The changing nature of the financial system: implications for resilience and long-term growth in emerging market economies (EMEs)

EME financial systems: what has changed?

Czech National Bank

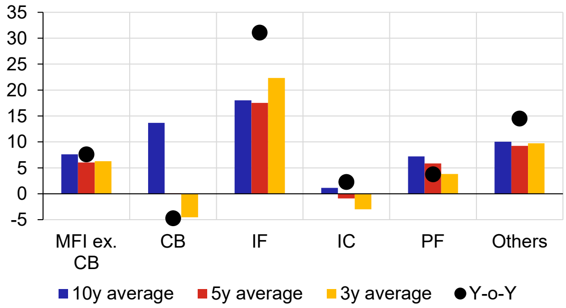
Evolution of the financial system in the Czech Republic

In 2023 Q3, the total assets of the key segments within the Czech financial sector reached CZK 17.8 trillion (USD 770 bn.), with the banking sector holding a dominant position (MFIs and central bank assets accounted for 74%). There have been no significant changes in the relative importance of various forms of financial intermediation in the Czech Republic in recent years despite the notable expansion in the investment funds sector (see Chart 1). The Covid-19 pandemic did not leave any significant imprint in terms of eroding long-term trends either. The banking sector continues to be the primary source of financing, overshadowing non-bank institutions and capital market funding. Additionally, the banking sector's share is increasing gradually, mirroring the rise in household debt within total private non-financial sector debt (see Chart 2). Apart from the financial sector, many domestic non-financial companies have traditionally been financed from abroad. These cross-border exposures are largely attributed to significant foreign direct investment (FDI) and intercompany financing from foreign parent companies to their Czech subsidiaries and between local subsidiaries (see Chart 2, the purple and red areas). This can be partially ascribed to the relatively small size of the capital market, which lacks appeal for foreign investors. Instead, foreign investors tend to prefer FDI as their primary avenue for investment in the Czech economy.

The combined assets of NBFIs (insurance companies, pension funds and investment funds) totaled around CZK 2.7 trillion (USD 121 bn.) in 2023 Q2 and were significantly dwarfed by the scale of the banking sector – CZK 10.3 trillion CZK (around USD 462 bn.). The growth in assets under the management of investment funds, particularly in equity, mixed funds, and funds for qualified investors, partially mitigates the dominant role of the banking sector. However, due to limited opportunities to invest in domestic companies' stocks and bonds within the small financial market (as discussed in detail later), these investments often flow abroad, resulting in a minimal impact on financing within a domestic economy. Chart 4 displays inflows and outflows from investment funds during the Covid-19 pandemic. As can be seen, most of the funds, with the exception of bond funds, did not record significant outflows during 2020 and the Covid-19 pandemic did not result in a notable change in the recent upward trend in the popularity of investment funds.

Chart 1: Average and current growth rates of segments of the financial sector

(Y-o-Y growth rates as of 30 September 2023)

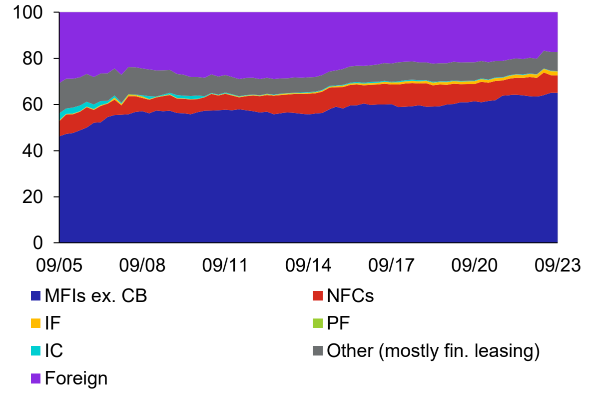


Note: MFI ex. CB = Monetary financial institutions excluding the central bank, CB = Central bank, IF = Investment funds, IC = Insurance companies, PF = Pension funds. Others consists mainly of other financial institutions (mostly financial leasing) and captive and holding companies. The contribution of captive and holding companies to the standard functions of financial institutions including lending, maturity or liquidity transformation may be limited due to the nature of these companies.

Source: Quarterly financial accounts

Chart 2: Creditor structure of the domestic private non-financial sector

(share in %)

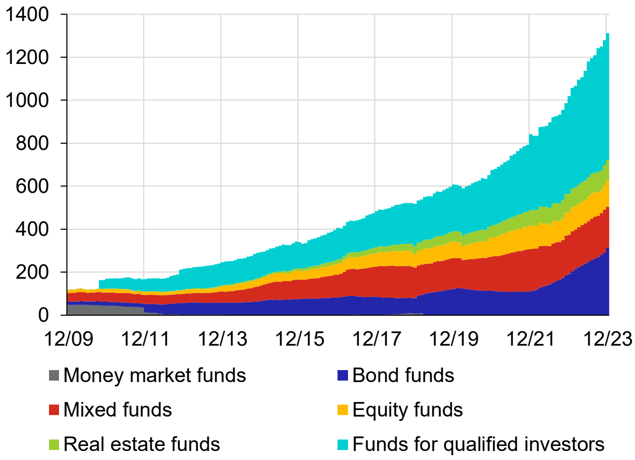


Note: MFI ex. CB = Monetary financial institutions excluding the central bank, CB = Central bank, IF = Investment funds, IC = Insurance companies, PF = Pension funds. Others consists mainly of other financial institutions (mostly financial leasing) and captive and holding companies.

