ČNB ČESKÁ NÁRODNÍ BANKA

ANALYSES OF THE CZECH REPUBLIC'S CURRENT ECONOMIC ALIGNMENT WITH THE EURO AREA 2025

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INTRODUCTION

Every year, the CNB's *Analyses of the Czech Republic's Current Economic Alignment with the Euro Area* (hereinafter the *Alignment Analyses*) present a long-term view of economic developments in the Czech Republic in the context of the country's obligation to join the euro area. In preparing this document, the CNB – in line with the *Czech Republic's Euro-area Accession Strategy* – fulfils its obligation to regularly assess the Czech Republic's progress in laying the groundwork for euro adoption. The analyses contained in the publication assess the Czech Republic's cyclical and structural economic alignment with the euro area and the ability of the Czech economy to absorb potential asymmetric shocks by means of other mechanisms after losing its own monetary policy. The document also monitors the economic and institutional developments in the European Union and the euro area, and the resulting obligations relating to euro area entry.

The analyses focus on the traditional range of macroeconomic topics without any ambition to assess all issues relevant to the Czech Republic's entry to the euro area. The document does not examine the overall advantages and disadvantages of adopting the euro, nor does it provide recommendations on this step. The political decision on the date of entry into the euro area falls to the government of the Czech Republic.[1] Nor does this document analyse in detail the impacts of the Czech Republic's joining the banking union, including the transfer of powers in the area of prudential supervision and resolution of credit institutions to the supranational level and the related economic and financial impacts, the costs linked with ESM membership and other – for example legal and political – aspects of joining the euro area. The consequences of changes to the process of ERM II entry, which is a pre-condition for euro area entry, are not assessed either.[2]

Using selected indicators, this document aims to provide an overview of the alignment of the Czech economy with the euro area economy, as well as the flexibility of its adjustment mechanisms. Given the broad scope of this issue, the indicators shown are neither exhaustive nor able to provide a definitive answer on when the Czech economy will be ready to join the euro area. A full assessment of the potential benefits and costs is beyond the scope of this document.

The evolution of individual indicators should be viewed in the context of the current economic situation, which reflects global developments. Recent years have been characterised by the fading effects of the Covid-19 pandemic, the energy crisis linked to Russia's invasion of Ukraine and high inflation. This year, consumer inflation in both the euro area and the Czech

[1] A recommendation to the Czech government on the timing of euro adoption from the economic perspective is given in the *Assessment of the Fulfilment of the Maastricht Convergence Criteria and the Degree of Economic Alignment of the Czech Republic with the Euro Area* issued jointly by the Ministry of Finance and the CNB. This document was last published in 2025. According to Government Resolution No. 252 of 9 April 2025, the document is to be revised and submitted to the government by the end of 2026 Q1. All previous editions are available on the CNB website: https://www.cnb.cz/en/monetary-policy/euro-adoption.

[2] Certain new conditions may be imposed on countries not only during their membership, but also before their entry into ERM II. For the first time ever, Bulgaria and Croatia joined the banking union at the same time as entering ERM II. Although the two countries' entry into the banking union was formally their voluntary commitment, it was de facto a condition for joining ERM II. Moreover, this approach was identified by the ERM II parties as a precedent for other candidates and is likely to be required of all future applicants to ERM II. However, EU law does not stipulate accession to the banking union as a condition for joining ERM II. The Czech Republic does not feel to be legally obliged to adopt Bulgaria's and Croatia's approach and does not regard participation in the banking union as a necessary condition for ERM II entry.

Republic has been only slightly above the inflation targets of the ECB and the CNB. Both central banks have therefore further reduced their monetary policy interest rates. Growth in many European economies remains subdued. The global economy continues to be affected by geopolitical tensions related not only to the war in Ukraine, but also to developments in the Middle East. This year, additional uncertainty has arisen regarding the introduction of tariffs by the USA and potential retaliatory measures by the countries affected.

The core of the Alignment Analyses is the **Overall Message of the Analyses**, which summarises the results of the traditional analyses. Their outputs are shown in the charts and tables presented in the **Chartbook**. The findings underlying these analyses are described in the **Theoretical Foundations of the Analyses**. A more detailed motivation and technical description of each of the analyses are given in a separate **Methodological Annex**, which is available as an e-document on the CNB website.[3]

This year's Alignment Analyses have been supplemented with **five thematic chapters**. As in previous years, the first of these examines the current institutional developments in the euro area and the European Union. The second analyses economic synchronisation between EU countries in light of the events of recent years. The third focuses on the euroisation of the Czech economy from the perspective of corporate financing. The fourth analyses the effect of the exchange rate on the competitiveness of the Czech economy. The final thematic chapter looks for the factors that caused different pass-through of recent shocks to inflation in different European countries.

The traditional analyses assess the evolution of individual indicators over time and in selected countries. Unless stated otherwise, the countries assessed are the Czech Republic, Austria, Germany, Hungary, Poland, Portugal, Slovakia and Slovenia. These countries either are euro area members showing similar features in terms of economic level or mutual trade integration as the Czech Republic, or are countries expected to adopt the euro in the future. The above selection is not related to any assessment of how successfully these economies have performed in the euro area. Germany, the largest trading partner of the Czech Republic, also provides a useful benchmark as a core country of the euro area. However, the large weight of Germany in the calculation of aggregate or average indicators for the euro area must be taken into account when making comparisons with those economic indicators.

Croatia joined the euro area in January 2023. This affected the processing of statistical indicators. The euro area is thus abbreviated in several ways in the tables and charts depending on data availability. EA refers to the euro area total, with a variable structure that reflects the actual number of euro area countries in each period. EA19 and EA20 denote the fixed-structure totals comprising 19 and 20 euro area countries respectively (i.e. excluding and including Croatia), also applied retrospectively to the data for previous years.

The **euro area countries** are abbreviated as follows:

AT	Austria	IE	Ireland
BE	Belgium	IT	Italy
CY	Cyprus	LT	Lithuania
DE	Germany	LU	Luxembourg
EE	Estonia	LV	Latvia
EL	Greece	MT	Malta
ES	Spain	NL	Netherlands
FI	Finland	PT	Portugal
FR	France	SI	Slovenia
HR	Croatia	SK	Slovakia

[3] Also available here: https://www.cnb.cz/en/monetary-policy/euro-adoption.

The selected **non-EA countries** under analysis are:

CZ Czech Republic
HU Hungary
PL Poland

The messages of the analyses for the Czech Republic have been illustrated graphically with arrows of different colours and directions.

The colour underlying the arrow gives information on the message of the indicator in terms of the risks associated with potential euro adoption in the areas analysed:

- relatively low level of risk associated with potential euro adoption
- economic risks associated with potential euro adoption
- neutral message

The direction of the arrow gives information on the change in the indicator since the previous (last year's) analysis:

- improved
- deteriorated
- neither significantly improved nor deteriorated

The assessment of the message of the indicator applies only to the results of a specific analysis in a selected area of the economy. Likewise, the direction of the arrow indicates only whether the situation in that area has improved, has stayed at approximately the same level or has deteriorated over the last year. A single summary indicator cannot be compiled by adding up the individual coloured indicators or arrows.

However, the message should not be interpreted as a CNB recommendation for the Czech Republic to adopt the euro, much less as the Czech Republic's final euro adoption decision. The *Alignment Analyses* does not set a recommendation on the timing of euro adoption. However, a recommendation is given in the *Assessment of the Fulfilment of the Maastricht Convergence Criteria and the Degree of Economic Alignment of the Czech Republic with the Euro Area* issued jointly by the Czech Ministry of Finance and the Czech National Bank. In its latest issue from April 2025, the Ministry of Finance and the Czech National Bank recommended that the Czech government should not set a target date for euro area entry for the time being, and this recommendation on the part of the Czech National Bank still applies.

1 OVERALL MESSAGE OF THE ANALYSES

Future adoption of the single European currency could further increase the benefits accruing to the Czech Republic from its intense involvement in international economic relations. Euro adoption will lead to the elimination of exchange rate risk and part of transaction costs in relation to the euro area, thereby reducing the costs of international trade and investment.

Besides these benefits, however, euro adoption simultaneously incurs costs arising from the loss of independent monetary policy and the stabilising role of a flexible exchange rate. Following euro area entry, Czech economic policy will have fewer tools at its disposal to respond to the domestic economic situation. **Euro adoption is also associated with costs arising from new institutional commitments due to developments in the euro area, including the obligation to join the banking union and the European Stabilisation Mechanism.**

The key factors for the successful functioning of the Czech economy within the euro area will be its alignment with the euro area. As alignment increases, the risk that the single monetary policy of the euro area would not be optimal for the Czech economy declines. The analyses in this document thus assess the similarity of the long-term trends, cyclical developments and structure of the Czech economy compared to that of the euro area, including the similarity of monetary policy transmission.

After the loss of independent monetary policy and exchange rate flexibility, the ability to mitigate the effects of potential asymmetric shocks through other mechanisms will also be crucial. This will increase the demands on the stabilising function of public budgets, labour market flexibility and the ability of the financial sector to absorb shocks. These adjustment mechanisms are therefore also examined in this document.

The analysed characteristics of the Czech economy as regards its economic preparedness for the euro can be divided into three groups:

Indicators suggesting a relatively low level of risk associated with potential euro adoption in the area analysed

This group of indicators with a relatively low level of risk has long included the Czech economy's trade and ownership links with the euro area, which increase the potential benefits of euro adoption. The trade links indicator showed a slight deterioration in the last year, but its overall message remains unchanged. Trade and ownership links therefore continue to foster alignment between the Czech and euro area business cycles. This remains high but may only be a temporary phenomenon due to the similar impacts of strong global economic shocks in recent years. Strong trade links with the euro area also affect the financing of domestic companies, about one-half of which is conducted in euro. This share did not increase further this year due to a falling interest rate differential. The koruna and the euro remain aligned against the dollar. Inflation persistence, which is at similar levels in the Czech Republic as in the euro area, would not pose a risk in the event of euro adoption either. Within the adjustment mechanisms of the Czech economy, positive factors include the long-term unemployment rate, which remains among the lowest in the EU, and the economic activity rate, which is broadly comparable to that of euro area countries – except for female labour market participation, which remains relatively low in the Czech Republic. The situation in the Czech banking sector also remains favourable, which is reflected in its solid capitalisation and liquidity position, rising profitability and declining credit risk. The resilience of the banking sector to potential negative shocks thus remains high.

Indicators with a neutral message

This category includes the assessment of real economic convergence of the Czech Republic towards the euro area, which has almost stalled since 2020. We can also include the alignment of the Czech and euro area financial cycles, which declined slightly last year as the euro area's position in the financial cycle grew more slowly than in the Czech Republic. Interest rate spreads between Czech and euro area market rates, which increased slightly for short-term rates in the past year and remained stable for long-term rates, do not pose a risk either. The volatility of the koruna's exchange rate against the euro decreased slightly over the past year. However, it could pose a problem if the Czech Republic joined ERM II. The alignment of financial markets continues to improve and is returning to its pre-pandemic state. Most indicators of monetary policy transmission similarity between the Czech Republic and the euro area remain neutral. The depth of financial intermediation and the level of private sector debt in the Czech Republic remain relatively low compared to the euro area, which means that the economy is less sensitive to potential shocks from the financial system. The structure of households' financial assets and the structure of housing loans by fixed-rate period in the Czech Republic differs from the euro area average, but this cannot be considered a fundamental barrier to euro adoption. The structure of the financial liabilities of corporations and the structure of loans to non-financial corporations by fixed-rate period is similar in the Czech Republic and the euro area. The euroisation of the Czech economy, excluding loans to non-financial

corporations, remains relatively low, and the transition to the euro may thus result in higher costs than in other countries. The assessment of Czech general government debt-to-GDP, which remains well below the 60% threshold of the Maastricht criterion, is also neutral. Some labour market indicators also have a neutral message: the share of part-time jobs in employment, which is growing slightly, remains low by international comparison, and labour taxation, which remained broadly unchanged in the last year. According to an indicator published by the International Institute for Management Development, the competitiveness of the Czech economy has improved slightly and is one of the better-scoring among the countries under review.

Indicators suggesting economic risks associated with potential euro adoption in the area analysed

These indicators include the unfinished process of economic convergence of the Czech Republic towards the euro area, especially as regards the price and wage levels. Their lag behind the euro area average remains significant and increased slightly in 2024. The relatively low structural similarity between the Czech economy and the euro area, consisting mainly in an above-average share of industry in domestic GDP, which has remained unchanged in recent years, could pose a risk of asymmetric effects of economic shocks in the event of euro adoption. Problems also persist as regards the adjustment mechanisms of the Czech economy. They include the continuing public finance imbalance and limited room for the countercyclical effect of fiscal policy due to a high ratio of mandatory and quasi-mandatory expenditures to state budget revenues. There is also a risk linked to public finance sustainability, but the pension reform adopted at the end of 2024 should gradually foster an improvement. Low labour mobility poses a risk in the labour market, as reflected in a low willingness of employees to change jobs or relocate for work.

1.1 THE CZECH REPUBLIC'S CYCLICAL AND STRUCTURAL ALIGNMENT WITH THE EURO AREA

Direct alignment indicators

The convergence of the real economic level of the Czech Republic (as measured by GDP per capita at purchasing power parity) with the euro area has almost stalled since 2020. The Czech price and wage levels diverged slightly from the euro area average in 2024. The lag behind the euro area average for the price level and, even more so, the wage level thus remains significant. The unfinished process of convergence remains a factor arguing against early euro adoption. If the euro was adopted, there could be sustained pressure for a slight overshooting of the current 2% inflation target in the event of further appreciation of the equilibrium real exchange rate and convergence of the wage level. *(See Chartbook, page 32.)*

The correlation of economic activity between the Czech Republic and the euro area has long been high, as their business cycles have been largely determined by common external shocks. The rolling correlations show that the cyclical alignment of the economies has deepened significantly, mainly due to the global Covid-19 pandemic, but also the energy crisis and the war in Ukraine. This increase in cyclical alignment is therefore a consequence of a synchronised response to strong global economic shocks and may thus be just a temporary phenomenon. *(See Chartbook, page 35.)*

The persisting differences in the structure of the Czech economy compared with that of the euro area consist mainly in an above-average share of industry in Czech GDP. As regards euro adoption, the structural differences pose a risk of asymmetric effects of economic shocks, to which the single monetary policy would not be able to respond in full. However, there have been no major changes in the structural similarity of the economies in recent years. Developments in industry thus remain a challenge for the domestic economy owing to persisting geopolitical risk, weak external demand and carbon emission limits in Europe. *(See Chartbook, page 37.)*

The Czech Republic's strong trade and ownership links with the euro area have long been one of the strongest arguments for it adopting the euro. Euro adoption would eliminate exchange rate risk and reduce the costs of trading with euro area countries. At the same time, strong trade links, including a high share of intra-industry trade, increase business cycle alignment, thus lowering the costs associated with the loss of independent monetary policy. The high level of direct investment from the euro area into the Czech Republic relative to the size of the economy also contributes to this alignment. Czech investment in the euro area is more modest but still ranks among the highest (relative to domestic GDP) among the Central and Eastern European countries under review. *(See Chartbook, page 38.)*

The alignment of the Czech and euro area financial cycles fell in 2024. The aggregate value of the simplified financial cycle indicator[4] increased last year for both the euro area and the Czech Republic, but slightly faster growth in the Czech Republic caused the gap between them to widen. The synchronisation of the positions of these economies in the financial cycle therefore fell slightly. The growth of the indicators from different initial positions also led to a year-on-year decline in their correlation, as the indicator for the Czech Republic moved further away from its average level, whereas the growth in the case of the euro area meant convergence towards the historical average. *(See Chartbook, page 40.)*

The interest rate spreads between rates in the Czech Republic and the euro area remain relatively low. In 2024, the short-term interest rate differential between Czech and euro area rates fell to just below 1 percentage point due to a gradual decline in domestic rates. A subsequent reduction in rates in the euro area, starting in June 2024, then led to an increase in this differential to 1.5 percentage point. In terms of long-term interest rates, the situation has been relatively stable, especially over the last year. The spread between Czech and German government bond yields is only slightly higher than the spread between three-month rates, remaining just below 2 percentage points. *(See Chartbook, page 41.)*

The Czech currency reacts to changes in the environment outside the euro area similarly to the euro. The correlation of the koruna-dollar exchange rate with the euro-dollar exchange rate thus remains high. A weakening of the dollar in the first half of this year in response to US economic policy and owing to a partial decline in investor interest in US assets contributed to alignment with the euro. The volatility of the koruna-euro exchange rate has fallen slightly in the past year. Although the exchange rate volatility of the koruna is relatively low compared with other Central European currencies, it would pose a problem if the Czech Republic joined ERM II under a strict interpretation of the exchange rate criterion (requiring the exchange rate to stay much closer to the agreed central rate than the fluctuation band of ±15%[5]). *(See Chartbook, page 41.)*

The overall alignment of financial markets has increased slightly. The analyses of financial market convergence show a return to the pre-2020 situation due to the fading impacts of the Covid-19 and energy crises and declining inflation in a context of global monetary policy tightening. The alignment of the Czech and German government bond markets has increased slightly further over the past year, as has the alignment of the Czech money and foreign exchange markets with the euro area market. The persisting strong effect of global shocks kept the rate of transmission of global news to the Czech government bond, money and foreign exchange markets elevated. *(See Chartbook, page 42.)*

Similarity of monetary policy transmission

The levels of financial intermediation and private sector debt in the Czech Republic are well below the euro area average. The large differences between these indicators across countries reflect long-term structural differences between EU economies, regardless of whether or not they use the euro. Similarly low levels of the two indicators as in the Czech Republic are typical of other Central and Eastern European countries, whether inside (Slovakia and Slovenia) or outside (Poland) the euro area. Economies with lower depths of financial intermediation and debt ratios are generally less sensitive to potential shocks transmitted through the financial system. Despite different initial conditions, similar trends can be observed across the countries under review. In all of them, the banking sector continues to hold a dominant position, although the importance of investment funds is gradually increasing. Conversely, the insurance segment has been losing importance in recent years. In 2024, private sector debt in the Czech Republic rose slightly after three years of decline owing to a gradual decrease in lending rates and growth in real income. However, private sector debt in the euro area as a whole continues to decline gradually. *(See Chartbook, page 44.)*

The similarity of the structure of the financial liabilities of Czech and euro area companies is relatively high.[6] A decline in the share of trade credits and advances[7] in the total liabilities of Czech corporations long contributed to a decline in the structural mismatch. However, this trend has not continued in the last two years, and in 2025, this category even contributed to a slight increase in the structural mismatch. Divergence in the share of loans in total liabilities in the Czech Republic and the euro area – specifically a decline in this share in the Czech Republic (to 22%) and an unchanged share in the euro area (26%) – had the same effect. *(See Chartbook, page 45.)*

The similarity of the structure of the financial assets of Czech households and households in the euro area remains rather low. Czech households continue to

[4] The positions of economies in the financial cycle are estimated using a simplified financial cycle indicator. The construction and composition of this simplified indicator differ from the official financial cycle indicator (FCI) used in the CNB's *Financial Stability Report*, mainly because of the unavailability of similar data for all the countries analysed. The results for the Czech Republic may therefore differ from the official FCI.

[5] To meet the exchange rate criterion, the European Commission requires the exchange rate to fluctuate close to the ERM II central rate. For a more detailed explanation, see thematic chapter 5 of the *2024 Alignment Analyses* by Arnoštová and Komárek: *ERM II and the Maastricht criterion on exchange rate stability*.

[6] The temporary decrease in similarity in 2021–2022 was due mainly to a fluctuation in financial derivatives purchased by energy companies, as well as the share of units and shares in total liabilities of non-financial corporations in the Czech Republic.

[7] Short-term financing by bridging the period of time until the due date of invoices. The counterparty is thus a non-financial corporation, not an MFI.

prefer to hold investment fund units and shares, along with cash and deposits, while households in the euro area also hold a large part of their balance sheets in insurance and pension schemes (28%, as against 8% in the Czech Republic). Overall, Czech households have a lower share of liquid and tradable financial assets[8] (62%) than euro area households (73%) and may therefore be slightly less sensitive to interest rate changes and market revaluation of financial assets overall. In addition, Czech households hold a higher share of assets (35%, as against 25% in the euro area) in non-tradable equity holdings (such as company ownership in the form of limited liability companies), whose value and liquidity respond only indirectly to interest rates (for example through corporate profits and investment). The differences in the financial asset structure of households in the Czech Republic and in the euro area may imply different sensitivities to interest rate changes and hence different impacts of a potential single monetary policy. *(See Chartbook, page 45.)*

The structure of loans to non-financial corporations by fixed-rate period is similar in the Czech Republic and the euro area. More than 80% of loans to non-financial corporations have floating rates or rates fixed for up to one year in the Czech Republic and in most of the euro area countries under review. Such a high share of loans with short fixed-rate periods implies fast transmission of changes in monetary policy rates and, in turn, market rates to rates on loans provided to non-financial corporations. In the Czech Republic, the transmission of changes in monetary policy rates to client rates for corporations through the short-term interbank rate has been complete in recent years, most of it taking place within one month.[9] We have seen a gradual decline in the share of fixed-rate periods of up to one year in favour of an increase in fixed-rate periods of over one year and up to five years in the Czech Republic over the last ten years, but this is not a significant shift in the context of transmission itself. However, companies that use interest rate swaps to hedge large loans with variable rates may be less sensitive to changes in market rates. *(See Chartbook, page 46.)*

The trend towards shorter fixed-rate periods by Czech households continued for housing loans. Fixed-rate periods of up to and including 5 years account for 90% of the volume of new housing loans to Czech households in 2025. Since the end of 2023, three-year fixed rate periods have gradually started to dominate at the expense of five-year ones.[10] Czech households preferred shorter or flexible fixed-rate periods due to expectations of a further fall in interest rates. At the same time, banks limited longer fixed-rate periods because of the risk of early repayment of loans by clients. The main difference between the fixed-rate structure in the Czech Republic and that in the euro area still consists in the share of fixed-rate periods of over ten years. This is negligible in the Czech Republic, while it has continued to grow in the euro area and is now at 54%. Households with long fixed-rate periods are less sensitive to movements in interest rates. *(See Chartbook, page 46.)*

The financing of Czech corporations in foreign currencies (mainly in euro) has stabilised to some extent after a previous significant increase, while the share of foreign currency deposits of non-financial corporations is roughly half that of loans. The share of foreign currency in the total financing of Czech companies through loans from domestic banks and from abroad (via foreign parent companies or directly by domestic corporations abroad) remained close to 60% in 2025 (even after bond financing is taken into account). Euroisation in corporate financing thus remains high. In certain circumstances, this may weaken the transmission of the CNB's monetary policy and increase the sensitivity of the economy to external shocks and movements in the koruna exchange rate. The share of foreign currency corporate loans from domestic banks decreased slightly to close to its long-term trend level due to the cyclical component connected with a decline in the interest rate differential between domestic and foreign interest rates (in June 2025, it was around 50%). On the other hand, foreign currency corporate financing from abroad increased, mainly through intra-company loans within direct investment (for details, see thematic chapter 3: *Euroisation from the corporate financing perspective*). Amid heightened economic uncertainty, possible efforts to consolidate intra-group financing, as evidenced by increased short-term lending, and lower rates on foreign loans contributed to this increase. Intra-company loans from abroad have long played a similarly important role as bank loans in corporate financing. Industrial corporations account for a large proportion of loans within foreign direct investment, owing to their trade links with other countries. The possibility of keeping accounts in euro and other possible legislative changes in this area may also foster growth in spontaneous euroisation. *(See Chartbook, page 47.)*

The share of foreign currency in the total loans and deposits of Czech households has long remained very low. In addition, euroisation among Czech households is significantly lower than in other Central European countries. This also implies a relatively low share of the euro in total deposits and loans in the domestic banking sector. *(See Chartbook, page 49 .)*

[8] The sum of the share of cash and deposits, debt securities, shares and equity in investment funds and in pension and insurance schemes.

[9] For more detailed information on the speed of transmission, see Box 2 of the CNB's *Summer 2024 Monetary Policy Report* by Hromádková, Kubicová and Saxa: *How do client rates on koruna loans change in response to changes in market rates?*

[10] For more details, see the article by Eva Hromádková on the CNB website: *Refixation and refinancing of mortgages and their effects on household expenditure*, Chart 2.

The persistence of inflation in the Czech Republic is still one of lowest among the countries under review. However, the difference compared to euro area countries is not significant, so the single monetary policy would have similar effects on inflation in this respect. *(See Chartbook, page 49.*

1.2 ADJUSTMENT MECHANISMS OF THE CZECH ECONOMY

Fiscal policy

In 2024, the Czech Republic met the 3% Maastricht criterion reference value for the general government deficit for the first time since the coronavirus pandemic. The Czech Republic meanwhile remains one of the least indebted EU Member States. In 2020–2023, fiscal policy played an important stabilising role in mitigating the adverse economic effects of the crisis in the Czech Republic, but these support measures contributed to growth in the general government deficit above the 3% reference value. However, the application of the general escape clause of the Stability and Growth Pact allowed Member States to deviate temporarily from the EU fiscal rules. In 2024, by which time the escape clause had been deactivated, a consolidation package succeeded in reducing the general government deficit below 3% of GDP, so the Czech Republic avoided an excessive deficit procedure, unlike several other EU countries. Under new EU fiscal rules, the Council of the EU approved a four-year fiscal-structural plan for the Czech Republic at the start of 2025, which set a net expenditure path up to 2028. According to the European Commission's Autumn 2025 forecast, the target reference value for net expenditure indicator for 2025 is not expected to be exceeded.

The European Commission's 2025–2026 forecast indicates a stabilisation of the general government deficit in the Czech Republic, with no significant deterioration. However, structural problems persist in the form of a high share of mandatory and quasi-mandatory expenditures, which have remained elevated since the crisis at over 90% of state budget revenues, significantly limiting the flexibility of fiscal policy. The draft state budget for 2026 anticipates a further expansion of these binding expenditures through allocations for the construction of two new units at Dukovany nuclear power plant and the government's commitment to gradually increase defence spending. However, the relatively low general government debt ratio still provides sufficient room for the potential activation of a public finance stabilising function. The positive effects of the pension reform adopted at the end of 2024 will show up only gradually in public finances, but will markedly support long-term public finance sustainability. *(See Chartbook, page 50.)*

The labour market and the product market

Among the real variables of the Czech labour market, the overall rate of economic activity can be assessed positively, but the persistently low female participation rate remains a problem. The long-term unemployment rate, which is still among the lowest in Europe despite a marginal increase in the last two years, is still a positive factor. The rate of economic activity of the population is at historical highs and the labour market participation rate of people of pre-retirement age is high compared to other countries and is still growing. However, some long-running issues in the labour market persist. Despite rising steadily, the participation rate of women remains low compared to other countries. However, the situation could improve due to the "flexible" amendment to the Labour Code in effect since June of this year. Among other changes, it allows employees on parental leave to do the same work for their employer under an agreement to complete a job (DPP) or an agreement to perform work (DPC). Labour market rigidities persist in the form of not-very-high regional mobility of workers and a low willingness of employees to change jobs, which may hinder a more effective allocation of resources supporting a more dynamic recovery in labour productivity. The share of part-time jobs remains relatively low by international standards.

Indicators of the nominal part of the labour market are largely unchanged, but some legislative changes are expected to have an effect in the future. Since the tax changes in 2021, overall labour taxation in the Czech Republic has not changed significantly and is medium-high by international standards. Last year saw a decline in the inactivity trap, indicating stronger incentives to return from economic inactivity to employment. By contrast, the low-wage trap – which reduces the incentive for low-income employees to increase their earnings by working longer hours – recorded a slight increase. However, both indicators are relatively low by international standards. By contrast, the unemployment trap remains relatively high, indicating a low incentive to return to work among people in receipt of unemployment benefits. These calculations will be affected in the future by the introduction of a state social benefit (super-benefit) which will replace four existing benefits and will be paid from 2026 Q2. They will also be affected by changes to unemployment benefits (in particular a substantial

increase in benefits in the first months of unemployment) from January 2026. The minimum wage remains low relative to the average wage (41% in 2024) compared to the other countries under review. However, based on last year's amendment to the Labour Code, this ratio will gradually increase in the future up to 47% in 2029. *(See Chartbook, page 53.)*

The Czech Republic is one of the better-scoring countries under review as regards overall competitiveness. In addition, its competitiveness has increased over the past year. However, the countries under review tend to exhibit lower levels of competitiveness than other advanced economies. *(See Chartbook, page 59.)*

The banking sector

Domestic banks remained stable and resilient to potential shocks. Their capital position is relatively strong, due in part to the capital buffers and surpluses they have created. In 2024, banks' profitability rose again following a previous slight decline. This was due to growth in loans and interest income on private and public asset holdings. Profitability remains well above the euro area average. The liquidity of the domestic banking sector also developed favourably in 2024, remaining strong due to a high share of liquid assets and stable funding sources. The default rate in the Czech Republic is near its historical low and is the lowest among the countries under review.[11] All this testifies to robust resilience of the Czech banking sector, even in an environment of heightened global political and economic uncertainty. This conclusion is confirmed by stress test results,[12] which show that there would be no major risk materialisation or shock transmission between the segments of the financial sector even in the event of highly adverse developments. *(See Chartbook, page 60.)*

1.3 SITUATION IN THE EURO AREA AND THE EU

The euro area economy has stabilised after a series of crises, but differences in economic performance and living standards are still visible across Member States. Real convergence continues, particularly among newer Member States, while the founding members of the euro area record lacklustre growth. Economic activity in the euro area started to recover in 2024, mainly on the back of positive consumption and net exports, and moderate GDP growth continues this year. The labour market remained resilient, with unemployment staying close to historical lows.

Fiscal discipline in euro area countries has improved slightly, but structural weaknesses in the fiscal domain persist and their public finance situation remains unsatisfactory. In 2025 Q2, the public finance deficit in the euro area fell to 2.7% of GDP (2.9% of GDP in the EU). However, high general government debt remains a fundamental problem (the euro area recorded debt of 88.2% of GDP and the EU as a whole debt of 81.9% of GDP in 2025 Q2), with higher levels still being recorded especially in the southern euro area countries and in France and Belgium.

