**Czech University of Life Sciences Prague**

**Faculty of Economics and Management**

**Department of Economic Theories**

# Diploma Thesis
# Financial Analysis of Česká spořitelna, a.s.

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# CZECH UNIVERSITY OF LIFE SCIENCES PRAGUE

Faculty of Economics and Management

# DIPLOMA THESIS ASSIGNMENT

Assel Kabysheva

Economics and Management
Economics and Management

Thesis title

**Financial Analysis of ”Česká spořitelna”**

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**Objectives of thesis**

The main goal of this thesis is to apply the chosen methods of financial analysis to the selected bank “Česká spořitelna”. These findings are used in order to characterise and assess financial position of the company and also provide possible proposals for the future development. The aim of this work is to evaluate the financial health of the firm within the selected timeline from 2004 to 2018. The sub-goals of this paper include: (1) gathering information for literature review in order to explain the covered terms and methods of financial analysis, and (2) assessing financial situation based on publicly available data and compare it with recommended values.

**Methodology**

The diploma thesis is divided into two parts: literature review and practical section. Methodology of theoretical part consists of the literature review that describes the purpose of financial analysis. The theoretical part is primarily based on the use of scientific literature, journals, articles and accounting books. A significant part of the literature review is dedicated to the methods of financial analysis, which are absolute (horizontal and vertical analysis) and differential indicators, ratio indicators such as: liquidity, efficiency, financing, profitability ratios. Practical part implies the general information about the selected company and deals with an application of the selected financial analysis indicators based on the data collected from the annual reports of the chosen company. The achieved results from calculations are necessary for an assessment of the financial position of the selected company and for formulation of recommendations for future development. Besides, a comparison with other Czech bank is driven on the basis of the obtained results.

**The proposed extent of the thesis**

60-80

**Keywords**

financial analysis, financial statements, liquidity, balance sheet, profitability, financial ratios, horizontal analysis, vertical analysis, debt

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**Recommended information sources**


Fridson, M. and Alvarez, F., 2011. Financial Statement Analysis. Hoboken, NJ: Wiley, ISBN: 978-0-470-63560-5.

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# *Declaration of Honour*

I declare that I have worked on my diploma thesis titled 'Financial Analysis of Česká spořitelna, a.s.' by myself and I have used only the sources mentioned at the end of the thesis. As the author of the diploma thesis, I declare that the thesis does not break copyrights of any their person.

In Prague on March 31st, 2021 ____________________________

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I wish to show my appreciation to my supervisor, Ing. Pavel Srbek, Ph.D who guided me throughout this project. I would like to thankful for his advice that led my steps to the right path and improved this Diploma Thesis.

I want to thank to all my family and friends for the support given during the elaboration of this Master Thesis and in the period of my studies at the Czech University of Life Sciences Prague.

Assel Kabysheva

Prague, March 31st, 2021

# ***Financial analysis of Česká spořitelna, a.s.***

## *Abstract*

Nowadays, the Czech financial market is controlled by a small group of large banks. The three largest market players are - Československá obchodní banka (ČSOB), Česká spořitelna (ČS) and Komerční banka (KB). Their accumulated assets constitute 62,4% of the Czech banking market. This thesis is aimed at analyzing one of the oldest Czech banking system market players - Česká spořitelna (ČS). The major purpose of this thesis is to determine and assess the financial performance of the chosen bank with the help of analysis of the annual reports and financial statements for the selected period from 2004 till 2018. In order to achieve this goal, vertical and horizontal analysis would be conducted as well as selected efficiency ratios (cost/income ratio), liquidity ratios (loan/deposit ratio), leverage ratios (debt-to-equity, debt ratio, capital adequacy ratio) and profitability ratios (return on assets, return on equity, net interest margin) calculated and interpreted. The results achieved would be compared between each other in order to understand if the Czech banking sector leader is profitable. Moreover, a comparison with Československá obchodní banka (ČSOB) would be conducted as well as comparison with the Czech banking sector averages. Besides, the overall evaluation of the financial performance of the selected bank would be held, hence, recommendations and corrective measures would be proposed.

**Keywords:** financial analysis, financial statements, liquidity, balance sheet, profitability, financial ratios, horizontal analysis, vertical analysis, debt

# ***Finanční analýza České spořitelny, a.s.***

## *Souhrn*

V současné době je český finanční trh řízen malou skupinou velkých bank. Tři největší hráči na trhu - Československá obchodní banka (ČSOB), Česká spořitelna (ČS) a Komerční banka (KB). Jejich akumulovaná aktiva tvoří 62,4% českého bankovního trhu. Tato práce je zaměřena na analýzu jednoho z nejstarších hráčů na českém bankovním trhu - České spořitelny (ČS). Hlavním účelem této práce je určit a posoudit finanční výkonnost vybrané banky pomocí analýzy výročních zpráv a finančních výkazů za vybrané období 2004 až 2018. K dosažení tohoto cíle byla provedena vertikální a horizontální analýza budou provedeny, stejně jako vybrané poměry efektivity (poměr nákladů / výnosů), poměry likvidity (poměr půjčky / vkladu), poměry pákového efektu (dluh k vlastnímu kapitálu, poměr dluhu, poměr kapitálové přiměřenosti) a poměry ziskovosti (návratnost aktiv, návratnost o vlastním kapitálu, čistá zisková marže) vypočteno a interpretováno. Dosažené výsledky budou vzájemně porovnány, aby bylo možné pochopit, zda je lídr českého bankovního sektoru ziskový. Dále by bylo provedeno srovnání s Československou obchodní bankou (ČSOB) a srovnání s průměrem českého bankovního sektoru. Kromě toho by proběhlo celkové hodnocení finanční výkonnosti vybrané banky, a proto by byla navržena doporučení a nápravná opatření.

**Klíčová slova:** finanční analýza, finanční výkazy, likvidita, rozvaha, ziskovost, finanční ukazatele, horizontální analýza, vertikální analýza, dluh

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## *List of Abbreviations*

| | | |
|---|---|---|
| BS | — | Balance sheet |
| CAR | — | Capital adequacy ratio |
| CAS | — | Central Authentication Service |
| ČNB | — | Czech National Bank |
| ČS | — | Česká spořitelna |
| ČSOB | — | Československá obchodní banka |
| CZK | — | Czech Koruna |
| D/E | — | Debt-to-equity |
| EBIT | — | Earnings Before Interest and Taxes |
| EU | — | European Union |
| FV | — | Future Value |
| GAAP | — | Generally Accepted Accounting Principles |
| IAS | — | International Accounting Standards |
| IFRS | — | International Financial Reporting Standards |
| KB | — | Komerční banka |
| KBC Group NV | — | Merger of Kredietbank, CERA Bank and ABB Insurance |
| LDR | — | Loan/Deposit ratio |
| ROA | — | Return on assets |
| ROE | — | Return on equity |

# Introduction

Financial analysis is a very important part of any firm, business or financial institution. It plays a vital role in keeping the company competitive on the market. The banking sector is not an exception. Since the primary objective of any financial institution as well as banks is to perform a role of intermediary between the investors and companies or individuals who seek for sponsorship for the business or individual purposes, competition in the banking sector might be high. The financial (accounting) analysis might help the potential investors or customers to decide, assessing the bank profitability and overall performance for the past years. Hence, the annual reports and financial statements are usually available for public use and represented on the official websites.

In this thesis, the Czech banking market would be analyzed based on the example of the oldest and the largest bank in the Czech Republic - Česká spořitelna, a.s., established in 1825.

# 1. Objectives

The main purpose of this thesis is to describe what the financial analysis is, its goals and purposes, sources and methodology, computation and application of the selected indicators to the one the oldest Czech leading banks - Česká spořitelna. This process allows to get certain specific results that would assist in evaluating performance and provision of a subsequent description of characteristics of the current financial positions of the banks. Therefore, the major aim of this work is to analyze the income statements and balance sheets of the bank and assess the financial health and performance within the defined time period from 2004 till 2018. The time period is conditioned by the Czech Republic's accession of the EU.

The results obtained would be compared, interpreted and discussed in relation to the Czech market and compared to another Czech banking sector leader - ČSOB. Besides, the corresponding recommendations and conclusions would be driven.

In order to achieve the above-mentioned goals, it is important to fulfil the following points:

- Explain the notion of financial analysis, sources and users of financial information
- Describe the methods of financial analysis and corresponding ratios

- Discuss the rules, regulations and standards related to the reporting procedures
- Outline the specificities of the Czech banking market
- Collect the data from official open data sources and conduct vertical and horizontal analysis of the accounting statements
- Utilize the computations of selected financial indicators for a purpose of assessment and comparison of the current financial positions of the two banks

## *2. Research questions*

The main focus is to answer the following research questions:

1. Is the Czech bank Česká spořitelna based on the results obtained might be considered profitable?
2. In case if not, what are the main reasons and what corrective measures could be taken in order to eliminate this issue?

## *3. Methodology*

In order to reach the goals, this diploma thesis is divided into two chapters: theory and practice. Methodology of the theoretical part consists of the literature review that describes the purpose of financial analysis. The theoretical part is primarily based on qualitative research with the use of scientific literature, journals, articles and accounting books. A significant part of the literature review is dedicated to the purpose, methods of financial analysis, which are absolute (horizontal and vertical analysis) and differential indicators, ratio indicators such as: liquidity, stability, efficiency, profitability ratios.

Whereas the practical part is based on the quantitative research and implies the general information about the selected bank - Česká spořitelna. This allows the paper to deal with an application of the selected financial analysis indicators based on the data collected from the official annual reports of the chosen bank for the time period from 2004 to 2018. The achieved results from calculations are necessary for an assessment of the financial position of the selected Czech banking leader in comparison to the other banking sector leader — ČSOB as well as contrasting them to the averages of the banking sector, and for formulation of recommendations for ČS future development. The recommendations and conclusions would be driven on the basis of recommended banking sector averages.

# *Literature Review*

## *1. Financial analysis*

Financial (accounting) analysis is the process of examining the data in order to evaluate the current position of the company or financial institution as well as predict the future prospects. This process is necessary for the managers to understand the direction of the business and make the critical decisions based on the results obtained. Hence, it is important for any manager to get involved, understand the roots and notions of the data, and be able to read and interpret it for the business purposes (Mashkour Al Ameri, 2020). The presence of all accounts and statements is good for the business, however, it is nothing without knowing how to interpret and how these terms are connected to each other. All the goals of the companies as well as financial institutions are not possible to be achieved without considering the financial means, thus the financial analysis is very important (Helfert, 2001).

All in all, the financial analysis is a very crucial part of the business, however, not alone for provision of the required information for business development and consequently for significant decisions.

### *1.1. Definition*

Financial analysis is the major process for assessment of the financial transactions in order to understand how well the project, firm, bank, etc. is able to perform based on its financial data. As it was mentioned before, financial analysis aims to explain whether the current position of the business is sufficiently stable, solvent, liquid, or profitable in order to avoid risks and meet the standards (Friedlob and Schleifer, 2003). Therefore, it gives opportunities for taking crucial decisions for the future of the entity (internal use) and making decisions on investments (external use).

In addition to the external and internal use, there are two extra kinds of analysis that can be distinguished - fundamental (intrinsic value assessment) and technical (security value) (Helfert, 2001).

## *1.2. Goals and purposes*

Based on the general terms, we may distinguish four basic objectives of the financial analysis of the company or a bank.

1. **Solvency**

This allows the firm to evaluate the possibility to settle up the debts both short and long term ones. This might be configured based on the liquidity which is shown on the BS (Friedlob and Schleifer, 2003).

2. **Profitability**

This is another aim of financial analysis. It is important to evaluate profitability in the short and long run (Helfert, 2001). This term refers to a company's ability to make earnings and keep the growth sustainable. The source of it is the statement of consolidated income, providing data and sources of income and expenses in more detail.

3. **Liquidity**

One more objective includes liquidity, which might also be found in the BS. It shows the tendency of the firm to keep a cash flow in positive means along with the good handling of current debts (Friedlob and Schleifer, 2003).

4. **Stability**

Additionally to all aforementioned goals, stability is one of the indicators that allow to assess the firm's abilities in the long term (Helfert, 2001). This is a combination of the balance sheet, income statement and other non-financial indicators that might be found in notes.

All in all, in order to set the goals it is significant to assess and make an overview of the past performance of the company based on the goals set; then it would be possible to ensure that the future goals are set wisely.

## 2. Users of financial information

The accounting assumes that the financial statements and data should be available both for individuals and firms. The data is organized based on the purposes of information provision in order to show if the performance of the entity is successful and reliable enough (Atrill and McLaney, 2008). All the accounting information should be provided in accordance with the rules and laws of the country. If it is done for external use, hence, the data contains only basic indicators for conducting a relevant analysis as well as evaluating for achieving stated purposes. On the contrary, if the data is used internally, hence, there should be more extended provision of the data analysis in order to assess the internal prospects of the institution and make corrective decisions (AICPA, 2017).

Based on what was already mentioned before, except internal and external users, one of the primary users of accounting data are authorities, or the government. Each category of the users utilizes accounting reports for various purposes differently, hence, the reporting is done in accordance to each norm.

### 2.1. Internal users

The accounting department in the firm or any financial institution is aimed to provide the internal users with necessary financial data. It is mostly useful for making decisions, referred to as managerial accounting in economic terms (AICPA, 2017).

For managerial accounting it is important to:

- Evaluate how management handles with the obligations to secure and manage the resources of the firm
- Make decisions on borrowing and investments of resources
- Make decisions on necessity of expansion or on the contrary downsizing

As the main users of the internal information, we might conclude that they constitute owners, managers and employees (Coman, 2012).

The first group is owners. It is not surprising that owners might use the accounting information for their purposes. Owners are likely to monitor the sufficiency of the fluctuations of the invested capital, therefore, determine whether the current position and a potential future position of the entity is profitable enough for remaining investment. Undoubtedly, any company is keen on generating good incomes, and on the basis of the financial information, the owners are evaluating the welfare of the company (AICPA, 2017). The next group is internal managers, who are taking the major responsibility of the corporation performance. Their main goal is to reach the target and stated objectives, thus, it is important for the managers to understand and take this factor into consideration for the decision making process on future plans for development. That is why the managers are obliged to take control over the preparation of the reports and financial statements. It is crucial to mention that the information for the internal use should be provided in a timely manner. The last group of internal users are employees. According to Atrill and McLaney (2008), any employee is able to use the information from internal financial statements. However, the limit is usually defined by the company itself - whether the company is willing to provide access to the suitable documents. Also, the employees are liable to perform the audit of the overall financial performance in order to assess the stability of their salaries and wages as well as understanding whether the company or the institution pays relevant taxes. All these factors depend on the financial condition of the institution.

## *2.2. External users*

As it was mentioned above, the external users of information are those individuals or entities that utilize a publicly available accounting information of the company for the purpose of estimating the perceptiveness of the company or financial institution in terms of investment or trust (Coman, 2012).

These groups can be divided into sub-groups of the external users who have direct and indirect interests. Direct interest is conditioned by users' potential interest in operations and outcomes of the entity activities and how they are successful. This group is aiming at analyzing the financial situation, position and performance of the company (Atrill and McLaney, 2008).

First of all, these are investors which are willing to see whether the entity is stable enough for investment, thus making the financial analysis very useful for decision-making (AICPA, 2017). Secondly, there are shareholders the goal of which is to understand whether it is profitable to continue having a share in a particular organization as their shares directly depend on financial performance and outcomes of the company. Thirdly, lenders are the subgroup the purpose of which is to understand the financial condition of the institution, hence, it allows them to decide if this is enough profitable to issue the loans (Atrill and McLaney, 2008). Fourthly, there is a group of suppliers. This subgroup is very much interested in whether it is reliable enough to conduct the business with the selected entity, however, as this thesis is aimed at analyzing the financial institutions, there is no relevance for this particular subgroup.

Concerning the indirect users of the financial information, these individuals or entities are not taking part in the company, there is no direct involvement in it. Those might include the government, authorities that are dealing with taxation, as well as competitors and clients. First, the government is aimed at making records of the activities held in the country, figure out which business sectors are developed enough and evaluate the pace of economic development of the nation (AICPA, 2017). Secondly, there are taxation authorities that are interested if all the accounting is kept in accordance with the norms, laws and regulations of the country, if the entity provides transparent and reliable information. Thirdly, any of the businesses and financial institutions have potential competitors. This group is targeted to identify the weak and strong points of the analyzed organization in order to make sure that they are competitive enough to be on the market. Clients are another group that also might be referred to as customers. In case of the bank institutions, clients are concentrated on the financial position of the entity. If the organization has some issues with the financial performance, the clients are less likely to cooperate with such an organization (Atrill and McLaney, 2008). And, the last one group is students, who use the financial statements and balance sheets for the purpose of financial analysis of the company for educational purposes.

# *3. Financial statements and reporting*

## *3.1. Rules, regulations and standards*

As the thesis goal is to analyze the banking system of the Czech Republic taking into account the two leaders in the banking system, there is a need to introduce what the financial (or accounting) system implies in itself.

According to the Czech laws and regulations, the Czech accounting system is founded on the basis of the double-entry book keeping recordings (Jílková and Koťátková Stránská, 2017). Besides the fact that the Czech Republic is a part of the European Union, the Czech accounting system is obliged to correspond to the accounting systems of the EU, thus, should be very consistent with minor corrections on such things as leasing or depreciation (Bartková, Palochová and Pomp, 2021).

The Czech regulations imply that the accounting rules are entitled to be determined by the Ministry of Finance of the Czech Republic on the basis of the National Accounting Standards. The country deals with the standards prescribed by the IAS/IFRS (Homola and Paseková, 2020). In general terms, it is necessary to mention that the publicly traded entities must use IFRS being governed by the corresponding EU directives for their account books of account as well as for doing financial statements. There are also special norms called the Czech Generally Accepted Accounting Principles (Czech GAAP) that have to be applied for the accounting purposes in the territory of the Czech Republic (PricewaterhouseCoopers, 2009). According to the authorities, the Act on Accounting is the primary legislation that regulates accounting and financial reporting. The implementing decrees of the Ministry of Finance of the Czech Republic (MFČR), the Act on Accounting in particular, and the Czech Accounting Standards (CAS), Act on Accounting No. 563/1991 Coll. as amended, are also crucial for the financial system since these are programmed to specify the responsibilities of individual financial units (Struharová, 2010); (Homola and Paseková, 2020).

## *3.2. Procedures and reporting*

Any company in the Czech Republic is entitled for the annual submission of the balance sheet and profit and loss accounts, based on the standards listed in the annex of the Czech Act on Accounting, to the corresponding court (AION ČS s.r.o., 2021). All accounts must be presented in Czech language utilizing the CZK currency. Moreover, every company is a subject to get prepared for the audit and provide the information for the previous and current statistical changes including preceding developments (Jílková and Koťátková Stránská, 2017). In case of the huge businesses which are present in the list of the stock exchange market are also required to publish the annual report on management.

Additionally, accounting rules depict that the accounting of any company has to keep the documents on file and provide there (1) a true, transparent and comparable information to give a clear overview of the business financial situation; (2) a regular documented recording of all performed economic transactions, which are (3) entered to corresponding accounting journals; and (4) financial statements along with the annual report to the national Commercial Registry (Struharová, 2010).

## *3.3. Administrative procedures*

Each financial statement has to contain the balance sheet (BS), profit and loss statement, and additional notes. The accounting statements might also include the report on cash-flow statements as well as the statement of changes in equity (Friedlob and Schleifer, 2003). In accordance with the laws and regulations, accounting units are obliged to perform auditing on a regular basis and must do the annual report as well. All the aforementioned documents are supposed to be filed to the Commercial Registry, archiving the statements and reports for the period of 10 years minimum as described in the CAS (Pham, 2014).
Financial reporting varies depending on the type of business or company that is held. The CAS and implementing decrees aim to explain the standards for various corporations of

keeping their accounts and reporting processes (Pham, 2014). The Czech regulations assume several separate decrees and standards such as for companies, banks and other financial institutions, etc.

# *4. Sources of financial analysis*

The data is usually gathered from different financial as well as non-financial sources. Financial sources themselves include balance sheet (BS), income statement and cash-flow statement, whereas the non-financial sources imply notes and annual report of the firm (Helfert, 2001). All these origins of financial information play a vital role in the creation and conducting financial analysis of the firm. Besides, a successful interpretation of the financial data obtained contributes to evaluation of the current performance of the firm and its value. Moreover, it allows to project a prosperous future.

Due to the availability of the data, this thesis is aimed to analyze the indicators coming from the income statement and the balance sheet of the two selected banks.

## *4.1. Income statement*

Contrary to the balance sheet, the notion of the income statement implies the financial information that is used to provide the basis for the entity's performance analysis, demonstrating the ability of the company to generate the profit (Bartov and Mohanram, 2014). As a rule, the income statement demonstrates the accounting information for a selected period of time. However, it is necessary to note that the income statement does not give a whole picture of the current financial condition of the analyzed institution, therefore, it is not possible to predict the future performance. The major elements include: revenues, expenses, net profit, and net loss (Bartov and Mohanram, 2014).