Source: Quarterly financial accounts

Chart 3: Investment fund sector – Assets under management

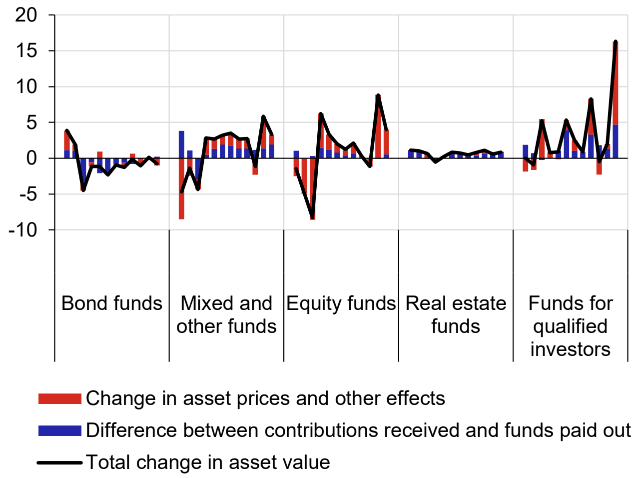
(CZK billions)



Source: CNB.

Chart 4: Decomposition of the change in the value of investment funds' assets by investment policy in 2020

(CZK billions; x-axis: individual months of 2020)

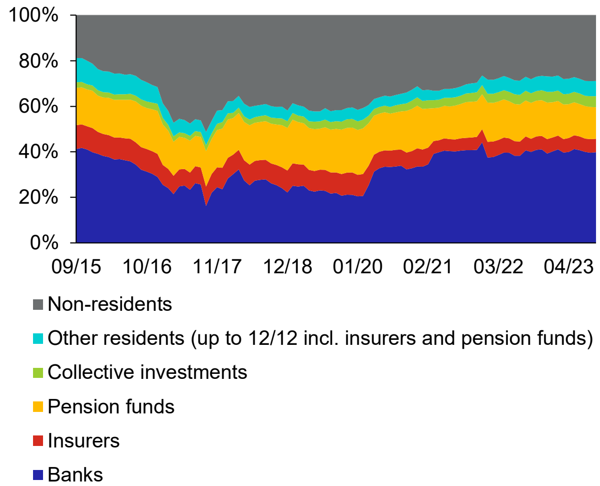


Source: CNB.

In hindsight, there was a relatively short-lived episode of massive portfolio investment inflows to CZK in 2017, which can be attributed to the specific monetary policy regime at the time (foreign exchange rate commitment) and its subsequent termination. These inflows translated into a high share of foreign holders of government bonds, which changed the investor base for some time (see Chart 5) while having a temporary impact on long-term interest rates in the economy and long-term financing due to a drop in portfolio risk premium (see Chart 6). However, the share of foreign holders has been gradually decreasing since the end of 2017. On the contrary, particularly with the onset of the Covid-19 pandemic, there was an outflow of foreign investors from Czech government bonds. This outflow resulted in a decrease in the share of foreign investors from 41% (February 2020) to 32% (December 2020).

Chart 5: Holders of Czech government bonds

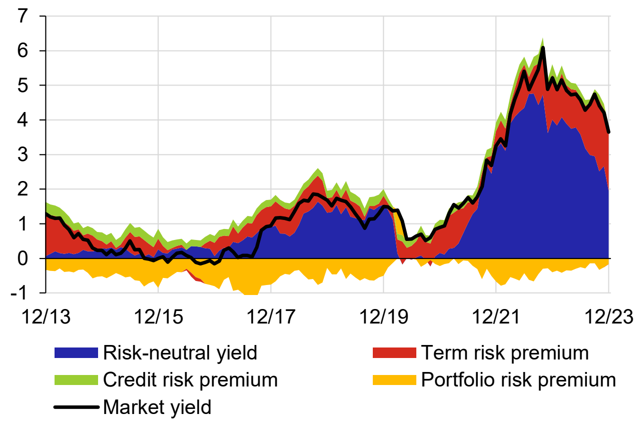
(share in %)



Source: Czech Ministry of Finance .

Chart 6: Decomposition of five-year Czech government bond yield

(%)



Source: CNB.

Role of state-owned banks and development banks in the financial system

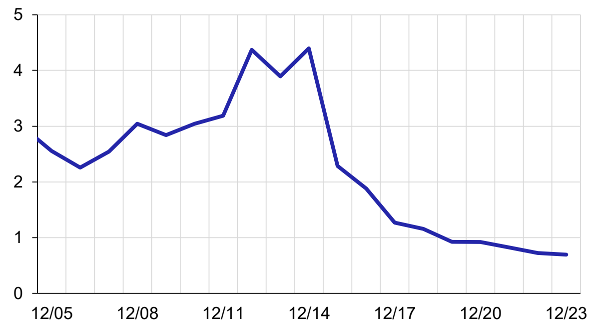
The Czech Export Bank (CEB)[1] and the National Development Bank (NDB)[2] have operated in the Czech credit market since their establishment in the 1990s. There have been no significant changes in their role in the economy or lending strategy in recent years. Due to their business model and narrow scope of activities, their credit market share remains low (see Charts 7,8) and their impact on long-term growth and employment is very limited.

[1] The CEB focuses on supporting large and strategic export projects and Czech exporting firms. Its traditional counterpart sectors are export-oriented industries such as construction, energy, and manufacturing.

[2] The NDB focuses mainly on specialized support loans and state-backed guarantee products for predominantly small and medium-sized enterprises.

