as a basket of goods and services.

This basket contains close to 800 different products and services an average household in Austria needs in everyday life. In addition to food, this includes housing and energy as well as cultural and leisure activities. These products and services are adjusted to reflect the consumption habits of the population every five years.



To find out more about the value of money and how inflation is calculated, check out the following [MOOM](#) module (in German):

Der Wert des Geldes (The value of money)

<https://learnpublic.wu.ac.at/course-overview/learnpublic/wert-des-geldes>



To find out more about price stability and the effects of interest on the economy, check out the following **MOOM** module (in German):

Die Geldpolitik (Fiscal policy)

<https://learnpublic.wu.ac.at/course-overview/learnpublic/geldpolitik>

The Harmonized Index of Consumer Prices (HICP) is used to calculate the inflation rate in Europe in a comparable way and assess the price stability within the eurozone.

The CPI is not only used to calculate the inflation rate but is also the basis for the indexation of fixed amounts of money (e.g. rent, alimony payments). If, at a certain point in time, the CPI exceeds the values of an index stated in a contract, the payment, such as rent, is adjusted to reflect this change. The CPI is also used in payment negotiations between employers and unions to determine by how much wages and salaries should be increased.



(17) Inflation

Which of the following measures decreases the risk of inflation?

- a) The costs of taking out a loan are increased, i.e. borrowing money becomes more expensive.
- b) The ECB allows central banks to print more money.
- c) The costs of taking out a loan are decreased, i.e. borrowing money becomes cheaper.
- d) The government decides to invest more in public projects (such as building more train tracks, schools, housing).

(18) Personal inflation

With PIA, the personal inflation app of the OeNB, the Austrian central bank, you can put together your individual basket to calculate your personal inflation. Give it a try!

PIA is available here (in German): <https://www.eurologisch.at/docroot/pia/#/>

3. How can you keep track of your income and expenses?

To get a good overview of your finances, you need to take stock of your money situation and come up with a budget based on this information. **Taking stock of your finances** means that you make a list of your assets and debt: cash, credit balance, savings, but also money owed.

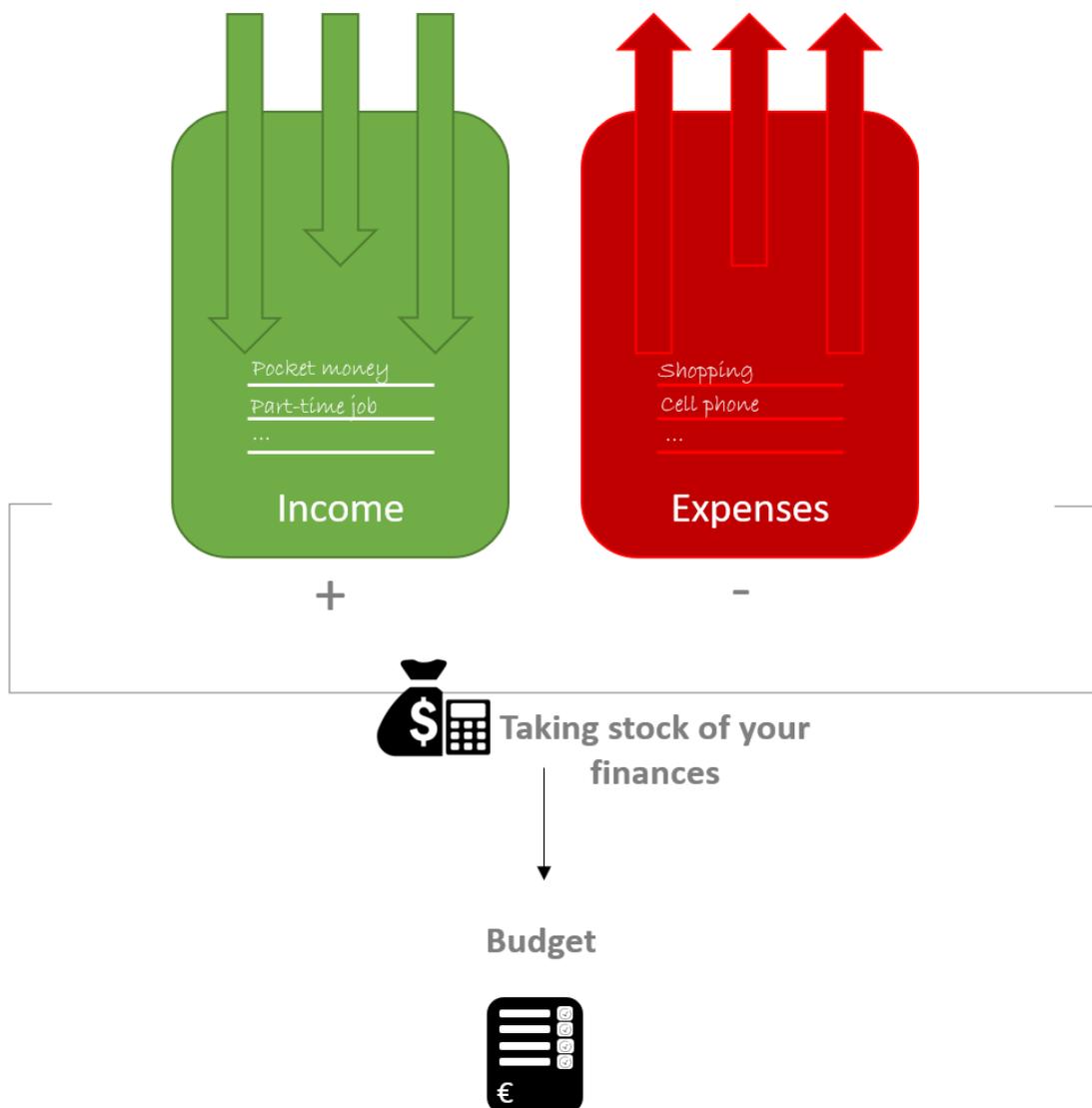


FIGURE 7: TAKING STOCK OF YOUR FINANCES AND CREATING A BUDGET

3.1. How to draft a budget

A **budget** is where you note down all **income and expenses**. Expenses can be recurring expenses, which are sure to occur, for instance every month, and often stay more or less the same. Typical examples include rent, utilities, and insurance. Recurring expenses should not make up more than half of the income available to make sure that any other running expenses (of varying amounts, for instance for food, clothing, leisure activities, or cell phone bills) can also be covered.

When drafting a budget, the first step is to note down the fixed income and expenses to have a good understanding of how much money you have left to spend at all times. This information can be entered in a book, Excel spreadsheet, or an app on your smartphone. There are already numerous apps that help users keep track of where their money goes. Many of the major banks also offer online banking tools that let users categorize their income and expenses and print analyses at the click of a button. In such systems, running costs for food, clothing, etc. are entered every day. To be able to do so, ask for a receipt whenever you pay for something, so you can remember what you have spent. After a few weeks of regularly tracking your expenses, you will have a better understanding of how much money you need, what you overspend on, and where you could save a little bit.

Max drafts a simple budget

A few years have passed and Max has followed through with his plans:

He has taken up a job after graduating from school, and he has been living in a rental apartment for some years now. A while ago, he inherited a property, which he rents out to a horse stable. Every month, the stable pays Max € 200 in rent. Max takes classes on a regular basis because he wants to advance his professional career. He also owns a car and exercises a lot at a gym in his free time. He also enjoys going out with his friends and wants to spend a vacation at the beach at least once a year.



