Taxation of Financial Institutions in the Czech Republic

Veronika Síbrtová[*]

Abstract:

This article aims to analyse possible forms of taxation in the financial sector and, based on financial institutions' data, estimate the potential contribution to the state revenue of the Czech Republic, if the tax is levied on the banks' assets with the progression tax rate. The exponential smoothing methods were used to predict banks' assets for the following five years. Actual data from the MagnusWeb database and annual reports for Czech banks from 2008 until 2021 were used. This article estimates tax revenues for the Czech Republic by using the parameters of bank tax proposed by several political parties and comparing the results with the latest windfall tax proposal. Based on the results, the bank tax would represent the additional revenue of CZK 23.4–28.7 bn (0.34–0.39% of GDP) each year for the following five years, with an increasing trend for the basic scenario. The proposed windfall tax should represent the additional tax revenue of CZK 33 bn for 2023 with decreasing trend, as the tax should be temporary and levied only on excessive profits.

Keywords: Bank Tax; Excessive Profit Tax; Financial Institutions; FTT; Taxation; Windfall Tax.

JEL classification: F38; H29; K34.

1 Introduction

As some authors point out (*e.g.*, Vostatek, 2011; Cannas *et al.*, 2014; Hammelgarn *et al.*, 2016), the profitability of the financial institutions sector is above average compared to other sectors. One of the reasons for higher profitability may be, for example, exemption from value added tax (VAT) on financial and insurance services. Higher profitability is also linked to globalization, which has helped reduce the cost of cross-border financial transactions. However, globalization has also created an area for the formation of new, riskier tools and products that are more profitable. It can be assumed that these speculative products were one of the reasons for the global economic and financial crisis in 2008. This crisis represented additional costs of rescuing the financial and banking sector. Furthermore, some authors (*e.g.*, Vostatek, 2011; European Commission, 2011a; Šneková, 2015) point

[*] Veronika Síbrtová; Prague University of Economics and Business, Faculty of Finance and Accounting, Department of Public Finance, Winston Churchill Square 1938/4, 130 67 Prague, Czech Republic, <veronika.sibrtova@vse.cz>.
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out that most of these costs were carried by the public sector, not the financial sector itself. Therefore, especially after the financial crisis in 2008, most affected countries began to address the issue of taxation of financial institutions actively.

In 2011, the European Commission proposed Directive 2011/0261 on a common system of financial transaction tax (FTT) and amended Directive 2008/7/EC. This draft Directive was not adopted unanimously, but some Member States have requested authorization for enhanced cooperation in financial transaction tax. Today, some EU member states have a so-called financial transaction tax in place.[1] The Czech Republic has not introduced this tax. However, in recent years, it has been considering introducing a so-called bank tax. Moreover, after the Covid-19, the increased inflation rate in 2022, and increased public debt, the government is trying to find new income to cover increased public expenses in the Czech Republic. Currently, the taxation of extra profits of banks and other companies is being considered in the form of a so-called windfall tax.

This article aims to analyse possible forms of taxation in the financial sector and, based on financial institutions' data, estimate the potential contribution to the state revenue of the Czech Republic.

The rest of the article is structured as follows: Section 2 provides the literature overview and deals with the concept of bank tax in general and possible options for taxing financial institutions. Section 3 analyses the first draft of Directive 2011/0261 of the European Commission and the draft of Directive 2013/0045, which were proposed by the cooperating countries within their enhanced cooperation (European Commission, 2013a). Section 4 analyses the taxation of financial institutions under Czech tax law and the banking sector in the Czech Republic. Section 5 assesses the bank tax proposal and estimates potential revenues from bank tax for the Czech Republic and it also focuses on the proposal of windfall tax. Section 6 concludes.

2 Literature Review

Bank tax can be understood as an element in the system of regulation and supervision of financial institutions, which is why the term "bank" is misleading, as usually not only banks but also financial institutions in a broad sense are subject to bank tax. Sometimes the bank tax is also referred to as the so-called sector tax because it affects only the financial institutions sector. Among the main reasons for introducing the bank tax is the higher profitability within the financial sector compared to other sectors (*e.g.*, Vostatek, 2011; Hammelgarn *et al.*, 2016).

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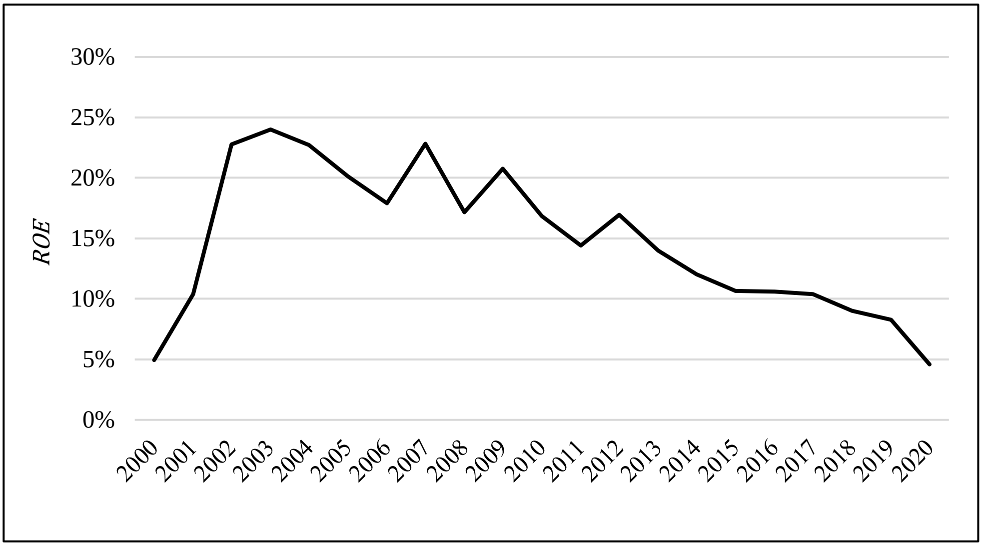
[1] Currently FTT is imposed in Belgium, Finland, France, Ireland, Italy, Poland, Spain, and United Kingdom.