Chart 7: Share of state-owned banks' assets in total banking sector assets

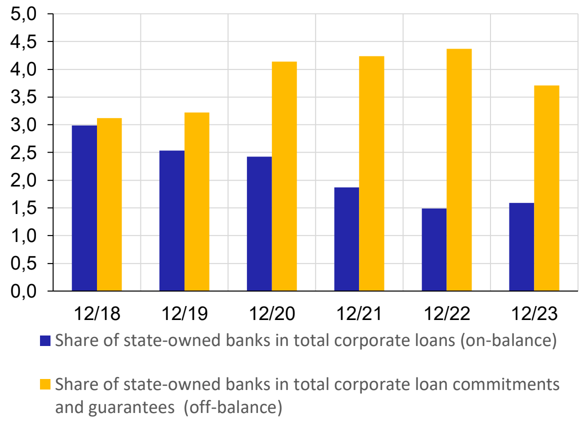
(%)



Source: CNB, Public Financial Statements.

Chart 8: Share of state-owned banks' corporate loans and corporate commitments and guarantees

(%)



Source: CNB, Public Financial Statements.

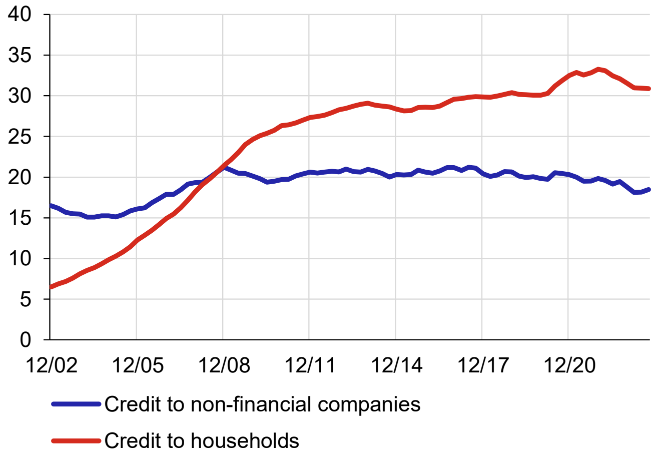
The pandemic did not have any significant effect on the CEB's business model or strategy. The NDB served as the primary distributor of specialized state-backed guarantee products to support SMEs during the business disruptions caused by the pandemic. The guarantees provided covered 16% of the private banking sector's SME loan portfolio.

There are initiatives aimed at enhancing the existing structure of state-owned banks and expanding their product offerings to include venture capital, green finance, and other supportive areas. However, no definite strategy has been presented thus far.

Evolution of the changes in the sectoral allocation of credit

From 2002 until recently, the share of household loans in GDP was growing and exceeded 30%. Since 2008, the share of loans of non-financial companies to GDP has stalled and has been lower than the share of loans to households. The difference between these two sectors has grown gradually (see Chart 9). The composition of household loans is dominated by mortgage loans, which are responsible for the significant increase in the share of household loans in GDP.

Chart 9: Credit to GDP in the Czech Republic by two main sectors
(%)



Source: CNB.

The size of mortgage loan portfolios in commercial banks has grown gradually over time, and mortgage lending has become an important item on banks' balance sheets. The associated risks have been mitigated at the macro level by the CNB's macroprudential policies since 2015.[3]

The allocation of finance and long-term growth

Bank intermediation and capital markets: roles in financing long-run growth

Overall, there have been no significant shifts in the relative importance of bank intermediation and capital markets, as the latter continue to play a very limited role in long-run growth financing.

In 2023, the equity market recorded a decrease of around 25% in traded volumes; the total turnover was around CZK 123 billion (Chart 10). Nearly 98% of the turnover took place on the PRIME market (consisting of 10 stocks). The total turnover recorded on the regulated bond market was under CZK 10 billion and thus remained very low. The majority of trading volume on regulated markets has been driven by corporate bonds, as Czech government bonds are mainly traded with primary dealers. On the other hand, financial institutions, especially banks, have issued relatively large amounts of corporate bonds in recent years (see Chart 11). These issuances occurred, among other reasons, to meet MREL (Minimum Requirement for Own Funds and Eligible Liabilities) requirements. Considering the low liquidity and the continental

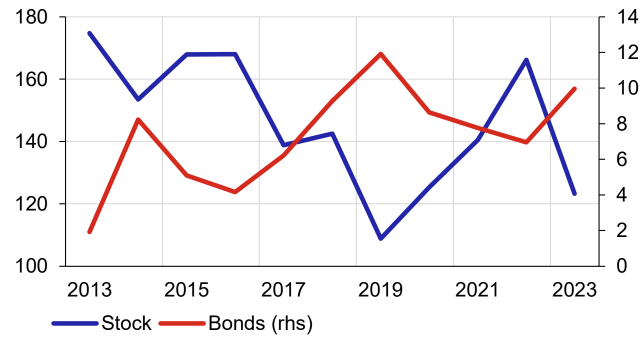
[3] https://www.cnb.cz/en/financial-stability/macroprudential-policy/requirements-for-ltv-dsti-and-dti-limits/.

type of financial system, where the dominant share of financing goes through banking credit, IPO activity remains subdued. The limited liquidity transfer function of the Czech financial market can also be demonstrated by the share of domestic listings in GDP (see Chart 12), which is not only significantly below the euro area average, but also below its CEE peers. Chart 12 also indicates that there have been no significant shifts in financing trends in the Czech economy recently.

In summary, the financial markets remain relatively small in the Czech Republic, and their liquidity transfer function is very limited compared to the banking sector. This is further illustrated by the fact that the monthly volumes of traded corporate securities (both equities and bonds) are less than 3% of the volume traded on the Czech government bond market (MTS Czech Republic), as depicted in Chart 13.