Max' budget for the month of March is as follows:

Income	Amount in euro
Salary	1,750
Income from rent (lease)	200
Total income	1,950
Recurring expenses	
Rent including utilities	680

Additional costs for energy	110
Gym membership	55
Home insurance	60
Annual season ticket for public transport (monthly rate)	32
Car insurance	35
Cell phone costs	39
Course fees	100
Total of recurring expenses	1,111
Money left for other ongoing expenses	839
Other ongoing expenses	
Food	274
Restaurants, coffeeshops, movie theaters, etc.	287
Gas	50
In-app purchases, games, etc.	12
Total of ongoing expenses	623
Balance, total leftover	216

In this example, Max has € 216 left. He could (and should) save this amount. It must be pointed out, however, that Max had no one-off payments – which can always become necessary unexpectedly – this month. There were no necessary repairs or purchases such as a new washing machine or dishwasher. Had his car required a repair or inspection or some other unexpected expense had come up, he would have slipped into the red. It is also unclear how Max will pay for his planned vacation. He has to take a close look at his ongoing expenses and his fixed monthly costs to determine what he really needs and where he could save. Alternatively, he could try to generate more income.

If there is a shortage of money, there are two ways to make up for that in your budget:

- **Creating reserves**

To make provisions for the unexpected turns life sometimes takes, it is important to save money to have reserves to fall back on. Without such reserves, a necessary

repair or having to buy a new household appliance would force you to take out a loan, which means that you incur debt.

You should also save for things you want to buy, the next vacation, the new smartphone you are eager to own, or a new motorbike. A vacation paid for with borrowed money is not a good idea: the loan will have to be repaid when the vacation is long over, creating an additional burden for the household budget and limiting financial flexibility.

▪ **Increasing income or decreasing spending**

If the expenses (almost) exceed the income, there are three options: cutting down on spending, increasing the income, or, ideally, both.

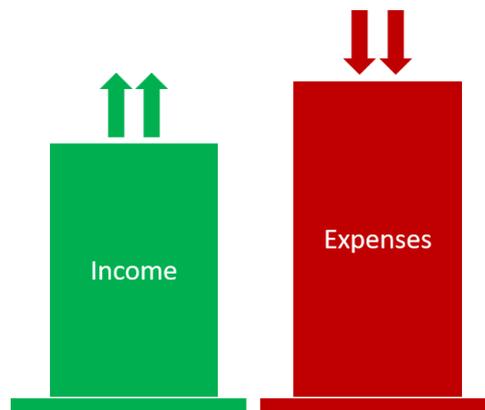


FIGURE 8: INCREASING INCOME/DECREASING SPENDING

To increase their income, a person can take on another part-time job, work longer hours, or negotiate a salary increase. If this is impossible, spending has to be reduced by checking which expenses are not necessary.



(19) Taking stock of finances and drafting a budget

What does it mean to take stock of one’s finances? What is a budget? And how do these two instruments contribute to having a clear understanding of one’s finances?

(20) Taking stock of one's finances

Take stock of your personal financial situation. Answer the following questions:

- How much money do you have at your disposal?
- How much have you saved?
- Do you owe money (for instance to your parents or friends)?

(21) Creating a budget

Draft your own budget.

- Case 1: for the past month, for which your income and all your expenses are known to you.
- Case 2: for the current month.
- Case 3: for next month, i.e. plan for the future.

Think about (future) expenses, costs that are certain, and costs that are likely to occur.

3.2. Recognizing and avoiding debt traps

Even people who have a regular income can find themselves hard pressed for cash. Apart from a long list of ongoing expenses, it is often unexpected bills for repairs or desired purchases such as a vacation or a new smartphone or computer that put a strain on household budgets, prompting people to take out a loan.

Experiences from debt counselling services show which expenses often cause people to acquire more debt than they can repay. The most frequent causes are:

Going out for food and drinks

It is much cheaper to cook and watch a movie at home than going to the cinema, followed by pizza and a few drinks.

Telecommunications and new media

Some people always want to own the latest smartphone model, have a computer on top of their tablet, need a huge flat-screen TV, and surf the web constantly. All of that costs money, but not all of these expenses are necessary. Particularly when it comes to cell phone contracts, it is advisable to take a good hard look at whether the free smartphone offered as part of a new contract will really pay off if the contract cannot be cancelled for two years and has a high basic charge.



Would you like to find out more about 'free' smartphones and be better equipped to judge various financing offers in the future? Then take a look at the following MOOM module (in German):

Über Null-Euro-Handys – was es damit auf sich hat (The real deal with 'free' smartphones)

<https://learnpublic.wu.ac.at/schulden/tlf-lrn/>

Leisure activities, club memberships, subscriptions

Also when it comes to hobbies, there are many ways to save money. If you are a member of a sports or other kind of club, you should check if you are really making use of your membership and whether there are alternative offers that might be cheaper. You should also keep an eye on subscriptions and only keep those you actually read.

High one-off payments

Some payments are not incurred regularly, for instance at the end of the month, but only once a year. Examples of such one-off payments are insurance premiums, tax payments, or the year-end bill of utility providers. If you fail to put aside money for such payments, they can leave a lasting, huge gap in your household budget. It is important to keep in mind that such expenses can come up unexpectedly, plan them as far ahead as possible, and make adequate provisions. Maybe you will find that you can do without some expenses by checking whether you actually need this purchase. What is more, not every insurance entered is necessary: some insurance policies cover areas that are already included in other offers (e.g. travel cancellation insurance is covered by some credit cards). Often, saving is also possible when it comes to utility expenses.



If you would like to find out more about how to create a budget, take a look at the following MOOM module (in German):

Ungewollter Verschuldung entgegenwirken – aber wie? (Preventing unwanted debt –but how?)

<https://learnpublic.wu.ac.at/eigenes-einkommen/tlf-lrn/LRModulfolder2/video2>



(22) Opportunities to save

Check your own expenses.

- Which ones are absolutely necessary?
- Which ones could you do without?
- Why are these expenses necessary or not necessary?

4. Saving

Of course, it is tempting to get all the things you want right away. But sometimes that is not possible: a car, an apartment, a fabulous vacation – all of these things are expensive and require an amount of money that is likely not readily available. People who regularly put aside a little bit of money are more likely to be able to afford these things, but it also means that they have to do without some of the things they want.

4.1. Reasons to save

In general, there are two reasons to save:

- **Special-purpose saving:** there is a certain goal you are saving towards, e.g. a motorbike, a vacation, home furnishings.
- **Saving to build reserves:** money is put aside to safeguard against unpredictable incidents and to have enough money if an unexpected expense occurs.

In 2019, Austrians saved an average of € 259 per month. Overall, Austrians are a nation of savers; saving is considered important in this country. A total of more than € 260 billion have been deposited into savings accounts in Austria. Yet a large part of these savings receives no interest because interest for money saved is just slightly above 0% right now. Source: IMAS/ERSTE 2019

4.2. Ways to save

The two most common ways to save money in Austria are opening a savings account (sometimes a savings passbook is used instead of an account) and entering a building loan contract.

Savings accounts and savings passbooks

When you open a savings account or savings passbook, you agree with the bank whether you deposit money on a regular basis or make one big deposit that is then saved at the bank for a specified amount of time.

If you choose a savings passbook, you have to present the actual passbook at the bank in order to withdraw money. A savings account can usually be accessed just as any other bank account, i.e. transfers can be made, frequently even online. For

banks, it is easier to manage savings accounts as they do not have to issue a savings passbook.

Money saved at a bank is very safe due to deposit guarantees provided for by law. For instance, for private customers, deposits of up to € 100,000 per bank and savings account holder are protected.

To save an amount exceeding € 100,000, it makes sense to split the sum and deposit it in several banks to optimally benefit from the deposit guarantee scheme.

See here for more information on deposit guarantee schemes: <https://www.oenb.at/en/financial-market/three-pillars-banking-union/deposit-guarantee-schemes.html>

The simplest form of savings accounts and savings passbooks allows account holders to withdraw money anytime. However, the lowest possible interest rate (interest for deposits that can be withdrawn at any time) is applied. If a consumer is willing to leave the money in a savings account for some time, i.e. he or she 'pledges' the amount to the bank for a specific time such as one or two years (fixed term deposit), interest rates are higher. Money can still be withdrawn at an earlier stage, but in this case a lower interest rate is applied.