Profitability can be measured, for example, using the return on equity indicator (ROE). Fig. 1 shows the development of the ROE indicator of the Czech banking sector in the years 2000 to 2020. It shows that the ROE indicator reached its highest value in 2007 before the financial crisis. However, for example, according to the financial statements of Česká spořitelna, a.s. in 2011, the ROE indicator reached 18.2% and in the case of ŠKODA AUTO, a.s. the ROE indicator in 2011 amounted to 19.7%. Moreover, based on the financial analysis prepared by the Ministry of Industry and Trade (2020), ROE for several sectors is higher than in the banking sector. For example, the highest ROE is more than 21.5% for IT and almost 19% for accommodation and catering sector. Also, other sectors such as industry, manufacturing, energetics, engineering, wholesale *etc*. have ROE above 11%. Therefore, the argument for higher profitability of the banking sector seems no longer entirely valid. On the other hand, due to the current macroeconomic situation and increased interest rates in the Czech Republic, the banks are reporting higher profits for the first half year of 2022 by 45–100% (ČTK, 2022). Thus, the taxation of financial institutions has become a highly discussed topic again. However, the new proposed tax is a sector tax, which would have a form of an extraordinary windfall tax and should be imposed not only on the banking sector but also on energy companies.

Fig. 1 ROE of banking entities in the Czech Republic (in %, years 2000–2020)



Source: World Bank, 2022 + authorial computation.

The second discussed reason for the taxation of financial institutions is the exemption of financial services in EU countries from value added tax (refer to Section 4). Last but not least, one of the reasons for introducing the bank tax, or its equivalent, is the high cost likely paid by the state due to rescuing financial institutions in potential crises, as was the case in 2008 during the financial crisis.

The bank tax is nothing new. For example, Keynes (1936) proposed taxing stock market transactions because he believed the tax could reduce speculation in capital markets and stabilize the market. However, his proposals were not implemented (Pražanová, 2016). Keynes was subsequently followed by Tobin (1978), who proposed introducing a tax on financial, or more precisely, currency transactions with a maximum tax rate of 1%. He believed that the tax would reduce speculative transactions, stabilize exchange rates and, at the same time, bring additional revenue to public budgets (Hovorka, 2010).

As already mentioned, especially after the financial crisis in 2008, discussions took place at the level of the EU, the G20, and the International Monetary Fund on possible alternatives to taxing the financial sector. It can be assumed that the countries saw this not only as the increased financial sector regulation but also as possible additional revenues. According to Schäfer *et al.* (2012), the tax could complement the regulation of financial markets and reduce arbitrage and speculative transactions, which are assumed to be harmful and one of the reasons for financial crises. The following three forms of tax are possible and being considered:

- tax on financial activities,
- financial transaction tax, and
- tax on balance sheet items (*e.g.*, asset tax).

The International Monetary Fund prefers the form of tax on financial activities. According to Pražanová (2016), this form of tax would be imposed on the profits and commissions of financial institutions. A similar tax form has been available since 1968 in France and 1990 in Denmark. The International Monetary Fund proposed three possible variants: (i) the addition method, (ii) the taxation of annuities, and (iii) risk taxation (Pražanová, 2016; Rychtaříková, 2015).

A financial transaction tax should be levied on specific transactions in the financial markets. This tax form was preferred by the European Commission and was proposed in the European Council Directive in 2011. The main objective of this form of taxation is to reduce speculation in financial markets, as this tax increases the transaction costs of a given financial transaction. Selected EU countries subsequently adopted this tax form within the enhanced cooperation (see below).

Balance sheet tax is a tax imposed on selected balance sheet items, such as assets, liabilities, risk-weighted assets, *etc.* The advantage of this form of taxation is its simplicity, as the tax base can be determined from the financial statements of financial institutions. On the other hand, this tax does not consider institutions' financial profitability, and the tax would have to be paid even if institutions recorded a loss. This form was proposed to implement in the Czech Republic by mainly two political parties (ČSSD and KSČM).

The last possible form of "taxation" of financial institutions is the introduction of a special fund to which financial institutions would contribute. However, a similar fund is already in place in the EU. It is a so-called resolution fund, or more precisely, Crisis Response Fund. This fund is part of the Financial Market Guarantee System. Financial institutions are obliged to contribute a certain amount to this fund annually, which is regulated according to Directive 2014/59/EU (Institut pro politiku a společnost, 2019).