## *4.2. Balance sheet (BS)*

The balance sheet purpose is to provide the data on financial and physical resources available for the future use of the firm. However, a competently composed balance sheet does not ensure that the resources would be allocated wisely by the firm management since the BS is just a list . But it is very important and helpful for analyzing the current state of the financial position and plan and predicting the future performance (Boby, 2013).

**Table 1.** Structure of current and non-current assets.

| Assets | |
|---|---|
| **Current assets** | **Non-current assets** |
| 1.Cash and cash balances with central banks<br>2.Financial assets - held for trading<br>3.Financial assets at FV through other comprehensive income<br>4.Finance lease receivables<br>5.Trade and other receivables<br>6.Current tax assets<br>7.Assets held for sale | 1.Property and equipment<br>2.Investment properties<br>3.Intangible assets<br>4.Investments in associates<br>5.Deferred tax assets<br>6.Hedge accounting derivatives<br>7.Financial assets at amortised cost<br>8.Non-trading financial assets at FV through profit or loss |

Source: Author's processing based on Česká Spořitelna, 2021.

**Table 2.** Structure of current and non-current liabilities.

| Liabilities | |
|---|---|
| **Current liabilities** | **Non-current liabilities** |
| 1.Financial liabilities - held for trading<br>2.Financial liabilities at fair value through profit or loss<br>3.Financial lease liabilities<br>4.Provisions<br>5.Current tax liabilities<br>6.Liabilities associated with assets held for sale | 1.Financial liabilities at amortised cost<br>1. Deposits from banks<br>2. Deposits from customers<br>3. Debt securities issued<br>4. Other financial liabilities<br>2.Hedge accounting derivatives<br>3.Deferred tax liabilities<br>4.Fair value changes of the hedged items in portfolio hedge of interest rate risk |

Source: Author's processing based on Česká Spořitelna, 2021.

The BS consists of the two main parts: assets and liabilities. Assets are subdivided to current and non-current assets. The main features and differences could be observed in the *Table 1* above.

Liabilities is the second part that is also prominent for the financial analysts. The composing indicators might be found in the *Table 2* above.

### 4.3. Operating activities

**Operating incomes**

Operating income is an accounting indicator that demonstrates the amount of income gained by a bank from regular ongoing business operations excluding the operating expenses (ECB, 2000).

**Operating expenses**

Operating expenses is the term used to describe the measurement which indicates the volume of the banking costs utilized for regular ongoing business operations (ECB, 2000).

**Operating results**

This is the term that defines the profit and loss account. This index reflects what the firm was able to earn based on their performance (ECB, 2000). In some literature, this notion is described as Earnings Before Interest and Taxes (or EBIT).

## 5. Methods of financial analysis

The major target of the financial analysis is to get the information on the main indicators that might affect the planning of the business, decision making process as well as depict the financial situation of the company (Mackevičius, Valkauskas and Bachtijeva, 2020).

### 5.1. Definition

Methods of financial analysis is basically a set of techniques that are used to conduct the analysis. In practice, there are four basic methods of financial analysis that have been distinguished by the economists and analysts: these include horizontal and vertical analysis, comparative financial statements, ratio analysis and trend analysis (Avakumovic and Avakumovic, 2016).

## *5.2. Absolute indicators*

The absolute indicators are primarily the stock and flow values. These values play a major role in creation of the content of financial statements in all stages. Stock values are the indicators that are indicated in the balance sheet in which the assets and equity are estimated for an indicted date, whereas flow values are the indicators that are part of the income and cash flow statements, showing the volume of performance reached for a certain period of time (Sizykh and Sizykh, 2021).

These indicators might be analysed in two ways with the use of horizontal (trend) or vertical analysis.

### *5.2.1. Horizontal analysis*

Horizontal analysis (or trend analysis) is the type of analysis of the financial statements that includes the information for a certain period of time, for several years (Baranenko and Mikhel, 2016). For the reporting purposes, the horizontal analysis must include indicators for two or more periods, however, in order to determine a trend, it is necessary to have at least three periods for expanded and more exact picture. Besides, the period might be calculated in years or quarters. A change in the trend slope indicates the decrease or increase of the expenses. The reason why the analysis was called horizontal is because it takes into account the indicators in one row. The general formula for the horizontal analysis is indicated in the practical part of this thesis.

### *5.2.2. Vertical analysis*

There is another type that is called vertical analysis. It is a method that helps to conduct an analysis of the financial statement within the proportion for the one single reporting period (Avakumovic and Avakumovic, 2016). The name of the vertical analysis is determined by the basis of the methodology used. This analysis is conducted within the selected column. The common formula that is used for the vertical analysis is located in the practical part of this work.

## *5.3. Ratio indicators*

The concept of the financial ratios are to evaluate the financial performance of the company. They are intended to show the relationship between two or more indexes. In order to evaluate the current financial position of the entity, there is a need to utilize a number of coefficients and compare them with the averages or the standards prescribed by the official authorities within laws and regulations for this particular industry (Thacker, Witte and Menaker, 2020). All values of the coefficients that are below the stated standards are assumed to be the weak points of the financial performance.

This thesis is aimed to analyze the following ratios: efficiency ratios (cost/income ratio), liquidity ratio (loan/deposit ratio), leverage ratios (debt to equity ratio, debt ratio, and capital adequacy ratio), and profitability ratios (return on assets, return on equity, and net interest margin).

### *5.3.1. Efficiency ratio*

The term of efficiency ratio is a measurement that demonstrates profitability of the bank. In order to compute it, it is needed to divide expenses by the net revenues of the bank.

The lower efficiency ratio, the better because it shows how the bank is able to perform its activities spending less for earning each unit of income. Theoretically speaking, an optimal efficiency ratio is considered to be at the level of 50% (Bautista Mesa, Molina Sánchez and Ramírez Sobrino, 2014). However, the banks usually have higher rates than expected.

**Cost/income ratio**

Cost/income ratio is an indicator that expresses the volume of operating expenses consumed to achieve the operating income. The measurement of this ratio evaluates how efficiently the bank is able to perform. The lower amount ensures profitability of the bank.

### *5.3.2. Liquidity ratio*

The liquidity coverage ratio is the part of the financial analysis that illustrates how well banks are able to hold a required amount of liquid assets sufficient to sponsor and meet the short run (30 days) financial obligations (Rashid, 2018). In this part, the loan/deposit ratio is seen in more detail.

**Loan/Deposit ratio**

This ratio is also known as the LDR ratio. It is utilized for a purpose to evaluate the banks' ability to liquidity. This is a ratio that is indicated in percentage for comparison of the total loans of the financial institution to the total amount of deposits for the selected period of time.

The higher the value of this ratio, the lower opportunity the bank has a liquidity to cover any unpredictable spendings (Rashid, 2018). On the contrary, if the value is too low, the institution fails to earn as much as possible. Basically, this ratio allows to evaluate how good the bank is able to attract potential clients and investors.

### *5.3.3. Leverage ratio*

Leverage ratio is one of the financial indicators that gives an overview of how much capital is got in the form of loans. Besides, it might evaluate how the bank or a company is able to meet the financial obligations based on the internal statements. The leverage ratio is one of the crucial categories since it allows to assess the financial position of the financial institution in terms of its debt, capital and assets (Bautista Mesa, Molina Sánchez and Ramírez Sobrino, 2014). There are two common leverage ratios discussed in the sub-chapters below: debt to equity ratio, debt ratio, and capital adequacy ratio.

**Debt to equity ratio (D/E)**

This is the ratio that measures the total amount of financing a firm has raised from loan versus equity. Even though for banks the debt to equity ratio is commonly not desirable to have, the banks have a tendency of high debt to equity. The problem lays behind the logic that the banks have to carry enormous amounts of debt on the regular balance sheets since the banking institutions have meaningful investments in fixed assets.

The D/E is fine when it is between 1 to 1,5. On the other hand, the D/E usually depends on the industry as for instance the banking system tends to have more debt to equity than others (Lumbantobing et al., 2020).

**Debt ratio**

This is also a leverage financial ratio expressed in percentage measuring how well the company or a bank is able to avoid the risks. In general, it is a proportion that indicates the bank's assets over the financed debt (Kedzior, 2012). The lower the indicator of this ratio, the better. However, such institutions as banks are likely to have higher debt, higher than 2.

**Capital adequacy ratio**

This ratio is also referred as CAR. It is a percentage indicator that shows the availability of the bank capital in order to handle risky credit exposures. Capital adequacy ratio might ensure the depositors' protection as well as show if the financial system is sufficiently stable and efficient.

There are two types that can be distinguished: Tier-1 capital and Tier-2 (Das and Rout, 2020). The first one deals with absorption of losses aligned with termination of trading, whereas the latter one handles absorption with liquidation, which threatens the security of depositors.

If the CAR values are low, there are less chances of the financial institution to deal with losses, which would not be beneficial to the depositors of the bank. The efficacy and stability are laid on the higher CAR values, thus, the bank is able to face unpredictable financial issues.

### *5.3.4. Profitability ratio*

Profitability ratios are one the major parts of the financial analysis. In financial terms, this ratio is used in order to evaluate the ability of the banks to make earnings in relation to the number of indicators such as overall revenue, balance sheet assets, operating costs, etc. (ECB, 2000). The data analyzed is for the selected for the specific period of time.

Profitability ratios are mostly compared with the ratios of efficiency. This might allow to make a consideration in terms of how good the company is able to use its assets in-house in order to make relevant income (Thacker, Witte and Menaker, 2020).

In this part, return on assets, return on equity, and net interest margin would be discussed, and hence, used for analysis in the practical part of the thesis.

**Return on Assets (ROA)**

The return on assets (ROA) is an indicator that demonstrates how productively the bank management is able to utilize its assets for the purpose of producing earnings. This index is computed as the ratio of accumulated net profit through the accounting period imputable to the shareholders of the parent company to the average monthly volume of total assets (Naufallita and Hendratmi, 2019).

The higher the return on assets is better for the company. This actively illustrates that the bank makes profits and earns more money through the means of low investments.

A lower RoA means that the bank is not able to utilise assets efficiently. Negative RoA implies the bank's assets are yielding negative return.

**Return on Equity (ROE)**

The return on equity (also known as ROE) is the indicator that measures an efficiency of equity utilization as well as profitability of the bank in relation to the shareholders in percentage. The final value is aimed to show the share of the net profit attributed to the average equity share of the shareholders (Jurevičiene and Rauličkis, 2020).

This indicator is able to aid and understand whether the banking model is sustainable. Investors are able to utilize these calculations in order to make an assessment of the future of the selected bank and determine the potential shocks which might jeopardize the businesses into the risks (Dziak, 2020). Nevertheless, this is not a figure that defines if the company or the bank is worth or not worth to invest in, undoubtedly it requires additional investigation of the relevant factors which cannot be also ignored.

For instance, when the index of the ROE is quite high, that might not mean that it is good. Of course if the net income is drastically higher in comparison to equity, it might mean that the current activity of the bank is very efficient and strong. On the other hand, a high ROE can be a reason to indicate that the equity account is very small in relation to the net income, which basically means that the bank is at the point of a risky situation.

The higher the ROE, the more efficiently the institution is able to generate profits and hence, attract more clients and investors.

**Net Interest Margin**

This is the ratio that demonstrates the difference between the income of interest generated and interest paid to lending entities (Iskandar, 2020). This is a quite narrow specialization ratio, which is entitled for the financial institutions as banks, which deal with lending assets for the sake of interest gain.

According to the regulations as well as the common sense, the net interest margin is supposed to be positive. Only this might ensure that the bank is investing in an efficient manner. The negative value of net interest margin expresses inefficient investments, which is undoubtedly bad.

# *6. Czech banking market*

The Czech Republic has established a European type of two-stage system. This system includes the Central Banking System (or Czech National Bank, ČNB) and a huge network of commercial banks of the universal type. The Law "On Banks" Act No. 126/2002 Coll. states that these commercial banks are able to carry out the banking activities under the ČNB regulations and in accordance with the approval issued by the Czech National Bank (ČNB.cz, 2021). Currently, the Czech Republic accounts around 39 banks within the country. 13 banks out of these 39 are dominated by the share of the Czech capital, while the remaining 26 are either branches of the foreign banks or are under their control (Kajurová and Krajíček, 2015).

The banking sector of the Czech Republic offers all standard services for the implementation of payment transactions, operations on deposits and loans, guaranteed trade transactions to services in the capital market, custody services, consulting, financial trade, including electronic banking services at a modern high level. Banking supervision and management mechanisms for other deposit systems that cover a wide range of customer requirements (for deposits in Czech crowns and in foreign currency, certificates of deposit and bonds). Besides, the standard measures are in place to protect the banking secrecy, prohibit the use of privileged information, separate investment operations from other banking dealerships, prevent money laundering, and prevent the use of customer data. Along with the banking sector, there is a cooperative financial system which is regulated by the Law on Savings and Credit Cooperatives Act No. 87/1995 Coll. as formulated in new editions, primarily Act No. 100/2000 Coll. aligned with an independent system of supervision and deposit insurance (Brůna, 2010).

The Czech Republic's adaptation of the regulation of financial activities to the legal norms and rules of the European Union takes place through the executive adoption of directives and recommendations. The Czech legislation still has an asymmetry in favor of banking regulation to the detriment of other subjects of the financial market. However, the situation began to improve in 2002 with the adoption of amendments aimed at ensuring financial regulation of the market and protecting the consumer-client relationships of the financial institutions (Revenda, 2017). Thanks to the experience of the EU, the Czech Republic is able to adjust its policy in the area of this system of consolidated supervision of financial groups, whose work in the country is characterized by a high degree of risk. The main focus of the area is concentrated on the functions and exercises of the Ministry of Finance of the Czech Republic.

The main goal at the stage before the accession of the Czech Republic to the EU was the maximum convergence of the Czech system of supervision with the practice adopted in the developed Western European countries (Bautista Mesa, Molina Sánchez and Ramírez Sobrino, 2014).

The aforementioned Banking Law has been harmonized with EU legal norms and practices in the field of establishment and operation of credit institutions and the deposit guarantee system. The main innovations are the expansion of consolidated supervision over financial holdings controlled by banks (including the supervision authority in the country of the founder), as well as the introduction of the principle of a single banking license within the European Economic Area. A single banking license is granted to banks, foreign institutions of electronic money, as well as subsidiaries of banks in which these banks own at least 90% of the capital, and whose obligations the banks vouch for (Revenda, 2017). On the basis of such a license, the potential investor can open a branch or provide services abroad. The consolidated supervision of the ČNB extends not only to holdings headed by banks, but also to all mixed holdings of which the bank is an integral part; or the majority of whose members (in terms of capital) are financial institutions or banks; or they are managed and controlled by a financial institution.

The functionality of the branches of foreign banks in the Czech Republic is subject to supervision by the competent authorities of the country. As a rule, this is the founder of the foreign bank and the banking supervision by the ČNB. The scope of supervision is highly dependent on the hosting country. Branches of banks in the EU member states are not subject to the banking legislation of the Czech Republic and the supervision of the ČNB, with the exception of strictly limited areas of activity (Oliynyk, Adamenko and Oliynyk, 2016). The ČNB also supervises the activities of consolidated groups located in the Czech Republic with the participation of the Czech banks.

The provisions of the Law apply to branches of foreign banks are as follows: the bank is obliged to develop an effective procedure for handling customer complaints, provide data that is not covered by banking secrecy, must comply with the provisions regarding its own liquidity, carry out the appropriate exchange rate policy and adjustment calculations in the accounting reports.

The experts of the Czech National Bank (ČNB) believe that the Czech Republic has increased the efficiency of regulation of its financial market and has created pre-conditions for the healthy development of the banking sector, eliminating serious systemic problems. In the medium term, the ČNB forecasts the following trends in the development of the Czech banking sector.

Compared to the Eurozone, there are significant reserves for further growth, for example, in the field of life insurance of citizens (the share of assets of the insurance market in the Czech Republic is around 7-8%). As a result of the activities of transnational financial groups, the banking sector of the Czech Republic became part of the pan-European banking structures. In the future, it is possible that new foreign entities will continue to enter the Czech financial market in the form of a merger, transfer of participation interests, and establishment of branches in the Czech Republic (Černohorský, 2015). In the EU, the Czech Republic expects to adopt effective banking technologies and know-how from partners in Austria, Germany, Belgium, France, Italy and Holland, which would help to optimize risk management and expand the range of banking services through complex banking products successfully used by European banks.

The process of concentration of capital in the Czech Republic is mainly associated with the privatization of the banking sector. In addition, this situation is influenced by the processes of merger of foreign entities operating in the Czech Republic taking place in the EU.

Currently, the Czech financial market is controlled by a small group of large banks. The three largest market players are - Československá obchodní banka (ČSOB), Česká spořitelna (ČS) and Komerční banka (KB). Overall, they took control of 62,4% of the banking sector's assets. In the future, the activity of medium-sized banks is expected to grow, gradually expanding their activities (Burianova and Paulik, 2014). Small banks occupy a small part of the market and mainly specialize in working with individual banking products and services or special clients.

The activities of the three largest Czech banks are determined by the strategy of their foreign owners. After the completion of privatization, they initiated transformation processes in banks aimed at optimizing their activities and increasing profitability (New Presence, 2003). For example, the owner of the Komerční banka, French Societe Generale, focuses primarily on managing banking risks. The German Erste Bank has completely transformed all areas of the Czech bank's activities with an emphasis on improving the efficiency of management of more than 200 banking projects (Vodová, 2011). The Belgian KBC bank intends to create a financial group on the basis of the ČSOB to work in the field of bank insurance.

In order to save financial resources and reduce risks, the coordination of the activities of the Czech banks within the financial groups of their parent banks will be improved in the future at the level corresponding to the legal norms in force in the Czech Republic. In order to adapt to the EU market, parent banks are working on the transfer of European technologies that would improve the quality of the internal functioning of the Czech banks, primarily in the area of financial risk management. It is planned to provide Czech clients with a diverse range of interconnected products that are successfully used in the EU.

This thesis would be analyzing and comparing the two biggest Czech banking system market players - Česká spořitelna (ČS) and Československá obchodní banka (ČSOB) (Vodová, 2011). The main characteristics of the two selected banks are provided below. Calculations and more detailed interpretation might be found in the practical part of the thesis.

## *6.1. Česká spořitelna (ČS)*

Česká spořitelna is the largest bank in the Czech Republic that was established in 1825. It is the Czech bank with one of the longest traditions on the market. Their aim was to educate people in order to diminish the financial illiteracy in the nation in order to learn how to manage their financial assets. This is the bank that provides the large number of services to individuals, SMEs, cities and municipal entities, adapting to their specificities (Řepková, 2014). ČS is also aimed at financing the global corporations and providing the services in the sphere of financial markets. The majority of the banking services and products provided proved themselves as the leader on the Czech market. The year of 2000 allowed them to join the Central European Erste Group. Besides, Česká spořitelna is represented as a partner company for some of the universities in the Czech Republic.

Currently, by the end of the year of 2020 the selected bank accounts around 4,5 million of clients, 1,7 million of which are in the active use of their financial internet banking services (Česká spořitelna official website, 2021). The total assets are about 1537,8 billion Czech crowns.

## *6.2. Československá obchodní banka (ČSOB)*

ČSOB (Československá obchodní banka) is a global bank established in 1964 in the Czech Republic, which is a subsidiary of the Belgium KBC Bank NV - partially from the year of 1999, and from 2007 it became a full right owned one (ČSOB official website, 2021). Based on the official website, the shares of this bank are operated by the KBC Group NV.

ČSOB is well known for offering services in financing of the foreign trade and currency operations on the Czech and Slovak markets. However, in 2008 the Slovak entity claimed to become an independent legal bank on the Slovak market (Pruteanu-Podpiera, Weill and Schobert, 2015). Since then, the KBC Group has managed to allocate the major activities among the Belgium, Czech and International branches.

Similarly to the Česká spořitelna, ČSOB targets to offer the services to all groups of clients from individuals up to corporations. According to the official statistics, the bank accounts for 4,231 million clients by 2020. The total assets are 252,5 billion Czech crowns (ČSOB official website, 2021).