If you are saving money, make sure the interest rate is higher than the inflation rate. Otherwise, you lose more money through inflation than you earn through interest. As interest rates for savings are so low right now, unfortunately only very few banks offer rewarding rates, so savings accounts and savings passbooks are not very attractive savings options right now.

Building loan contracts

Building loan contracts are a very popular savings option. This is due to the fact that for many years, the state has been contributing federal premiums of 1.5 to 4% to the savings in addition to the money saved and its interest. However, these premiums have significantly dropped in recent years. In 2019, it was 1.5% for an annual deposit of up to € 1,200. This means that the federal premium amounted to a maximum of € 18 in 2019. When a building loan contract is set up, it is agreed how deposits are made (per month or year) and whether a fixed or variable interest rate will be applied. The legally stipulated minimum term applicable to all four Austrian banking institutions offering such contracts is six years. Many consumers choose savings plans with fixed rates because they like the fact that they know in advance the exact amount of interest they will get after a relatively short period of time. What is more, they also get the opportunity to take out a loan on favorable conditions (e.g. for building a house).

See here for more information on the four institutions in Austria offering such building loan contracts: <https://www.bausparenvergleich.at/bausparvertrag-bausparkassen-oesterreich/> (in German).

Saving through insurance and saving through investing

In addition to the two frequently used savings forms described above, there are also the options of **saving through insurance** and **saving through investing**. They work as follows: a certain amount is saved on a regular basis (per month or

year). When it comes to insurance saving, the most common form is life insurance saving, through which a certain amount of money becomes available at a later point. In the case of investment saving, money is continuously invested in securities in the hope that the value of these securities increases.



(23) Forms of saving

You have received € 500 as a gift. Moreover, you have already saved more than € 600. It is unlikely that you will need the money in the next four years. Which of the following ways of saving money would be the best option for you? Explain your answer.

- A savings passbook where the deposit is locked for four years with an interest rate of 2% p.a.
- A building loan contract where you deposit a certain amount every month for six years
- A savings account from which you can withdraw money at any time and that has an interest rate of 0.75% p.a.
- Hiding the money at home in a safe spot in order to have it at your disposal at all times

(24) Saving

Comment on the following statements. Find out if they are true or false. Also think about whether they make good (business) sense.

- There is no good reason to save money because you can always take out a loan to buy almost anything you want to have.
- A consumer who wants to save money should compare the offers at several banks because interest rates will differ.
- Savings accounts are not very secure in Austria because there is no bank in the entire country that could pay back all of their customers at once.

(25) Interest on money saved

Which of the following statements is true?

- As long as you do not withdraw money from interest, you do not have to pay capital gains tax.

- b) No capital gains tax is charged on a deposit of less than € 1,000 in a savings account.
- c) Banks automatically withhold the capital gains tax at the end of the year and transfer the money to the tax authorities.
- d) The capital gains tax is automatically calculated by the banks and added to the deposits in savings accounts.

(26) Saving and interest

State whether the following statements on saving money are true or false.

- a) The capital gains tax is only applied to interest when the money made from interest is withdrawn.
- b) Interest on deposits in a savings account from which money can be withdrawn anytime is higher than the inflation rate in any case.
- c) All financial institutions have the same interest rates for savings plans.
- d) As interest rates on money saved are currently so low, it does not make sense to save money right now.

(27) Comparing conditions of savings products

Find out which savings plans the banks in your surroundings offer. Answer the following questions:

- What are the banks' interest rates for savings products where money can be withdrawn anytime?
- What are the banks' interest rates for savings products where money cannot be withdrawn for half a year, a year, or two years?

Compare the various offers.

(28) Building loan contracts

Ask people you know whether or not they have entered into a building loan contract (or not) and why. Also ask them whether or not they are familiar with the conditions of their building loan contract. Find out why some people seem to have little concern regarding the specific conditions.

(29) Deposit guarantee schemes

Let's assume that a bank at which you have deposited € 20,000 in a savings account has become insolvent. Which of the following statements is true?

- a) There is a deposit guarantee for deposits of up to € 20,000 per bank customer, so your money is safe.
- b) There is a deposit guarantee for deposits of up to € 100,000, so your money is safe.
- c) The money is lost because ever since the last financial crisis, neither the federal state of Austria nor the banks have guaranteed for deposits as it has simply become too risky.

- d) It depends on how much you have saved overall because the deposit guarantee only applies to consumers who have saved an amount not exceeding € 100,000.

5. Finding affordable financing: the basics of loan financing

If you cannot or do not want to wait until you have put aside enough money to make a purchase, you can also take out a loan. Overdrawing your account or paying off something in installments are other types of loan financing. As with any other financial business, somebody taking out a loan should think long and hard whether they will be able to pay back the amount agreed upon within the given time frame.

5.1. What is a loan?

A loan is something (mostly money) that is given to a person and returned at a later point. Money loans are usually paid back with interest, which means that the debtor not only has to pay back the original sum (the capital) but also interest. The amount of interest essentially depends on the sum of the capital, the interest rate agreed upon, and the term of the loan.

Usually, a loan is paid back in equal monthly installments that include both the reimbursement of the capital and interest. Interest is always calculated based on the remaining debt over the remaining loan term, which means that, overall, you pay back an amount of interest that equals the interest for half the sum and the entire loan term.

Loans and loan repayment

A loan amounting to € 10,000 is taken out at an interest rate of 5% p.a. over a period of four years. It is paid back in equal monthly installments, i.e. 48 installments of € 231 each.

Overall, € 11,088 has to be paid back for this loan of € 10,000. The capital is € 10,000 and interest over the entire term of the loan is € 1,088.

(For comparison, here is the approximative calculation of interest: $I = 5\%$ of 5,000 over four years = 250 times 4 = 1,000.)

Every year, the debtor pays back 12 installments of € 231 each, amounting to € 2,772. This sum comprises the repayment of capital and interest on the remaining debt. As your debt will shrink with every paid installment, the share of interest of an installment will get smaller and the amount of debt paid back will get larger with every installment paid. The repayment plan below explains this in further detail.

The repayment plan shows the development of interest over the loan's term:

Year	Interest	Repayment (capital repayment)	Overall loan rate	Level of debt
1	452	2,320	2,772	7,680
2	337	2,435	2,772	5,245
3	212	2,560	2,772	2,685
4	87	2,685	2,772	0

The table shows that after half of the loan term has passed, i.e. after two years, the debt level is still more than half of the capital, i.e. € 5,245. You can also see in this table that the share of interest decreases from year to year, i.e. continuously smaller shares of the installments go towards interest.

Banks often provide loan calculation tools that state the size of installments upon entering the loan amount. This, however, is no indication of whether or not the bank will grant a loan to a person and, if yes, under which conditions. This depends on this person's creditworthiness, which comprises many factors and will be assessed by the bank.

Banks are obligated by the Consumer Credit Act to indicate the effective interest rate of a loan.



(30) Loans

Which of the following statements is true? Correct the false statements.

- A loan is not a financial burden because you receive a large amount of money in the beginning and only have to pay back small amounts of money over time.
- The amount of interest does not impact the overall costs of the loan because the installments you have to pay back remain the same in any case.
- You only have to pay interest if you take out a loan from a bank. A loan from a shop or online store is usually interest-free.
- If you take out a loan, it is important to make sure that you will be able to afford the regular repayments.
- If you do not want to take out a loan, you can simply overdraw your bank account.

5.2. What do private individuals need a loan for?

People usually take out a loan for either of the following purposes:

Bigger purchases

Loans are usually taken out for bigger purchases such as buying a house, an apartment, or renovating one. Such loans can often not be avoided as it is impossible to wait with the purchase until enough money has been saved. The loan, however, is offset by a remaining value, i.e. the house or apartment. If you buy a car, keep in mind that you might have to pay back the loan for a longer time than you will actually be driving the car.

