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# Banking and Insurance I.

## THE EUROPEAN CENTRAL BANK AND THE FEDERAL RESERVE SYSTEM

Strategic project of TBU in Zlín, reg. no. CZ.02.2.69/0.0/0.0/16\_015/0002204

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# 1.1 ECB

- **The European Central Bank (ECB) is the bank of the 19 European Union countries**
- **Responsible for monetary policy for the euro area since 1999**
- **Monetary policy transferred from national central banks of 11 EU Member States to the ECB in January 1999**
- All 19 countries had to fulfill the convergence criteria to join the Union
- Treaty on the Functioning of the European Union and the Statute of the European System of Central Banks and of the European Central Bank are the legal basis for the single monetary policy (ECB, 2018)





# 1.1 ECB

## European System of Central Banks

comprises the ECB and the national central banks of all EU Member States whether they have accepted euro or not

## Eurosystem

comprises the ECB and the NCBs of countries which accepted the euro. Both the Eurosystem and the ESCB will exist while EU has members outside the euro zone.

## Euro area

The euro area consists of the EU countries which have accepted the euro.

(ECB, 2018)





## 1.2 The main goals of the ECB

- The European Central Bank and the national central banks constitute the Eurosystem
- The main objective is to maintain price stability: safeguarding the value of the euro and maintenance of price stability for the common good; to safeguard financial stability and promote European financial integration
- Responsible for the supervision of credit institutions located in and outside the euro area
- Contributes to the safety, soundness and stability of the financial system of EU
- Seeks to reach the highest level of integrity, competence, efficiency and accountability (ECB, 2018)





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## 1.2 The main goals of the ECB

- Monetary authority of the euro area and a leading financial authority
- Undertaking the necessary economic and monetary analyses
- Adopting and implementing appropriate policies
- Responding properly and effectively to monetary and financial developments
- Aiming to safeguard financial stability and promote European financial integration in cooperation with the established institutional structures
- Financial stability and European financial integration
- Accountability, independence, credibility, closeness to the citizens of Europe
- Shared identity, clarity of roles and responsibilities and good governance (ECB, 2018)



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## 1.3 Objectives

- The main aim is to maintain price stability (essential for economic growth and job creation)
- To safeguard the value of the euro

The Eurosystem is responsible for:

- Defining and implementing monetary policy
- Conducting foreign exchange operations
- Holding and managing the euro area's foreign currency reserves
- Promoting a smooth operation of payment systems

The ECB carries out specific tasks in the areas of banking supervision, banknotes, statistics, payments and securities, macroprudential policy and financial stability as well as international and European cooperation, foreign reserves and own funds and foreign exchange operations. (ECB, 2018)





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## 2. Organisation of the ECB



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## 2.1 The ECB

- **An official EU institution and the Single Supervisory Mechanism.**
- **People all around Europe work for the ECB in Frankfurt am Main, Germany.**
- **Cooperation with the national central banks within the Eurosystem**
- **Supervision with the national supervisors within the Single Supervisory Mechanism**

### **Heads of the ECB:**

- **ECB's President is Mario Draghi**
- **ECB's Vice-President is Vítor Constâncio**
- **Members of the Executive Board of the ECB: Benoît Cœuré, Sabine Lautenschläger, Yves Mersch, Peter Praet etc.**
- **The main decision-making body is Governing Council**

**The Governing Council consists of the 6 members of the Executive Board and the governors of the central banks of the 19 euro area countries (ECB, 2018)**







## 2.2 The Governing Council

### Responsibilities:

- To adopt the guidelines and take decisions which ensure the performance of ECB and the Eurosystem
- To formulate monetary policy for the euro area such as its objectives, interest rates, the supply of reserves in the EU, guidelines for the implementation of decisions
- ECB's responsibilities related to banking supervision

### Meetings and decisions

- The GC usually meets twice a month at the ECB's premises in Frankfurt am Main, Germany
- Economic and monetary developments and its monetary policy decision taken every six weeks
- The monetary policy decision is presented in detail at a press conference every six weeks (ECB, 2018)





## 2.3 Main building

- “The ECB’s new home is a modern building for a modern central bank.”  
(Mario Draghi, President of the ECB)

The ECB chose the site of the Grossmarkthalle to build its new premises. The ECB began operating in November 2014 from a modern and functional building.

- 185 m high office tower
- 250 m long Grossmarkthalle
- 120,000 m<sup>2</sup> total site area
- 700 trees planted on site
- 6,000 panels in the office tower façade
- 14 steel trusses in the atrium
- 73 km of repointed facade joints (ECB, 2018)





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# 3. Independence



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## 3.2 Independence of the ECB

The independence is conducive to maintain price stability.

No one is allowed to seek or take instructions from EU institutions or bodies, from any government of an EU Member State or from any other body. EU institutions, bodies and governments of the Member States must respect this principle and not influence the members of the decision-making bodies of the ECB. (ECB, 2018)





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# 4. THE FEDERAL RESERVE SYSTEM



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## 4.1 The Fed

- The Federal Reserve System (Fed) is the central bank of the United States
- The Fed ensures its safe and stable monetary and financial system
- The bank was founded on 23<sup>rd</sup> December 1913 - Act of Federal Reserves
- The bank is comprised of 12 regional banks
- The main goals of the Fed: high employment rate, price stability, sustainable long-term interest rate, support of economic growth, monetary policy, monitoring of banking institutions, maintaining a stable financial system (Federal Reserve, 2018)





## 4.2 The main goals of the Fed

- The Fed ensures macro-economical functions as well as micro-economical ones
- Macro-economical functions: monetary operations, issuing banknotes and operations with foreign exchange means
- Micro-economical functions: regulation and banking supervision, representation of the state in a monetary sphere, position of the bank of banks and a state bank (Federal Reserve, 2018)





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# 5. Organisation of the Fed



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## 4.2 Organisation of the Fed

The highest body of the Fed is the Board of Governors

- 7 Governors (the president chooses one chairman and one vice-chairman out of these whose term of office is 4 years and it is possible to be repeated 3 times)
- Washington
- Term of office is 14 years
- Members are appointed by the president and the appointment is confirmed by the Congress
- The chairman represents the United States in economic conferences (Federal Reserve, 2018)





## 4.2 Organisation of The Fed

The Fed consists of 12 regional banks which are located in: Boston, New York, Cleveland, Atlanta, Philadelphia, Richmond, St. Louis, Chicago, Minneapolis, Kansas City, Dallas and San Francisco.

Each reserve bank has its president whose term of office is 5 years and is elected by the Board of Directors

- The Board of Directors has 9 members
- The committee of bank directors is divided into three classes: A-Class, B-Class and C-Class Directors

The Advisory Councils are Consultative, Saving and Consumer ones. The Advisory Councils are used for example by Governors to carry out analyses and statistics

The Member Banks are the last part of the Fed structure.

- These are private banks with shares of the Fed's regional banks (Federal Reserve, 2016)





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# 6. Independence of the Fed



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## 6.1 Independence of the Fed

- The Fed is a private institution
- Institutional independence – independent from the government and president but can be regulated by the Congress
- Personal independence – Governors' terms of office do not overlap with political terms of office
- Functional independence – Fed's determination is partially influenced by the Congress and at the same time it has a function of a supervising body above the Fed
- Financial independence – after paying expenses of 6% dividends to Member banks, the revenue goes to the state budget as an income (Jílek, 2013)





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# The Czech National Bank

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# 1.1 Monetary policy

1 out of 4 economic policy instruments

To influence amount of money on the market → market stability

To solve The Central National Bank

Expansionary monetary policy

Restrictive monetary policy

Monetary policy is unable to achieve all objectives → Central Bank Dilemma  
(Nováček & Švarcová, 2003; The Czech National Bank, 2018; Dornbusch R. & Fisher, 1994; Jurečka, 2010)





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## 1.2 The main instruments of monetary policy of the Czech National Bank

Direct instruments of monetary policy

Indirect instruments of monetary policy (Jurečka, 2010)

### Key rates

2W Repo Rate: 0.75 %

Discount Rate: 0.05 %

Lombard Rate: 1.50 %

Reserve Requirement: 2.00 % (The Czech National Bank, 2018)



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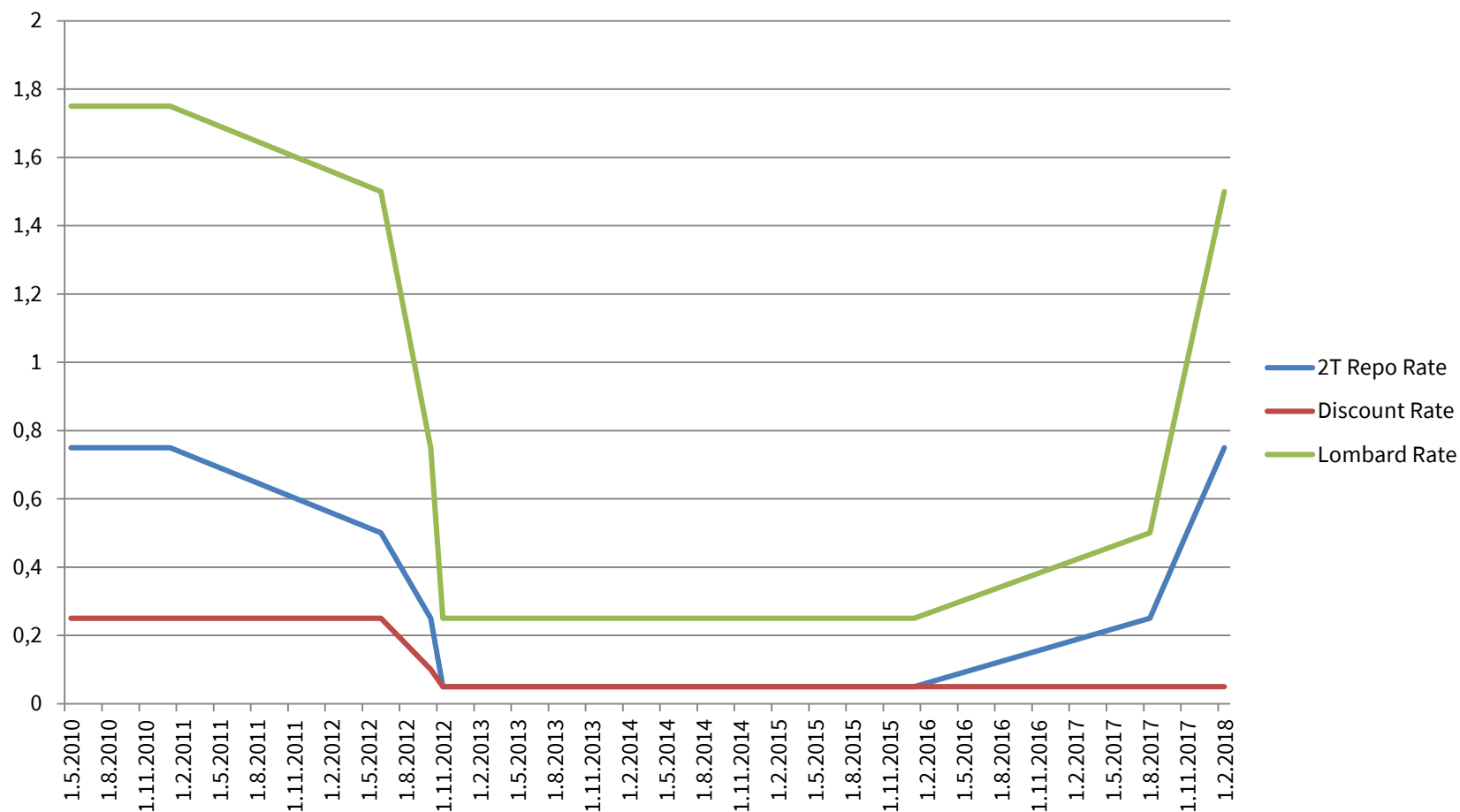


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## The main monetary instruments since 2010



(The Czech National Bank, 2018)





# 1.2.1 Direct instruments

Regulation of investment credit

Regulation of consumer credit

Credit ceilings

Credit limits

Restrictions on the volume of CB loans

Limitation of money movement

Emergence of new banks

Determination of the minimum amount of registered capital

Compulsory deposit insurance

Personnel security

Liquidity rules

Credit Contingents and Interest Rates (Nováček & Švarcová, 2003; The Czech National Bank, 2018; Samuelson et. al., 2010)





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## 1.2.2 Indirect instruments

Discount Rate

Central bank loans

Open market operations

Minimum reserves

Conversions and foreign currency swaps

Lombard rate (Nováček & Švarcová, 2003; The Czech National Bank, 2018)



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## 1.3 Basic information about the Czech National Bank (CNB)

The bank of banks

Two-step Banking

Central bank

Established by the state

Independent of the executive

The CNB's primary objective: to maintain price stability

A non-profit organization

Legal entity, but ...

Established under the Constitution of the Czech Republic and carries out its activities in compliance with Act No. 6/1993 Coll., on the Czech National Bank, as amended (The Czech National Bank, 2018; Jurečka, 2010; Nováček & Švarcová, 2003)





## **1.4. History of the Czech National Bank**

**1919 – foundation of bank, Alois Rašín**

**1926 – The Central Bank established, called the National Bank of Czechoslovakia**

**1939 - The National Bank for Bohemia and Moravia**

**1945 - The National Bank of Czechoslovakia**

**1950 - The State Bank of Czechoslovakia**

**1993 - The Czech National Bank, The National Bank of Slovakia (The Czech National Bank, 2018)**





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# 1.5 Members of the Czech National Bank

CNB Board (The Czech National Bank, 2018)

Current members of the CNB Board (The Czech National Bank, 2018)

CNB Governor: Jiří Rusnok

CNB Vice-Governor: Mojmír Hampl

CNB Vice-Governor: Vladimír Tomšík

CNB Board member: Vojtěch Benda

CNB Board member: Oldřich Dědek

CNB Board member: Marek Mora

CNB Board member: Tomáš Nidetzký

CNB Spokesperson

– Marek Zeman, Denisa Všetíčková



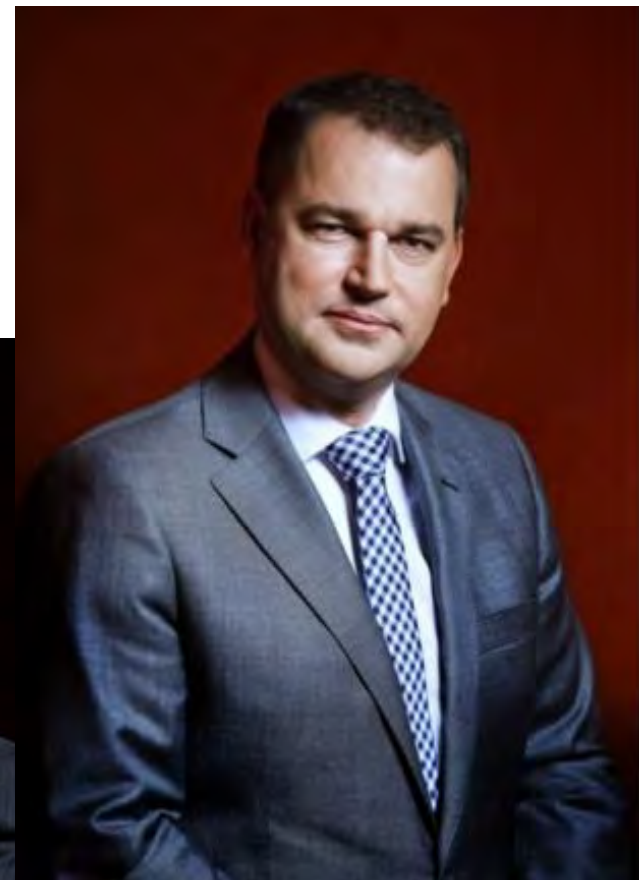
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(The Czech National Bank, 2018)





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(The Czech National Bank, 2018)



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# 1.6 Objectives of the Czech National Bank

## Primary objectives

To maintain healthy monetary developments

Internal price stability

External price stability

## Final objectives

Continuous economic growth and full employment

## Intermediate objectives

Optimal money supply

Optimal interest rates (The Czech National Bank, 2018; Jurečka, 2010)





# 1.7 Functions of the Czech National Bank

To issue cash currency

The bank for other banks

To do monetary policy

The function bank of the state (government)

To grant and withdraw banking licenses, to do banking supervision and banking regulation

To represent the Czech Republic in international financial and monetary institutions (The Czech National Bank, 2018)

...