As mentioned above, "Coalition of the Willing"[2] focuses on the form of FTT. According to Gurdgiev and Barry (2016), FTT has become a popular topic for academic researchers due to its increasing popularity among policymakers. An overview of the pros and cons of FTT is discussed by Schulmeister (2009). As one of the pros, he is discussing the "stabilizing effect on asset prices" as the FTT would increase costs for trade speculation investments. Moreover, he mentioned that FTT would limit the distortion caused by no VAT on financial services in EU countries and would bring new revenues that could be used for fiscal consolidation. On the other hand, as the cons, he sees the decrease in liquidity, which might increase the volatility of asset prices and difficulties with implementing such tax on international transactions. The negative impact on volatility in the EU equity markets was also confirmed by Gurdgiev and Barry (2016). However, their findings suggest that FTT would not significantly impact trading volumes.

Solilová *et al.* (2019) point out that predicting the FTT's tax revenue is complicated as many parameters must be estimated. They are considering parameters such as tax base, exemptions, trading volume of financial transactions, transaction costs or costs for tax evasion, and Brexit. London was considered as a financial center with developed financial markets. As Solilová *et al.* (2019) highlighted, this market is out of the scope of FTT on the EU level. However, according to their research, Brexit decreased potential FTT tax revenues only by 2.4%.

Since the beginning of the proposal, numerous studies have tried to predict the tax revenue for EU countries. The overview of selected studies and estimation of tax revenues is shown in Tab. 1.

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[2] The Coalition of the Willing represents the countries that adopted FTT under enhanced cooperation. Those countries are Austria, Belgium, France, Germany, Greece, Italy, Slovakia, Slovenia, and Spain.

Tab. 1 Overview of studies estimating tax revenues from FTT in EU

Source	Estimated yearly revenues	Revenues as % of GDP	Tax rate	Comments
Ministry of Economics and Finance – France (2000)	USD 22 bn	0.77%	0.05%	Several scenarios were considered, and the tax of 0.2% was considered harmful. The tax of 0.05% would lead to a 67% reduction in the volume of trade.
Spahn (2002)	EUR 16.57 bn; EUR 20.80 bn	0.61%; 0.77%	0.01%; combination of 0.01% and 0.02%	The concept of Tobin tax levied on year turnover of foreign exchange transactions, not including transactions in British pounds or Swiss francs against non-euro currencies.
Jetin and Denys (2005)	USD 6–10 bn; USD 10–38 bn; USD 29–38 bn	0.23–0.39%; 0.39–1.13%; 1.13–1.48%	0.01%; 0.1%; combination of tax for banks 0.02% and customers 0.1%	Currency transaction tax considered. A model with dynamic aspects represented by tax evasion, fraud components, and transaction costs used for the prediction. Scenario with tax levied on both buyers and sellers considered as well.
Schulmeister *et al*. (2008)	USD 35.4–118.6 bn	1.44–4.81%	0.05–0.01%	Keynes' and Tobin's forms of taxation, a tax levied on transactions on major exchanges in the EU.
Schulmeister and Sokoll (2013)	EUR 70.69 bn; EUR 65.43 bn	2.00%; 1.85%	0.01% residence principle; 0.02% territorial principle	Within the residence principle, the subsidiaries in the UK were treated as British financial institutions. The tax rate was unilateral; thus, each party has to pay its side of the trade.

Source	Estimated yearly revenues	Revenues as % of GDP	Tax rate	Comments
European Commission (2011b)	EUR 16.4–43.4 bn; EUR 73.3–433.9 bn	0.48–1.27%; 2.14–12.69%	0.01% tax rate; 0.1% (and different elasticities)	Tax on the trading of financial instruments, including shares, bonds, and derivatives, based on the residence principle.
European Commission (2013b)	EUR 57 bn	1.61%	0.1% for securities and 0.01% for derivatives	A bottom-up approach, looking at a cumulated turnover of financial transactions.
Nerudová and Dvořáková (2014)	EUR 24.9–28.3 bn*	1.09–1.24%	0.1% for financial transactions other than derivatives and 0.01% for derivatives	A similar model was used by European Commission (2011b) for the estimation, but different values of parameters were used.
Solilová *et al.* (2017)	EUR 1.7–503.4 bn	0.04–12.51%	Five tax rates for securities and derivatives considered in the range of 0.005–0.1%.	Also, the territorial dimension was considered within the model.

Source: Authorial computation based on the mentioned studies.
* Note: Only EU-11 – countries working under enhanced cooperation.

As stipulated within Tab. 1, the estimated revenue results differ significantly between the studies. It is due to different variables and assumptions used within the estimation models. This article is not estimating the FTT but estimates the tax revenue for the Czech Republic based on the proposal of tax levied on banks' assets. Thus, also the results might vary from already published studies. Please refer to Section 5 for the methodology and data used within this article.

3 Taxation of Financial Institutions in the EU

In September 2011, the European Commission issued the first draft of Directive 2011/0261 on a common EU-wide financial transaction tax system. In the explanatory memorandum to the proposed Directive 2011/0261, the European Parliament and the Council listed the following reasons for FTT: (i) avoid fragmentation in the internal market for financial services as a result of inconsistent tax measures at the Member State level, (ii) ensure that financial institutions bear the costs of the financial crisis, and (iii) design disincentives to reduce the number and volume of excessively risky transactions. Another reason for the introduction of an FTT mentioned in the explanatory memorandum to Directive 2011/0261 is *"creating a new revenue stream to replace Member States' contributions to the EU budget gradually"*. Moreover, it was mentioned that in the long run introducing an FTT would have adverse effects on GDP of 0.5%. Furthermore, the FTT was expected to have a progressive distributional effect. This can be understood as the tax increases in line with income growth, as those with higher incomes also benefit more from the services provided by financial institutions.