Day-to-day expenses

People also take out loans for recurring expenses, such as vacations. However, it does not make good business sense to use a loan for recurring expenses such as vacations. The holiday will soon be over and then you will still have to pay back the loan for many months to come. The same holds true for the wide-spread habit of financing the purchase of home electronics, clothes, and leisure goods through paying in installments.

Many people do not realize that they are, in fact, in debt, when they

- **overdraw their bank account.** This also constitutes a loan – and a very expensive one at that. This is why you should only ever overdraw your account if it absolutely cannot be avoided, and for the shortest amount of time possible. If you have money put aside, it makes sense to cover the deficit with your savings, as you will definitely receive less interest on your savings than you will have to pay the bank for overdrawing your account.
- **pay for a purchase in installments.** This also constitutes a loan – and a pricey one at that. Even if a zero-percent interest rate is advertised, there are usually costs you need to cover when you pay back the installments. In order to make sure that everyone is aware of that, the Consumer Credit Act stipulates that the [effective interest rate](#) is stated in the payment plan.
- **pay for something with a credit card.** Credit cards are issued by credit card organizations such as Visa, Mastercard, American Express, Diners Club, etc. They can be used to pay without cash in many shops throughout the world, as long as the seller, restaurant, or hotel has a contract with the credit card company. Credit cards are also often used to pay for products bought online. Usually, the outstanding sum is withdrawn from the bank account at the end of the month, which means that until then, the credit card holder is in debt.



Would you like more information on the difference between debt and over-indebtedness? Take a look at our **MOOM** module (in German) on the topic of debt.

Verschuldet oder überschuldet? (In debt or overly indebted?)

<https://learnpublic.wu.ac.at/private-verschuldung/tlf-lrn/sequ1?m=submit>



(31) Loan offers

The small print of a loan offer says: consumer loan at 6% p.a., effective interest rate 6.6%. What does that mean?

- While the bank calculates 6% interest, the loan effectively becomes more expensive due to additional costs and billing, amounting to an actual interest rate of 6.6%.
- The bank does not use the rate of 6% for any of its calculations but calculates interest using the rate of 6.6%.
- The interest rate of 6% is increased by annual compound interest of 6%.
- You cannot rely on either of these interest rates because there are always additional costs to take into account.

(32) Interest rates for bank accounts

Look for bank account offers (checking accounts, youth accounts) at a bank or a bank's website and find out the borrowing rate (if the account holder slips into the red). Compare this interest rate with the credit interest on this account (the interest rate on your balance) and the interest customers receive on savings accounts.

(33) Paying in installments

Search the websites of online retailers for the possibility to pay in installments.

- Find out under which conditions you could pay in installments.
- Find out whether the effective interest rate is indicated.

(34) Loan rates

Which of the statements on fixed loan rates is true?

- a) You pay back the same amount of interest and capital every month.
- b) At the beginning, you pay back less interest and more capital than at the end of the loan's term.
- c) At the beginning, the interest share is much bigger and the capital share is much smaller than at the end of the loan's term.
- d) At the end of the loan's term, the share of capital payback is smallest and the interest share is largest.

5.3. How can the bank safeguard against loan defaults?

Before the bank grants a loan, it verifies whether the loan applicant will be able to pay back the loan without jeopardizing his or her livelihood. To this end, the bank assesses the applicant's monthly income and assets (e.g. real estate, building loan contracts, life insurance). It also checks whether the applicant has already taken out another loan and whether they have overdrawn their bank account. The bank will also ask about the applicant's current expenses for rent, electricity, insurances, etc. Together with the loan applicant, a bank clerk will create a budget (see [chapter 3.1.](#)) and check whether the applicant has sufficient funds to cover the monthly installments.

If the applicant's credit rating check has a positive outcome, the loan will be granted. The conditions under which the bank will grant a loan depend on the associated risk. The income situation of a debtor may change before the loan reaches maturity. Therefore, the bank needs collateral to protect itself against financial damage in the course of a default. Some debtors get into trouble because they lose their job or become sick and suddenly make significantly less money. In case of a divorce, a debtor may have to make payments all of a sudden that they never anticipated.

An institution granting a loan can protect itself through:

- **the debtor's assets (asset-based lending).** If the debtor owns a house, a property, or an apartment, to name just a few examples, the creditor (the bank) can receive a lien (a mortgage) on the debtor's real estate. If the debtor owns securities, the creditor may receive a lien on these securities.
- **a surety provided by a third party on behalf of the debtor (guaranteed loan).** A surety (guarantor) is liable for the debtor's loan, i.e. the surety pays back the loan if the debtor is unable to do so. Becoming a surety to a partner, friend, or acquaintance should be considered very carefully. A surety will be held liable for the loan including default interest and late payment fees, risking his or her own assets.

5.4. What happens if the debtor is unable to pay back the loan?

If the outstanding debt is not paid back at the agreed-upon date, the creditor can take legal action. In case of a lawsuit, there will be considerable expenses for the court, lawyers, and interest. The debtor's income, luxury objects such as a car, or even his or her apartment or house may be seized. This is why it is important not to wait to talk to a creditor in case a loan installment cannot be paid. Saying nothing and trying to ignore the problem will not solve anything. The debt will remain and even grow bigger as interest and compound interest accrue.



(35) Creditworthiness

Take a look at the following examples and decide which debtor is most unlikely to repay the loan. Explain your answer.

- a) Felix is 27 and has a monthly net income of about € 2,500. He wants to buy a small apartment. He can cover a third of the purchase price with his savings. The monthly installments for the remaining sum amount to about € 550 per month.
- b) Hanna is a 17-year-old apprentice. Together with a friend, she is currently furnishing an apartment. She wants to buy a washing machine from an online store. She could pay off the washing machine in 24 monthly installments of € 30.
- c) Dorian is 19 and has just started college. He rents a room in an apartment and occasionally makes € 180 a night as a bouncer. Unfortunately, his bank account is always overdrawn. He wants to take out a loan to balance the deficit on his bank account.
- d) Silvia is 24. She works as a freelance, mobile hairdresser. She totaled her car in an accident and did not have insurance. Now she wants to buy a small used car for € 8,000. She can cover half of this sum with her savings. The installment plan to pay back the loan amounts to 24 installments of € 175.

(36) Loan term and repayment

Leonie's and Max's parents have taken out a 50,000-euro loan in order to fit an old apartment with new windows, new heating, and a bathroom. Their agreement with the bank requires them to pay back the loan in 120 monthly installments (loan term: ten years). After five years, they inherit money from an aunt, putting € 25,000 at their disposal.



Think about whether the parents will be able to pay back the entire outstanding debt all at once. Which of the following statements is true? Explain your answer.

- Yes, because exactly half of the loan term has expired, and only half of the loan is outstanding.
- Yes. The parents will not even have to spend their entire inheritance because they have already paid back more than half.
- No, because more than half of the loan has yet to be paid back. The parents will not be able to pay back the entire loan.

(37) Loan guarantee

Sofia is 20 years old and has a job that pays well. A former school friend asks her to co-sign a 20,000-euro loan for her. She wants to buy a car and would be unable to get a loan without a surety. As Sofia has a regular income, the bank would accept her as a surety. Answer the following questions regarding this case:

- What advice would you give Sofia?
- Which alternatives besides a surety are there to provide collateral for a loan?
- What advice would you give Sofia if she were asked to co-sign a loan for her own brother?

(38) Credit cards

Imagine the following scenario: your parents return from shopping and cannot find their credit cards. What advice would you give them?

- As it is expensive to have a new credit card issued, they should, first of all, carefully look for their cards. If they cannot find them within the week, they should notify their bank and request new cards.
- They should try to remember which shops they used them at and call everywhere to make sure they have not left them there.
- They should notify their bank immediately so that it can freeze the account. Otherwise, anyone could use their cards to shop and pay.
- They should withdraw all the money from their account to make sure that nobody else can do so.

(39) Credit cards and credit card fraud

- 1) Can you use your credit card to overdraw your account? Explain your answer.
- 2) Can you think of any reasons why there is a high risk of credit card fraud particularly for purchases made online?