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## 1.8 CNB building and offices in the Czech Republic

### CNB building

Czech National Bank  
Na Příkopě 28  
115 03 Praha 1



### CNB offices in the Czech Republic

Prague – headquarters, branch

Brno – branch, regional office

Hradec Králové – branch, regional office

Ostrava – branch, regional office

České Budějovice – regional office

Plzeň – regional office

Ústí nad Labem – regional office (The Czech National Bank, 2018)



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(The Czech National Bank, 2018)



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# 1.9 Additional information of about the Czech National Bank

[www.cnb.cz](http://www.cnb.cz) (<http://www.cnb.cz/en/index.html>)

Czech Money mobile app

Czech National Bank People & Money exhibitions



(The Czech National Bank, 2018)

Of money and men (Youtube, 2018).

<https://www.youtube.com/watch?v=HrQTBqxbNZ0>



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# Bank structure

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# 1. What is a bank?



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# 1.1 What is a bank?

- Generally a financial provider or a deposit institution collecting free money and offering loans to different subjects as well as services (mainly connected to a payment system)
- EU Directive 2006/48/EC defines a credit institution as an undertaking whose business it is to receive deposits and other repayable funds from the public and to grant credits for its own account
- EU also defines a bank as an electronic money institution within the meaning of Directive 2006/46/EC
- The term „bank“ includes several types of banks except the central bank

(Mejstřík et al., 2017)





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## 1.2 Different types of banks

- Commercial banks
- Exchange banks
- Industrial banks
- Agricultural or co-operative banks
- Savings banks
- Central banks
- Utility banks

(Karafolas, 2016)



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## 1.3 Types of banks according to its target group

- Banks oriented on retail (consumer)
- Banks oriented on whole sale (corporate)
- Banks oriented on international trade (interstate)

(Kráľ, 2009)







## 1.4 Bank regulations

- According to Act No. 21/1992 Sb., every bank needs to have a statutory body and a supervisory board
- Regulation concerning members composition and obligations are stated
- The Act also includes some of a bank statutes requirements

**A bank is according to the Act No. 21/1992 Sb. obliged to have in its regulations also:**

- Bank structure and organization
- Powers and responsibilities of leading employees
- Powers and responsibilities of other employees, possibly other organizational bank unit employees
- Security of an inner control system

(Král, 2009)





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## 2. Bank structure



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## 2.1 Relationship between management and owners

- Banks in the Czech republic have a form of a stock company
  - Relationship between management and bank owners is therefore crucial
  - The most important factor is a character and a structure of bank ´s shareholders
  - They have an influence on constituting by-laws, statutes, rules of procedure
  - They also have an impact on bank ´s management as a stock company
  - The highest body of every stock company, including banks, is the General meeting of shareholders
  - Other bank bodies are very differently named and also function differently in the world
  - Concerning Czech republic – we have the Board of Directors and the Supervisory Board
  - In the USA – they have Board of Directors, in France – they have Board of Governors etc.
  - They function differently but also have diverse status, authority, structure etc.
  - Their common feature is that they should represent shareholder ´s interests
- (Kantnerová, 2016; Mishkin, 2016)





## 2.2 Shareholder's interests and their types

- Observational shareholders – only observing a bank development without much of an intervention
- Assessing shareholders – they are mainly targeted on controlling managers and evaluating their results
- Decision making shareholders – active role from a strategic and managerial point of view

Board of Directors and Supervisory Board creates the committee for audit which is internal controlling system which helps with evaluating risk and to improve bank effectiveness

(Kantnerová, 2016; Revenda, 2005)





## 2.3 Types of bank management

- **Entrepreneurial management** – activity and responsibility lays on first-class management
- **Partner management** – collective participation of a first-class management with bank bodies concerning strategies and strategic management
- **Figurehead management** – bank bodies have a full power and a basic competencies for a strategic management
- **Chaotic management** – bank is managed without any clear strategic intention, goals and strategies

(Kantnerová, 2016)





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# 3. Organizational structure



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## 3.1 General meeting

- The highest body in every stock company
- They have the power to elect and dismiss members of Board of Directors and also members of Supervisory Board
- General meeting is being called by a Board of Directors or its member and is held at least once a year
- It decides about the most important questions such as registered capital, a way of dividing profit, bank fusion etc.

(Kantnerová, 2016)



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## 3.2 Board of directors

- Executive and managing function
- Makes every decision except the one which are devoted to the general meeting by law or bank's articles
- Form strategies, programme and a bank policy
- Makes financial administration which is turn over to the general meeting
- Appoint director-general
- Board of directors is consisted of at least 3 persons

(Kantnerová, 2016)







## 3.3 Supervisory board

- Controlling body
- Needs to have at least 3 persons, more people must be dividable by a number 3
- Members are elected for 5 years maximum
- Members are elected by the General meeting

(Kantnerová, 2016)





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# 4. Managerial structure of banks



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## 4.1 Managerial structure of banks

**Head-office – leading figure of a bank – presidium of a bank (general manager)**

**Head-office includes:**

- **Department (union) of an internal audit**
- **Law department**
- **Personnel department**
- **Strategy and planning department**
- **Banking safety department**

**(Král', 2009)**





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# 4.1 Managerial structure of banks

Links between head-office and executive departments – assistants of general director

Responsible for:

- Trade
- Economy
- Operation

(Král, 2009)



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# 4.1 Managerial structure of banks

## TRADE DEPARTMENT

- Dealing department
- Foreign trade operation department
- Active business trade department
- Passive business trade department
- Banking marketing service department

(Internal materials of the bank)



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# 4.1 Managerial structure of banks

## ECONOMIC DEPARTMENT

- Controlling of liquidity department
- Controlling of assets and liabilities department
- Bank office
- Financial and wage accounts department
- Analytic department

(Internal materials of the bank)



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# 4.1 Managerial structure of banks

## OPERATING DEPARTMENT

- Desk worker
- Safe operation
- Regulation processing
- Security guards of bank branches
- IT department
- Account operator
- Property administration

(Internal materials of the bank)



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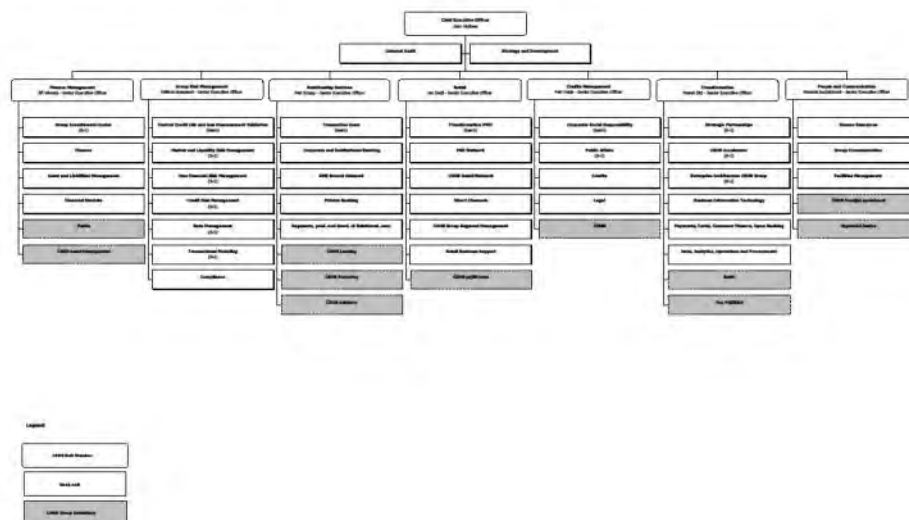
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# CSOB Organisation Chart as of 1. 9. 2018

CSOB Organisation Chart as of 1. 9. 2018



(CSOB, 2018)







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# Commercial banks

*Bank activities*

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# 1. Principles of banking

*Main goals*



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# 1.1 Profitability

- **Capability of a bank to create profits by using capital, profit over costs rate**
- **ROA – return on assets represents total efficiency of bank**
  - $ROA = EBIT / \text{Total assets}$
- **ROE – return on equity represents profitability of capital invested by shareholders**
  - $ROE = EAT / \text{Equity}$
- **This ratio is often the most important for private banks.**
- **Managing profitability is done through profit plan and cash-flow**

(Kantnerová, 2016)





## 1.2 Solvency

- **Solvency is an ability of bank to meet its long-term obligations when facing loss**
- **In general a surplus of assets over obligations**
- **Several principles are applied to maintain solvency**
  - The lowest risk principle – lending to creditworthy clients
  - Principle of risk distribution – lending to different clients
  - Principle of securing – pledge of movable property

(Mejstřík et al., 2017)





# 1.3 Liquidity

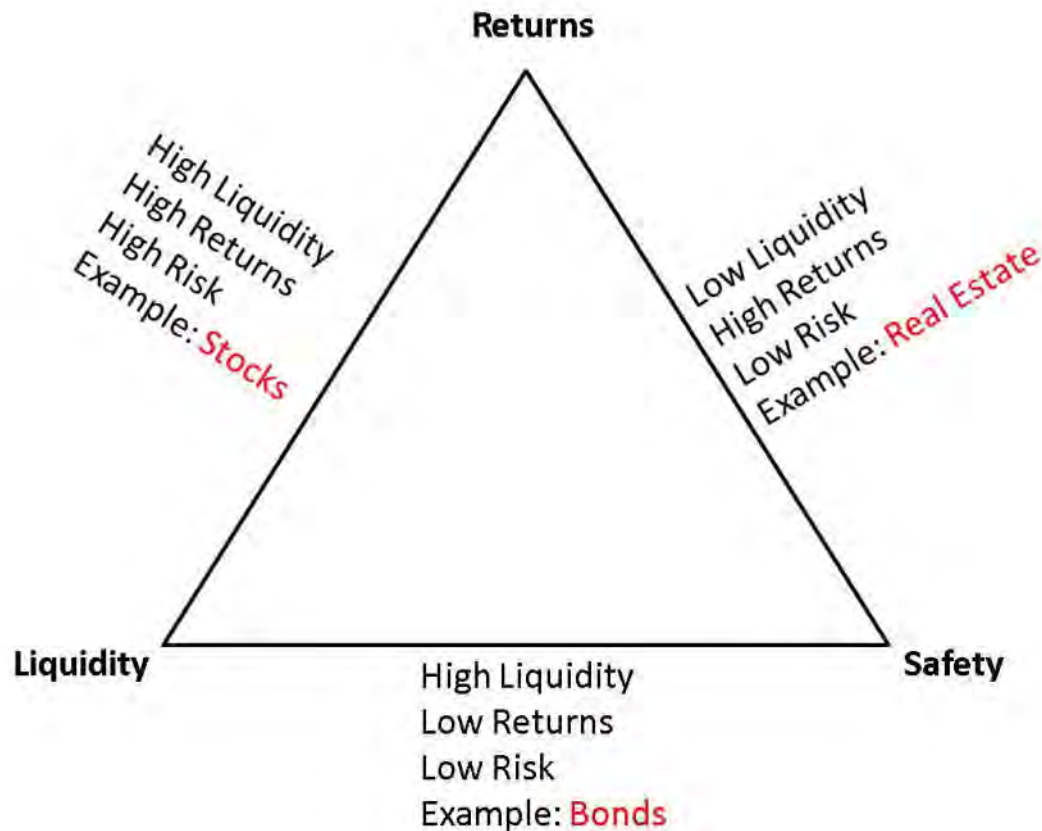
- **Ability of a bank to repay short-term obligations; also called immediate solvency**
- **Liquidity management is a process based on precise planning of cash flow of all active and passive deals in a bank**
- **There are two risks connected with liquidity which the management has to consider**
  - Withdrawal risk – deposit or loan is canceled unexpectedly before the due date
  - Term risk – danger of delayed payments of loans
- **The first step towards liquidity management is a plan of payments**
  - Internal - optimalization of payment among branches (netting, matching, pooling)
  - External – Golden rule of banking – due dates of active and passive deals have to match

(Mejstřík et al., 2017)





## 1.4 Magical triangle



(Král, 2013)







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## 2. Bank deals



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## 2.1 Passive deals

- **Captured on the right side of a balance sheet as liabilities**
- **Bank in the role of a debtor trying to obtain funds from other subjects**
  - Primary sources - collected from citizens, businesses, state (Mandatory minimum reserves)
  - Secondary sources – collected from other banks
- **We differentiate several groups of deposits**
  - Deposits on sight – immediate maturity, the highest level of liquidity for clients, low interest rate
  - Term deposits – deposits entrusted to a bank for specific time, higher interest rate for clients
  - Saving deposits – two forms – deposit book and saving account
  - Deposit certificate – securities emitted by financial institutions
  - Building savings – savings intended for building, reconstruction or purchase of realty with the state contribution
  - Life insurance
  - Loans from banks
  - Loans from CB

**(Kantnerová, 2016)**





## 2.2 Active deals

- **Operations that have an impact on the left side of a balance sheet**
- **Activities involving the bank as a creditor and resulting in revenues**
- **Types of deals**
  - Based on maturity – Short-term (maturity of less than one year) x Long-term (maturity of more than one year)
  - Based on subjects – Interbank, Business, Resident
  - Based on form – Loans x Credit
- **Difference between loan and credit**
  - Loans – the bank provides money directly to a debtor
  - Credit - the bank makes payment for client's goods or services

(Král, 2013)





## 2.2.1 Short-term and long-term deals

- **Short-term:**
  - **Overdraft loan** – immediately ready, short-term and the most expensive product for clients
  - **Bill of exchange loan** – redemption of the bill of exchange before maturity
  - **Consumption loan**
  - **Credit card**
- **Long term:**
  - **Emission loan** – the bank purchases bonds from clients
  - **Mortgages** - secured by real property

(Král, 2013)





## 2.2.2 Difference between credit and debit card

- **Credit card**
  - Using borrowed money to purchase goods and services
  - No interest if repaid before a certain date (usually up to 45 days after purchase)
  - Has many bonuses and benefits
  - Creates the revolving account and line of credit
  
- **Debit card**
  - Using owned money for purchases
  - No interest paid
  - No bonuses
  - Granted when creating a personal account

(Kantnerová, 2016)





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# 3. Risk management in banks



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## 3.1 Risk

- Is defined as the uncertainty of future revenues expressed as probability
- Financial risks:
  - Credit risk – risk that clients cannot meet their obligations and therefore the bank loses revenues
  - Market risk – risk resulting from changes in prices and rates on financial markets
  - Liquidity risk – the bank does not have enough cash to fulfill immediate obligations
- Non-financial risks:
  - Operational risk – risk connected with failure of internal processes, people or a system
  - Concentration risk – arising from an uneven distribution of products among clients
  - Political risk – changes in country's political situation
  - Legal regulatory risk – loss caused by violating legal standards
  - Model risk – resulting from a wrong business model
- The bank tries to lower the impact of risks by careful asset and liability management (ALM) (Mejstřík et al., 2016)





## 3.2 Risk management in banks

- Identification
- Measuring and evaluating
- Making decisions based on analysis leading to minimizing risks
- Decision impact controlling

(Belás, 2013)







## 3.3 Methods of risk reduction

- **Transferring risk to other business subjects**
  - Commission agreements, Leasing, Factoring, Forfaiting
- **Diversification**
- **Elasticity**
  - Elasticity in the organization structure, management system
- **Risk sharing**
  - Cooperation on bigger deals resulting in lowering a potential impact on the bank
- **Insurance**
- **Avoiding risk**
  - Creating reserves
- **Post optimization analysis**
  - Situation modeling with different aspects
- **Prognosis**

(Belás, 2013)





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# 4. Bank regulations

## *Basel*



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# 4.1 Basel I

- The first international banking regulation (Basel Capital Accord)
- Implementing capital adequacy (Cooke's ratio) of 8%
- **Regulatory capital**
  - Tier I – Core capital made of registered capital and reserve funds (at least 50 % of total capital)
  - Tier II – Supplementary capital with a lower quality such as general reserves and subsidiary debt (max. 50% of capital)
  - Tier III – Lowest quality capital
- **Assets of a bank were classified and divided into four groups according to their credit risk**
  - Risk weight 0% - cash, bullion, treasuries
  - Risk weight 20% - receivables for a bank from OECD countries
  - Risk weight 50% - debts secured by realty
  - Risk weight 100% - corporate debts

(Cipra, 2016)





## 4.2 Basel II

- **Modification of Basel I related to three areas**
- **Extending subjects and products burdened by rules**
- **Reduction of safety standards – standards are softened and capacities are increased**
  - Some products were moved to less risky groups
- **Delegation of credit risk valuation to a commercial bank (internal rating) or rating agencies (external rating)**