# *Practical part*

## *1. Financial analysis of Česká spořitelna»*

### *1.1. Horizontal and vertical analysis of the Income statement*

***Formula 1:*** Absolute analysis = Amount in Comparison year – Amount in Base year

***Formula 2:*** Relative analysis (%) = ((Amount in Comparison year – Amount in Base year)/Amount in Base year)) *100%

#### *1.1.1. Net profit*

**Table 3.** Net profit of ČS, 2004-2018 (million CZK).

| Year | Net Profit million CZK | Absolute changes (million CZK) | Relative changes % |
|---|---|---|---|
| **2004** | **8 649** | - | - |
| **2005** | 9 134 | **485** | **5.6** |
| **2006** | 10 385 | **1 251** | **13.7** |
| **2007** | 12 148 | **1 763** | **17.0** |
| **2008** | 15 813 | **3 665** | **30.2** |
| **2009** | 12 624 | **-3 189** | **-20.2** |
| **2010** | 12 052 | **-572** | **-4.5** |
| **2011** | 13 638 | **1 586** | **13.2** |
| **2012** | **16 612** | **2 974** | **21.8** |
| **2013** | 15 888 | **-724** | **-4.4** |
| **2014** | 15 071 | **-817** | **-5.1** |
| **2015** | 14 293 | **-778** | **-5.2** |
| **2016** | 15 457 | **1 164** | **8.1** |
| **2017** | 14 610 | **-847** | **-5.5** |
| **2018** | 15 362 | **752** | **5.1** |

Source: Author's processing based on Česká Spořitelna, 2004-2018.

The results of horizontal analysis of net profit according to the data from 2004 to 2018, we may observe a gradual increase in profit from 2004 to 2008 inclusive *(see Table 3)*. This is conditioned by the fact that the Czech Republic accessed the EU. Afterwards, the global financial crisis hit the economies worldwide, however, due to ČS introduction of the ‘Gold Deposit’ in 2008, the profit grew by 30.2% compared to 2007, where maximum absolute change for 1 year (3,665 million CZK). It is a quite well known fact that individuals as well as companies are likely to invest to gold during the crisis situations. But the year of 2009 brought the net profit to fall sharply by 20.3% — from 15,813 million CZK to 12,624 million CZK, which indicates the natural growth of the net profit, if the ‘Gold Deposit’ was not introduced at that time (Česká Spořitelna, 2008, p.4).

According to the annual report on 2010, the reduction in values was driven by the fact of reduction in interest rates and also with falling interest in the crediting (Česká Spořitelna, 2010, p.3). After that, the bank had a fluctuating position, and ČS was able to return to previous figures only in 2012. The profit reached its maximum peak over the past 15 years (by 2012) and amounted to 16,612 million CZK. Nevertheless, since 2012 till 2015 the overall declining tendency is observed. This is due to recession within the eurozone, as stated by annual report for the year of 2013 (Česká Spořitelna, 2013, p.16). Compared to 2011, profit grew by 21.8% or 2,974 million CZK and from 2009 by 30.5% (3,988 million CZK). Later, from 2012 to 2018, net profit was variable, decreased by a few percents, and then increased by the same approximate value, but there were no dramatical declines as in 2009 or a dramatical increases as in 2008. The basis of these fluctuations was adaptation of the banking system of ČS to the implemented EU regulations and restrictions (Česká Spořitelna, 2015, p.18).

As it was mentioned before, the banks and other financial institutions get the profit from issuing the loans. Typically, this industry reports net profit reaching 10%-15%. However, in this case, the overall tendency allows to understand that the bank was not successful enough in fulfilling the norms.

### *1.1.2. Operating results*

Based on the data obtained from the official data source, both horizontal and vertical analyses of individual articles of the profit and loss statement were carried out *(see Table 4)*, namely:

1. Operating income;
2. Operating expenses;
3. Operating result as a whole.

**Table 4.** Operating results of ČS, 2004-2018 (million CZK).

| Year | Operating income (million CZK) | Changes | | Operating expenses (million CZK) | Changes | | Operating result (million CZK) | Changes | |
|---|---|---|---|---|---|---|---|---|---|
| | | Absolute | Relative | | Absolute | Relative | | Absolute | Relative |
| **2004** | 27 207 | - | - | 15 890 | - | - | 11 317 | - | - |
| **2005** | 28 849 | 1 642 | **14.3** | 16 418 | 528 | **3.3** | 12 431 | 1 114 | **22.6** |
| **2006** | 32 293 | 3 444 | **11.9** | 17 339 | 921 | **5.6** | 14 954 | 2 523 | **20.3** |
| **2007** | 36 740 | 4 447 | **13.8** | 18 371 | 1 032 | **6.0** | 18 369 | 3 415 | **22.8** |
| **2008** | 42 712 | 5 972 | **17.8** | 19 541 | 1 170 | **6.4** | 23 171 | 4 802 | **26.1** |
| **2009** | 45 650 | 2 938 | **7.4** | 19 269 | -272 | **-1.4** | 26 381 | 3 210 | **13.9** |
| **2010** | 45 415 | -235 | **-0.5** | 18 667 | -602 | **-3.2** | 26 738 | 357 | **1.4** |
| **2011** | 44 064 | -1 351 | **-3.0** | 18 424 | -243 | **-1.4** | 25 640 | -1 098 | **-4.1** |
| **2012** | 43 571 | -493 | **-1.1** | 18 259 | -165 | **-0.3** | 25 312 | -328 | **-1.3** |
| **2013** | 41 609 | -1 962 | **-3.9** | 18 743 | 484 | **-3.6** | 22 866 | -2 446 | **-9.7** |
| **2014** | 41 139 | -470 | **-1.1** | 18 234 | -509 | **-2.7** | 22 905 | 39 | **0.17** |
| **2015** | 39 743 | -1 396 | **-3.4** | 18 586 | 352 | **1.9** | 21 157 | -1 748 | **-7.6** |
| **2016** | 38 227 | -1 516 | **-3.8** | 18 146 | -440 | **-2.4** | 20 081 | -1 076 | **-5.1** |
| **2017** | 37 227 | -1 000 | **-2.6** | 18 240 | 94 | **0.5** | 18 987 | -1 094 | **-5.4** |
| **2018** | 39 088 | 1 861 | **5.0** | 18 327 | 87 | **0.5** | 20 761 | 1 774 | **9.3** |

Source: Author's processing based on Česká Spořitelna, 2004-2018.

The *Table 4* represents the results obtained from calculations of the: 1) Operating income 2) Operating expenses and 3) Operating results for the 15 years period: from 2004 to 2018. As been aforementioned, operating results is the product that is driven by the subtracting income from expenses. An interesting fact was found out that operating income and operating expenses have similar tendency, meaning that both indicators attempt to save their percentage interrelation.

Operating income had a stable growth from 2004 to 2009. Over this period, in absolute terms, revenues increased by 18,443 million CZK, in relative terms, by 67.8%. In 2008, there was the largest increase in revenue compared to the previous year by 5,972 million CZK or by 17.8%. In 2009, operating income amounted to 45,650 million CZK, which is the maximum amount for the analyzed period. Starting from 2010, operating income declined slowly every year until 2017. The decrease over this period amounted to 8,423 million CZK in percentage terms it is 18.5%. And only in 2018, operating income slightly increased by 1,861 million CZK (5.0%) compared with 2017, this year income amounted to 39,088 million CZK. For the entire analyzed period revenues increased by 43.7%, in absolute terms it was 11,881 million CZK.

With regard to the operating expenses, here only for the period 2006-2008 expenses grew by 1 million CZK compared to the previous year, for 3 years it was 19.4%. After this, changes were variable. Operating expenses either increased or decreased by no more than 3%. For the entire analyzed period, expenses grew by 2,437 million CZK (15.3%). This suggests that since 2009 and till the end of the analyzed period the bank spent approximately the same amount on expenses.

In terms of the Operating Result indicator, we can observe an increase in this indicator in monetary terms from 2004 to 2010 by 15,421 million CZK, in relative terms by 136.3%. In 2010, the operating result had a peak level, and amounted to 26,738 million CZK although maximum level of the net profit was in 2012. But with regards to absolute changes, in 2010 the amount changed only by 357 million CZK positively compared to 2009. For example, in 2008, the sum of the absolute changes amounted to 4,802 million CZK, it was the largest change in absolute value, similar to the indicator Operating income. Since 2011 till 2017 the operating results fell gently by 5,977 million CZK, which was 22.4%. In 2018, the amount a little bit increased by 1,774 million CZK, in relative terms it was 9.3%. Here also had a parallel with the indicator Operating income. For the entire analyzed period, the operating result grew by 9,444 million CZK or by 83.4%.

Obviously, as it the accession to the EU in 2004 benefited the economy of the Czech Republic, hence, reflected the financial statements of the bank. The bank saved its profitable tendency till 2009. Even though the global financial crisis hit the economies globally, the ČS found the way to save the situation (Česká Spořitelna, 2008, p.4). Again, the raise in the opening income is mostly relied on the ČS decision to propose selling gold, which basically made the bank secure from the global financial crisis and not lose the clients. This is the reason why the operating results are more or less flat. The most problematic period was 2011-2013, the cause of expenses overreach the incomes was that the EU implied some restrictions on the economic sector of all member states, which made the Czech economy to adapt to the changes. Besides, the year of 2013 is notable with the political factor influencing all sectors of nation's economy. In 2013, the Czech Republic had presidential elections, which might be a reason to affect the policies and adaptation of the banking industry.

### *1.1.3. Net interest income*

The next indicator that have been computed is the Net Income ratio *(see Table 5)*. Net interest income is one of the most important items in the income statement. The results show: thanks to the fact that the Czech Republic entered the EU membership, there was a stable growth from the year of 2004 till 2009 by more than 17 billion CZK, or 62.53%. First of all, the EU has specific criteria and standards for the national economies, each member state must show how the economy is able to operate. Financial institutions to a certain extent are influenced by the fact of operation of the economy. Accession of the EU gave tremendously good results.

The year of 2008 was notable with the financial crisis. However, since ČS introduced the gold depositing, it allowed to boost the net interest income of the bank. In later terms, the growth started to slow down and began to decrease because of some restrictions that were implemented by the EU for the sake of all the member states.

**Table 5.** Net interest income of ČS, 2004-2018 (million CZK).

| Year | Net interest income | Absolute changes (million CZK) | Relative changes % |
|---|---|---|---|
| **2004** | 17 236 | **-** | **-** |
| **2005** | 18 575 | **1 339** | **7.77** |
| **2006** | 21 153 | **2 578** | **13.88** |
| **2007** | 24 692 | **3 539** | **16.73** |
| **2008** | 30 217 | **5 525** | **22.38** |
| **2009** | 30 753 | **536** | **1.77** |
| **2010** | 30 360 | **-393** | **-1.28** |
| **2011** | 31 235 | **875** | **2.88** |
| **2012** | 29 653 | **-1 582** | **-5.06** |
| **2013** | 27 252 | **-2 401** | **-8.10** |
| **2014** | 26 673 | **-579** | **-2.12** |
| **2015** | 25 864 | **-809** | **-3.03** |
| **2016** | 25 512 | **-352** | **-1.36** |
| **2017** | 25 350 | **-162** | **-0.63** |
| **2018** | 27 821 | **2 471** | **9.75** |

Source: Author's processing based on Česká Spořitelna, 2004-2018.

In 2009, net interest income was 30,753 million CZK. After 2009 there was a slight decline, but in 2011 the figure increased slightly by 2.88% and amounted to 31,235 million CZK, which is the highest figure for the entire analyzed period. So, reaching the peak in 2011, this indicator has been reduced slowly until 2017 by 25,350 million CZK, resulting as a decline by overall 18.84%. Politically speaking, the year of 2017 was remarkable with the parliamentary elections. Commonly, the internal politics impact all the sectors of economy as well as financial industry. During this period the decline in absolute terms was 1,902 million CZK, or 20.3%. But in 2018, net interest income increased by 2,471 million CZK, almost 10%.

## *1.2. Horizontal and vertical analysis of the balance sheet*

There are two types of analysis of the balance sheet: absolute and relative analysis. The results would be driven using the formulas below:

***Formula 1:*** Absolute analysis = Amount in Comparison year – Amount in Base year
***Formula 2:*** Relative analysis (%) = ((Amount in Comparison year – Amount in Base year)/Amount in Base year)) *100%

**Table 6.** Structure of the balance sheet of ČS, 2004-2018 (million CZK).

| Year | Total Assets | Total Liabilities and Equity | | | | | | | Balance sheet | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | Liabilities | Changes | | Equity | Changes | | Liabilities + Equity | Changes | |
| | | | Absolute | Relative | | Absolute | Relative | | Absolute | Relative |
| **2004** | 609 456 | 571 219 | - | - | 38 237 | - | - | 609 456 | - | - |
| **2005** | 654 064 | 610 742 | **39 523** | **6.92** | 43 322 | 5 085 | **13.30** | 654 064 | **44 608** | **7.32** |
| **2006** | 728 393 | 678 531 | **67 789** | **11.10** | 49 862 | 6 540 | **15.10** | 728 393 | **74 329** | **11.36** |
| **2007** | 814 125 | 756 915 | **78 384** | **11.56** | 57 210 | 7 348 | **14.74** | 814 125 | **85 762** | **11.77** |
| **2008** | 862 230 | 796 861 | **39 946** | **5.28** | 65 369 | 8 159 | **14.26** | 862 230 | **48 105** | **5.91** |
| **2009** | 855 137 | 791 591 | **-5 270** | **-0.66** | 63 546 | -1 823 | **-2.79** | 855 137 | **-7 093** | **-0.82** |
| **2010** | 881 629 | 810 681 | **19 090** | **2.41** | 70 948 | 7 402 | **11.65** | 881 629 | **26 492** | **7.54** |
| **2011** | 892 598 | 812 762 | **2 081** | **0.26** | 79 836 | 8 888 | **12.53** | 892 598 | **10 969** | **1.24** |
| **2012** | 920 403 | 827 091 | **14 329** | **1.76** | 93 312 | 13 476 | **16.88** | 920 403 | **27 805** | **3.12** |
| **2013** | 968 724 | 860 941 | **33 850** | **4.09** | 100 976 | 7 664 | **8.21** | 968 724 | **48 321** | **5.25** |
| **2014** | 902 589 | 794 806 | **-66 135** | **-7.68** | 107 783 | 6 807 | **6.74** | 902 589 | **-66 135** | **-6.83** |
| **2015** | 959 584 | 839 621 | **44 815** | **5.64** | 119 963 | **12 180** | **11.30** | 959 584 | **56 995** | **6.34** |
| **2016** | 1 066 526 | 944 796 | **105 175** | **12.53** | 121 730 | **1 767** | **1.47** | 1 066 526 | **106 942** | **11.14** |
| **2017** | 1 328 120 | 1 208 372 | **263 576** | **27.90** | 119 748 | **-1 982** | **-1.63** | 1 328 120 | **261 594** | **24.53** |
| **2018** | 1 426 465 | 1 303 808 | **95 436** | **7.90** | 122 657 | **2 909** | **2.43** | 1 426 465 | **98 345** | **7.40** |

Source: Author's processing based on Česká Spořitelna, 2004-2018.

The *Table 6* shows describes the balance sheet structure of ČS on the basis of calculations made. Throughout the selected period of time, the balance sheet shows very good results, which is very advantageous for the financial institution. The strong BS indicates the financial health of the entity, meaning that the bank is able to handle the economic downturns at the minimum risks.

To analyse the BS, a horizontal analysis was carried out for the period from 2004 to 2018. For the liabilities, we observe an increase over the entire period from 571,219 million CZK to 1,303,808 million CZK in 2018. The absolute difference was 732,589 million CZK, and in relative terms by 128.3%. This is conditioned by that ČS switched most of the client base to the internet banking and introduced the instant payment. More clients or companies were willing to cooperate (Česká Spořitelna, 2018, p.28). For all this period there was only 2 times when liabilities reduced by compared to the previous year. This is in 2009 by 5,270 million CZK (0.66%) and in 2014 by 66,135 million CZK (7.68%).

The maximum increase in liabilities was reached in 2017 by 27.90%. First of all it is conditioned by the change in the parliamentary bodies in the Czech Republic. Moreover, the ČS moved some of the operations online, so by the end of 2018 lots of things conducted via application. In total, it amounted to 263,576 million CZK. By Equity, we can determine that there was also a slightly increase every year. For the entire period, by 84,420 million CZK or by 220.8%. As a whole, for the period from 2004 to 2018, the balance sheet amount, at the same time, of assets increased by 817,009 million CZK or by 134%. The highest level of absolute changes came, like liabilities in 2017, by 24.53% or by 261,594 million CZK. The decrease in assets and balance as a whole occurred only once in 2009 by 0.82% (7,093 million CZK).

Overall, the tendency of the balance sheet is very promising. ČS shows very good results, which indicates the decency of the bank as well as stable financial health of the selected institution.

## *1.3. Calculation of the ratios*

### *1.3.1. Efficiency ratios*

**Cost/Income ratio**

The Cost/Income ratio is calculated as follows:

***Formula 3:*** Cost/income ratio = (operating expenses/operating income) *100%

**Example:**

2018: Cost/income ratio= (18327/39088) *100%=47%

2017: Cost/income ratio= (18240/37227) *100%=49%

2016: Cost/income ratio= (18146/38227) *100%=47.5%

2015: Cost/income ratio= (18586/39743) *100%=46.8%

2014: Cost/income ratio= (18234/41139) *100%= 44.3%

**2010: Cost/income ratio= (18667/45415) *100%=41.1% - Most effective**

**2004: Cost/income ratio= (15104/25245) *100%=59.8% - Most unprofitable**

**Table 7.** Cost/income ratio of ČS, 2004-2018 (%)

| ***Year*** | ***Results*** |
|---|---|
| **2004** | **59.8%** |
| 2005 | 56.9% |
| 2006 | 53.7% |
| 2007 | 50 % |
| 2008 | 45.6% |
| 2009 | 42.2% |
| **2010** | **41.1%** |
| 2011 | 41.8% |
| 2012 | 41.9% |
| 2013 | 45 % |
| 2014 | 44.3% |
| 2015 | 46.8% |
| 2016 | 47.5% |
| 2017 | 49 % |
| 2018 | 47 % |

Source: Author's processing based on Česká Spořitelna, 2004-2018

The outcome of the calculations of the Cost/Income ratio might be found in the *Table 7.* It can be determined that from 2004 to 2007 operating expenses covered operating income by 50% or even more. According to the theoretical part of this thesis, the banking sector is known that the cost/income ratio should be less than 50%, otherwise the bank is not able to operate efficiently and earn the corresponding profit. Even though this indicator is a part of efficiency ratios, it is indirectly connected to the profitability of the entity.

In 2004, the cost/income ratio was 59.8%, which is the worst indicator for the analyzed period. It is not surprising because the EU accession did not give the outstanding results in performance of the national economy so fast — it is a gradual change.

Since 2004, we can observe a gradual reduce in this ratio until 2010, which makes the situation better. In 2010, this ratio was 41.1%, it was the lowest indicator in the past 15 years. After 2010, the growth of the coefficient began again. In 2017, this ratio increased to 49%. The change in the parliamentary bodies in the Czech Republic made the ratio raise. This is not the only factor, however, is one of the most important ones. By this, it achieved the highest level since 2010 and during all this period till 2018 it does not exceeded more than 50%.

Despite the fact that in vertical and horizontal analysis the bank showed quite good results through the period, a graph shows the performance of the bank, which is not that prosperous as it is seemed from the very first sight. The issue is that the drastic fall was on the times of the global crisis, so the efficiency of the operation of the bank was very low in comparison to the previous years after accession to the EU. However, referring to the partial part of this thesis, we may conclude that a high rate is quite common for the banking industry.

### *1.3.2. Liquidity ratios*

**Loan/Deposit ratio**

The common formula for the Loan/Deposit ratio is:

***Formula 4:*** Loan/Deposit ratio = (Net customer loans/Customer deposits) *100%

**Example:**

2018: Loan/Deposit ratio= (694.1/954.4) *100%= 72.7%

2017: Loan/Deposit ratio= (638.7/883.2) *100%= 72.2%

2016: Loan/Deposit ratio= (577.5/789.9) *100%= 73.2%

**2015: Loan/Deposit ratio= (532.5/713.8) *100%= 74.6% - Maximal level**

2014: Loan/Deposit ratio= (500.0/680.4) *100%= 73.5%

**2004: Loan/Deposit ratio= (298.3/554.2) *100%= 53.8% - Minimal level**

**Table 8.** Loan/Deposit ratio of ČS, 2004-2018 (%)

| Year | ČS | | |
|---|---|---|---|
| | Net customer loans (bn CZK) | Customer deposits (bn CZK) | Results % |
| **2004** | **298.3** | **554.2** | **53.8** |
| **2005** | 267.8 | 481.6 | 58.9 |
| **2006** | 329.1 | 537.5 | 61.2 |
| **2007** | 418.4 | 591.6 | 70.7 |
| **2008** | 461.4 | 645.9 | 71.4 |
| **2009** | 469.2 | 647.5 | 72.5 |
| **2010** | 460.0 | 670.3 | 68.6 |
| **2011** | 483.5 | 672.3 | 71.9 |
| **2012** | 489.1 | 704.5 | 66.8 |
| **2013** | 489.2 | 726.6 | 67.3 |
| **2014** | 500.0 | 680.4 | 73.5 |
| **2015** | **532.5** | **713.8** | **74.6** |
| **2016** | 577.5 | 789.9 | 73.2 |
| **2017** | 638.7 | 883.2 | 72.2 |
| **2018** | 694.1 | 954.4 | 72.7 |

Source: Author's processing based on Česká Spořitelna, 2004-2018.

