Czech Monetary and Fiscal Policies: Big Deficits and Challenges

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Abstract

Czech monetary and fiscal policies require fundamental reform, even without considering the current war in Ukraine. The tax structure can be rationalized within 1–2 years. The very introduction of a single collection point must be taken seriously, and there is no need to undertake a fundamental tax reform to implement its main stage. Czech social security contributions are very specific, dominated by their tax nature. This allows for a quick consolidation of employer contributions into one levy to the state budget and the inclusion of employee contributions in personal income tax. Only slightly more politically challenging is the integration of dividend income taxation into corporate tax and the removal of interest from corporate tax costs.

The OECD recommendations are one-sided, mechanically oriented according to the neoliberal welfare regime. Our analyses and subsequent proposals do not foresee and do not require any reform of social security benefits, including public funding of healthcare. Strengthening value-added tax in the tax structure is completely wrong. The overall insufficient taxation of value added in the Czech financial sector needs to be eliminated.

Czech monetary policy is not very effective in the fight against inflation, the link to overall economic policy is lacking. This policy has created excessive foreign exchange reserves that can be transferred to the state assets. It is economically desirable to link the Czech currency to the euro. The proceeds of the issue of all money belong to the state budget.

Keywords

Czechia, monetary policy, social security contributions, income tax, single collection point, value added tax, seigniorage, interest rate

JEL Codes

E5, E63, H63, H24, H25

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1 Introduction

Not only Czech economic and social policies have been confronted with new challenges in the recent decade, which is the reason for analyzing here not only past economic and social developments, but also the effectiveness of these entire systems. The initial consideration for writing this paper was the question of how to deal with the rapidly growing

deficits of Czech public finances and with ideas for establishing national investment funds, moreover, in a situation when nominal incomes and liquidity of the population are growing rapidly. Should the state tax or borrow from elites or banks? Should we give the elites only an almost equal old-age pension and at the same time contribute significantly and complicatedly to their building or pension savings, which are devalued by inflation?

We cannot answer all these questions here. However, we try to find answers primarily at least to the basic questions of possible streamlining of the interconnection of monetary and fiscal policies, where trillions of Czech crowns are involved, which might eventually be "cancelled out" fortunately. A fundamental related issue is the business outcome of the Czech National Bank – also from the point of view that "the remaining profit should be paid into the state budget, so far it has never happened" (Sedláček, 2020). We also discuss the connection with the issuance of money and with the potential bank tax.

We must also pay attention to main taxes and social security contributions because there are also significant opportunities for economic savings. With the fundamental step introducing a single collection point (which the government has promised to realize), it is useful to rationalize all social security contributions, and employee contributions suggest themselves directly to be included in the personal income tax. Even more fundamentally, and for the benefit of Czech public finances, it is possible to rationalize the taxation of corporate and capital incomes. The biggest tax policy problem is perhaps the lobbyists' concept of value added tax in the European Union, which mainly concerns the tax treatment of financial (and therefore also banking) services. How does a bank or insurance levy fit into this? Which financial institutions are superfluous? The aim of this paper is to analyze these basic Czech monetary and fiscal problems; the respective reforms might be very effective.

2 Monetary policy

"The Czech National Bank strives to achieve price stability, i.e. low and predictable inflation, by setting short-term, so-called monetary policy interest rates. How influencing future inflation through interest rate adjustments works is described by the so-called transmission mechanism. It is a relatively complicated and complex process that, with a certain time lag, leads to the effects of changes in interest rates on the development of the economy and inflation... Particularly three transmission channels play an important role in the Czech economy: the exchange rate, interest rate and asset price channels. In all these channels, the change in interest rates affects the development of inflation in the same direction: an increase in interest rates reduces future inflation ceteris paribus, and conversely, a decrease in interest rates acts in the direction of higher future inflation all else being equal" (CNB, 2021a). Figure 1 presents the influence of each transmission channel.

INCREASE IN CNB INTEREST RATE Increase in market interest rates Exchange rate Increase in client Decrease in asset appreciation interest rates on prices loans and savings Stricter Decrease Wealth decrease Decrease credit in exports in import increase in conditions prices imports Higher Decrease Decline in savings, lower Lower corporate household consumption corporate investment consumption investment Cooling of demand Cooling of labour market DECREASE IN INFLATION INTEREST RATE ASSET PRICE AND CREDIT CHANNEL CHANNEL

Figure 1: Monetary Policy Transmission Channels

Source: CNB (2021a)

"According to the Constitution of the Czech Republic and in accordance with EU primary law, the CNB's main objective is to maintain price stability. By maintaining a low-inflation environment, the central bank contributes to creating the conditions for sustainable economic growth. We have been taking care of price stability since 1998 as part of the inflation targeting regime... The basis of our monetary policy is the publicly announced inflation target of 2% and open communication with the public... The Bank Board's decision made today will affect inflation in 12 to 18 months... The CNB's main monetary policy instrument is the two-week repo rate. The decision to set it up sends an impulse through the financial market to the entire economy and, as a result, influences inflation so that it remains close to the targets" (CNB, 2022a). "The CNB's current inflation target corresponds to the practice of the central banks of advanced economies, and it will therefore remain at 2% until the Czech Republic joins the euro area" (CNB, 2022b).

The CNB uses the two-week repo rate "as the limit interest rate for its repo operations, through which it influences short-term market interest rates. Given that the Czech economy has a long-term surplus of liquidity for historical reasons, the CNB withdraws it during repo operations and provides securities to banks as collateral. When negotiating a transaction, both parties conclude a repurchase agreement, which means that after the maturity, the CNB returns the borrowed principal plus the agreed interest to the creditor bank and the creditor bank returns the collateral provided. Repo operations are usually carried out by the CNB three times a week in the form of variable rate tenders.

The announced 2T repo rate serves as the maximum rate at which banks can be satisfied in the tender. Banks' bids are settled according to the US auction procedure, in which the CNB preferentially accepts bids demanding the lowest interest rate, up to the amount of the predicted liquidity surplus for the given day. The basic duration of these operations is 14 days... In addition to the repo rate, the CNB also announces the lombard and discount interest rates. At the lombard rate, commercial banks can borrow liquidity from the CNB overnight against the collateral provided under the lending facility. On the other hand, at the discount rate, commercial banks deposit liquidity with the central bank in the deposit facility overnight" (CNB, 2022c). From April 2, 2022, these rates apply: 2T repo rate 5%, discount rate 4%, lombard rate 6%.

The CNB's second monetary policy instrument is the exchange rate or rather foreign exchange interventions, based on the Bank Board's decision in autumn 2012. It was activated on November 7, 2013. "This instrument is more effective for the Czech Republic, which is a small open economy with a long-term excess of liquidity in the banking sector, to ease monetary conditions than other instruments... Why did the CNB decide to further ease monetary policy by weakening the koruna to CZK 27 per euro? In 2012–2013, the Czech economy went through a period of economic downturn, which was adversely reflected in an increase in unemployment, a decline in household income and consumption, as well as profits and investments of companies. The Czech National Bank ... made full use of its main monetary policy instrument, cutting interest rates to technical zero (0.05%) at the end of 2012. Furthermore, the CNB made a commitment to keep interest rates at this record low level for as long as needed (CNB, 2020). The aim of using foreign exchange interventions to weaken the Czech currency was the same as for interest rates: to maintain price stability in the Czech economy; it was an effort to prevent deflation and to accelerate the return to a situation where the CNB will be able to start using its standardinstrument, interest rates, again. The use of foreign exchange interventions as a tool against deflationary risks was also recommended to us in 2013 by the International Monetary Fund's evaluation mission. "From the point of view of the CNB's secondary objective, i.e. support for the government's general economic policy leading to sustainable economic growth, our measure contributed to overcoming the longest economic recession in the independent Czech history... Thanks to the weakening of the exchange rate, the threat of a deflationary trap has passed and economic growth has accelerated... Higher household incomes and consumption, as well as corporate profits and investments, meant higher tax revenues for public budgets. The main benefit for citizens was that they were more confident of keeping their jobs or finding a new job. An important message to consumers was that it no longer makes sense to postpone consumption in the hope of constantly decreasing prices" (CNB, 2020). The CNB ended the "exchange rate commitment" in April 2017. The "exchange rate commitment" is an unconventional monetary policy instrument (Komárek and Polák, 2022).

According to the CNB, the so-called (managed) floating exchange rate regime is "consistent with inflation targeting in the long term. The exchange rate in our small open economy often serves as a shock absorber for the shocks that fall on it. Adjustment through the movement of the rate is smoother and less painful than if it had to take place through real variables such as employment or wages... In the long run, the value of the exchange rate reflects the development of economic fundaments. But if there are large fluctuations

in the exchange rate that do not correspond to the development of the economy, the central bank can mitigate them with its policy. We assume that the floating exchange rate regime will be applied until the Czech Republic joins the euro area, or the so-called ERM II" (CNB, 2020).

At the beginning of March 2022, the CNB began to intervene in favour of the Czech currency. "Two reasons can be found for this decision. One is the stabilisation of the koruna market, which is under pressure from capital outflows due to a global increase of the risk. The second reason are the additional strong inflationary pressures that the weakening koruna, together with rising energy commodity prices, creates. The CNB has not published the intervention level and we do not expect it to do so. Interest rates remain the main monetary policy instrument. Due to current developments, there is a risk that domestic rates exceed the 5% threshold, and their reduction postpones until next year" (Gürtler, 2022).

Figure 2 shows that the inflation rate at the time of the CNB's "exchange rate commitment" was well below the (general) inflation target of 2% per year. Foreign exchange interventions did not have the expected impact. "While the inflation forecasts of the foreign exchange intervention scenario assumed a relatively rapid return of overall inflation to the inflation target and its subsequent rise to the upper end of the tolerance band, the actual realized inflation was at the deflation threshold until the third quarter of 2016. The achievement of the inflation target thus delayed by more than a year. This unexpected development was the reason why the CNB decided to hold the exchange rate commitment for much longer than it had originally anticipated. In a 2013 statement, the CNB made a pledge to carry out foreign exchange interventions at least until the beginning of 2015. In fact, this period was extended by more than a year and foreign exchange interventions were released only in April 2017, when inflation was finally managed to return to the inflation target and the forecasts promised its further favourable development" (Miňhová, 2020).