Chart 10: Yearly trading volume on Prague Stock Exchange

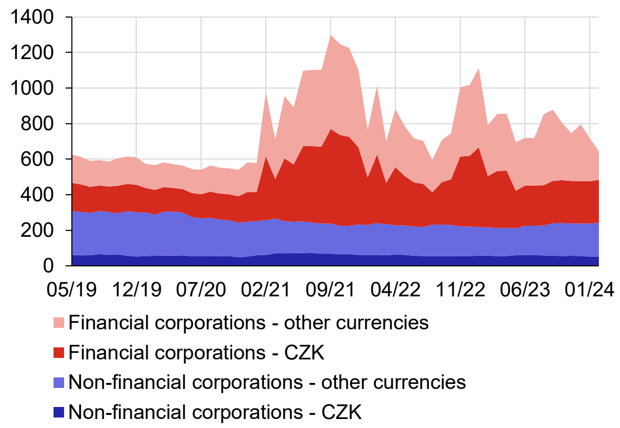
(CZK billions)



Source: Prague Stock Exchange.

Chart 11: Outstanding amount of Czech corporate bonds

(CZK billions)



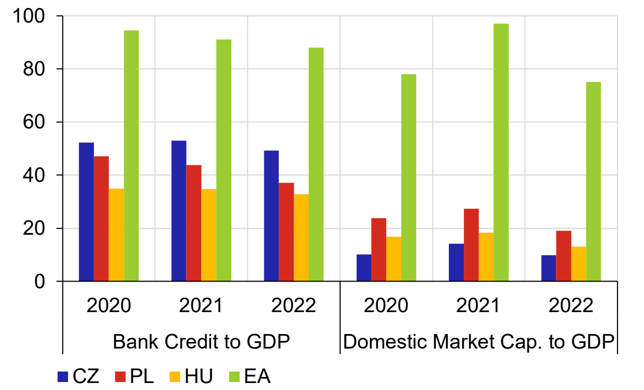
Source: CNB.

In terms of future prospects for long-run growth, there was an adjustment to the pension system in 2023, which may boost activity on financial markets. This adjustment led to the introduction of a new financial instrument known as the Long-Term Investment Product[4] aimed at encouraging the creation of individual pension reserves, particularly through investments in instruments such as investment funds. This instrument offers the opportunity to benefit from income tax savings and utilize employer contributions for investments, all with the goal of long-term investment in regulated products with the potential for substantial appreciation. However, the extent of its impact will depend on domestic corporations, i.e. whether they choose to utilize this opportunity to raise additional funds for their businesses or whether these additional sources will be invested in foreign markets.

[4] For details see: https://www.mfcr.cz/assets/en/media/2020-05-RIA-EN.docx.

Chart 12: Share of bank credit and market capitalization to GDP

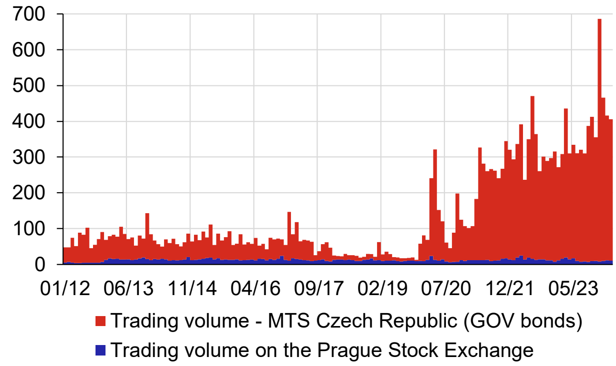
(in % of GDP)



Source: Prague Stock Exchange, CNB, Narodowy Bank Polski, Magyar Nemzeti Bank.

Chart 13: Monthly trading volume

(CZK billions)



Source: CNB, Prague Stock Exchange.

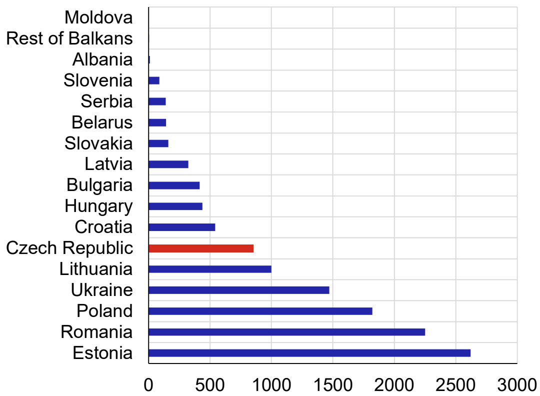
Markets' (equity/bond/bank loans) ability and efficiency to promote growth

As stated earlier, no significant structural changes in the financial intermediation infrastructure have been observed in the Czech Republic over the years. However, the growth-promoting ability of the financial sector generally increases over time with financial innovations and developments in information technology (such as the introduction of several peer-to-peer (P2P) lending platforms, online retail bond markets, etc.). Banks in the Czech Republic finance all types of corporations, including small and medium-sized enterprises (SMEs), start-ups and high-growth firms in line with their risk strategies. Alternatively, some firms can rely on financing from NBFIs or from primary bond markets. By international comparison, the Czech Republic neither leads nor lags significantly in this regard (see Chart 14).[5] In general, alternative financing possibilities exist for these companies, but assessing their effectiveness is very difficult.

[5] For details see: https://www.oecd-ilibrary.org/docserver/081a005cen.pdf?expires=1711465541&id=id&accname=guest&checksum=CE991933F0CFE64D915164D1CF6CB90A.