The *Table 8* shows the outcomes of the computations of the Loan/Deposit ratio, which is an indicator of bank liquidity. According to the financial statements for the analyzed period, we can determine that in the period from 2004 to 2006 this indicator has a relatively low level. This means that the bank was not able to handle unforeseen spendings, as it was mentioned in the theoretical basis of this thesis. Besides, the higher the ratio is the better for the financial institution. Ideally, it should be about 80%-90% for the banking industry, nevertheless, this rarely happens.

What we might observe in the presented table — the tendency after the year of 2004 started to grow, meaning the bank strengthened its position due to the membership in the EU. This suggests that during this period the bank issued very little loans, and for deposits had to pay.

In 2007, this indicator increased significantly compared to the previous year (by 9.5%), which is a good indicator for the bank. This suggests that the bank had enough of its money to finance loans. Since 2007, this coefficient has been at the steel level. Despite the 2008 global crisis, in 2009 liquidity grew by another 1.1%. This fact is emplaned by the 'Gold deposit' notion that was offered by the bank during the crisis time.

But in 2010 it fell sharply by almost 4% and amounted to 68.6%. Perhaps, the consequences of the crisis in this case occurred only after 2 years, although the bank's profit was already reduced in 2009. The largest changes in the direction of reduction occurred in 2010, 2012 and in 2013. Despite the fact that in 2012 the bank received the maximum profit for the analyzed period, this year the bank had the lowest liquidity (66.8%) for the period from 2007 to 2018. The data obtained indicate that the Bank's profit and liquidity are not related. Another factor confirming this is that in 2014 liquidity rose again to the level of 2007-2009 and has a stable level, although the profit in these years is much less. From the year of 2015, the ČS try to hold the line of 70%.

### *1.3.3. Leverage ratios*

**Capital adequacy ratio**

***Formula 5:*** Capital adequacy ratio = (Total capital/ Risk Weighed Assets) *100%

**Example:**

2018: Capital adequacy ratio = (106.9/557.5) *100%= 19.2%

2017: Capital adequacy ratio = (104.2/557.9) *100%= 18.7%

2016: Capital adequacy ratio = (101.9/507.1) *100%= 20.1%

**2015: Capital adequacy ratio = (99.9/468.3) *100%= 21.3% - Maximal level**

2014: Capital adequacy ratio = (84.4/456.7) *100%= 18.5%

**2007: Capital adequacy ratio = (36.7/351.6) *100%= 10.4% - Minimal level**

**Table 9.** Capital adequacy ratio of ČS, 2004-2018 (%)

| Year | ***ČS*** | | |
|---|---|---|---|
| | **Total capital (Tier 1 + Tier 2) (CZK bn)** | **Risk Weighted Assets (CZK bn)** | **Capital adequacy ratio (%)** |
| **2004** | 39.1 | 275.1 | 14.2 |
| **2005** | 41 | 350.9 | 11.7 |
| **2006** | 50 | 423.3 | 11.8 |
| **2007** | 36.7 | 351.6 | **10.4** |
| **2008** | 43 | 389.2 | 11.0 |
| **2009** | 51.1 | 390.3 | 13.0 |
| **2010** | 56.5 | 380.5 | 14.8 |
| **2011** | 55.9 | 395.7 | 14.1 |
| **2012** | 67.2 | 392.2 | 17.1 |
| **2013** | 75.7 | 407.6 | 18.6 |
| **2014** | 84.4 | 456.7 | 18.5 |
| **2015** | 99.9 | 468.3 | **21.3** |
| **2016** | 101.9 | 507.1 | 20.1 |
| **2017** | 104.2 | 557.9 | 18.7 |
| **2018** | 106.9 | 557.5 | 19.2 |

Source: Author's processing based on Česká Spořitelna, 2004-2018.

According to the *Table 9*, which was built on the basis of calculations, it was determined that this indicator is variable, but for the entire analyzed period, namely from 2005 to 2015, the coefficient increased by 10%. In 2015, there was the highest level of the indicator and amounted to 21.3%.

It is well-known, that this is the ratio that should be kept at the lowest level possible. This ratio indicates if the bank has chance to have a risky situation. The selected bank does not seem very liable in terms of this ratio as the values around 20% are quite high. The issue is that the banking sector in the Czech Republic remains resilient for the past few years in terms of the adverse shocks, hence, this ratio for the past several years remains on the high levels of 20 percent (Česká Spořitelna, 2019, p.30).

**Debt ratio**

***Formula 6:*** Debt ratio= (Total liabilities/Total Assets)

**Example:**

2018: Debt ratio = 1303808/1426465 = 0.914

2017: Debt ratio = 1208372/1328120 = 0.910

2016: Debt ratio = 944796/1066526 =0.886

**2015: Debt ratio = 839621/959584 = 0.875 - Minimal level**

2014: Debt ratio = 794806/902589 = 0.881

**2004: Debt ratio = 571219/609456= 0.937 - Maximal level**

According analysis of the data obtained *(see Table 10)*, it was carried out that since 2004, after the Czech Republic joined the European Union and up to and including 2015, this indicator was slowly decreasing, which had a positive effect on the position of the bank. Cause of this decrease indicates is in the percentage decreasing of debt to assets. As was stated in the theoretical part, if the ratio of debt to assets falls, then the company is less risky and can fulfill its obligations. During 2004 and 2015 is slight increase occurred only in 2009. The lowest level of this indicator was in 2015, then it amounted to 0.875, which is conditioned by the growth of the industrial output in the county. Consumer confidence rose and the banking system became more trustful (Česká Spořitelna, 2015, p.3). After 2015, this indicator again gradually grew, and by 2018 it amounted to 0.914.

**Table 10.** Debt ratio of ČS, 2004-2018 (%).

| Year | *Results* |
|---|---|
| **2004** | **0.937** |
| **2005** | 0.936 |
| **2006** | 0.934 |
| **2007** | 0.922 |
| **2008** | 0.920 |
| **2009** | 0.926 |
| **2010** | 0.920 |
| **2011** | 0.911 |
| **2012** | 0.897 |
| **2013** | 0.889 |
| **2014** | 0.881 |
| **2015** | **0.875** |
| **2016** | 0.886 |
| **2017** | 0.910 |
| **2018** | 0.914 |

Source: Author's processing based on Česká Spořitelna, 2004-2018.

**Debt to Equity ratio**

***Formula 7:*** Debt to Equity ratio = Total liabilities/ Total Equity

**Example:**

2018: Debt to Equity ratio = 1303808/122657 = 10.63

2017: Debt to Equity ratio = 1208372/119748 = 10.09

2016: Debt to Equity ratio = 944796/121730 = 7.76

**2015: Debt to Equity ratio = 839621/119963 = 7.0 – Minimal level**

2014: Debt to Equity ratio = 794806/107783 = 7.37

**2004: Debt to Equity ratio = 571219/38237 = 14.84 – Maximal level**

**Table 11.** Debt to equity ratio of ČS, 2004-2018 (%)

| Year | *Results* |
|---|---|
| **2004** | **14.84** |
| **2005** | 14.10 |
| **2006** | 11.60 |
| **2007** | 13.23 |
| **2008** | 12.57 |
| **2009** | 12.46 |
| **2010** | 11.43 |
| **2011** | 10.18 |
| **2012** | 8.86 |
| **2013** | 8.53 |
| **2014** | 7.37 |
| **2015** | **7.0** |
| **2016** | 7.76 |
| **2017** | 10.09 |
| **2018** | 10.63 |

Source: Author's processing based on Česká Spořitelna, 2004-2018.

As the theoretical part was determined, that debt to equity ratio has a high level in the banking sector, due to the fact that banks have a lot of debt. According to the data obtained on the basis of the financial statements for the analyzed period, it was determined that this coefficient, like the previous indicator tended to decrease from 2007 to 2015 inclusive *(see Table 11)*. In 2015, there was a minimum level, which amounted to 7.0; compared with 2004, the decline was more than 2 times. But after 2015 coefficient again stabilized and increased, thus, in 2018 it was more than 10. Historically speaking, the bank dealt with a number of loans, therefore, the values were quite high. In the financial institution industry, in general, entities are likely to have high ratios regardless the fact that this ratio should be almost at a zero level.

### *1.3.4. Profitability ratios*

**Net interest margin**

***Formula 8:*** Net interest margin = (Net interest income/ Average earning assets) *100%

**Example:**

**2018: Net interest margin= (27821/1026605) *100%= 2.71%- Minimal level**

2017: Net interest margin= (25350/868151) *100%= 2.92%

2016: Net interest margin= (25512/809905) *100%= 3.15%

2015: Net interest margin= (25864/781390) *100%= 3.31%

2014: Net interest margin= (26673/755609) *100% = 3.53%

**2009: Net interest margin= (30753/744928) *100% = 4.16%- Maximal level**

This is one of the indicators that allows to assess the financial institution's profitability and growth. In order to calculate the net interest margin ratio, the financial statements were used, namely, interest earned assets *(see Table 12)*. For the analyzed period, we can say that average earned assets grew every year. Over the entire period, they increased by 535,551 million CZK or 109.1%. This is a good indicator, suggests that the assets that are in circulation, make a profit.

The only time this indicator has decreased compared to the previous year is in 2012. The number of absolute changes amounted to 30,637 million CZK. As for the net interest margin ratio, here I have identified the period with the best indicators: from 2008 to 2012. The maximum level fell in 2009 with a coefficient of 4.16%, which was again triggered by the offer of gold deposit in the bank, meaning it gained more for this specific year.

Despite the fact that interest earned assets decreased in 2012 compared to 2011, the net interest margin ratio this year is at a good level due to an increase in net interest income and net profit overall. By the chart we can see that there is a gradual decrease in this indicator for 2018, it was 2.71%. One of the factors is the decrease in net interest income compared to the period 2008-2012. In average, such results about 3% are average for the banking sector. Therefore, it can be summarised that ČS did well for the selected period.

**Table 12.** Net interest margin of ČS, 2004-2018 (%)

| **Year** | ***ČS*** | | |
|---|---|---|---|
| | **Net interest income** | **Average earning assets (CZK m)** | **Results %** |
| **2004** | 17 236 | 491 054 | 3.51 |
| **2005** | 18 575 | 547 935 | 3.39 |
| **2006** | 21 153 | 590 866 | 3.58 |
| **2007** | 24 692 | 663 763 | 3.72 |
| **2008** | 30 217 | 742 432 | 4.07 |
| **2009** | 30 753 | 744 928 | **4.16** |
| **2010** | 30 360 | 786 528 | 3.86 |
| **2011** | 31 235 | 798 849 | 3.91 |
| **2012** | 29 653 | 768 212 | 3.86 |
| **2013** | 27 252 | 773 130 | 3.61 |
| **2014** | 26 673 | 755 609 | 3.53 |
| **2015** | 25 864 | 781 390 | 3.31 |
| **2016** | 25 512 | 809 905 | 3.15 |
| **2017** | 25 350 | 868 151 | 2.92 |
| **2018** | 27 821 | 1 026 605 | **2.71** |

Source: Author's processing based on Česká Spořitelna, 2004-2018.

**ROA**

***Formula 9:*** ROA = (Net Income/ Total Assets) *100%

**Example:**

**2018: ROA = (15362/1426465) *100%= 1.08%- Minimal level**

2017: ROA= (14610/1328120) *100%= 1.10%

2016: ROA = (15457/1066526) *100%= 1.36%

2015: ROA= (14293/959584) *100%= 1.49%

2014: ROA= (15071/902589) *100%= 1.67%

**2008: ROA= (15813/862230) *100%= 1.83%- Maximal level**

**Table 13.** Return on assets of ČS, 2004-2018 (%)

| **Year** | ***Results*** |
|---|---|
| **2004** | 1.42 |
| **2005** | 1.40 |
| **2006** | 1.43 |
| **2007** | 1.49 |
| **2008** | **1.83** |
| **2009** | 1.47 |
| **2010** | 1.37 |
| **2011** | 1.53 |
| **2012** | 1.80 |
| **2013** | 1.64 |
| **2014** | 1.67 |
| **2015** | 1.49 |
| **2016** | 1.36 |
| **2017** | 1.10 |
| **2018** | **1.08** |

Source: Author's processing based on Česká Spořitelna, 2004-2018.

Based on the results of calculating the profitability of assets provided in the *Table 13*, it can be determined that between 2004 and 2008, return on assets gradually increased and the maximum level of profitability was achieved in 2008 with 1.83%. In 2012 coefficient was almost the same as in 2008 with a coefficient of 1.80%. After 2012, the return on assets ratio has slowly fallen every year, and in 2018 the minimum level for this ratio was reached for the analyzed period with 1.08%, although this year net profit increased compared with the previous year.

All in all, the good ROA is considered to be 1% to 10%. However, again, this depends on the sector in which this indicator is used. The analysis showed that there are no negative values for the ROA, which is already a success. This means that the bank is able to use its assets in an efficient manner. The highest value of ROA is noticed in 2008, during the global financial crisis. The proposal of the golden deposit allowed to raise the profitability of the overall operations. Despite the fact that the year of 2018 brought sharp growth in the economy of the Czech Republic, lower unemployment rates in comparison to the past decade as well as migration inflow and increasing demand in external affairs, the bank had the lowest ROA for the selected time period, implying a decrease in a profitability.

**ROE**

***Formula 10:*** ROE = (Net income/ Shareholders equity) * 100%

**Example:**

2018: ROE= (15362/122657) *100%=. 12.8%

**2017: ROE= (14610/120975) *100%= 12.1%- Minimal level**

2016: ROE= (15457/121730) *100%= 12.9%

2015: ROE= (14293/119963) *100%= 13.0%

2014: ROE= (15071/107783) *100%= 14.5%

**2008: ROE= (15813/65369) *100%= 26.3% - Maximal level**

By calculating the return on equity ratio, it was determined that in the period from 2004 to 2008, ROE grew by 4.5%, which amounted to 26.3% and therefore, reached the maximum level. This means that for each 1 CZK of equity capital invested, the bank made a profit of 0.0263 CZK. In 2008, the return on equity increased as net profit and also equity increased. But it is 1.5 times less than in 2012, therefore ROE is more than in 2012, although net profit is almost the same. After the 2008 World Crisis, the return on equity declined year by year. In 2012, due to an increase in net profit to the peak position for the analyzed period, this ratio increased to 19.2%. After 2012, profitability decreased slightly to the level of 12%. The minimum level of return on equity for the analyzed period was achieved in 2017 with an indicator of 12.1%. Probably this is due to the reason for the increase in equity. Over the past 6 years, it has increased by 29,345 million CZK or 31.4%.

**Table 14.** Return on equity of ČS, 2004-2018 (%).

| **Year** | ***Results*** |
|---|---|
| **2004** | 21.8% |
| **2005** | 22.3% |
| **2006** | 23.0% |
| **2007** | 23.8% |
| **2008** | **26.3%** |
| **2009** | 20.3% |
| **2010** | 18.2% |
| **2011** | 18.2% |
| **2012** | 19.3% |
| **2013** | 16.2% |
| **2014** | 14.5% |
| **2015** | 13.0% |
| **2016** | 12.9% |
| **2017** | **12.1%** |
| **2018** | 12.8% |

Source: Author’s processing based on Česká Spořitelna, 2004-2018.

As a rule, a good ROE is considered to e at the level 15%-20%. Taking into account that this is a financial institution, there might be some exclusions out of the common norms. An average ROE in the banking sector is approximately 11%-12%.

# 2. Financial analysis of ČSOB

## 2.1 Horizontal and vertical analysis of the Income statement

***Formula 1:*** Absolute analysis = Amount in Comparison year – Amount in Base year

***Formula 2:*** Relative analysis (%) = ((Amount in Comparison year – Amount in Base year)/Amount in Base year)) *100%

### 2.1.1. Net profit

**Table 15.** Net profit of ČSOB, 2004-2018 (million CZK).

| Year | Net Profit million CZK | Absolute changes | Relative changes |
|---|---|---|---|
| **2004** | 6 901 | - | - |
| **2005** | 8 092 | **1 191** | **17.3** |
| **2006** | 8 891 | **799** | **9.9** |
| **2007** | 9 902 | **1 011** | **11.4** |
| **2008** | **1 034** | **-8 868** | **-89.6** |
| **2009** | 17 368 | **16 334** | **1679.7** |
| **2010** | 13 471 | **-3 897** | **-22.4** |
| **2011** | 11 172 | **-2 299** | **-17.1** |
| **2012** | 15 291 | **4 119** | **36.9** |
| **2013** | 13 658 | **-1 633** | **-10.7** |
| **2014** | 13 604 | **-54** | **-0.4** |
| **2015** | 14 010 | **406** | **3.0** |
| **2016** | 15 141 | **1 131** | **8.1** |
| **2017** | **17 517** | **2 376** | **15.7** |
| **2018** | 15 757 | **-1 760** | **-10.0** |

Source: Author's processing based on ČSOB, 2004-2018.

The *Table 15* was produced as the matter of calculations. It illustrates the net profit data for the analyzed period from 2004 to 2018. From this table, we can determine that in the period from 2004 to 2007, the net profit significantly has grown by 3 billion CZK or 43.5% and then in 2008 there was a dramatical decline in profit from 9,902 million CZK to 1,034 million CZK, which is 89.6% in relative terms. The year of the global financial crisis (2008) was obviously bad for the bank, the rates fall.

On the contrary, in 2009, the net profit dramatically grew again to 17,368 million CZK. This year's net income is the second largest in 15 years. According to the official report, in 2009, ČSOB accessed the ICT and online services, which benefited in attracting newer investments. So, that year the bank got the dividends of 244 million CZK (ČSOB, 2009).

The highest profit level was in 2017 with 17,517 million CZK. In 2017, the ČSOB strengthen a cooperation with Ceska Posta, expanding the offered services by financial and insurance means. Furthermore, the bank moved to the financial reporting in accordance with the international standards (IFRS). Also, it was a huge step forward when the bank switched to offer most of their services in the internet banking (ČSOB, 2017). In 2010-2011, the profit reduced by over 4 billion CZK to compare with 2009. This period is associated with the structural changes of the bank (ČSOB, 2010). Thereafter, income increased and had almost the same net profit between 2013 and 2015.

The standard, or average net profit for the financial institution is about 10%-15%. If we check the results, we may conclude that ČSOB has nothing common with the standard, since the fluctuation gap is very huge.

### *2.1.2. Operating results*

The *Table 16* below is aimed at describing changes in the: 1) Operating income 2) Operating expenses and 3) Operating results within 15 years: from 2004 to 2018.

In the period from 2004 to 2006, the operating profit increased slightly and then decreased by 9,745 million CZK in 2008 (66.2%) compared to 2006. In 2009, operating profit increased sharply to 39,665 million CZK, which is the highest level for the analyzed period. Then, in 2010, operating profit fell again by 6 billion CZK or 16.8%. Between 2010 and 2017, operating profit figures are stable. There are no sharp declines or increases in profit margins. In 2017, operating profit rose to 39,199 million CZK, which is the second highest in the entire analyzed period.

**Table 16.** Operating results of ČSOB, 2004-2018 (million CZK).

| Year | Operating income (million CZK) | Changes | | Operating expenses (million CZK) | Changes | | Operating result (million CZK) | Changes | |
|---|---|---|---|---|---|---|---|---|---|
| | | Absol ute | Relative | | Absolut e | Relative | | Absolute | Relative |
| **2004** | 25 010 | - | - | 14 646 | - | - | 10 364 | - | - |
| **2005** | 25 855 | **845** | **3,4** | 15 877 | **1 231** | **8,4** | 9 978 | **-386** | **-3,7** |
| ***2006*** | 28 800 | **2 945** | **11,4** | 16 550 | **673** | **4,2** | 12 250 | **2 272** | **22,8** |
| **2007** | 27 429 | **-1 371** | **-4,8** | 14 012 | **-2 538** | **-15,3** | 13 417 | **1 167** | **9,5** |
| **2008** | 19 055 | **5 972** | **-30,5** | 15 014 | **1 002** | **7,2** | 4 041 | **-9 376** | **-69,9** |
| **2009** | 39 665 | **20 610** | **108,2** | 13 640 | **-1 374** | **-9,2** | 26 025 | **21 984** | **544,0** |
| **2010** | 33 014 | **-6 651** | **-16,8** | 14 516 | **876** | **6,4** | 18 498 | **-7 527** | **-28,9** |
| **2011** | 33 586 | **572** | **1,7** | 15 699 | **1 183** | **8,1** | 17 887 | **-611** | **-3,3** |
| **2012** | 33 009 | **-577** | **-1,7** | 15 331 | **-368** | **-2,3** | 17 678 | **-209** | **-1,2** |
| **2013** | 31 202 | **-1 807** | **-5,5** | 14 808 | **-523** | **-3,4** | 16 394 | **-1 284** | **-7,3** |
| **2014** | 31 443 | **241** | **0,8** | 14 981 | **173** | **1,2** | 16 462 | **68** | **0,4** |
| **2015** | 32 542 | **1 099** | **3,5** | 22 303 | **7 322** | **48,9** | 10 239 | **-6 223** | **-37,8** |
| **2016** | 34 043 | **1 501** | **4,6** | 22 235 | **-68** | **-0,3** | 11 808 | **1 569** | **15,3** |
| **2017** | 37 199 | **3 156** | **9,3** | 22 692 | **457** | **2,1** | 14 507 | **2 699** | **22,9** |
| **2018** | 37 102 | **-97** | **-0,3** | 26 016 | **3 324** | **14,6** | 11 086 | **-3 421** | **-23,6** |

Source: Author's processing based on ČSOB, 2004-2018.