(Cipra , 2016)





## 4.3 Basel III

- **Additional changes in capital adequacy**
  - Strengthen Tier I capital
  - Revoke Tier III capital
- **New approach towards the leverage effect**
  - Additional guarantees against model risk and risk evaluation
- **Anti-cyclic reserves**
- **Minimal liquidity standard for an international bank**

(Cipra, 2016)





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# Foreign trade

## *Bank activities*

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# 1. Purpose of foreign trade



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# 1.1 What are trade and export services

- Instruments reducing risk associated with foreign trading
- These instruments can be divided into four areas
  - Payment instruments – documentary collection, documentary letter of credit
  - Security instruments – documentary letter of credit, standby letter of credit, bank guarantee
  - Financing – forfaiting, factoring, export financing
  - Currency risk hedging
- A continuously growing competition in the markets are increasing demands of all parties on business transactions





## 1.2 When to use foreign trade instruments

- When planning contracts for the supply goods or service (export, import)
- When you have not had a satisfactory long-term working relationship with a business partner
- When you want to secure yourself against the risk that a partner will default contract terms
- When you do business with a partner from unstable territories
- When you do business with a partner from an unstable industry
- When your costs and revenues are in various currencies





## 1.3 Documentary collection

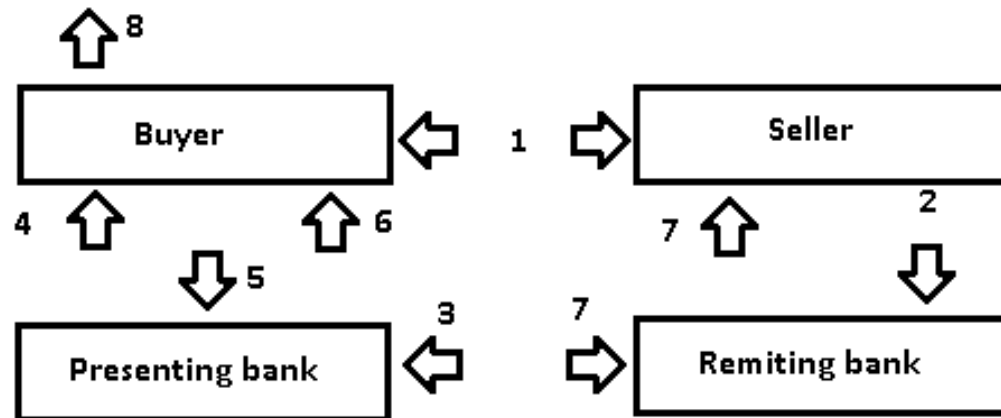
- One of the most conventional documentary payment world-wide
- Used in cases when business partners are not ready to trade without any security, but the involvement of bank is not necessary
- Documentary collection gives a seller guarantee that neither the document nor the goods will be released to a buyer without compliance with the terms and conditions
- Documentary collection is suitable when
  - The seller has no doubt about buyers' willingness to take goods and pay for them
  - The political or economic environment in the country of an importer





## 1.3 Documentary collection

- 1. A Purchase contract is signed
- 2. Request to set up documentary collection
- 3. Sending the collection order and documents
- 4. Advice to debtor of the documents and terms
- 5. Execution of relevant operations (payment order is presented or bill is accepted)
- 6. Releasing the documents
- 7. Remittance of payment
- 8. Collection of goods





## 1.4 Documentary letter of credit

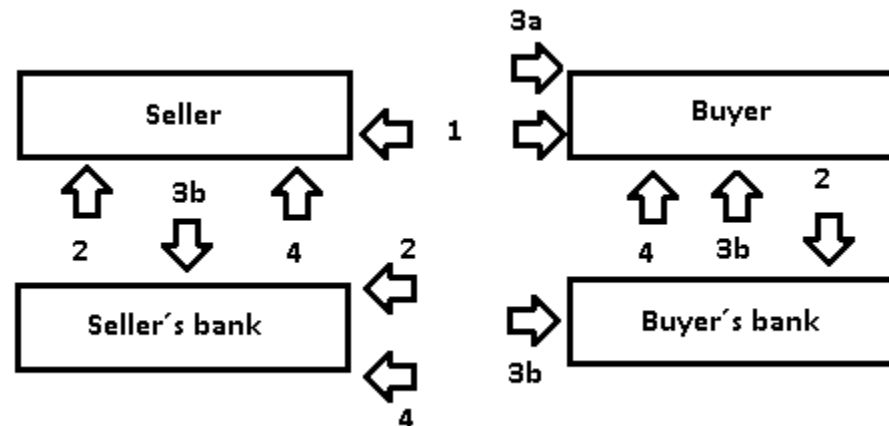
- An instrument with a high-quality payment security for both parties, it is one of the most important and sophisticated payment instrument
- A written obligation given by the bank (made at the buyer ´s request ) to a seller to pay money provided that the terms and conditions specified in L/C are met
- Advantages for an applicant (the buyer)
  - Provides a security that goods have been shipped before they are paid for
  - The buyer may be able to negotiate a better price
  - The buyer is forcing the seller to effect delivery within the prescribed time
- Advantages for a beneficiary (the seller)
  - Provides a security that the supplied goods will be paid once the terms have been met
  - Security that the payment of the agreed amount is bound to meet the conditions that are set beforehand





# 1.4 Documentary letter of credit

- 1. A Purchase contract is signed
- 2. Based on contract terms, the buyer asks bank to open L/C
- 3a. The seller sends the goods
- 3b. The seller gathers the documents set by L/C and sends them through the bank to the buyer's bank, which will check them and finally pass them to the buyer
- 4. The buyer's bank pays the letter of credit to the seller and debits the buyer's account





# 1.5 Bank guarantee

- One of the most frequently used security instrument reducing business risks
- It is a bank 's written statement promising to satisfy the creditor (the beneficiary) up to certain amount if the debtor fails to fulfil certain obligations
- **Types of guarantees**
  - Payment guarantees – payment of invoice, leasing instalments, rent, etc.
  - Non-payment guarantees - Bid bond, advance payment guarantee, retention band, warranty bond
  - Customs guarantees – transit operations
- **Advantages of bank guarantees**
  - For beneficiary – security of obtaining fund in case of the partner 's failure to meet obligations
  - For principal – chance to defer the due date of the payment

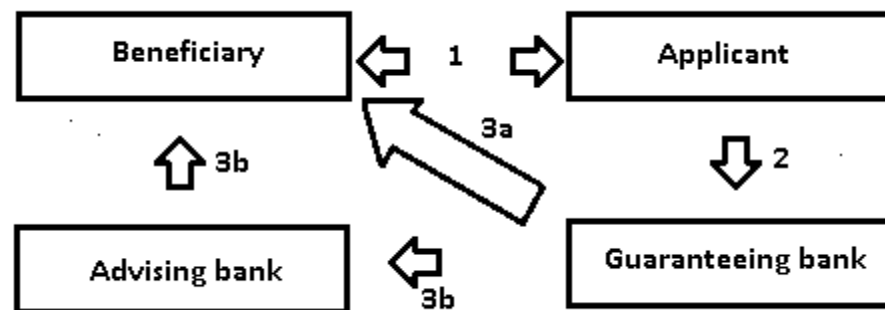






## 1.5 Bank guarantee

- 1. A contract is signed
- 2. The request to issue a bank guarantee
- 3. Sending the guarantee directly to the beneficiary
- 4. Sending the guarantee through the advising bank





## 1.6 Forfaiting

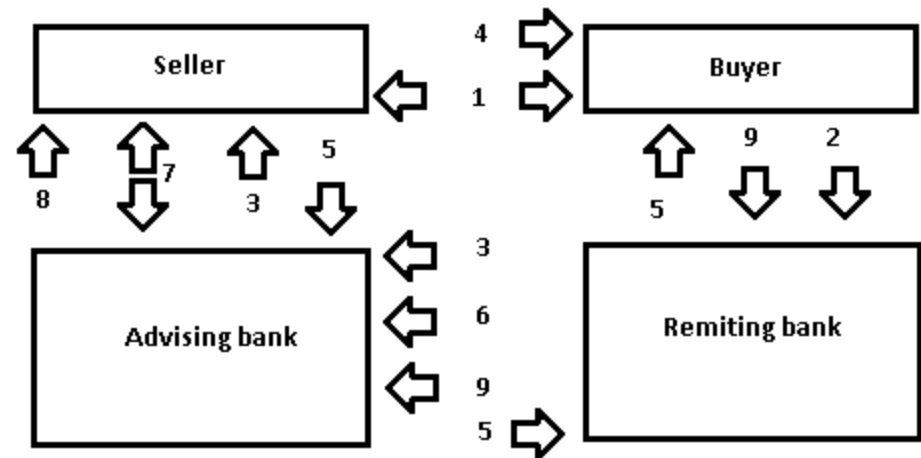
- Defined as an assignment of client ´s receivables due in the future to the bank
- It is a purchase of receivables without punishment to the initial holder
- Forfaiting can be done in the form of
  - Endorsement of a bill of exchange or promissory note with bank ´s aval
  - Assignment of profits from documentary letter of credit
- The maturity of receivables is at least 45 days





## 1.6 Forfaiting

- 1. A contract is signed
- 2. Issue of the documentary L/C
- 3. Letter of credit
- 4. Delivery of goods or services
- 5. Presentation of L/C documents
- 6. Acceptance of L/C documents
- 7. Forfaiting contract
- 8. Payment of a discounted nominal value of receivables
- 9. Collection of the nominal value of receivable on the due date





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## 2. Currency risk



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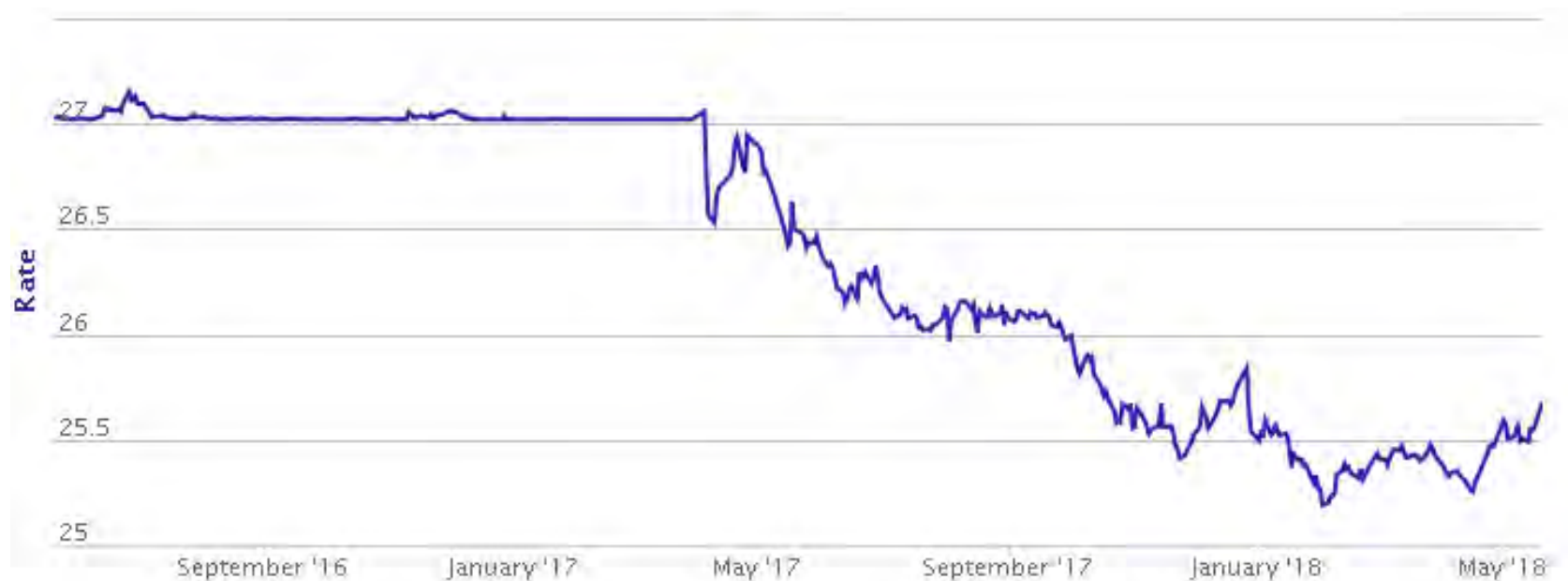
## 2.1 Currency and exchange rates

- Currency is a specific monetary system with its own name, nominal structure and rules for emitting, protecting and usage
- Exchange rates - the price of one currency expressed in a different currency
- Two types of exchange rates
  - Fixed – set by country government or central bank
  - Floating – set by the forex market (supply and demand)





## 2.2 EUR/CZK





## 2.3 USD/CZK





## 2.4 GBP/CZK







## 2.5 Forward rate agreement

- An assignment between the bank and the client that ensures a fixed exchange rate for the client in the future
- The client knows about his/her future deals and wants to secure a favorable exchange rate because he/she expects changes on financial markets.
- **Usages of FRA**
  - Hedging against movements of exchange rates
  - Speculation – making profits based on expectations
  - Arbitrage – taking advantage of price differences between the FRA and other interest rate instrument

Král (2016)





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# The Financial Markets

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# 1.1 Basic terms of financial markets

## Definition of financial markets

- The financial market is a broad term describing any marketplace where buyers and sellers participate in the trade of assets such as equities bonds, currencies, derivatives
- Financial markets are in nearly every nation in the world
- The financial market brings buyers and sellers together to trade in financial assets such as stocks, bonds, commodities, derivatives and currencies
- The purpose of it is to set prices for global trade, raise capital, and transfer liquidity and risk

(Investopedia, 2018)





# 1.1 Basic terms of financial markets

## Definition of financial markets

- The financial market is a market in which funds are transferred from people who have an excess of available funds to people who have a shortage. Bond and stock markets are crucial parts of financial markets. They promote a greater economic efficiency by channelling funds from people who do not have a productive use for them to those who do. Indeed, well-functioning financial markets are a key factor in producing high economic growth, and poorly performing financial markets are one reason why many countries in the world remain desperately poor. Activities in financial markets also have direct effects on personal wealth, the behaviour of businesses and consumers, and the cyclical performance of the economy.

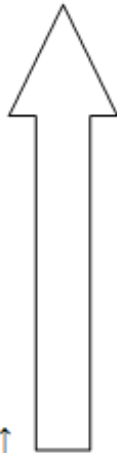

(Mishkin, F.S. & S.G. Eakins, 2009)





# 1.1 Basic terms of financial markets

## Money - Monetary aggregates

 ↑ <b>Stability</b>	M1	<b>Narrow Money</b>  = currency + deposits on current accounts at banks	 <b>Liquidity</b>
	M2	<b>Intermediate Money</b>  = M1 + term deposits at banks + other deposits at banks	
	M3	<b>Broad Money</b>  = M2 + short-term securities of non-banks in domestic currency	





# 1.1 Basic terms of financial markets

In order to analyze financial transactions, a clear understanding of the concept of interest is required

Meaning of interest from the two basic perspectives (borrower;lender):

- In the most common context, interest is an amount charged to a borrower for the use of the lender's money over a period of time.
- Looking at this from the lender's perspective, the money the lender is investing is changing value with time due to the interest being added.