After a period of restriction, the European Central Bank (ECB) started to ease monetary policy. This was reflected in a slight rise in corporate loans and loans to households, especially for housing. Long-term government bond yields remain elevated in euro area countries, reflecting higher debt issuance and the end of the ECB's support programmes. Inflation returned to the ECB's inflation target, with weaker wage pressures contributing to a decline in core inflation. Differences in price developments between countries persist. *(See Chartbook, page 61.)*

2025 was the first year of implementation of the European Commission's priorities in the EU and the euro area under the new College of Commissioners. Of these, the most relevant to the focus of these analyses are efforts to simplify selected legislation and reduce the regulatory burden, the conversion of the capital markets union into a savings and investments union, and the expansion of its scope with the aim of mobilising private capital to support investment in priority areas such as the green and digital transitions and defence, and initiatives to boost the competitiveness of the EU economy. Negotiations also started on the shape of the EU's Multiannual Financial Framework (MFF) for 2028–2034, the proposal for which reflects these priorities. Defence policy was further supported by an amendment of the excessive deficit procedure rules allowing certain defence investments by Member States to be exempted from the calculation of their budget deficits, and by the creation of a system of loans for Member States to finance defence investments (Security Action for Europe, SAFE).

In terms of institutional developments in the euro area, the most significant event was the decision to expand the euro area to include a 21st member – Bulgaria – as of 1 January 2026. Bulgaria succeeded in meeting all the Maastricht criteria and, after receiving

[11] For details on credit risk, see the CNB website: Financial Stability Report – Spring 2025, section 2.1.

[12] For details on the stress test results, see the CNB website: Financial Stability Report – Spring 2025, section 3.

positive assessments of its preparedness in the convergence reports of the European Commission and the ECB, and the recommendation of euro area finance ministers (Eurogroup), the Council in July 2025 approved the legislative proposals necessary for the country to join the euro area.

Russia's war on Ukraine continued for the fourth year, prompting the EU to adopt further sanctions packages and maintain financial assistance to Ukraine. The election of Donald Trump as US president also had significant implications for the EU, particularly in relation to international trade, tariff policy and the debate on strengthening defence and security policy and increasing its financing.

There has been no significant progress this year in the deepening of the Economic and Monetary Union and euro area integration. Negotiations on completing the banking union continued to focus solely on finalising the legislative process for the CMDI (Crisis management and deposit insurance) proposal. The issue of further risk-sharing in the form of a common European deposit insurance scheme was not discussed. In 2025, the amended rules of the Stability and Growth Pact and the European Semester of economic policy coordination also started to apply. Within this framework, excessive deficit procedures were initiated or continued for nine Member States.

It should be noted that not all of the fundamental obligations that may arise for the Czech Republic from adopting the euro are currently known. This is due to the unfinished nature of some key projects that will significantly affect the functioning of the euro area (such as the banking union) and some persistent problems within the Economic and Monetary Union, including the high debt levels of several Member States. Any decision regarding the timing of joining the monetary union is thus still accompanied by major uncertainties.

2 THEMATIC CHAPTERS

2.1 INSTITUTIONAL DEVELOPMENTS IN THE EURO AREA AND THE EUROPEAN UNION

Marek Benda, Jan Král, Marek Souček, Lena Stránská and Martin Vojta

2025 was the first year the European Commission in its new line-up could focus fully on implementing its new programme priorities. As regards the financial market, this mainly involved work on the capital markets union (including its de facto conversion into a broader savings and investments union), a review of the securitisation framework, and efforts to simplify selected EU legislation and reduce the regulatory burden in order to enhance the EU's global competitiveness. The most important event for the euro area was the approval of its expansion to include Bulgaria on 1 January 2026. Developments in the EU continued to be strongly affected by the response to Russia's continuing war on Ukraine and to the defence and trade policy priorities of the new US administration.

New institutional cycle

A new European Commission, again headed by Ursula von der Leyen, took office in December 2024. Compared to the previous mandate, the new Commission has put more emphasis on EU competitiveness, the functioning and efficiency of the internal market, removing regulatory burdens and simplifying legislation. The green transition has been pushed into the background in terms of rhetoric and visibility, but the practical implementation of related policies has not changed greatly. Security and defence has gained new momentum, as reflected in the creation of a defence portfolio in the College of Commissioners. Another major priority for the Commission was the presentation of the first proposal of the EU's Multiannual Financial Framework for 2028–2034.

Developments in the euro area

2025 saw the completion of Bulgaria's process of accession, with the country set to become the 21st member of the euro area on 1 January 2026. Bulgaria, which entered ERM II together with Croatia in mid-2020, was forced to postpone its planned euro area entry twice due to the domestic political situation and inflation rate. In February 2025, Bulgaria asked the Commission and the ECB to issue extraordinary convergence reports. These were published on 4 June and contained positive assessments of Bulgaria's preparedness for adopting the euro.[13] The EU Council, in the configuration of economic and finance ministers, approved the relevant legislation (abrogating Bulgaria's derogation and setting the Bulgarian lev's conversion rate against the euro) on 8 July. Bulgaria will also become a member of the European Stability Mechanism (ESM) after joining the euro area. Its share in the ESM's (paid-up) capital will amount to 1.2% (which corresponds to EUR 992 million). Six EU Member States will thus remain outside the euro area. Denmark, which has a permanent opt-out from the euro, will again be the only country in ERM II.

As regards further deepening or integration of the monetary union, discussions took place on the 2023 proposals for a digital euro in addition to the planned enlargement of the euro area to include Bulgaria, but no consensus on its final design has yet been reached in the Council. Nevertheless, the ECB continued its technical preparations for the digital euro project. In June 2025, it published a third progress report. Five tenders for providers and developers of digital euro platforms and related infrastructure were subsequently completed. The tenders resulted in the signing of framework agreements with the selected entities in early October 2025, but the Eurosystem has so far made no financial commitments. At the end of October 2025, the

[13] The Commission's extraordinary convergence report on Bulgaria (just like previous editions since 2020) focused on the "reinforced approach" to ERM II participation. This approach involves entering into an agreement with each acceding country on the conditions it should commit to and satisfy before joining ERM II. The Commission's report also states explicitly that one of the conditions is entry into the banking union at the latest by the time of the country's ERM II entry, not upon adoption of the euro, as EU law currently stipulates. Although the Czech Republic has repeatedly raised an objection to the potential precedential nature of this approach at meetings of the Economic and Financial Committee (EFC) and the Economic and Financial Affairs Council (ECOFIN), it can reasonably be expected that the euro area Member States will apply this approach to any state wishing to join ERM II in the future. For details, see thematic chapter 6 of the *2024 Alignment Analyses* by Gyurisová, Jeník and Vojta: *The banking union and the Czech Republic*.

ECB's Governing Council approved the final progress report on the preparation phase and concluded its consultations with market participants on the draft digital euro scheme rulebook. This concluded the preparation phase of the project on the ECB's side. If the relevant legislation is approved in 2026, the digital euro pilot project could be launched in mid-2027, with the first issuance of the digital euro within the Eurosystem possibly taking place in 2029.

Geopolitical developments and their impact on the EU agenda

The euro area and the EU as a whole faced various geopolitical challenges and uncertainties in 2025. These included Russia's war on Ukraine, the US administration's approach to import tariffs and NATO financing, and trade relations with China (tariffs on imports of Chinese electric cars and restrictions on rare earths exports from China). In response to these events, the EU worked to strengthen ties with partners outside the USA and China in order to build open strategic autonomy.

In the context of Russia's war on Ukraine, the EU focused on adopting further sanctions packages. Again, these include measures to prevent third-country entities from circumventing sanctions (including action against non-Russian banks). The range of Russian banks disconnected from SWIFT was also significantly widened. A system of Extraordinary Revenue Acceleration (ERA) loans to Ukraine, initiated by the G7 countries in 2024, was implemented as well. The loans will be repaid with proceeds from immobilised Central Bank of Russia assets administered by central securities depositories under the jurisdiction of EU and G7 non-EU countries. The EU is contributing EUR 18.1 billion through macro-financial assistance to the ERA loans initiative, which aims to provide EUR 45 billion. In May and June 2025, the Commission also approved the REPowerEU Plan and advanced related proposals into the legislative process, which aim to eliminate the EU's energy dependence on Russia by the end of 2027. Under the approved 19th sanctions package, imports of liquefied natural gas (LNG) from Russia will stop earlier (as of 1 January 2027 for long-term contracts concluded before 17 June 2025 and as of 25 April 2026 for short-term contracts).

The EU's relations with the USA were significantly affected in 2025 by the US administration's approach to import tariffs, especially in the first half of the year, when there was a risk of a trade war. Relations calmed during the summer thanks to the concluding of an agreement between the EU and the USA. In the context of recent developments in transatlantic relations and the response to Russia's war on Ukraine, defence investment has become a major priority at the EU level and in EU Member States. The Commission presented the ReArmEU legislative package, which includes a proposal for a new EUR 150 billion financial instrument to support this investment (Security Action for Europe, SAFE) based on providing loans to EU Member States. Following the recently created extraordinary fiscal instruments such as the post-pandemic recovery plan Next Generation EU (NGEU) and the Recovery and Resilience Facility (RRF) as NGEU's main component, SAFE thus further strengthens the role of the Commission as an agent for raising funds on capital markets on behalf of the EU. The greater focus on defence spending and support for the defence industry in the EU/EEA and Ukraine was also reflected in adjustments to the current EU Multiannual Financial Framework (MFF). After the related regulation enters into effect, a European Defence Industry Programme (EDIP) will be established within the EU budget, to which a total of EUR 1.5 billion will be allocated for the period up to the end of 2027.

Coordination of economic and fiscal policies

The effects of changes approved in the 2024 revision of the rules of the Stability and Growth Pact and the European Semester for economic policy coordination manifested themselves for the first time in 2025. The Council also continued the excessive deficit procedures (EDPs) opened or renewed in 2024 against eight EU Member States (Belgium, France, Hungary, Italy, Malta, Poland, Romania and Slovakia). The Council opened an EDP for Austria in July 2025 at the proposal of the Commission.[14]

On the other hand, in accordance with the fiscal rules, the Commission proposed activating the national escape clause (NEC) to boost Member States' defence spending by a maximum of 1.5% of GDP of additional annual defence expenditure compared to 2021. Fifteen Member States, including the Czech Republic, requested the activation of the NEC in the first half of 2025. The Council endorsed the Commission's proposals for the NECs on 8 July, thus activating them for all the applicant countries. Germany requested the activation of the NEC in the second half of 2025.[15] However, the adoption of the NECs did not lead to the suspension of EDPs for the countries that requested the activation of the escape clause.[16]

[14] At the same time, the Council recommended that Romania, which has the highest budget deficit in the EU (9.3% of GDP in 2024 and, according to the Commission's estimates, 8.6% of GDP in 2025), present consolidation measures by 15 October 2025 that will put an end to the excessive deficit situation by 2030.

[15] The Council gave its approval on 10 October 2025.

[16] Currently Belgium, Hungary, Poland and Slovakia.

EU Multiannual Financial Framework for 2028–2034 and EU debt financing

Based on a set of proposals presented by the Commission in July 2025, negotiations have started on the shape of the new EU Multiannual Financial Framework (MFF) for the seven-year period starting in 2028. The proposals anticipate an increase in the total size of the MFF from EUR 1.2 trillion to EUR 1.98 trillion (in 2025 prices), or from 1.1% to 1.26% of the EU's gross national income. The Commission justifies this step by, among other things, the start of repayments on the EU loan used to finance the NGEU. The Commission also proposes to reduce the number of budget programmes from 52 to 16 and to link EU funding more strongly to the implementation of reforms. To access cohesion policy, common agricultural policy and migration policy funds, Member States would be required to draw up National and Regional Partnership Plans (NRPPs) containing proposals for initiatives financed from the EU budget. The Commission's proposals also put more emphasis on respect for the rule of law as a condition for accessing funds from the EU budget.

On the revenue side, the Commission anticipates new sources of financing. In addition to earlier proposals for new own resources, i.e. revenues generated from the Emissions Trading System (ETS) and the Carbon Border Adjustment Mechanism (CBAM),[17] these include an own resource based on non-collected e-waste, a tobacco excise duty own resource (TEDOR) and a turnover-based contribution from companies (Corporate Resource for Europe, CORE). By the Commission's estimation, the new own resources mentioned above, combined with parametric changes to the existing ones, will contribute EUR 58 billion per year to the EU budget.

The own resources regulation proposes a new extraordinary crisis response tool, under which the Council could empower the Commission ad hoc to borrow the necessary funds on capital markets on behalf of the EU. The repayment of these funds would be covered by the resources of the EU budget. Despite the restrictive conditions proposed for the use of this instrument, this represents a further shift towards establishing debt financing in the EU budget as a standard instrument. This is a significant shift from current practice, as the debt financing of the NGEU programme in 2020 was conditional on a pledge that it would be a one-off, temporary exercise restricted to a specific purpose. However, Member States' negotiations on the EU's new MFF are still at an early stage, and the final form of the framework, including any new own resources for the EU budget, is not known at present.

Financial market regulation and supervision and initiatives to boost the EU's competitiveness

Boosting the competitiveness of the EU economy – with an emphasis on simplifying the regulatory environment and reducing the administrative burden – became the Commission's overarching priority in 2025. The Commission outlined its vision and timeline for the next steps in its January 2025 communication *A Competitiveness Compass for the EU*. In the area of financial market regulation, it focused on simplification of the sustainable finance reporting duty (the Omnibus I package) and the amendment of MiFID II and the Prospectus Regulation linked with the introduction of the definition of small mid-caps (Omnibus IV). In November 2025, the Commission also presented the Digital Omnibus package to streamline regulation in the digital area, including a proposal to amend the rules for artificial intelligence and a proposal to simplify digital legislation. At the same time, the EC proposed the creation of a European Business Wallet, intended to support the digitalisation of a number of administrative and communication tasks performed by businesses and public authorities in the EU. The main outcome of the deregulation efforts is the approval of a directive postponing the application of certain requirements arising from the directives on non-financial reporting and corporate sustainability due diligence by one to two years. Final approval of the specific simplifications contained in the Omnibus I proposals is not expected until early 2026. It is thus too early to assess the results of the simplification and deregulatory initiatives, although it is clear that the ambitions and expectations associated with the Commission's original plan have yet to materialise for various reasons.

No major progress has been made on the deepening of the capital markets union (CMU) and the banking union in 2025 either. In March 2025, the Commission published an initiative to create a savings and investments union as an umbrella for the capital markets union and the banking union. The aim is to support the mobilisation of household savings to finance the EU economy. However, the concrete proposals[18] were not published until the second half of the year, and progress in their approval is therefore not expected until 2026. Amendments of the regulation on indices used as benchmarks in financial instruments (the Benchmark Regulation), the regulation simplifying certain reporting requirements in the fields of financial services and investment support and the Central Securities Depositories Regulation, already approved by the Council and the European Parliament, have brought some

[17] These proposals were presented in 2021 and updated in 2023. However, there is no consensus on them yet and they are still in the legislative process.

[18] The proposal to simplify the Sustainable Finance Disclosure Regulation (SFDR), the supplementary pensions package or the proposal to strengthen the powers of the European Supervisory Authorities.

simplification and administrative relief. A set of related measures, proposed by the Commission in June, is expected to revive the EU securitisation market: it revises product standards and rules of conduct for issuers and investors, capital requirements for banks involved in securitisation, and asset eligibility criteria and prudential rules for insurance and reinsurance undertakings. As regards non-legislative measures relevant to the CMU, the Commission in 2025 issued a decision extending legal, regulatory and supervisory equivalence for UK central counterparties (CCPs). The three-year extension (until 30 June 2028) will allow UK CCPs to continue offering clearing services to EU clients on a cross-border basis.

Owing to persisting fundamental differences of opinion between the Member States, there was essentially no strategic discussion in 2025 on the future direction of the banking union, especially as regards risk-sharing. Only a review of the crisis management and deposit insurance (CMDI) framework was finalised. A political agreement between the Council and the European Parliament to facilitate access to industry-funded guarantee schemes for small and medium-sized banks under the framework was reached in June 2025. In a context of geopolitical risks and volatility, discussions on simplification, greater harmonisation and standardisation of banking regulation have been opened at various levels in the EU. The aim is to focus more on horizontal (inter-sector) risks, such as cyber risk, and help boost the competitiveness of the banking sector. The ratification of the treaty reforming the European Stability Mechanism was not completed in 2025, as Italy is yet to finish the approval process.

In the area of combating money laundering and the financing of terrorism, the operationalisation of the Anti-Money Laundering Authority (AMLA), established in 2024, continued. AMLA should start directly supervising selected credit and financial institutions in 2028. In 2025, the AMLA Chair was appointed, members of its Executive Board were elected, and meetings of its General Board were held in both its supervisory composition (in which the Czech Republic is represented by the CNB) and its Financial Intelligence Unit composition (in which the Czech Republic is represented by the Financial Analytical Office). The AMLA's Executive Director also took up office.

Conclusion

Developments in the EU and the euro area in 2025 were influenced by ongoing and new geopolitical challenges, in particular Russia's continued war on Ukraine, complex global trade relations, the debate on NATO's future direction and the financing of defence and security needs. Boosting the EU's global competitiveness, deregulation, and simplification of EU legislation were new political priorities for both the Commission and the Member States. However, the concrete results of this initiative can only be evaluated once the relevant legislative proposals have been approved and implemented. The Commission also incorporated efforts to respond to these challenges into a proposal for a new EU Multiannual Financial Framework, including by increasing its size and strengthening the debt financing element. They were also reflected in considerations and proposals to transfer some competences and decision-making mechanisms to the EU level, for example in the area of capital market supervision. By contrast, there was no major progress in the debate on further deepening the Economic and Monetary Union and completing the banking union in 2025.

As regards the obligation to adopt the euro, which the Czech Republic accepted on joining the EU in 2004, the conclusion of previous issues of the *Alignment Analyses* that the content of this obligation has expanded considerably since the Czech Republic's EU entry as a result of institutional changes holds true. At the same time, some key projects that will significantly affect the functioning of the euro area, such as the banking union, remain unfinished. Therefore, the Czech Republic will still have to carefully assess institutional developments and consider them in its deliberations on the timing of euro area entry. Likewise, it is desirable to closely monitor developments in the euro area itself, including potential risks to fiscal stability (public debt) and financial sector stability, as only in the years ahead will it be possible to assess whether the new rules for economic and fiscal policy coordination will increase the historically weak enforcement of the Stability and Growth Pact among Member States. It will also be appropriate to take into account the tendency towards economic divergence of the members of the Economic and Monetary Union and the potential consequences of recurring proposals to establish a risk-sharing fiscal union.

The question of the suitable timing of the Czech Republic's euro area entry and its impacts is therefore still very difficult to answer at present.

2.2 SYNCHRONISATION OF ECONOMIC ACTIVITY IN EU COUNTRIES IN TIMES OF GLOBAL TURBULENCE

Oxana Babecká Kucharčuková and Jan Brůha

In this article, we give an updated view[19] of economic synchronisation between EU countries in light of the events of recent years, which may have affected the structure of economic links in Europe and hence the degree of business cycle alignment between Member States. We use an advanced method based on locally stationary processes to examine how the synchronisation of economic activity has changed over time, and show it is high for most countries. This conclusion applies even when we control for the common effect of the Covid-19 pandemic. We also analyse business cycle volatility and show that in the Czech Republic it has fallen to roughly the euro area level.

The synchronisation of economic activity is a key subject of macroeconomic analysis in the European context. The degree of economic alignment has fundamental implications for the functioning of a monetary union, the effectiveness of a single monetary policy and the resilience of economies to shocks. High business cycle synchronisation among euro area members is a condition for an optimal currency area, while its absence may put pressure on complementary adjustment mechanisms such as fiscal transfers, labour mobility and wage flexibility. Many factors – ongoing real convergence processes, structural reforms and external shocks – can affect the degree of synchronisation over time.

It is not clear how much the global shocks of the past five years have affected the current synchronisation of business cycles in EU countries. The simultaneous economic downturn at the height of the pandemic was caused by a highly synchronised global shock. However, the subsequent recovery was asymmetric, depending on the structural characteristics of each economy – for example, the shares of services and industry, the stringency of anti-pandemic measures, and fiscal space. Significant differences between European countries re-emerged in 2022, when global oil and natural gas prices reached historical highs. Their spillover to inflation and, in turn, to real interest rate conditions varied considerably across EU countries.[20] In light of the currently elevated geopolitical uncertainty and trade tensions, the disparate intensity of countries' involvement in international trade also poses a risk to the synchronisation of European economies. Countries may be affected in different ways depending on their degree of openness, industrial structure and position in global value chains. To analyse economic synchronisation, it is thus appropriate to use methods that allow us to monitor its evolution over time.

To assess the costs of adopting the single currency, it is not enough to view synchronisation solely as the correlation of business cycles; their relative volatility and the deviations of cyclical components over time must also be taken into account. If the correlation is high but the volatility of cyclical components differs, the response of the single euro area monetary policy to economic developments would be in the right direction in terms of stabilising a country's economy, but the magnitude of the response would not be appropriate – it would be too small (large) if the country's business cycle volatility was higher (lower) than that in the euro area.

Synchronisation can be measured in various ways, one of them being output gap analysis. Model-based estimates of EU countries' output gaps based on the EUCAM methodology are available in the European Commission's AMECO database.[21] Table 1 shows the correlation between the output gaps of the eight countries monitored in this document and the euro area output gap for two ten-year periods: 2005–2014 and 2015–2024. The correlation is high, but lower in the second period. According to these estimates, this is because the pandemic and the energy crisis affected the countries' output gaps in different ways. Most of the countries under review also saw a decline in relative output gap volatility. However, differences between the output gaps of the Czech Republic and the euro area persist, reaching 1.5 percentage points in recent years (see Chart 1).

[19] In this article, we follow up on thematic chapter 2 of the *2019 Alignment Analyses* by Babecká Kucharčuková and Brůha: *Synchronisation of economic activity in EU countries,* which identified a high degree of business cycle synchronisation in the EU. However, its conclusions are based on the pre-pandemic period and on principal component analysis.

[20] See thematic chapter 5 in this edition of the Alignment Analyses by Brůha: *The inflation wave in European countries: What is the euro's effect compared to other factors?*

[21] A description of EUCAM (the European Union's Commonly Agreed Methodology) is available on the Commission's website: https://economy-finance.ec.europa.eu/system/files/2021-11/dp148_en.pdf. Output gap estimates of are available here: https://db.nomics.world/AMECO/AVGDGP?tab=table.

Another way to measure the synchronisation of economies is to analyse their cyclical components using an empirical approach. The evolution of synchronisation over time can be quantified using spectral analysis of locally stationary processes.[22] This model enables time-frequency decomposition of a signal – in our case an economic time series – by division into small time periods, which can be approximated as stationary. This method is suitable for modelling slowly changing characteristics, which is relevant in the context of economic synchronisation, as structural reforms, institutional changes and the convergence process affect macroeconomic dynamics gradually rather than suddenly. Using spectral methods, we can examine the properties of time series (cyclical correlation and relative volatility) at selected frequencies without the need for prior filtering using univariate statistical filters, whose mechanical use can be misleading in periods of major shocks.[23] This approach thus allows us to study time-varying correlation and relative volatility for frequencies corresponding to business cycles (in accordance with the standard definition of 1.5–8 year long cycles).[24] Our analysis examines the relationship between the GDP of individual EU Member States and aggregate euro area GDP (EA20) based on quarterly data at constant prices in the period 2005 Q1–2025 Q1.

In terms of the correlation of cyclical components, the Czech economy has been highly synchronised with the euro area over the last 20 years. The correlation was lowest in the wake of the European debt crisis (2013–2015), but even then, it was high (more than 0.85). The same applies to most of the eight countries regularly monitored in this document. The exceptions are Poland, whose cyclical component of GDP was correlated relatively weakly in the first half of the period under review, and Slovakia, where, by contrast, the correlation has decreased over the past few years (see Chart 2).

The volatility of the business cycle in the Czech Republic is similar to that in the euro area. Chart 3 shows that in the case of the Czech economy, the ratio of the standard deviation of the cyclical component of real GDP to the standard deviation of the euro area cycle has fallen from around 1.3 before 2010 to around 0.85 at present, meaning that the Czech economic cycle is now slightly less volatile than the euro area cycle. However, there are also countries whose relative volatility has increased over time. Among the countries regularly reviewed, this is particularly true of Portugal.

Table 1

Correlations and relative volatility of output gaps between individual countries and the euro area

(output gap estimates under EUCAM methodology)

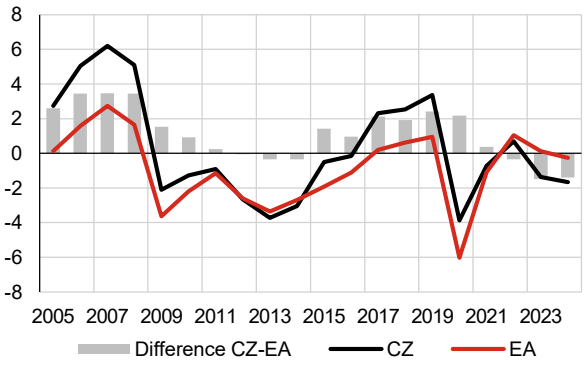
	2005–2014		2015–2024	
	Correlation	Relative volatility	Correlation	Relative volatility
CZ	0.98	1.65	0.77	1.06
AT	0.83	0.66	0.95	1.08
DE	0.65	0.88	0.82	0.73
PT	0.79	0.74	0.93	1.39
HU	0.84	1.45	0.79	1.07
PL	0.52	0.84	0.77	0.86
SI	0.94	2.64	0.67	1.49
SK	0.91	1.50	0.81	0.61

Note: Relative volatility is the ratio of the standard deviations.
Source: AMECO, CNB calculations

Chart 1

Difference between the Czech and euro area output gaps

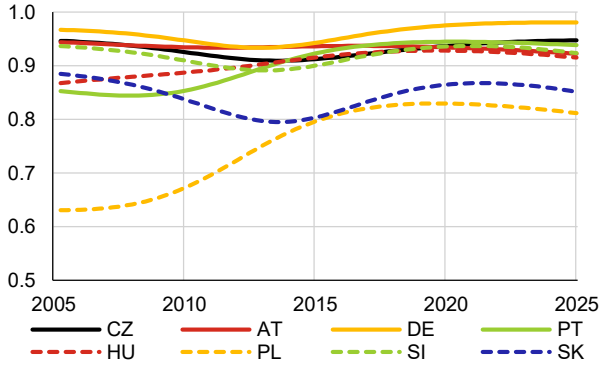
(output gaps in % of potential output; differences in pp)



Note: The EA20 aggregate is used for the euro area.
Source: AMECO, CNB calculations

Chart 2

Correlations between the cyclical components of GDP of selected countries and the euro area



Note: The EA20 aggregate is used for the euro area.
Source: Eurostat, CNB calculations

[22] See, for example, Eichler (2011) and Barigozzi et al. (2021).

[23] See Babecká Kucharčuková et al. (2022).

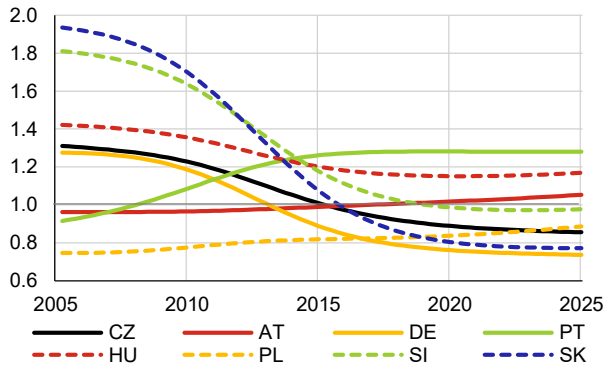
[24] From a technical point of view, we estimate local multidimensional spectra from the quarter-on-quarter logarithmic differences of real GDP and convert them in the frequency domain into spectra of logarithmic levels using an integral operator. From these spectra, covariance matrices between the cyclical components of economic activity in individual countries with the euro area can then be obtained using an inverse Fourier transform integrated over cyclical frequencies, from which the time-varying correlations and relative volatility can be derived. We choose this approach to maintain the assumption of local stationarity. It is precisely this approach which makes it possible to avoid pre-filtering the data with statistical filters. A similar "trick" was applied in Andrle et al. (2016, 2017) to examine the synchronisation of macroeconomic aggregates within individual countries.

Most EU countries show a high correlation between the cyclical components of GDP and the euro area cycle, with the Czech economy having one of the highest (see Chart 4). Low alignment is observed for some countries, such as Ireland, whose official GDP is affected by specific factors (high sensitivity of exports in some sectors and accounting optimisation by multinational corporations). At the start of the period under review, low degrees of synchronisation were also apparent in some transition economies (Poland, Romania and Bulgaria). From the time perspective, the degree of synchronisation was lowest in many economies in the wake of the financial crisis (2010–2015), which affected Member States to varying degrees.

Chart 3

Relative volatility of the business cycles of selected countries relative to the euro area

(ratio of standard deviations of cyclical components of real GDP to standard deviation of euro area cycle)

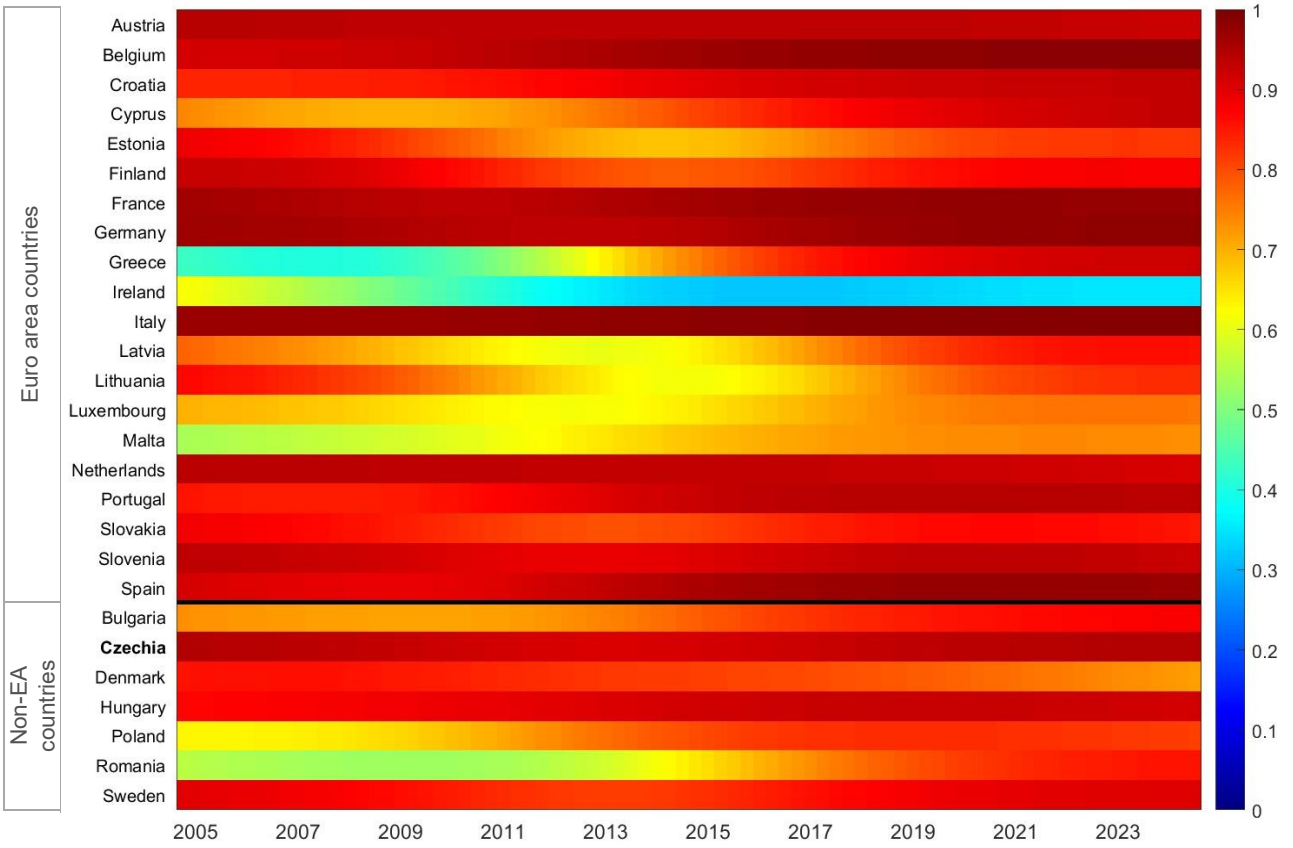


Note: If the ratio in the chart is greater (less) than 1, the economy exhibits a more (less) volatile cycle than the euro area.
The EA20 aggregate is used for the euro area.