6. Building wealth and investing sensibly

Savings accounts and building loan contracts do not generate much interest and are therefore not suitable to create wealth in the long run. Money that you do not need for unplanned expenses (financial emergencies) or certain purchases (e.g. a car, home appliances, etc.) is therefore well spent using other forms of capital investment. Depending on how much money you want to invest, the time frame, and how much risk you are willing to take, you can

- buy securities (e.g. shares, bonds, or investment certificates),
- buy real estate (e.g. an apartment, a house, or property),
- buy precious metals (e.g. gold or silver), including coins.

Such a capital investment often has a higher chance of yielding high profits but also entails a higher risk. Risk means that you could lose part of the money invested or even all of it. Usually, the **higher the risk**, the **better the chance to make a profit**.

Besides the amount available and your stance toward risk, which investment is right for you also depends on your **personal circumstances**, such as whether you need an apartment (for yourself or for a child, for instance). **Ethical deliberations** also play a part: Which industry would you like to invest in? What kinds of investment are sustainable and future-oriented? Which industry would you like to support through your investment?

6.1. Shares

If you buy shares from a company, you become a shareholder and acquire part of the capital stock of a joint-stock company. The capital stock is part of the joint-stock company's equity, which is split into many shares. These parts can be bought by many different people, which makes it easier to raise a great amount of capital.



Are you interested in what shares are, why they are issued, and how this works exactly? Go to our **MOOM** module (in German):

Aktien – was ist das? (Shares – what exactly are they?)

<https://learnpublic.wu.ac.at/aktien/tlf-lrn/WA?m=submit>

It is easiest to acquire shares from a listed company as not all joint-stock companies are listed on the stock exchange. Examples of listed joint-stock

companies in Austria are Rosenbauer AG, Erste Group Bank AG, OMV AG, and Flughafen Wien AG. Shares can be bought through a purchase order. Orders can be handled by the bank or a so-called (online) broker. The share price, sometimes referred to as stock price, is established through supply and demand for the shares.



Find more information on stock trading in the following **MOOM** module (in German):

Aktien kaufen und verkaufen (Buying and selling shares)

<https://learnpublic.wu.ac.at/aktienhandel/tlf-lrn/HA?m=submit>

Shareholders accrue wealth if

- the price of shares rises after they have bought them,
- the joint-stock company distributes its annual profits (or parts thereof) to the shareholders in the form of so-called dividends.

If we look at the appreciation and dividends of shares since 1900, we can see that on average, shares have earned their owners 6.5% profit per year, which significantly exceeds the yield from savings accounts (0.6% per year).

Investing in just one share is usually not advisable. You should spread the risk by diversifying your investments, i.e. not just invest everything in shares, and especially not just one share but, ideally, acquire several shares of various companies that operate in different fields and countries.



Would you like to find out more about the magic triangle of investment and how shares are assessed in this triangle? Go to the following **MOOM** module (in German):

Chancen und Risiken des Aktienbesitzes (Chances and risks that shareholders take)

<https://learnpublic.wu.ac.at/aktienbesitz/tlf-lrn/LRModulfolder2?m=submit>

Such a diversification, however, is only possible and sensible if you can invest a certain amount of money. [Investment certificates \(see chapter 6.3.\)](#), however, make it possible to spread the risk with smaller amounts of money.



(40) Publicly listed joint-stock companies in Austria

Find more examples of joint-stock companies listed on the Vienna Stock Exchange. Research a company of your choosing, e.g. Rosenbauer AG, finding out about

- their line of business,
- their capital stock, and
- how many shares it is divided into.

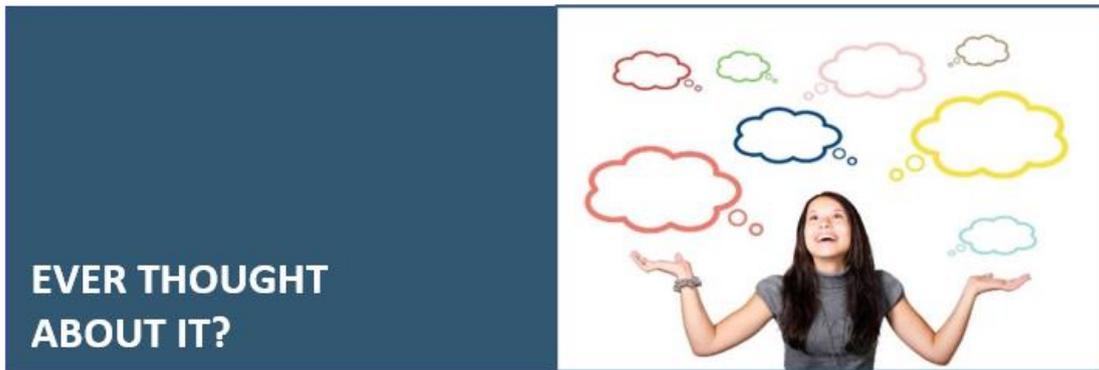
(41) Share price development of selected stocks

Select a stock and look at its development in the course of the past five years.

Think about whether you would have made a profit if you had invested in this share. If yes, calculate the percentage of the stock price's rise.

6.2. Bonds

Bonds (also called 'debenture bonds') are securities. They are similar to a loan. Companies or governments issue bonds because they want to borrow money for a certain period of time ('term to maturity'), for which they pay interest (usually annually during the term to maturity period). In most cases, the borrowed money is paid back at the end of the term ('retire a bond'). If you buy bonds, you will become a bond creditor (similar to a loan creditor) and receive interest. You can buy bonds when they are issued ('offered') or at any point during their term to maturity. Their price may fluctuate according to the stock's demand and supply.



(42) Government bonds and corporate bonds

- 1) Research which government and corporate bonds are traded at the Vienna Stock Exchange and name examples for both types of bonds.
- 2) Find out for which purposes governments and companies issue bonds.
- 3) Can you think of factors that could influence the level of risk of an investment in a bond?

6.3. Investment certificates

It is always risky to invest in just one type of security. Even if you are convinced that the issuer, e.g. a government or a company, is trustworthy, share prices might still drop for the following reasons:

- political changes (such as, currently, the threat of rising punitive tariffs or trade embargoes against other countries), or
- plummeting ratings of a country or a company, or
- economic developments (new competitors enter the market and sales drop, a product development does not go as planned).

Investors can counter this risk by buying not just one share or bond but, ideally, a large number of different securities issued by different companies that operate in varying industries and regions of the world. This principle is called risk spreading or diversification (just like the proverb: 'Don't put all your eggs in one basket.'). Buying a large number of different securities requires a great deal of capital. However, most people only have smaller amounts at their disposal that do not allow for risk spreading of this kind. By investing in investment certificates, you can still spread the risk.