(Jílek, 2009; Rejnuš, 2014; Rosser, 2003)





# 1.1 Basic terms of financial markets

## Classification of interests (types)

- Free charged loan – for example credit cards
- Simple interest - usually short maturity
- Compound interest – time plays an important role

## Financial decision-making rules

- Each investor prefers more money to less
- Each investor prefers lower risk to higher
- Each investor prefers the same amount of money today, rather than tomorrow

(Rosser, 2003 ; Polouček, 2013)







# 1.1 Basic terms of financial markets

## Basic terms related to the interest change calculation

- Capital, Principal – financial amount (present value)
- Interest – reward for the lender (not always valid since 2015-2017 in case of negative interest rates, eg. on Czech Treasury bills), and cost of the loan or the borrower
- Maturity – time for which the financial amount is lent or borrowed
- Interest rate – interest in % (calculated from the value of the capital in the selected interest period)
- Interest period – how often the interests are credited/added to the principal (initial capital)
  - p.a. (per annum) ..... annual = once a year
  - p.s.(per semestre) ..... semi annually = every 6 months
  - p.q. (per quartale) ..... quarterly = each 3 months
  - p.m. (per mensem) ..... monthly = each 1 month
  - p.d. (per diem) ..... .. daily = each 1 day

(Radová J., Dvořák P. a J. Málek, 2009; Capinski M. & T. Zastawniak, 2003)





# 1.1 Basic terms of financial markets

Basic terms related to the interest change calculation

The length of interest period – how long is the principal generating interest

- English standard ACT/365 – it is based on the actual number of days of interest period (e.g. December = 31 days) and real number of days in 1 year (365 or 366)
- French standard ACT/360 – real number of days in 1 month, but the length of the year is considered to be 360 days
- German standard 30E/360 – each month = 30 days, 1 year = 360 (to simplify the calculation)

(Radová J., Dvořák P. a J. Málek, 2009; Rosser M., 2003; Šoba O., Širůček M. a R. Ptáček, 2013)





# 1.1 Basic terms of financial markets

## Two basic types of the interest calculation

- **Simple interest** – Simple interest is called simple because it ignores the effects of compounding. The interest charge is always based on the original principal, so interest on interest is not included. This method may be used to find the interest charge for short-term loans, where ignoring compounding is less of an issue
- **Compound interest** – is the interest calculated on the initial principal and also on the accumulated interest of previous periods of a deposit or loan

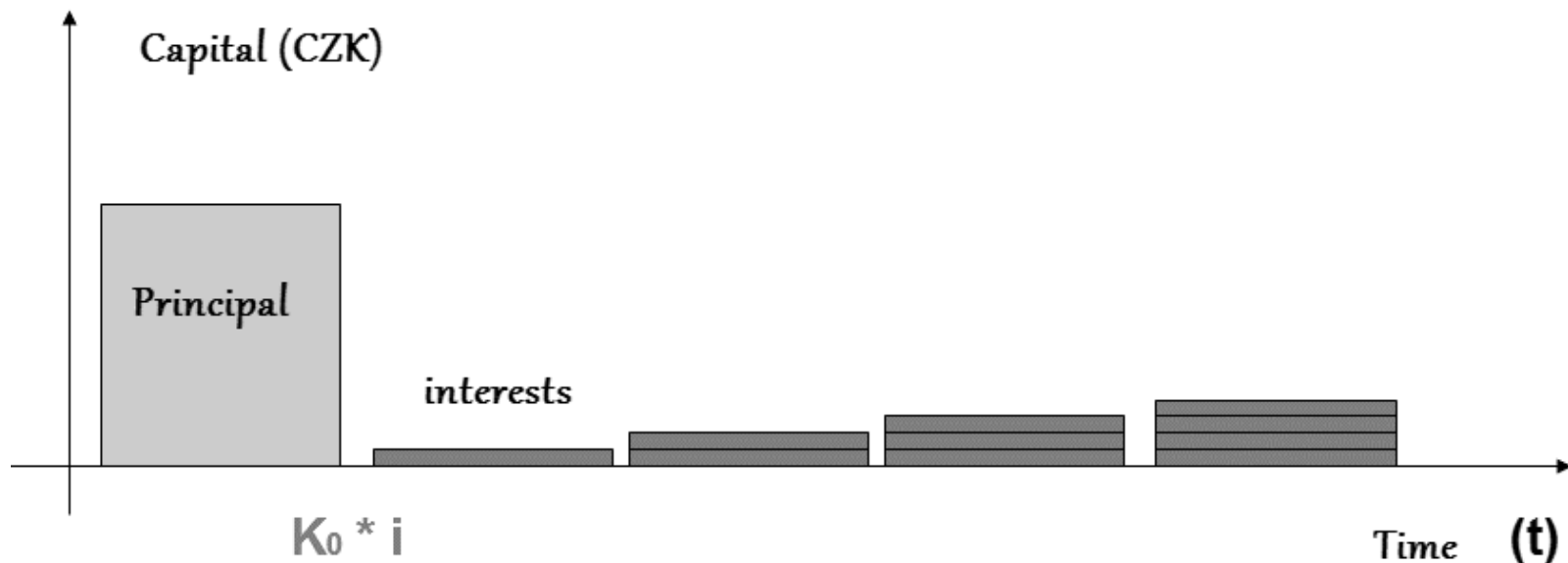
(Radová J., Dvořák P. a J. Málek, 2009; Capinski M. & T. Zastawniak, 2003; Rosser M., 2003; Šoba O., Širůček M. a R. Ptáček, 2013)





# 1.1 Basic terms of financial markets

## Simple interest



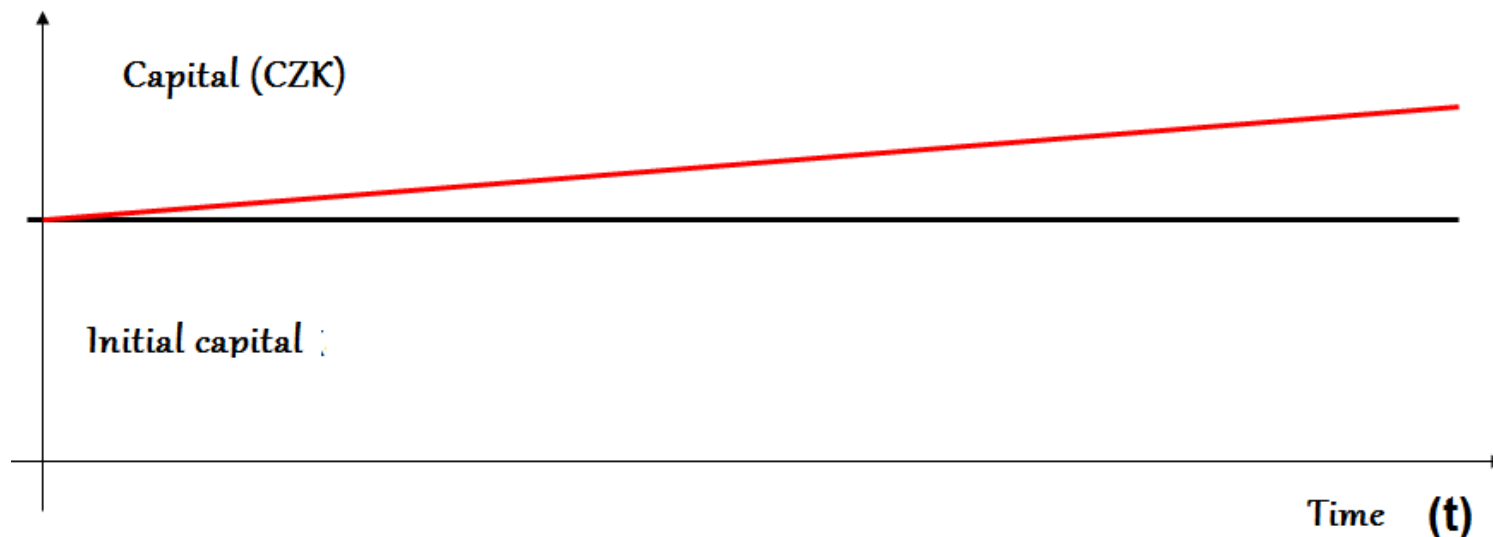
(Radová J., Dvořák P. a J. Málek, 2009; Capinski M. & T. Zastawniak, 2003)





# 1.1 Basic terms of financial markets

## Simple interest – Linear function



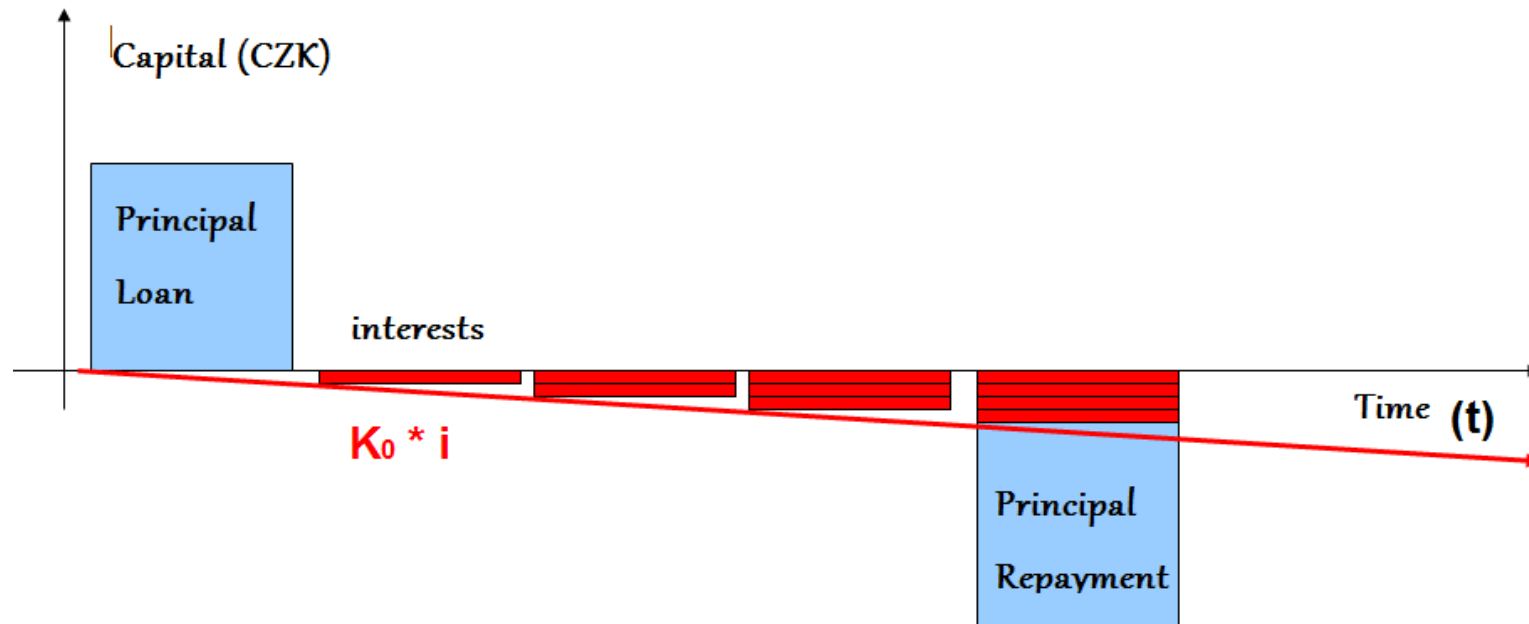
(Radová J., Dvořák P. a J. Málek, 2009; Capinski M. & T. Zastawniak, 2003)





# 1.1 Basic terms of financial markets

Simple interest – Decreasing linear trend (in case of the borrower)



(Radová J., Dvořák P. a J. Málek, 2009; Capinski M. & T. Zastawniak, 2003)





# 1.1 Basic terms of financial markets

Simple interest – Decreasing linear trend (in case of the borrower)

$$ú = K * i * n$$

ú – amount of interest

K – capital (principal)

i – interest rate= $p/100$

n – interest period (or its partial sub-period) in years,  $n = t/360$

$$Ú = (K * p * t) / (100 * 360)$$

ú – amount of interest

K – capital (principal)

p – interest rate p.a. (in %)

t – maturity in days

(Radová J., Dvořák P. a J. Málek, 2009; Šoba O., Širůček M. a R. Ptáček, 2013)





# 1.1 Basic terms of financial markets

Simple interest – Basic formulas for simple decursive interest

To estimate the future value, we can use basic formula

$$K_1 = K_0 * (1 + i * n) \quad \text{or} \quad K_n = K_0 * (1 + i * t)$$

$K_1$ .... amount of capital including interests (future value of capital)

$K_0$  .... initial amount of capital (present value of capital)

$i$  ..... interest rate

$n$  ..... maturity in years

$t$  ..... maturity in days

(Radová J., Dvořák P. a J. Málek, 2009; Šoba O., Širůček M. a R. Ptáček, 2013)

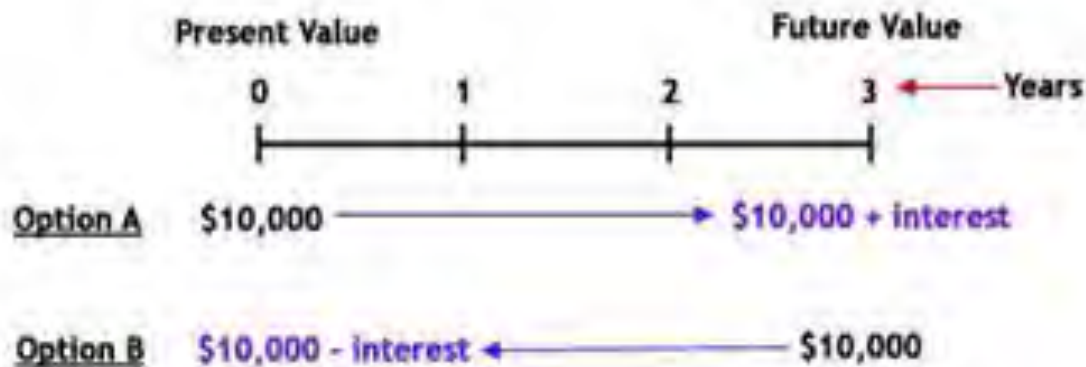






# 1.1 Basic terms of financial markets

Present vs. Future value: Time value of money



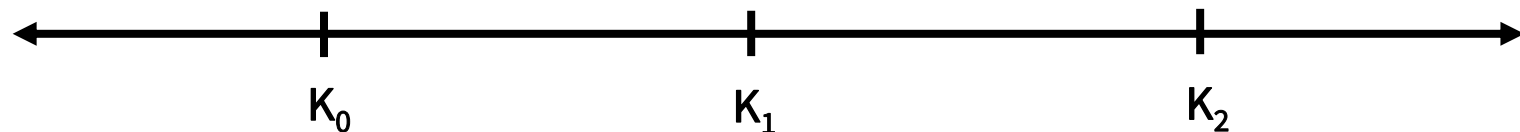
*Present vs. Future value (Investopedia, 2018)*





# 1.1 Basic terms of financial markets

## Simple interest – Time value of money



$$K_0 = K_1 * (1 + i * t)^{-1}$$

Discounted factor (seeking the present value)

$$K_2 = K_1 * (1 + i * t)$$

Accumulative factor (estimating future value)

Estimating future value = Accumulation

When the money flows forward = accumulation = multiplying the value of  $K_1$  by the accumulation factor  $(1 + i * t)$ .

(note: we know the present value but not the future value)

Estimating present value = Discounting

We estimate the present value by discounting = multiplying the value  $K_1$  by the discount factor  $(1 + i * t)^{-1}$ .

(note: we know the future value but not the present value)

(Radová J., Dvořák P. a J. Málek, 2009; Capinski M. & T. Zastawniak, 2003; Rosser M., 2003)





# 1.1 Basic terms of financial markets

## Compound interest

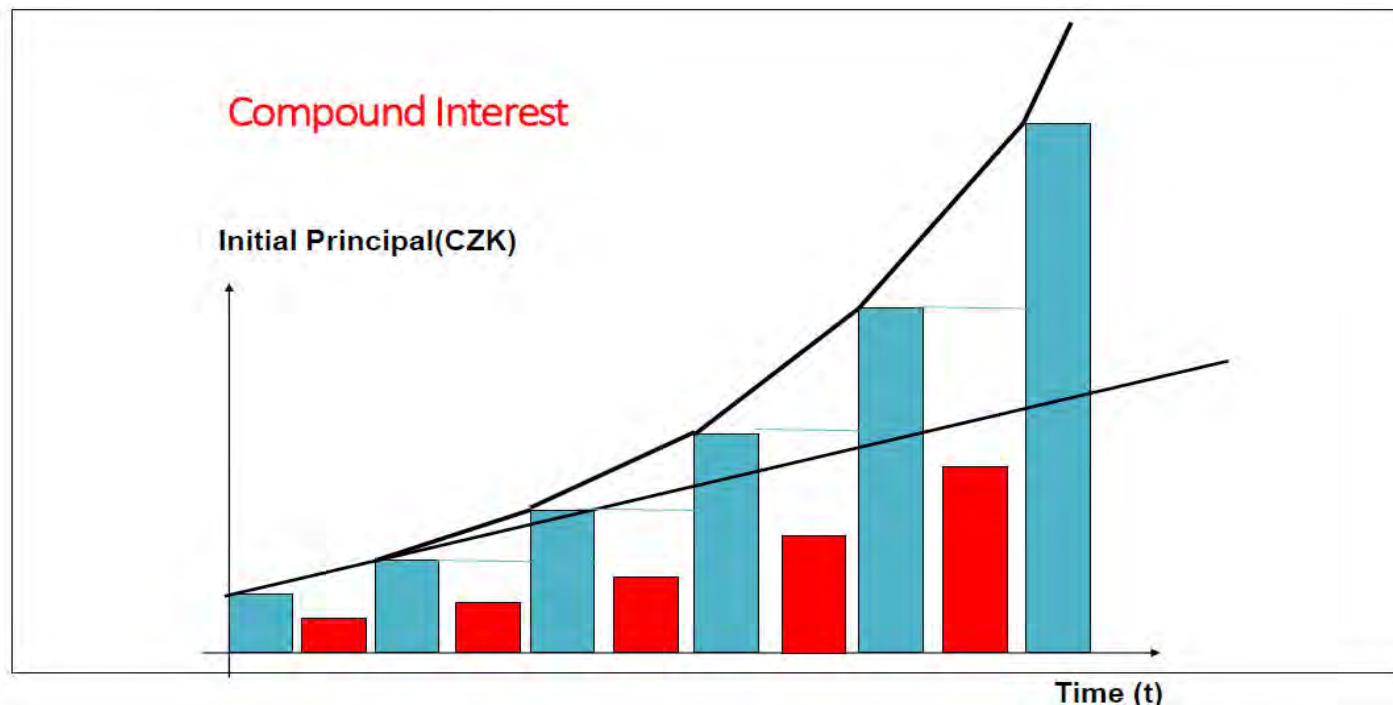
- Compound interest is an interest calculated on the initial principal and also on the accumulated interest of previous periods of a deposit or loan.
- Compound interest can be thought of as “interest on interest,” and will make a deposit or loan grow at a faster rate than simple interest, which is an interest calculated only on the principal amount.