Source: Eurostat, CNB calculations

Chart 4

Heat map of the correlations between the cyclical components of GDP of all EU countries and the euro area



Note: The EA20 aggregate is used for the euro area.

Source: Eurostat, CNB calculations

The Covid-19 pandemic was an exceptionally large non-economic shock that may have artificially increased the estimated synchronisation of economic cycles.[25] Unlike other global shocks, such as the recent energy crisis and the Global Financial Crisis of 2008–2009, the pandemic crisis was caused largely by anti-pandemic administrative measures that affected supply and demand simultaneously, leading to a coordinated decline in European economies. It is therefore necessary to remove the effect of the pandemic from the data to objectively assess the actual degree of synchronisation. To do so, we use the Stringency Index[26] and, by regression analysis, we estimate the effect of administrative measures on the size of the GDP contraction in each country. We then adjust the real GDP time series for the estimated effect of anti-pandemic measures and apply the above-mentioned method of spectral analysis of locally stationary processes to them.

Adjusting for the pandemic does indeed lead to a reduction in the estimated correlation of the cyclical components of GDP, but the effect is only modest in the Czech Republic. The same goes for some other countries, such as Germany and Austria. In other cases, however, the effect is stronger – for example, the correlations with the euro area adjusted for the pandemic decrease to relatively low levels in Slovakia (see Chart 5, which shows estimates of the average correlation of the cyclical components of GDP for 2020–2025 both adjusted and unadjusted for the pandemic). Similarly, we can examine the relative volatility of business cycles adjusted for the pandemic. In the case of the Czech Republic, this adjustment led the relative volatility of the Czech business cycle to increase slightly above the level of euro area volatility (see Chart 6).

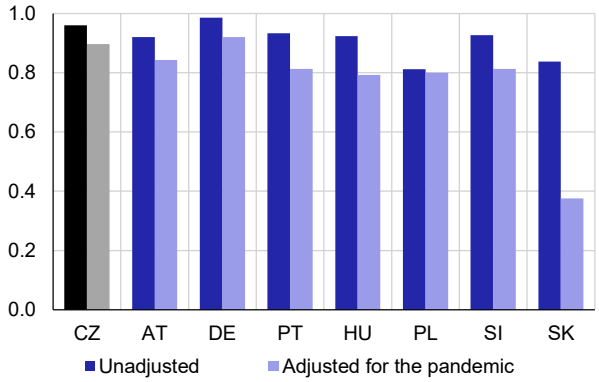
Conclusion

This chapter examined cyclical alignment in the EU using two approaches. The first, based on the time-varying spectral method, indicates a high correlation between cyclical components and a drop in relative volatility over time. The high correlation in recent times reflects the common effect of the pandemic, but adjusting for this effect leads to only a slight decline in the estimated correlation. The approach based on the European Commission's output gap estimates also shows a high correlation and a decline in relative volatility over time, but still identifies persisting significant differences between output gaps. The costs of euro adoption have therefore fallen over time, yet still persist.

Chart 5

Correlations between the cyclical components of GDP of selected countries and the euro area – adjusted for the pandemic

(average correlations for 2020–2025)

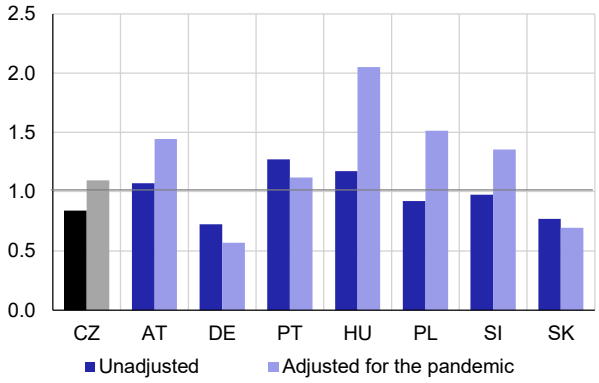


Note: The EA20 aggregate is used for the euro area.
Source: Eurostat, CNB calculations

Chart 6

Relative volatility of business cycles in selected countries compared to the euro area – adjusted for the pandemic

(average standard deviations of cyclical components of real GDP in 2020–2025 relative to average deviation of euro area cycle)



Note: If the ratio in the chart is greater (less) than 1, the economy exhibits a more (less) volatile cycle than the euro area.
The EA20 aggregate is used for the euro area.
Source: Eurostat, CNB calculations

[25] It is important to note that EUCAM's output gap-based approach does not identify an increase in synchronisation during the pandemic. This is because using a model-based approach makes it possible to take into account the different responses of production factors to a pandemic-type shock. Therefore, the resulting output gaps may vary across countries even if they record a similar decline in real GDP. By contrast, the empirical approach "sees" only the synchronisation of the declines in the GDP growth time series and thus tends to identify an increase in synchronisation. These differences show the advantage of combining multiple approaches for estimating changes in synchronisation over time.

[26] See Hale et al. (2021).

2.3 EUROISATION FROM THE CORPORATE FINANCING PERSPECTIVE

Renata Pašaličová

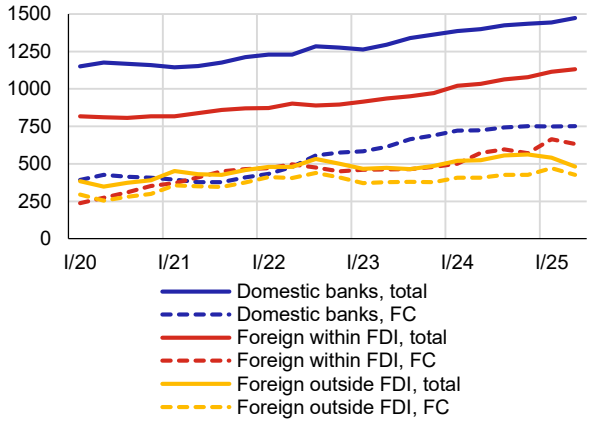
This chapter discusses recent developments in euroisation from the perspective of the structure of corporate financing. A decrease in the differential between domestic and foreign interest rates led to a slight drop in the share of foreign currency loans, especially those denominated in euro, drawn by Czech corporations from domestic banks in 2024. On the other hand, there was an increase in the share of foreign currency financing from abroad, where intra-company loans within direct investment play a particularly important role. The share of corporate financing in foreign currency has stabilised at a high level and is relevant in terms of its implications for monetary policy.

Domestic corporations continue to finance themselves mainly through loans, but bond financing has also increased. Loans from domestic banks still play the main role in the structure of loans to non-financial corporations, followed by inter-company loans from abroad within direct investment (FDI, in particular within a parent-subsidiary relationship, when a domestic corporation is part of a multinational group) and other foreign financing, for example from foreign banks. Non-financial corporations had a total of EUR 1,473 billion in loans from domestic banks, CZK 1,132 billion in loans within foreign direct investment and CZK 481 billion of other foreign financing in 2025 Q2 (see Chart 1). The volume of bonds issued stood at EUR 431 billion.

Euro-denominated financing of Czech corporations remains relatively high, but this spontaneous euroisation has stabilised to some extent recently, following a previous sharp increase. The share of total foreign currency loan financing of non-financial corporations (including bank loans and financing from abroad) has remained broadly unchanged since last year. It was 53% for euro loans and 59% for foreign currency loans in 2025 Q2 (see Chart 2). Following a previous sharp rise due to cyclical factors, the euro financing of Czech corporations by domestic banks fell slightly. By contrast, an increase was recorded for euro loans from abroad. Foreign currency loans accounted for roughly 50% of bank loans and intra-company loans from abroad and 80% of other foreign financing. As regards bond financing, a significant proportion of total corporate bond issues (64%) were placed in foreign markets in 2025 Q2, the financing being mainly euro-denominated and primarily involving large firms. The remainder of the bonds (36%) were issued on the domestic market mainly in the domestic currency. The share of foreign currencies in the debt of non-financial corporations, including bond issues, was only slightly higher compared to loan financing (54% in euro and 60% in foreign currencies in Q2).

Chart 1
Structure of corporate loan financing

(volumes in CZK billions)

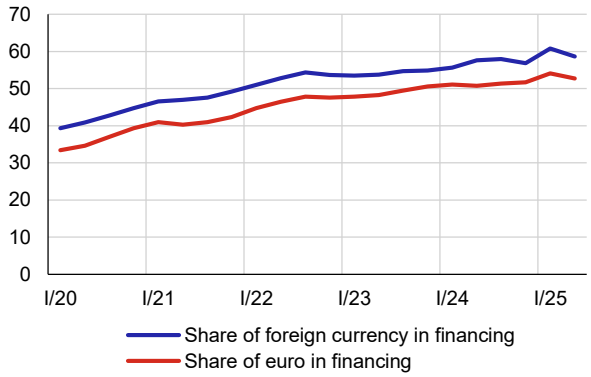


Note: The abbreviation FC stands for foreign currencies.

Source: CNB, CNB calculations

Chart 2
Foreign currency loan financing of corporations

(%)



Source: CNB, CNB calculations

Corporate financing from abroad has recently increased. The share of loan financing from abroad has risen slightly to 52% since last year. This mainly reflects a rise in intra-company loans and other forms of foreign financing. Within intra-company loans, growth was recorded particularly by short-term foreign currency loans. In an environment of increased economic uncertainty, this may have been due, among other things, to efforts to consolidate funds within groups and to lower interest rates on foreign financing. At the same time, the possible involvement of syndicated loans with the participation of domestic banks cannot be ruled out.

Intra-company loans within foreign direct investment are drawn most of all by industrial corporations, due to their ownership and trade links with other countries (see Chart 3). The share of industry in intra-company loans is 33%, driven mainly by manufacturing (of which the automotive industry accounts for 7%). Corporations engaged in real estate activities and services also finance themselves through their parent companies abroad. Their share in total intra-company loans is just above 15% for each of these categories. Wholesale and retail trade accounts for around 10% of total inter-company loans. A smaller proportion of these loans is allocated to construction (especially building construction). Other sectors have very low shares in this type of funding.

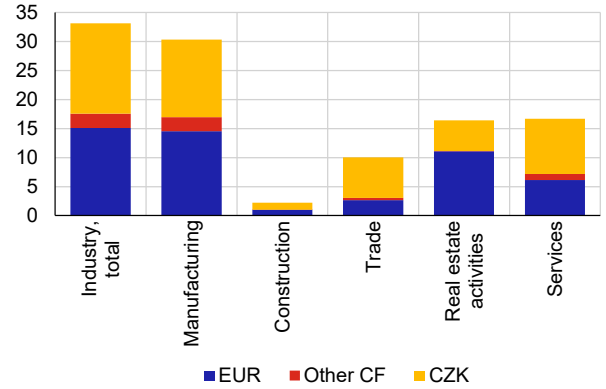
The euroisation of intra-company loans within direct investment has increased. Overall, however, around half of this financing is still denominated in the domestic currency and is affected by the CNB's monetary policy stance. Compared to the pre-Covid period, the share of euro-denominated FDI loans has increased mainly in industry (to around half), real estate activities (to almost two-thirds) and services (to more than two-fifths). This increase in euroisation was observed especially in 2020 and 2021. It then stabilised somewhat, with the exception of property market-related sectors (i.e. real estate and construction activities).

Intra-company loans from abroad account for about half of financing in industry, while bank loans have a significant share in financing in most other sectors (see Chart 4). In industry, intra-company loans account for 52% of the structure of financing via the two largest sources (i.e. intra-company loans and bank loans), while in most other sectors they account for only about one-third. This points to a still significant source of financing through loans provided by domestic.

Chart 3

Intra-company FDI loans to Czech corporations in selected sectors

(shares in %)



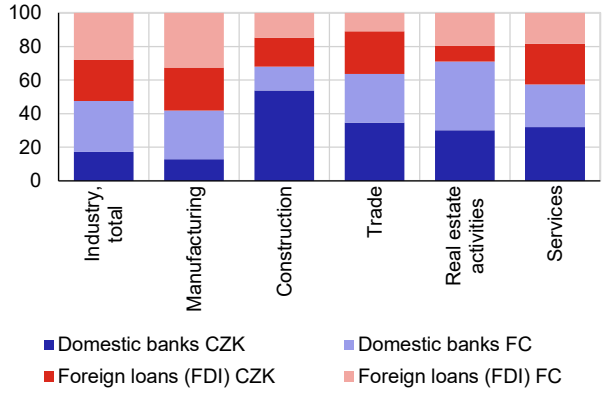
Note: The latest data on the structure of intra-company loans are available for 2023.
The remainder of the share of intra-company loans from abroad consists mainly of financial and insurance activities related to the financing of non-monetary financial institutions.

Source: CNB, CNB calculations

Chart 4

Structure of financing through domestic banks and intra-company FDI loans in individual sectors

(shares in %)



Note: Data as of the end of 2023.

Source: CNB, CNB calculations

In recent years, interest rates on corporate loans drawn abroad have mostly been lower than rates on loans from domestic banks, regardless of currency (see Chart 5). This reflects, among other things, the fact that larger firms with lower risk levels, greater bargaining power and thus lower interest margins usually have access to foreign financing. The rate on koruna loans with maturities of over one year provided by domestic banks was around 5% in mid-2025, while that on koruna loans drawn abroad (within both direct and other investment) was slightly above 4%. In the case of euro loans, these rates were roughly 1 percentage point lower.

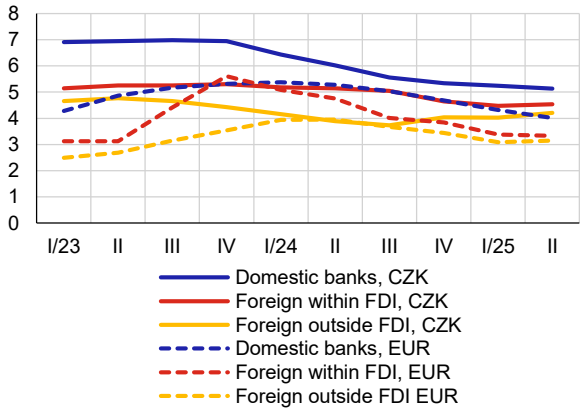
The share of euro-denominated corporate loans provided by domestic banks has dropped slightly to close to the long-term trend following a previous sharp rise (see Chart 6). This share was 49% in June 2025, while the share of loans in all foreign currencies was 50%. The decrease in the share of euro loans was partly due to the cyclical component, which reflected a decline and subsequent stabilisation of the differential between domestic and euro rates at around 1 percentage point, compared to a peak of 6.7 percentage points in 2022. A relatively strong correlation between the interest rate differential and the share of euro loans has been observed since mid-2021. The interest rate differential is likely to continue to dampen euro financing in the period ahead. As regards the shares of individual sectors in euro loans from domestic banks, decreases were recorded mainly for the contributions of trade and industry. In the case of industry, this may have been due to the above-mentioned growth in intra-company loans from abroad and to a decline in euro loans provided to small industrial companies as a result of repayments of loans, especially short-term ones (see Chart 7). However, the structural (trend) component of the share of euro-denominated loans, which is affected by the Czech Republic's strong trade links with the euro area and by firms' efforts to hedge naturally against exchange rate risk, as well as by legislative changes related, for example, to keeping accounts in euro, will continue to foster a long-term upward trend in the period ahead.

The uneven playing field for corporate financing has decreased owing to a decline in the differential between domestic and euro interest rates. Euro loans are drawn mainly by large corporations. In the previous period, interest rates on these loans were significantly lower than those on koruna loans, which are used mainly by small corporations with limited access to euro loans. This created an uneven playing field, which, however, has been levelled to some extent by a decline in the differential between domestic and euro rates. Loans to small and medium-sized enterprises continue to account for a significant part of total bank loans (65%), with 42% still being loans to small enterprises, which are heavily dependent on domestic currency financing. The decline in domestic interest rates has recently transmitted to rates on koruna loans to large corporations with slightly more intensity than in the case of loans to smaller firms. The

Chart 5

Interest rates on loans to corporations from domestic banks and from abroad with maturities of over one year

(%)



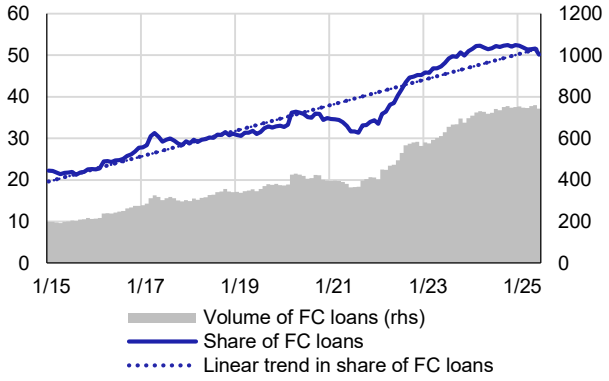
Note: The chart shows interest rates on stocks of loans to non-financial corporations from domestic banks and from abroad. Interest rates on loans from abroad are based on a CNB external statistical survey. It gives information on loans over a certain threshold with maturities of over one year and their interest rates. Rates on loans with maturities of over one year provided by domestic banks were calculated in a similar way. The data on interest rates are as of the end of the period.

Source: CNB, CNB calculations

Chart 6

Foreign currency corporate loans from domestic banks

(shares in %, volumes in CZK billions)

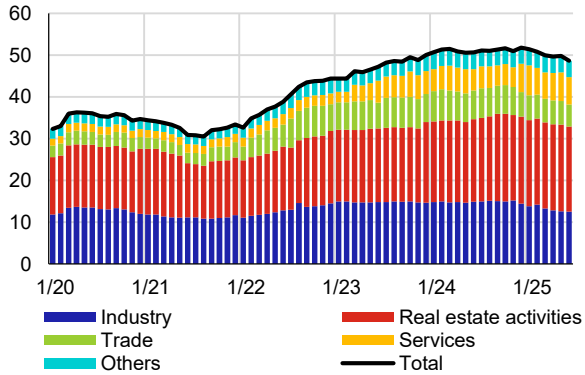


Source: CNB, CNB calculations

Chart 7

Decomposition of the share of euro loans from domestic banks in total corporate loans by sector

(%; contributions in percentage points)



Source: CNB AnaCredit, CNB calculations

interest rate on koruna loans was 5.5% for small and medium-sized enterprises and 4.4% for large corporations in June 2025. The spread between these rates has widened but is close to pre-Covid levels.

A relatively high degree of euroisation may, in certain circumstances, affect the transmission of monetary policy and the sensitivity of the economy to external shocks. A recent empirical study[27] shows that the share of foreign currency loans affects the transmission of domestic monetary policy depending on the shock type. In the case of domestic inflation shocks, the pass-through of an interest rate hike to firms' costs weakens when rates go up. This affects the effectiveness of domestic monetary policy – the inflation target can be achieved with lower growth in key rates. In the case of asymmetric foreign and exchange rate shocks, monetary policy efficacy is weakened, making the domestic economy more vulnerable to external shocks. In an environment of global supply shocks (such as a rise in energy prices), foreign currency loans increase firms' costs and reduce the effectiveness of domestic monetary policy, so a more aggressive rate hike is needed. The opposite is true for global demand shocks.

Conclusion

The share of the euro in corporate financing remains relatively high; spontaneous euroisation has recently stabilised to some extent after a previous sharp increase. Euro-denominated loan financing of Czech corporations by domestic banks has decreased slightly owing to a decline in cyclical factors, but foreign currency financing of corporations from abroad has increased. Growth in euroisation is also being aided, among other things, by structural factors related to legislative changes. In a small economy with its own currency and strong trade and ownership links with other countries, this is affecting the effectiveness of domestic monetary policy.

[27] For details, see CNB Working Paper 10/2025 (Audzei, Brůha and Sutóris): *Does firms' financing in foreign currency matter for monetary policy?*

2.4 THE KORUNA EXCHANGE RATE AND COMPETITIVENESS – A BARRIER TO, OR AN ARGUMENT FOR, THE EURO?

Jan Brůha, Luboš Komárek a Martin Motl

The exchange rate is a key stabiliser of the Czech economy, enabling it to cope with external shocks. In this article, we use the local projections method to analyse the effect of the exchange rate on the competitiveness of the economy.[28] If a weakening of the domestic currency (a depreciation shock) would increase the competitiveness of domestic firms, this could be an additional argument for the country to keep its own currency. Our results do not support the hypothesis that a weaker koruna would have a favourable effect on domestic competitiveness. In the very short run, however, a depreciation fosters time-limited relief in the form of a decline in unit labour costs. However, it should be emphasised that this is only a partial analysis, not a comprehensive assessment of the economic impacts of introducing the euro in the Czech Republic.

Successful euro area entry requires more than just fulfilment of the Maastricht criteria. Experience shows that a country should enter the monetary union in a state that will ensure the stable and effective functioning of its economy in the union. This requirement is based on the optimum currency area theory. It also serves the pragmatic interests of present and future euro area members. However, the Maastricht criteria are only the necessary conditions and do not alone guarantee long-term preparedness for a country to function effectively in the monetary union. To time euro area entry right, we therefore need to monitor a broader set of indicators, among which the exchange rate and related price convergence play a key role.

Adopting the euro means losing the exchange rate as a stabiliser. A country with its own currency can use the exchange rate to alleviate macroeconomic problems partially, as a depreciation can temporarily improve its price competitiveness. According to Michl (2016), when assessing a country's preparedness to join the monetary union, we therefore need to examine – among other things – the impact of a depreciation on its competitiveness.

A depreciation can only improve price competitiveness if wages do not react more strongly to it than producer prices or exporter prices. If wages go up at the same pace or faster than prices, unit labour costs (ULC) increase and the competitive advantage of the depreciation is lost. This empirical analysis therefore aims to assess the response of prices and wages to exchange rate shocks in the Czech economy.[29] It examines the relationship between exchange rate shocks and producer prices (PPI), exporter prices, wages and ULC.

We employed the local projections method to analyse the impacts of exchange rate shocks. We based our analysis on the approach of Jordà (2005) in two variants: the method of Barnichon and Brownlees (2019), which reduces the variability of the estimates, and a technique that enables us to capture the time-varying dynamics of the impulse responses.[30] First, we identified structural exchange rate shocks[31] based on equilibrium real exchange rate models. Specifically, we estimated the equilibrium real CZK/EUR rate as the average outputs of the BEER and FEER models (Komárek and Motl, 2012). The deviation from this equilibrium rate allowed us to estimate the exchange rate shocks. These shocks then entered the local projections method, the aim being to assess the impulse responses of selected macroeconomic variables. Empirical estimates were made using quarterly data from 2000 to the present.

[28] This article is a follow-up to thematic chapter 2 of the *2023 Alignment Analyses* by Brůha, Komárek and Motl: *The exchange rate as a partial indicator for (non-)adoption of the euro*. The authors add value to the previous version in two respects: (i) they expand the data by two post-crisis years; (ii) for robustness, they also use a variant of the method with time-varying parameters able to capture any change in transmission over time.

[29] Our analysis concerns solely the short to medium term in the context of the stabilising function of the exchange rate on cyclical shocks. In the long term, of course, exchange rate devaluation cannot bring prosperity and a higher share in international markets.

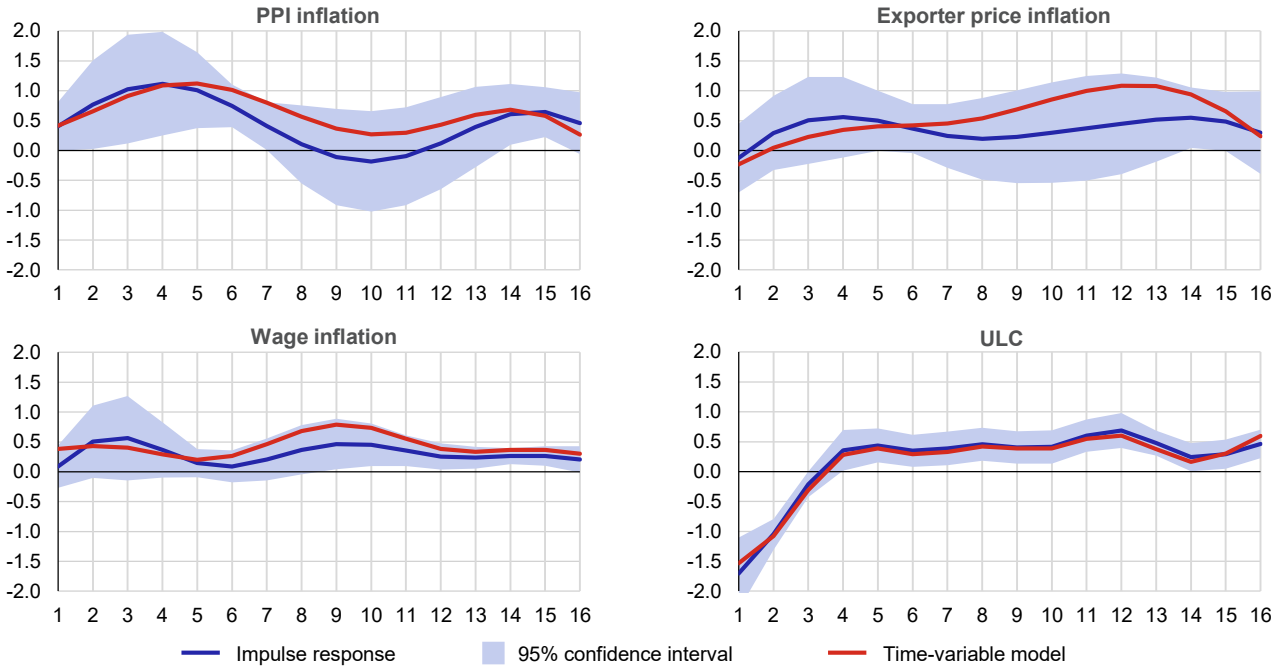
[30] We opted for the additive smoothed coefficients approach (Li and Racine, 2007), which is based on data reweighting: time-varying coefficients are derived from how the weights of the individual observations change over time.

[31] The exchange rate does not change only because of current shocks and factors, but also reflects past developments in the economy. Therefore, if we were to model the responses to "exchange rate changes" rather than to "net shocks", we would mix up the impact of the shocks with the repercussions of past macroeconomic effects. The results would therefore not be consistent.

The results of our analysis show that producer, exporter and wage inflation changes temporarily in response to a depreciation shock. The estimate of impulse responses for the time-invariant model (see Chart 1, blue line) suggests that a depreciation shock is followed by an increase in producer price inflation, a slight rise in exporter prices and slightly higher wage inflation. As a result, the initial positive effect on competitiveness (measured as ULC) soon turns unfavourable and ULC start to go up. A depreciation shock thus has only a temporary positive effect on price competitiveness.

The model with time-varying parameters, which can better capture potential changes in the response of the economy to shocks, produces similar results. When the most recent data are given the highest weight and the weight of historical observations gradually decreases as we move further into the past, the impulse response estimates indicate slightly faster growth in both price and wage inflation in the medium term than in the baseline model (see Chart 1, red line). However, these differences are neither sizeable nor statistically significant. For ULC, the differences are negligible. This means that the response of the economy to a depreciation shock has not changed significantly even with the crises seen in the last five years.

Chart 1
Impulse responses to a depreciation shock
(percentage points)



Note: Impulse responses of the annualised quarterly growth rates. The x-axis shows the period since the shock in quarters.
Source: CNB calculations

These conclusions remain valid even after we conduct a series of sensitivity analyses. In these analyses, we excluded the exchange rate commitment period and the episodes when the CNB was active in the foreign exchange market in 2020 and 2022, and we used a different identification of exchange rate shocks.[32] The results of the sensitivity analyses do not differ fundamentally from the main conclusions. This increases our confidence in the reliability of the analysis.

Conclusion

A depreciation shock may provide the economy with short-term relief in the form of a decline in unit labour costs, but this effect is only transient.[33] A depreciation shock gives rise to a temporary change in producer price inflation, exporter price inflation and wage inflation. However, given the wide confidence intervals, it is impossible to determine unequivocally whether producer prices or wages rise faster. The impulse response of unit labour costs nonetheless indicates that the decline in these costs that occurs after a depreciation shock offers

[32] Specifically, we used the "sparse" filter proposed by Andrle and Brůha (2023).

[33] The previous analysis published in the *2023 Alignment Analyses* came to the same conclusion.

only short-lived relief. In the longer run, therefore, a depreciation of the koruna does not increase competitiveness or prosperity.

To conclude, it is important to note that we examined only one specific aspect of the costs of adopting the euro, namely whether an exchange rate shock provides a competitive advantage. The macroeconomic costs and benefits of the euro are a multidimensional issue that cannot be reduced to just one, albeit important, criterion. This analysis thus offers one of many perspectives on the costs and benefits of adopting the euro, without the ambition to provide a definitive recommendation, which is a more complex issue.