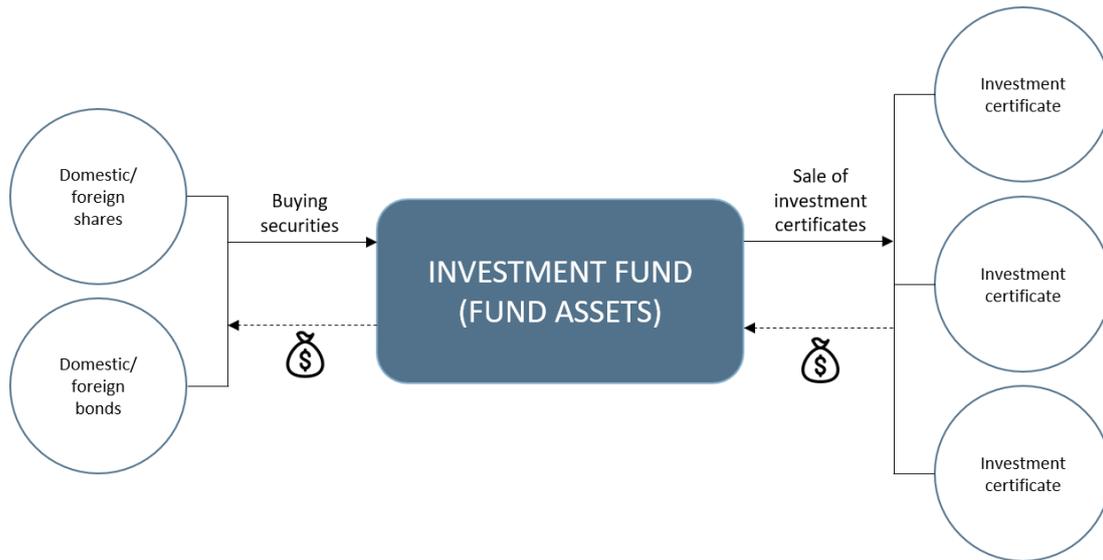
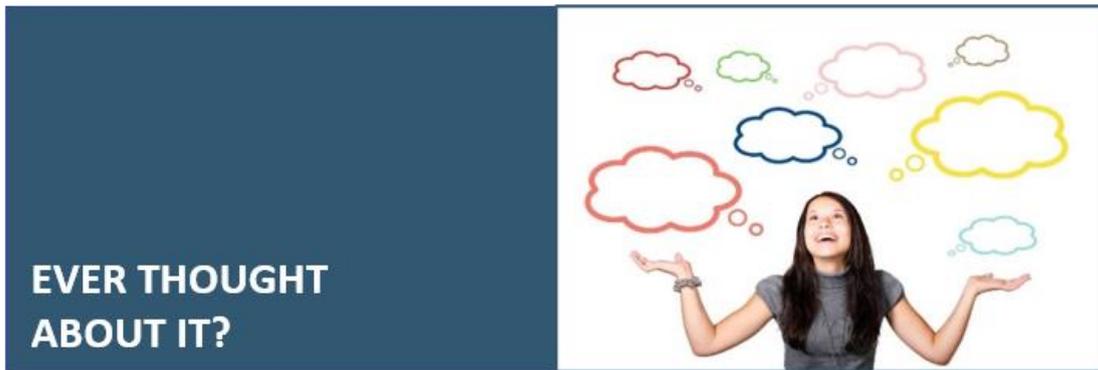


FIGURE 9: STRUCTURE OF INVESTMENT FUNDS

Investment certificates are components of an investment fund. A fund's assets are usually made up by various securities. Most funds are managed by banks. These securities – the fund's assets – are bought with the money accumulated by the sale of investment certificates. Because many people contribute to the fund, a large sum of money is raised and a great variety of different securities can be purchased, allowing for optimum risk diversification. Diversification can be regional (securities from different countries), industry-based, or based on the type of securities (pure stock funds, pure bond funds, or mixed funds).

The value of an investment certificate is determined by the value of the securities amassed within the fund's assets. If the prices of the securities contained in the fund rise, the calculated value of the investment certificate also increases. It can be bought and also sold at this value plus subscription fee (a type of sales fee indicated in percent of the value). Yields from the securities within the fund's assets (e.g. dividends from shares and/or interest payments from bonds) can be paid out to the holders of the investment certificates or reinvested by buying further securities.

Some investment certificates can be used like a 'savings plan,' which means that you can 'save' a predefined sum monthly or weekly to buy investment certificates. Through the process of continuously investing a smaller sum, price fluctuations can be used to the investor's advantage: if prices fall, you can buy more for the same amount of money; if they rise, you buy fewer shares. On average, you buy more when the price is low this way, which is economically advisable ('cost average effect').



(43) Taking a close look at investment certificates

Choose an investment certificate (e.g. DWS Top Dividende) and find out which enterprise is in charge of managing this fund as well as its development in the past three years. Also look into whether this investment fund pays out its profits or reinvests them.

6.4. Real estate

Real estate can be any type of building (house, apartment, other buildings) or land. Investing in real estate is a long-term and stable choice because under normal circumstances, property does not suffer (significant) value losses, which makes it a safe investment particularly in times of crises. If the property can be rented out, it can be a source of profits through rent. Such rental revenues are usually well-suited for long-term planning. You can use the property yourself at a later time (for instance when your children have moved out) or resell it. Compared to an investment in securities, investing in real estate will generate more expenses. Costs arise not just from purchase and sale but also through maintenance and utility costs.

6.5. Precious metals

Investing in precious metals is another way to build up assets. Apart from **gold**, there are other precious metals that are suitable as investment objects:

- silver,
- platinum,
- palladium.

One of the advantages of investing in precious metals is the fact that, unlike money, they do not lose value due to inflation. A drawback, however, is that they are subject to price fluctuations because they are traded commodities. Because of that, their value can change overnight. Also, this type of investment does not yield any interest: there are no payouts as is the case with saving deposits or bonds, nor any dividend payouts such as you would receive for shares. What is more,

physical metals such as gold coins or ingots must be kept in a safe deposit box or in a safe at home.

6.6. Excursus: cryptocurrencies

In the past years, more and more people have started investing in cryptocurrencies. A **cryptocurrency** is a virtual currency that is recognized as a legal tender in the digital world. You do not need banks to effect a payment; instead, a decentralized network manages transactions and generates new units of the currency. The technology behind all this is the so-called blockchain technology, the foundation of every cryptocurrency.

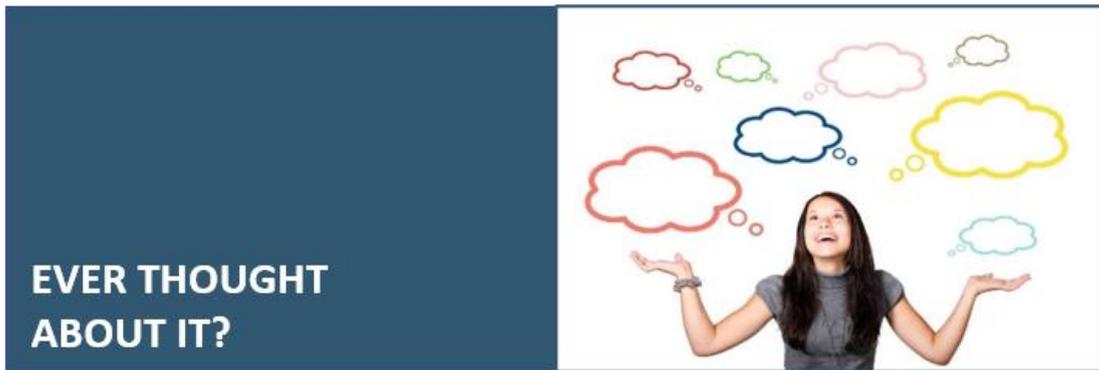
Currently, there are about 2,800 different cryptocurrencies. Bitcoin (BTC), Ethereum (ETH), and Ripple (XRP) are just some of the most well-known examples. Although cryptocurrencies have existed since 2009, they only started to boom in 2017, generating a myriad of further cryptocurrencies in their wake. Only a small share of transactions are actual payments. Cryptocurrencies are mostly used for investments and speculating on capital gains. It is assumed that they are also used to conduct illegal business.

There are several ways to invest in cryptocurrencies:

- currency trading (similar to foreign exchange trading),
- cryptomining (generating new units of a cryptocurrency),
- stock exchange ('betting' on fluctuating cryptocurrency prices, so-called 'futures'),
- shares (of companies that deal in cryptocurrencies),
- crowdfunding to finance an initial coin offering (ICO): investing in the creation of a new cryptocurrency.

Investing in cryptocurrencies is something for experts, and even they take a big risk. The value of cryptocurrencies is subject to extreme fluctuations, which is why there is a high risk that all of the invested capital is lost. Cryptocurrencies are not regulated, i.e. there is no institution that supervises the market for cryptocurrencies. As a result, there is also no protection for investors in case of problems.

Even though cryptotechnology is promising, it is currently not advisable to make a serious and large investment. In the past, the promise of a high yield has repeatedly enticed investors to invest in inscrutable cryptocurrency projects. Many of them lost all the money they invested.