3,8 3,3 3,2 2,8 2,5 2,1 1,9 1,5 1,4 0.7 0,4 0.3 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 2020 2021

Figure 2: Annual growth of consumer prices in Czechia in 2010–2021 (%)

Source: ČSÚ (2022a)

"The total account for foreign exchange interventions amounted to CZK 2,050 billion, which necessarily had an impact on the multiple increase in foreign exchange reserves in the central bank's balance sheet. At the beginning of November 2013, the CNB recorded CZK 873 billion of foreign exchange reserves in the assets of its balance sheet.

At the end of April 2017, this amount increased to CZK 3,355 billion. This corresponds to almost fourfold growth" (Miňhová, 2020). Figure 3 illustrates the evolution of foreign exchange reserves since 2010. At the end of February 2022, these reserves increased further to CZK 3,936 billion (EUR 157 billion or USD 176 billion).

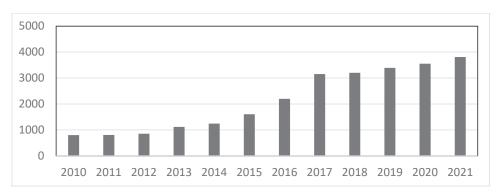


Figure 3: CNB foreign exchange reserves in 2010–2021 (CZK billion, end of year)

Source: CNB (2022d)

Since October 2017, the CNB has divided foreign exchange reserves into two large portfolios: liquidity and investment tranches. "As the name suggests, the liquidity part should serve to cover the immediate need for foreign currency (e.g. in the event of a failure of foreign currency inflows from abroad or, conversely, its significant outflow). On the other hand, the investment part serves primarily to generate profit... The expected impact of this distribution, which we call tranching, is overall a higher expected return. The investment horizon of the investment tranche is medium-term, i.e. around 5 years. So far, our investment horizon has been 1–2 years. In the event of a market downturn, it is thus possible to wait for the market to recover and realise a higher yield than in the case of short-term investments" (CNB, 2018). The CNB equity portfolios are managed by BlackRock and State Street Global Advisors; "They are invested in benchmark index markets: European (MSCI Euro), American (S&P 500), British (FTSE 100), Japanese (Nikkei 225), Canadian (S&P TSX) and Australian (S&P ASX 200)" (Lacina, 2022a).

In October 2021, the CNB Bank Board decided to renew the programme for the sale of part of the income from foreign exchange reserves., The programme was launched in April 2004 and suspended in November 2012 in order to avoid any conflict with further monetary policy easing using the koruna exchange rate, i.e. the so-called exchange rate commitment. The renewal of the programme is part of the so-called normalisation of monetary policy, which has been taking place since the end of the exchange rate commitment in April 2017 and which was temporarily interrupted by the Covid crisis. Starting in January 2022, the CNB will gradually sell part of the income from foreign exchange reserves on the foreign exchange market. Transactions will be carried out in such a way that their impact on the exchange rate is minimal" (CNB, 2021b)., The possible start of divestments has been speculated for a long time, as the koruna is not strengthening much despite the expected rapid increase in rates. Although the CNB will try not to influence the market too much with the sell-off, it can be expected that this will have a positive effect

on the koruna," said Seidler, Chief Economist of the CBA... Revenue divestitures from 2009 to 2012 amounted to ... about one billion euros per year" (Patria, 2021).

At the beginning of March 2022, "CNB launched interventions to support the Czech koruna. In the last few days, it has reacted very sensitively to the escalation of tensions between the West and Russia. Since the beginning of the Russian invasion of Ukraine, the koruna has lost almost 7%. The CNB has decided to defend the crown by intervening in the market while maintaining a regime of "managed floating". That is, it does not give the market any obligation to defend the exchange rate at a particular level. On the other hand, by starting to defend the exchange rate in the vicinity of 25.90 CZK/EUR, it made it quite clear that the weakening beyond the 26.00 CZK/EUR mark is difficult for it to imagine. At the same time, the CNB has more than enough "firepower" to stabilise the koruna. Foreign exchange reserves at the level of EUR 157 billion are the highest in the region and more than double the volume of Czech short-term external debt. On the relatively illiquid Czech foreign exchange market, it should therefore not be a problem for the CNB to stabilise the koruna and eventually strengthen it. In addition, by stabilising the exchange rate, the CNB will gain the necessary room for manoeuvre so that it does not have to react to rising energy inflation by continuing to raise rapidly the interest rates. With a more stable exchange rate, it will have time to evaluate how Czech households will react to the new inflationary wave and whether consumption will be reduced and labour market tensions will be eased as a result of a more significant decline in real wages" (Bureš, 2022).

According to the Act on the CNB "The Czech National Bank performs the following tasks: a) determines and implements monetary policy, b) issues banknotes and coins, c) manages the money circulation ... (e) identifies, monitors and evaluates the risks to the stability of the financial system and contributes, through its powers, to the resilience of the financial system, limiting the build-up of systemic risks and maintaining financial stability, thereby creating macroprudential policy; cooperates, where necessary, with state authorities in macroprudential policy-making. According to the same Act, the CNB "uses the generated profit to replenish the reserve fund and other funds created from profits and for other uses in the budgeted amount. The remaining profit is paid into the state budget."

During the last amendment to the Act on the CNB (2021a), Section 34a "Prohibition of Monetary Financing" was inserted, para. (1) states: "The Czech National Bank, in accordance with the Treaty on the Functioning of the European Union ... shall not provide for an overdraft facility or any other type of credit to the institutions, bodies, offices or agencies of the European Union, central governments ... or other public authorities ... undertakings...; the direct purchase of their debt instruments by the Czech National Bank is also prohibited. It follows that indirect monetary financing is newly not prohibited! "The Czech National Bank has obtained a legal, i.e. indefinite, opportunity to purchase government and corporate bonds, including Czech government bonds, on the financial markets. Technically, this instrument is called quantitative easing, but it is popularly called printing money because it increases the amount of money in circulation. ... Some economists agree with this amendment. It will make debt servicing cheaper and pump money into the economy, which are legitimate arguments, and the economy needs an injection in a pandemic... CNB Governor Rusnok assured us that "the amendment to the Act on the CNB aligns our central bank's instruments with those in developed countries, including the euro area" (Milión chvilek, 2021).

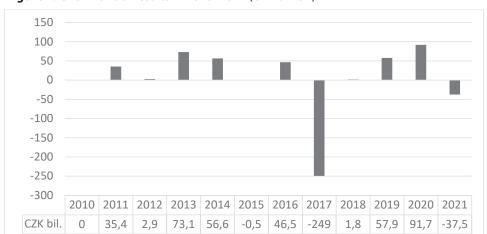


Figure 4: CNB financial results in 2010–2021 (CZK billion)

Source: CNB (2021c, 2022c)

The financial results of the CNB in individual years (see Figure 4) are markedly influenced by the monetary area (exchange rate differences, management of foreign reserve assets, conduct of monetary policy). For example, in 2017, the loss from exchange rate differences amounted to CZK 271 billion (CNB, 2021c). The CNB reported a loss CZK 37.5 billion for 2021; this amount increased outstanding lossesfrom previous periods. The bank's balance sheet thus remained unpaid accounting loss from previous years in the amount of CZK 38 billion. Equity reached an aggregate negative value of CZK –69 billion at the end of 2021. The aggregate exchange rate losses were CZK 92 billion, while the profit from foreign exchange reserves was CZK 80 billion. "According to Seidler, the Chief Economist of the Czech Banking Association, the debate on transferring the CNB profits to the state budget will thus be closed for a long time. The loss occurred in 2017... The reason for this was the increase in foreign exchange reserves in connection with the termination of foreign exchange interventions and the subsequent appreciation of the CZK exchange rate" (Lacina, 2022b). However, Czech economic and social policy will also play an essential role here in the next period, it may undergo significant changes!

The CNB "exchange rate commitment" meant a devaluation of the Czech currency, which had previously been directed towards a gradual revaluation, bringing the exchange rate closer to purchasing power parity (see Figure 5); previously, it was rather a question of when the exchange rate would reach a level below 22 CZK/EUR. From the point of view of the Czech economic and social policy as a whole, it is necessary to at least consider a return to the former exchange rate policy and to anchor the Czech currency in the euro area.

Figure 5: CZK/EUR: exchange rates (ER) and purchasing power parities (PPP) 2004–2020 35 31,9 29,8

28,3 30 27.8 ER 27.0 26 4 26.5 26,3 25,3 25,1 24.9 25 20 PPP 15 2004 2005 2006 2007 2008 2009 2010 -2011 2012 2013 2014 2015 2016 2017 2018 2019

Source: ČSÚ (2022b)

The CNB huge foreign exchange reserves cannot be considered an advantage of the CNB current monetary policy. What to do with them? It is a problem of the Czech economic policy, not merely of the CNB Board.

3 Tax policy

The Czech tax structure differs significantly from the OECD average for three fiscal revenues: we have very low personal income and property taxes, and on the contrary, we have a high share of social security contributions – see Figure 6; the abolition of the taxation of the super-gross wage from 2021 will be reflected in the tax structure by a reduction in the share of the personal income tax (individual taxes). The OECD notes that the Czech "structure of government revenues is unbalanced, with a reliance on social security contributions. ... collected social security contributions, the Czech Republic ranks among the highest countries across the OECD. ... VAT revenues are above the OECD average. ... Imbalances in the structure of government revenues contribute to relatively high cost of labour. The tax wedge is the 6th highest across the OECD and the average rate of employer social contributions is the second highest... Up to now, this has not been detrimental to labour market performance, in particular to employment, only because the average wage is low compared to other EU countries. Indeed, the Czech Republic has built its comparative advantage by holding wages low to attract foreign direct investment, in particular in manufacturing industries. ... However, as wage convergence towards OECD and EU averages is continuing and given the recent acceleration of wage growth, the high level of wage taxation could become burdensome. To maintain wage competitiveness, the government should consider shifting part of the financing of social protection from wages towards taxes on goods and services or on all kinds of income (e.g. capital and property income) and environmental taxes. For instance, there is room to shift one percentage point of GDP of social contributions collected towards VAT revenues and/or environmental taxes ... indirect taxes are less harmful for growth than taxes on wages" (OECD, 2018).