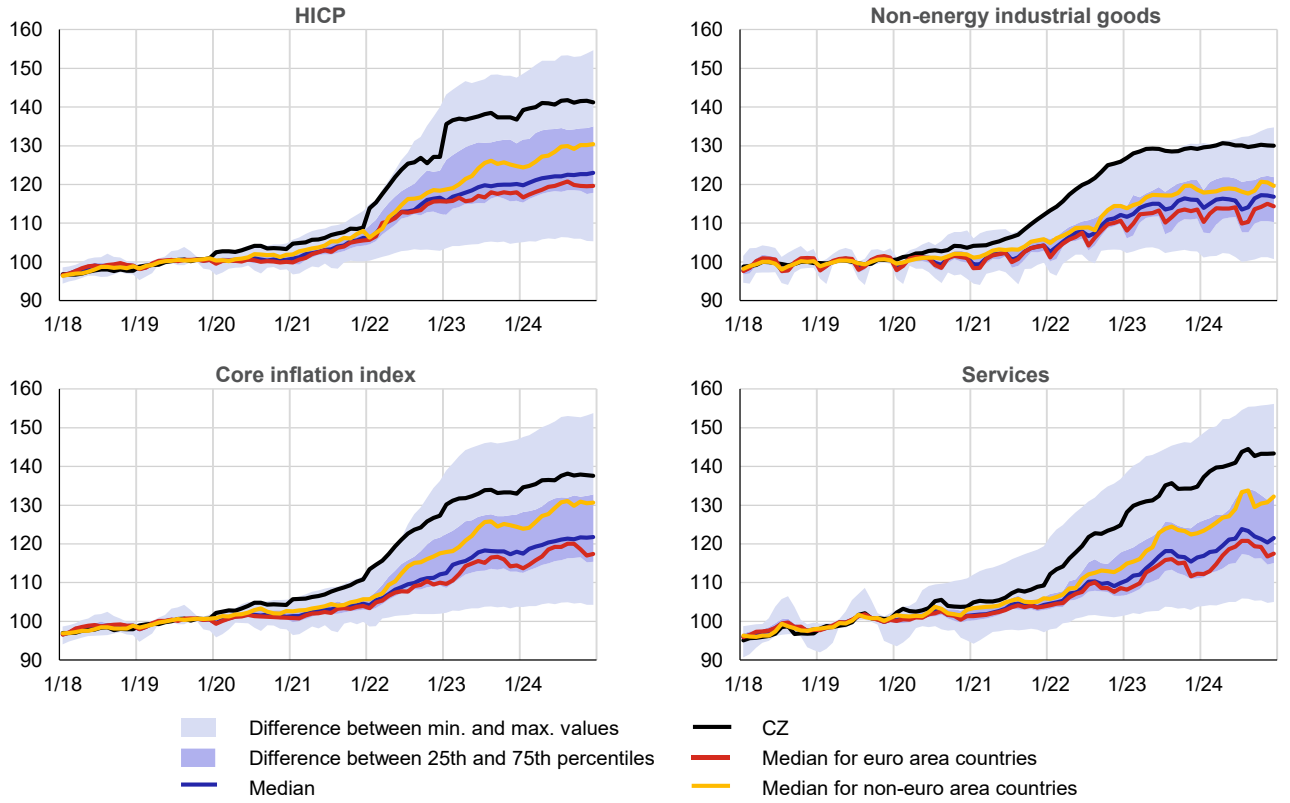
2.5 THE INFLATION WAVE IN EUROPEAN COUNTRIES: WHAT IS THE EURO'S EFFECT RELATIVE TO OTHER FACTORS?

Jan Brůha

The inflation wave observed after the Covid pandemic and during the energy crisis affected European countries to varying degrees. The analysis in this article shows that the key factors were the economies' pre-pandemic characteristics (in particular the degree to which they were overheated), their relative level of economic development and their energy intensity. Less advanced, energy-intensive, overheating economies recorded the sharpest price growth. Euro area countries recorded lower inflation, *ceteris paribus*, but this effect is small by comparison with other factors.

As a result of two recent shocks – the Covid-19 pandemic and the energy crisis – the Czech Republic recorded one of the biggest price level increases in Europe. A look at the distribution of selected price indices in advanced European countries reveals that the growth in these indices in the Czech Republic during the crisis years was above the 75th percentile (i.e. above the upper limit of the interquartile range; see Chart 1). Hungary, Poland and the Baltic States saw similarly dramatic growth. By contrast, Switzerland, Denmark and Finland recorded the smallest price index increases. Both groups of countries (i.e. with the lowest and highest increases) include both euro area countries and countries with their own monetary policy. However, the median increase was lower for euro area countries – for example, the average annual increase in the core inflation index was 3.4% in the euro area but 6% in non-euro area countries. Similar differences were recorded for the other indices.

Chart 1
The inflation wave in European countries
(indices, 2019 = 100)



Note: The chart shows the distribution of indices in 30 advanced European countries: all the EU countries plus Switzerland, Norway and Iceland. The UK was omitted, as it was impossible to obtain all the data under a comparable methodology.
Source: Eurostat, CNB calculations

The different sizes of the inflation waves following the pandemic and the energy crisis show that shocks of the same origin transmit differently to inflation across countries. To understand these differences, it is important to identify the main factors that explain the cross-country heterogeneity. Such analysis is crucial for economic policy-making and coordination in the EU and the euro area. From the perspective of this publication, it is particularly relevant whether – taking into account other factors – the inflation wave was systematically different in the euro area and in non-euro area economies.

For the analysis, we used an empirical approach that allows us to examine the effect of various factors on the size of the inflation wave. By contrast, new Keynesian structural models would in this context lead only to the trivial conclusion that if central banks had raised rates more and earlier, inflation would have been lower, in line with the standard transmission mechanism.[34] The effect of the euro would then be calculated simply as the difference between monetary policy rates in the domestic economy and the euro area multiplied by the relevant impulse response. However, this mechanistic approach is not very informative at times of extraordinary shocks, when the Phillips curve may be non-linear and price pressures unusually strong. An empirical approach, on the other hand, allows us to examine which pre-pandemic characteristics of economies really explain the differences in the size of the inflation wave, and hence whether euro area countries had systematically different inflation even when other factors are taken into account.

In our empirical analysis, we focused on the economies' pre-pandemic characteristics in order to identify factors that steered countries towards higher or lower inflation. We also considered some variables that may be influenced largely by exogenous factors. By contrast, we deliberately omitted variables that may have been strongly affected by the course of the inflation wave (e.g. nominal wage growth and money growth), as they would make the causes and effects hard to interpret.[35] The analysis therefore does not capture every inflation factor, but shows how the previous state of the economies translated into differences in inflation. It does not aim to explain inflation in any specific country in detail. Rather, it can used to identify an underlying inflationary environment that may contribute to inflation to different degrees in different countries during dramatic shocks.

The following determinants were considered:

- **Pre-crisis overheating of the economy**
  The non-linear Phillips curve theory says that a price shock will have a larger impact on inflation in an overheated economy.[36] Overheating may also be reflected in higher inflation expectations, which can amplify the effect of shocks. We measure the degree of overheating using the deviation of inflation from 2% (i.e. the level widely regarded as price stability)[37] in the last pre-pandemic year 2019.
- **Relative economic development/convergence**
  In countries where nominal convergence had not yet been fully achieved, producers were able to use the inflation wave to catch up with prices. We measure the relative level of development as the logarithm of the ratio of a country's GDP in 2019 at purchasing power parity to the median of the countries considered.[38]
- **Energy intensity**
  An energy price shock may have a greater impact in economies that need more energy per unit of GDP. We measure energy intensity as the share of energy consumption in kilograms of oil equivalent per EUR 1,000 of GDP at purchasing power parity.
- **Energy price growth**
  Energy price growth varied across European countries depending, among other things, on their energy mix and support policies. Energy prices enter the analysis in the form of the increase in the energy price index between 2019 and 2024.
- **Fiscal expansion**
  Ad hoc fiscal support measures varied considerably across countries. Fiscal expansion can have an impact on inflation via growth in domestic demand.[39] For the purposes of this analysis, we measure it as the deviation of growth in the ratio of government expenditure to GDP from the pre-pandemic trend.
- **Exchange rate**
  A depreciation is reflected in import prices and is therefore an inflation factor.[40] The cumulative change between 2024 and 2019 is considered.

[34] A calculation for the Czech economy during the Covid-19 pandemic is contained, for example, in a blog post on the CNB website (Král, Musil and Tvrz): *Monetary policy of the last two years in the rear-view mirror, or what we managed to prevent*

[35] Econometrics uses the term "bad controls". See, for example, Angrist and Pischke (2014).

[36] Harding et al. (2023).

[37] Alternatively, we considered the unemployment gap for 2019. The results are similar in qualitative terms.

[38] The relative price level was also considered in the analysis. In the given sample of countries, however, relative economic development and the relative price level are highly correlated and the empirical method used can therefore select only one of them. If we had used the relative price level instead of relative economic development in the analysis, the results and their interpretation would have been very similar.

[39] To some extent, fiscal expansion may also be endogenous through the operation of automatic fiscal multipliers. However, owing to the introduction of ad hoc fiscal measures that differed across countries, we also include it among the potential predictors.

[40] In calm times, a change in the exchange rate is an endogenous variable reflecting an important monetary policy transmission channel. In turbulent times, however, it tends to be affected by non-fundamental shocks and can therefore be regarded as non-endogenous to some extent.

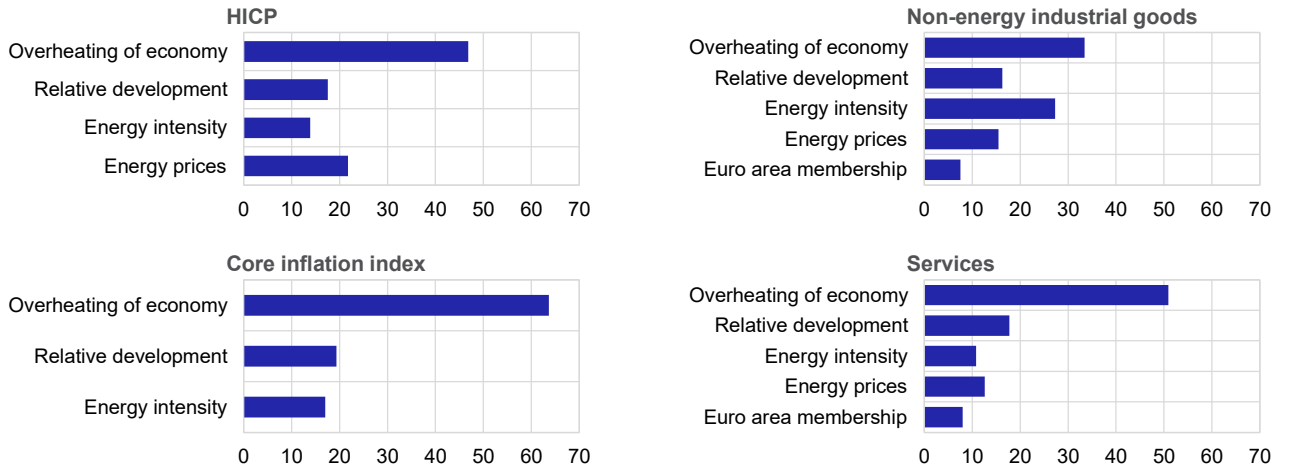
- **Euro area membership**
  In euro area countries, it is easier for consumers to compare prices internationally. Producers thus face greater competition and have less room to hike their prices.

Based on these determinants, we explain the cumulative increase in four price indices over the five crisis years (2020–2024): the overall Harmonised Index of Consumer Prices (HICP), the non-energy industrial goods price index, the core inflation index and the services price index.[41] Data were collected for 30 advanced European countries, i.e. all the EU countries, Switzerland, Norway and Iceland.[42] Most of the data were sourced from Eurostat. In a few cases, missing data were added from the websites of individual central banks.

We used the LASSO machine learning method to select key determinants. This approach allows us to select from the set of potentially important variables only those that actually have a significant information content. By penalising overly complex models, LASSO reduces the risk of overfitting and thus increases the robustness of the results.[43] It therefore provides a transparent and statistically anchored way to identify the most important factors among many potential ones.

We also measured the significance of individual factors to explain the cross-country variability of the inflation wave. After selecting the variables using the LASSO method, we estimated the model using classical regression.[44] We measured the relative importance of the selected factors using Shapley decomposition of the coefficient of determination (R^2), which fairly distributes the model-explained variability among the explanatory variables, taking into account their mutual correlations. Chart 2 shows the Shapley values, i.e. the contributions of the determinants identified by the LASSO method to explaining the evolution of the price indices under review.

Chart 2
Shapley decomposition of the importance of individual factors
(shares in %)



Source: CNB calculations

From the perspective of statistical and economic criteria, the most important factor explaining the cross-country differences in inflation waves is the economies' degree of overheating in the pre-crisis period. In the case of headline inflation, core inflation and services price inflation, every percentage point of pre-crisis overheating adds around 5 percentage points to the overall increase in the index over the five-year period under review (i.e. 1 percentage point a year). In the case of the non-energy industrial goods price index, the effect is smaller (but still strong) at around 3 percentage points. The fact that the inflation shock had a bigger impact in overheated economies suggests that even a temporary deviation from the inflation target may have long-term consequences and, if significant adverse factors materialise, may lead to markedly higher inflation than would correspond to the original shock.

[41] These are HICP analytical aggregates published by Eurostat.

[42] The UK was omitted, as it was impossible to obtain all the data under a comparable methodology.

[43] We set the penalty parameter using cross-validation, which ensures that the model is not adapted only to specific data but is generally applicable.

[44] See Belloni and Chernozhukov (2013).

Other important determinants include the relative level of economic development, growth in energy prices, and energy intensity.[45] Higher growth in energy prices and energy intensity led to faster growth in all the indices monitored. This was to be expected given the pass-through of energy prices to goods and services prices. An increase in energy prices of 1 percentage point translated into increases in headline inflation of around 0.3 percentage point, non-energy industrial goods inflation of 0.2 percentage point and services price inflation of 0.1 percentage point. By contrast, a higher relative level of economic development reduced expected growth in the price indices. In other words, inflation was higher *ceteris paribus* in converging countries.

The effect of euro area membership on the cross-country differences in price index growth is relatively small but is statistically significant for non-energy industrial goods and services. The cumulative increase in the price level – taking other variables into account – was 0.5 percentage point lower per year on average in euro area countries than in non-euro area countries. However, this factor is the least significant of all the determinants identified.

Conclusion

Whether or not a country is a euro area member played no major role in explaining the different courses of the inflation wave across European countries. The main factors identified were pre-pandemic overheating of the economy, energy intensity and growth in energy prices. The Czech economy was in an unfavourable position in terms of all these factors, so these determinants contributed to above-average price index growth compared to other European countries in the period under review.

The conclusions of this chapter relate solely to the comparison of the inflation wave between European countries during two specific extraordinary shocks. They should not be seen as a general assertion about the dynamics of inflation. For example, fiscal expansion is generally inflationary, but it did not come out as an important factor in our empirical analysis. This may be related to relatively small cross-country differences in fiscal policies. Moreover, mechanisms that differ from the normal functioning of the economy may manifest themselves at times of extraordinary shocks, whereas the standard transmission mechanism described in structural macroeconomic models is applicable in normal times.

[45] These two factors have been identified as significant in other CNB analyses. See, for example, the blog post on the CNB website by Adam and Schwarz: *Inflation rates in Europe: An explanation of the differences using different price levels and energy intensities*.

3 CHARTBOOK

3.1 THE CZECH REPUBLIC'S CYCLICAL AND STRUCTURAL ALIGNMENT WITH THE EURO AREA

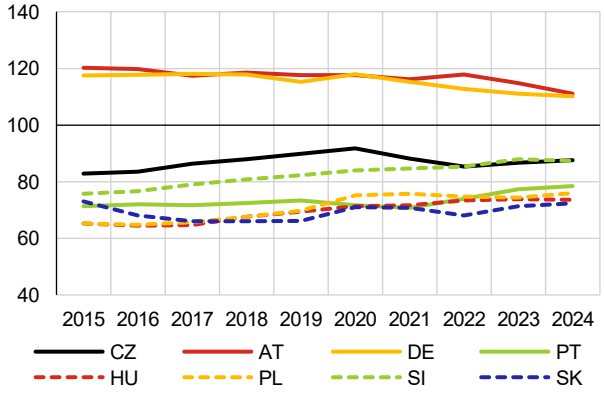
3.1.1 DIRECT ALIGNMENT INDICATORS

- Real economic convergence[46]
- Convergence of price levels and wages
- Cyclical alignment of the Czech Republic's economic activity with the euro area
- Structural similarity of the Czech economy to the euro area economy
- Trade links with the euro area
- Intensity of intra-industry trade with the euro area
- Ownership links with the euro area
- Alignment of the Czech and euro area financial cycles
- Interest rate convergence vis-à-vis the euro area
- Volatility of the exchange rate of the Czech currency against the euro
- Alignment of the Czech koruna with the euro
- Financial market alignment

ECONOMIC CONVERGENCE

Czech GDP per capita at purchasing power parity has shown almost no convergence to the euro area average since 2020. The lag behind the most advanced euro area countries is thus still sizeable.

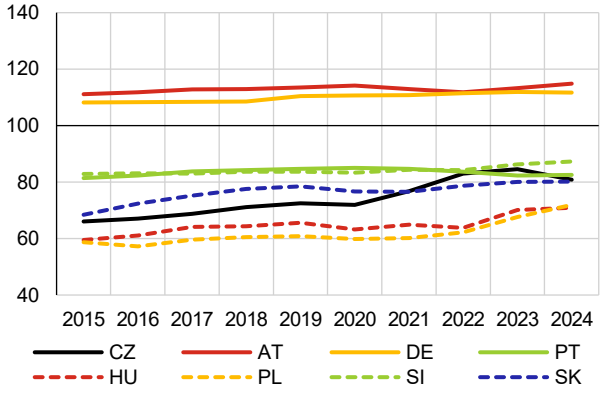
GDP per capita at purchasing power parity (PPP)
(EA20 = 100)



Source: Eurostat, CNB calculations

The price level of Czech GDP diverged from the euro area average in 2024.

Price level of GDP
(EA20 = 100)



Source: Eurostat, CNB calculations

[46] The colours and directions of the arrows are explained in the Introduction to this document.

In 2024, the real koruna-euro exchange rate saw a significant correction of its previous appreciation. The average annual rate of appreciation of the koruna's real exchange rate over the last ten years is 2.8%.

Real exchange rate against the euro (HICP-deflated)
(2010 = 100; a rise in the index means appreciation of the real exchange rate)

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
CZ	93.2	94.4	97.8	100.6	101.9	100.7	105.9	117.0	127.2	121.9
AT	103.3	104.1	104.8	105.2	105.5	105.4	106.8	107.1	109.4	110.0
DE	100.5	100.6	100.8	101.0	101.1	100.1	101.8	102.1	102.8	102.9
PT	99.9	100.3	100.3	99.7	98.9	97.4	96.9	96.7	96.5	96.8
HU	92.5	92.3	93.7	91.9	92.1	86.9	88.3	86.1	97.9	95.8
PL	96.0	91.6	94.0	93.4	93.4	92.3	93.3	94.9	103.0	110.0
SI	99.2	98.8	98.9	99.0	99.5	97.9	98.5	99.3	101.0	100.6
SK	101.6	100.9	100.7	101.5	103.1	103.7	105.1	108.7	114.5	115.4

Source: Eurostat, CNB calculations

Real interest rates in the Czech Republic turned positive for the first time in eight years. A switch from negative to positive figures was also recorded in the other countries under review.

Real 3M interest rates
(%, ex post, HICP-deflated)

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
CZ	0.0	-0.4	-2.0	-0.7	-0.5	-2.4	-2.4	-7.4	-4.3	2.2
AT	-0.8	-1.2	-2.5	-2.4	-1.8	-1.8	-3.2	-7.6	-4.0	0.6
DE	-0.7	-0.6	-2.0	-2.2	-1.7	-0.8	-3.6	-7.7	-2.5	1.1
PT	-0.5	-0.9	-1.9	-1.5	-0.7	-0.3	-1.4	-7.2	-1.7	0.9
HU	1.5	0.5	-2.2	-2.7	-3.1	-2.6	-4.1	-4.6	-2.9	3.3
PL	2.5	1.9	0.1	0.5	-0.4	-2.8	-4.7	-6.4	-3.9	2.2
SI	0.7	-0.1	-1.9	-2.2	-2.0	-0.1	-2.5	-8.2	-3.5	1.6
SK	0.3	0.2	-1.7	-2.8	-3.0	-2.4	-3.2	-10.5	-6.8	0.4

Source: Eurostat, CNB calculations

Czech wages in euro diverged from the euro area average in 2024.

Average wage per employee in EUR
(EA = 100)

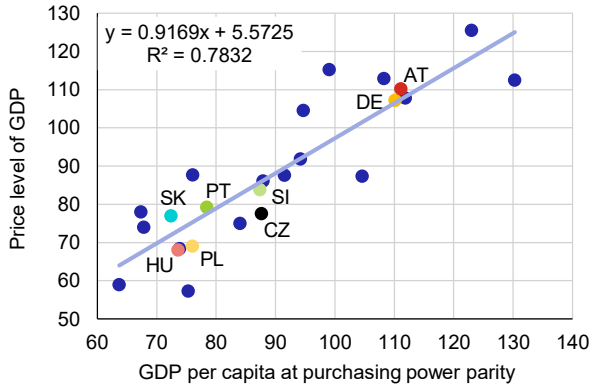
	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
CZ	40.3	42.1	45.6	49.7	52.3	53.0	55.6	59.3	61.6	59.6
AT	112.6	113.8	113.6	114.3	114.9	117.4	115.9	116.2	117.9	122.3
DE	106.0	107.2	108.2	109.3	110.4	111.2	109.9	109.8	110.3	111.1
PT	52.4	52.3	52.4	53.6	55.1	56.3	57.2	57.7	59.3	61.3
HU	30.4	30.8	32.6	33.2	34.7	33.3	34.0	34.9	39.0	40.6
PL	33.2	32.9	35.0	36.8	37.7	38.4	37.5	39.3	44.0	49.9
SI	63.6	64.8	65.6	66.8	68.8	71.7	74.2	74.5	77.5	78.8
SK	40.4	40.7	42.1	43.7	45.6	47.5	48.7	49.3	51.7	53.1

Source: AMECO, CNB calculations

The Czech price level is below the level corresponding to domestic GDP per capita by comparison with EU countries.

GDP per capita at purchasing power parity versus the price level

(2024, EA20 = 100)



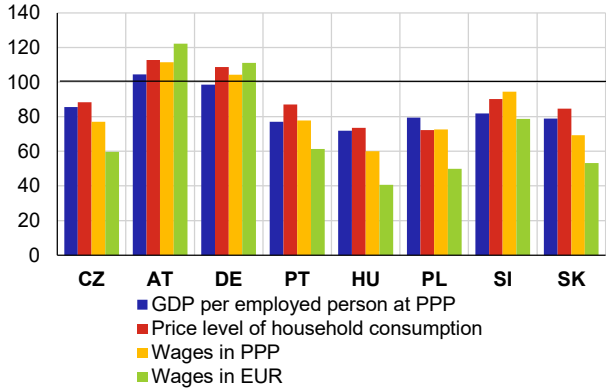
Note: Luxembourg and Ireland are not included in the chart due to the many specificities of their economies, which result in exceptionally high GDP per capita.

Source: Eurostat, CNB calculations

Czech wages at purchasing power parity are 77% of the euro area average. In euro terms, they are just below 60%.

Other indicators of long-term convergence

(2024, EA20 = 100 for the price level of household consumption, EA = 100 for other indicators)

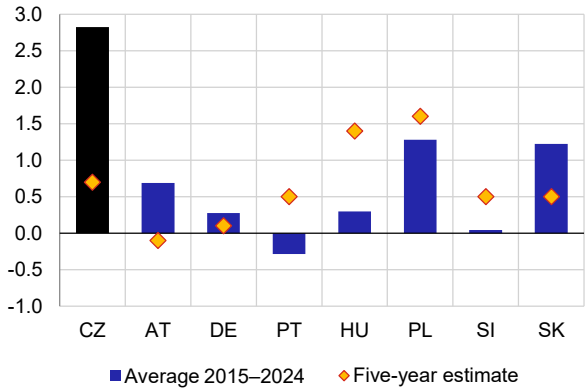


Source: Eurostat, European Commission, CNB calculations

The real exchange rate of the koruna has appreciated by 2.8% a year on average over the last ten years. Its future annual equilibrium rate of appreciation is estimated at 0.7%.

Real exchange rate appreciation:
average for last ten years and estimate for next five years

(% p.a., HICP-deflated)



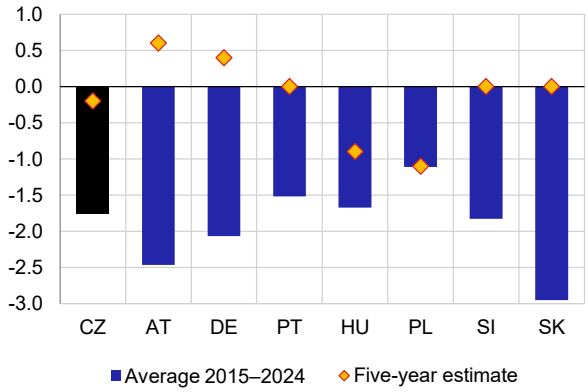
Note: The chart shows the geometric mean for 2015–2024. The estimate of the average pace of equilibrium real exchange rate appreciation for the next five years is based on a panel regression linking the price level of final consumption of households compared to the euro area average with GDP at purchasing power parity per capita.

Source: Eurostat, CNB calculations

Real interest rates in the Czech Republic would probably be around zero following euro adoption. They have been -1.8% on average over the last ten years.

Real 3M interest rates:
average for last ten years and estimate for next five years after hypothetical euro adoption

(%, ex post, HICP-deflated)



Note: Simple arithmetic mean for 2015–2024. The estimated average equilibrium real interest rate for the next five years after hypothetical euro adoption is derived from an estimate of the pace of equilibrium real exchange rate appreciation, assuming a zero money market risk premium and an equilibrium real interest rate in the euro area of 0.5%.

Source: Eurostat, CNB calculations

See the Overall message of the analyses.

CYCLICAL ALIGNMENT OF ECONOMIC ACTIVITY

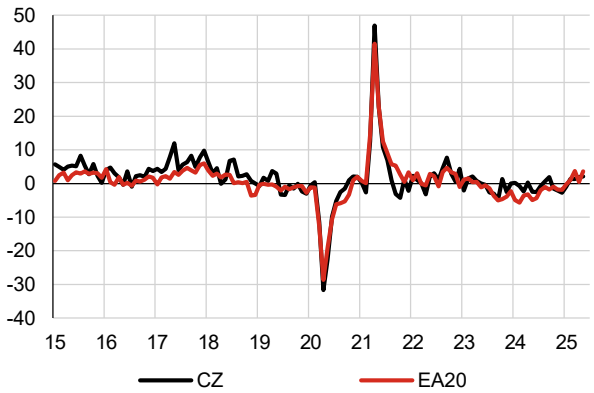
The growth of the Czech economy exceeded that of the euro area over the last year.

Real GDP
(y-o-y, %)

Note: The EA aggregate is used for the euro area.
Source: Eurostat

Industrial production growth has been positive again since the start of 2025.

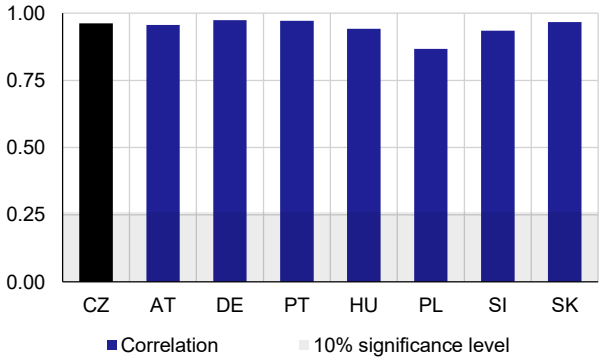
Industrial production index
(y-o-y, %)



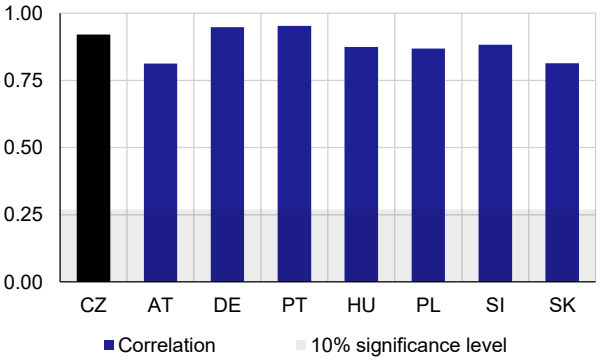
Note: The EA aggregate is used for the euro area.
Source: Eurostat

The degree of the Czech Republic's economic alignment with the euro area has long been one of the highest among the countries under review.

Correlation coefficients of GDP with the euro area



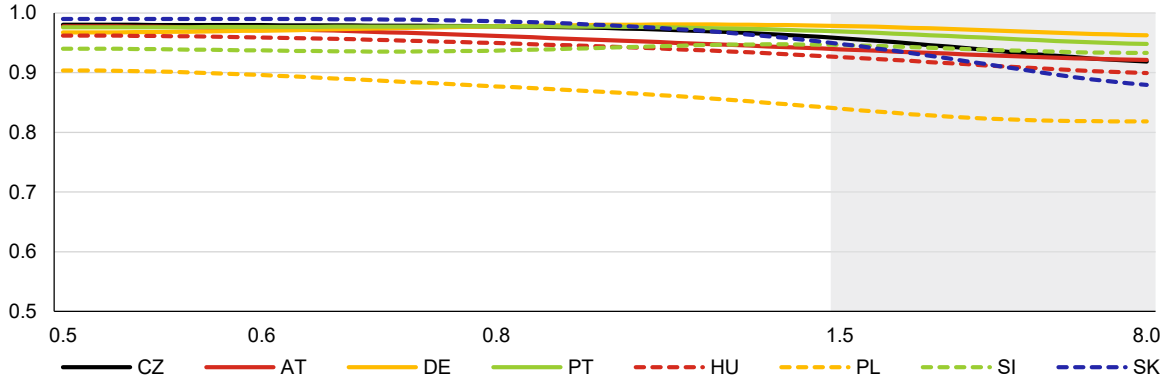
Correlation coefficients of exports to the euro area with euro area GDP



Note: The calculation is based on the quarter-on-quarter differences in the logarithms of the seasonally adjusted data in 2015 Q1–2025 Q1. The statistical significance of the correlation coefficients is indicated in the chart: values statistically significant at the 10% level lie in the white area of the chart (i.e. values in the grey part of the chart are not statistically significant at the 10% level).
The EA aggregate is used for the euro area.
Source: Eurostat, CNB calculations

The high alignment of the economic response to shocks is also indicated by the dynamic correlations between business cycles in the monitored band of 1.5–8 years.