Chart 14: Investments in venture capital in European Emerging Markets

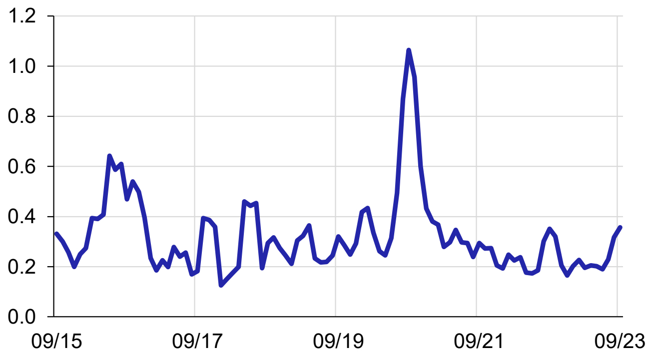
(EUR million; total volume during 2015–2021)



Source: OECD.

Chart 15: 3M default rate of non-financial corporations sector

(%)



Source: CNB.

Concerns about zombie firms and their inefficient financing were particularly prevalent during the period of very low interest rates and during the Covid-19 pandemic. In the Czech Republic, however, the peak in interest rates was reached in mid-2022 when pandemic-related government support measures were no longer in place. Yet there has been no significant increase in the materialization of credit risks in the corporate sector (see Chart 15). It can therefore be assumed that fears of a widespread zombie-firm phenomenon have not been fully warranted in the Czech Republic.

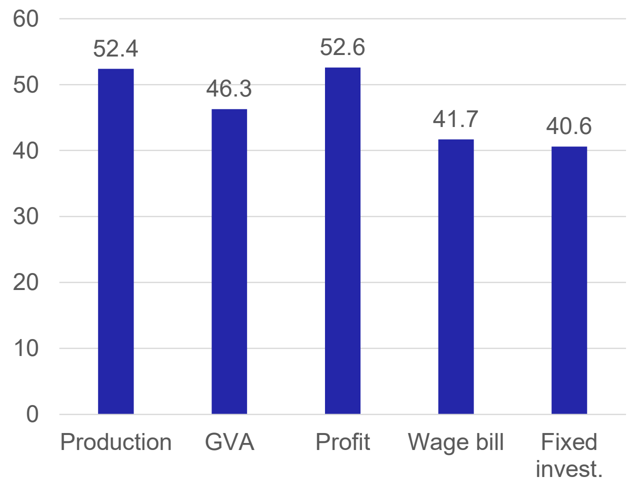
Foreign capital and long-term growth: does the composition of investment by type of investor and currency matter?

As could be expected, foreign capital was instrumental in the Czech Republic's transition from a centrally planned to a market economy. In particular, the country has devoted considerable effort to attract FDI as a stable source of long-term financing. Unlike loans and portfolio investment, FDI brings not only financial resources but also expertise and managerial skills. Accordingly, the sectors targeted by foreign direct investors can influence long-term growth, which has also been the case in the Czech Republic. The stock of FDI exceeding 70% of GDP has been very high by international comparison.

Foreign-owned companies (FOC) account for approximatively 52% of production and 53% of the profits of non-financial companies (see Chart 16). In total, they generate 46% of value added in the Czech economy – well above the European Union (EU) average. The share is particularly high in manufacturing, where businesses under foreign ownership account for over 60% of value added, 68% of exports and 51% of employment. This shows that FDI has been a driver of industries oriented towards foreign markets, gradually making the country one of the most export-oriented economies in Central and Eastern Europe. Naturally, investments in high-value-added industries, such as automotive manufacturing and technology, have had a more profound impact on the country's development than investments in less dynamic sectors, although the main source of investment is currently reinvested earnings (see Chart 17).

Chart 16: FOC: shares in different indicators

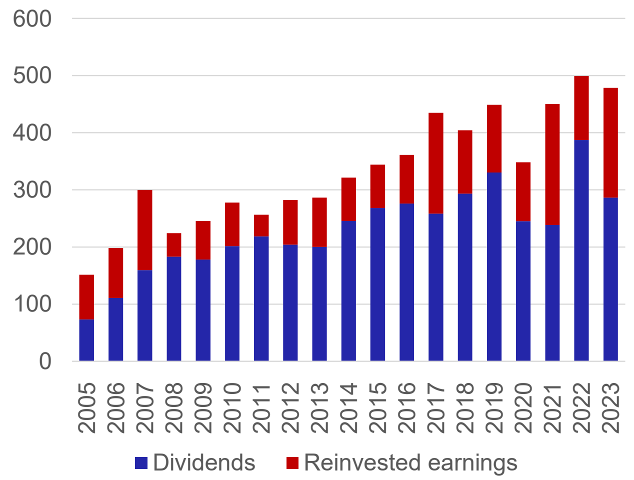
(in %; 2017-2021)



Source: Czech Statistical Office.

Chart 17: Dividends and reinvestments

(CZK billions)



Source: CNB.

However, more than two-thirds of profits created by foreign controlled companies have been leaving the country in the form of dividends since 2008, hampering the investment and growth potential of the economy. The high participation of foreign capital also noticeably affects the financing structure of Czech companies. It is dominated by intercompany loans (mainly from a parent foreign entity to its Czech subsidiaries or associates), amounting to almost 40% of all corporate loans in the Czech Republic (see Table 1). Furthermore, the interest rate differential explains the high proportion of foreign currency denominated loans. Its total share exceeded 58% by the end of 2022 but then decreased to 56% in 2023 Q3.