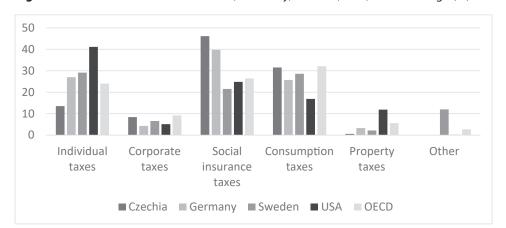


Figure 6: Tax structures in 2020: Czechia, Germany, Sweden, USA, OECD average (%)

Source: Bunn (2022)

Specifically, the OECD recommends that we reduce the total rate of social insurance premiums paid by employers from 34% to 31%. The argument about the lesser harmfulness of indirect taxes is from the neoliberal workshop, the counterargument could be high tax evasion of VAT, above-average current Czech standard VAT rate within the OECD and also lower VAT rates in three neighbouring countries. Another OECD source (2019) shows that standard VAT rates have stabilised at historically high levels in recent years; in 2019, the average base rate was 19.3%. For these reasons, we cannot agree with the recommendation to increase Czech VAT rates.

Analyses of the Czech tax structure show that the key to the reform of social security contributions must be sought primarily in the conception and financing of social security. In other words: before we start thinking about replacing a few percentage points of social security contributions, for example, by increasing the VAT rates, it is necessary to think about the justification of the social insurance premiums. There is a fundamental conceptual difference between social insurance premiums and general taxes! Social insurance premiums should certainly not have a fiscal function solely or mainly; just as their task cannot be (and was not) e.g., to increase the price of labour (in post-communist countries).

Since the first half of the 90s, Czech social security contributions have had three basic forms:

- "Social security premium and contributions to the state employment policy" with a total current rate of 31.3% of the gross wage, which consists of three components:
 - Pension insurance premium with a total rate of 28%, of which the employer pays 21.5% and the employee 6.5%. Self-employed persons pay insurance premiums at a rate of 28% of the optional assessment base, but at least one quarter of the average wage.

- Sickness insurance premium paid by the employer: 2.1% (self-employed voluntarily).
- Contribution to the state employment policy, which is paid by the employer and the self-employed: 1.2% (the assessment base of the self-employed is the same as the optional base for pension insurance premiums).
- "General health insurance premium" with a rate of 13.5% (employer 9%, employee 4.5%), which is also paid by the state for the so-called state insured persons (the assessment base from 1 January 2022 was a purpose-determined amount of CZK 14,570 per month): the insurance premium from this amount is CZK 1,967 per month. Self-employed persons pay insurance premiums at the same rate, but from half of the profit, while for full-time entrepreneurs ("main activity"), the minimum amount of health insurance premium is set at the level of half of the employee average wage, which represents CZK 2,627 per month (2022). "Persons without taxable income" who have not been included by the state among the state insured persons are to pay a flat-rate insurance premium of 13.5% of the minimum wage (CZK 2,187 per month from 2022).
- Statutory employer liability insurance for damage in the event of an accident at work and occupational disease: the historical insurance premium tariff (since 1993) contains 7 rates: 2.8‰, 4.2‰, 5.6‰, 7‰, 8.4‰, 10.5‰ and 50.4‰. The premium for this "private" insurance is paid by the employer.

The brief overview of insurance premiums alone shows that Czech social security contributions have no comprehensive concept: the construction of pension insurance premium and contribution to the state employment policy gives the impression of an insurance system with specifics for self-employed persons. Health insurance premiums, on the other hand, at first glance are an unfair health tax. The statutory liability insurance premiums, in turn, suite to compulsory private insurance. It would be best if the entire Czech social security system were based on a single welfare regime. In this respect, it is characteristic of the OECD consultancy that it does not deal with the very concept of Czech social security at all; it concludes, based on the tax structure alone, that social security contributions should be reduced. This is also a simple reflection of the fact that they have classified insurance premiums as taxes – and assume that they can manipulate the (total) rate of social security contributions according to the general considerations of the so-called optimal taxation theory.

According to our analyses, the Czech tax structure is unbalanced mainly because we have very high social security contributions, at the expense of personal income tax! Shifting a significant tax burden from social security contributions to personal income tax is very easy and highly effective, as all employee contributions can be simply included in the personal income tax, leaving only the social security contributions paid by employers and self-employed persons. Even after this rationalization tax reform, (employer) contributions will be dominated by their tax nature, which allows a further fundamental rationalization of the existing social security premiums and contributions to the state employment policy, general health insurance premiums and statutory employer liability insurance for damage caused by work injuries and occupational diseases, all within

the first (and decisive) stage of the implementation of the single collection point. The merger of all these premiums (including contributions to the state employment policy) will create a single employer social security contribution (or "social insurance premium"), which will also significantly reduce the (internationally monitored) administrative burden on (medium-sized) enterprises or employers in general (Vostatek, 2022).

The greatest rationalization will occur, within this "technical" tax reform, in the existing health insurance premium sector, which is an unnecessary complication in the conditions of central state management of health care financing, based on the so-called reimbursement decree of the Ministry of Health. Health insurance premiums will thus become, like the other insurance premiums and contributions mentioned, an integral part of the collection of the new social insurance premium paid by employers and self-employed persons. The integration of health insurance premiums will also eliminate existing state payments for state insured persons and health insurance premiums paid by persons without taxable income. The public health care will be financed from the state budget in the amounts foreseen in the reimbursement decree of the Ministry of Health. For simplicity we may declare that public health care is (will be) tax financed. In any case the aim of the introduction of the "our" single collection point is not to reduce the public health care expenditure. The only aim is to cancel the collection of the "health tax" with a uniform rate of 13.5% by 7 health insurance institutions!

Today, employee insurance premiums consist of a pension insurance premium (6.5%) and health insurance premium (4.5%). These two premiums, totaling 11%, are unnecessary and can be integrated into the income tax on dependent activities. In the basic variant, the basic tax rate will be increased from 15% to 26% when moving to a single collection point. The second personal income tax rate can be eliminated in this reform because it is non-systemic; the progressivity of the tax is sufficiently ensured by the basic tax credit per taxpayer. An additional argument is that the (now existing) second tax rate is applied only to taxpayers with exceptionally high incomes (four times the national average wage) and, in addition, the existing pension premiums are subject to an earnings ceiling when calculating premiums, also in the amount of four times the national average wage! Generally speaking, rather than having a (provocatively) very high earnings ceiling, it is better not to have any; this also applies to the earnings ceiling for insurance premiums paid by employers. To be sure, we would like to point out that the rate of withholding tax on income in this reform may remain at the level of 15% (on the other hand, however, in Austria, for example, this rate is 27.5%, which is quite in line with the Western average). Our "higher principle" here is the political viability of a single collection point for all social security contributions, with a single rate of 34.1% of the uniform assessment base, from 2024!

Further scope for reducing the overall future rate of social security contribution is due to the high equalization of Czech public pensions, but this can be ignored at this stage because the pension reform may strengthen the insurance principle in pensions, too. The higher necessary (total) rate of social security contributions would result from the potential introduction of taxation of key social security benefits in the future. Even from these points of view, it is clear that our integrated social security contribution (as a whole) will also fulfil a fiscal function beyond the scope of the model social insurance.

The necessary restructuring of social security contributions and personal income taxation might be reflected in the taxation of dividends, interest, and other capital gains. It is useful to briefly address the related issue of corporate income taxation. The primary sociopolitical question is whether dividends should be taxed once as part of corporate income taxation and for the second time as individual income.

The classical theory and policy of corporate tax had no problem with the "double taxation" of dividends" of joint-stock and similar companies because the theoretical basis for taxing the income of joint-stock companies was their so-called material ability to pay (Engliš, 1929). By contrast, the integrated concept of taxation of personal and corporate income is based solely on personal ability to pay. Table 1 shows the different practices today in the taxation of dividends in OECD countries, with assumed full distribution of corporate profits in the form of dividends. For example, the Czech taxation of dividend income is based on the classic concept: the company pays corporate income tax at a rate of 19% and distributes the entire profit after tax in the form of a dividend, which will be taxed at a rate of 15%, so the resulting tax burden on profit is: 0.19 + (1-0.19) * 0.15 = 31.15%. With this "classical" system of interconnection of both income taxes, for example, Germany has total tax burden on profits of 48.42% and Austria 45.63%. In some countries, the corporate tax paid is reflected in full or in part in the calculation of personal income tax. In Australia, for example, the corporate profit is taxed at 30% and shareholder income at 47%, and the overall tax rate is 47%. The same is true in Mexico, Chile and New Zealand ("imputation system"). In Estonia and Latvia, dividends are not taxed, and corporations pay tax at a rate of 20%. A combination of these variants is applied in several countries. One way or another, it is clear from the table that the aggregate Czech taxation of corporate and personal income is the 7th lowest of the 36 OECD countries; this corresponds to post-communist policies, but we should (already) get rid of them. Austria has reduced its corporate tax rate from 25% to 23% this year and to 21% next year; the personal capital gains tax rate remains 27.5%. If we wanted to emulate Austria a little, we could increase the withholding tax on dividends from 15% to 26%. We recommend considering a harsher option for foreign capital: to increase the corporate tax rate from 19% to 31.15% (i.e. to the level of today's total tax burden on profits) and to abolish the withholding tax on dividends. Foreign capital will certainly "survive" this reform because the overall relative level of profits in our country is significantly higher, de facto at the expense of wages. In general, we recommend implementing (preferably in the whole EU) the concept of CBIT (comprehensive business income tax) for the corporate tax, in which interest is not deducted from the corporate tax base. Corporate income is taxed here regardless of whether the company is funded by bonds or shares. This approach eliminates the debt-bias in corporate taxation.