Dynamic correlations of economic activity with the euro area



Note: The calculation is based on the quarter-on-quarter differences in the logarithms of the seasonally adjusted data. The x-axis is the cycle length in years.

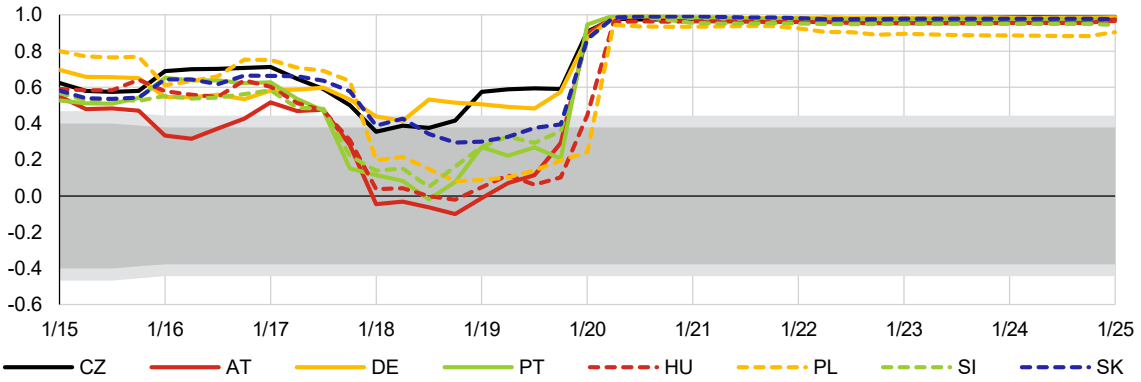
The grey area indicates the monitored band of 1.5−8 years, which usually covers the typical duration of the business cycle.

The EA aggregate is used for the euro area.

Source: Eurostat, CNB calculations

The five-year rolling correlations of economic activity between the countries under review and the euro area show that the correlations have surged recently due to a synchronised response to common external shocks in the form of the Covid-19 pandemic, the war in Ukraine and the energy crisis.

Five-year rolling correlations of GDP growth between individual countries and the euro area



Note: The time data indicate the end of a 5-year rolling window. The calculation is based on the quarter-on-quarter differences in the logarithms of the seasonally adjusted data.

The statistical significance of the correlation coefficients is indicated in the chart: values statistically significant at the 5% level lie in the white area of the chart, and values statistically significant at the 10% level lie in the white or light grey parts of the chart. Values in the dark grey part of the chart are not statistically significant at the 10% level.

The EA aggregate is used for the euro area.

Source: Eurostat, CNB calculations

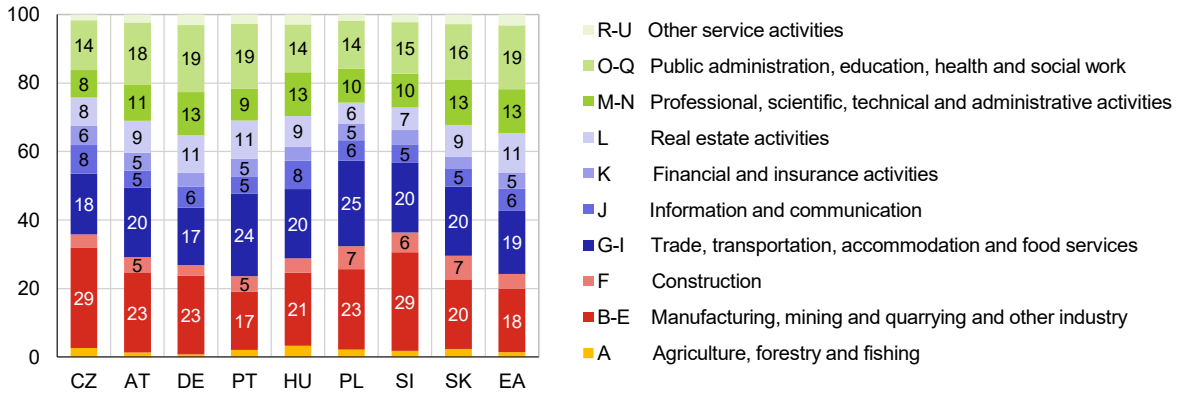
See the Overall message of the analyses.

STRUCTURAL SIMILARITY OF THE ECONOMIES

The Czech Republic has long recorded a higher share of industry in GDP than the euro area; in recent years, this share has even been the highest among the countries under review.

Shares of economic sectors in GDP

(2024, %)

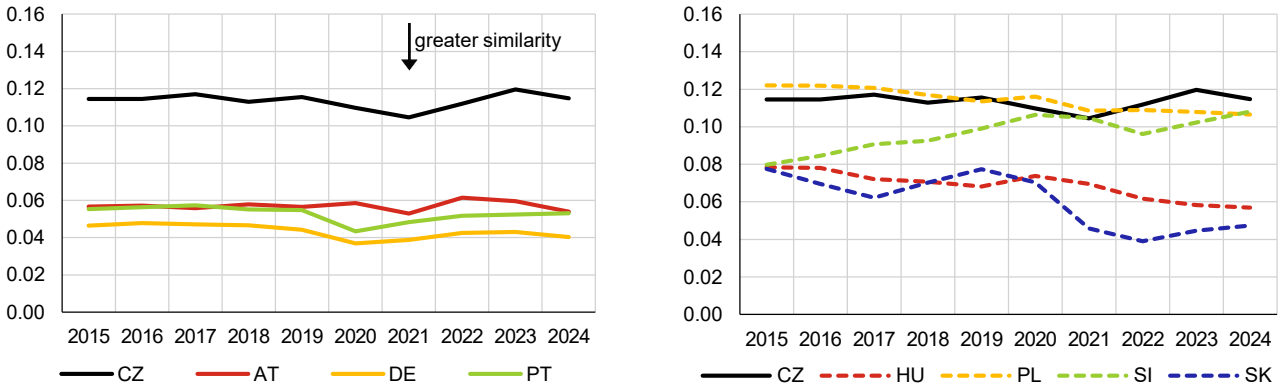


Source: Eurostat, CNB calculations

The different structure of value added by sector is also reflected in long-standing relatively high values of the Landesmann index, indicating a lower degree of similarity of the Czech economy with the euro area economy.

Structural similarity vis-à-vis the euro area

(Landesmann index)



Note: The Landesmann index takes values in the range [0, 1]. The closer the index is to zero, the more similar is the structure of the economies under comparison. The index values differ from the previous issues of this publication due to data revisions.

The EA aggregate is used for the euro area.

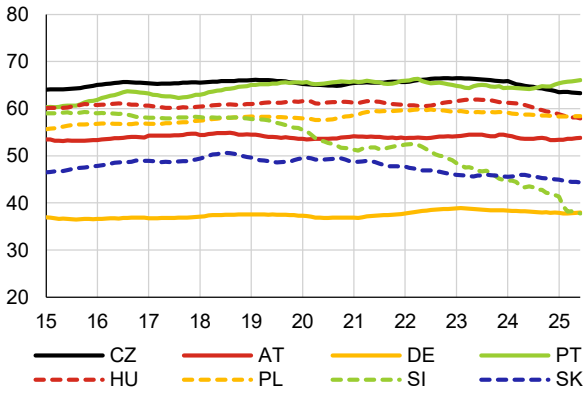
Source: Eurostat, CNB calculations

See the Overall message of the analyses.

TRADE AND OWNERSHIP LINKS BETWEEN THE ECONOMIES

The Czech Republic exports a larger share of its goods to the euro area than most monitored countries but recently the share of exports to the euro area in total Czech exports has edged down.

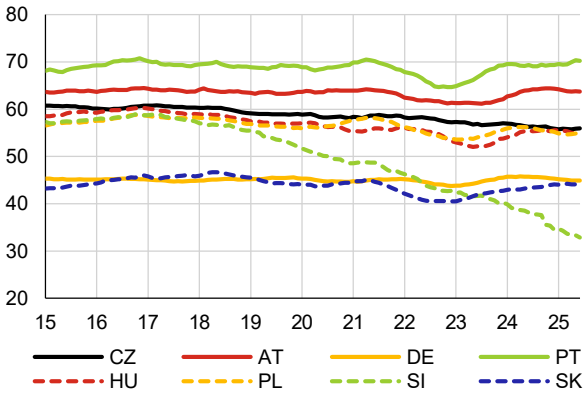
Shares of exports to the euro area in total exports
(%)



Note: Annual moving total of the monthly data.
The EA20 aggregate is used for the euro area.
Source: Eurostat, CNB calculations

A similar trend can be observed on the import side: the share of goods from the euro area in total Czech imports has declined in recent years.

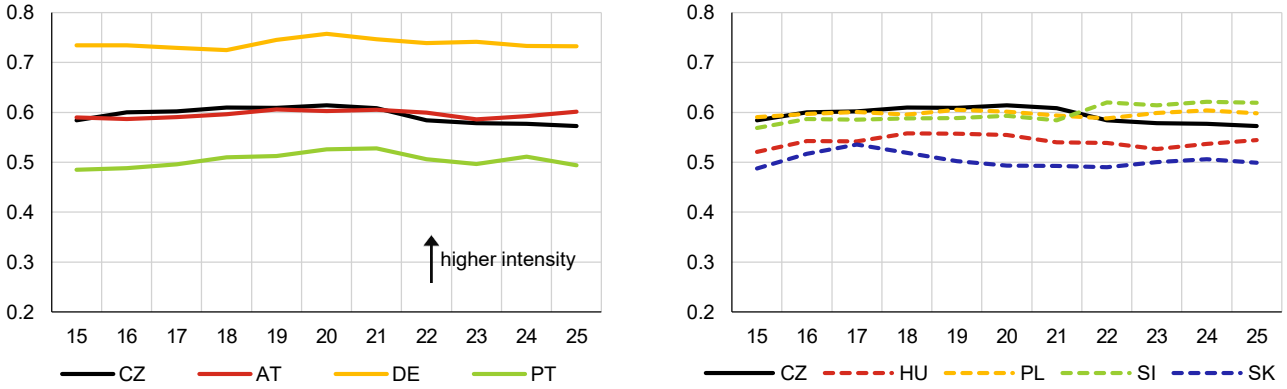
Shares of imports from the euro area in total imports
(%)



Note: Annual moving total of the monthly data.
The EA20 aggregate is used for the euro area.
Source: Eurostat, CNB calculations

Strong trade links with the euro area within the same sectors are also typical for the Czech Republic. These links foster similar reactions of the economies to potential economic shocks. Recently, however, this indicator has also weakened slightly.

Intensity of intra-industry trade with the euro area
(under SITC5)



Note: The results were calculated using the five-digit SITC classification. To analyse intra-industry trade we used the Grubel-Lloyd index, which indicates the share of the absolute value of intra-industry trade in foreign trade turnover with the euro area. The 2025 figure is for the first six months of the year.
The EA20 aggregate is used for the euro area.
Source: Eurostat, CNB calculations

The alignment of the Czech economy with the euro area is also strengthened by a high degree of ownership links. Direct investment from the euro area in the Czech Republic is significant relative to the size of the Czech economy.

Ratios of FDI stock from the euro area to GDP
(%)

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
CZ	61.7	62.5	63.6	62.6	61.3	64.9	65.1	58.7	55.4	57.1
AT	44.8	35.3	39.6	40.0	34.3	36.3	35.9	36.8	37.8	39.2
DE	25.8	26.1	26.2	28.3	28.5	30.6	29.8	29.7	28.4	28.3
PT	63.4	63.3	65.2	61.2	63.2	65.7	64.8	62.5	59.9	57.7
HU	59.1	52.0	47.1	45.5	41.3	41.6	40.2	39.7	36.4	35.1
PL	36.8	39.3	39.5	37.4	37.0	37.1	38.5	35.7	37.2	35.0
SI	23.9	25.9	26.3	27.3	27.3	29.1	27.7	30.7	29.1	29.6
SK	44.7	50.8	48.9	48.1	47.2	46.9	43.5	43.2	38.0	37.2

Note: The EA20 aggregate is used for the euro area.
Source: Eurostat, national central bank for Hungary, CNB calculations

By contrast, direct investment from Central and Eastern Europe in the euro area generally remains low. However, the Czech Republic is doing better than most other countries in the region in this regard.

Ratios of DI stock in the euro area to GDP
(%)

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
CZ	18.4	17.9	21.1	20.1	20.2	20.9	20.3	19.2	19.3	20.9
AT	26.3	30.5	31.4	30.5	31.7	26.0	26.3	29.0	28.9	32.0
DE	28.1	28.7	30.1	32.7	34.7	38.1	37.8	37.6	37.1	36.9
PT	28.7	29.3	28.0	25.6	27.0	27.6	25.6	25.4	24.2	23.2
HU	12.1	12.9	11.5	10.8	10.5	13.2	13.7	13.9	13.2	12.4
PL	8.7	8.6	7.2	7.0	6.5	6.9	6.9	6.7	7.0	6.7
SI	4.4	4.8	5.3	5.7	6.5	6.4	6.1	11.2	10.4	11.1
SK	7.8	11.4	8.8	8.4	8.3	10.4	10.2	10.3	8.5	9.1

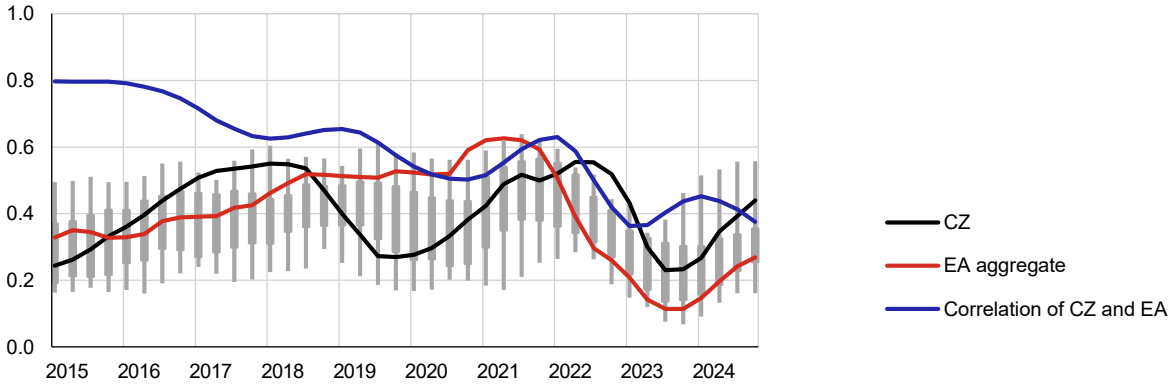
Note: The EA20 aggregate is used for the euro area.
Source: Eurostat, national central bank for Hungary, CNB calculations

See the Overall message of the analyses.

ALIGNMENT OF THE CZECH AND EURO AREA FINANCIAL CYCLES

During 2024, the position of the euro area in the financial cycle increased more slowly than that of the Czech Republic; unlike the Czech Republic, it has not yet exceeded the historical average. The synchronisation of positions and the correlation of developments between the Czech Republic and the euro area thus decreased.

Simplified financial cycle indicators for the Czech Republic and the euro area and their correlation
(0 minimum, 1 maximum)



Note: The simplified financial cycle indicator takes values from 0 to 1, with higher values corresponding to an expansionary phase of the financial cycle. The boxplot shows the minimum value, the 25% quantile (the lower edge of the rectangle), the 75% quantile (the upper edge of the rectangle) and the maximum value of the simplified financial cycle indicator in the euro area countries for each period.

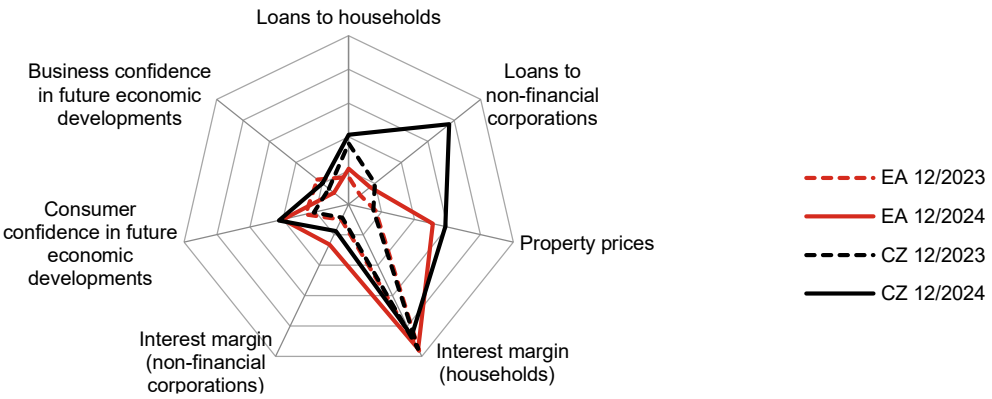
The indicator values differ from previous issues of this publication due to data revisions.

The construction and composition of the simplified indicator differ from the official financial cycle indicator (FCI) used in the Financial Stability Report, mainly because of the unavailability of similar data for all the countries analysed. The results for the Czech Republic may therefore differ from the official FCI.

Source: ECB, Eurostat, BIS, CNB, CNB calculations

The variables entering the financial cycle indicator show a more gradual bottoming-out of the financial cycle in the euro area than in the Czech Republic, and consequently a decline in financial cycle alignment between the Czech Republic and the euro area.

Individual contributions to the simplified financial cycle indicator



Note: The simplified financial cycle indicator takes values from 0 to 1 (the trough and the peak of the cycle respectively). The same applies to its individual components.

Loans include all sources of financing, i.e. all counterparties and including bonds.

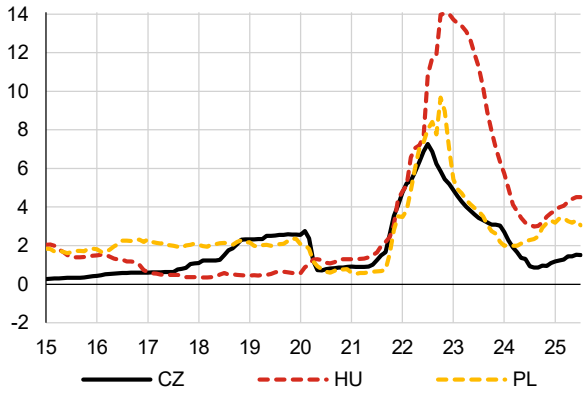
Source: ECB, Eurostat, BIS, CNB, CNB calculations

See the Overall message of the analyses.

INTEREST RATE CONVERGENCE VIS-À-VIS THE EURO AREA

The differential between short-term interest rates in the Czech Republic and the euro area narrowed between mid-2022 and mid-2024 to levels slightly below 1 percentage point. It subsequently rose to the current level around 1.5 percentage points due to the gradual decrease in euro area rates. The spreads of Hungarian and Polish rates recorded a similar trend, but their current levels are markedly higher compared to Czech rates.

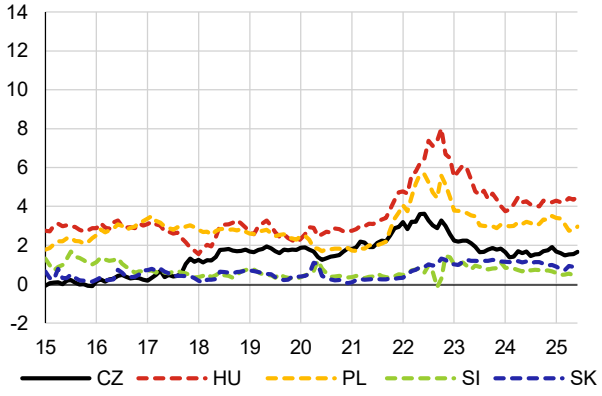
Differences in 3M interest rates vis-à-vis the 3M EURIBOR
(percentage points)



Source: Eurostat, CNB calculations

The long-term rate spread in the Czech Republic remained around 1.7 percentage points over the last year. Of the three Central European economies with their own currencies, the Czech Republic has the lowest long-term differential vis-à-vis the euro area.

Differences in 10Y interest rates vis-à-vis Germany
(differential vis-à-vis 10Y government bond yield in percentage points)



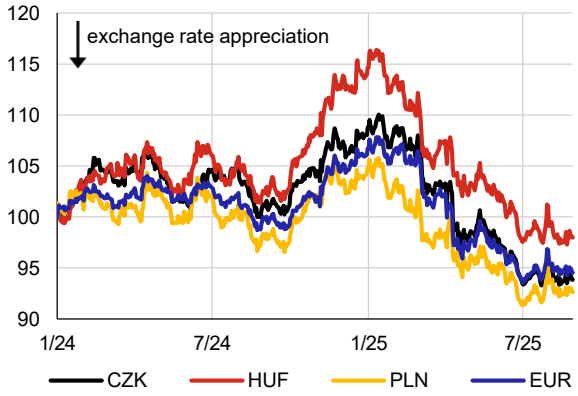
Source: Eurostat, CNB calculations

See the Overall message of the analyses.

EXCHANGE RATE VOLATILITY AND ALIGNMENT

The movements of Central European currencies were again largely aligned this year, probably due to global factors.

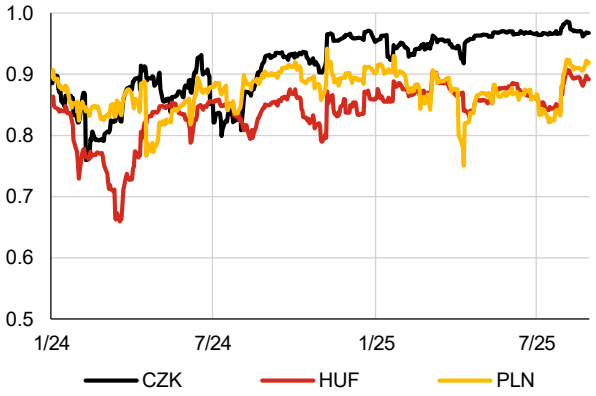
Exchange rates against the US dollar
(index, 1 January 2024 = 100)



Source: Refinitiv

The Czech koruna returned to high levels of correlation of its exchange rate against the dollar with the euro-dollar exchange rate.

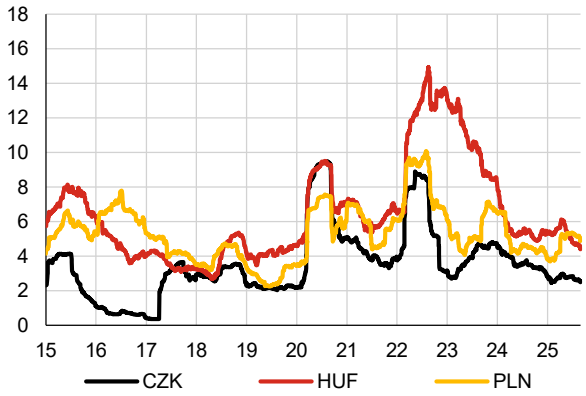
Correlations of exchange rates against the US dollar
(correlations: national currency/USD and EUR/USD)



Source: Refinitiv, CNB calculations

The historical volatility of the Czech koruna fell almost to the levels reached before the pandemic.

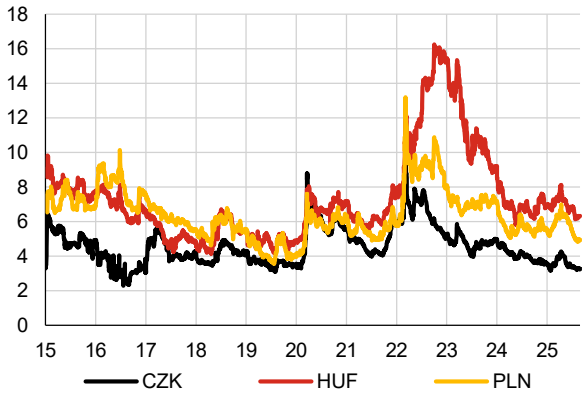
Historical volatility of exchange rates vis-à-vis the euro
(%)



Source: Refinitiv, CNB calculations

The implied volatility of the Czech koruna is at a similar level as before 2020.

Implied volatility of exchange rates vis-à-vis the euro
(daily data, expected volatilities of exchange rates of national currencies based on prices of options for those currencies, %)



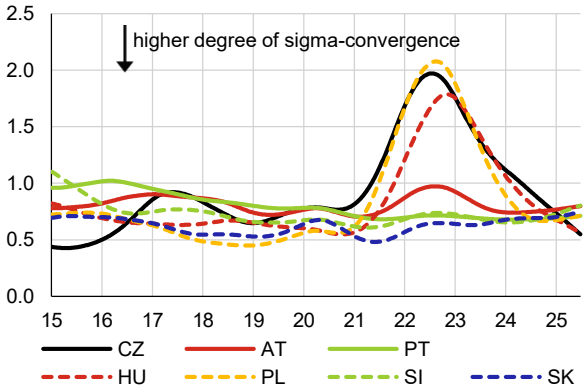
Source: Refinitiv, CNB calculations

See the Overall message of the analyses.

FINANCIAL MARKET ALIGNMENT

Following a deterioration in 2021–2023, the alignment of the Czech government bond market with the benchmark German market returned to the level observed in the previous decade, where it stayed at the end of the period under review.

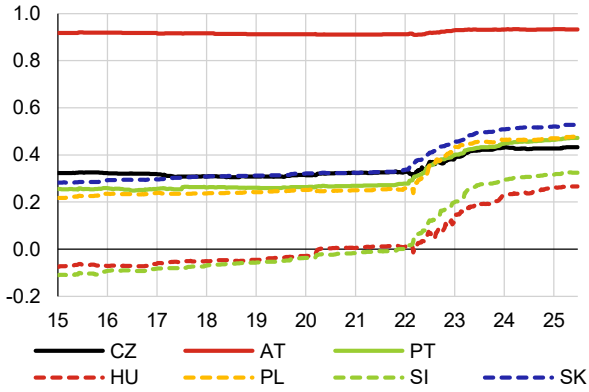
Degree of convergence of government bonds compared to Germany
(sigma-convergence)



Note: Lower standard deviations (y-axis) correspond to a higher degree of convergence.
Source: Refinitiv, CNB calculations

The rate of transmission of global news on the government bond market remains elevated in the Czech Republic by comparison with Germany. As in the other monitored countries, it has risen slightly further since 2024, underlining the persisting strong effect of global shocks.

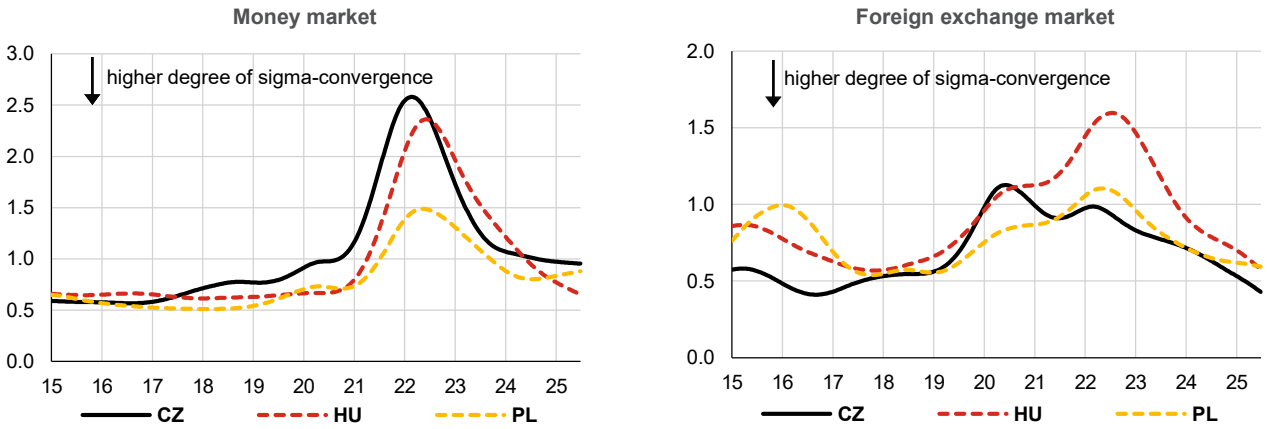
Sensitivity of asset prices to global news by comparison with Germany
(gamma-convergence)



Note: Positive (negative) gamma values close to one express the same (opposite) directional and similarly strong sensitivity to news and hence a higher degree of integration; values close to zero express low integration.
Source: Bloomberg, Refinitiv, CNB calculations

The degree of convergence of the Czech money and foreign exchange markets with the benchmark euro market rose slightly further over the last year.

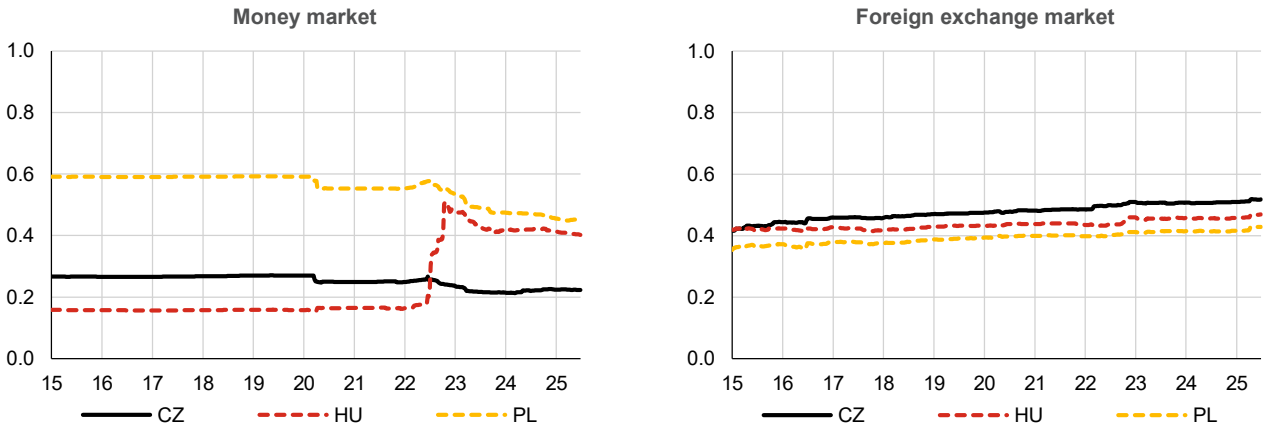
Degree of convergence of national financial markets to the euro area
(sigma-convergence)



Note: Lower standard deviations (y-axis) correspond to a higher degree of convergence.
Source: Refinitiv, CNB calculations

The rate of transmission of global news on the Czech money and foreign exchange markets stabilised by comparison with the euro area following a previous slight increase.