(Radová J., Dvořák P. a J. Málek, 2009; Capinski M. & T. Zastawniak, 2003; Rosser M., 2003; Šoba O., Širůček M. a R. Ptáček, 2013)





# 1.1 Basic terms of financial markets



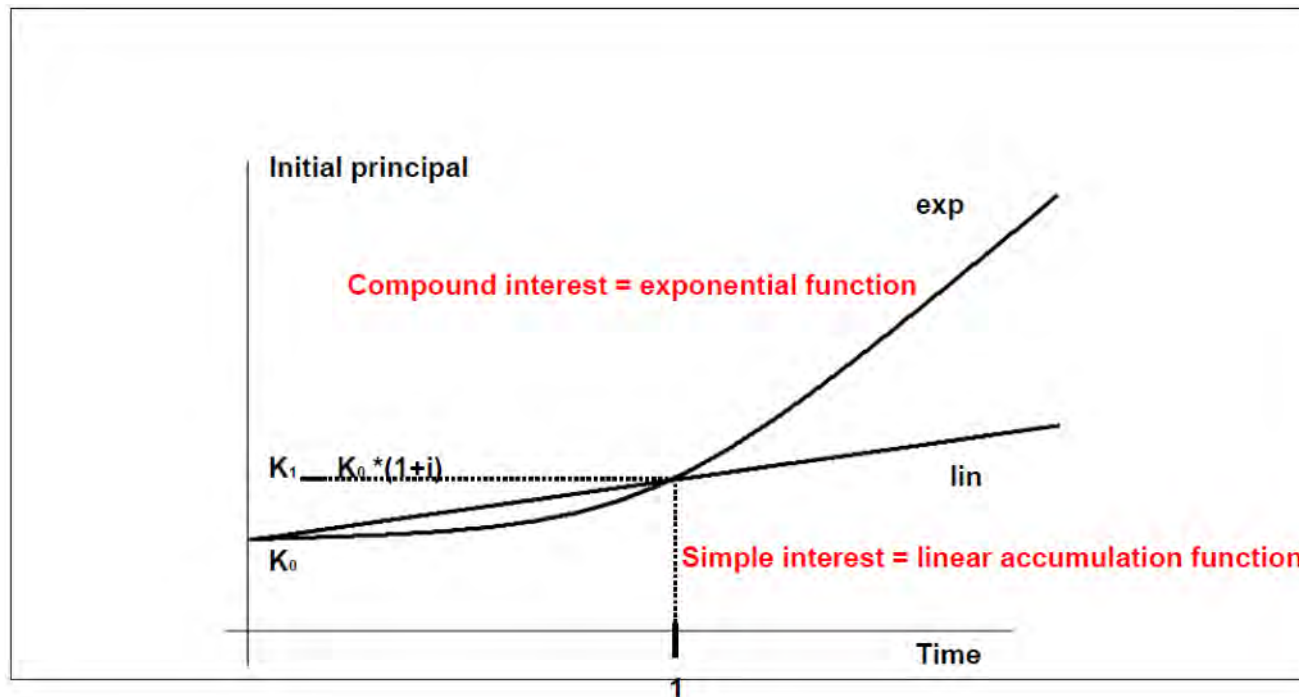
(Radová J., Dvořák P. a J. Málek, 2009; Capinski M. & T. Zastawniak, 2003; Rosser M., 2003)





# 1.1 Basic terms of financial markets

## Compound interest



(Radová J., Dvořák P. a J. Málek, 2009; Capinski M. & T. Zastawniak, 2003)





# 1.1 Basic terms of financial markets

## Compound interest – Basic Formula

Interest period is annual (p.a.)

= interests are compounded annually, at the end of each year

$$K_n = K_0 \cdot (1 + i)^n$$

$K_n$  = future value of the initial principal (capital), amount at the end of  $n$  years

$K_0$  = initial principal (capital) amount today

$i$  = annual interest rate (in decimal form)

$n$  = maturity, period in years

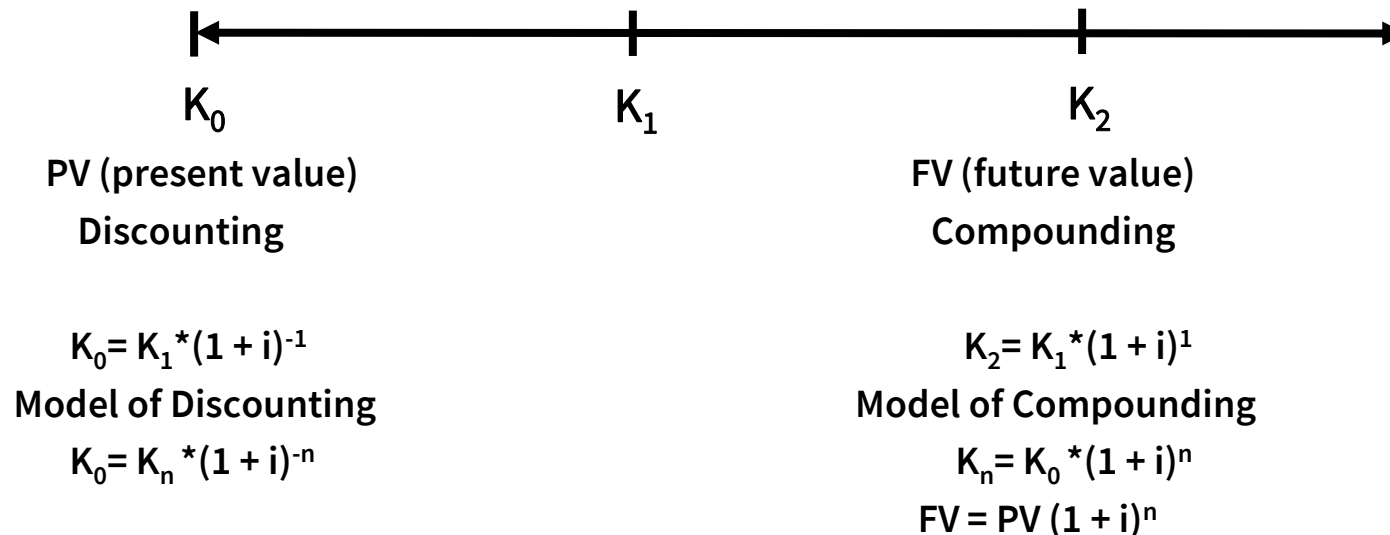
(Radová J., Dvořák P. a J. Málek, 2009; Capinski M. & T. Zastawniak, 2003; Rosser M., 2003; Šoba O., Širůček M. a R. Ptáček, 2013)





# 1.1 Basic terms of financial markets

Compound interest - Time Value of Money, Present and Future value



Linkage between PV and FV: Since money has time value, we naturally expect the future value to be greater than the present value because of interest.

(Radová J., Dvořák P. a J. Málek, 2009; Capinski M. & T. Zastawniak, 2003; Rosser M., 2003)





# 1.1 Basic terms of financial markets

Present vs. Future value: Time value of money

$$PV(I_0) = \sum_{t=1}^N \frac{CF_t}{(1+r)^t}$$

*PV(I<sub>0</sub>) = present value of investment at time 0*  
*CF<sub>t</sub> = cash flow from investment at time t*  
*r = discount rate*

$$NPV(I_0) = CF_0 + \sum_{t=1}^N \frac{CF_t}{(1+r)^t} = -I_0 + \sum_{t=1}^N \frac{CF_t}{(1+r)^t}$$

*NPV = net present value*  
*CF<sub>0</sub> = cash flow from investment at time 0*  
*CF<sub>t</sub> = cash flow from investment at time t*  
*I<sub>0</sub> = cost of investment at time 0*  
*r = discount rate*

(Mejstřík et al., 2008)







# 1.1 Basic terms of financial markets

**Saving (foregone consumption) vs. Investment (current consumption)**

- NPV rule
- Rate-of-rate rule

(Mejstřík et al., 2008)





# 1.1 Basic terms of financial markets

- Triangle of any Investment



(Radová J., Dvořák P. a J. Málek, 2009; Capinski M. & T. Zastawniak, 2003; Rosser M., 2003; Šoba O., Širůček M. a R. Ptáček, 2013)





## 1.2 Types of financial markets

- a) maturity of financial instruments
  - a) Money market, Capital market
- b) a trading place
  - a) National, Foreign, Euromarkets
- c) maturity of the market
  - a) Nature, Emerging
- d) trading assets
  - a) Stock, Debt (loans and bonds), Commodity (gold, corn, oil), Currency (CZK, USD, EUR), Derivates
- e) tradability of the issue of an instrument
  - a) Primary, Secondary

(Mejstřík et al., 2008; Musílek, 2011, Rejnuš, 2014; Phillips P.J. & C. Viney, 2012; Mishkin, F.S., 2016)





## 1.2.1 Money Markets

- The money market is a segment of the financial market in which financial instruments with high liquidity and very short maturities are traded
- Money markets are used for borrowing and lending in the short term – from days to a year
- Money market securities are comprised of negotiable certificates of deposit, banker's acceptances, U.S. Treasury bills, commercial paper, municipal notes, eurodollars, federal funds and repurchase agreements
- Money market investments = cash investments
- According to Magic Triangle, financial products of money markets have relatively: low risk, high liquidity, low return (also due to taxation and inflation)

(Musílek, 2011, Rejnuš, 2014; Phillips P.J. & C. Viney, 2012; Investopedia, 2018)





## 1.2.1 Money Markets

- According to Magic Triangle, financial products of money markets have relatively:
- low risk
- high liquidity
- low return (also due to taxation and inflation)

(Investopedia, 2018)





## 1.2.2 Capital Markets

- In the capital markets, individuals and institutions trade financial securities
- Organizations and institutions also sell securities there to raise funds
- Thus, the capital market is composed of both the primary and secondary markets
- Maturity of capital markets products – more than 1 year

### 1. Stock Markets

- Allow investors to buy and sell shares in publicly traded companies
- Is divided into the primary market and the secondary market

### 2. Bond Markets

- A bond is a debt investment in which an investor loans money to an entity, which borrows the funds for a defined period of time at a fixed interest rate
- Bond market is also referred to as the debt, credit or fixed-income market
- The main categories are corporate bonds, municipal bonds, U.S. Treasury bonds, notes and bills = all referred to as Treasuries

(Musílek, 2011, Rejnuš, 2014; Phillips P.J. & C. Viney, 2012; Investopedia, 2018)





## 1.2.2 Capital Markets

- According to Magic Triangle, financial products of capital markets have relatively:
- higher risk
- liquidity based on the type of security
- a higher return expected

(Capinski M. & T. Zastawniak, 2003; Rosser M., 2003; Musílek, 2011)





## 1.3 Key functions of financial markets

- A fund transfer from surplus to deficit entities and therefore financial markets enable deficit entities to finance their activities
- Capital allocation and the relocation of capital according to its efficiency (e.g. project selections)
- An incentive for households saving – financial markets mobilize and aggregate capital for large projects
- Securing the liquidity of financial assets through the allocation efficiency of financial markets create prices continuously – an important signal for economic subjects (e.g. monitoring, the real use)
- Enforcement of contracts, debtors must repay their debts
- Risk sharing – financial markets enable the allocation, transfer and share of risk with other investors and companies
- Risk diversification – with respect to expected cash flows from different projects

(Mejstřík et al., 2008)







## 1.3 Key functions of financial markets

- **Cost efficiency – financial markets lower costs of the payment system and financial transactions in general (so-called operational efficiency)**
- **An important role in defining a money multiplier**
- **Support for ownership rights performance in the Principal-Agent model, sometimes also called the financial model**

(Mejstřík et al., 2008)





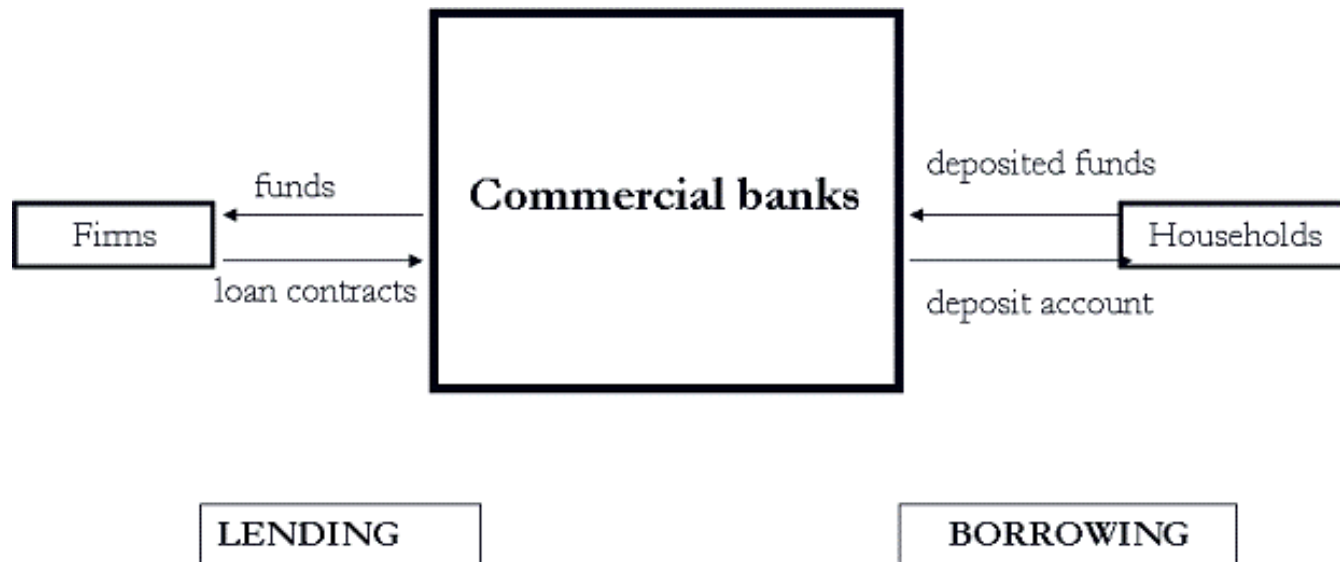
## 1.4 The role of financial intermediaries

Type of intermediary	
Depository Institutions (banks)	Commercial banks
	Building society
	Credit unions
Contractual Savings Institutions	Insurance companies
	Pension funds
Investment intermediaries	Finance companies
	Mutual Funds
	Money market mutual funds
Other financial institutions	Mortgage banks
	Leasing companies
	Factoring companies





## 1.4 The role of financial intermediaries



(Rose, 2002)





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# Thank you for your attention

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Tomas Bata University in Zlín



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# **Banking and Insurance I.**

—

## **The Commercial Banking**

**Ing. Blanka Kameníková, Ph.D.**



**2019**

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## INTRODUCTION

The following work will analyze the banking system of central banks in general but it will also explain how the biggest central banks in the world work, how they are organized and which goals they should reach. This will be explained in the chapter 1 named The European Central Bank, The Federal Reserve System and The Czech National Bank.