Table 1: Corporate tax rates on distributed profits (CIT), personal income tax rates on dividends (PIT) and total taxation of these incomes (CIT+PIT) in 2021

	CIT	PIT	CIT+PIT		CIT	PIT	CIT+PIT
Korea	27.50	49.50	59.36	Spain	25.00	26.00	44.50
Ireland	12.50	51.00	57.13	Finland	20.00	34.00	43.12
Canada	26.15	53.53	55.21	Mexico	30.00	42.00	42.00
Denmark	22.00	42.00	54.76	Slovenia	19.00	27.00	41.28
France	28.41	34.00	52.76	Chile	10.00	40.00	40.00
Portugal	31.50	28.00	50.68	Luxembourg	24.94	42.00	40.70
UK	19.00	38.10	49.90	N. Zealand	28.00	39.00	39.00
Germany	29.94	26.38	48.42	Iceland	20.00	22.00	37.60
Israel	23.00	33.00	48.41	Switzerland	19.70	22.29	37.59
Belgium	25.00	30.00	47.50	Turkey	20.00	40.00	36.00
USA	25.75	28.91	47.22	Poland	19.00	19.00	34.39
Australia	30.00	47.00	47.00	Czechia	19.00	15.00	31.15
Norway	22.00	31.68	46.71	Greece	24.00	5.00	27.80
Netherlands	25.00	26.90	46.56	Slovakia	21.00	7.00	26.53
Austria	25.00	27.50	45.63	Hungary	9.00	15.00	22.65
Sweden	20.60	30.00	44.98	Lithuania	15.00		20.00
Japan	29.74	20.32	44.42	Latvia	20.00	0.00	20.00
Italy	24.00	26.00	43.76	Estonia	20.00	7.00	20.00

Source: OECD (2022)

Value added tax in the EU is an exemplary policy failure. The predecessor of VAT was the turnover tax, introduced in European countries after the First World War as a "temporary" measure until public finances were "normalized". The turnover tax is not "competitively neutral" because it favours large enterprises. "From the point of view of personal and material ability to pay, the turnover tax does not stand up to criticism and cannot have a place in the normal tax system. It is a manifestation of the extraordinary need for public finances, especially in the post-war period. Its financial advantage is its enormous receipt, because the entire yield of national labour runs through it, and partly more than once, so that even with a small percentage of taxation, its yield is great" (Englis, 1929). For these reasons, it has been replaced, especially in the EEC and EU countries, by value added tax, which in its model form is competitively neutral. VAT has been introduced in more than 150 countries around the world and it is hailed as "undoubtedly the most successful fiscal innovation of the last half-century" (Mirrlees et al., 2010). The only (determinant) country that has not introduced VAT is the US; they have state and, where appropriate, local sales taxes; this is also reflected in the US tax structure, in a significantly lower share of consumption taxation – see Figure 6. Leaving aside the (rather substantial) question of whether to tax consumption at all, the disadvantages are, among other things, complex administration, tax evasion, rate differentiation and tax exemptions. The value-added system used in the EU is the worst one in this respect; it is also the oldest one, which is why it is considered as the first generation of VAT. The second generation of VAT (with one tax rate and significantly fewer exemptions) includes, for example, New Zealand, Australia, Canada and South Africa. The third generation of VAT could be a reverse charge, where the tax is passed on to the customer, so that the tax is only

charged between businesses and therefore there is a significantly lower, turnover' of that tax between businesses and tax administration. The EU allows only partial application of this construction here, e.g. in a sector highly affected by tax evasion. The, income type' of VAT applied in Japan is also referred to as the value added tax system; the, subtraction method' used here consists in the fact that, at the level of the undertaking, the taxable amount is total turnover/sales after deduction of total purchases; it is therefore essentially a taxation of wages and profits.

In the US, Hall and Rabushka tried to replace VAT (which the federation cannot introduce there) with two taxes with an equal rate of 19%: an individual wage tax (with a tax deduction according to family members) and a business tax (taxing sales minus purchases including investments). These two "substitute" taxes with one flat rate were applied in several post-communist countries (personal income tax, corporate income tax), including references to Hall and Rabushka, but these countries also introduced a value-added tax with the same rate! In the next phase, this policy was reformed (usually after a change of government). On top of all this, Hall changed his mind about flat wage taxation, recommending 2 rates in 2011: e.g. 15% and 30%!

One of the fundamental weaknesses of the current value added tax system in the EU and in other countries is the treatment of financial services: these products are in principle exempt from VAT, which also means the impossibility of deducting the tax contained in the price of products purchased by the companies concerned. This approach has been explained by the specifics of the functioning of these financial services. According to this approach, financial institutions can charge for their services (Poddar and English, 1997):

- Explicit fees and commissions and
- Implicit fees in the form of margin.

Taxation of "explicit" VAT fees and commissions is considered to be trouble-free; the basic construction of VAT can be applied here. However, the problem (generated by the lobbying!) is reportedly with margin-based financial services. Margin, e.g. interest spreads in themselves even represent value added, but the basic problem is to "divide" this margin into a part belonging to the business with the supplier (deposit) and with the customer (credit). Nevertheless, the renunciation is very simple because all businesses are based "on margin"! Credit transactions are not excluded. Interest on the loan is constructed in the same way as "explicit" fees and commissions, and it is no problem to add VAT to it. A similar case is the interest on deposits, it is only a little more complicated" if the supplier" is an individual who is not a VAT payer. However, the same, case is, for example, buying scrap from the population. It may seem like a complication (or it is a complication), but the problem is not the so-called implicit fee. In several countries of the world, financial services are "normally" taxed by VAT. The problem stems primarily from lobbying! Alternatively, let us look for the problem in the very existence of VAT, or rather in its "subtraction method" in the EU. The next generation of VAT may be its transformation into a US tax on sales to the final consumer; it would be just another "shift" in comparison to moving to a general reverse charge.

The insufficient taxation of financial services is (as a rule) compensated by special taxes. International theory and policy in this direction recommends the use of the concept of the tax on financial activities; the most appropriate construction is the taxation of the wages and profits of financial services providers. In Denmark, for example, financial services providers pay a special payroll tax at a rate of 15.3% (2021); the tax is deductible from the corporate income tax base. Another option is a higher corporate tax rate. In the UK, banks pay a corporate tax surcharge at a rate of 8% of profits. The corporate tax rate there is 19%, from April 2023 a second corporate tax rate of 25% is (was) to be introduced for profits over £250,000 and on this occasion the bank surcharge rate is to be reduced to 3% of profits over £25 million. Mirrlees et al. (2011) recommended to eliminate almost all zero and reduced VAT rates and to introduce a financial services tax as an VAT equivalent.



Figure 7: Basic insurance tax rates in Europe (2018)

Source: Bourdaire (2018)

Another specialty is the taxation of insurance services – an insurance tax that is levied on insurance premiums: in 20 European countries it taxes almost all non-life insurance, several of these countries use rates identical to or close to the basic rate of value added tax (Finland, the Netherlands, Germany). German insurance tax represents 4% of all tax revenues; the country's Christian Democratic model of income taxation provides a deduction of the entire premium from the personal income tax base. Austria and some other countries also tax life insurance premiums. The Baltic countries and Norway do not have this taxation, Slovakia (and some other post-communist countries) introduced a sectoral tax ("special levy of selected financial institutions", rate in per mille

from assets) and after a few years "replaced" it with an insurance tax (8% of non-life insurance premiums). The basic orientation about the different rates is given in Figure 7.

In Czechia, insurance companies pay only 3% of the premiums received from motor liability insurance to the Damage Prevention Fund, which is administered by the Czech Insurers' Bureau; de facto it is a special-purpose tax. The insurance tax was discussed years ago. "Ministerial experts in their proposals ... considered other ways to reach out insurance companies. For example, the income tax of insurance companies would be structured in proportion to the insurance premiums written, and if it did not reach the specified minimum (for example, three percent), the insurance company would have to pay the rest. They also wanted to touch the tax deductibility of technical reserves... However, there will be changes in reserves due to a European directive. The so-called Solvency II rules free up insurance companies' hands when investing. Instead of a strictly enumerated composition of reserves, they will have to adhere only to the prescribed risk-capital ratio" (Mašek and Vlková, 2011). The Babiš government said in its programme statement: "We will review the tax deductibility of technical provisions in the insurance sector. Tax-deductible technical reserves will be newly linked to the rules contained in the European Solvency II Directive. This system will be more resistant to possible overvaluation by taxpayers, as the amount of technical reserves thus determined can be influenced by the taxpayer significantly less than in the current procedure, which is based on the Accounting Act" (Babiš et al., 2018). This review of tax deductibility was implemented in 2020, despite the opposition of insurance companies and academicians. We do not have a comparison with foreign countries in Czechia.

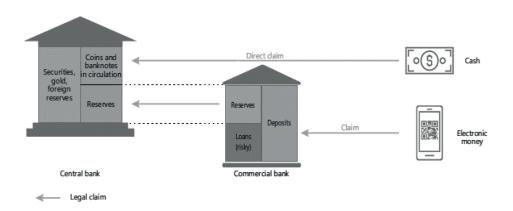
In general, the approach to taxation of the financial sector should depend on the reform of the value added tax, because the (now necessary) alternative solution to this issue can hardly consider the unevenness of the tax burden resulting from the very construction of the first-generation value added tax. However, the modernisation of value added tax is very difficult in the EU conditions, although it could theoretically be relatively simple. In the medium term, we have no choice but to accept the given concept of value added tax in the EU. This implies the necessity of introducing a substitute tax on financial services in Czechia – unlike most EU countries, we do not have any such solution. At the same time, we could/should prefer the most general solution, which is a financial services tax constructed as VAT, along the lines of Mirrlees et al. Special taxes, such as bank tax or insurance tax, are secondary solutions.