Analyzing the bank's operating expenses, it can be determined that in the period from 2004 to 2014 operating expenses have an approximately stable level of amounts. In 2009, operating expenses were at their lowest level and amounted to 13,640 million CZK. In 2015, expenses increased significantly by 7,322 million CZK or 49% compared to 2014. In 2018, expenses increased again by 16.6% or 3,713 million CZK compared to 2015. And in comparison with 2014 by 11,035 million CZK or 73.7%.

According to the financial statements and this chart, one can observe a gradual increase in operating results after the difference in operating profit and expenses of 3 billion CZK. And in 2008 the operating results dropped dramatically by 9,376 million CZK or 232%. Then in 2009 the operating results increased by 21,984 million CZK. In 2010, this figure again slightly decreased by 7,5 billion CZK, or 29% compared to 2009, and then gradually decreased until 2014. In 2015, operating results decreased by 6,221 million CZK, or 60.8%, and in 2017 this figure increased by 4 billion CZK compared to 2015. And in 2018, operating results fell to 11 billion CZK, as operating expenses increased this year.

To sum up, the overall performance in the operating results is controversial. In most of the cases the changes in operating results come with a negative value, meaning that the expenses are mostly prevail the incomes, which is not good, meaning the bank is not able to perform efficiently.

### *2.1.3. Net interest income*

**Table 17.** Net interest income of ČSOB, 2004-2018 (million CZK).

| Year | Net interest income | Absolute changes (million CZK) | Relative changes % |
|---|---|---|---|
| **2004** | 18 536 | **-** | **-** |
| **2005** | 19 210 | **674** | **3.64** |
| **2006** | 22 300 | **3 090** | **16.09** |
| **2007** | 18 833 | **-3 467** | **-15.55** |
| **2008** | 21 385 | **2 502** | **13.55** |
| **2009** | 23 018 | **1 633** | **7.64** |
| **2010** | 24 275 | **1 257** | **5.46** |
| **2011** | 24 808 | **533** | **2.20** |
| **2012** | 24 970 | **162** | **0.65** |
| **2013** | 22 651 | **-2 319** | **-9.29** |
| **2014** | 22 872 | **221** | **0.98** |
| **2015** | 22 303 | **-569** | **-2.49** |
| **2016** | 22 235 | **-68** | **-0.30** |
| **2017** | 22 692 | **457** | **2.06** |
| **2018** | 26 016 | **3 324** | **14.65** |

Source: Author’s processing based on ČSOB, 2004-2018.

According to the financial statements of the bank's ČSOB for the analyzed period, net interest income grew significantly between 2004-2006. During this period, this figure increased by 3,764 million CZK, or 19.73%. But in 2007 net interest income plummeted to the 2004 level and lost almost all of its profits. This is associated with the loss of approximately 800 million CZK in the financial market (ČSOB, 2007).

Since 2008, the rate has started to rise again, especially in 2008 and 2009. In total, net interest income has grown by 21.19% over these two years (4,135 million CZK). By 2012, this indicator reached its maximum level for the entire analyzed period (24,970 million CZK). Then, in 2013, net interest income fell again by 2,319 million CZK, which is almost 10% in percentage terms. After 2013, this indicator was unstable, but the decrease or increase was insignificant until 2018, when net interest income increased by 14.65%.

## *2.2. Horizontal and vertical analysis of the balance sheet*

***Formula 1:*** Absolute analysis = Amount in Comparison year – Amount in Base year

***Formula 2:*** Relative analysis (%) = ((Amount in Comparison year – Amount in Base year)/Amount in Base year)) *100%

The *Table 18* illustrates the structure of the balance sheet, namely:

1) Assets,
2) Liabilities,
3) Equity.

Analyzing the structure of the balance sheet, we can observe that assets and liabilities increased and decreased in the same way over the entire analyzed period. Decreases in assets and liabilities occurred in 2008 and 2014. This is not surprising, the overall situation during and after the world-wide crisis affected all industries of the Czech economy. During the period from 2009 to 2013 and also from 2015 to 2018, expenses and assets increased gradually. For the entire analyzed period, the sums of assets and liabilities did not have any strong growths or declines. As for equity, during the analyzed period, equity increased by almost 100%. The largest increase in equity took place in 2009 compared to 2008 by 13 billion CZK, or 22.9%.

**Table 18.** Structure of the balance sheet of ČSOB, 2004-2018 (million CZK).

| Year | Total Assets | Total Liabilities and Equity | | | | | | | Balance sheet | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | Liabilities | Changes | | Equity | Changes | | Liabilities + Equity | Changes | |
| | | | Absolute | Relative | | Absolute | Relative | | Absolute | Relative |
| **2004** | 614159 | 568102 | - | - | 46057 | - | - | 614159 | - | - |
| **2005** | 736538 | 683061 | 114959 | **20.2** | 53477 | 7420 | **16.1** | 736538 | 122379 | **19.9** |
| **2006** | 762301 | 709768 | 26707 | **3.9** | 52533 | -944 | **-1.8** | 762301 | 25763 | **3.5** |
| **2007** | 925424 | 868223 | 158455 | **22.3** | 57201 | 4668 | **8.9** | 925424 | 163123 | **21.4** |
| **2008** | 824485 | 767641 | -100582 | **-11.6** | 56844 | -357 | **-0.6** | 824485 | -100939 | **-10.9** |
| **2009** | 858972 | 789121 | 21480 | **2.8** | 69851 | 13007 | **22.9** | 858972 | 34487 | **4.2** |
| **2010** | 885055 | 819215 | 30094 | **3.8** | 65840 | -4011 | **-5.7** | 885055 | 26083 | **3.0** |
| **2011** | 936593 | 875410 | 56195 | **6.9** | 61183 | -4657 | **-7.1** | 936593 | 51538 | **5.8** |
| **2012** | 937174 | 863033 | -12377 | **-1.4** | 74141 | 12958 | **21.2** | 937174 | 581 | **0.1** |
| **2013** | 1034830 | 954377 | 91344 | **10.6** | 80453 | 6312 | **8.5** | 1034830 | 97656 | **10.4** |
| **2014** | 865639 | 780059 | -174318 | **-18.3** | 85580 | 5127 | **6.4** | 865639 | -169191 | **-16.3** |
| **2015** | 956325 | 865606 | 85547 | **11.0** | 90719 | 5139 | **6.0** | 956325 | 90686 | **10.5** |
| **2016** | 1085527 | 996792 | 131186 | **15.2** | 88735 | -1984 | **-2.2** | 1085527 | 129202 | **13,5** |
| **2017** | 1315590 | 1221887 | 225095 | **22.6** | 93703 | 4968 | **5.6** | 1315590 | 230063 | **21.2** |
| **2018** | 1378038 | 1315590 | 93703 | **7.7** | 92016 | -1687 | **-1.8** | 1378038 | 62448 | **4.7** |

Source: Author's processing based on ČSOB, 2004-2018.

To sum up, the BS is strong enough regardless some of the negative results, which are related to the external factors like crisis in 2008 and the internal factors of the structural supervising board changes, when the new manger was appointed in 2014 (ČSOB, 2014). However, the overall results of ČSOB are sufficiently good, which indicates a stability of the financial health of the selected institution.

## *2.3. Calculation of the ratios*

### *2.3.1. Efficiency ratios*

**Cost/Income ratio**

***Formula 3:*** Cost/income ratio = (operating expenses/operating income) *100%

**Example:**

2018: Cost/income ratio= (26016/37102) *100%=70.1%

2017: Cost/income ratio= (22692/37199) *100%=61%

2016: Cost/income ratio= (22235/34043) *100%=65.3%

2015: Cost/income ratio= (22303/32542) *100%=68.5%

2014: Cost/income ratio= (14981/31443) *100%= 47.6%

**2009: Cost/income ratio= (13640/39665) *100%=34.4% - Most effective**

**2008: Cost/income ratio= (15014/19055) *100%= 78.8% - Most unprofitable**

**Table 19.** Cost/income ratio results of ČSOB, 2004-2018 (%)

| ***Year*** | ***Results*** |
|---|---|
| 2004 | 58.6% |
| 2005 | 61.4% |
| 2006 | 57.5% |
| 2007 | 51.1 % |
| **2008** | **78.8%** |
| **2009** | **34.4%** |
| 2010 | 44.0% |
| 2011 | 46.7% |
| 2012 | 46.4% |
| 2013 | 47.5 % |
| 2014 | 47.6% |
| 2015 | 68.5% |
| 2016 | 65.3% |
| 2017 | 61 % |
| 2018 | 70.1% |

Source: Author’s processing based on ČSOB, 2004-2018.

The *Table 19* is aimed to demonstrate the cost/income ratio of this bank. The period from 2004 to 2007, there is no specific drastic changes in the ratio, they are approximately same. The year of the global finical crisis (2008) showed bad results — the value of the ratio significantly increased by 78.8%, which made it to be the largest percent for the whole analyzed period.

Later, in 2009 the ratio dramatically reduced and consisted of 34.4%, which is the threshold of the minimum level for this particular period. After this, in period from 2010 to 2014, the tendency was around the same indicators, which are less than 50%. The year of 2015 boosted this ratio indicator again up to 68.5% and remained almost the same for 4 years.

Generally speaking, the banking sector is suggested to have the cost/income ratio to be less than 50%. In comparison to the previous bank examined, here, the situation is even worse, when the ratio is going over the 50%. This can be explained that the bank is not able to operate efficiently and earn the corresponding profit, even at more or less stable situation (not related to crisis).

### *2.3.2. Liquidity ratios*

**Loan/Deposit ratio**

***Formula 4:*** Loan/Deposit ratio = (Net customer loans/Customer deposits) *100%

**Example:**

2018: Loan/Deposit ratio= (578.9/758.7) *100%= 76.3%

2017: Loan/Deposit ratio= (589.2/769.9) *100%= 77.7%

2016: Loan/Deposit ratio= (598.3/753.5) *100%= 79.4%

**2015: Loan/Deposit ratio= (601.2/752.4) *100%= 79.9% - Maximal level**

2014: Loan/Deposit ratio= (577.4/755.8) *100%= 76.4%

**2004: Loan/Deposit ratio= (256.3/518.8) *100%= 49.4% - Minimal level**

**Table 20.** Loan/Deposit ratio results of ČSOB, 2004-2018 (%)

| Year | *ČSOB* | | |
|---|---|---|---|
| | **Net customer loans (bn CZK)** | **Customer deposits (bn CZK)** | **Results %** |
| **2004** | **256.3** | **518.8** | **49.4** |
| **2005** | 287.5 | 568.2 | 50.6 |
| **2006** | 299.3 | 478.9 | 62.5 |
| **2007** | 345.3 | 537.0 | 64.3 |
| **2008** | 355.8 | 473.1 | 75.2 |
| **2009** | 443.5 | 623.8 | 71.1 |
| **2010** | 432.8 | 631.8 | 68.5 |
| **2011** | 487.5 | 670.6 | 72.7 |
| **2012** | 521.1 | 693.0 | 75.2 |
| **2013** | 534.8 | 704.6 | 75.9 |
| **2014** | 577.4 | 755.8 | 76.4 |
| **2015** | 601.2 | 752.4 | **79.9** |
| **2016** | 598.3 | 753.5 | 79.4 |
| **2017** | 589.2 | 769.9 | 77.7 |
| **2018** | 578.9 | 758.7 | 76.3 |

Source: Author's processing based on ČSOB, 2004-2018.

The *Table 20* illustrates the Loan/Deposit ratio of ČSOB bank. Following the trends, it increased by 26.9% throughout the analyzed period. The period with the highest growth of this ratio is associated with the years 2004-2008. This is due to the fact that the Czech Republic entered the EU membership in 2004, which allowed the financial sectors of economy to enjoy the benefits from the EU accession. The bank was able to strengthen the position on the market from 2004 up to today. It was in 2008 when the level of the indicator was reached close to the current results (75.2%).

After 2008, there was a slight decline in this ratio to 68.5% only in 2011. The growth recovered again in 2015 when the maximum level of this ratio was reached (almost 80%). This fact is explained by the decision of the supervisory board to increase the share of the capital, which allowed to attract more potential clients and investors (ČSOB, 2015). After that, the coefficient began to decline gradually, but not critically. The decline over this period was 3.6%. All in all, the results of the Loan/Deposit ratio indicate a very good trend.

### *2.3.3. Leverage ratios*

**Capital adequacy ratio**

***Formula 5:*** Capital adequacy ratio = (Total capital/ Risk Weighed Assets) *100%

**Example:**

2018: Capital adequacy ratio = (69.1/383.3) *100%= 18.0%

2017: Capital adequacy ratio = (69.0/402.3) *100%= 17.2%

2016: Capital adequacy ratio = (70.3/379.0) *100%= 18.5%

**2015: Capital adequacy ratio = (68.1/351.7) *100%= 19.4% - Maximal level**

2014: Capital adequacy ratio = (60.9/348.7) *100%= 17.5 %

**2006: Capital adequacy ratio = (41.0/450.0) *100%= 9.1% - Minimal level**

Analyzing the indicators of the capital adequacy ratio for the entire 15 years, it is possible to observe the unstable character of this coefficient *(see Table 21)*.

In the period from 2004 to 2006, CAR decreased exactly by 3%, but then in 2007-2008 this ratio increased slightly by more than 1%. Between 2008 and 2010, CAR grew very strongly up to 18%. In 2011, the ratio decreased by 2.5% and has remained practically unchanged for 3 years. In 2015, CAR grew by 3.8% compared to the year of 2013, which hit the highest level of this ratio for the entire analyzed period. After 2015, the CAR value decreased slightly and in 2018 amounted to 18%, as in 2010.

**Table 21.** Capital adequacy ratio of ČSOB, 2004-2018 (%)

| Year | ***ČSOB*** | | |
|---|---|---|---|
| | **Total capital (Tier 1 + Tier 2) (CZK bn)** | **Risk Weighted Assets (CZK bn)** | **Capital adequacy ratio (%)** |
| **2004** | 41.5 | 343.6 | 12.1 |
| **2005** | 42.2 | 400.0 | 10.6 |
| **2006** | 41.0 | 450.0 | **9.1** |
| **2007** | 48.6 | 453.6 | 10.7 |
| **2008** | 41.7 | 404.7 | 10.3 |
| **2009** | 55.2 | 368.2 | 15.0 |
| **2010** | 57.5 | 319.1 | 18.0 |
| **2011** | 54.4 | 350.1 | 15.5 |
| **2012** | 52.2 | 342.4 | 15.2 |
| **2013** | 55.3 | 355.1 | 15.6 |
| **2014** | 60.9 | 348.7 | 17.5 |
| **2015** | 68.1 | 351.7 | **19.4** |
| **2016** | 70.3 | 379.0 | 18.5 |
| **2017** | 69.0 | 402.3 | 17.2 |
| **2018** | 69.1 | 383.3 | 18.0 |

Source: Author's processing based on ČSOB, 2004-2018.

As it was mentioned before, the CAR ratio is supposed to have the lowest value as it reflects the possibility of the bank to get into risky situation. This bank also shows quite high levels of the capital adequacy ratio, approximizing the values around 20%. The reason behind this tendency is that the banking sector of the Czech Republic remains resilient for the past few years in terms of the adverse shocks, thus, this ratio holds the high levels, which is all around 20%.

**Debt ratio**

***Formula 6:*** Debt ratio= (Total liabilities/Total Assets)

**Example:**

**2018: Debt ratio = 1315590/1378038 = 0.955 – Maximal level**

2017: Debt ratio = 1221887/1315590 = 0.929

2016: Debt ratio = 996792/1085527 =0.918

2015: Debt ratio = 865606/956325 = 0.905

**2014: Debt ratio = 780059/865639 = 0.901 – Minimal level**

**Table 22.** Debt ratio of ČSOB, 2004-2018 (%)

| Year | *Results* |
|---|---|
| **2004** | 0.925 |
| **2005** | 0.927 |
| **2006** | 0.931 |
| **2007** | 0.938 |
| **2008** | 0.931 |
| **2009** | 0.919 |
| **2010** | 0.926 |
| **2011** | 0.935 |
| **2012** | 0.921 |
| **2013** | 0.922 |
| **2014** | **0.901** |
| **2015** | 0.905 |
| **2016** | 0.918 |
| **2017** | 0.929 |
| **2018** | **0.955** |

Source: Author's processing based on ČSOB, 2004-2018.

According to the calculation of the data, the debt ratio was as unstable and as the current ratio increased and decreased during analyzed period. In the period from 2004 to 2007, this ratio increased, but from 2008 to 2014 the indicators had variable indicators and in 2014 reached the minimum level for the entire analyzed period with 0.901 indicator. Since 2015, the debt ratio began to grow sharply and in 2018 amounted to 0.955, which is the maximum level.

As far as I am concerned, the decrease in this ratio is good for the bank. However, the situation here is opposite. Most of the time the value of this indicator only grows, meaning defining increase in the percentage of debt to assets. As it was prescribed in the theoretical part of this thesis, the ratio of debt to assets is better to fall, then the entity is less risky and able to handle its responsibilities.

**Debt to Equity ratio**

***Formula 7:*** Debt to Equity ratio = Total liabilities/ Total Equity

**Example:**

2018: Debt to Equity ratio = 1315590/92016 = 14.30

2017: Debt to Equity ratio = 1221887/93703 = 13.04

2016: Debt to Equity ratio = 996792/88735 = 11.23

2015: Debt to Equity ratio = 865606/90719 = 9.5

**2014: Debt to Equity ratio = 780059/85580 = 9.11 – Minimal level**

**2007: Debt to Equity ratio = 824485/56844 = 15.18 – Maximal level**

The *Table 23* below was constructed in accordance with the calculated data. We can observe an incline in the coefficient in the period from 2004 to 2007, which is basically associated with the period of entrance of the Czech Republic to the European Union. Even though, this is the value that is supposed to target the minimum rate, the indicators started to fall only later.

Thereafter, debt to equity slightly reduced in 2009 and 2010 decreased to 11.3%, which is very puzzling as it was the period of the global financial crisis. From 2009 to 2011 this ratio again increased to the almost maximum level with 14.31%. Afterwards, in the year of

2014, the ratio declined to the lowest level with 9.11% and then gradually increased again and consist to 14.3% in 2018. The overall picture of this ratio is clear, the fluctuations are quite unstable and in most cases the tendency is aimed at inclining the ratio, whereas it is supposed to be opposite.

**Table 23.** Debt to equity ratio of ČSOB, 2004-2018 (%)

| Year | *Results* |
|---|---|
| **2004** | 12.33 |
| **2005** | 12.77 |
| **2006** | 13.51 |
| **2007** | **15.18** |
| **2008** | 14.50 |
| **2009** | 11.30 |
| **2010** | 12.44 |
| **2011** | 14.31 |
| **2012** | 11.64 |
| **2013** | 11.86 |
| **2014** | **9.11** |
| **2015** | 9.5 |
| **2016** | 11.23 |
| **2017** | 11.04 |
| **2018** | 14.30 |

Source: Author's processing based on ČSOB, 2004-2018.

### *2.3.4. Profitability ratios*

**Net interest margin**

***Formula 8:*** Net interest margin = (Net interest income/ Average earning assets) *100%

**Example:**

2018: Net interest margin= (26016/847427) *100%= 3.07%

2017: Net interest margin= (22692/782483) *100%= 2.90%

2016: Net interest margin= (22235/758874) *100%= 2.93%

2015: Net interest margin= (22303/740963) *100%= 3.01%

2014: Net interest margin= (22872/721514) *100% = 3.17%

**2010: Net interest margin= (24272/707726) *100%= 3.43% - Maximal level**

**2005: Net interest margin= (19210/800417) *100% = 2.40% - Minimal level**

**Table 24.** Net interest margin of ČSOB, 2004-2018 (%)

| Year | ***ČSOB*** | | |
|---|---|---|---|
| | **Net interest income** | **Average earning assets (CZK m)** | **Results %** |
| **2004** | 18 536 | 702 121 | 2.64 |
| **2005** | 19 210 | 800 417 | **2.40** |
| **2006** | 22 300 | 851 145 | 2.62 |
| **2007** | 18 833 | 689 853 | 2.73 |
| **2008** | 21 385 | 698 856 | 3.06 |
| **2009** | 23 018 | 695 408 | 3.31 |
| **2010** | 24 275 | 707 726 | **3.43** |
| **2011** | 24 808 | 731 799 | 3.39 |
| **2012** | 24 970 | 777 882 | 3.21 |
| **2013** | 22 651 | 707 844 | 3.20 |
| **2014** | 22 872 | 721 514 | 3.17 |
| **2015** | 22 303 | 740 963 | 3.01 |
| **2016** | 22 235 | 758 874 | 2.93 |
| **2017** | 22 692 | 782 483 | 2.90 |
| **2018** | 26 016 | 847 427 | 3.07 |

Source: Author's processing based on ČSOB, 2004-2018.