Sensitivity of asset prices to global news by comparison with the euro area
(gamma-convergence)



Note: Positive (negative) gamma values close to one express the same (opposite) directional and similarly strong sensitivity to news and hence a higher degree of integration; values close to zero express low integration.
Source: Bloomberg, Refinitiv, CNB calculations

See the Overall message of the analyses.

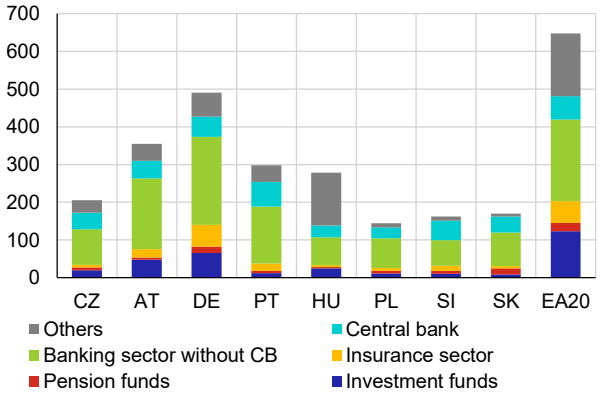
3.1.2 SIMILARITY OF MONETARY POLICY TRANSMISSION

- Depth of financial intermediation
- Private sector debt
- Structural similarity of non-financial corporations' balance sheets in the Czech Republic and the euro area
- Structural similarity of households' balance sheets in the Czech Republic and the euro area
- Structural similarity between the volume of loans of non-financial corporations in the Czech Republic and the euro area
- Structural similarity between the volume of loans for house purchase in the Czech Republic and the euro area
- Spontaneous euroisation of non-financial corporations
- Spontaneous euroisation of households
- Inflation persistence

FINANCIAL SYSTEM

The depth of financial intermediation in the Czech Republic is one of the lowest among the countries under comparison.

Depth of financial intermediation
(2024, assets of financial institutions as % of GDP)

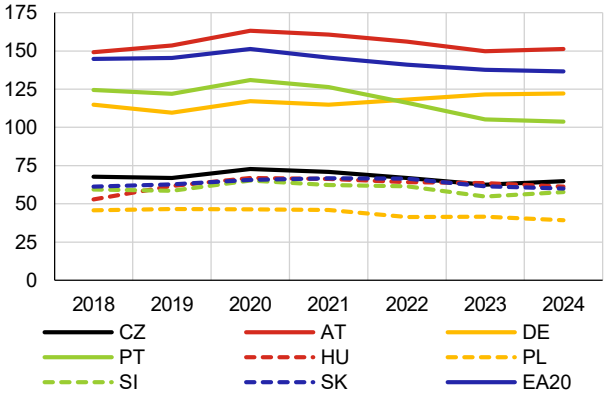


Note: The total assets of the banking sector except the central bank are adjusted for exposures to the central bank. The euro area value exceeds the other countries in the chart due to the large volume of assets of financial corporations in France, Ireland, Luxembourg and the Netherlands both as a percentage of their GDP and compared with the total financial assets of the euro area.

Source: CNB, ECB, Eurostat, national central banks.

Private sector debt in the Czech Republic is substantially below the euro area average. Its previous three-year decline was replaced by a slight increase in 2024. A similar trend is visible in some of the monitored euro area countries (Austria and Slovenia).

Private sector debt
(% of GDP)



Note: Loans provided by local banks to the private sector and debt securities issued by the private sector and held by local banks.

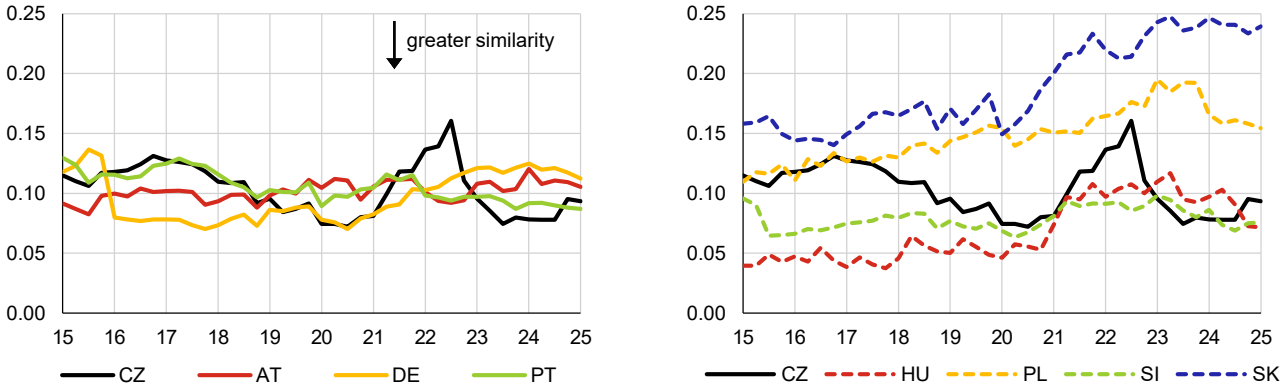
Source: ECB DWS, Eurostat

See the Overall message of the analyses.

STRUCTURE OF FINANCIAL LIABILITIES OF CORPORATIONS

The similarity of the structure of the financial liabilities of Czech and euro area firms is high compared to the countries under review. A significant fluctuation in financial derivatives purchased by energy companies led to a temporary decrease in the similarity of the liabilities structure in 2021–2022 but did not have a permanent effect.

Similarity of the structure of the financial liabilities of non-financial corporations and euro area corporations
(Landesmann index)



Note: The Landesmann index takes values in the range [0, 1]. The closer the index is to zero, the more similar is the structure of the balance sheets under comparison. The shares of the individual categories of liabilities in total liabilities were used for non-financial corporations. In September 2024, financial accounts across the EU underwent a large data revision dating back to 2016. This applies particularly to Germany and Austria, but also to other countries. The values of the Landesmann index thus differ from those in the previous issues of this publication. This is because the revision led to significant changes on both the liabilities side (loans, bonds) and the asset side (equity, derivatives), magnifying the structural debt of the non-financial corporations sector.

The EA20 aggregate is used for the euro area.

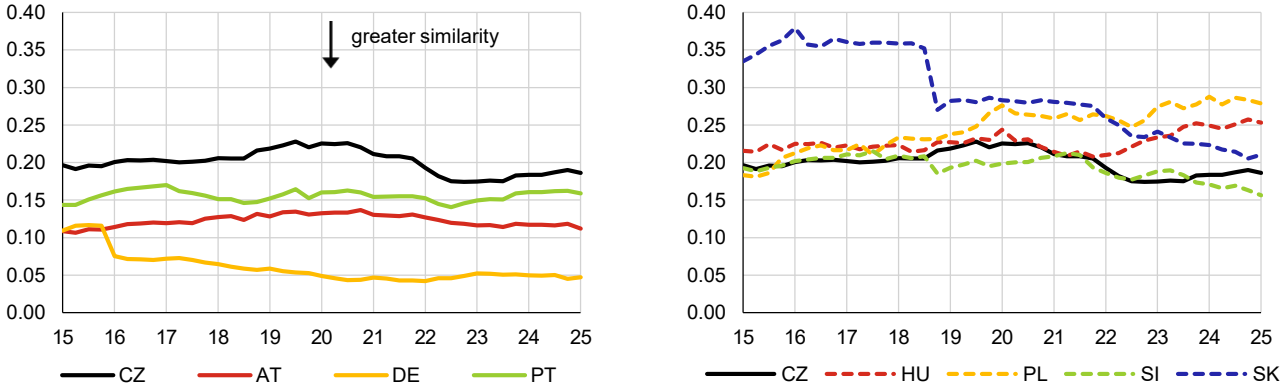
Source: ECB, CNB calculations

See the Overall message of the analyses.

STRUCTURE OF FINANCIAL ASSETS OF HOUSEHOLDS

The similarity of the structure of the financial assets of Czech households and households in the euro area remains relatively low. The dissimilarity is due mainly to Czech households' preference for units and shares alongside cash and deposit holdings, while households in the euro area hold a large part of their balance sheets in insurance and pension schemes.

Similarity of the structure of the financial assets of households and euro area households
(Landesmann index)



Note: The Landesmann index takes values in the range [0, 1].The closer the index is to zero, the more similar is the structure of the balance sheets under comparison. The shares of the individual categories of assets in total assets were used for households. The index values differ from the previous issues of this publication due to data revisions, above all the latest large revision going back to 2016. The drop for Slovakia is due to a methodological change and data revision only until 2019. The drop for Germany is due to a data revision only until 2016.

The EA20 aggregate is used for the euro area.

Source: ECB, CNB calculations

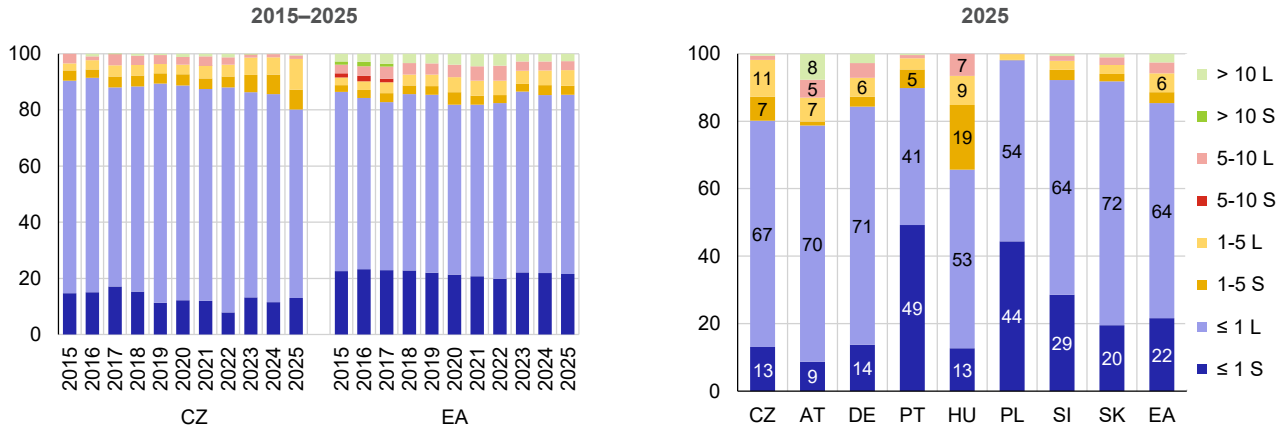
See the Overall message of the analyses.

INTEREST RATES ON LOANS TO NON-FINANCIAL CORPORATIONS

The fixed-rate interest rate structure of loans to non-financial corporations in the Czech Republic and the euro area remains similar. More than 80% of loans to non-financial corporations in the Czech Republic and in most euro area countries under review have floating rates or fixed rates of up to one year. This gives rise to the rapid transmission of changes in monetary policy rates and subsequently market rates to the loan rates provided to non-financial corporations.

Structure of new loans to non-financial corporations by fixed-rate period

(%)



Note: The numbers in the legend stand for the fixed-rate period in years; the ≤1 category also includes loans with a floating interest rate. S and L denote small (up to EUR 1 million) and large (over EUR 1 million) loans, respectively.

The data are averages for the calendar year. The 2025 data are as of June.

Source: ECB, CNB calculations

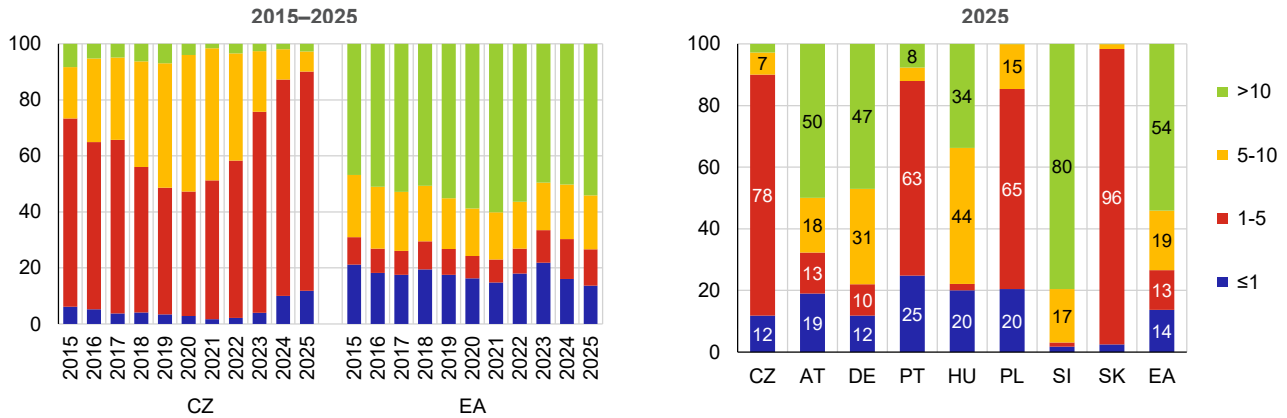
See the Overall message of the analyses.

INTEREST RATES ON LOANS FOR HOUSE PURCHASE

As regards loans to households, the average fixed-rate period for Czech households continued to decline, due mainly to a continued shift towards three-year fixes at the expense of five-year fixes. The main difference in the fixed-rate structure between the Czech Republic and the euro area has long consisted in the share of fixed-rate periods of over ten years. This is very low in the Czech Republic, while it is more than one-half in the euro area. These loans with long fixed-rate periods may reduce the sensitivity of households to changes in market rates in the euro area.

Structure of new loans to households for house purchase by fixed-rate period

(%)



Note: The numbers in the legend stand for the fixed-rate period in years; the ≤1 category also includes loans with a floating interest rate.

The data are averages for the calendar year. The 2025 data are as of June.

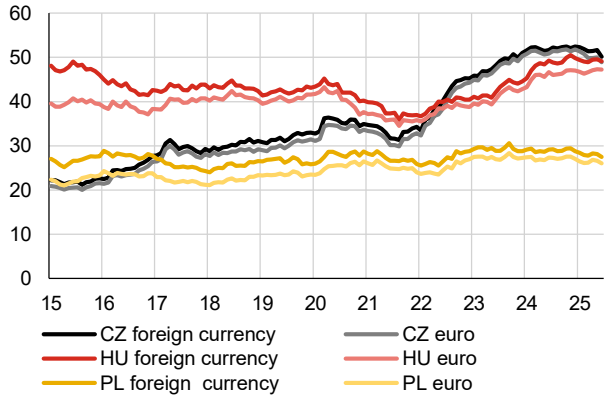
Source: ECB, CNB calculations

See the Overall message of the analyses.

SPONTANEOUS EUROISATION OF NON-FINANCIAL CORPORATIONS

The share of foreign currency loans provided by domestic banks to Czech corporations edged down to 50%. It is similar to Hungary but markedly higher than in Poland.

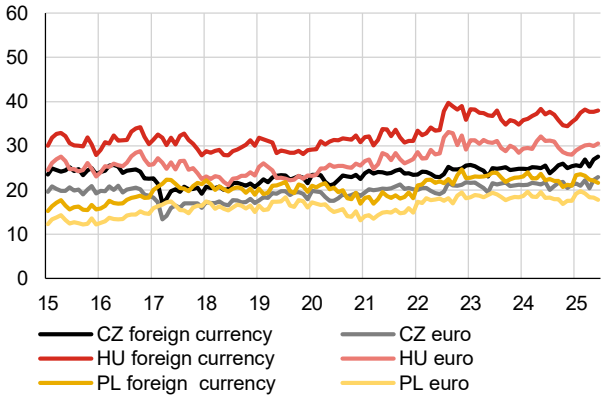
Foreign currency loans of non-financial corporations
(shares in total loans to corporations with domestic banks, %)



Source: ECB, CNB calculations

The share of foreign currency deposits of Czech corporations has recently increased somewhat but remains much lower than in the case of bank loans (28% in June 2025).

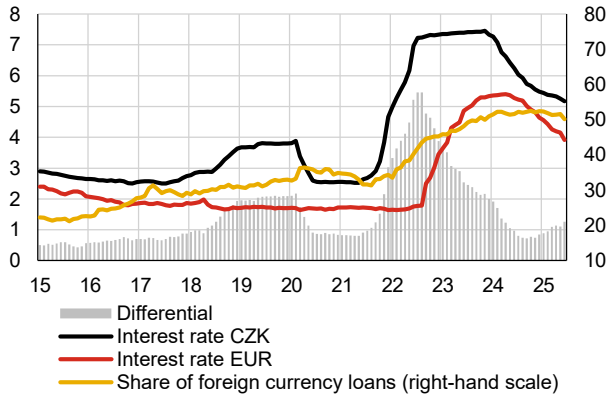
Foreign currency deposits of non-financial corporations
(shares in total deposits of corporations with domestic banks, %)



Source: ECB, CNB calculations

The share of foreign currency (mostly euro) loans of Czech corporations saw a slight decline partly due to a decrease in the interest rate differential between domestic and euro interest rates.

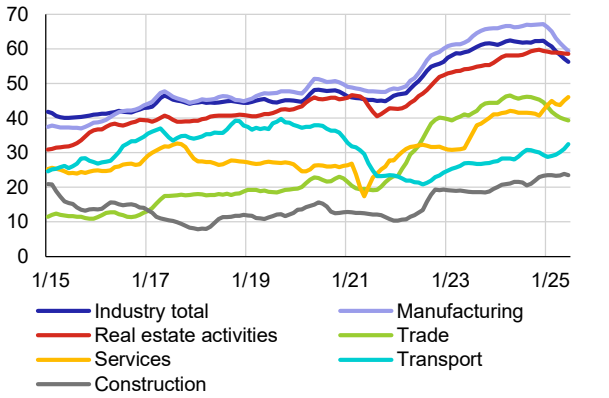
Interest rates on koruna- and euro-denominated loans of Czech corporations with domestic banks
(%)



Source: CNB, CNB calculations

The share of euro loans fell mainly in industry and trade. However, this share remains high in industry, as well as in real estate activities (around 60%).

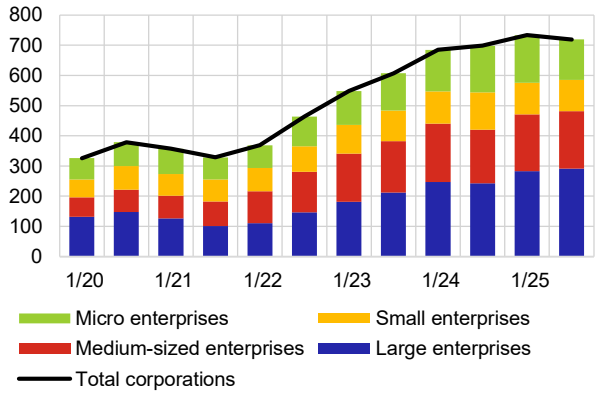
Euro-denominated loans in selected sectors
(shares in total loans in given sector with domestic banks, %, 3M moving averages)



Source: CNB, CNB calculations

Euro loans were drawn mainly by larger enterprises, while domestic currency financing is predominant among small ones. The share of euro loans was 56% for large enterprises, 55% for medium-sized enterprises and 39% for small enterprises.

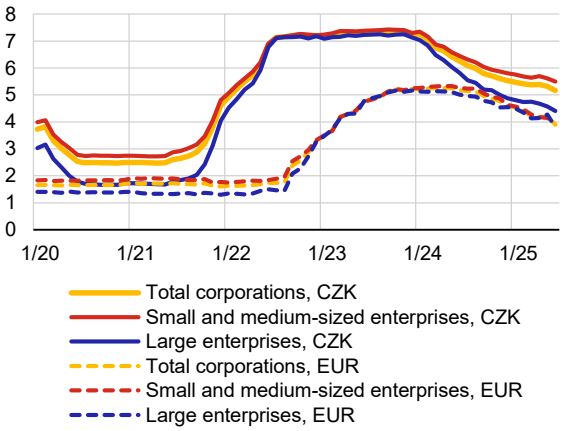
Euro-denominated loans by corporation size
(volumes in CZK billions)



Source: CNB AnaCredit, CNB calculations

Interest rates on euro and koruna loans have recently been similar for large corporations, whereas rates on koruna loans are still higher for medium-sized and small enterprises.

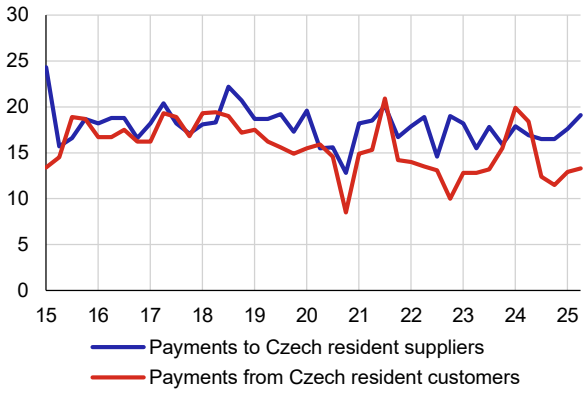
Interest rates on koruna and euro loans by corporation size
(%)



Source: CNB AnaCredit, CNB calculations

The share of euro payments between Czech firms in selected sectors remains close to its long-term level.

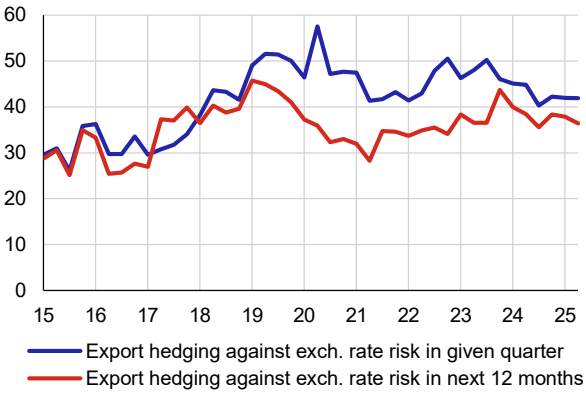
Shares of euro payments between Czech firms
(%)



Source: Survey of non-financial corporations conducted by the CNB and the Confederation of Industry of the Czech Republic

The hedging of exports against exchange rate risk on the financial market has not changed much over the past year. Around 36% of exports are hedged at the one-year horizon and 42% in the given quarter.

Shares of export hedging against exchange rate risk using financial derivatives
(%)



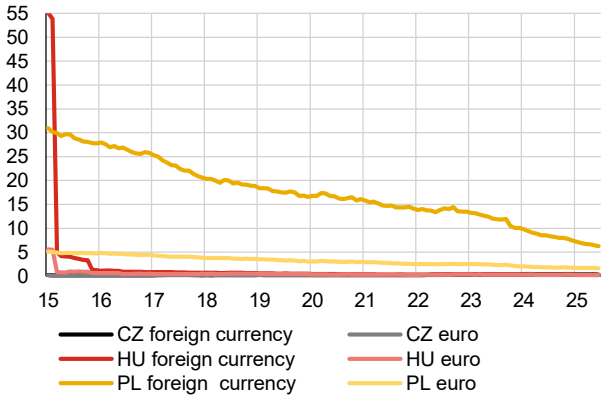
Source: Survey of non-financial corporations conducted by the CNB and the Confederation of Industry of the Czech Republic

See the Overall message of the analyses.

SPONTANEOUS EUROISATION OF HOUSEHOLDS

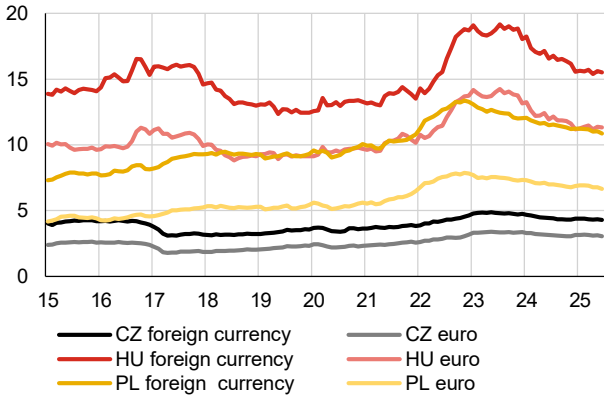
The euroisation of households is very low in the Czech Republic – the share of euro loans remains at 0.3% and the share of euro deposits at around 3%. The degree of euroisation of households is much lower than in Hungary and Poland.

Foreign currency loans of households
(shares in total loans of households with domestic banks, %)



Note: The share of foreign currency loans in Hungary fell to zero in 2015 owing to administrative measures.
Source: ECB, CNB calculations

Foreign currency deposits of households
(shares in total deposits of households with domestic banks, %)



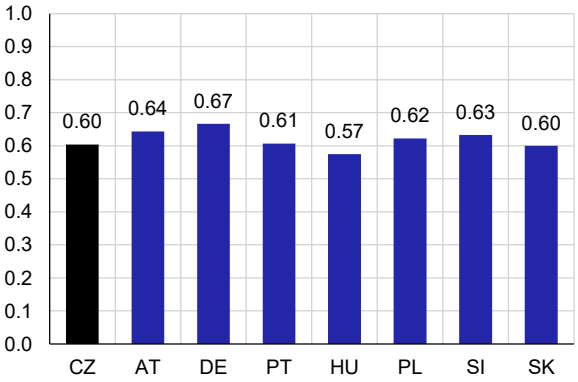
Source: ECB, CNB calculations

See the Overall message of the analyses.

INFLATION PERSISTENCE

Inflation persistence in the Czech Republic is one of the lowest among the monitored countries. However, the difference compared to euro area countries is not significant, so the single monetary policy would have similar effects on inflation in this respect.

Inflation persistence estimates



Note: Calculation for 2015 Q1–2025 Q2.
Inflation persistence is measured as the sum of the autoregression coefficients. The closer the values are to one, the more persistent inflation is.
Source: Eurostat, CNB calculations

See the Overall message of the analyses.

3.2 ADJUSTMENT MECHANISMS OF THE CZECH ECONOMY

3.2.1 FISCAL POLICY

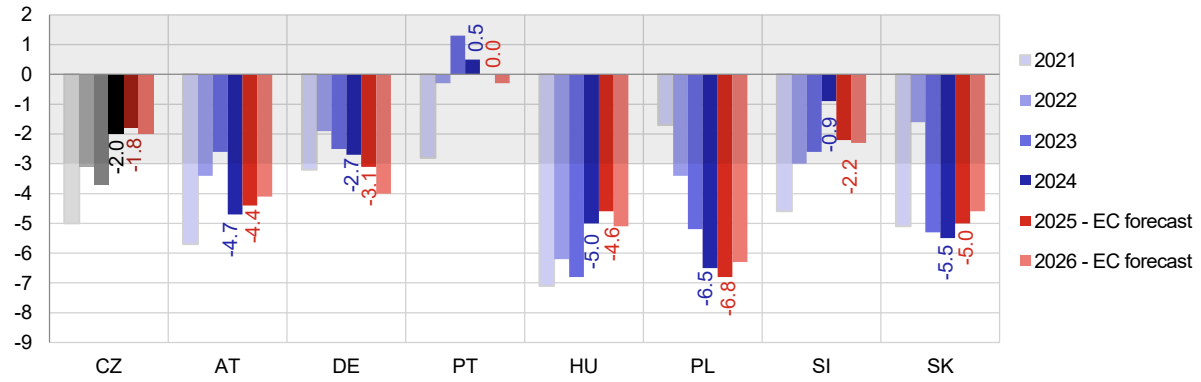
- General government balance
- General government debt
- Room for the countercyclical effect of fiscal policy
- Long-term sustainability of public finances

After the energy crisis subsided, the Czech Republic managed to lower its general government deficit by more than 1.5 percentage points in 2024, thus meeting the 3% reference value of the Maastricht criterion.

However, not all EU countries recorded favourable fiscal developments. The European Commission opened excessive deficit procedures against nine EU Member States in 2024 and 2025, mainly because they had considerably exceeded the 3% reference value. Of the monitored countries, this pertained to Austria, Hungary, Poland and Slovakia.

General government balance

(% of GDP, 2021–2024 actual data, 2025–2026 European Commission forecast – red)

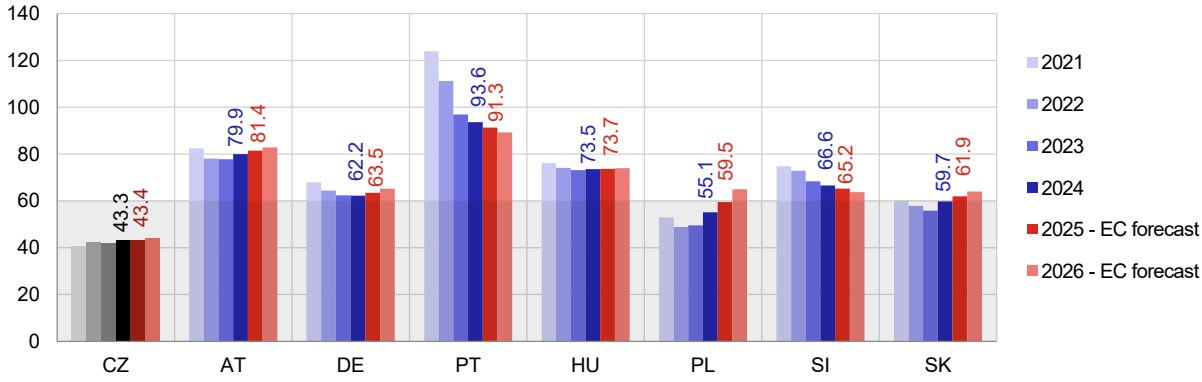


Note: Countries compliant with the Maastricht criterion (the Stability and Growth Pact) lie in the grey area.
Source: Eurostat, European Commission autumn 2025 forecast

General government debt in the Czech Republic has been rising gradually in recent years. By EU comparison, however, the Czech Republic ranks among the countries with lower debt (below the reference value of 60% of GDP under the Maastricht criterion).