According to the draft Directive 2011/0261, all financial transactions should be subject to FTT if at least one party to the transaction was established in an EU Member State. However, all transactions on the primary markets were excluded from the scope of the tax, *"except for the issue and redemption of shares and units of undertakings for collective investments in transferable securities (UCITS) as defined in Article1(2) of Directive 2009/65/EC of the European Parliament and the Council and alternative investment funds (AIF) as defined in Article 4(1)(a) of Directive 2011/61/EU of the European Parliament and the Council"* (European Commission, 2011a, p. 15, Chapter I, Article 1(4)(a)). Furthermore, for example, transactions carried out by the central banks of individual Member States would be excluded from the scope. The draft Directive 2011/0261 understands the term "financial transactions" as the purchase and sale of a financial instrument, repurchase and sale agreements, loan agreements and securities lending, the transfer of the right to dispose of a financial instrument as an owner, the conclusion of derivative instruments or their change. According to Article 4 of the draft Directive 2011/0261, the obligation to pay the tax would then arise at the time of the transaction, and the subsequent cancellation of the transaction would not affect the incurrence of the tax liability. The tax base would be either the amount paid for the transfer or the market price if it were higher than the amount paid. The draft Directive 2011/0261 further set minimum tax rates. The minimum rate was set at 0.1%, for financial transactions, and for transactions with derivative instruments, the minimum rate was set at 0.01%.

However, member States did not unanimously adopt the draft Directive 2011/0261. For example, the United Kingdom, Denmark, Malta, and the Czech Republic, have opposed the draft Directive. By contrast, Belgium, Estonia, France, Italy, Germany, Portugal, Austria, Greece, Slovakia, Slovenia, and Spain have favoured introducing a common financial transaction tax system. These countries subsequently requested permission for enhanced cooperation to cooperate on a single taxation system (Hammelgarn *et al.*, 2016). In January 2013, the EU Council allowed states to work in the framework of enhanced cooperation (Decision 2013/52/EU). However, in April 2013, an action was brought by the United Kingdom before the European

Court of Justice. That action was dismissed, and selected states thus drafted Directive 2013/0045, which implements enhanced cooperation in FTT. The explanatory memorandum to the draft Directive 2013/0045 generally sets out similar reasons and objectives for introducing the tax, which correspond to the first draft Directive 2011/0261 of the European Commission. The draft Directive 2013/0045 is based on the original text of the draft Directive 2011/0261. The tax base and tax rates remain the same as in the first version of the draft Directive 2011/0261. It should also be noted that the draft Directive 2013/0045 has been supplemented by the so-called issuance principle. This principle discourages tax avoidance because, as a result of the so-called residency principle supplemented by the issuance principle, it will be less advantageous to relocate activities outside the area with unified tax treatment. This can be understood as the financial transactions with instruments issued in a uniformly tax-regulated area will always be taxable (Hammelgarn *et al.*, 2016).

In 2015, however, Estonia withdrew from enhanced cooperation, and the remaining countries have not yet approved the draft Directive 2013/0045. As a result, some states have introduced some form of bank tax or FTT at the national level. These countries include, for example, France, Italy, Austria, Germany, Hungary, Portugal, Slovakia, and Sweden (PwC, 2012).

Based on the tax revenue from financial and capital transactions[3] in the percentage of GDP from 2008 till 2021 (Eurostat, 2022), in general, the revenues are below 1% of GDP. The exception is represented by Belgium, which reports revenue of around 1% of GDP each year. Also, Malta in 2018 reported revenue of 1.1% of GDP. Otherwise, the average of revenues is around 0.2–0.3% of GDP.

4 Taxation of Financial Institutions in the Czech Republic

Act No. 586/1992 Coll. (Income Tax Act) governs the taxation of income of financial institutions in the Czech Republic. Financial institutions are subject to corporate income tax in the Czech Republic. Corporate income tax in the Czech Republic is levied on all taxpayers who are tax residents of the Czech Republic or non-residents and have, for example, a permanent establishment in the Czech Republic, or their income falls within the definition of § 22 of the Income Tax Act and has its source in the territory of the Czech Republic. The Income Tax Act defines the corporate income taxpayer in § 17, under which a legal person, an organizational unit of the state, and funds (*e.g.*, mutual funds, trusts, pension company funds) are considered to be taxpayers. The structure of the tax base is the same as for other legal entities and is based on accounting profit calculated

[3] The tax covers security transaction tax, currency transaction tax, and capital levy and real estate transaction tax.

according to Czech accounting rules. The accounting profit before tax is subsequently adjusted to the tax base and then multiplied by the 19% tax rate.

However, the Income Tax Act has certain specific rules for financial institutions. There is another limitation in the so-called low capitalization rule, see § 25 letter w). The low capitalization rule determines the tax deductibility or non-deductibility of interest on credit financial instruments. According to the law, interest is only tax deductible up to four times the equity. However, if the beneficiary of the financial instrument is a bank or insurance company, eligibility for tax deductibility is limited to six times the equity. Following the Base Erosion and Profit Shifting project and the creation of the so-called ATAD Directive,[4] this rule was followed by new § 23e and § 23f of the Income Tax Act. The provisions of § 23e tightened the limit on the tax deductibility of borrowing expenses because debt financing was used in aggressive tax planning and optimization schemes. However, according to § 23f, an exception applies to most financial institutions. Thus, the rule according to § 23e does not apply to financial institutions.