Tax policy can relatively quickly contribute to increasing the efficiency of the entire economy, primarily by rationalizing and unifying the entire existing spectrum of social security contributions, resulting in a uniform employer contribution to social security and the inclusion of contributions paid by employees into the tax on income from dependent activities. Further rationalisation can be linked to social security reforms, including health care. In the area of corporate tax, it is advisable to focus on a fundamental reform consisting of the integration of the dividend tax into the corporate tax and the exclusion of interest from the corporate tax deduction; here, the EU is active only towards a common corporate tax base, which will probably mean international discussions or negotiations.

4 Money creation and exchange rate policy

At the time of the emergence of modern currencies, the so-called seigniorage played a relatively important role – the yield from the minting of coins and later from the issuance of state notes. Nowadays, electronic money prevails – deposits in accounts with (private) banks and the related use of payment cards. In the US, for example, cash dollars account for only about 10% of the total money supply (Rodeck and Curry, 2021). Figure 8 shows the central bank's balance sheet; in the liabilities there are coins and banknotes, as well as (mandatory) reserves of commercial banks. Electronic money is in the liabilities of commercial banks, loans completely predominate in assets; reserves deposited with the central bank represent only a small fraction of assets.

Figure 8: Cash and electronic money in a two-tier monetary system



Source: Auer and Böhme (2020)

We can imagine the complete replacement of cash money with electronic money; from the point of view of one smaller country (Czechia), it can be assumed with certainty that the national currency will lose its practical meaning for people if (almost) everyone switches to paying by card or mobile. In Figure 9, cash money would be reduced and, in principle, the central bank would be left with the reserve agenda; the role of reserve requirements as an instrument of central bank monetary policy is already minimal. The future of the official digital currency is the subject of research (Rodeck and Curry, 2021). At the same time, two related questions also arise: whether the privatization of the issue of money (in private banks) is (or was) necessary, and whether the revenue from the issue of electronic money should not be revenue for the state budget. Given that we are primarily concerned with the coherence and adequacy of the Czech economic and social policy in the medium term, we can assume that Czechia will not be a leader in the further development of monetary policy in the EU or even in the world. Together with other (related) economies, we can assume that the digitalization of the currency will also take place in our country, in cooperation with all participants, including the private banking sector. Internationally, it will also be a question of whether the US dollar will maintain its significant position in foreign exchange reserves in the world – this position is important or advantageous for the US. The general scheme of the "two-tier" model of the USD is shown in Figure 9. Note also that here the Treasury produces cash and digital USD for the Federal Reserve Bank (Fed); this can be taken for granted as a conceptual requirement – it is already non-systemic for one money to be issued by the state or central bank and the other money to be created by private banks through their lending operations. Today's world is closer to the variant of the production of (even digital) money by the state/national bank, with the fact that the proceeds of this production/issue of money will be paid into the state budget.

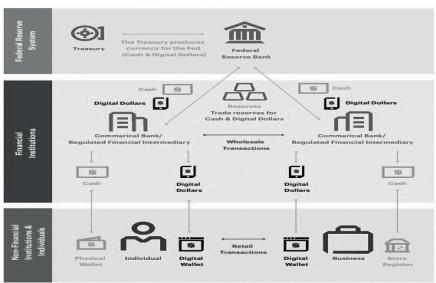


Figure 9: Two-tier distribution model of physical cash and tokenized digital dollars

This diagram reflects the current US, two-tier distribution model of physical cash and hypothesized tokenized digital dollars to sit alongside it.

Source: Cacioli (2020)

Both the Federal Reserve Board and the US President are very cautious about introducing a central bank digital currency (CBDC). Federal Reserve Board Chair Powell said: "We think it is important that any potential CBDC could serve as a complement to, and not a replacement of, cash and current private-sector digital forms of the dollar, such as deposits at commercial banks ... "The design of a CBDC would raise important monetary policy, financial stability, consumer protection, legal, and privacy considerations and will require careful thought and analysis-including input from the public and elected officials" (Fed, 2021).

In 2018, a referendum was held in Switzerland on the transfer of the electronic money issuance to the Swiss National Bank (SNB); 24% of participants were in favour of this proposal to introduce, Vollgeld'. The purpose of this "monetary reform" was to raise new resources for the cantonal budgets, where the SNB transfers its profits.

"At present, monetary policy in countries with high sovereign debt is getting dragged along by fiscal policy. Gradually, the independence of central banks is disappearing de facto. The bank-credit issuance of money is gradually displaced by the issuance

of money through the state budget deficit and the purchase of government bonds by central or commercial banks. In the policy of quantitative easing, it is in fact a hidden, modern "form of budgetary issuance of money, where we do not encounter the forced circulation of state notes, but the effects on the functioning of the monetary system are and will be similar. National (or common) currencies have clearly failed to store value for a long time. Their exchange value is rapidly declining against gold, real estate, and art objects. Gradually also against the standard consumer basket, even after considering interest income from term deposits. Inflation targeting loses its content and only the verbal diction of inflation reports remains. Quantitative easing is losing its extraordinary monetary character and is becoming a fiscally enforced standard in over-indebted countries... Countries (or groupings of countries) whose currency performs the functions of "world" money, are in a specific position. These countries are also assisted with the sovereign debt monetizing by foreign central banks, which hold government bonds as foreign exchange reserves.1... The massive increase in the volume of government bonds held by central banks inevitably leads to unprecedented increases in the free liquidity of commercial banks at the central bank ... Against these assets of commercial banks, deposits of households and firms are created in their liabilities. ... Deposits and bank liquidity are a balance sheet product of the uncontrolled growth of government debt and its monetization. Central banks are in a historically paradoxical situation where their anti-inflationary policy of rising interest rates leads to an increase in the yields of commercial banks and an increase in their own losses. The textbook proposition that central banking is a profitable industry ceases to apply" (Mandel and Dvořák, 2021). We consider it necessary to change this in our country as a priority. We are not interested in profit at any cost. We can proceed from the fact that in principle the state should/could issue (also) the electronic money or the central bank on its behalf, with the proceeds of this operation belonging to the state. We can prepare this basic model variant placidly. In principle, however, we can immediately take advantage of the fact that the banking sector in our country is underburdened with the value added tax – as we have stated above. Thus, under the heading of substitute value-added taxation, we can introduce a special bank tax or an additional tax on bank profits, etc. These tax constructions occur abroad – so we can introduce them regardless of the need to siphon off banks' profits resulting from the issuance of electronic money. Regardless of these constructions, a simple indirect solution is available: we do not have to strive for a direct issue of electronic money by the state or its national bank, at least for the beginning it is sufficient to regularly check the creation of money in the private sector in a given period (year) and distribute this creation among commercial banks, for example, according to the volume of deposits or loans in the given period. This is probably the cleanest and also the simplest solution; after all, we do not need to "hide" behind a bank tax or VAT. Polański and Szadkowski (2021) "estimated seigniorage and showed its evolution in the context of central banks' financial results for seven central banks... the estimated seigniorage was usually below 0.4 per cent of GDP in 2003-2019". After all, adequate value-added taxation should be introduced independently of the levy on the creation of electronic CZK. The actual financial transfer of the issue of electronic money to the state or the state budget is feasible from 2024! The question is, of course, how the banking sector will react to this; but this is a subordinate issue that cannot prevent a fair national economic policy - not only in this respect. The CNB may be in charge of analyses and calculations of the seigniorage levy.

¹ Foreign central banks (or governments) hold US government bonds for \$6.81 trillion, or about 1/3, of U.S. public debt.

Czech exchange rate policy should fit into the overall economic policy. We need a new exchange rate commitment" that will primarily lead to the integration of the CZK into, the euro area. The overall level of the CZK exchange rate has an impact on the structural transformations of the economy; as Figure 5 shows, the exchange rate is well a long way from purchasing power parity over the long term. That is why we need a binding programme of strengthening the CZK exchange rate, e.g. to the 20 CZK/EUR rate. A specific proposal is to announce a fixed exchange rate regime e.g. from March 2023, with a default rate of 24.30 CZK/EUR, with the plan that every subsequent month this exchange rate will be strengthened by 0.10 CZK/EUR – until the rate 20 CZK/EUR is reached. Everything else must step aside; the possible last "instance" (the financial guarantor of the whole operation) will be the state budget. The possible objection that the (albeit only relatively) freely moving "market rate" of the CZK is the optimal instrument of economic policy is long outdated. "Fluctuations in the exchange rate pose a risk to the economy, especially in crisis periods... /this/ risk that could have been eliminated by switching to a common currency... we could avoid this risk if we fulfilled the obligation, to which we committed ourselves when joining the Union, and adopted the euro" (Śramko and Petříček, 2022).

"A stable CZK exchange rate, without major fluctuations can help Czech citizens to protect the real value of money and companies reduce the cost of hedging against exchange rate losses. Slovakia was in ERM II for over 3 years and was gradually targeting three different exchange rates of the Slovak koruna against the euro depending on the development of the economy, with the Slovak koruna gradually strengthening by more than 21% in ERM II from the initial 38.455 to 30.126 per euro. This regime was used in Estonia, Lithuania and Latvia, which spent 8 years in ERM II before adopting the euro. Denmark, which has an opt-out for the adoption of the euro, has been a member of ERM II since 1999... The mere entry into ERM II seems advantageous for Czech citizens and the state "(Martínek, 2021). In the future, the Czech exchange rate policy should be based on the state economic policy.