The *Table 24* gives an overview of the calculations of the net interest margin ratio. For this purpose, the financial statements were used, namely, interest earned assets. Based on the calculated results, it can be determined that the net interest margin of the ČSOB bank has remained critically unchanged over the entire analyzed period. There were no sharp drops or significant growth of this ratio.

Between 2004 and 2010, the net interest margin rose by less than 1%. And after 2010, the ratio began to decline again gradually every year, and in 2017 it reached the level of 2.90%. In 2018, the net interest margin increased by a small percentage of 0.17%

As this is one of the main indicators that helps to evaluate the financial institution's profitability and growth, the overall tendency is quite poor in comparison to the previous bank. The higher ratio, the better for the bank, however, the lower rates for this particular ratio seem to be the specificity of the Czech market.

**ROA**

***Formula 9:*** ROA = (Net Income/ Total Assets) *100%

**Example:**

2018: ROA = (15757/1378038) *100%= 1.14%

2017: ROA= (17517/1315590) *100%= 1.33%

2016: ROA = (15141/1085527) *100%= 1.39%

2015: ROA= (14010/956325) *100%= 1.46%

2014: ROA= (13604/865639) *100%= 1.57%

**2008: ROA= (1034/824485) *100%= 0.13%- Minimal level**

**2009: ROA= (17368/858972) *100%= 2.02%- Maximal level**

**Table 25.** Return on assets of ČSOB, 2004-2018 (%)

| **Year** | ***ČSOB*** |
|---|---|
| **2004** | 1.12 |
| **2005** | 1.10 |
| **2006** | 1.17 |
| **2007** | 1.07 |
| **2008** | **0.13** |
| **2009** | **2.02** |
| **2010** | 1.52 |
| **2011** | 1.26 |
| **2012** | 1.63 |
| **2013** | 1.32 |
| **2014** | 1.57 |
| **2015** | 1.46 |
| **2016** | 1.39 |
| **2017** | 1.33 |
| **2018** | 1.14 |

Source: Author's processing based on ČSOB, 2004-2018.

As for the ROA ratio showed in the *Table 25*. Here we can highlight the stability of the indicator in the period from 2004 to 2007, which is good for the banks. In the year of 2008 ROA dropped dramatically by 0.13%, which is undoubtedly was caused by the crisis all over the world. In 2009, the ratio even doubled in comparison to the values before 2008. This is mainly caused by the factors like ČSOB introduction of the ICT and online services, which added value to attracting new investments. Moreover, in the year of 2009 the bank got the dividends with a size of 244 million CZK (ČSOB, 2009).

After 2009 this ratio slightly declined again by 0.5% and was fluctuating within 4 years. In the period from 2014 to 2018, the ratio slightly declined. In 2018, this ratio was at the level of 1.14%.

In general, a good level of ROA is supposed to be 1%-10%. Nevertheless, the rate is mostly defined by the sector in which this indicator is utilized. For banking sector, it is quite common practice to have the rate around 1%. According to the data obtained, there is no negative values but there is one that is close enough to get to 0. This means that the bank is able to use its assets in more or less efficiently.

**ROE**

***Formula 10:*** ROE = (Net income/ Shareholders equity) * 100%

**Example:**

2018: ROE= (15757/92016) *100%=. 17.1%

2017: ROE= (17517/93703) *100%= 18.7%

2016: ROE= (15141/88735) *100%= 17.1%

2015: ROE= (14010/90719) *100%= 15.4%

2014: ROE= (13604/85580) *100%= 15.9%

**2008: ROE= (1034/56844) *100%= 1.8% - Minimal level**

**2009: *R*OE= (17368/69851) *100%= 24.9% - Maximal level**

The change in ROE is observed in *Table 26.* The results are somewhat similar to ROA. In the period from 2004 to 2008 this ratio slowly increased, which is profitable for the bank. The reason behind it again associated with the EU membership.

As far as the global financial crisis hit in 2008, the indicator dramatically dropped compared to 2007 from 17.3% to 1.8%. In 2009, the ratio again increased to 24.9% and it was the highest level, which Is due to the fact of the dividends received. Then the value of this ratio slightly decreased by 20.5%, which is understandable because the dividends were applied only for one single year. Since 2010 this indicator has a variable character within 3 years. In 2013 this ratio a little bit declined on 3.5% and from this period was variable and did not exceed 20%. Between 2010 and 2018, the lowest level was reached with 15.4% in 2015.

As a rule, a good ROE level has to be at the level 15-20%. An average ROE in the banking sector is estimated for 11%-12%. But the ČSOB as a financial institution performs a very good ROE tendency, except the one during the crisis.

**Table 26.** Return on equity of ČSOB, 2004-2018 (%)

| **Year** | ***Results*** |
|---|---|
| **2004** | 15.0 |
| **2005** | 15.1 |
| **2006** | 16.9 |
| **2007** | 17.3 |
| **2008** | **1.8** |
| **2009** | **24.9** |
| **2010** | 20.5 |
| **2011** | 18.3 |
| **2012** | 20.6 |
| **2013** | 17.0 |
| **2014** | 15.9 |
| **2015** | 15.4 |
| **2016** | 17.1 |
| **2017** | 18.7 |
| **2018** | 17.1 |

Source: Author's processing based on ČSOB, 2004-2018.

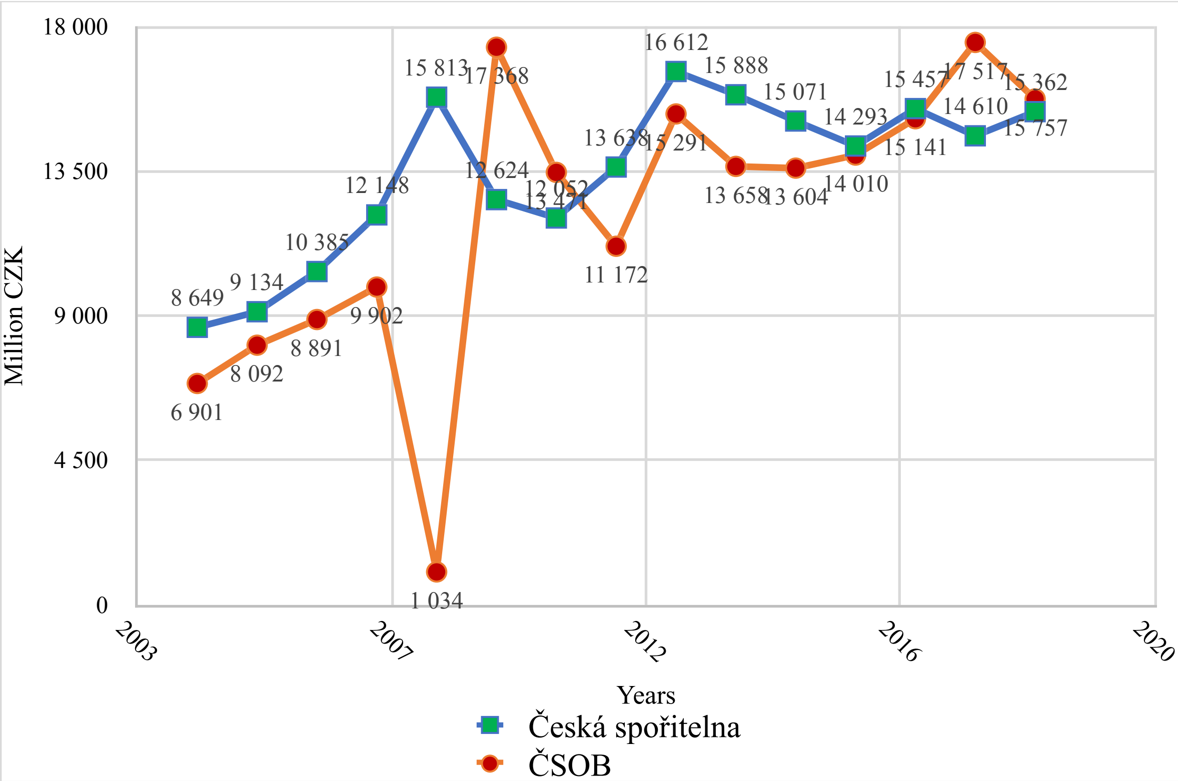
# 3. Comparison

This part of the thesis is aimed at comparing the performance of the two banks for the selected period of time — 2004-2018. After analysing the results obtained, there is a discussion of whether the bank ČS is good enough in its performance or not in comparison to the standards as well as in comparison to ČSOB and whether There is a place for corrective measures. And, a relevant conclusion would be driven based on the discussions.

## 3.1. Income statement

### Net profit

**Figure 1.** Net profit comparison of ČS and ČSOB, 2004-2018 (million CZK).




Source: Author's processing based on ČS, 2004-2018; ČSOB, 2004-2018.

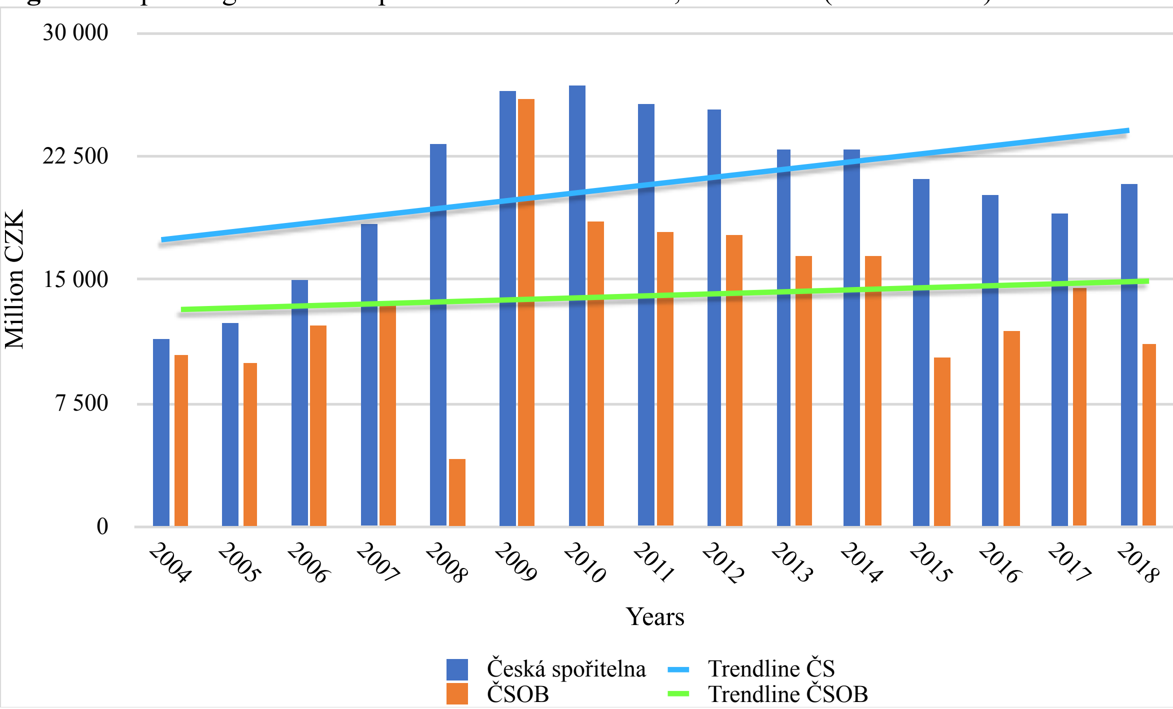
The *Figure 1* demonstrates a comparison of net profit of the two banks, namely: Česká spořitelna and Československá obchodní banka for the period from 2004 to 2018. By the analysis held it can be noted that in the period from 2004 to 2007 both banks had the same tendency of increase.

The year of 2008 differentiated the plot, when the net profit of ČS increased significantly by 3 billion CZK, while the net profit of ČSOB on the contrary fell sharply from 9,900 million CZK to 1 billion CZK. The ČS could perform in the best practices during the worldwide crisis as offering gold deposit, whereas ČSOB performed in the similar way as before the crisis, which led the bank almost to the bankruptcy. However, ČSOB received the dividends in 2009, the incline by almost 5 billion of which is obvious on the *Figure 1*, which basically saved the bank.

Since then both banks were growing in different paces, however, without any drastic changes in their net profits. The only super notable difference was in 2017, when ČS net profit was below the ČSOB net profit. And, in 2018 both banks had similar profits, which amounted to just over 15 billion CZK.

**Operating results**

**Figure 2.** Operating results comparison of ČS and ČSOB, 2004-2018 (million CZK).




Source: Author's processing based on ČS, 2004-2018; ČSOB, 2004-2018.

The *Figure 2* above shows the operating results data for two banks: ČS and ČSOB. First of all, from the presented diagram, we can observe that the operating results of ČS always exceeded the operating results of ČSOB.

In the period from 2004 to 2006 the difference between the two banks in operating profit minus operating expenses was quite small. The drastic difference took the roots in 2007 was caused due to the ČS operating profit has grown significantly, which resulted in 2008 as the largest difference in the operating profit between the two banks, and amounted approximately 23 billion CZK.

Again, this was an impact of the financial crisis, which allowed the ČS to raise the profitability, and for ČSOB, in contrary fall into the risky situation, when the ČSOB was hardly ale to cover the expenses.

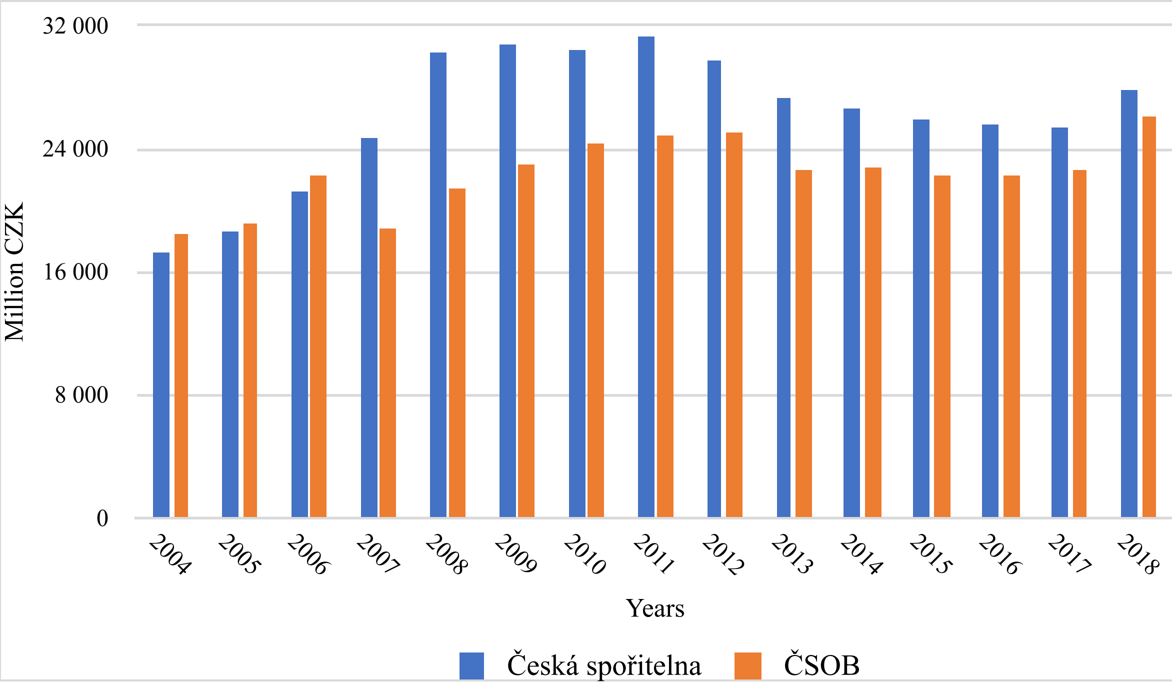
In 2009, both banks showed similar operating results, but different operating expenses, which allowed the ČSOB to more or less equalize the operating results with ČS. This was due to the dividends that ČSOB for the post-crisis period. However, the differentiation returned back after 2009.

Since 2010, both banks ČS and ČSOB have a slight decline in their operating results. However, the issue is in ČSOB that has relatively high operating expenses compared to the ČS. This is quite common that the ČSOB is trying to pay out all the losses after the global crisis of 2008. For ČSOB the indicator decreased by 8 billion CZK, or 30.8%, and up to 2014 had approximately the same results. But in 2015 there was again a significant decrease in operating results. In 2016 this indicator slightly increased but did not return to the level of previous years, since the ČSOB expenses only rose over the ages.

To contrast, the operating expenses of ČS showed better performance over the selected period, keeping them approximately at the same level, therefore, the operation results did not affect that much the operating results. Unfortunately, ČSOB was not able to remain on the stable level.

### Net interest income

**Figure 3.** Net interest income comparison of ČS and ČSOB, 2004-2018 (million CZK).




Source: Author's processing based on ČS, 2004-2018; ČSOB, 2004-2018.

The *Figure 3* displays the net interest income data for the two banks ČS and ČSOB for the period from 2004 to 2018. One can observe a simultaneous growth of this indicator from 2004 to 2006, which is undoubtedly caused due to the European Union.

In 2007, the situation changed. Net interest income of ČS bank increased slightly compared to the ČSOB bank. The ČSOB indicator, on the contrary, decreased and the difference between the two banks in this indicator was significant this year, which accounted for more than 6 billion CZK.

In 2008, the net interest income of the ČS bank increased significantly again, for the ČSOB bank this indicator also increased, but not so much, so the difference in net interest income increased to 9 billion CZK. In the period from 2008 to 2012, this indicator for ČS bank was consistently high, while ČSOB bank had significantly lower results, but nevertheless grew slightly over this period to 25 billion CZK.

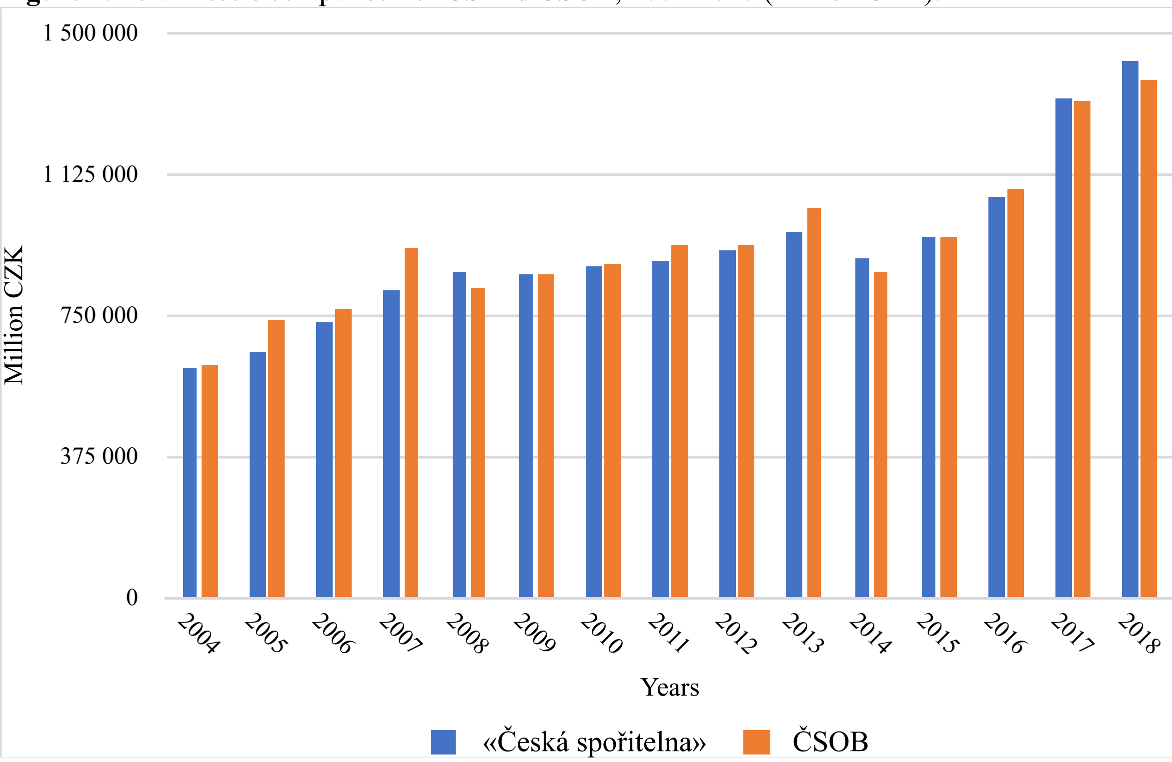
In 2013, both banks experienced a decline in their net interest income, as a result of which the difference between the banks narrowed to approximately 3 billion CZK. After 2013, the net interest income of the ČS bank gradually decreased, while this indicator for the ČSOB bank was stable, but it still did not reach the level of the ČS bank. In 2018, this figure increased for both banks, by approximately 3 million CZK, and this year the ratio between the two banks reached a minimum value of  1 billion CZK.