General government debt

(% of GDP, 2021–2024 actual data, 2025–2026 European Commission forecast – red)

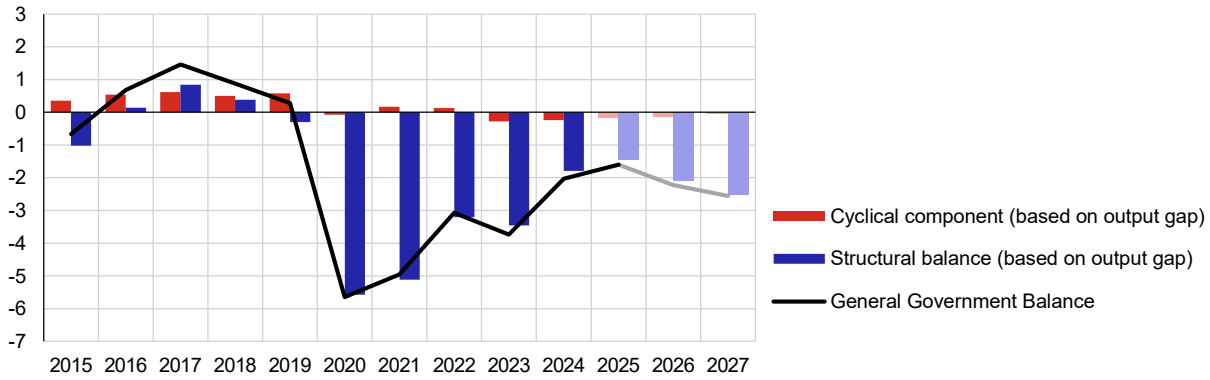


Note: Countries compliant with the Maastricht criterion (the Stability and Growth Pact) lie in the grey area.
Source: Eurostat, European Commission autumn 2025 forecast

Thanks to the consolidation effort, the general government deficit was reduced below the 3% reference value in 2024, but no further decline in deficit is expected in the years ahead, owing mainly to relatively high mandatory expenditures. A further decrease in general government deficit would require the adoption of additional consolidation measures.

The Czech Republic's general government balance and its cyclical and structural components

(% of GDP and percentage points)



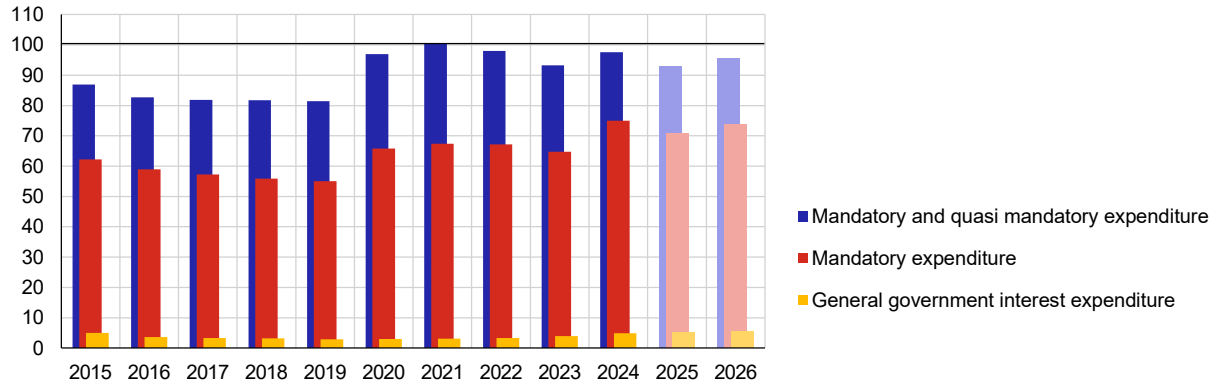
Note: The structural balance is the general government balance adjusted for the business cycle in the form of a cyclical component and for one-off measures.

Source: CZSO (2015–2024), CNB calculations (2025–2027 forecast, decomposition into the cyclical and structural components over the entire horizon)

During the Covid-19 crisis, mandatory and quasi-mandatory expenditures stipulated by law surged and were close to 100% of state budget revenues adjusted for the effect of EU funds.
They remain elevated at more than 90%. Fiscal policy thus has very little room for manoeuvre to respond to exceptional events while complying with domestic fiscal rules.

Ratio of mandatory and quasi-mandatory expenditures in the Czech Republic to state budget revenues adjusted for EU-related revenues

(%)



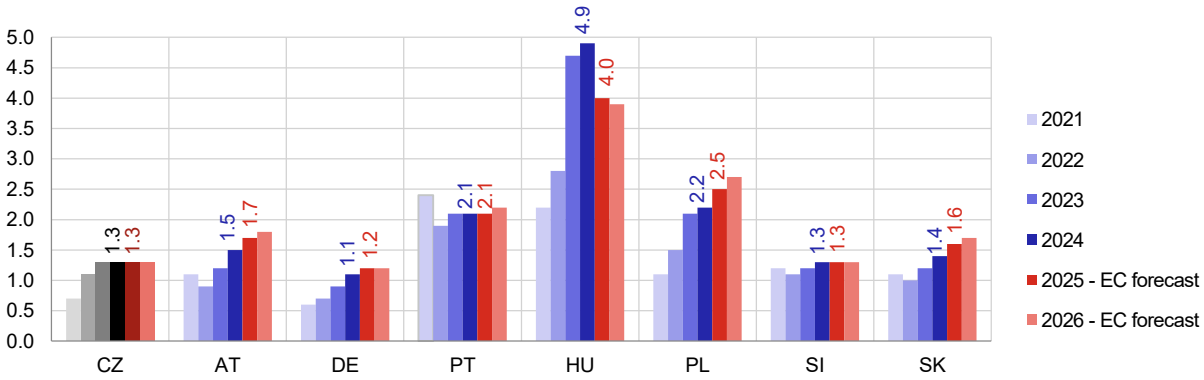
Note: Pension insurance benefits, government payments of health insurance for persons insured by the state (pensioners, students), mandatory expenditures on defence due to the Czech Republic's membership of NATO, and interest on general government debt account for the largest volume of mandatory expenditures. Quasi-mandatory expenditures include wage expenditures in organisational units of the state and semi-budgetary organisations, the Czech Republic's contribution to the EU budget and expenditures on the private and church school system.

Source: Draft state budget for 2026

Interest expenditures on general government debt in the Czech Republic rose by 0.5 percentage point relative to GDP during the Covid-19 and energy crises and are no longer among the lowest in the EU. The European Commission's autumn 2025 fiscal forecast expects interest expenditures to stabilise at 1.3% of GDP.

Interest on general government debt

(% of GDP, 2021–2024 actual data, 2025–2026 European Commission forecast – red)

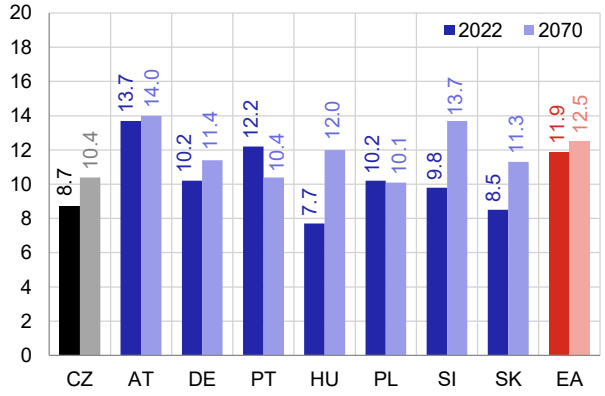


Source: Eurostat, European Commission autumn 2025 forecast

The Czech Republic is currently in the group of countries with relatively low expenditures on pension insurance benefits of around 9% of GDP. The long-term outlook for the Czech Republic does not indicate their significant increase.

Pension insurance benefits

(% of GDP)



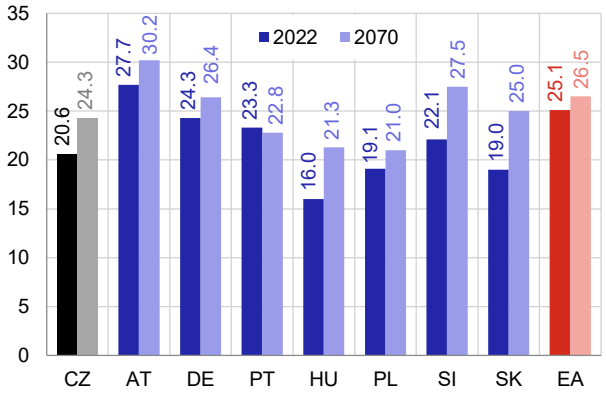
Note: The reform of the pay-as-you-go pension system approved in late 2024 is not captured in the chart for CZ. It is estimated to reduce expenditures on pension insurance benefits by 1.7 percentage points in 2070. Specifically, the pension reform raises the statutory retirement age to 67 years from the current 65 years, slows the growth in newly awarded pensions and tightens the conditions for early retirement.

Source: European Commission (2024).

However, total age-related expenditures, which take into account additional health care and long-term care expenditures, will rise more markedly.

Age-related government expenditures

(% of GDP)



Note: Age-related expenditures include pension insurance benefits (above all old-age pensions) and expenditures on health care and long-term care.

Source: European Commission (2024).

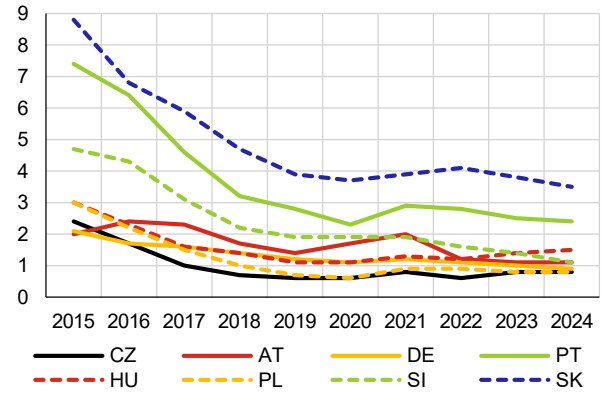
See the Overall message of the analyses.

3.2.2 THE LABOUR MARKET AND THE PRODUCT MARKET

- Long-term unemployment rate
- Share of part-time jobs in employment
- Rate of economic activity of the population
- Labour mobility
- Labour taxation
- Competitiveness of the Czech economy

The long-term unemployment rate in the Czech Republic is still the lowest among the countries under review, despite a marginal increase over the past two years.
(Poland recorded the same rate in 2024.)

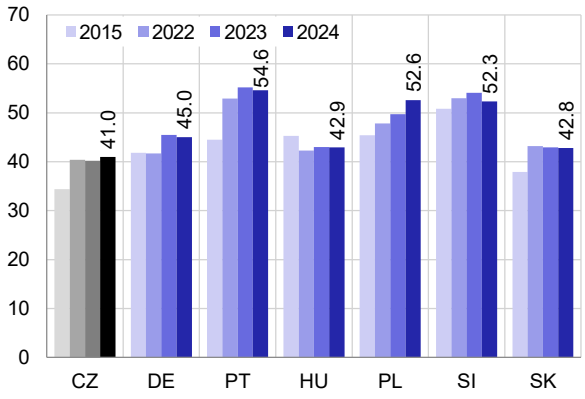
Long-term unemployment rate
(%)



Note: Shares of persons unemployed for 12 months or more in the labour force (under ILO methodology).
Source: Eurostat

The ratio of the minimum wage to the average wage in the Czech Republic has been slightly above 40% in recent years. As a result of the automatic indexation introduced by last year's amendment to the Labour Code, the minimum wage is expected to rise gradually to 47% of the average wage in 2029.

Minimum wage
(% of average wage)

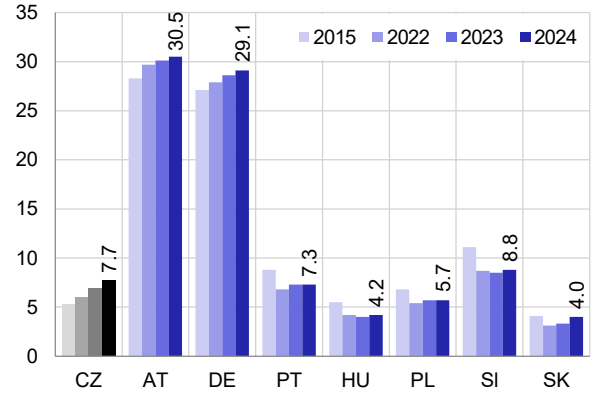


Note: Austria does not have a statutory national minimum. The minimum wage levels in individual sectors and professions are set by collective agreements, which together cover the vast majority of employees.
Source: Eurostat

The share of part-time employment in the Czech Republic has risen gradually in recent years but remains well below the levels in Austria and Germany.

Part-time employees

(% of employment, 15–64 age category)

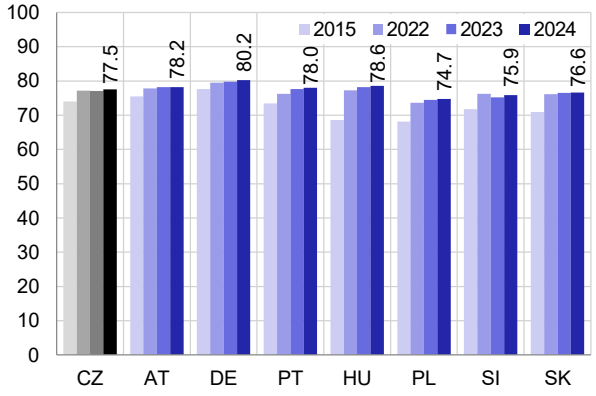


Source: Eurostat

The rate of economic activity of the population in the Czech Republic is similar to that in the other monitored countries, reaching an all-time high in the last year owing to moderate growth.

Rate of economic activity

(%, 15–64 age category)



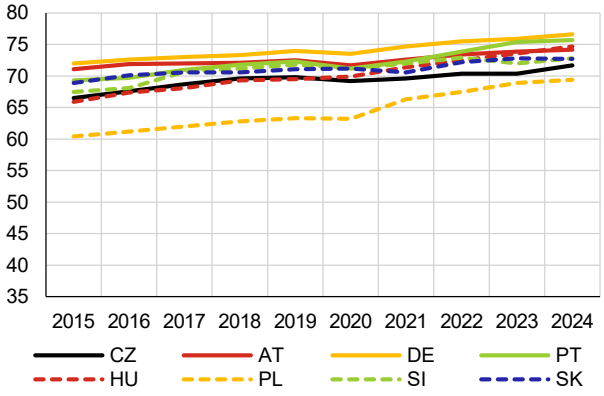
Note: The rate of economic activity is the share of economically active persons (employed and unemployed) in the population in given age category.

Source: Eurostat (LFS)

Female participation in the labour market in the Czech Republic edged up last year but remains among the lowest compared to the other countries under review.

Female participation rate

(% of women in the 15–64 age category)

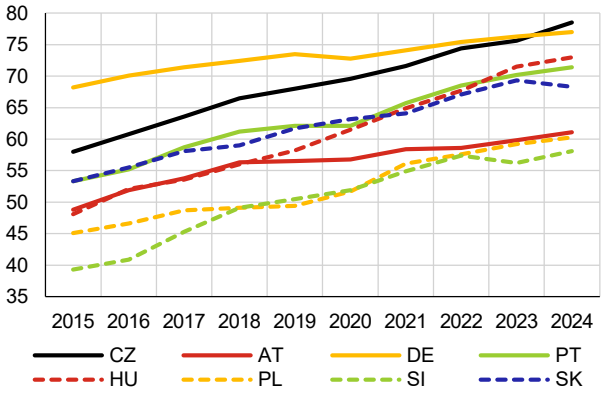


Source: Eurostat (LFS)

The participation of people in the pre-retirement age continued its long-term steady growth in 2024, reaching the highest level among the countries under review.

Participation rate of people in the pre-retirement age

(% of people in the 55–64 age category)



Source: Eurostat (LFS)

The regional differences in the unemployment rate in the Czech Republic have long been medium-high compared to the other countries under review. Despite some fluctuations in previous years, they follow a broadly stable trend.

Coefficients of variation of the unemployment rate
(%)

	NUTS II regions										NUTS III regions									
	15	16	17	18	19	20	21	22	23	24	15	16	17	18	19	20	21	22	23	24
CZ	33	33	30	34	38	26	30	38	31	34	33	34	32	36	41	29	33	41	34	37
AT	45	46	47	56	57	52	51	50	47	44	47	49	49	57	58	54	53	54	50	47
DE	37	32	32	31	28	26	23	24	26	22	-	-	-	-	-	-	41	42	43	42
PT	14	14	13	12	13	13	9	14	13	9	-	-	-	-	-	-	18	17	17	14
HU	34	42	46	44	44	37	43	48	44	43	37	47	51	52	54	44	52	57	54	53
PL	21	26	30	35	29	29	28	33	26	22	29	33	37	43	39	39	42	47	44	44
SI	-	-	-	-	-	-	-	-	-	-	21	21	17	26	24	23	18	24	14	25
SK	26	29	37	41	-	-	-	-	-	-	31	33	42	45	46	43	48	53	57	58

Note: The coefficient of variation is the ratio of the standard deviation weighted by region size to the average unemployment rate in per cent. Higher levels of the coefficient of variation represent greater regional differences in unemployment. NUTS II (cohesion regions) and NUTS III (corresponding to regions in the Czech Republic) is a classification created by the European Commission for statistical purposes and also, for example, for distributing support from EU development funds at the NUTS II level.

Some data are not available.

Source: Eurostat (LFS)

The willingness of the domestic population to migrate within the Czech Republic was roughly stable in the past but increased slightly in the last two years.

Internal migration
(per 1,000 inhabitants)

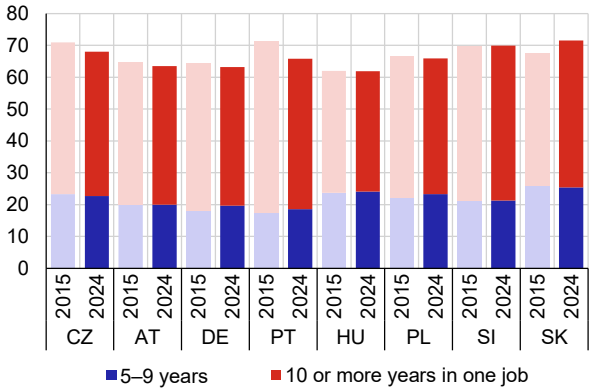
	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
CZ	23	24	23	23	23	22	24	23	26	27
AT	43	44	42	41	40	40	41	44	42	39
DE	53	54	48	48	47	45	46	-	-	-
HU	22	26	27	29	29	27	32	30	23	25
PL	10	10	11	12	12	11	12	12	11	11
SI	53	54	54	50	47	67	53	62	52	52
SK	17	18	18	18	18	16	17	19	17	16

Note: Migration between municipalities (HU, PL and SI – all changes in permanent residence). The calculations do not take into account differences in the sizes of territorial units in the chosen countries. Data for Portugal are not available over the entire monitored horizon. Some data for Germany are not available.

Source: National statistical authorities, CNB calculations

The share of employees working for a long time in the same job has long been relatively high in the Czech Republic by international comparison, indicating a fairly low willingness of employees to change jobs.

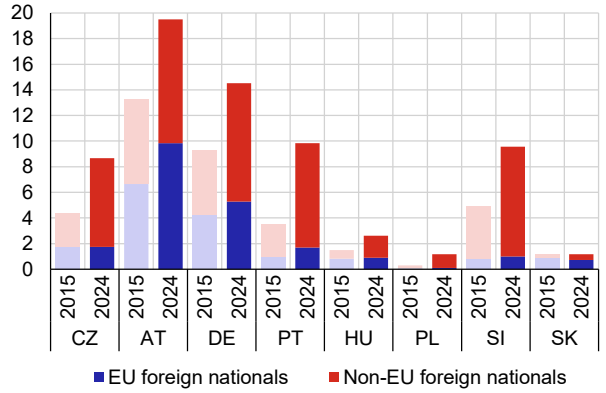
Share of persons working in the same job for at least five years
(% of total number of employees)



Note: Data for employees older than 25 years.
Source: Eurostat

The share of foreign nationals from EU countries in the population has long been broadly unchanged in the Czech Republic, exceeding the levels observed in most monitored countries but lagging significantly behind Austria and Germany. The share of foreign nationals from non-EU countries in the Czech Republic rose in 2023 due to the inclusion of Ukrainian war refugees but increased only marginally last year.

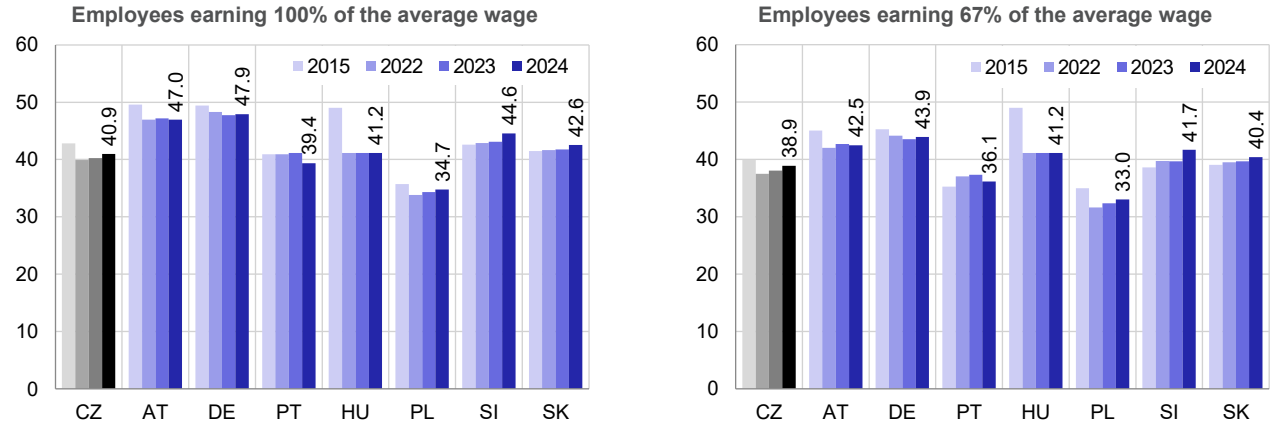
Share of foreign nationals in the population
(%)



Note: Data on the population as of 1 January of the given year are used in the calculation.
Source: Eurostat, CNB calculations

Overall labour taxation in the Czech Republic rose slightly last year and is at a moderate level compared to the other countries under review.

Overall labour taxation
(%)

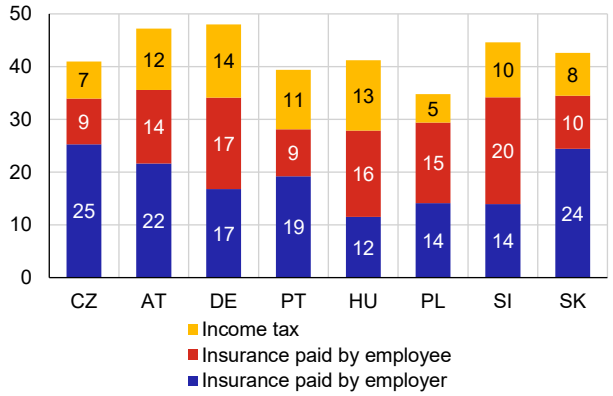


Note: Income tax and contributions paid by employees and employers as a percentage of total labour costs. Data for employees (childless individuals) earning 100% and 67% of the average wage.
Source: OECD

In particular, insurance contributions paid by employers have long contributed to labour taxation in the Czech Republic. By contrast, the contribution of income tax is among the lowest in the countries under review following the abolition of the "super-gross wage".

Components of labour taxation

(2024, % of average wage)



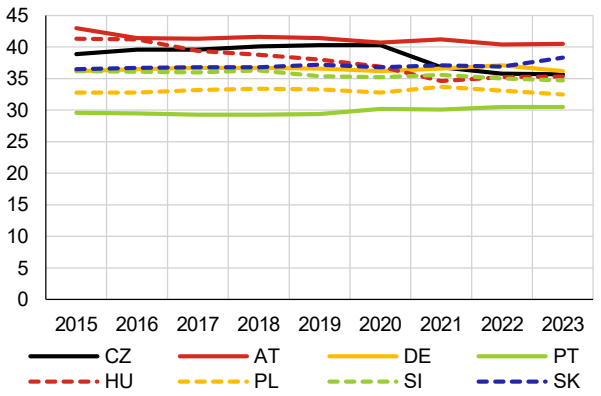
Note: Data for employees (childless individuals) earning the average wage.

Source: OECD

After declining due to the abolition of the super-gross wage, the overall implicit labour taxation rate in the Czech Republic has remained broadly flat in recent years and is moderate compared to the other countries under review.

Implicit labour taxation rates

(%)



Note: The implicit labour taxation rate is defined as the sum of all direct and indirect taxes and social security contributions of employees and employers paid from wages, divided by the total compensation of employees plus income tax.

More recent data are not available.

Source: Eurostat

The configuration of the Czech tax and social system has long led to a relatively weaker incentive of persons in receipt of unemployment benefits to return from unemployment to employment by comparison with the other countries under review.

Unemployment trap

(%)

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
CZ	81.7	81.8	82.0	82.1	82.3	82.3	81.1	81.0	79.7	80.0
AT	73.9	72.0	72.1	71.7	71.2	70.5	70.2	69.0	67.5	67.2
DE	73.1	73.3	73.3	73.2	73.2	73.0	72.8	73.0	73.0	73.3
PT	78.9	78.9	78.9	78.9	79.0	79.1	79.2	79.4	79.5	98.1
HU	78.4	78.1	78.5	78.5	77.1	76.4	73.3	76.3	76.2	76.9
PL	78.0	77.2	75.6	74.6	73.5	70.0	75.0	73.7	72.7	73.9
SI	89.7	89.7	91.0	91.7	91.6	90.0	86.9	83.3	79.9	80.0
SK	70.0	70.3	70.7	71.1	70.2	70.5	71.0	71.6	71.8	71.2

Note: The unemployment trap measures the proportion of additional gross income associated with finding employment that is paid to public budgets due to higher taxes and social security contributions and the loss of unemployment benefits and other social benefits when an unemployed person in receipt of unemployment benefits enters employment. The figures are based on a model example of a single, childless employee whose wages in their previous job (before becoming unemployed) and in their new job correspond to 67% of the average wage.

Source: European Commission (Tax and benefits)

After a wage increase from 67% to 100% of the average income, about one-quarter of the additional gross income is paid to public budgets in the Czech Republic due to the configuration of the tax and social system, which is much less than before 2021 (despite a slight increase in the last two years). This is one of the lowest levels among the countries under comparison.

Low wage trap
(%)

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
CZ	37.6	39.0	29.6	47.3	46.2	45.8	34.6	21.3	23.9	26.6
AT	55.7	48.8	48.4	46.9	44.5	44.7	45.1	42.7	42.9	44.0
DE	46.6	55.1	53.8	51.3	48.4	57.8	55.6	51.5	70.1	66.1
PT	21.9	11.6	12.2	13.1	14.4	14.7	16.4	19.2	23.5	22.3
HU	34.5	33.5	33.5	33.5	33.5	33.5	33.5	33.5	33.5	33.5
PL	53.4	54.6	54.4	86.6	91.5	58.2	57.5	40.9	44.5	47.3
SI	36.7	33.2	35.4	38.7	67.8	65.6	55.3	45.2	42.9	48.4
SK	23.4	24.5	26.0	27.9	28.2	27.0	28.8	29.9	18.3	22.2

Note: The low wage trap measures the financial incentive of low-income employees to increase their income by working more hours and is defined as the proportion of additional gross income that is paid to public budgets in such a situation due to the combined impact of income taxes, social security contributions and the loss of benefits. The figures in the table correspond to a model example of persons living as a couple with two children, where only one person earns an income and their gross income increases from 67% to 100% of the average wage.

Source: European Commission (Tax and benefits)

After moving from inactivity to employment at 67% of the average wage, only slightly more than one-quarter of the additional gross income is paid to public budgets due to the decrease last year. This is one of the lower levels among the countries under review.

Inactivity trap
(%)

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
CZ	31.1	31.1	31.1	31.1	31.1	31.1	25.0	33.1	34.0	27.4
AT	31.4	28.4	28.7	29.1	20.5	19.7	20.4	19.3	19.3	19.4
DE	46.1	46.1	46.1	46.1	45.2	45.0	43.8	44.0	43.8	43.9
PT	20.5	32.2	32.6	30.8	31.5	30.7	32.2	31.3	34.5	34.2
HU	34.5	33.5	33.5	33.5	33.5	33.5	33.5	33.5	33.5	33.5
PL	37.1	55.9	54.7	37.2	33.4	32.0	32.0	34.8	34.9	34.9
SI	57.1	57.6	57.6	55.2	52.4	51.6	50.9	52.3	50.7	53.4
SK	29.9	29.9	29.9	29.9	28.7	29.1	29.1	29.1	29.2	29.1

Note: The inactivity trap measures the proportion of additional gross income that is paid to public budgets due to the combined impact of income taxes, social security contributions and the loss of benefits following the return from economic inactivity to work. The figures are based on a model example of an individual entering employment with a wage of 67% of the average wage, living with a partner earning 100% of the average wage and two children. This configuration aims to be as close as possible to a person returning after maternal/parental leave to work, the statistics are therefore intended to be proxy for the "maternal leave trap". However, the age of the children is unknown, so this may not accurately reflect the situation of a parent after maternal/parental leave.

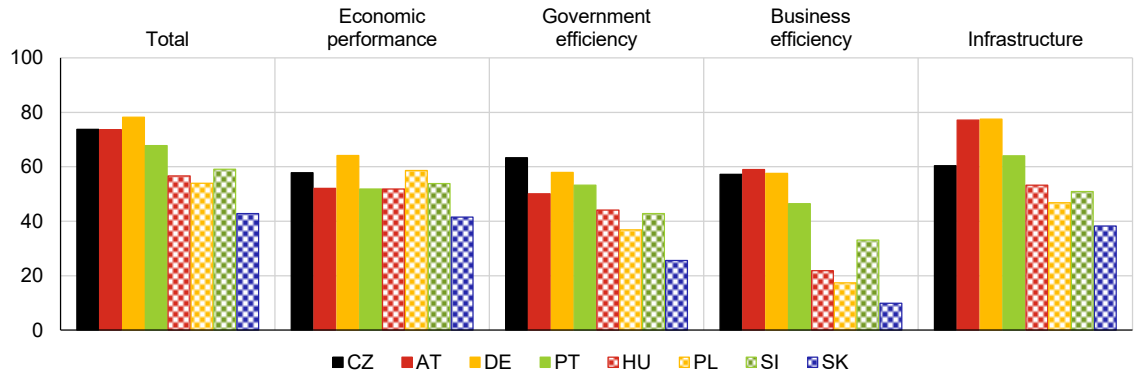
Source: European Commission (Tax and benefits)

See the Overall message of the analyses.

COMPETITIVENESS OF THE CZECH ECONOMY

In an international comparison based on the IMD World Competitiveness Booklet, the Czech Republic's competitiveness has improved compared to last year and is one of the highest among the monitored countries, together with Germany and Austria. However, the countries under review tend to exhibit lower levels of competitiveness based on this indicator than other advanced economies.