(44) Investment possibilities

Leonie and Max heard about the possibility to invest in precious metals and cryptocurrencies. Choose two precious metals and cryptocurrencies each and research

- a) how much they currently cost,
- b) how much their prices have fluctuated in the past six months,
- c) where you can buy these products.



7. Making provisions for the future and safeguarding against risks

Saving helps you make provisions for the future. By building up wealth in the long run by means of securities, real estate, or other assets, you can make sure that you will have sufficient means also in the future. When we talk about making provisions for the future, we are mostly talking about making provisions for retirement. For some time now, the state-paid pensions have been considered insufficient to uphold the standard of life that people are used to after they retire.

Apart from social security, there are two more pillars of old-age pensions: employer-sponsored and private retirement plans. Private retirement schemes mostly draw on various forms of insurance, especially life insurance.

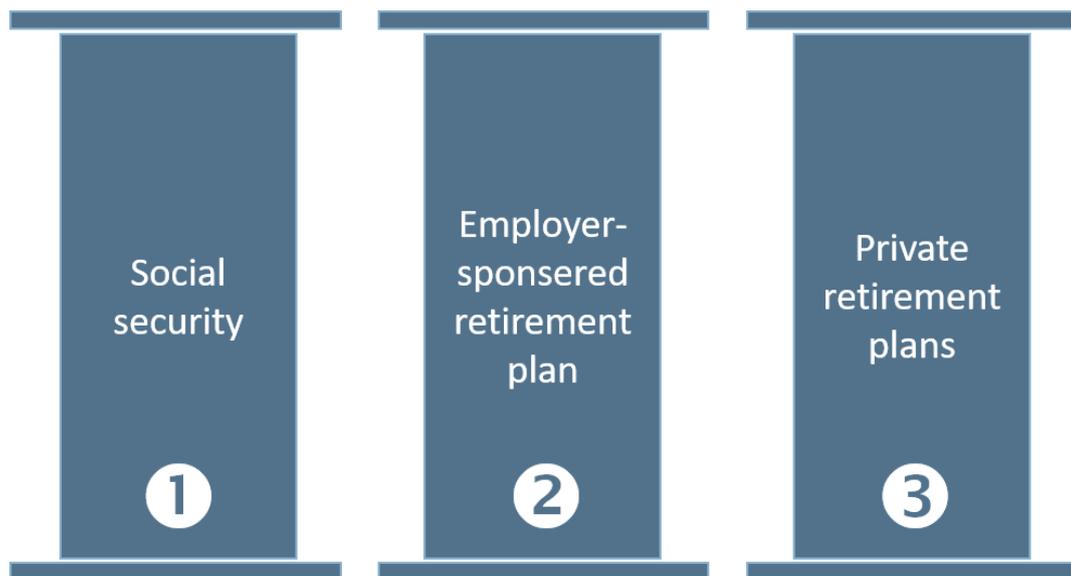


FIGURE 10: THE THREE PILLARS OF RETIREMENT PROVISIONS

Insurances play a big part when it comes to hedging against possible risks, i.e. a potential loss in case damage occurs. By taking out insurance, you can protect yourself from the financial repercussions of damage to property (e.g. through fire, storm, flood, hail, theft, vandalism, ...) as well as of health issues (e.g. health insurance, life insurance).



(45) Redundant insurance and blind spots

Many people have, on purpose or accidentally, more than one travel insurance when they go on vacation. Other insurances are often forgone, even though it would make sense to get them. Why, in your opinion, do many people have redundant travel insurance but considerable gaps when it comes to other types of insurance?

(46) Provisions for retirement

Collect reports on the issue of retirement provisions from different media. Answer the following questions:

- Which topics and questions are discussed?
- Which (different) opinions are voiced?

8. Becoming Moneywise^{WU} Summary

1. What is money and in what shapes does it come?

Money is a legal tender, a way to measure value, and a way to store value. We use it as either cash or bank money. Cash comes in the form of coins and bills, while bank money is the money on a bank account that an account holder has at his or her disposal, by, for instance, ordering to transfer money to another account.

2. What does the word 'currency' mean and how do exchange rates work?

The money officially recognized as a legal tender in a given country is this country's currency. The exchange rate is the price of a currency, e.g. US dollars, expressed in a different currency, e.g. euros. There are two different exchange rates: one that applies to cash (valuta), and one that applies to bank money.

3. What is interest and what do interest rates mean?

Interest is the price you have to pay for borrowing money. The amount of interest is usually indicated as a percentage and also called interest rate.

The effective interest rate includes any ancillary costs that are added to the actual interest. When these costs are considered in the applied interest rate, we get the effective interest rate.

4. How is the value of money defined?

The value of money is defined by how much you can buy for a certain sum (purchasing power). If prices rise overall, a certain amount of money will buy you less and less, decreasing the value of the money (inflation).

5. What are frequent causes of debt and how can they be avoided?

Wide-spread debt traps include spending money on going out, eating and drinking out, telecommunications (cell phone, computer, internet, TV), leisure activities, memberships, subscriptions, and insurances that people do not really need.

By taking stock of your assets, drafting a budget, building reserves, and optimizing your income and expenses, you can take precautionary measures to avoid getting into debt.

6. What does saving mean, and why and how do we save money?

Saving means that you do without something you want for a while, postponing a purchase to a later time. We differentiate between special-purpose saving (e.g. for a car) and saving to build reserves (to make provisions for unforeseeable events). The most important ways to save money include savings accounts, building loan contracts, investment saving, and saving through insurance.

7. What is a loan, which types and purposes are there, and what does it depend on whether you will get a loan?

A loan is something (mostly money) that is given to a person and returned at a later point. Money loans are usually paid back with interest, which means that the debtor not only has to pay back the original sum (the capital) but also interest.

Private individuals usually take out loans for bigger purchases, e.g. when they buy a house.

Apart from the bank loan, there are other well-known types of loans:

- overdrawing your bank account,
- paying in installments,
- paying with your credit card.

Before the bank grants a loan, it checks whether the loan applicant will be able to pay back the loan without jeopardizing his or her livelihood.

The bank also requires collateral to protect itself against financial damage in the course of a default:

- real collateral: liens on real estate and securities
- personal collateral: sureties provided by third parties

9. Glossary

Term	Explanation
Money	Money is a legal tender, a way to measure value, and a way to store it.
Currency	A currency is the money officially recognized as the legal tender in a given country.
Exchange rate	The exchange rate is the price of a currency, e.g. US dollars, expressed in a different currency, e.g. euros. There are different exchange rates for cash (valuta) and bank money.
Interest and interest rate	Interest is the price you have to pay for borrowing money. The amount is indicated in the form of a percentage over a fixed period of time (e.g. 2% per year: p.a.) and also called interest rate. A fixed interest rate remains the same over the entire agreed-upon loan term, whereas a variable interest rate may change over the course of time.
Inflation	Inflation means that prices in general (meaning the prices of many different goods and services) rise. As a result, the purchasing power declines and thus the value of money decreases. Inflation therefore means that you can buy less and less for a certain amount of money.
Taking stock of your finances	Taking stock of your assets means that you check what you have against everything that you owe.
Budget	A budget is where you note down all income and expenses. It is important to see whether you make more money than you spend or the other way around.
Saving	Saving means to postpone a purchase for a while. There is a difference between special-purpose saving (e.g. for a car) and saving to build reserves (to make provisions for unforeseeable events).

Loan	A loan is something (mostly money) that is given to a person and returned at a later point. Money loans are usually paid back with interest, which means that the debtor not only has to pay back the original sum (the capital) but also interest.
Shares	Shares are securities and constitute part of the stock capital of a joint-stock company. Shareholders may receive dividends, benefiting from rising share prices.
Bonds	Bonds are securities that resemble a loan. They are issued by governments and large corporations. Holders are paid back their capital with interest.
Investment funds	Investment funds invest in many different securities (as well as other capital investment opportunities) and therefore spread out the risk.
Investment certificates	Investment certificates are shares of the assets of an investment fund.