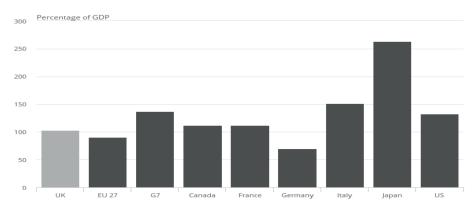
5 Government debt and foreign exchange reserves

"The inflationary experiences of the twentieth century led to the erection of institutional barriers against deficit financing and the financing of deficits by means of seignorage. Those barriers took the form of fiscal rules, central bank (CB) independence and inflation targeting. CBs were given instrument independence in setting short-term interest rates and the monetary base and directed to focus their policies mainly on price stability. Most importantly, CBs were prohibited from lending to government by directly buying new government bonds in order to prevent the use of seignorage by fiscal authorities. Those institutional measures along with the global financial crisis wiped out inflation altogether. The traumatic memories of the previous century cemented those institutions to such an extent that they managed to survive even in the face of extended deflationary periods and the associated zero lower bound on interest rates" (Cukierman, 2021).

The role of public debt in economic policy has changed significantly in the last decade. Many analysts have even concluded that state finances are no longer based on taxes (tax-based state), but on debt (debt-based state). At the same time, there are also relatively

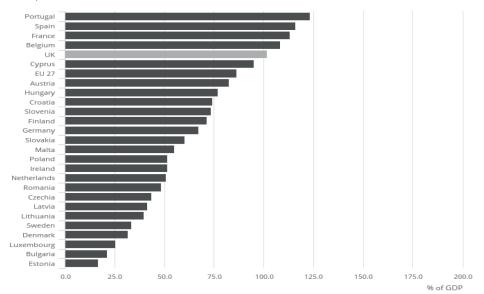
big differences between individual states. Overall, developed countries are significantly more indebted. However, even among developed countries, there are major differences; Figure 10 shows the different relationships between gross government debt and GDP in the G7 countries (average 134.7%), including data for the EU as a whole (89.8%). There are also great differences within the EU – see Figure 11. At the end of June 2022, this debt in Czechia was relatively low: 43.5%, the "record holders" in the EU are southern European countries. However, the Czech debt is increasing significantly: the Czech state budget deficit increased in 2021 from 2,050 to 2,466 bil. CZK, with a substantial contribution from the Babiš income tax reform. The question is, not only in our country, who will pay for it, or whether public debts and deficits are (un)advantageous. An essential factor here is the overall development of the relevant economy, which is significantly influenced, among other things, by its rating. We focus here "only" on the interconnection of fiscal and monetary policy, where there are enormous differences between Czechia and the euro area.

Figure 10: General government gross debt as a percentage of GDP, at the end of 2021: UK, EU and G7 member states



Source: Office for National Statistics (2022)

Figure 11: General government gross debt as a percentage of GDP: UK and EU member states, at the end of June 2022



Source: Office for National Statistics (2022)

The results of the CNB policy are huge foreign exchange reserves: less than CZK 4 trillion, and economic losses – CZK 38 billion last year (see Figures 3 and 4). How is this possible? "52.5 percent of the reserves are in world bonds, mainly government bonds. Then we have deposits with various banks around the world, a total of 31.2 percent of the portfolio... The yield on foreign exchange reserves measured in foreign currency reached 2.11 percent over the past year - thanks to shares. For comparison, the average annual return in 2006–2020 was 2.67 percent. Last year, therefore, it was a slightly below-average year - unfortunately we have an ultra-conservative strategy" (Michl, 2022). The real return, after deducting inflation, is negative, so these results are disastrous. The official response is of this type: "The CNB's task is primarily to ensure price and financial stability, not to generate profit... The payment of a dividend to the state budget is legitimate, but it is not possible now. The CNB must preferentially cover past losses and fulfil the so-called reserve fund" (Mora, 2021). Where are (some) of the CNB Board deliberations heading? "Michl ... sees the potential for better appreciation of foreign exchange reserves ... His vision ... following the example of Norway, is the creation of a large state investment fund for future generations, which the Czech National Bank is to manage. This could also pay for pension reform, which will be necessary in the coming years due to the unsustainability of the current first pillar of the pension system. However, he himself points out that this will not be an easy task. However, the foreign exchange reserves can help with it. "The first and substantial step towards this fund is a long-term profitable central bank, which will be fueled by the foreign exchange reserves of the Czech National Bank. These amounted to EUR 135.4 billion at the end of 2020. The task will be, among other things, to spread these foreign exchange reserves so that they earn more in the long term than the potential exchange rate loss from the appreciation of the CZK will be," Michl said. The Czech National Bank board member has also prepared a concrete

plan for the long-term profitability of the Czech National Bank. It proposes that the central bank increases the holding of shares of foreign firms from 13.5 to 20 percent within one to three years. In the next five years, this holding is even to increase to fifty percent" (Lacina, 2022a). These are all (wishful) wishes to "save" more than CZK 2 trillion for the CNB that it does not need for anything. The state also does not need a "large sovereign investment fund for future generations"; the task of the state is not to create pension funds. Not to mention the fact that there are more than enough savings in the world ... and there is no adequate use for them. It is (to a limited extent) more advantageous for the state to borrow at zero or negative real interest.

"Another effect of excessive foreign exchange reserves, which the CNB has created by issuing CZK on foreign exchange markets, is the strengthening of inflationary pressures in the economy. Inflation in the Czech Republic, with its more than 6%, is significantly higher than inflation in the euro area countries and cuts real value not only nominally rising wages and old-age pensions, but also the savings of the population, which the population has stored at virtually zero interest on bank accounts. Every year, citizens lose about CZK 90 billion, which reduces the purchasing power of their savings" (Makovec, 2021).

Already in 2017, it was written: "The Czech National Bank has increased foreign exchange reserves from CZK 900 billion to CZK 3.35 trillion over more than three years of interventions. The question now on the table is whether such a volume is too large and what to do with the money collected. One of the ideas is the creation of a national wealth fund. However, this is complete nonsense, writes Martin Lobotka from Conseq in the commentary. At first glance, Governor Jiří Rusnok does not worry about the large amount of money in the accounts of the Czech National Bank. He only considers how to divide the reserves into (historically usual) deposits that are shorter-term, but do not earn much, and longer-term and riskier ones - for example, stocks that could yield something. That is correct. Former governor Zdeněk Tůma came up with a much more bizarre idea. (It should be added, however, that the current Governor Rusnok agreed with him by saying "I would like it".) The government could buy some of the foreign exchange reserves and a national wealth fund would be created - along the lines of Norway or the Arab countries. Which is an undiluted nonsense. Yet a true "sovereign" fund typically arises (ninety percent) as a result of extracting commodities (usually oil) that are exhaustible and where the state knows they will run out one day. It could also arise because of a series of surplus budgets, but this is only a theory: each government would distribute surpluses on an ongoing basis rather than convincing citizens that it is better to accumulate in the money box and perhaps invest abroad" (Lobotka, 2017). "Helena Horská ... adds that the Czech National Bank currently lacks any strategy in relation to foreign exchange reserves" (Lacina, 2022a). A similar nonsense is the National Development Fund, which was invented by (former) Prime Minister Babiš to actively defeat the simplified proposal of his coalition partner to introduce a bank tax, "The National Investment Fund is an inefficient and unnecessary way of financing that will benefit only banks" (Borovička, 2020). (Former) "Minister of Industry and Trade Karel Havlíček (for ANO) ... presented the first two projects, which will be financed by the National Development Fund. It will be a multifunctional arena in Brno for CZK 3.3 billion and the purchase of 20 train sets for Czech Railways, a project with a budget of CZK 13 billion. According to Havlíček, both projects were at the stage of final agreements, waiting only for the approval of supervisory boards and the like" (ČTK, 2021).

The Czech state debt reached CZK 2,466 billion at the end of 2021; over the past two years, it has grown by CZK 826 billion – see Figure 12. The CNB has excess foreign exchange reserves in the range of over CZK 2,000 billion. Rational national economic policy is simple: with a (very small) amendment to the law, to impose an extraordinary levy on the Czech National Bank to the state budget in the amount of CZK 2 trillion, with the obligation to transfer these funds to state assets by 31 June 2023. And the problem (where to go with those 2 trillion) will be solved. The state will then be able to increase the registered capital of Czech Railways, for example, by CZK 13 billion; of which the purchase of 20 train sets could be paid. The National Development Fund project should be cancelled immediately.

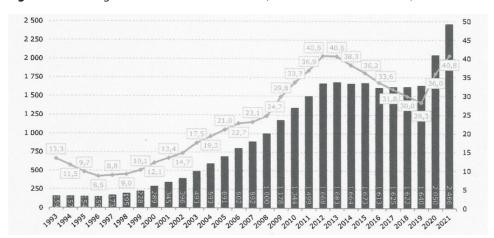


Figure 12: Czech government debt 1993–2021 (CZK billions and % of GDP)

Source: MF ČR (2022)

6 Government interest rate policy

"Starting in October 2011, the Ministry allowed households and selected legal entities to participate directly in the financing of the Government of the Czech Republic and thus valorize their savings for the first time through the direct holding of so-called savings government bonds. Between 2011 and 2014, savings government bonds with a total nominal value of CZK 106 billion were sold within six subscription periods; up to six types of savings government bonds were offered. Due to the fall of the government bond yields to all-time lows, this project was suspended in 2014. On the occasion of the celebration of the 100th anniversary of the founding of Czechoslovakia, the direct distribution channel of government bonds intended only for natural persons called "Bond of the Republic" was reopened in December 2018, thus building on the previous project of savings government bonds. Within the thirteen consecutive subscription periods, citizens purchased the Bond of the Republic with a total nominal value of CZK 79.6 billion, while up to three types of six-year government bonds were offered. The yields of individual issues of the Bond of the Republic have always been set at the level of market conditions, respectively in accordance with the development of the year-on-year inflation rate according

to international practice in the case of inflation-indexed government bonds. The yields of these bonds are reinvested after each yield period by issuing and crediting other government bonds to the given asset account in a separate register kept by the Ministry in the amount of the bond yield after tax according to the relevant legal regulations. Demand for the issued Bond of the Republic in the first twelve subscription periods averaged around CZK 3.2 billion and between 2019 and 2021 these bonds were issued with a total nominal value of CZK 38.5 billion. Although the absolute value of government debt has increased significantly in the last two years, the share of government bonds intended for citizens has gradually increased. Traditionally, the highest interest was in anti-inflationary government bonds, the yield of which is linked to the consumer price index, which was also confirmed by the 13th subscription period, which ran from 20 September to 23 December 2021. It resulted in a record demand of CZK 41.1 billion, which not only exceeded the total nominal value of the Bond of the Republic sold so far, but also represented the highest demand in history within all subscriptions of government bonds made so far intended primarily for citizens since 2011. The Ministry considers an increase in the share of households in the national debt to be desirable. Retail investors are usually conservatively focused and not subject to short-term fluctuations in international bond markets, which contributes to greater stability and diversification of the investor base with a positive impact on the refinancing and interest rate risk of the debt portfolio. Holding of the government bonds intended for natural persons is also advantageous in that the vast majority of them are domestic entities and part of the interest expenditure on servicing the state debt will thus create additional income of domestic households. In connection with the issuance of the Bond of the Republic in a record amount on 3 January 2022 and the assumption of reaching the second highest value of the nominal value of these bonds in circulation at the end of 2022, the Ministry proceeded to temporarily suspend the start of the next subscription period, since these issues represent only one of the instruments for financing the borrowing needs of the state and the aim was never to maximize the sale of these bonds regardless of other factors of the state's issuance activity, but to offer citizens a conservative and stable form of appreciation of their savings while leaving sufficient space for refinancing CZK repayments of state debt on the domestic bond market through other available instruments" (MF ČR, 2022).