Another exception is the different rules for creating provisions and allowances included in Act No. 593/1992 Coll. Financial institutions have the right to create provisions and allowances which are tax-deductible expenses and thus do not increase the tax base, as is the case for ordinary companies if they create provisions and allowances. Furthermore, selected financial institutions are subject to a lower tax rate than the statutory corporate income tax rate of 19%. For example, a tax rate of 5% applies to investment funds.

At the same time, the financial and insurance services are not subject to VAT. Following § 51 of Act No. 235/2004 Coll. (VAT Act) financial and insurance services are exempted without the right to deduct input tax. This means that although they do not pay output tax, they cannot even claim input tax. However, several financial services are not exempt from VAT: factoring, debt collection, financial advice, banking information, and rental of safety deposit boxes. As mentioned above, VAT exemption is one highly discussed reason for introducing a bank tax or other similar tax.

4.1 Windfall tax

Due to the difficult macroeconomic situation and increasing interest rates, thus increasing profits of banks, the Ministry of Finance of the Czech Republic announced in October 2022 the proposal of windfall tax. The tax would also be levied on banks, energy companies, and refineries. The proposal suggests that the tax would be only temporarily applied from January 2023 till 2025. The tax should

[4] Anti-Tax Avoidance Directive – Council Directive (EU) 2016/1164 of 12 July 2016.

be calculated from the extraordinary profits above the average profits from years 2018–2021, increased by one-fifth. And the tax rate should be the same for all companies at a level of 60% (Ministry of Finance of the Czech Republic, 2022). The Czech Republic is not the only country in the EU that is considering taxing excessive profits. According to Hebous *et al.* (2022), the relevance of excess profit taxes became discussed due to COVID-19 and Russia's war in Ukraine as those led to windfall profits in the power, extractive and banking sectors.

The concept of excessive profit tax is also nothing new. In Europe, for example, Denmark in 1915 imposed the so-called Gulasch tax which was levied on the profits of food exporters with a tax rate ranging from 8% to 20%. The different forms of excessive profit tax were also adopted after World War I and II by, for example, Great Britain, the United States, Canada, Italy, France, Holland, Spain, or Russia (Hebous *et al.*, 2022). According to Hebous *et al.* (2022), the taxation of excessive profits or windfall profits brought additional tax revenues, so it could meet the extraordinary financial need for the public budgets during the current time. As of September 2022, the windfall tax was already implemented in Spain, Great Britain, Italy, Greece, Romania, and Hungary (Tax Foundation, 2022). However, the study by Hebous *et al.* (2022) considered the coordination of the tax within all countries as the business model is currently different. There are multinational companies that could try profit shifting to avoid the tax on a national level. Also, the European Commission (2022) discussed on which companies the tax should be levied. The primary approach is to impose the tax on all energy providers. In comparison, the Czech Republic has proposed the tax would be levied on banks' profits, as have Hungary and Spain.

4.2 Bank tax proposal in the Czech Republic

The introduction of taxation of financial institutions has already been addressed several times in the Czech Republic. The proposed bank tax in the Czech Republic should take the form of an asset tax. The tax base would be the total assets of the entity. The tax rate would vary according to the volume of assets, divided into four categories. If the amount of assets reached up to CZK 50 bn, the tax rate would be set at 0.05%. If the amount of assets ranged from CZK 50 bn to CZK 100 bn, the assets would be taxed at the rate of 0.1%. If the total assets amounted to CZK 100–300 bn, it would then be subject to the tax rate of 0.2%. If the amount of assets reached over CZK 300 bn, it would be subject to the highest tax rate of 0.3% (Institut pro politiku a společnost, 2019). To evaluate the impact of the proposed bank tax, the assessment of the banking sector in the Czech Republic is necessary.

According to information from the ČNB ARAD database (ČNB ARAD, 2022a), at the end of 2021, there were 46 entities with banking licenses: four large banks, five medium-sized banks, nine small banks, 23 branches of foreign banks, and five building savings companies. The development of the number of entities with a banking license according to the structure in years 2009–2021 is shown in Tab 2.

Tab. 2 Structure of the banking sector in the Czech Republic

Year	Big banks	Medium banks	Small banks	Branches of foreign banks	Building savings companies	Total
2009	4	4	8	18	5	39
2010	4	4	9	19	5	41
2011	4	6	8	21	5	44
2012	4	8	6	20	5	43
2013	4	8	6	21	5	44
2014	4	8	6	22	5	45
2015	4	8	6	23	5	46
2016	4	5	8	23	5	45
2017	4	5	9	23	5	46
2018	4	5	9	27	5	50
2019	4	5	10	25	5	49
2020	4	5	10	25	5	49
2021	4	5	9	23	5	46

Source: ČNB ARAD, 2022a + authorial computation.