Solutions

(1) Your personal financial goals

Individual solution

(2) Using money for various goals

Family vacation, loan rate

(3) Financial goals after graduating

- a) Income: salary; expenses: rent, car (insurance, gas, maintenance, repairs), going out, sports activities
- b) Apartment, car
- c) Family planning, building a house, retirement, ...

(4) Financial goals

Immediately: goal 1: stay solvent and goal 2: save (a share of the remaining € 200). A little later: goal 3: accumulate wealth and goal 4: provide for the future. Goal 5, finding affordable financing, will only be necessary if a certain financial goal is to be accomplished (i.e. building a home or similar).

(5) Legal tender or not?

In case c), money is not used as a legal tender. In this case, it is only a means to preserve value.

(6) Youth accounts

Does Johanna need her parents' permission to open the account? She can open an account without her parents' permission, but she cannot overdraw it.

What will Johanna use the bank account for? Her apprentice pay will likely be transferred to her bank account.

On which conditions may Johanna overdraw her account? Only if her parents give their consent.

A) Johanna's apprentice pay is transferred to her bank account: bank money.

B) To go shopping, Johanna withdraws € 30 from her bank account using her debit card: cash.

(7) Authorizations for bank accounts

a) is true.

(8) Debit cards

Especially c) should be avoided.

a) If you lose your debit card, have it canceled.

b) To avoid that someone manages to look over your shoulder and make out your PIN: enter the PIN in a way that nobody else can see it.

c) Under no circumstances should you store your debit card together with a piece of paper with your PIN written on it.

d) If your debit card is stolen, have it canceled.

(9) Bank accounts

a) is true.

Corrections:

If you want to open a bank account, you must prove that you will receive deposits on a regular basis: this is false; usually, this is not required.

A youth account is always free since banks want to attract teenagers as customers: this is false; a youth account may incur charges. It is true, however, that many banks offer free youth accounts.

It is not necessary to check your account statements regularly because transactions are managed by a computer, so there cannot be any mistakes: this is false; you should always check to make sure no wrong withdrawals have been made.

(10) IBAN and BIC

a) is true.

(11) Account balance

b) is true.

(12) Exchange rates for foreign currencies

You have to choose the exchange rate for cash (because you want to exchange bills). Make sure to select the selling rate (the bank sells foreign currency; 'one euro is worth...').

E.g. exchange rate for cash of the Czech koruna on 6 May 2020: € 1 = CZK 26.6070, which means that € 1,000 = CZK 26,607.

(13) Buying and selling foreign currencies

Hypothesis: we are talking about cash, which is why we have to select the rate for cash. Assuming that you exchange, for instance, € 500 into Croatian kuna, using the following exchange rate (dating from 19 July 2019):

For one euro, you will receive HRK 7.1377 and pay HRK 7.5793. For € 500, you will therefore receive: $500 \times 7.1377 = \text{HRK } 3,568.85$.

(14) Interest

Not considering capital gains tax, it would be about € 515. Considering capital gains tax, it would be a little more than € 510.

(15) Amount of capital gains tax

The capital gains tax in the amount of 25% is applicable to capital gains from deposits (e.g. interest on deposits in savings accounts and checking accounts) as well as any other non-securitized receivables from banks. The tax rate on any other capital gains is 27.5%.

In 2015/16, a tax reform introduced the tax rate of 27.5%. Since then, the tax rate of 25% has only been applicable to capital gains from deposits and non-securitized receivables from banks.

(16) How much does a loan cost? Do some research

Individual solution

(17) Inflation

a) is true.

(18) Personal inflation

Individual solution

(19) Taking stock of finances and drafting a budget

Taking stock of your finances means that you check how much cash, assets, and savings you have against the debt you owe. Having an overview makes it easier to get your financial affairs in order and recognize weak points.

A **budget** is where you note down all **income and expenses**. Expenses can be recurring expenses that you have to pay for every month and that stay more or less the same. There are also other expenses of varying amounts that are incurred

every month. Creating a budget allows you to see if you can make do with the money you have or if there might be financial straits looming.

(20) Taking stock of finances

Individual solution

(21) Creating a budget

Individual solution

(22) Opportunities to save

Individual solution

(23) Forms of saving

a) makes the most sense because the term is appropriate and for this term, the yield is maximized.

(24) Saving

- UNWISE: there is no good reason to save money because you can always take out a loan to buy almost anything you want to have. Reason: risk of over-indebtedness.
- PRUDENT and TRUE: a consumer who wants to save money should compare the offers at several banks because interest rates will differ.
- FALSE: savings accounts are not very secure in Austria because there is no bank in the entire country that could pay back all of their customers at once. Reason: deposit guarantee schemes.

(25) Interest on money saved

c) is true.

(26) Saving and interest

- a) False
- b) False
- c) False
- d) False

(27) Comparing conditions of savings products

Individual solution

(28) Building loan contracts

Individual solution

(29) Deposit guarantee schemes

b) is true.

(30) Loan

- a) False: a loan is not a financial burden because you receive a large amount of money in the beginning and only have to pay back small amounts of money over time. Reason: you spend the money you receive at first and the repayment over a certain time constitutes an ongoing financial burden.
- b) False: the amount of interest does not impact the overall costs of the loan because the installments you have to pay back always remain the same. Reason: the higher the interest rate, the bigger the installments.
- c) False: you only have to pay interest if you take out a loan from a bank. A loan from a shop or online store is usually interest-free. Reason: these loans may also incur interest.
- d) True: if you take out a loan, it is important to make sure that you will be able to afford the regular repayments.
- e) False: if you do not want to take out a loan, you can simply overdraw your personal bank account. Reason: overdrawing your account is also a sort of loan you take out, and a very expensive one at that.

(31) Loan offers

a) is true.

(32) What are interest rates for in bank accounts?

Individual solution

(33) Paying in installments

Individual solution

(34) Loan rates

c) is true.

(35) Creditworthiness

In case c), the risk is probably highest because Dorian has no regular income.

(36) Loan term and repayment

Can Leonie's and Max's parents pay back the entire remaining debt at once with this sum? No, because after half the loan term has passed, they have not yet paid back half of their debt (at the beginning, a larger portion of their installments goes toward interest).

c) is true.

(37) Loan guarantee

A surety is always a big risk and should be carefully considered and, if possible, avoided. There are many possible reasons why debtors can become insolvent, in which case the surety must pay up. An alternative to a surety would be a lien on the assets of the debtor.

(38) Credit cards

c) is true.

(39) Credit cards and credit card fraud

Yes; if the account balance is lower than the sum of the purchases paid for by credit card, the account is overdrawn. Fraud is especially an issue online because the seller cannot verify whether the buyer is in fact the legal owner of the credit card.

(40) Publicly listed joint-stock companies in Austria

Individual solution

Example Rosenbauer:

Rosenbauer AG has a stock capital of € 13,600,000. This is divided into 6,800,000 shares. This means that one share equals € 2 of the stock capital. A shareholder can, of course, buy more than just one share. If you buy 6,800 shares, you will acquire one thousandth of Rosenbauer AG's stock capital.

(41) Share price development of selected stocks

Individual solution

(42) Government bonds and corporate bonds

For what purposes do governments and corporations issue bonds? In both cases, bonds serve financing purposes: in the case of governments, the functions of the state are funded; companies finance their investments through bonds. What does the level of risk of investing in a bond depend on? It depends on the financial standing of the bond issuer.

(43) A close look at investment certificates

Individual solution

(44) Investment opportunities

Individual solution

(45) Redundant insurance and blind spots

Travel insurance is often included in package deals and also an additional service offered by credit card companies. Many people also have additional insurance, e.g. through roadside assistance. However, they may not be aware of other risks (such as occupational invalidity) and are therefore not insured against them.

(46) Provisions for retirement

Individual solution



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