The previous interpretation does not document a clear, comprehensive concept of the sale of government bonds to the population. In general, two basic variants are possible:

- the sale of these bonds according to the same principles as when sold to private institutions (including banks, investment funds, etc.), where the government follows from its needs and market situation,
- the sale of special bonds for the population, where the (social) security of the population in accordance with one or another welfare regime should be decisive, not the debt needs of the government.

The first option is, from the point of view of fiscal and social policy, basically uninteresting for us here. The second option is or may be interesting/significant, nevertheless the government policy should be clearly formulated; from this point of view, we could

evaluate the current Czech government policy (probably only the policy of the Ministry of Finance) as a marketing policy only. In this second option, sovereign loans are competing products for retail financial services; the general rules for these services should apply here. If public financial services should have any advantage or incentive, it should be clearly analysed and formulated. Since this has not been the case so far, it can be assumed that in our country it is only about political marketing without further concept, with more or less random intentions.

However, there is room for a broader, conceptual government policy in the area of savings or investing in government bonds – and rather variable inflation significantly increases this room. Nowadays, the population is largely at the mercy of an unstable market, and there is therefore considerable scope for illiberal government interest rate policies – especially if governments do not want to solve, for example, the problem of growing national debt at the expense of citizens. Inflation depreciates savings – if real appreciation is negative. And nowadays it is not an exceptional situation, but rather a typical case. We can say that the basic illiberal option is to invest in government bonds with a guarantee of a non-negative real yield. This construction has been used for Czech anti-inflationary government bonds. However, these should not be (as before) special offer events, but deposit/financial services, normally provided by a state bank or post office. However, the volume of services thus provided should be limited to the annual amount (for an adult); the state can thus provide for the middle class "only". The relevant volumes of hidden state subsidies of this kind should be published annually, as well as all tax expenditures.

In this context, it is necessary to mention the extensive and very diverse subsidization of selected financial services in our country. The so-called third pension pillar exists in more countries, but nowhere is it of practical importance. In our country, we have a rather complicated system of state support for "supplementary pension savings", which is almost entirely the result of lobbying by systemically completely useless "pension companies" that have a monopoly on its provision. State support for employer contributions to this savings amounts to 65% of these contributions, which is the highest in the world. State support for participant contributions is noticeably lower, in addition to having two forms (state contribution, tax deduction). The main purpose of "supplementary pension savings" for participants is a tax optimization, coupled with the fiscal illusion that state support is free. State injections end up here essentially in the overhead costs and profits of the providers. In line with the relevant welfare regimes, we recommend either to completely abolish state support for all financial products, or to switch to a single tax regime TEE (income tax exemption of yields) – optimally in the form of British Individual Savings Accounts (ISAs) or Canadian Tax-Free Savings Accounts (TFSAs), where annual deposits are limited, and withdrawals are unlimited. Not only in Czech practice, investments in housing are also far more important for (future) pensioners than any third pension pillar. A peculiar caricature of financial services are Czech building savings, especially in (the most common) combination with the so-called bridging loan: building savings are artificially inserted into the loan in order to be entitled to a state contribution even with the actual exclusive drawing of the loan; (otherwise generally unnecessary) building savings bank collects higher interest on this loan, by which it draws a larger part of the state contribution to fake building savings. It's no longer possible in Slovakia! (Vostatek, 2020).

It is advisable to combine the reform of the government interest rate policy into one reform step, preferably as early as possible. The biggest political problem is the cessation of state support for supplementary pension savings and building savings; the current economic crisis will facilitate this, especially when combined with the introduction of tax-free savings accounts and a new policy of investing in government bonds with a guarantee of a non-negative real return. Here, too, the new economic policy simplifies the system of financial institutions.

7 Conclusion

The CNB primary monetary policy objective is inflation of 2% per annum; CNB mainly uses two-week repo rates here. The CNB second monetary policy instrument is the CZK exchange rate; this should play an important role in supporting the government's economic policy towards sustainable economic growth. The "exchange rate commitment" was an unconventional monetary policy instrument; in 2013–2017 it led to the creation of excessive foreign exchange reserves in the range of over CZK 2 trillion. In this situation and also taking into account the international turbulence of the last 2 years, it is necessary to announce a new, completely different exchange rate commitment that would prevent the depreciation of the Czech currency in relation to the (determinant) euro. In the interest of stable economic development, it is useful to fix the CZK exchange rate to the euro and then smoothly approach this exchange rate to the purchasing power parity. By agreement between the Czech government and the CNB board, which will then be reflected in the amendment to the Act on the CNB, it is possible, for example, to set a fixed exchange rate 24.30 CZK/EUR from March 2023, with the exchange rate strengthening by 0.10 CZK/EUR each subsequent month, until the 20 CZK/EUR is reached. A possible extension of this exchange rate commitment may follow. The aim of this economic policy is to fix the exchange rate at a sustainable level in the long term and then to join the euro area. The CNB exchange rate policy should be fully reoriented towards the euro. If necessary, the state budget would support the fixing of the exchange rate. In this case, too, it is expedient to transfer the excess investment tranche of the CNB foreign exchange reserves in the amount of CZK 2 trillion by 31 June 2023 to state assets.

The Czech tax structure and policy is significantly deformed, especially in the area of income and value added taxes. Already from 2024, it is possible to implement a basic manoeuvre in the introduction of a single collection point: to concentrate the collection of all social security contributions into the Czech Social Security Administration, including health insurance premiums and insurance premiums for employer liability insurance for work injuries and occupational diseases. In addition, insurance premiums paid by employees can be included in the income tax on dependent activities, which would now have a flat rate of 26%. At the same time, all insurance premiums paid by employers can be combined into a single, fully integrated social security contribution at a rate of 34.1%, paid to the state budget.

In the tax reform, it is also rational to increase the corporate income tax rate by the current taxation of dividend income to a total rate of 31.15%. At the same time, interest can be set

aside from the tax-deductible costs of corporations. Both are covered by relevant model policies, including efforts to tax incomes in the country where they are generated.

Value added tax is heavily harmonised in the EU, but with several outdated and lobbying constructs. Only an alternative, but important fair solution is to introduce a tax on financial services also in our country, e.g. in the form of a bank tax and an insurance tax. The same category of unfair and inefficient constructions includes the Czech fiscal treatment of the so-called supplementary pension savings and building savings (including bridging loans). On the contrary, an acceptable solution are the so-called tax-free savings accounts and a savings product based on the existing so-called anti-inflationary government bonds.

The monetary system also includes the creation of all money from the state budget, which can technically be replaced by an equivalent seigniorage levy to the state budget. Implementation could be completed as early as 2024. This levy does not have to "go through" the CNB's profit and loss account. On the contrary, the state certainly does not need a "national development fund" where banks would place their long-term excess liquidity.

References

AUER, R. and R. BÖHME (2020). CBDC architectures, the financial system, and the central bank of the future. *BIS Working Paper*, No. 948. Bank for International Settlements. Available at: https://voxeu.org/article/cbdc-architectures-financial-system-and-central-bank-future

BABIŠ, A. et al. (2018). *Programové prohlášení vlády České republiky*. Praha. Available at: https://www.vlada.cz/assets/jednani-vlady/programove-prohlaseni/Programove-prohlaseni-vlady-cerven-2018.pdf

BOROVIČKA, J. (2020). Banky se smějí, stát pláče. Lidové noviny, March 4, 2020.