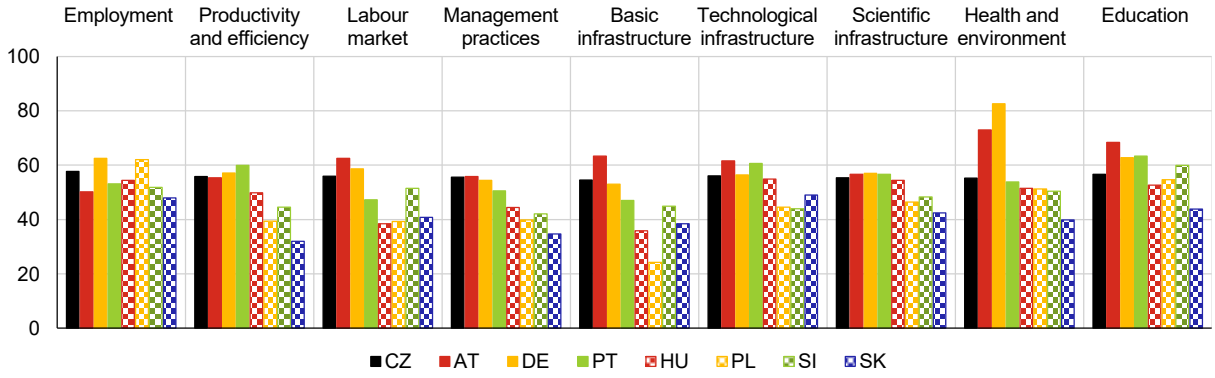
IMD World Competitiveness – overall index and main factors of competitiveness
(2025)



Note: A higher value denotes higher competitiveness in the given area. Official scores by the publisher are shown, with the overall index being normalised to a scale of 0–100 (for this reason, it is higher than the average of the scores for the four factors).
Source: International Institute for Management Development, IMD (2025)

In selected subfactors, the competitiveness of the Czech economy is also solid by comparison with the countries under review.

IMD World Competitiveness – selected subfactors
(2025)



Note: The index for each subfactor takes values from 0 to 100, where a higher index value means higher competitiveness in the relevant area.
Source: International Institute for Management Development, IMD (2025)

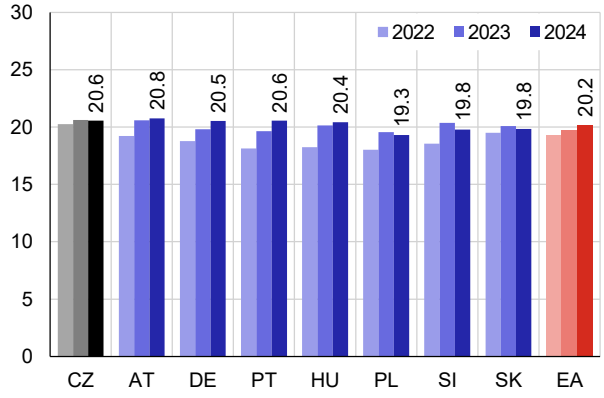
See the Overall message of the analyses.

3.2.3 THE BANKING SECTOR

- Capital position
- Profitability
- Liquidity position
- Credit risk

The overall capital ratio of the Czech banking sector indicates high resilience.

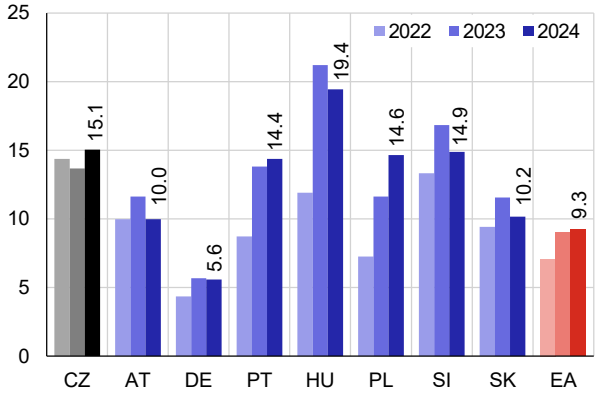
Overall capital ratios
(%)



Note: The ratio of banks' capital to their risk-weighted assets.
Source: ECB

Return on equity rose in 2024 and continues to exceed the euro area average.

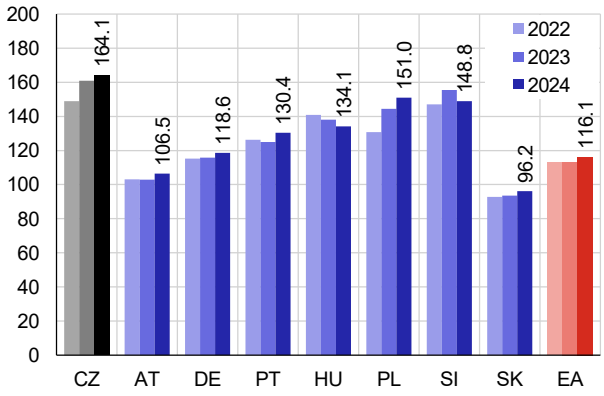
Return on equity (RoE)
(%)



Source: ECB

The liquidity position of the domestic banking sector remains robust due to the high share of liquid assets and stable funding sources.

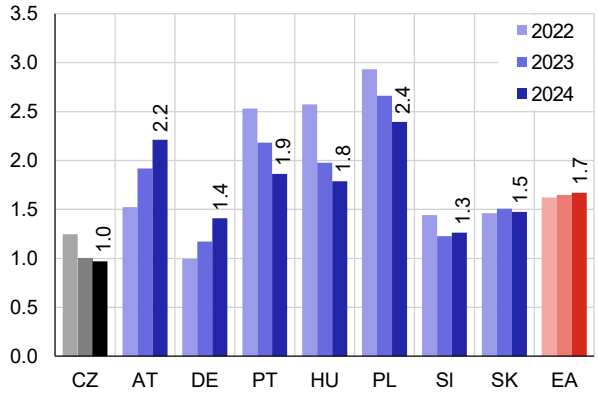
Deposit-to-loan ratios
(%)



Note: Deposits/loans to residents.
Source: ECB

The non-performing loan ratio in the Czech Republic is still one of the lowest among the countries under review. The euro area average has risen slightly.

Non-performing loans
(% of total bank loans)



Source: ECB

See the Overall message of the analyses.

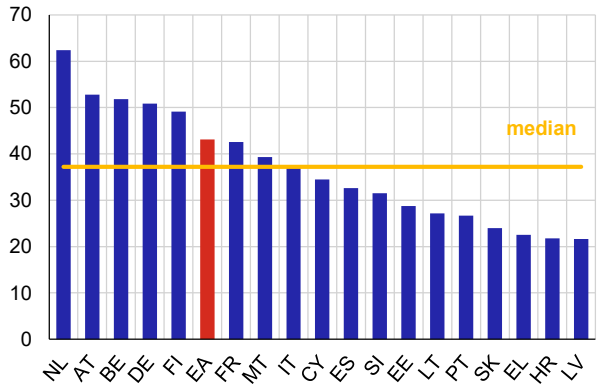
3.3 ECONOMIC ALIGNMENT OF EURO AREA COUNTRIES

- Convergence of euro area countries' wealth levels
- Public finance sustainability
- Business cycle alignment
- Monetary policy transmission (interest rate channel)
- Financial cycle alignment as captured by credit growth
- Inflation alignment

Large differences in the economic performance of euro area countries persist.

GDP per capita in euro area countries

(2024, GDP at current prices in EUR thousands)

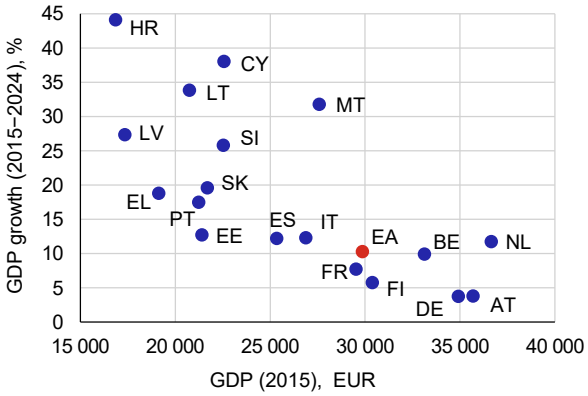


Note: Luxembourg and Ireland are not included in either of the charts due to the many specificities of their economies, which result in exceptionally high GDP per capita.

Source: Eurostat

The process of real convergence is continuing above all in countries that joined the euro area later.

Beta-convergence of real GDP in euro area countries

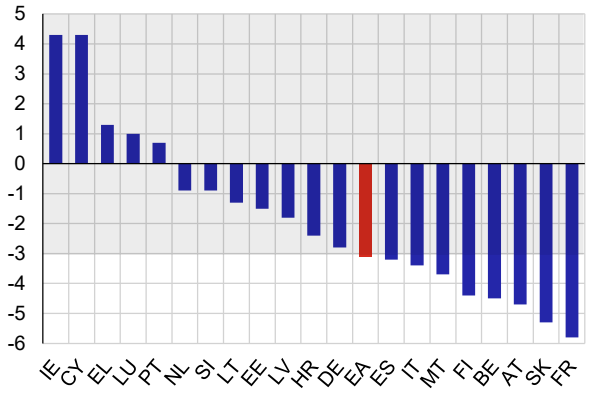


Note: The chart depicts the relation between GDP growth per capita in each country and its initial level (beta-convergence). The x-axis shows GDP per capita in purchasing power parity (PPP) and the y-axis shows real GDP growth.

Source: Eurostat

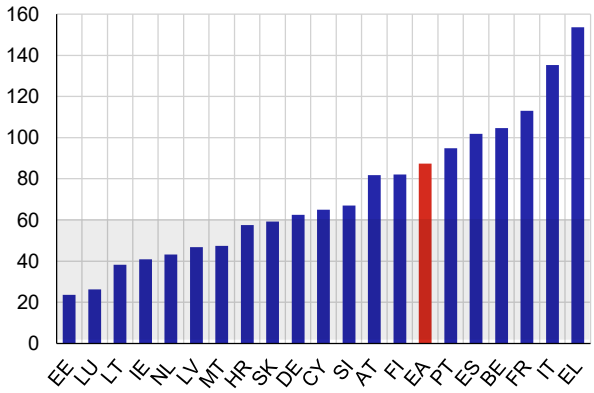
The fiscal situation continued to improve gradually last year, with the euro area deficit falling towards the 3% threshold set by the Stability and Growth Pact, due in part to the phasing-out of the government measures adopted in previous years. One-quarter of euro area countries even recorded a public finance surplus.

General government balance in euro area countries
(2024, % of GDP)



The ratio of government debt to GDP in the euro area countries was little changed from 2023 and stayed well above the 60% limit pursuant to the Stability and Growth Pact, as well as above the level observed before the Covid crisis. More than half of euro area countries – as usual mainly those on the southern periphery – are in this fiscal situation.

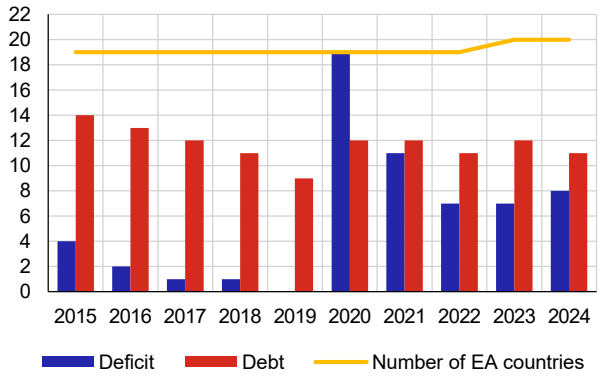
General government debt in euro area countries
(2024, % of GDP)



Note: Countries in the grey area are compliant with the Stability and Growth Pact (SGP) criterion. The SGP sets limits on government deficits (3% of GDP) and debt (60% of GDP).
Source: Eurostat

Fiscal discipline remains weak in the euro area, above all as regards public debt. However, compliance with the deficit criterion also continues to be an issue.

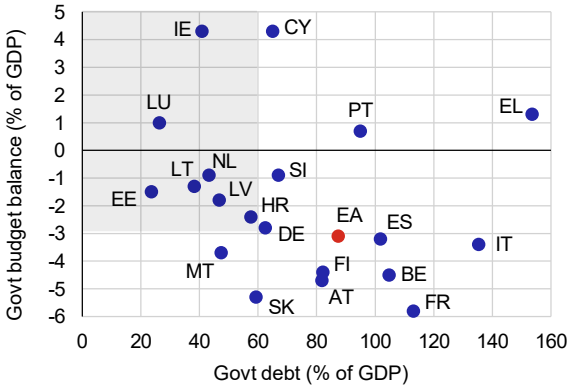
Non-compliance with the fiscal criteria
(number of countries non-compliant with the deficit and debt criteria)



Source: Eurostat, CNB calculations

The number of euro area countries meeting both the debt and deficit criteria rose to seven in 2024 (from five in 2023), which cannot be regarded as a turnaround towards a major improvement in the fiscal situation.

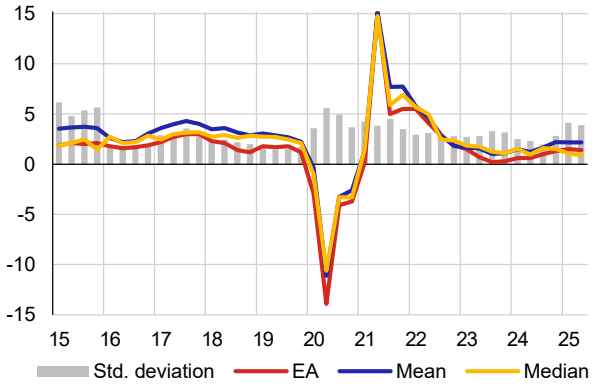
Fiscal positions of euro area countries
(2024)



Note: Countries compliant with the Stability and Growth Pact lie in the grey area.
Source: Eurostat

Economic activity in the euro area started to recover despite persisting adverse conditions. In 2024, the growth was due mainly to a positive contribution of consumption and net exports.
The growth is continuing this year and could be further boosted by measures relating to defence spending.

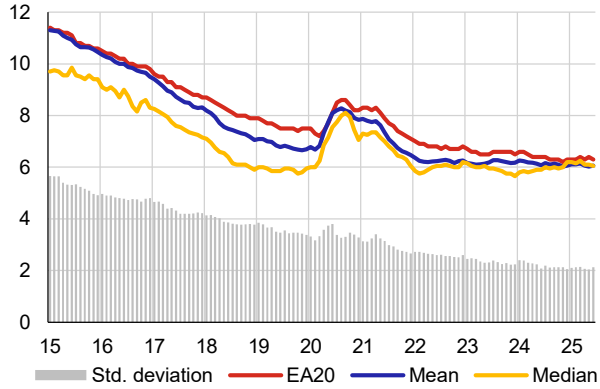
Real GDP growth in euro area countries
(y-o-y, %)



Note: The quarterly series "mean" depicts the unweighted arithmetic mean of unemployment in the given month across euro area countries.
The source series are seasonally adjusted.
Source: Eurostat, CNB calculations

The euro area labour market remained resilient overall last year. The unemployment rate fell slightly in late 2024/early 2025, from around 6.5% to slightly closer to 6%, one of the lowest levels recorded since the establishment of the euro area.

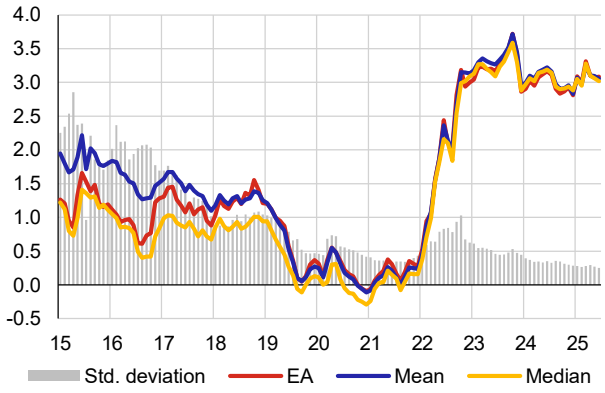
Unemployment in euro area countries
(%)



Note: The monthly series "mean" depicts the unweighted arithmetic mean of unemployment in the given month across euro area countries.
The source series are seasonally adjusted.
Source: Eurostat, CNB calculations

Long-term government bond yields in the euro area have been elevated at 3% for more than two years. Their slight increase in early 2025 was due to higher government debt issuance, but also to the withdrawal of ECB support owing to the definitive end of reinvestments under the PEPP programme.

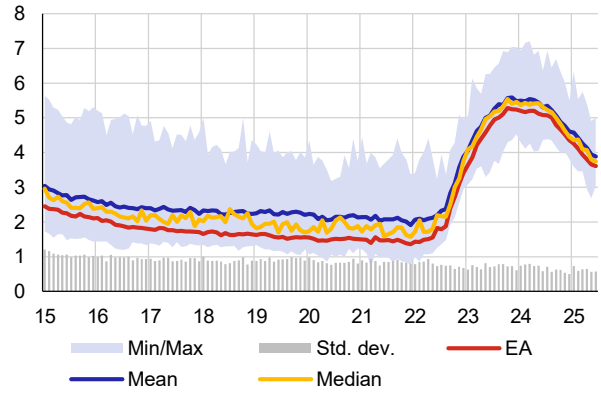
Long-term government bond yields in euro area countries
(%)



Note: Bond yields for the convergence criteria. The bond maturity is about ten years. Estonia is not included because the time series is not available. The monthly EA series is a weighted average of ten-year euro area government bonds.
Source: Eurostat, ECB (FM database), CNB calculations

Following a sharp increase in previous years, client loan rates saw a substantial easing in growth last year and have also continued to ease so far this year. Rates fell from their peak of more than 5% to 3.5%, reflecting above all the decrease in ECB interest rates.

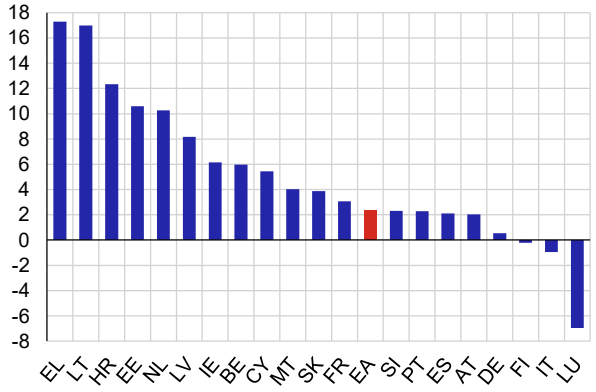
Funding costs of non-financial corporations
(%)



Note: The composite indicator comprises a weighted average of short-term and long-term loans to non-financial corporations. The time series are monthly.
Source: ECB (MIR database), CNB calculations

The volume of bank loans to non-financial corporations is rising in most euro area countries and its growth rate has picked up slightly. Despite falling interest rates, however, firms are still relatively cautious given the uncertain global economic situation.

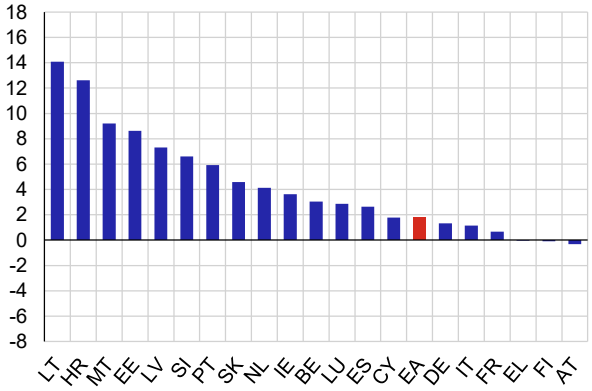
Growth in bank loans to domestic non-financial corporations
(2025 H1, y-o-y, %)



Note: Average annual growth in loans provided by monetary financial institutions in the first six months of 2025.
Source: ECB (BSI database), CNB calculations

The more accommodative monetary policy stance and greater consumer confidence have fostered faster growth in bank loans to households. In the first half of 2025, they even increased in most euro area countries. Strong growth in housing loans played a key role.

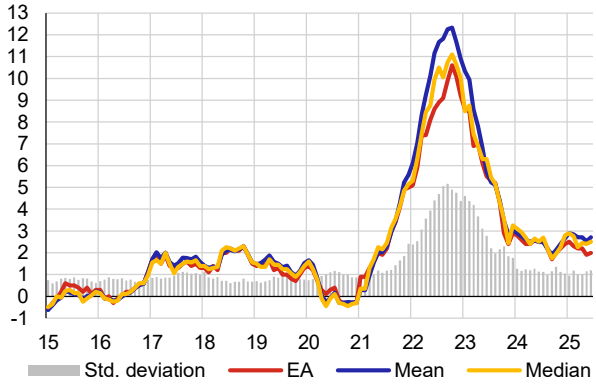
Growth in bank loans to households
(2025 H1, y-o-y, %)



Note: Average annual growth in loans provided by monetary financial institutions in the first six months of 2025.
Source: ECB (BSI database), CNB calculations

In 2024, headline inflation in the euro area followed up on its previous disinflationary trajectory. Its fluctuations, including a slight increase at the end of the year, were due mainly to energy prices, with services inflation remaining elevated and thus driving up headline inflation. This year, inflation is already close to the ECB's target.

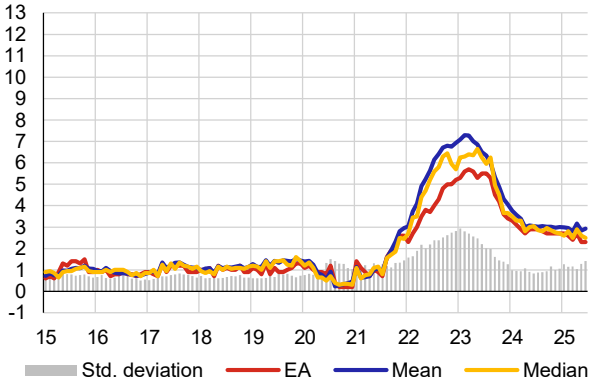
Headline inflation in euro area countries
(y-o-y, %)



Note: The series "mean" depicts the unweighted arithmetic mean of inflation in the given period across euro area countries.
Source: Eurostat, CNB calculations

Core inflation slowed further in the first half of 2024 but then stagnated at around 2.7%, due in part to elevated services inflation. The disinflationary process resumed this year, due among other things to a cooling of wage pressures, and core inflation approached 2%.

Inflation excluding energy, food, alcohol and tobacco prices
(y-o-y, %)

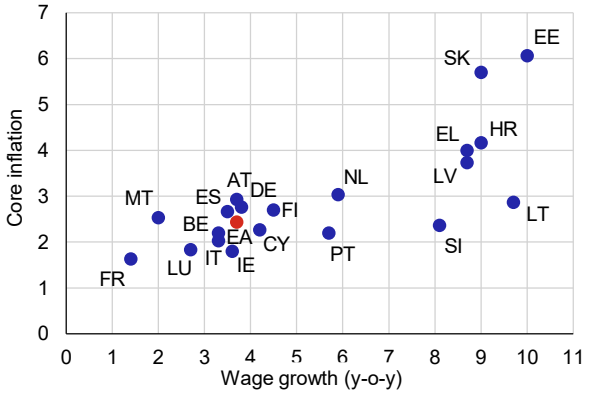


Note: The series "mean" depicts the unweighted arithmetic mean of inflation in the given period across euro area countries.
Source: Eurostat, CNB calculations

The differences in core inflation across euro area countries persist; moreover, they are still accompanied by differences in wage developments.

Growth in wage costs and core inflation

(y-o-y growth rates in 2025 Q2, %)



Note: The wage growth series are seasonally adjusted.

Source: Eurostat

See the Overall message of the analyses.

4 THEORETICAL FOUNDATIONS OF THE ANALYSES

The basic theoretical starting point for examining whether individual countries are good candidates for introducing a single currency is the theory of optimum currency areas.[47] In the context of the creation of the single European currency, knowledge of this theory is often used to assess the appropriateness of the adoption of the euro by the existing euro area countries and the rationality of the same step for the new EU Member States.[48] Factors that contribute to the benefits of the single currency (compared to a free nominal exchange rate) make up the set of optimum currency area properties.

Economists agree on the general fundamental costs and benefits of introducing a single currency, but the significance of the individual arguments may change over time or depending on the specific features of the economies concerned. The benefits include reduced international trade costs, in particular the elimination of exchange rate risk and the costs of hedging against it, as well as lower transaction costs and easier-to-compare prices. The costs include non-recurring ones stemming from the change of legal tender and long-term ones due to the risk of greater volatility in economic activity and consumption as a result of the loss of independent monetary policy and to a reduction in the effectiveness of domestic macroeconomic policy.

The key features determining the suitability of a country's participation in a currency area are similarity of transmission mechanisms and a high degree of economic integration. Similarity of transmission mechanisms ensures that the single monetary policy will not have different macroeconomic impacts in different parts of the monetary union. A high degree of economic integration increases the benefits arising from the single currency, as trade and investment barriers are eliminated. The latest empirical studies do indeed confirm that the introduction of the single currency has a positive effect on international trade.

The original literature was fairly optimistic as regards the effects of the single currency on trade.[49] However, later studies – such as Baldwin (2006) – were more sceptical, and Havránek (2010) even finds in a meta-analysis that the effect of euro adoption on trade between euro area countries is not statistically significant and with high probability is less than 5%. The latest studies return to positive but lower estimates.[50]

The latest empirical literature has revealed considerable heterogeneity in the effects of the introduction of the single currency on trade.[51] This heterogeneity pertains to both cross-country and cross-sector impacts. The effects of the single currency on trade are typically lower if a sector or country is already heavily involved in international trade before joining the monetary union. They are also lower for large economies and low or non-existent if the country had a fixed exchange rate before introducing the single currency.[52] The heterogeneity of effects across countries and sectors can help explain the conflicting findings of previous studies.

Business cycle alignment and similarity of shocks reduce the costs of giving up certain adjustment mechanisms on entering the monetary union. This is because aligned business and financial cycles mean that the single monetary policy is appropriate for all members of the monetary union. The Covid-19 pandemic fostered an increase in the cyclical alignment of EU economies. However, this mostly reflected a common non-economic shock rather than lasting structural convergence, with the degree of alignment varying considerably between countries.[53] Only future data will show whether the higher degree of synchronisation proves permanent.

Mutual trade and structural similarity align business cycles, while differences in labour market regulation and differences in fiscal and structural policies

[47] Mundell (1961), McKinnon (1963) and Kenen (1969) are regarded as the cornerstones of this theory. A newer literature survey can be found, for example, in De Grauwe (2013).

[48] In addition to economic arguments, the decision to adopt the euro is motivated by political and social demand, as analysed, for example, in Eichengreen (2008) and Spolaore (2013).

[49] Rose (2000), for example, found effects amounting to hundreds of per cent.

[50] Glick and Rose (2016), Rose (2016).

[51] Chen and Novy (2018), Vicquery (2021).

[52] Lalinský and Meriküll (2021).

[53] De Haan et al. (2024); Arčabić et al. (2024).

reduce their alignment.[54] A further deepening of coordination of structural policies across countries is therefore important for greater alignment of business cycles in the euro area.[55]

The costs of joining the monetary union also depend on the economy's ability to make use of other adjustment mechanisms. These mechanisms include labour and product market flexibility and countercyclical fiscal policy. A flexible labour market and a mobile labour force can at least partly offset persisting asymmetric shocks in the monetary union. The loss of independent monetary policy can be offset to some extent by the use of fiscal policy. However, the countercyclical effect of fiscal policy is critically dependent on the shape of public finances, i.e. on whether fiscal policy has the necessary room for manoeuvre.[56]

Temporary effects of euro adoption may also be important for acceding countries. These effects include a fall in the risk premium, an easing of the credit conditions and changes in productivity in the tradable and non-tradable sectors.[57] Another potential cost for converging countries is a persisting inflation differential,[58] which may be reflected in a fall in real rates and thus have a temporary destabilising effect on the economy via macrofinancial linkages.[59]

The general principles are confirmed by analyses based on structural macroeconomic models.[60] The conclusion of the model analyses is that the costs increase as domestic demand shocks (fiscal shocks in particular) grow in importance and decrease as the degree of trade integration increases. For example, a simulation of the costs of euro adoption in Central European countries using a DSGE model concludes that the costs of the loss of independent monetary policy are high for the Czech Republic and Poland relative to Hungary because of the large significance of domestic demand shocks, such as shocks to government consumption.[61]

The attractiveness of entering the monetary union is also related to the effectiveness of its institutions.[62] Studies point out that the main problem in the euro area was weak political integration,[63] as fiscal rules can only be effective if there is an institution to enforce them (however, the solution does not have to be a full fiscal union).[64] On the other hand, some studies argue that the euro area may be functioning and beneficial to all members even without a fiscal union, but only provided that rescue mechanisms are introduced within the banking union.[65] However, uncertainty about the future functioning of euro area institutions provides a rationale for new Member States to consider their entry thoroughly and to wait at least until the rules of operation of euro area institutions are clarified before joining the monetary union.[66] In this context, de Grauwe and Ji (2022) show that the fragility of the euro area decreased after the experience of the debt crisis thanks to ECB interventions and new EU fiscal instruments, as demonstrated during the Covid-19 pandemic, when the debt crisis did not recur. At the same time, however, they emphasise that this fragility has not completely disappeared and that the euro area remains vulnerable to future large shocks due to institutional uncertainty.

[54] Duran and Ferreira-Lopes (2015), Inklaar et al. (2008).

[55] Lukmanova and Tondl (2017).

[56] Romer and Romer (2018), Babecká Kucharčuková and Brůha (2017).

[57] Ahrend et al. (2008) and Lin and Treichel (2012) point out that an excessive decrease in long-term interest rates (compared to that implied by the Taylor rule under independent monetary policy) after the adoption of the single currency in some economies gave rise to bubbles in asset markets, property markets in particular. Overvaluation of the real exchange rate, identified for Greece, Ireland and Portugal by El-Shagi et al. (2016).

[58] Brůha and Podpiera (2007).

[59] Examples for individual countries can be found in Martin (2010), Hampl and Skořepa (2011) and Lin and Treichel (2012).

[60] For example, Ferreira-Lopes (2010) explores the costs of euro adoption for Sweden and the UK, concluding that the costs of euro adoption would outweigh the benefits in these countries.

[61] Ferreira-Lopes (2014).

[62] For example, De Grauwe (2010a,b).

[63] Razin and Rosefielde (2012).

[64] Wyplosz (2015).

[65] Mongelli (2013). Similarly, a study by Neri and Ropele (2015) shows that the ECB's monetary policy helped reduce the impacts of the debt crisis even without fiscal coordination.

[66] Podpiera et al. (2015).

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