That said, whether the FDI is genuinely foreign also matters. The intertwined ownership links between globalized investor entities imply that traditional FDI statistics, which focus on the immediate investor, can be misleading. Notably, the routing of investment from the initial domestic source through tax or regulatory havens abroad back to the country of origin means a loss of tax income, less efficient regulation, a risk of international arbitration and lower corporate transparency for the domestic economy. At the same time, such "round-tripping" does not deliver the traditional benefits of FDI, since the transfer of technology and know-how, i.e. one of the prominent factors leading governments to implement incentives for foreign investment, is largely absent. Our estimates show that as much as 15% of "foreign" direct investment in the Czech Republic can ultimately be traced back to owners inside the country. Evidence suggests that the Czech Republic is not unique in this respect.

Table 1: Czech companies – structure of financing

Loans of Companies Q4/2022	Value, CZK billions	Share in total loans, %	
Domestic banks, total	1,324	41.6	Share in domestic banks loans, %
Domestic banks, CZK	671	21.1	
Domestic banks, foreign currency	**652**	**20.5**	
Foreign loans, total	604	21.5	Share in foreign banks loans, %
Foreign loans, CZK	90	3.0	
Foreign loans, foreign currency	**513**	**18.5**	
Intercompany loans, FDI, total	1,257	39.5	Share in FDI loans, %
Intercompany loans, FDI, CZK	561	17.6	
Intercompany loans, FDI, foreign currency	**696**	**21.9**	

Sectoral allocation of credit and the economy's growth potential

In general, credit that is allocated to sectors with high productivity or growth potential can spur innovation, enable capital deepening and enhance productivity, leading to higher economic growth. However, if credit is allocated to sectors with low productivity gains or to firms that are not the most efficient users of capital, it can lead to capital misallocation. This can dampen economic growth as resources are not used optimally. Changes in the sectoral allocation of credit can affect the economy's growth potential both positively and negatively, and the effect largely depends on how well the allocation matches the economy's needs and potential growth areas.

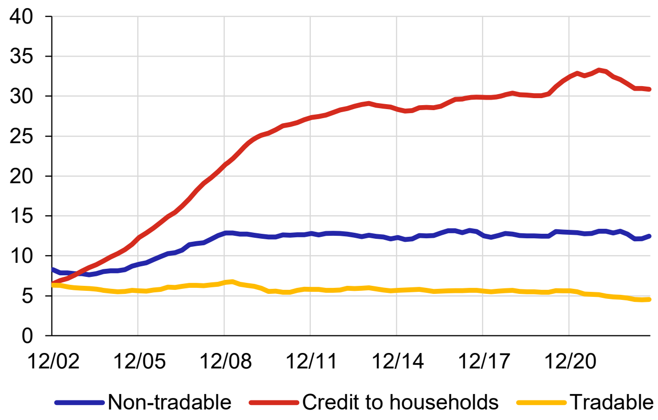
The sectoral allocation of credit plays an important role in understanding the linkages between the financial sector and the real economy. According to Müller and Verner (2021), who study the sectoral allocation of credit on data for 51 advanced and 46 emerging economies, starting in 1950, there are predictable patterns in the future path of gross domestic product (GDP), productivity and the likelihood of systemic banking crises. This depends on whether credit finances expansion in the tradable or non-tradable and household sectors. The authors differentiate between different types of corporate credit. According to the authors, (A) "only credit growth in specific industries—construction and real estate, as well as other non-tradable sectors—predict a boom-bust pattern in output." In contrast, "credit to the tradable sector … is associated with higher future productivity growth."

Specifically in relation to total factor productivity (TFP), Müller and Verner (2021) show that (B) "credit expansions in the non-tradable and household sectors are systematically associated with lower productivity growth. The opposite is true for lending to the tradable sector, which correlates with higher growth in … TFP in the medium-run" (p. 34).

We reproduce the charts from the study mentioned above using Czech data and for a shorter time span (2002–23), with an emphasis on developments in recent years. First, Czech household debt has increased significantly, while credit to non-financial firms has stalled (see Chart 2). Müller and Verner (2021) observe a similar pattern in their large sample of emerging and advanced economies (1950–2014). To expand on this, Czech corporate credit to the tradable sector as a share of GDP even declined slightly over time (see Chart 18).

Chart 18: Tradable, non-tradable and household credit development

(in % GDP)

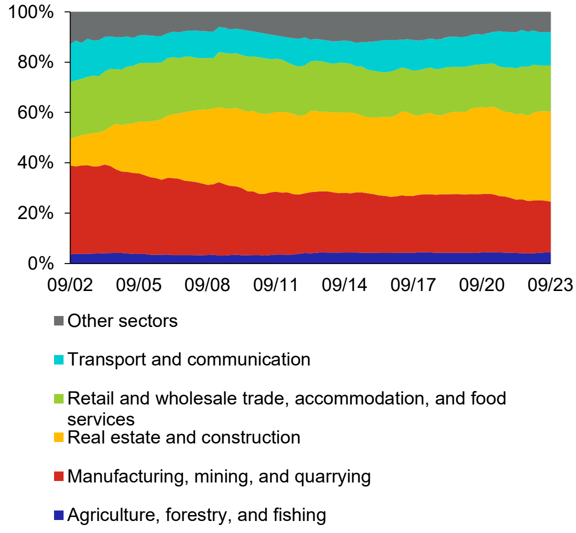


Source: CNB.