The following topic will analyze principles of banking in general and will focus on the essence of every bank. This part will also examine passive and active deals, risk management and banking regulations and will be explained in the chapter 2 named Commercial banks, principles of banking, passive and active deals.

The work will be concluded with the topic of a foreign trade, their instruments and currency exchange rate will be explained either. These topics will be covered in the chapter 3 – Foreign trade instruments and services.



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# 1 THE EUROPEAN CENTRAL BANK, THE FEDERAL RESERVE SYSTEM, THE CZECH NATIONAL BANK

## 1.1 The Central Banking System

Policies of central banks regulate and have influence on banks all around the world or in a specific country. The primary goal of central banks is to maintain monetary policy. In the history of central banking, banks had to fulfill two main goals and these were granting credits to government institutions and the management of government accounts. Central banks were founded in several ways:

- a) conversion from a commercial bank
- b) the right to issue banknotes and coins
- c) foundation of a new institution (Mejstřík, 2008)

### 1.1.1 The Origins of Central Banks

In comparison to merchant banks, central banks are rather young institutions. The first ones originated in 17<sup>th</sup> century where the main reason to originate came from a monarch or a member of government in order to have more control under so called cash flow but also to ensure new source for financing their interests. The closest scheme of today's central banks came up in 20<sup>th</sup> century when the reasons were rather more reasonable than before. The reasons were to create emission monopoly of cash, which consolidated fragmented emission operations of various banks. An additional reason was implementation of monetary policy or controlling and regulating operations of merchant banks. These three functions together form main signs of central banks in market - oriented economies. (Revenda, 1999)

### 1.1.2 Principles of Central Banks

The main principles connected to central banking are credibility, transparency, responsibility and independency. (Revenda, 1999)



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## 1.2 The European Central Bank

### 1.2.1 The European System of Central Banks, Eurosystem and Euro Area

The European System of Central Banks (ESCB) was created in accordance with the Maastricht Treaty and the Statute of the European System of Central Banks and of the European Central Bank. It is composed of the European Central Bank (ECB) and the national central banks (NCBs) of all states, which are part of the EU whether they have accepted euro or not.

The Eurosystem comprises the ECB and the national central banks of countries which accepted the euro. Both the Eurosystem and the ESCB will exist simultaneously while the EU has Member States which are outside the euro zone.

Euro area consists of the EU countries, which have accepted the euro. (ECB, 2018)

### 1.2.2 The European Central Bank

The European Central Bank (ECB) is an official EU institution and the Single Supervisory Mechanism with its own legal personality. It is the central bank of the 19 European Union countries. After certain negotiations between France and Germany, it was agreed that the ECB will be seated in Frankfurt am Main. Its main tasks are to maintain price stability, avoid inflation and preserve purchasing power of countries which use euro. Only the ECB has the permission to emit euro. The ECB works absolutely independently therefore is not subordinate to any other body of the EU or its member states.

The ECB was established together with the European System of Central Banks (ESCB) in June 1998 in Frankfurt am Main. The legal basis for the occasion was the Treaty on the Functioning of the European Union and the Statute of the European System of Central Banks and of the European Central Bank. The staff of the ECB are all members of all countries who joined the European Union. (ECB, 2018)



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### 1.2.3 The main goals of the ECB

The main goals of the ECB are to maintain price stability, carry out the monetary policy, pay attention to the value of the euro and maintain price stability for the common good and to promote European financial integration, conduct foreign exchange operations but also hold and govern the official reserves of the euro area. The benefits of price stability are many, for example, the price stability ensures a higher living standard through a high level of economic activity and employment, makes the transparency of relative prices, reduces inflation risk, reduces distortions of tax system and social security system, increases the benefits of holding cash and also prevents the arbitrary redistribution of wealth and income. The European Central Bank is also responsible for the supervision of credit institutions located inside and outside of the euro area. The ECB also needs to secure the safety, soundness and stability of the EU financial system and aims at reaching the highest level of integrity, competence, efficiency and accountability. The next part of the mission is generally advisory and coordination work. It helps for new countries with preparation for joining the euro and pays attention to day-to-day running of the bank. Nevertheless, the ECB has three main objectives and these are to maintain price stability, support general economic policies of the European Union states and ensure an open market economy. (ECB, 2018)

The Maastricht Treaty states that the ECB has the exclusive right to authorize the issue of euro banknotes. (European Central Bank, 2008)

The ECB also follows something, which could be named as strategic intents. One of them is a monetary authority of the euro area and it is a leading financial authority, undertaking the necessary economic and monetary analyses, adopting and implementing appropriate policies but also accountability, independence, credibility, closeness to the citizens of Europe and with that related shared identity. (ECB, 2018)

### 1.2.4 Organization of the ECB

The president of the ECB is Mario Draghi and the Vice-President is Vítor Constâncio. The main decision-making body is the Governing Council and the Executive Board. The Governing Council consists of the 6 members of the Executive Board and the governors of the central banks of the 19 euro area countries. The Governing Council also makes decisions about monetary policy of the ECB and the Executive Board implements these decisions and



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also is responsible for daily management at the ECB. The General Council is also a part of the decision-making process and will be closed after all Member States of the EU will adopt the euro as their currency, until then, the General Council will co-exist. (ECB 2018)

### 1.3 Banknotes and coins

#### 1.3.1 Banknotes

The Euro banknotes have been used since 1 January 2002. EU has seven denominations: €5, €10, €20, €50, €100, €200 and €500. The size of banknotes corresponds with its value - higher the price, higher value. The banknotes portray different architectural styles such as classical, Romanesque, Gothic, baroque and rococo, modern twentieth century architecture and more. The banknotes also display certain architectural elements: windows, gateways and bridges.

A number of security features were used such as a watermark, a hologram, a security thread and color-changing ink in order to protect the banknotes against counterfeiting. (European Central Bank, 2008)

#### 1.3.2 Coins

One euro is 100 cent. EU has 8 euro coins: ¢1, ¢2, ¢5, ¢10, ¢20 and ¢50, €1Euro and €2 Euro. Every coin has two sides, one of them is national and the other “European”.

The coins are also different in size but also weight, material, color and thickness. A higher level of security was taken with higher-value euro coins (€1 and €2) to protect them against counterfeiting. Exactly, a two-color design and embossed characters around the coin is what makes it difficult. (European Central Bank, 2008)

### 1.4 The Federal Reserve System

The Federal Reserve System (Fed) is the central bank of the United States, which ensures its safe and stable monetary and financial system. The Fed is at the same time the biggest and most influential central bank in the world. The bank was founded on 23<sup>rd</sup> December 1913 with the Act of Federal reserves and its activities has began the following year. The



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bank is comprised of 12 regional banks, which are strategically placed in particular regions and many of them have their own branches. The mentioned division should contribute to the effective administration of such a large territory, which the U.S. definitely is.

Originally, every bank of the Fed had its own monetary policy and interest rates but that changed in 1935 with the Banking Act. The Board of Governors was founded and is located in Washington. Since then the Fed's policy is united and the targeted interest rate is only one.

The main goals of the Fed are to reach high employment rate, price stability and sustainable long-term interest rate, support of economic growth, create monetary policy, monitoring of banking institution and maintaining stable financial system. (Federal Reserve, 2018)

#### **1.4.1 Organisation of the Federal Reserve System**

The highest body of the Fed is The Board of Governors, which comprises of 7 governors with its main office in Washington. All members are appointed by the president and the appointment is confirmed by the Congress. The term of office is 14 years. The President chooses one chairman and one vice-chairman from 7 governors, whose term of office is 4 years and it is possible to be repeated 3 times. A role of the chairman includes representation of the United States on economic conferences in foreign countries, participating in discussions with the president or Secretary of State.

The Fed is not only one bank but a system of 12 regional banks which are located in these cities: Boston, New York, Cleveland, Atlanta, Philadelphia, Richmond, St. Louis, Chicago, Minneapolis, Kansas City, Dallas and San Francisco. As the head of each reserve bank a president who is elected by The Board of Directors stands. The Board of Directors has 9 members. The term of office for the mentioned president is 5 years. The Committee of bank directors is divided into three classes, where one class has three members: A-Class Directors, B-Class Directors and C-Class Directors. The A-Class represents bankers, B-class is formed by representatives of entrepreneurship sphere, industry or agriculture.

The Fed also has The Advisory Councils which in detail are the Consultative, Saving and Consumer one. The Advisory Councils are used by Governors but also by reserve banks in order to carry out many analyses, statistics and suchlike.







The last part of the Fed structure is The Member Banks. The Member Banks are private banks which have their shares in the Fed's regional banks. In the U.S., there exist banks which are part of the Fed, but also commercial banks which are not. The banks established on a federal level must be a part of the Fed bank system, other banks have a voluntary membership only. (Federal Reserve Education, 2018)

#### **1.4.2 Independence of the FED**

The Fed is a private institution. Every bank from 12 regional banks is a joint-stock company which is owned by a private commercial bank of a given region. The Fed is independent in many respects. For example the institutional independence because even though the Fed was founded by the government, it is still independent of the government and even the president but the Fed can be regulated by the Congress. Another example is the personal independence – the term of office for Governors does not overlap with the political term of office, which should ensure the independence. The functional independence – determination of the Fed's policy is partially influenced by the Congress because it provides its goals and at the same time, has a function of a supervising body above the Fed. An additional one could be the financial independence – the main source of income is a profit from a credit discount, which is provided to commercial banks, interests from government bond and fees from inter banking accounting operations. After paying expenses of 6% dividends to the Member banks, the revenue goes to the state budget as an income. (Jílek, 2013)

#### **1.4.3 The main goals**

The Fed ensures macro-economical functions which care for stable monetary development. These functions are monetary political operations, issuing banknotes and operations with foreign exchange means. The Fed also ensures microeconomic functions such as regulation and supervision over the banking system, representation of the state in a monetary sphere and has a function of the bank of banks and a state bank. The goal of the micro-economical activity is to ensure effective and reliable functioning of the banking system. The Fed can influence economics by using a restrictive or expansive monetary policy. The main tools are particularly The Open market transactions, The Reserve Requirements and The Discount Window. (Federal Reserve, 2018)





## 1.5 Banknotes and coins

### 1.5.1 Banknotes

At present, these kinds of banknotes are printed in the U.S.: \$1, \$2, \$5, \$10, \$20, \$50 and \$100. Banknotes are produced from a special paper which has a quarter made from flax and three quarters made from cotton. Every banknote is of the same size and contains lots of protective elements such as a three-dimensional safety stripe, microprint, the Fed's seal, watermark, changing ink, sunken polymer fiber and so forth. (US Currency, 2018)

### 1.5.2 Coins

The Fed has the issuing monopoly on banknotes but coins are issued through the Treasury Department. The United States Mint produces coins from a copper, a nickel, a manganese and so on and coins have 6 kinds of worth: ¢1, ¢5, ¢10, ¢25, ¢50 and \$1. (US Mint, 2018)

## 1.6 The Czech National Bank

### 1.6.1 Monetary policy

Monetary policy is one of the four economic policy instruments. There is the Czech National Bank in the Czech Republic. Monetary policy influences the amount of money in the market and desire to have market stability. The objective of regulation is to change the amount of money and interest rates in the economy. Changes in the amount of money in the economy are done through expansive or restrictive policies. If it uses the expansive policy, it increases money supply and reduces interest rates. Restrictive monetary policy is its opposite - it reduces money supply and increases interest rates. It uses either direct or indirect instruments. In fact, monetary policy is not able to achieve all its objectives. The central bank can not simultaneously raise and lower the money supply while pursuing the restrictive and expansive policy. Therefore, the CNB can not keep track of both goals at once. The CNB has to choose only one of the objectives and this problem is called the central bank dilemma. (Holman, 2011; Nováček & Švarcová, 2003; The Czech National Bank, 2018; Dornbusch. & Fisher, 1994; Jurečka, 2010)



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### 1.6.2 The main instruments of monetary policy

To influence the range of money supply and to ensure currency stability, the CB uses either direct or indirect instruments. If we had to sort the tools from the most used ones the rates would be first, the open market operations second and then reserves. (Jurečka, 2010)

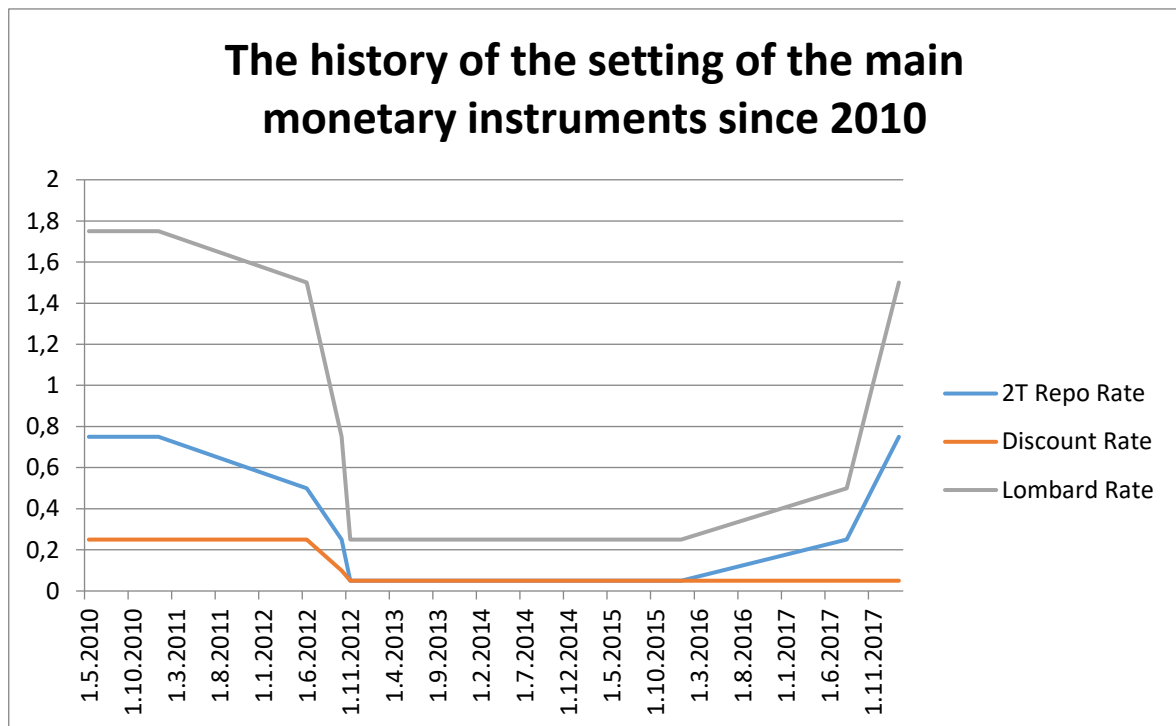


Image 1 The Czech National Bank [online]. (2003-2018).

### 1.6.3 Direct instruments

The central bank uses direct instruments only exceptionally. Regulation of investment credit, regulation of consumer credit and credit ceilings are direct instruments. In addition, we can include credit limits for loans granted to commercial banks, restricting the volume of central bank loans to commercial banks, restricting the movement of money in relation to foreign countries, authorizing the creation of new banks, setting minimum capital, statutory deposit insurance and non-bank personal insurance. Here, we also include liquidity rules, which imply binding regulation between certain items of the bank's liabilities and assets. We can also include credit contingents and credit limits in direct instruments. Credit limits prescribe maximum interest rates on loans.. Nováček & Švarcová, 2003; The Czech National Bank, 2018; Samuelson et. al., 2010)



#### 1.6.4 Indirect instruments

The CNB uses indirect instruments very often. Indirect instruments include a discount rate, central bank credits, open market operations, minimum reserve and conversions and foreign currency swaps. (Nováček & Švarcová, 2003; The Czech National Bank, 2018)

The discount rate is a rate which the Central Bank lends to banks loans. If The Central Bank wants to raise money, this discount rate will increase. Otherwise, if the Central Bank wants to reduce its money supply, it will increase the discount rate. The deposits are remunerated at the discount rate, which generally provides a space for short-term interest rates on the money market. (Nováček & Švarcová, 2003; The Czech National Bank, 2018)

The Central bank loans are loans that the Central Bank provides to other banks. It differs in delivery, maturity, interest rate and purpose. (The Czech National Bank, 2018)

Open market operations consist of securities transactions between the Central Bank and commercial banks. The central bank buys and sells securities on the market. If securities offer, the competition on the money demand side will grow. This may result in an increase in interest rates. In the event that the Central Bank purchases state securities from commercial banks, it increases the money supply and thus reduces the interest rate. Open market operations are used for steering interest rates in the economy. Open market operations are mostly executed in the form of repo operations (based on a general agreement on trading on the financial market). (The Czech National Bank, 2018; Nováček & Švarcová, 2003)

Minimum reserves are funds that banks must maintain as their non-interest deposit. In banking, reserves are that part of bank assets held in the form of cash or deposits in the Central Bank. Banks can not keep these reserves lower, but they can hold more. If the Central Bank wants to increase its money supply it will also lower the minimum reserve requirement. However, when the Central Bank wants to reduce its money supply, it will raise both interest rates and mandatory minimum reserves. (The Czech National Bank, 2018; Nováček & Švarcová, 2003)

Conversions and foreign currency swap consist of the purchase and sale of foreign currencies for domestic currency, or a forward sale at a predetermined rate. (The Czech National Bank, 2018; Nováček & Švarcová, 2003)





The Lombard rate provides a ceiling for short-term interest rates on the money market. The Lombard rate, the rate charged by the CB for granting loans to commercial banks against a pledge for securities (a so-called lombard credit or margin lending facility) which the CB provides to the bank in trouble (for example, lack of liquidity). (The Czech National Bank, 2018; Mejstřík, Pečená & Teplý, 2008).