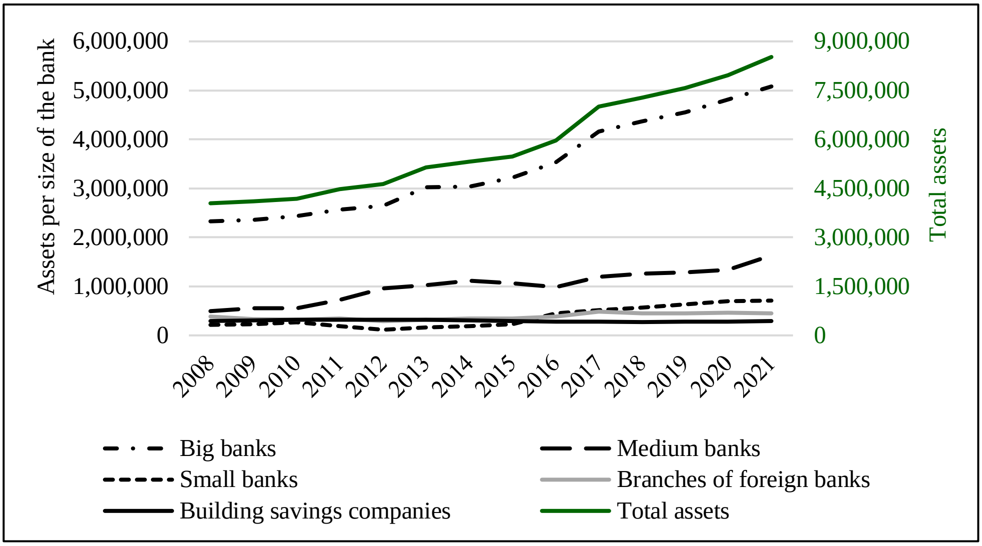
Given that the proposed bank tax is an asset tax, it is necessary to examine the volume of assets of banking entities in the Czech Republic. The development of the total volume of banks' assets in years 2008–2021 is shown in Fig. 2. The total volume of assets in the last ten years shows a growing trend, which may be due to the growth in the number of entities with a banking license and the positive economic development after the crisis in 2008.

However, the increasing trend of the amount of assets was proofed mainly for the big and medium banks, as stipulated in Fig. 2. It could be expected that the bank tax would be mainly the burden for the big and medium banks. This was also suggested within the windfall tax, as according to the Ministry of Finance of the Czech Republic the windfall tax should be paid only by the six biggest banks[5] in the Czech Republic. As described in Section 2, higher profitability in the banking sector is one of the discussed reasons why banks should be taxed with special sector tax. The profitability in more detail differentiated per size of the banks in the Czech Republic is shown in Fig. 3. It can be seen that only small banks got to the level of profitability as before the financial crises. However, small banks were hit by the financial crises

[5] These are Česká spořitelna, a.s., Československá obchodní banka, a.s., Komerční banka, a.s., MONETA Money Bank, a.s., Raiffeisenbank, a.s., and UniCredit Bank, a.s.

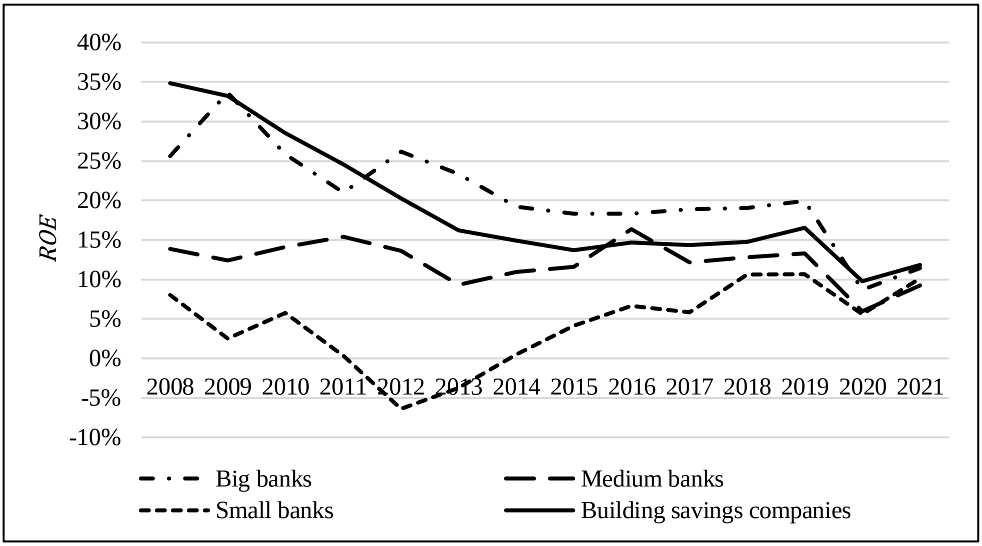
the most, as suggested by negative ROE in 2012 and 2013. Otherwise, a decreasing trend for banks' profitability is contradictory to other previously published researches (*e.g.*, Vostatek, 2011; Hammelgarn *et al.*, 2016).

Fig. 2 Volume of banks' assets in the Czech Republic (in CZK millions)



Source: ČNB ARAD, 2022b + authorial computation.

Fig. 3 *ROE* per Tier 1 for the Czech banking sector (in %)



Source: ČNB ARAD, 2022b + authorial computation.

5 Tax Revenue from Bank Tax for the Czech Republic

Section 5 presents the estimation of the potential tax revenue from the bank tax in the Czech Republic. At the end of the section, the potential tax revenue is compared to total tax revenues and the income from the proposed windfall fax.

5.1 Methodology

This article estimates the potential tax income from the bank tax in the Czech Republic for years 2022–2026 based on the value of banks' assets from 2008 to 2021. Given that the time series used are relatively short, exponential smoothing methods were used to construct the forecasts, namely simple exponential smoothing, Brown's linear exponential smoothing, Holt's linear exponential smoothing, and Quadratic exponential smoothing. The selection of a suitable method was made based on the minimization of the root mean square error (RMSE). Based on the results and expected values for maximum of five years, the values of assets for each bank were taken into the calculation of tax. Based on the value of assets, the subjects were divided into four groups, and for each subject, the relevant tax rate was applied, and the potential tax income was calculated. For the overview of groups and relevant tax rates refer to Tab. 3. The calculation was also performed with the predicted number for the lower 95% and upper 95% intervals. For the results, refer to Tab. 4.