Second, construction and real estate lending have come to make up considerable shares of corporate loan portfolios in the Czech Republic (see Chart 19), and corporate credit from tradable sectors has shifted to real estate and construction (see Chart 19). These observations are similar to those in the Müller and Verner study. The authors of the study noted that the share of construction credit has risen to more than 24% in advanced economies. According to them, this shift is large and cannot be fully accounted for by an increase in construction value added. The significant rise in credit related to real estate, construction and housing in the Czech Republic is also evident in Chart 20, which shows credit as a share of GDP.

Chart 19: Corporate credit by sector

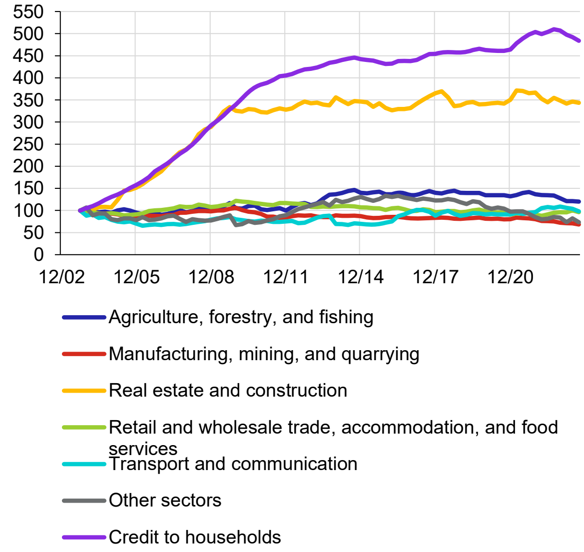
(% of corporate credit)



Source: CNB.

Chart 20: Credit to GDP

(index: 2002 = 100)



Source: CNB.

The credit patterns based on the Czech data are in line with stylized facts and observations based on the large sample of countries in the study. Thus the study's conclusions (A and B above) might apply to the Czech Republic. This suggests that the strong growth trend in household loans and corporate credit to real estate and construction could signal (i) a rather unfavorable impact on economic growth in the medium term (lower future labor and total factor productivity) and (ii) a misallocation of resources away from more productive sectors of the economy, such as manufacturing.

Digital innovation

Digital finance for retail customers has reached an advanced stage across all segments of the financial sector in the Czech Republic. The majority of standard banking, insurance, and investment services for both private individuals and businesses are now offered through electronic channels, accessible via PC and mobile applications. Furthermore, there has been significant progress in digitalization concerning corporate clients, including SMEs. While the digital transformation has already been completed in terms of payment services, it is continuing to progress in the area of credit provision. There are no credit constraints for retail or SME clients when transacting or communicating with credit providers through traditional or digital channels. Digital innovation projects initiated by various financial services providers (driven also by competition) are continuously expanding the range of services and products offered through digital channel applications.[6] Digitalization

[6] See e.g. https://www.kb.cz/en/our-aplications/kb-plus, https://www.csas.cz/en/internet-banking/george, https://www.kb.cz/en/entrepreneurs-and-small-businesses/digital-services, https://www.csas.cz/en/business-and-companies/accounts-and-payment.

enables the financial sector to streamline, formalize and partially de-risk the evaluation and approval processes and support the cost-efficient, timely and flexible provisioning of financial services. Clients can mostly access standard financial services in a 24/7/365 remote digital regime in any segment of the financial sector. From a retail perspective, Czech banks launched a unique project called "Bank identity".[7] The Project, completed in 2022, allows clients from a majority of the domestic banking sector (75%) to uniquely identify themselves digitally for transactions with banks, other financial service providers and state agencies. In 2023, the central bank also successfully launched the "Pay a Contact" project allowing direct payment between retail clients using mobile phone numbers.[8]

Excessive finance, resilience and long-run growth

Finance might become excessive under these circumstances:

1. High Levels of Public Debt: Studies have shown that high levels of public debt can have a negative impact on economic growth. A one percentage point increase in the government debt-to-GDP ratio can lower economic growth by 0.012 to 0.125 percentage points.[9]
2. Financial Market Volatility: Excessive volatility in financial markets can lead to economic instability, affecting output growth. This can be due to rapid changes in interest rates, or excessive risk-taking leading to financial crises.[10]
3. Misallocation of Resources: When financial resources are not allocated efficiently, it can lead to suboptimal investment decisions and lower economic growth. This can occur when financial intermediaries fail to channel funds from savers to productive investments.

When financial institutions take on excessive risk, it can lead to financial crises, which can have severe negative impacts on the economy and economic growth in the medium term. This was evident in the 2008 global financial crisis. Excessive housing finance can lead to the creation of real estate price bubbles which, when burst, can result in severe economic downturns and socio-economic tightness.

Macroprudential tools can be used to dampen excessive finance in the area of mortgage loans, especially those aimed at loan applicants – borrower based measures (BBMs) – LTV, DTI and DSTI. BBMs are very good at preventing excessive risk-taking behavior by setting prudent limits. In the Czech Republic, BBMs are an actively-used macroprudential instrument. Since 2021, Act No. 6/1993 Coll., on the Czech National Bank has enabled the CNB to set binding upper limits on the LTV, DSTI and DTI ratios

7 https://www.bankid.cz/en.

8 https://www.cnb.cz/en/payments/certis/description-of-the-pay-a-contact-register/, 700 million payments have been processed to date.