#### **1.6.5 The main information about The Czech National Bank**

The Central National Bank is the bank of banks. The most common model in most market economies is a two-ring or two-step banking system consisting of central banks and commercial banks. This model originates in the Czechoslovakia in 1990. The Czech Republic also has this system and the central bank, sometimes called the bank or issue bank (central bank), is the Czech National Bank. Its peculiarity lies in the fact that it is an institution established by the state. In this fact, our central bank is independent of the executive, the government is not superior and the members of the government do not have to attend the meeting and one of the main indicators of how we know that the bank is independent of the government is that the governor is elected for a period other than the term of office of the government. For example, the bank can not issue new money to cover the state debt. Its main objective is to maintain price stability, or to hold inflation, which currently stands at around 2%. The aim of our central bank is not profit - it is therefore non-profit organization. Everything it earns goes to the state budget - it is subsidized by the Ministry of Finance. It is a legal entity, but it is not registered in the Commercial Register, but in property-law relations it has the status of an entrepreneur in dealing with own property. It is established under the Constitution of the Czech Republic and carries out its activities in compliance with Act No. 6/1993 Coll., on the Czech National Bank, as amended. Therefore, it can only be interfered by law. (The Czech National Bank, 2018; Nováček & Švarcová, 2003; Revenda, 2001).

#### **1.6.6 History of The Czech National Bank**

The history of The Bank started in 1919 and Alois Rašín, the Banking Authority at the Ministry of Finance, was the first governor (then chairman of the Banking Committee). The name of the Central Bank was established in 1926. It was called the National Bank of Czechoslovakia. And as it is common in Bohemia, the bank changed its name many times.



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In 1939, it was the National Bank for Bohemia and Moravia, in 1945, the National Bank of Czechoslovakia. In 1950, the bank changed not only the name but also the building - the State Bank of Czechoslovakia. On 1 January, there was the division of Czechoslovakia and the names changed into the Czech National Bank and The National Bank of Slovakia. (The Czech National Bank, 2018)

#### **1.6.7 Members of The Czech National Bank**

The supreme governing body of the Czech National Bank shall be the Bank Board of the Czech National Bank (hereinafter referred to as the “Bank Board”). The Bank Board shall set monetary and macro-prudential policy and the instruments for implementing these policies. It shall decide upon the fundamental monetary and macro-prudential policy measures of the Czech National Bank as well as measures in the area of financial market supervision. (The Czech National Bank, 2018)

The Bank Board shall consist of seven members, comprising the Governor of the Czech National Bank (Jiří Rusnok), two Vice-Governors of the Czech National Bank (Mojmír Hampl, Vladimír Tomšík) and four other members of the Bank Board of the Czech National Bank (Vojtěch Benda, Oldřich Dědek, Marek Mora, Tomáš Nidetzky). (The Czech National Bank, 2018)

The Governor, Vice-Governors and other members shall be appointed and relieved from office by the President of the Republic. No person shall be allowed to hold the position of a member of the Bank Board more than twice. The members of the Bank Board shall be appointed for a term of six years. The Governor shall represent the Czech National Bank externally and shall also sign legal rules and acts issued by the Czech National Bank and promulgated in the Collection of Laws. A Vice-Governor nominated by the Governor shall act on his behalf to the full extent of his powers and responsibilities. (The Czech National Bank, 2018)

The media can contact the CNB communications team. The team responds to queries relating to the Czech National Bank and its activities, arranges interviews with the Bank Board members and other CNB representatives, and publishes information on the CNB website in



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accordance with the schedule. The CNB Spokespersons are Denisa Všetíčková and Marek Zeman who is also a director of the CNB. (The Czech National Bank, 2018)

#### **1.6.8 Objectives of The Czech National Bank**

The CNB 's primary objective is to maintain price stability which can be understood as follows:

- a) Internal price stability - price stability in the domestic currency and its level (expressed as inflation)
- b) External price stability - currency exchange rate development of foreign currencies (The Czech National Bank, 2018; Jurečka, 2010)

A continuous economic growth and full employment are the final objectives. The Central Bank can not reach the final objectives directly. Using its instruments, it will first influence the so-called intermediate objectives, which will then contribute to achieving the ultimate objectives. Therefore, the intermediate monetary policy objectives include the optimum money supply (the right amount of money) and the optimal interest rates to be appropriate. (Nováček & Švarcová, 2003; (The Czech National Bank, 2018; Jurečka, 2010)

#### **1.6.9 Functions of The Czech National Bank**

- a) Issue of cash currency – the CNB is the only bank that has the authority to issue
- b) Bank for other banks - serves other banks in the system (deposits, loans, clearing, reserves), it is also called the Bank of Banks
- c) It implements monetary policy - expansive, restrictive or neutral policy - using direct (non-market) and indirect (market) instruments
- d) The function bank of the state (government) - guides the state budget accounts, manages government debt, manages currency reserves, advises the government on monetary issues
- e) it grants and withdraws banking licenses, performs banking supervision, performs banking regulation - determines conditions for the operation of banking
- f) it represents the country in international financial and monetary institutions



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g) The CNB also issues coins and banknotes. It manages payment and settlement between banks. It provides loans to commercial banks and supervises safe operations of the banking state - setting the obligations of banks. It manages the country's foreign exchange reserves. It is a government bank - keeps accounts of government and other state authorities, manages state debt, provides credit to the government. (Nováček & Švarcová, 2003; The Czech National Bank, 2018; Jurečka, 2010; Nováček & Švarcová, 2003)

#### **1.6.10 Buildings and offices of The Czech National Bank**

The CNB headquarters are located in Prague 1. Of course, the CNB also has its branches - Prague, Plzeň, Hradec Králové, Brno, Ostrava, České Budějovice, Ústí nad Labem. The closest branches from Zlín are in Brno and Ostrava. (The Czech National Bank, 2018)

#### **1.6.11 Additional Information about The Czech National Bank**

The CNB has a mobile phone application that will surely please all fans of android apps and various technical conveniences. By putting a banknote on the iPad display, the app can detect counterfeit. The goal of the application is not to detect counterfeits, or to replace UV lamps used by some dealers. (The Czech National Bank, 2018)

Another attraction would be the Czech National Bank People & Money exhibition which was open in 2 January 2002. The exhibition displays the whole history of money. Entry to this exposition is free but must always be pre-ordered. (The Czech National Bank, 2018)



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## 2 COMMERCIAL BANKS, PRINCIPLES OF BANKING, PASSIVE AND ACTIVE DEALS

### 2.1 Definition of a bank

A bank is generally a provider or a deposit institution collecting free money and offering loans to different subjects as well as services which are mainly connected to a payment system. Nevertheless, EU Directive 2006/48/EC defines a credit institution as an undertaking whose business is to receive deposits and other repayable funds from public and to grant credits for its own account. The Directive 2006/46/EC defines a bank as an electronic money institution. The term “bank” also includes several types of banks except the central bank. (Mejstřík et al., 2017)

#### 2.1.1 Different types of banks

There are also different types of banks according to various aspects. However, the basic diversion could be commercial banks, exchange banks, industrial banks, agricultural or co-operative banks, savings banks, central banks and utility banks. Further division might be according to a bank's target group which is following. Banks oriented on retail (consumer), banks oriented on whole sale (corporate), banks oriented on international trade (interstate). (Karafolas 2016; Král 2009)

#### 2.1.2 Relationship between management and owners

Banks in the Czech Republic have a form of a stock company. Therefore, the relationship between a management and a bank is crucial. Nevertheless, the most important factor is a character and a structure of bank's shareholders because they have an influence on constituting by-laws, statutes and rules of procedure. Shareholders also have an impact on bank's management as a stock company. The highest body of every stock company, including banks, is the General meeting of shareholders. Other bank bodies in the world are named differently and also function differently. In the Czech Republic, there is the Board of Directors and the Supervisory Board. In the USA, they have Board of Directors. In France they have Board of Governors and so on. They usually function differently but also have diverse



status, authority, structure and so on. However, their common feature is that they should represent shareholder's interests. (Kantnerová, 2016; Mishkin, 2016)

## 2.2 Principles of banking

Banks are generally described as business subjects that compared to other businesses have many specific features. Many rules, laws and regulations are usually related to bank's activities, but the main goal remains the same (profit maximization or maximization of market price of stock). The business model is a little bit different. On one hand, bank is receiving deposits from clients and on the other hand, it provides loans. The difference between interests from provided loan and received deposits is called interest margin that represents profits of the bank. (Král, 2009)

### 2.2.1 Magic triangle on investment

By this term, we can imagine harmonization of three main indicators: profitability, liquidity and solvency. All three are very important for functioning of the bank, but the problem is that they are contradictory and the optimization is difficult. (Král, 2013)

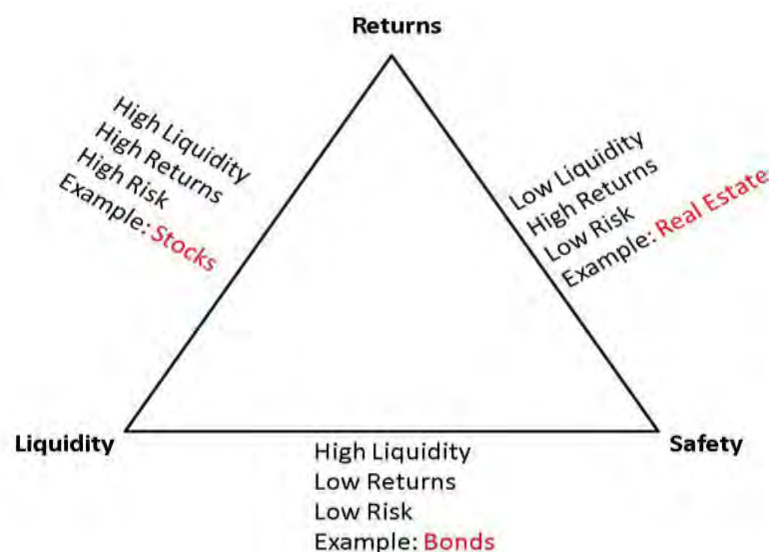


Image 2 Magical triangle of investment, source: Král (2009)

**Profitability**

Capability of bank to create profits by using capital. Bank is profitable if the revenues from capital are higher than costs for obtaining it. ROA (returns on assets) represents total efficiency of bank. ROE (return on equity) represents profitability of capital invested by shareholders. Most of the commercial banks are prioritizing this indicator in long term. Managing of profitability is done through profit plans and cash-flow. (Kantnerová, 2016)

**Solvency**

Ability of a bank to meet its long-term obligations. Generally, surplus of assets over obligations. This attribute is very important because bank is usually managing someone else's money. That is why banks have to be permanently prepared to repay money to investors according to conditions specified in the contract. (Mejstřík et al., 2017)

Three principles of solvency:

The lowest risk principle – lending to proven creditworthy clients (scoring) only

Principle of risk distribution – lending to different clients from different industries (diversification)

Principle of securing – secured by contracts, guarantees, or pledge of movable property

**Liquidity**

Ability of bank to repay short-term obligations, also called immediate solvency. Bank has to be prepared to pay out immediately deposits on sight. Managing liquidity is done through an accurately prepared cash flow report but there are two risks connected with this.

Withdrawal risk – deposits or loans will be cancelled unexpectedly before maturity date

Term risk – danger of a delayed payment of loans

(Mejstřík et al., 2017)



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## 2.3 Bank deals

As mentioned above, profits are mainly made from difference between the interest paid and received, deposits are from bank's point of view passive deals and loans active deals. This chapter will go through these deals and will mention specific products and their essence. (Kantnerová, 2016)

### 2.3.1 Passive deals

These deals are captured on the right side of a balance sheet as liabilities. Banks have to distinguish between primary sources (money collected from citizens, businesses, state) where they have to pay mandatory minimum reserves, and secondary sources (money collected from other banks) where they do not have this responsibility. (Kantnerová, 2016)

*Deposits on Sight* - the essence is in the immediate maturity every day which represents the highest level of liquidity for clients. The interest paid by bank is very low. This product is very important for bank, because it produces a significant amount of money for bank.

*Term Deposits* – Deposits entrusted to bank for a specific time, where the investor is willingly discharging the right to use this money during the negotiated time. This product brings a higher interest for the investor based on the time and amount invested.

*Saving Deposits* – nowadays connected with a special saving account where clients deposit small amounts in long term. The advantage for clients is a higher interest than on a regular account but cannot use this money immediately. The advantage for bank is a significant source of money for a longer period of time.

*Building savings* – a special form of saving deposit, having different attributes. It has a specific purpose of building, reconstructing or purchasing realty and it usually has a pre-agreed amount that has to be collected. The state contributes financially.

*Certificates of Deposits* – securities emitted by a financial institution with the interest set throughout validity. Bank is not obligated to create mandatory minimum reserves for these securities.







*Life insurance* – A long-term insurance based on two ideas: money is paid out either in case of the client's death or after achieving certain age of the client. The most-known forms of life insurance are capital life insurance, classic life insurance, insurance for inability to work.

*Loans from other banks* – in cases when bank has free and unnecessary money, it can offer it to other banks usually for a short-time period for the inter-bank offered rate specific for each state (PRIBOR – Prague, LIBOR – London).

*Loans from CNB* – one of the ways how CNB can regulate the amount of money on the market is lending money to commercial banks, CNB has several products through which can lend money: Discount loan, Lombard loan, Repo operation and Emergency loan.

(Král, 2009)

### 2.3.2 Active deals

After receiving capital from deposits, it is time for bank to transform this money into investment through various forms of loans. Bank provides money as creditor to debtor in exchange for interest. These activities are resulting in revenues for bank. There are two forms of active deals; loans and credit. Loan is connected directly with money, bank is providing money to a debtor, whereas with credit bank, it is only making payment for a debtor. We divide active deals into groups based on several attributes: maturity, subject and form. The form was discussed above. Based on maturity, we recognize short term with maturity less than one year, medium term with maturity between one to four years and long term with maturity over four years. Based on the subject, we distinguish business loans, interbank loans and loans provided to residents. (Král, 2013)

*Overdraft loan* – clients can overdraft their accounts up to certain amount, offered only to a creditworthy client, the most expensive loan for a client.

*Bill of exchange loan* – owners want to sell their bill of exchange before maturity, bank will accept this for a reduced price (discount)

*Consumption loan* – bank provides money to individuals for consumption purposes (purchase of fridge, car, etc.)



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*Credit card* – similar to a regular debit card provided with a personal account, but instead of using your own money, clients borrow money from bank and earn bonuses for using this card. If the borrowed money is repaid in time (usually 30-45 days), there is no interest paid.

*Emission loan* – bank purchases bonds from clients

*Mortgage loan* – a long-term loan for a specific purpose of building, reconstructing or buying realty; mortgage is only provided if it is secured by that realty and only up to certain percentage of the value (e.g. LTV 80% - loan to value)

(Král, 2013)

## 2.4 Risk management

It is defined as uncertainty of future expectation, expressed as probability. The methods of approach are individual for each specific risk. To measure risk, we focus on probability of appearing and quantity of loss. After risk is identified and valued, we make precautions for its elimination or reduction. This process of elimination or reduction is usually connected with additional costs so bank has to keep in mind efficiency of this process.