The overall trend of both of the banks is relatively same. There are no sharp differences in net interest income

## *3.2. Balance sheet*

**Assets**

**Figure 4.** Total Assets comparison of ČS and ČSOB, 2004-2018 (million CZK).



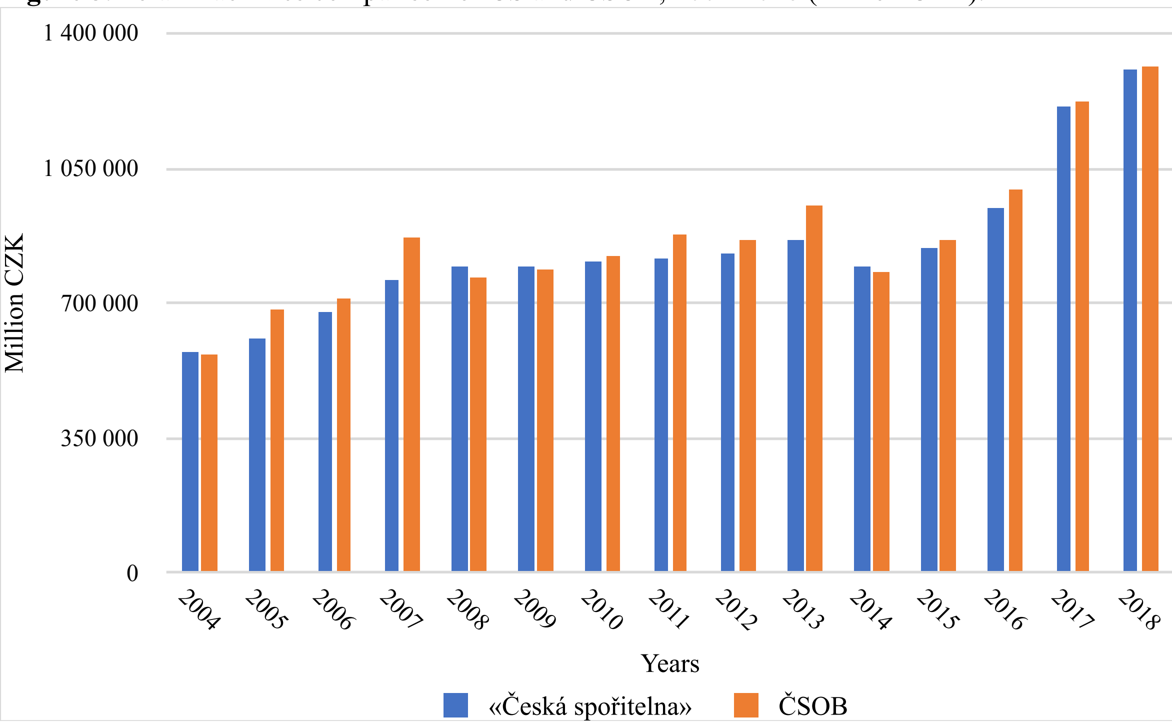

Source: Author's processing based on ČS, 2004-2018; ČSOB, 2004-2018.

The above diagram *(see Figure 4)* describes the changes in the assets of the two banks for the period 2004-2018. The plot shows that over the entire analyzed period, the assets of the two banks decreased and increased simultaneously and had approximately the same amounts, which is happening similarly to the net interest income rate.

This is associated with the fact that overall tendency in the banking sector was approximately same for all the banks in the Czech Republic, hence, they were able to manage their assets more or less efficiently compared to each other. In 2017, the assets of the two banks growth significantly compared to 2016 on 20%, which is associated with the elections held in the Czech Republic and subsequent changes in the policies of the Czech market.

### Liabilities

**Figure 5.** Total Liabilities comparison of ČS and ČSOB, 2004-2018 (million CZK).

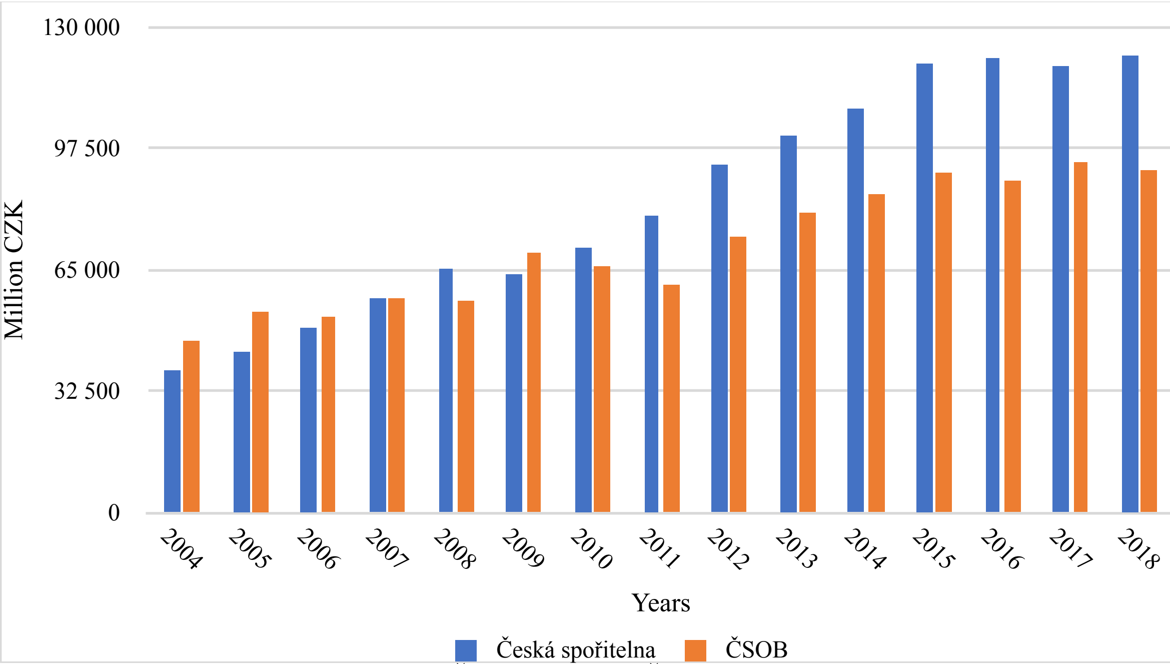



Source: Author’s processing based on ČS, 2004-2018; ČSOB, 2004-2018.

The *Figure 5* is constructed for the purpose of comparing liabilities of the ČS and ČSOB. Analyzing the fluctuations of liabilities of the two banks, we may say that there is a parallel with assets can be traced. Liabilities like assets, increased and decreased at the same time and have approximately the same amounts. In 2017, like assets, liabilities of two banks growth dramatically. As well as assets by about 20%. The similar reasons apply.

### Equity

**Figure 6.** Total Equity comparison of ČS and ČSOB, 2004-2018 (million CZK).




Source: Author's processing based on ČS, 2004-2018; ČSOB, 2004-2018.

As for equity, the situation here is slightly different *(see Figure 6)*. Although the amount of equity of the two banks was growing every year, the growth of the equity of ČS was faster and much larger than that of ČSOB.

During all this period, equity of the ČS equity grew in 3 times. In 2015 amount of equity was 120,000 million CZK and was stable until the end of the analyzed period. Therefore, equity of the ČSOB bank increased in 2 times and 2017 was 93,700 million CZK. The difference in the equity of these two banks by 2018 was approximately 30 billion CZK, or 25%. Until 2010, banks had almost the same equity.

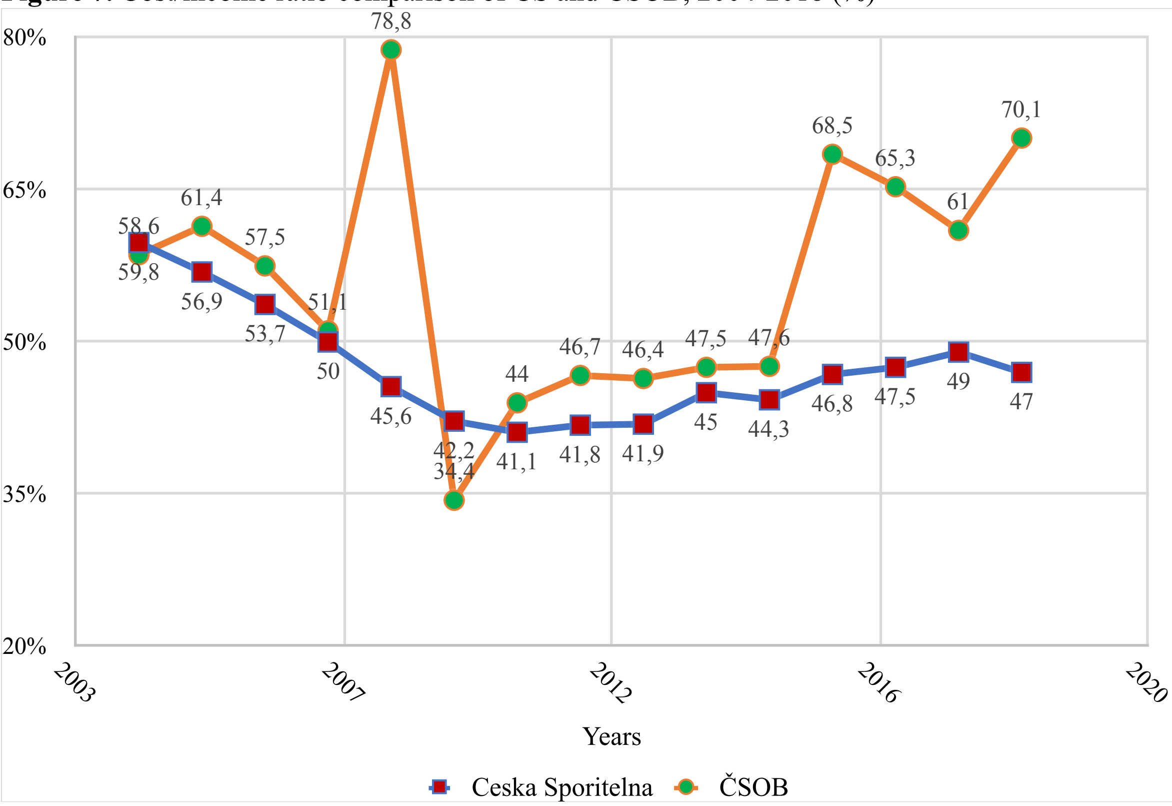
Consequently, the year of 2011 was remarkable due to external factors influencing all the sectors of life. The banking sector is not an exception out this rule. The political changes in the country emerged: Andrej Babis formed a political party ANO, and there was a number of the national reforms that had to be implemented to the Czech economy. Basically, this can be one of the factors that impacted the bank performances. Also, in 2014, the Czech Republic signed a partnership agreement with the EU on funding and investment.

## *3.3. Ratios*

### *3.3.1. Efficiency ratios*

**Cost/income ratio**

**Figure 7.** Cost/income ratio comparison of ČS and ČSOB, 2004-2018 (%)




Source: Author's processing based on ČS, 2004-2018; ČSOB, 2004-2018.

The cost / income ratio is one of the most important ratios for comparing two banks. This ratio shows how much income covers expenses. The most optimal indicator is no more than 50%, otherwise, the bank has inefficient performance.

According to the calculated data of the two banks, there are two times when they had significantly different indicators:

1. In 2008, the cost / income ratio of ČSOB bank was 78.8%, while that of ČS bank was 45.6%, which is the norm. But in 2009, this indicator for ČSOB bank fell sharply to 34.4%, below the level of ČS bank.
2. In 2015, ratio of the ČSOB bank increased again to 68.5%, then it decreased slightly, but in 2018 it grew even more compared to 2015 year. Therefore, cost/income ratio of the ČS bank from 2009 to 2012 was approximately the same and in 2013 little bit increased on few precent but was not more than 50% till the end of analyzed period. In all other periods of time, from 2004 to 2007 and from 2010 to 2014 the indicators of this coefficient had approximately the same results for these two banks.

Both banks tried not to overcome the threshold of 50%, however, they were not as successful as expected. The ČSOB had even the times, when this indictor was two times bigger, which reflects the bad efficiency.

### *3.3.2. Liquidity ratios*

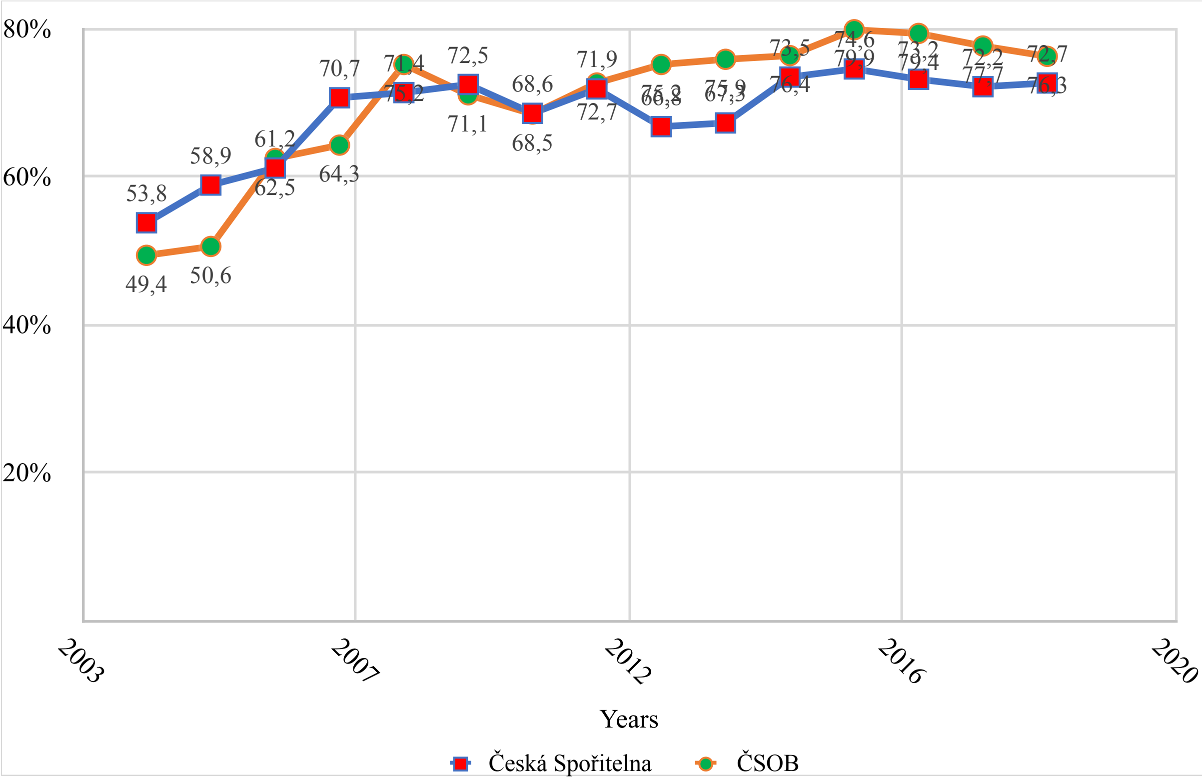
**Loan/Deposit ratio**

According to *Figure 8* describing the Loan/Deposit ratio of two banks ČS and ČSOB, it can be determined that this ratio for the two banks had almost the same result.

In the period from 2004 to 2008, the loan / deposit ratio of both banks gradually grew and in 2008 both banks reached 70%. In 2010, the ratio of both banks fell to the same level of 68.5%. After that, this ratio grew at the same rate for the two banks, but for ČSOB bank the results were higher.

The largest percentage difference was faced is 8.6% in 2013, when ČS bank had a result of 67.3% and ČSOB bank 75.9%. It can also be said that in 2015 this indicator for both banks was the maximum level for the entire analyzed period. Each bank had its own level. For ČS it is 74.6%, while for ČSOB it is 79.9%. Both banks had a good liquidity.

**Figure 8.** Loan/Deposit ratio comparison of ČS and ČSOB, 2004-2018 (%).




Source: Author’s processing based on ČS, 2004-2018; ČSOB, 2004-2018.

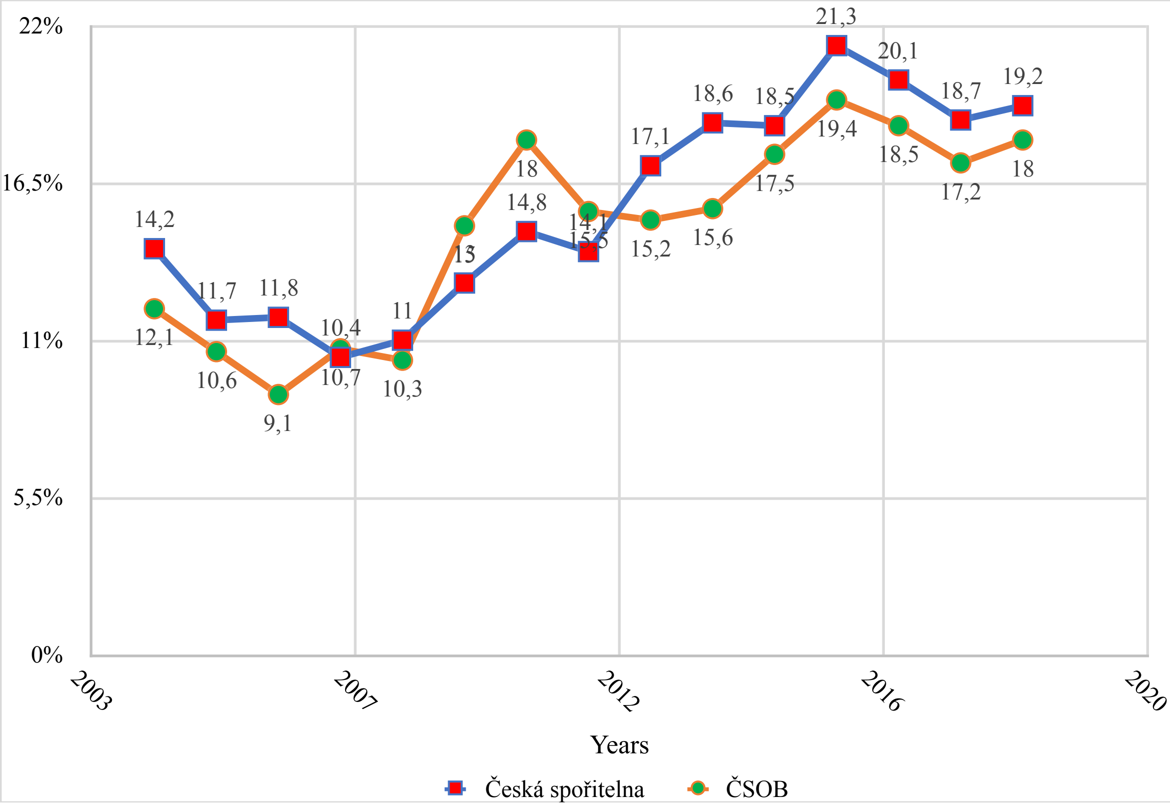
### *3.3.3. Leverage ratios*

**Capital adequacy ratio**

Based on the results of the calculated data, by determining the capital adequacy ratio of two bankers and comparing these results, we can say that in the period from 2004 to 2007 this ratio decreased for both banks and in 2007 it reached almost the same level within 10.5%. After that, the CAR of both banks started to grow again, and in 2010, when the ČS bank had 14.8%, and the ČSOB bank 18%, the maximum level of difference of this coefficient between these two banks was reached for the entire analyzed period. Then the coefficient slightly changed the trend, now the ČSOB bank's coefficient level was lower than that of the ČS bank. This trend remained unchanged until the end of the analyzed period. In 2015, the CAR of both banks had the highest level. ČS had 21.3% and ČSOB

19.4%. After 2015, this ratio for both banks decreased equally and increased in the same years.