Tab. 3 Tax rates for asset categories

Amount of assets	Tax rate
Up to CZK 50 bn	0.05%
CZK 50–100 bn	0.10%
CZK 100–300 bn	0.20%
Over CZK 300 bn	0.30%

Source: Institut pro politiku a společnost, 2019.

5.2 Data

The data from the ARAD database, which was presented in Section 4 for the Czech banking sector, only show the total amount of assets and other indicators for the entire banking sector. In order to calculate the potential tax revenues of the proposed bank tax, it is necessary to find specific asset values for individual entities, as the tax rate is divided into four categories depending on the amount of the asset. Thus, asset data for individual entities were obtained from the MagnusWeb database, which collects comprehensive data on Czech and Slovak economic entities. Data about the amount of assets per bank were collected from 2008 till 2021, and banks that terminated their operations before and during 2022 and/or are under liquidation are excluded from the prediction of tax revenue. If data were not available for the specific year, the data from the banks' published non-consolidated annual reports were taken.

In total, data from 38 banks were collected. Furthermore, when comparing the total sum of collected data with the total amount of assets in the banking sector according to the ARAD database, the dataset represents 95–98% of total yearly assets, so it is considered to be a representative sample of the whole Czech banking sector.

5.3 Potential benefit for the state budget revenue of the Czech Republic

The estimated tax revenues are shown in Tab. 4. For the basic scenario, the estimated tax revenue would be CZK 23.4–28.7 bn each year with an increasing trend. The estimated tax revenue would represent approximately 0.34–0.39% of GDP of the Czech Republic, which is comparable with the results in Tab. 1. Nevertheless, the scenario is not taking into account the potential asset and profit shifting, which the international banks might consider and thus the value of tax revenue for the Czech Republic would be even lower. Also, the scenario for the lower 95% and higher 95% limits were calculated. The lower 95% limit results show decreased tax revenue estimated between CZK 18.9–20.6 bn (0.28–0.3% GDP). On the other hand, the scenario for the higher 95% limit shows an increasing trend and tax revenues of CZK 26.9–39.7 bn (0.4–0.5% GDP). The most realistic scenario could be considered the basic scenario, with a slightly increasing trend of tax revenues as there has been an increasing trend of the bank assets in the last 20 years.

Tab. 4 Tax rates for asset categories

Year	Forecast (basic scenario)	Lower 95% limit	Higher 95% limit
2022	23.4	20.6	26.9
2023	24.7	20.2	30.3
2024	26.3	19.7	33.2
2025	27.5	19.2	36.6
2026	28.7	18.9	39.7

Source: Authorial computation.

According to Monitor Státní pokladna (2022), the actual state budget for the Czech Republic was represented by revenues of CZK 1,487 bn and expenditures in the amount of CZK 1,907 bn. In that case, the potential tax revenues from the bank tax would not represent even 2% of the total revenues of the state budget of the Czech Republic in 2021. Tax revenues represent a major part of the state budget in the Czech Republic. In 2021, tax revenues were CZK 1,295 bn, *i.e.*, 87% of total state budget revenues.

If the bank tax revenue at the estimated CZK 23.4–28.7 bn was assumed, then these revenues would represent 1.6–1.9% of the total state budget tax revenues in 2021. A relatively similar value of state budget revenues was also represented by tax revenues from property taxes, which were for example represented by revenues from tax on the acquisition of immovable property that was cancelled in 2021. In general, those small taxes do not appear to be an effective source of state budget revenue as the indirect costs of their collection are high compared to income taxes or VAT (Vítek and Pavel, 2008).

It can be assumed that the construction of a bank tax would be straightforward, as the tax base is calculated as the total value of assets, and these values are known from the financial statements in the annual reports of the banking entities. On the other hand, for a credible analysis of the benefits of introducing a bank tax, it is necessary to consider the administrative costs incurred by the public sector as a result of tax administration and control and tax entities. These incurred costs are represented by the time that entities spend filling out tax returns, studying the necessary laws to comply with tax laws, making payments, *etc*. (Síbrtová, 2019). Therefore, it can be assumed that the bank's income taxes would represent an even lower share of state budget tax revenues. It is necessary to consider whether introducing a bank tax would bring a positive result. An example is Slovakia, which introduced a bank tax in 2012 at a rate of 0.4%. However, the International Monetary Fund recommended that Slovakia reduce the tax rate. Since 2021 a tax rate of 0% has been approved. Therefore, it can be assumed that it was abolished altogether.

Last but not least, it is necessary to consider the possible actions of banking entities as a response to introducing a bank tax. The bank tax would represent an additional cost, where banking entities could try to pass these costs on to clients, which should be seen as a negative tax impact. In Slovakia, this was directly addressed in the law, and it was forbidden to pass on additional costs to clients. Another possible response would be to reduce the volume of loans provided, which would again negatively affect the market and investments. Therefore, I believe that the additional costs would either be passed on to clients or would reduce the profit for shareholders, who could then switch to reducing costs in other areas, such as reducing employee salaries, investments, and R&D support. Moreover, in connection to windfall tax which should be paid only by the banks with net interest income above CZK 6 bn, banks would try to decrease their income. This is already supported by the fact that banks are currently offering high interest rates on the saving accounts resulting in the decrease of interest profits. Furthermore, it can be assumed that banks could react to this by reluctance to cooperate with the government in the future in difficult situations, such as the current situation with the coronavirus pandemic, when banks were willing to delay the repayment of loans.