BOURDAIRE, CH. (2018). An overview of insurance premium taxation across Europe. Aitmic. Available at: https://www.airmic.com/news/guest-stories/overview-insurance-premium-taxation-across-europe

BUNN, D. (2022). *Sources of Government Revenue in the OECD*. Washington: Tax Foundation. Available at: https://taxfoundation.org/oecd-tax-revenue-2022/

BUREŠ, J. (2022). *Intervence ČNB: Na co se připravit?* Praha: Patria Finance. Available at: https://www.patria.cz/zpravodajstvi/4932952/intervence-cnb-na-co-se-pripravit.html

CACIOLI, L. (2020). *Digital Dollars – A Two Tier CBDC Design to Maintain US Currency Dominance. Blockchain News.* Available at: https://blockchain.news/news/digital-dollars-two-tier-cbdc-design-maintain-us-currency-dominance-

CUKIERMAN, A. (2021). COVID-19, Seignorage, Quantitative Easing and the Fiscal -Monetary Nexus. *Comparative Economic Studies*, vol. 63, pp. 181–199. Available at: https://doi.org/10.1057/s41294-021-00150-7

CNB (2018). *Změna strategie správy devizových rezerv ČNB*. Praha: ČNB. Available at: https://www.cnb.cz/cs/casto-kladene-dotazy/Zmena-strategie-spravy-devizovych-rezerv-CNB

CNB (2020). *Měnová politika. Co byl kurzový závazek?* Praha: ČNB. Available at: https://www.cnb.cz/cs/casto-kladene-dotazy/Co-byl-kurzovy-zavazek/

CNB (2021a). *Monetary Policy Report*. Autumn 2021. Praha: Czech National Bank. Available at: https://www.cnb.cz/export/sites/cnb/en/monetary-policy/.galleries/monetary_policy_reports/2021/2021_autumn/download/mpr_2021_autumn.pdf

CNB (2021b). ČNB obnovuje prodej části výnosů z devizových rezerv. Praha: ČNB. Available at: https://www.cnb.cz/cs/cnb-news/tiskove-zpravy/CNB-obnovuje-prodej-casti-vynosu-z-devizovych-rezerv/

CNB (2021c). *Výroční zpráva 2020*. Praha: ČNB. Available at: https://www.cnb.cz/export/sites/cnb/cs/o_cnb/.galleries/hospodareni/vyrocni_zpravy/download/vyrocni_zprava_2020.pdf

CNB (2022a). *Zpráva o měnové politice – zima 2022*. Praha: ČNB. Available at: https://www.cnb.cz/cs/menova-politika/zpravy-o-menove-politice/Zprava-o-menove-politice-zima-2022/

CNB (2022b). *Historie inflačních cílů ČNB*. Praha: ČNB. Available at: https://www.cnb.cz/cs/menova-politika/inflacni-cil/historie-inflacnich-cilu-cnb/

CNB (2022c). *Nástroje měnové politiky*. Praha: ČNB. Available at: https://www.cnb.cz/cs/menova-politika/mp-nastroje/

CNB (2022c). *Roční zpráva o výsledku hospodaření České národní banky 2021*. Available at: https://www.cnb.cz/export/sites/cnb/cs/o_cnb/.galleries/hospodareni/download/cnb_vysledky_hospodareni_2021.pdf

CNB (2022d). *Devizové rezervy – časová řada*. Praha: ČNB. Available at: https://www.cnb.cz/cs/statistika/platebni_bilance_stat/devizove_rezervy/drs_rada.htm

ČSÚ (2022). *Vývoj indexu spotřebitelských cen v roce 2021. Analýza*. Praha: ČSÚ. Available at: https://www.czso.cz/documents/10180/142757762/cisc011222analyza.pdf/91f6b61a -114e-4647-9260-2aa1363d2d44?version=1.0

ČSÚ (2022b). *Evropský srovnávací program*. Praha: ČSÚ. Available at: https://www.czso.cz/csu/czso/evropsky_srovnavaci_program

ČTK (2021). Ministr odhalil první část Národního plánu. Rozvoj země zajistí vagony a hala v Brně. Available at: https://zpravy.aktualne.cz/ekonomika/havlicek-odhalil-prvni-dva-projekty-kde-pomuze-narodni-rozvo/r~59873cd40b0611ec9322ac1f6b220ee8/

ENGLIŠ, K. (1929). *Finanční věda*. Praha: Nakladatelství Fr. Borový.

FED (2021). Federal Reserve Chair Jerome H. Powell outlines the Federal Reserve's response to technological advances driving rapid change in the global payments landscape. Press Release. Available at: https://www.federalreserve.gov/newsevents/pressreleases/other20210520b.htm

GÜRTLER, M. (2022). *Tematické reporty: ČNB intervenuje na devizovém trhu*. Praha: Komerční banka. Available at: https://www.fxstreet.cz/zpravodajstvi-126884.html

KOMÁREK, L. and P. POLÁK (2022). *Jak hluboko vlastně klesly úrokové sazby a co bude dál…?* Praha: ČNB. Available at: https://www.cnb.cz/cs/o_cnb/cnblog/Jak-hluboko-vlastne-klesly-urokove-sazby-a-co-bude-dal/

LACINA, J. (2022a). *Kde vzít na reformy a další investice? Ve hře jsou devizové rezervy ČNB.* Available at: https://www.idnes.cz/ekonomika/domaci/devizove-rezervy-ekonomove-ceska-narodni-banka-michl.A211229_153918_ekonomika_jla

LACINA, J. (2022b). *Po ziskových letech spadla ČNB do ztráty. Důvodem jsou hlavně kurzové změny.* Available at: https://www.idnes.cz/ekonomika/domaci/cnb-ztrata-miliardy-bilance-kurz-euro-dolar-rozpocet.A220111_152547_ekonomika_jla

LOBOTKA, M. (2017). *KOMENTÁŘ*: Český fond národního bohatství je nesmysl. June 4, 2017. https://www.idnes.cz/ekonomika/domaci/ceska-narodni-banka-devizove-rezervy-intervence-martin-lobotka-komentar.A170602_114035_ekonomika_rts

MANDEL, M. and P. DVOŘÁK (2021). Co nás čeká s rostoucím státním dluhem? *Bankovnictví*, vol. 28, No. 6, pp. 38–41.

MAKOVEC, P. (2021). Optimální výše devizových rezerv centrální banky na příkladu ČNB. In: Roubal, O. (ed.). *Konference doktorandů na Vysoké škole finanční a správní*. Prezentace výsledků společenskovědního výzkumu s ekonomickými a finančními efekty (8. ročník). Praha: VŠFS.

MARTÍNEK, T. (2021). Proč je vhodné mít stabilnější korunu vůči euru pomocí ERM II? *Parlamentní listy*. https://www.parlamentnilisty.cz/profily/Ing-Tomas-Martinek-47486/clanek/Proc-je-vhodne-mit-stabilnejsi-korunu-vuci-euru-pomoci-ERM-II-113565

MAŠEK, J. and J. VLKOVÁ (2011). Nová daň z pojistného by mohla pomoci naplnit státní pokladnu. *Mladá fronta DNES*, February 22, 2011. Available at: https://www.zlatakoruna.info/zpravy/nezivotni-pojisteni/nova-dan-z-pojistneho-mohla-pomoci-naplnit-statni-pokladnu

MF ČR (2022). *STRATEGIE financování a řízení státního dluhu České republiky 2022*. Praha: Ministerstvo financí ČR. Available at: https://www.mfcr.cz/assets/cs/media/Statni-dluh 2022 Strategie-financovani-a-rizeni-statniho-dluhu-CR.pdf

MICHL, A. (2022). Valentýn v ČNB s akciemi a dluhopisy. *Mladá fronta DNES,* February 14, 2022.

MILIÓN CHVILEK (2021). *Novela zákona o ČNB: po nás potopa*. March 29, 2021. Available at: https://milionchvilek.cz/clanek/novela-zakona-o-cnb-po-nas-potopa

MIŇHOVÁ, K. (2020). Komparace měnové politiky FEDu a ČNB a její vliv na hospodářství v letech 2000 až 2019. Diplomová práce. Praha: VŠE, Národohospodářská fakulta.

MIRRLEES, J. et al. (2010). *Dimensions of Tax Design: The Mirrlees Review.* Oxford: Oxford University Press.

MIRRLEES, J. et al. (2011). *Tax by Design: The Mirrlees Review.* Oxford: Oxford University Press for the Institute for Fiscal Studies.

MORA, M. (2021). *Cílem ČNB není zisk, ale plnění jejích úkolů*. Praha: ČNB. Available at: https://www.cnb.cz/cs/o_cnb/vlog-cnb/Cilem-CNB-neni-zisk-ale-plneni-jejich-ukolu/

OECD (2018). *OECD Economic Surveys: Czech Republic 2018*. Paris: OECD Publishing. Available at: https://doi.org/10.1787/eco_surveys-cze-2018-en.

OECD (2019). *Tax Policy Reforms 2019. OECD and Selected Partner Economies.* Paris: OECD Publishing. Available at: https://www.oecd.org/tax/tax-policy/Tax-Policy-Reforms-2019-brochure.pdf

OECD (2022). OECD *Tax Statistics. Overall statutory tax rates on dividend income.* Paris: OECD Publishing. Available at: https://stats.oecd.org/viewhtml.aspx?datasetcode=TAB-LE II4&lang=en

OFFICE FOR NATIONAL STATISTICS (2022). *UK government debt and deficit: June 2022.* Statistical bulletins. Available at: https://www.ons.gov.uk/economy/governmentpublic-sectorandtaxes/publicspending/bulletins/ukgovernmentdebtanddeficitforeurostatma-ast/june2022

PATRIA (2021). Česká národní banka obnovuje prodej části výnosů z devizových rezerv. Praha: Patria Finance. Available at: https://www.patria.cz/zpravodajstvi/4823887/cnb-obnovi-po-deviti-letech-odprodej-casti-vynosu-z-devizovych-rezerv.html

PODDAR, S. and M. ENGLISH (1997). Taxation of Financial Services Under a Value-Added Tax: Applying the Cash-flow Approach. *National Tax Journal*, vol. 50, No. 1, pp. 89–111.

POLAŃSKI, Z. and M. SZADKOWSKI (2021). An accounting-based model of seigniorage, and recent monetary developments. *Bank i Kredyt*, vol. 52, No. 5, pp. 391–435.

RODECK, D. and B. CURRY (2021). *Digital Currency: The Future of Our Money.* Forbes Advisor. Available at: https://www.forbes.com/advisor/investing/digital-currency/

SEDLÁČEK, P. (2020). Zapojení ČR do mezinárodního úsilí o posílení globální měnové a finanční stability. Praha: Grada Publishing.

ŠRAMKO, I. and PETŘÍČEK (2022). Česku by pomohlo euro. Mladá fronta DNES, March 18, 2022.

VOSTATEK, J. (2020). Český důchodový (ne)systém vyžaduje zásadní reformu. *FÓRUM sociální politiky*, vol. 14, No. 1, pp. 2–10.

VOSTATEK, J. (2022). Jednotné inkasní místo pro Česko. *FÓRUM sociální politiky*, vol. 16, No. 2, pp. 2–8.

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