**Figure 9.** CAR comparison of ČS and ČSOB, 2004-2018 (%).

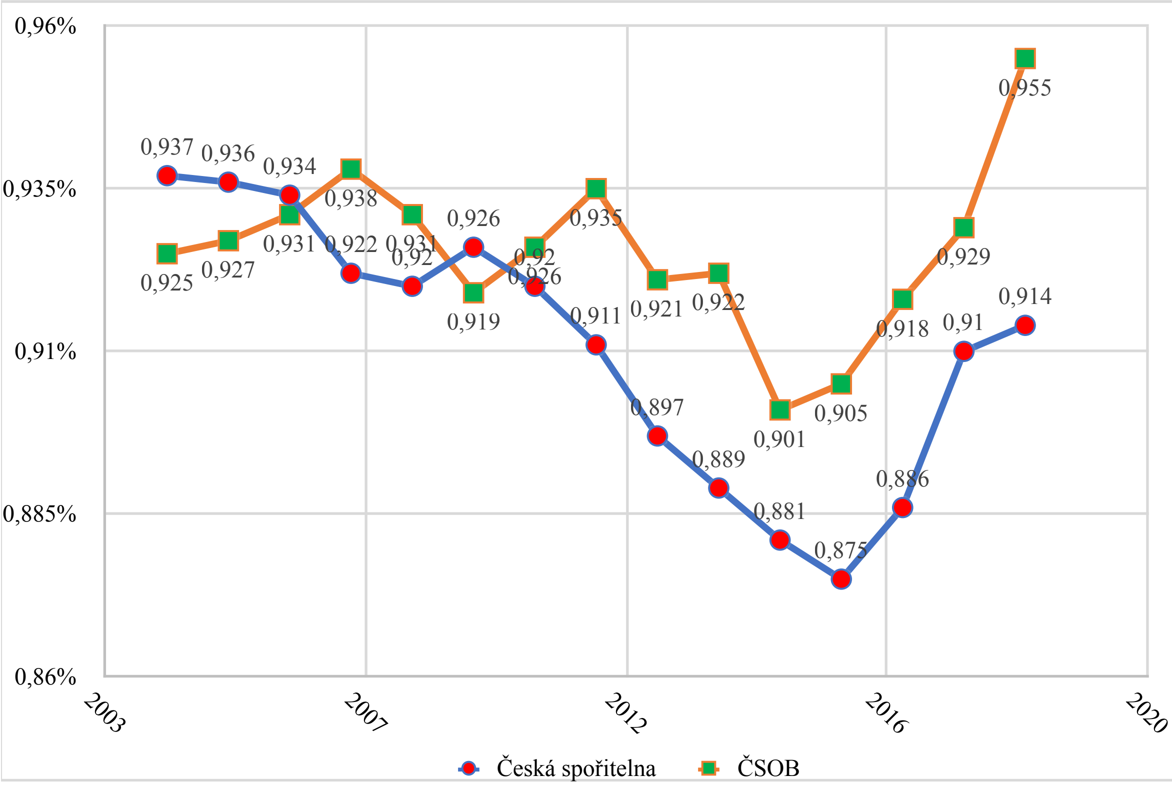



Source: Author’s processing based on ČS, 2004-2018; ČSOB, 2004-2018.

### Debt ratio

Based on the calculated data and the results obtained, which are reflected in the above graph, it can be determined that in the period from 2004 to 2010 the debt ratios of both banks were approximately the same. Starting from 2011, this ratio of bank 1 began to decline, while the ratio of ČSOB bank, on the contrary, increased, but not significantly. Since 2014, the debt ratio of both banks began to grow simultaneously, and in 2018, the level of the ratio for ČS bank reached 0.914, and for ČSOB bank, 0.955.

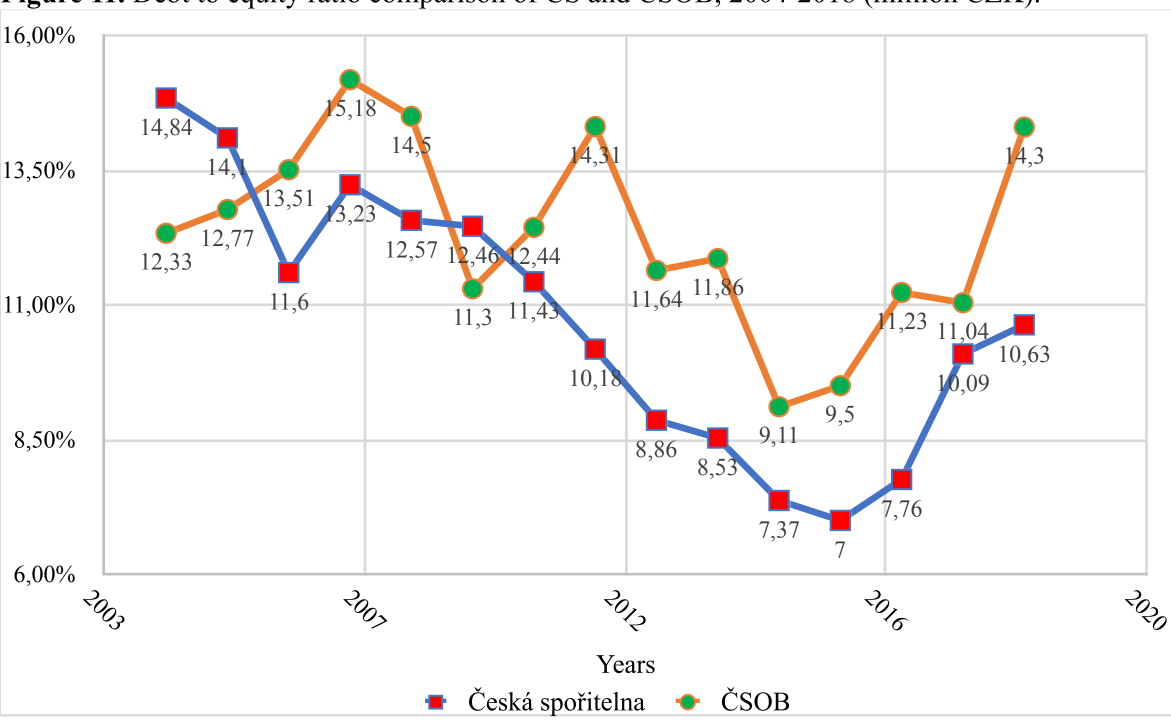
**Figure 10.** Debt ratio comparison of ČS and ČSOB, 2004-2018 (%).




Source: Author's processing based on ČS, 2004-2018; ČSOB, 2004-2018.

### Debt to Equity ratio

**Figure 11.** Debt to equity ratio comparison of ČS and ČSOB, 2004-2018 (million CZK).



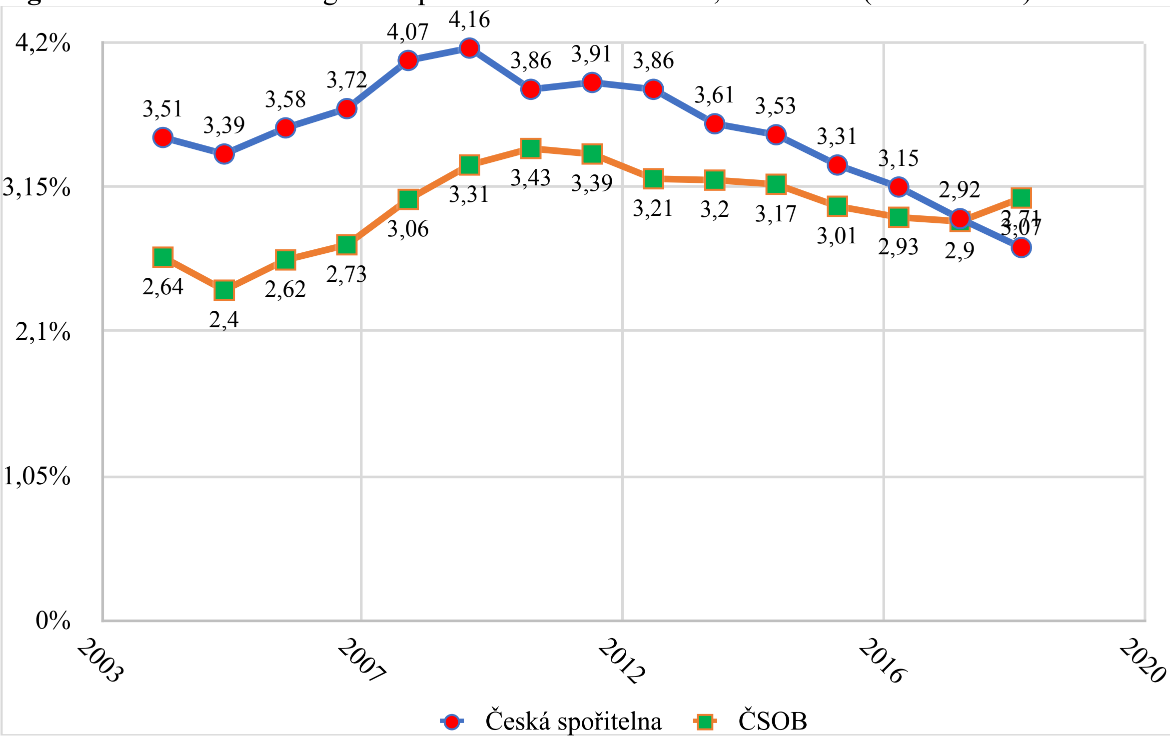

Source: Author's processing based on ČS, 2004-2018; ČSOB, 2004-2018.

The debt / equity ratio analyzes how many times the debt exceeds the equity. According to the obtained data and presented in the form of a graph, it can be determined that the indicators of this ratio for ČSOB bank were constantly changing. And for ČS bank, we can say that in the period from 2007 to 2015 there is a gradual decline, and in 2017 the indicator sharply increased to 10.09 compared to 2015. These two banks only 2 times had comparatively similar results for the entire analyzed period. This is in 2009 and 2017.

### *3.3.4. Profitability ratios*

**Net interest margin**

**Figure 12.** Net interest margin comparison of ČS and ČSOB, 2004-2018 (million CZK).



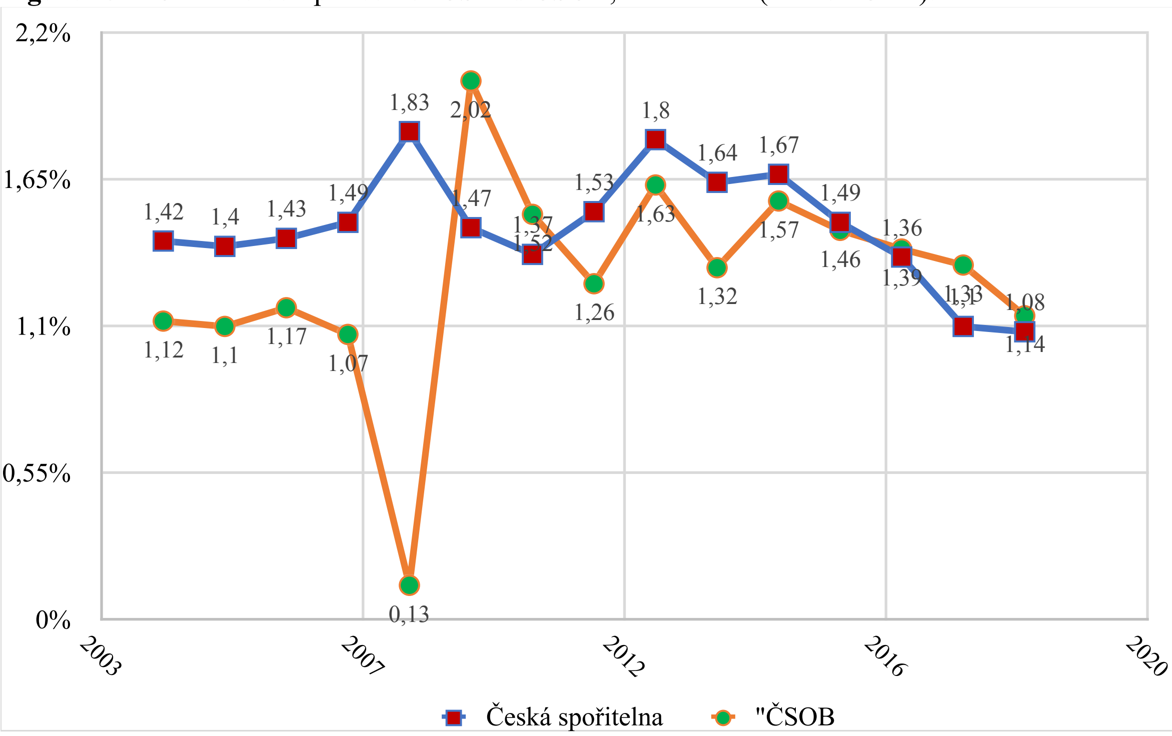

Source: Author's processing based on ČS, 2004-2018; ČSOB, 2004-2018.

According to *Figure 12* is describing the net interest margin of the analyzed banks and comparing the data, it can be determined that this ratio was significantly lower for the ČSOB bank, especially in the period from 2004 to 2009. While ČS bank had 4.16% of this ratio in 2009, ČSOB bank had 3.31%. After 2009, the results of both banks gradually began to converge and in 2017 they achieved almost the same result of 2.9%. And in 2018, the result of this skin ratio for ČSOB bank even exceeded the level of ČS bank by 0.36%.

### ROA

This chart describes the results of the ROA ratio for the entire analyzed period. Based on the calculated results, it can be determined that the indicators of ČSOB bank were lower compared to ČS bank. The largest difference is observed in 2008, when the ROA ratio of bank 2 fell to 0.13%, while that of ČS bank this year the indicator was at the level 1.83% and is the highest in the last 15 years. In 2009, ČSOB bank ROA rose sharply to 2.02%. After that, this coefficient for both banks were unstable and had similar percentages in the period from 2014 to 2018.

**Figure 13.** ROA ratio comparison of ČS and ČSOB, 2004-2018 (million CZK).



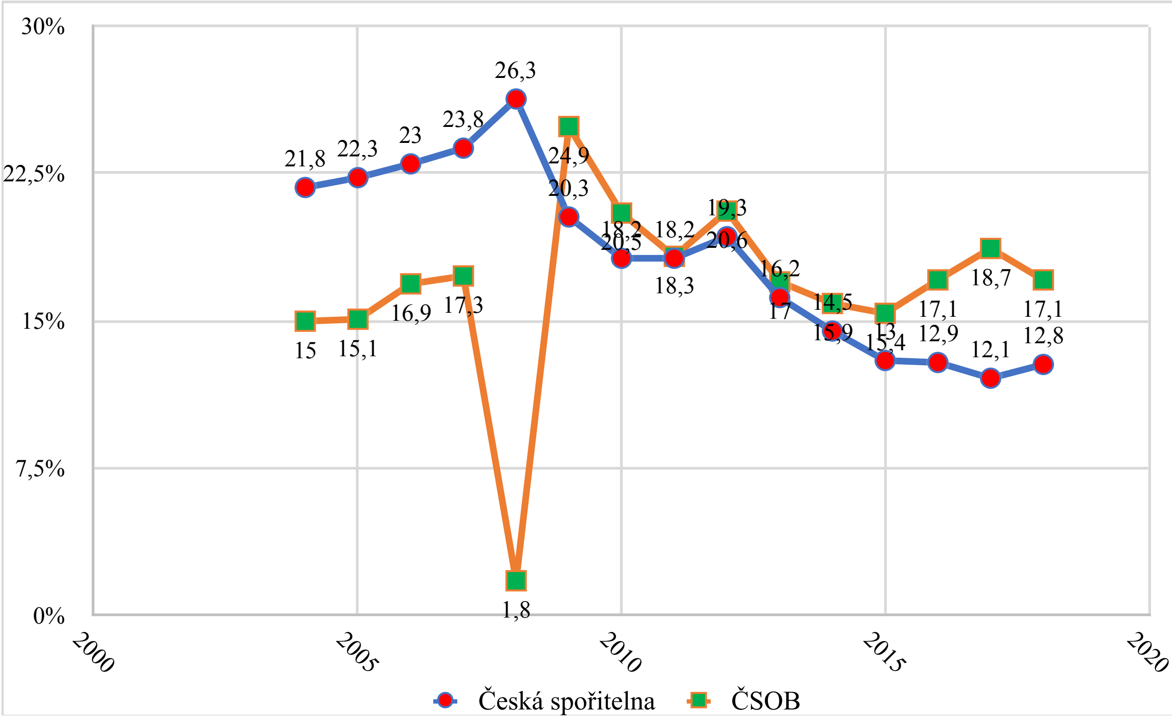

Source: Author’s processing based on ČS, 2004-2018; ČSOB, 2004-2018.

### ROE

As for the ROE ratio, here, as well as in the values of the ROA ratio, there was a sharp drop in this ratio in 2008 for ČSOB bank. In 2008, this ratio was 1.8%. At the same time ROE of ČS bank this year was 26.3%. In 2009, the ROE of ČSOB bank increased to

24.9%, while that of ČS bank decreased to 20.3%. After 2009, the indicators were similar for the two banks, and only in 2016 indicators of these two banks were changed gradually. The ROE ratio of ČS bank decreased to 13%, while that of ČSOB bank increased to 17%.

**Figure 14.** ROE ratio comparison of ČS and ČSOB, 2004-2018 (million CZK).




Source: Author's processing based on ČS, 2004-2018; ČSOB, 2004-2018.

# *Discussion of results*

To sum up the results obtained, the financial analysis of the ČS showed better output rather than ČSOB. ČS is undoubtedly the Czech banking market leader, which shows good results. The efficiency was estimated to be approximately equal to the second Czech leader bank, attempting to fulfil the norms and not exceeding the threshold of 50% in cost/income ratio. Similar tendency was shown while analysing liquidity. The Loan/Deposit ratio was at the level approximilzing 70%, which shows a very good trend for bank ability to stay liquid on the market.

Leverage ratios demonstrated that the ČS is able to do much better than its counterpart ČSOB. The leverage allowed to assess the financial position of the both of the banks in terms of its debt, capital and assets. The debt ratio and debt to equity ratio standards were met by ČS, on the contrary, CAR was performed better by ČSOB. To remind, CAR as well as debt ratios are supposed to be the lowest value possible and D/E should have higher indicator.

In terms of profitability ratios, the ČSOB was better off only for net interest margin, but the ČS did not yield, at least the position was stable: all results approximate 3%. However, ROA and ROE had better results in ČS, which were about 12%, within the norms and averages of the banking sector.

In order to enhance the performance of the bank and stabilise the overall efficiency and profitability of ČS, it is important to propose some corrective measures. In spite of the fact that the ČS was able to handle with the all external and internal factors, there is a need to keep the average pace. The recommendations might imply the following:

- Timely strategic and contingent planning, which includes predicting risky situations;
- Make sure that the internal coordination is good enough: supervisory body is responsible for all arrangements and making plan how to deal with risks and management is obliged to prepare the financial statements and balance sheets in timely manner; if each of the groups of eligible bodies would cooperate, most of the factors will be at least softened, if not eliminated;
- Make regular arrangements to discuss the matters, identify the potential threats and discuss possible solutions with relevant specialists;
- Establish mechanisms, tests and state internal standards for measuring success (or opposite) of the performance and financial stability and position of the bank;
- Communication with authorities and government in order to omit some problems that might occur;
- Implication of all relevant restrictions, expansions and distributions in a timely manner.

# *Conclusion*

The main objective of this thesis was to understand the notion of the apply the financial analysis to one of the Czech banks, which is also one of the Czech banking market leaders — ČS. The time interval was chosen from 2004 to 2018. This gap of 15 years is associated with two factors: with the accession of the Czech Republic to the European Union and with availability of the data. The main purpose was to evaluate the finical position of the bank and make sure that the bank meets the average standards of the industry. Besides, a comparison with other leader of the Czech market was conducted for a clear overview — with ČSOB.

The practice of this work implied application of the most important financial ratios for the banking sector: efficiency (cost/income), liquidity (L/D ratio), leverage (CAR, debt ratio, D/E), profitability (net interest margin, ROA, ROE), relative and absolute indicators. The analyzed period shows the weak and strong points in performance of the bank since this period includes the period of global crisis, as well as some of the regulations that were implemented in order to recover the EU overall economy after the economic crisis.

The choice of ČS was on purpose, this is the oldest bank in the Czech Republic, which in accordance to the government, operates successfully. The comparison of the indictors with ČSOB helped to understand that the ČS performs much better and it is conditioned by the wise supervisory management. However, this does not mean that the bank did not ever have any issues. Undoubtedly, ČS was able to predict the crisis and implemented the necessary measures before it hit the economy of the Czech Republic drastically — the bank offered the gold deposit. But, on the other hand some external factors like political elections and changes in economic system of the Czech Republic were handled with some minor difficulties. In order to avoid the risky situations in the future, it is important to follow the recommendations and prepare reports, assess situation and discuss in a timely manner. These non-wondering simple measures might help to eliminate some of the risks internally. It is very crucial that the entity is able to predict and make sure that the company is stable enough. So, it is necessary to make the strategic planning and make a strong foundation for attracting new clients to the bank. Therefore, it would allow the ČS to remain successful in the Czech market.

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