5.4 Comparison with the proposal of windfall tax

In October 2022, Ministry of Finance of the Czech Republic (2022) announced a proposal to introduce a windfall tax. The tax should be temporary and applicable from January 1, 2023, for a period of three years on companies' excessive profits in production and trading with energy, banking, oil, and fossil fuel mining. According to the proposal, a tax rate of 60% was suggested. The tax rate should be applied as a surcharge to corporate income tax on excessive profits of selected companies. The excessive profits should be calculated by comparing the current tax base of the company with the arithmetic mean of its historical tax bases for four previous tax periods, 2018–2021, increased by 20%. The mean for the previous four years should not be shifted in time and the current tax base should always be compared to the mean for 2018–2021.

Ministry of Finance of the Czech Republic (2022) expects that the revenue from the windfall tax would be additional revenue of the state budget of approximately CZK 85 bn for 2023. However, only CZK 33 bn should be paid by the banking sector. This amount would thus represent approximately 2.5% of tax revenues of the state budget and 0.45% of GDP. For the following two years, the Ministry of Finance predicted that the tax revenue would be CZK 39 and 25 bn, respectively. The Ministry of Finance did not provide further information about the method and data based on which the tax revenue was predicted. Moreover, there is no detail on the revenue distribution by sectors for 2024 and 2025 so far. Thus, a direct detailed comparison with the bank tax results is not possible.

6 Conclusion

In particular, following the financial crisis that began in 2008, the affected Member States began to address the taxation of financial institutions involved in the financial crisis. Those financial institutions did not bear the costs of rescuing them after the crisis. As presented in Section 2, three possible variants of financial sector taxation can be considered: (i) tax on financial activities, (ii) tax on financial transactions, and (iii) tax on balance sheet items. The financial transaction tax was then proposed by the European Commission, which drafted Directive 2011/0261, but this proposal was not adopted unanimously by all EU member states.

Taxation of financial institutions has also been discussed in the Czech Republic in recent years. Some political parties propose introducing a bank tax in the form of a tax on the assets of financial institutions at a rate of 0.05–0.3%. Moreover, newly in October 2022, the windfall tax was also introduced in the Czech Republic. According to the results, additional tax revenue was estimated at 0.34–0.39% of GDP in case of bank tax and 0.45% of GDP in case of windfall tax. The result is comparable to results of other studies mentioned in Tab. 1 and also in line with the tax revenue from financial and capital transactions for EU member states, which is in general around 0.2–0.3% of GDP (Eurostat, 2022). As follows from the results, introducing bank tax in the form of an asset tax would only bring a tiny part of additional revenue to the state budget. I do not consider the implementation of bank tax in the introduced form to be effective due to potential administrative costs and negative impact on the macroeconomic development of the Czech Republic, such as decreased investments made by banks, decrease in loans offered, transfer of tax to the clients, or profit shifting to other countries with the lower tax burden. However, it is evident that in the current situation with the increasing structural deficit of the state budget of the Czech Republic and debt, new sources of revenues are required, and mainly new tax revenues should be considered.

There is also the question of whether the revenues from this tax would be retained in a separate bank account and used only if necessary, as suggested previously by the European Commission (2011a), or whether they would be treated as current state budget revenues; thus, being included in the revenue, which can then be spent in subsequent periods without restrictions. However, this would lose the primary intention to use the additional revenues to cover the potential costs associated with the economic crisis.

Last but not least, it is necessary to draw attention to the problem of the possible transfer of additional costs from banks to clients. This was, for example, explicitly prohibited in the Slovak bank tax (Pražanová, 2016). Another possible adverse effect would be reduction in financial transactions and the volume of financial services provided, which would negatively impact GDP growth. This was also pointed out in the explanatory memorandum to the draft Directive 2011/0261.

Generally, the financial institutions sector in the Czech Republic is very stable and conservative, with a high level of reserves for possible crisis financing. Therefore, in my opinion, there is no need to tighten the regulatory framework for financial institutions in the Czech Republic. On the other hand, I would recommend focusing on revising the corporate income tax law and setting stricter rules for tax-deductible expenses. Also, changes in the VAT law and exemption of financial services from VAT could be reconsidered on the EU level. As it could be assumed that there would be lower administrative costs for this solution, it could bring additional tax revenue to all EU countries, and it would be harmonized approach throughout the EU; thus, base erosion and profit shifting would be minimized.

The conclusions of this article are relevant for tax legislators in the Czech Republic. Given the increasing fiscal deficit in the Czech Republic, the government is becoming highly interested in reaching additional revenues, which might be represented by introducing a bank tax in the form of a tax on banks' assets or an excessive profit tax. However, according to Gurdgiev and Barry (2016, p. 204), the bank tax *“(…) does not appear to be an effective tool for addressing past, present and future risks associated with systemic malfunctioning in the banking and financial systems.”* On the other hand, the temporary tax on excessive profits of banks and other companies might be a needed solution for the extraordinary public expenses which the Czech Republic currently has.

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