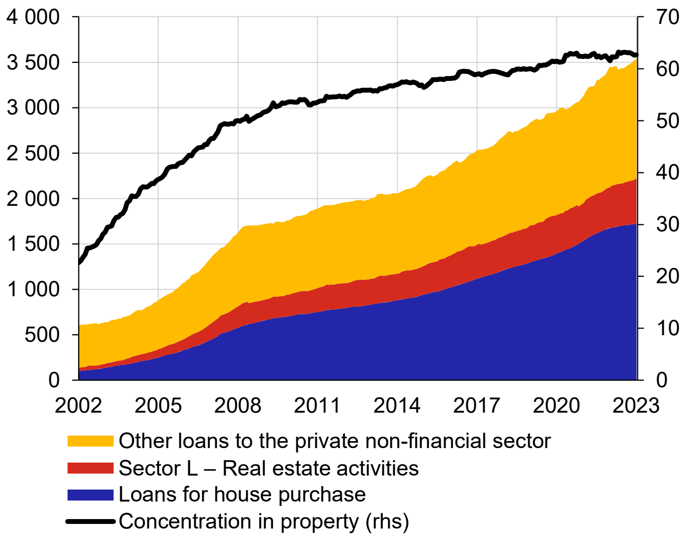
9 https://www.cato.org/cato-journal/fall-2021/impact-public-debt-economic-growth.

10 https://www.imf.org/en/News/Articles/2021/09/27/sp092721-the-future-of-finance-and-the-global-economy.

for all providers of consumer credit secured by residential property in connection with the identification of the systemic risks relating to those loans.

Chart 21: Concentration of bank loans in the property segment

(CZK billions; right-hand scale: %)



Source: CNB.

The heightened concentration of loans to the property segment can increase systemic risk in the banking sector. Such a systemic risk dimension might be a potential threat to long-term economic growth. The level of concentration in the Czech Republic has not increased in recent years (see Chart 21). However, it remains relatively high and needs to be monitored regularly in relation to the maintenance of the resilience of the banking sector. The high concentration of bank loans in the property segment might cause volatility in economic activity when credit risks widely materialize.

Impact of the exposure to international finance on macroeconomic volatility and long-run growth

Increased integration with global financial markets can lead to greater transmission of financial shocks across countries. For example, sudden shifts in sentiment on the financial markets, changes in foreign interest rates, or financial crises in some country or region can quickly spread to others through interconnected financial markets, leading to increased macroeconomic volatility.

For the Czech Republic, an open economy with a substantial share of foreign currency loans, mainly exchange rate volatility can increase macroeconomic volatility. Fluctuations in exchange rates can affect trade competitiveness and inflation, increasing uncertainty in the domestic economy.

Optimality of the financial structure, output volatility, long-run growth and the economy's ability to withstand domestic and external shocks as well as support growth

At the microeconomic level within a particular enterprise, there is an optimal capital structure. However, at the national economy level, the solution is less clear-cut. The structure of credit reflects the structure of the economy and households' time preferences. As the structure of the economy in a free market is determined by the manifested comparative advantages, there may be a trade-off between economic growth and reduced output volatility. For instance, efforts to reduce the exposure of a country specializing in the production of goods in pro-cyclical sectors (typically the automotive industry) may on the one hand reduce the magnitude of economic fluctuations, but on the other hand dampen economic growth through an artificial shift away from industries with a comparative advantage.

Despite the relatively stable nature of the intermediation structure in recent years, there have been some shifts in financing patterns recently. In particular, the share of foreign currency loans in corporate credit has increased substantially over the last number of years, reaching approximately 50%. This may increase the vulnerability of the output in the future, although most of the firms with foreign currency credit match it with foreign currency income. Against this backdrop, both the financial and non-financial sectors have undergone regular and thorough testing against a wide range of adverse shocks, including potential shifts in financial intermediation patterns (the increasing prevalence of foreign currency loans or the rapid growth in mortgages). In the face of diverse scenarios and challenges, the economy has consistently demonstrated resilience and robustness, showcasing its steadfast ability to endure and navigate through turbulent periods. Consequently, we do not perceive the observed changes to have a dramatic impact on the overall resilience of the economy.

Policy measures

Structural policy measures supporting the allocation of finance for long-term growth, including capital markets and the role of the central bank

The legislation and institutional framework for further development of the financial markets in the Czech Republic can be considered satisfactory overall. The development of financial markets is mainly hampered by the low number of entities and securities in the market, traditionally conservative households with a relatively high level of mistrust in capital market instruments and a preference for bank deposits, the dominant pay-as-you-go pension system and the relatively small size of the economy. To further develop the financial markets, policymakers can provide more incentives for firms to enter the markets (especially the equity market) and instill greater household confidence to invest in the markets in tandem with a deeper reform of the pension system.

To support the allocation of finance for long-term growth in the Czech Republic and further develop capital markets, a number of policy measures have to be discussed with stakeholders at both national and European levels. The European

Commission is the main policymaker in this regard. The role of the central bank is limited to ensuring financial stability and promoting the development of the financial system. This provides a favorable environment for investment but cannot supplement the role of governmental institutions.

Role of the central banks and other authorities in digital innovation: to finance long-term growth while mitigating emerging risks

Encouraging digital innovation to finance long-term growth while mitigating emerging risks is a challenging task for central banks and other authorities. To achieve this, we need to start with clear regulation that both addresses digital financial services and innovations (while being as technology neutral as possible) and ensures robust data privacy and cyber security measures. Such tasks go beyond the mandate of central banks and none of them can be achieved without cooperation between the regulators and industry.

Enhancing the depth and diversity of the financial system and improving the efficient allocation of capital

Actions necessary to achieve a diverse financial system are in the hands of governments, beyond the mandate of central banks. We as a central bank support the goals the of the EU's capital markets union. But this is a long-term project that requires tools such as taxation, pension reform and, above all, patience – patience because much of the topic is related to cultural phenomena (acceptance of risk, etc.) and less to regulation.