Risks can be divided into two groups: financial and non-financial. (Mejstřík at al., 2017)

### 2.4.1 Financial risks

**Credit risk** - risk that clients will not be able to meet their obligation, the most important risk that bank faces, the cause of this risk can be internal (related to decisions made by bank) or external (related to the economic growth and political situation)

**Market risk** - resulting from changes of prices and rates on financial markets, the more items in balance sheet influenced by financial markets the more is bank sensitive to this risk

**Liquidity risk** - bank will not have enough money to fulfill immediate obligations

(Mejstřík at al., 2017)

### 2.4.2 Non-financial risk

**Operational risk** – connected with failure of internal processes, people or a system



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**Concentration risk** – arising from an uneven distribution of products among clients, concentration on one group of clients, industry, etc.

**Political risk** – resulting from political changes inside the country

**Legal regulatory risk** – loss caused by violating legal standards

**Model risk** – risk resulting from a wrongly set model

(Mejstřík at al., 2017)

#### 2.4.3 Methods of risk reduction

**Transferring risk to other business subjects** – By making agreements with partners, risk is moved to a different subject, for example by using commission agreements, leasing, factoring, forfaiting or letter of credit

**Diversification** – The aim of this method is to decompose a higher risk into smaller ones. So if one of the deals fail, it will not have a great impact on function of the bank. (Don't carry all the eggs in one basket, or if you drop the basket, all the eggs will be destroyed)

**Elasticity** - In the organization structure, management system of a bank has to be able to react to clients' needs and unexpected situations

**Risk sharing** - Cooperation on bigger deals resulting in lowering potential impact on bank (e.g. a syndicated loan)

**Insurance** – The essence of insuring is replaced by low probability risk with high impact for certain loss with low impact.

**Avoiding risk** – This method is not a good approach towards risk in long run because all activities in business are connected with risk and by avoiding it, business is not developing.

**Post-optimalization analysis** – The method used when processes are already set up and by modeling them with different aspects, we can optimize these.

**Prognosis** – decreasing risk by predicting the outcomes of situations. Creating several variants of possible scenarios.

(Belás, 2013)



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## 2.5 Basel regulations

Regulations published by Basel Committee on Banking Supervision in Basel, Switzerland, these regulations are called Basel Accords. The Committee was formerly composed of CB and regulatory authorities from the G-10 countries. Since 2009, other G-20 major economies have been represented. Three accords issued: Basel I (1988), Basel II (2006), Basel III (2019). (Cipra, 2016)

### 2.5.1 Basel I

The first set of international rules called “Basel Capital Accord” was issued in 1988 and its main goal was the regulation of financial risks (mainly credit risk). This regulation was done through capital adequacy also called Cook’s ration (named after the chairman); it set the proportion of a regulatory capital to risk weighted assets. This ratio was supposed to be at least 8%. The regulatory capital represented “pillow” against credit risk and was divided into two groups: Tier I and Tier II and Tier III. Tier I (core capital) was made of a registered capital and reserve funds and was supposed to make at least 50 % of total capital of bank. Tier II is a supplementary capital with a lower quality such as general reserves and subsidiary debt making at maximum 50 % of total capital. Tier III is the lowest quality capital. Risk weighted assets (RVA) were divided into four groups. (Cipra, 2016)

Risk weight 0 % - cash, bullion, treasuries

Risk weight 20 % receivables for banks from OECS countries

Risk weight 50 % debts secured by realty

Risk weight 100 % corporate debts

### 2.5.2 Basel II

The second Basel set of rules called “New Basel Capital Accord” was published in 2004 and became relevant in 2006. Basel II modified the Basel I regulations in three main areas. First, it extended subjects and products burdened by the Basel rules. Second, it softened some of the standards (e.g. some products were moved to a less-risky group), therefore, capacities of banks were increased. Third, it enabled banks to do risk valuation for themselves (internal rating) or they could hire rating agencies to do it (external rating). (Cipra, 2016)



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### 2.5.3 Basel III

The third set of rules called “The Third Basel Capital Accord” with its final implementation in 2019 is reacting to the financial crisis and should strengthen reliability of the banking sector and increase immunity against upcoming crisis. The main points in Basel III are:

- Additional changes in capital adequacy – strengthening tier I capital, revoking tier III capital
- Making anti-cyclic reserves called “capital buffer” for a better stability during the crisis
- Regulation of leverage effect to stop the excessive growth of balance sheets
- Global liquidity standards - request to create additional reserves for a better liquidity of bank during weak conditions

(Cipra, 2016)



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## 3 FOREIGN TRADE INSTRUMENTS AND SERVICES

### 3.1 Foreign trade

Foreign trade is exchange of capital, goods, and services across international borders or territories. In most countries, it represents a significant share of gross domestic product (GDP).

International trade instruments rose from the need of precise, secured and quick compensation of obligations. Technical requirement for this kind of compensation is existence of international network that will realize all these cash flows. Banks already had predispositions for creating this system from domestic market.

(Král, 2010)

#### 3.1.1 Trade and export services

Business transactions are associated with many risks, both for sellers and buyers, and if market relations are to work reliably in worlds of business, clear-cut rules must apply to all parties involved. Smooth transactions require an appropriate contract as its basis. These contracts can be divided into four groups based on their purpose.

- Payment instruments – Documentary collection, Documentary letter of credit
- Security instrument – Documentary letter of credit, standby letter of credit, bank guarantee
- Financing instruments – Forfaiting, Factoring, and Export finance
- Currency risk hedging – Forward rate agreement

(Svatoš, 2009)

#### 3.1.2 Using of foreign trade instruments

These instruments should be considered in several situations, when one of the parties involved has doubts about smooth process of trade f.e:

- When doing business with partner from unstable territories
- When doing business with partner from unstable industry
- When your costs and revenues are in various currencies



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- When you want to secure yourself against the risk that the partner will default contract terms
- When you have not had satisfactory long-term working relationship with business partner

(Belás, 2010)

### 3.1.3 Documentary collection

Documentary collection is one of the most conventional documentary payments world-wide. This instrument is used when partner are not ready to trade without any security, but the involvement of the bank is not necessary. The seller gives order to bank to collect money for goods from buyer in exchange for documents. Bank is responsible for collection according to the terms in contract, but does not guarantee that the payment will be done. (Revenda, 2012)

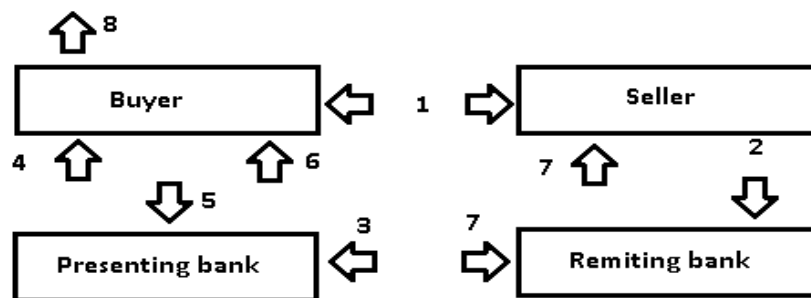


Image 3 Process of documentary collection

1. Purchase contract signed
2. Request to set up documentary collection
3. Sending the collection order and documents
4. Advice to debtor of the documents and terms
5. Execution of relevant operations (payment order is presented or bill is accepted)
6. Releasing the documents
7. Remittance of payment
8. Collection of goods

(Laryea, 2002)

### 3.1.4 Documentary letter of credit

This instrument is used in cases where it is necessary to ensure minimization of risk for both seller and buyer. The seller is ensuring money collection for delivered goods or services, and buyer secures the date of delivery. Documentary L/C is very sophisticated payment instrument but the essence of it is very simple. It is written implicit obligation of importer's bank, that it will pay to exporter specified amount of money, if he presents all documents in time. (Ward, 2009)

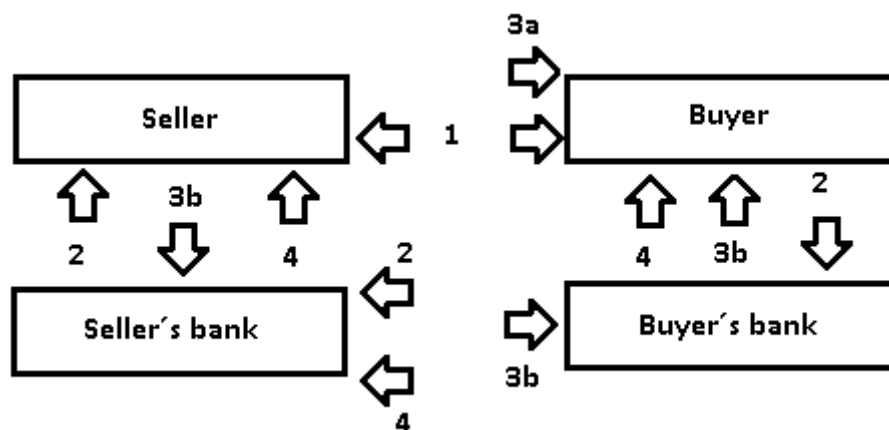


Image 4 Process of documentary letter of credit

1. Purchase contract is signed
2. Based on contract terms, the buyer asks bank to open L/C
- 3a. The seller sends the goods
- 3b. The seller gathers the documents set by L/C and sends them through his bank to buyer's bank, which will check them and finally pass them to buyer
4. The buyer's bank pays the letter of credit to the seller and debits the buyer's account

(Andrle, 2013)

### 3.1.5 Bank guarantee

Bank guarantee is one of the most frequently used security instrument. It is a written statement promising to satisfy the creditor up to a certain amount if a certain third party (debtor) fails to fulfill certain obligation while the creditor meets all the conditions. (Svatoš, 2009)







Banks charge a guarantee fee from their customers on whose behalf they offer their guarantee. (Nagarajan, 2004)

Types of guarantees:

- Payment guarantees
  - For payment of an invoice
  - For repayment of a loan
  - For payment of leasing installments
- Non-payment guarantee
  - Advance payment guarantee
  - Performance bond
  - Warranty bond

(Máče, 2006)

### 3.1.6 Factoring

Factoring can be defined as an assignment of client's receivables due in the future to the bank. Terms, price, etc., are based mainly on the maturity of the receivables and amount of financing. (Polouček, 2006)

Main advantages:

- Flexible and simple form of financing
- Transfer of all risks related to payment to the bank
- Opportunity to offer deferred payment terms to the buyer
- Factoring/Forfaiting can be prepared already in the pre-contract phase and cost can be included into the price of goods

(Machková, Černohlávková, Sato, 2014)



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### 3.1.7 Forfaiting

Forfaiting is a special form of refinancing of trade receivables, mainly used in foreign trade. Forfaiting is the redemption (down payment) of previously unsolvable medium and long-term receivables that are secured:

- Bank guarantee
- Billed bill
- Documentary letter of credit

(Máče, 2006)

Forfaiting is mainly used by the producers, which refinance in this way the receivables for goods connected with the provision of a long-term supplier loan. (Režňáková, 2010)

Main advantages:

- Eliminates risk
- Enhances competitive advantage
- Improves cash flow
- Increases speed and simplicity of transactions

(IFTA, 2018)

## 3.2 Currency and exchange rates

Currency is a specific monetary system for each country. Every currency has several characters like name, nominal structure and rules for emitting, usage and protection. Other characteristics can be determination method of exchange rates or relation to gold. (Král, 2009)

The notion of currency is narrower than the notion of money. We understand money in the Czech Republic for example Czech crowns, US dollars, euro, etc., but the currency in the Czech Republic is only the Czech crown. (Černohorský, Teplý, 2011)



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Exchange rates are expressing the price of one currency in different currency. There are two types of exchange rates:

- Fixed – set by government or central bank
- Floating – price set by forex market (supply and demand)

(Kantnerová, 2016)

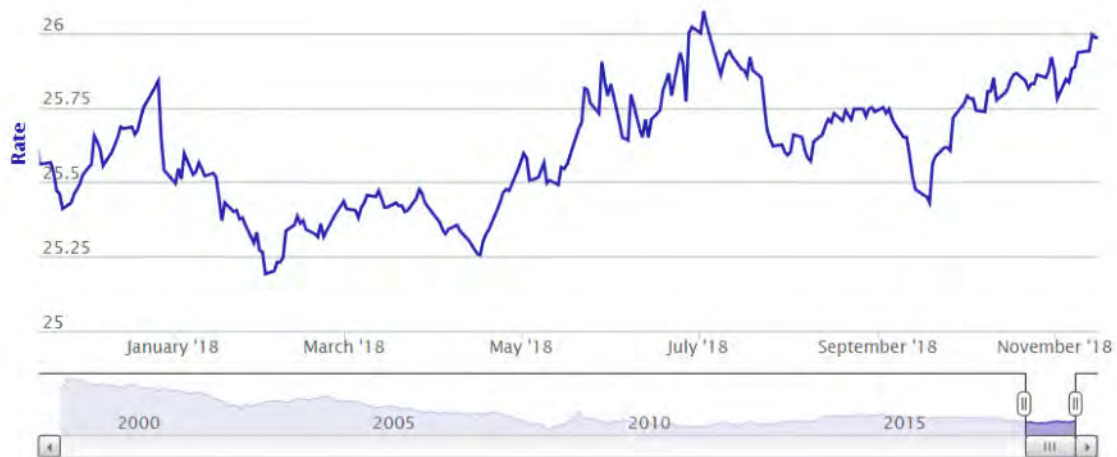


Image 5 Exchange rate EUR/CZK

Currency pairs are stated in the common format under the conventions of the financial markets. It means that the base (main) currency is stated as first. Hence this format cannot be taken as a mathematical expression of the number of units of the first currency for one unit of the second currency but the other way around. Because the Czech national bank sets the exchange rates fixing uniformly as a number of korunas per above-mentioned amount of particular currency such currency is considered as a base one and therefore stated as first. (ČNB)

### 3.2.1 Forward rate agreement

Forward rate agreement is a forward-dated loan, dealt at a fixed rate, but with no exchange of principal – only the interest applicable on the notional amount between the rate dealt and the actual rate prevailing at the time of settlement change hands. (Eales, Choudhry, 2003)

FRA is an agreement between bank and client for purposes of loan, which will client request in the future and which will ensure fixed interest rate for the client. Client knows that he



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will need money in the future and expects changes of interest rates so he fixes them to eliminate additional costs. (Mejstřík, Pečená, Teplý, 2014)

### 3.2.2 Forward Rate Agreement Payment Formula

The formula works with five variables. These are: FRA which is the FRA rate, R which is the reference rate, NP which is the notional principal, P which stands for the period which is the number of days in the contract period, Y which is the number of days in the year based on the correct day-count convention for the contract.

$$\text{FRA Payment} = (((R - \text{FRA}) \times \text{NP} \times P) / Y) \times (1 / (1 + R \times (P / Y)))$$

For instance there is an example with following data:

FRA = 3.5%, R = 4%, NP = 5 million, P = 181 days, Y = 360 days

$$\text{FRA payment} = (((4\% - 3.5\%) \times 5,000,000 \times 181) / 360) \times (1 / (1 + 4\% \times (181 / 360))) = 12,569.44 \times 0.980285 = 12,321.26$$

If the FRA payment is positive, the FRA seller pays this amount of money to the buyer. If not, the buyer pays to the seller. All currencies use the convention of 360 days except a British sterling, which uses a convention of 365 days. (Investopedia, 2018)





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## SUMMARY

Firstly, the paper work described basic terms concerning central banking system and its history. Afterwards, it explained how the biggest central banks such as the European Central Bank, the Federal Reserve System and The Czech National Bank function and examined their organization and goals.

Further, this paper stated general information concerning functions of a commercial bank and explained how banking business works. Subsequently, it examined products of a bank from passive deals to active deals and related risks. Afterwards, it summed up basic information about the Basel regulations.

Finally, this paper work described basic terms concerning foreign trade, currency and exchange rate and moreover explained foreign trade instruments.



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## LIST OF ABBREVIATIONS

CNB	The Czech National Bank
ECB	European Central Bank
EU	European Union
ESCB	European System of Central Banks
FED	The Federal Reserve System
ROA	Return on Assets
ROE	Return on Equity
PRIBOR	Prague interbank offered rate.
LIBOR	London interbank offered rate
CNB/CB	Central National Bank/ Central Bank
f. e.	For example
LTV	Loan to value
RVA	Risk weighted assets
FRA	Forward rate agreement







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