

Macroeconomic Projections Report

March | 2024

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Additional information

The cut-off date for the information used in the Macroeconomic Projections Report (March 2024, No 1) is 19 March 2024. The cut-off date for the information used in the forecast is 19 March 2024 (and 5 March for the information used in some technical assumptions).

Contents

Key points in brief¹

While inflation has also significantly declined on a global scale, substantial challenges for further global economic development persist as global uncertainty remains high and some developments point to rising geopolitical tensions.

Despite more buoyant global growth overall, external demand from Latvia's main trade partners, Estonia and Germany in particular, is estimated to have weakened. Nonetheless, the situation in external markets is expected to gradually improve over the medium term.

In the euro area, inflation and the economic growth forecasts have been revised downwards compared to the December forecast. While the Governing Council of the ECB maintains tight monetary policy, the financial markets anticipate that the pivot is not far off. Consequently, the

euro area financial conditions have already become more favourable.

Despite expectations of upcoming interest rate cuts, the banking sector exhibits cautiousness both in terms of credit demand and its supply.

The assessment of the general government budget balance both for this year and for 2025 has remained broadly unchanged. Based on assumptions that the government investment will increase more than previously anticipated, the budget deficit is projected to rise towards the end of the forecast period in 2026.

The budget deficit is projected to stand at 4.1% of GDP in 2024, 3.4% of GDP in 2025 and 2.3% of GDP in 2026.

Due to the expected weakening of nominal GDP growth and decline in inflation, the government debt level has been revised upwards to 44.3% of GDP for 2024 and to 45.2% and 45.7% of GDP for 2025 and 2026 respectively.

The short-term GDP growth forecast for 2024 has been revised downwards to 1.8% due to weaker external demand. The outlook for medium-term growth has remained unchanged at 3.6% for 2025 and 3.8% for 2026.

Given the weakness of external demand, the activity in the manufacturing and transport sectors is expected to be lower in the short term. Retail trade has exhibited more inertia as consumer sentiment, even with a rise in purchasing power, is improving only slowly. The outlook for the construction sector growth has remained broadly unchanged: the sector will be supported by the progress in large infrastructure projects implemented with EU funding and a gradual expansion of investment in the private sector.

In the light of weaker economic activity, the unemployment forecasts have been revised upwards to 6.5% and 6.3% for 2024 and 2025 respectively. The unemployment forecast for 2026 has remained consistent with its previous forecast at 6.1%.

There have been no revisions to the wage forecast, with the projected increases in wages remaining above their long-term averages at 8.0% for 2024 and at 7.9% and 7.6% for 2025 and 2026 respectively.

Meanwhile, the inflation forecasts for 2024 and 2025 have been revised downwards to 1.5% and 1.9% respectively primarily due to a significant decline in global gas prices. The inflation forecast for 2026 has remained unchanged at 1.8%.

¹ Economic developments and indicator forecast revisions have been compared with the previous forecasts published in December 2023.

Projections in figures

Table 1

Macroeconomic fundamentals: Latvijas Banka's forecasts

	2024	2025	2026
Economic activity (annual changes; %; at constant prices; seasonally adjusted data)			
GDP	1.8	3.6	3.8
Private consumption	2.8	4.0	3.6
Government consumption	3.7	1.0	0.0
Investment	5.5	4.4	5.2
Exports	-0.2	3.3	3.5
Imports	0.8	3.2	2.7
HICP inflation (annual changes; %)			
Inflation	1.5	1.9	1.8
Core inflation (excluding food and energy prices)	4.0	3.6	2.9
Labour market			
Unemployment (% of the economically active population; seasonally adjusted data)	6.5	6.3	6.1
Nominal gross wage (annual changes; %)	8.0	7.9	7.6
External sector			
Current account balance (% of GDP)	-4.3	-4.3	-3.8
Government finances (% of GDP)			
General government debt	44.3	45.2	45.7
Budget surplus/deficit	-4.1	-3.4	-2.3

Projections in brief

GDP

2024

Economic growth will accelerate next year

1.8%

Latvia's economic growth will be modest this year due to weaker-than-anticipated foreign demand. Improvements in export markets coupled with investment activity will fuel growth over the medium term.



Forecasts

2025
3.6%

2026
3.8%

INFLATION

2024

The downward trend in inflation persists

1.5%

With price increases lower than initially anticipated this year, the inflation dragon has been tamed, and inflation will remain low over the coming years.



Forecasts

2025
1.9%

2026
1.8%

GROSS WAGE

2024

The labour market is favourable for employees

8.0%

Labour shortage will sustain the steep wage growth. If productivity improvements fail to keep pace, the increasing labour costs encountered by businesses will weaken their competitiveness, thus posing a risk to economic growth.

Forecasts

2025
7.9%

2026
7.6%



Global environment

Inflation has fallen significantly around the globe, but substantial challenges to further global economic development persist as global uncertainty remains at a high level and some developments point to rising geopolitical tensions.

The prolonged war in Ukraine continues, as does the armed conflict between Israel and the terrorist group Hamas in the Middle East. That conflict is threatening to escalate into clashes on a larger scale and has already caused disruptions to maritime traffic in the Red Sea. The upcoming US presidential election and its consequences for Western support for Ukraine are also a source of worry for policy makers.

Global prices of goods

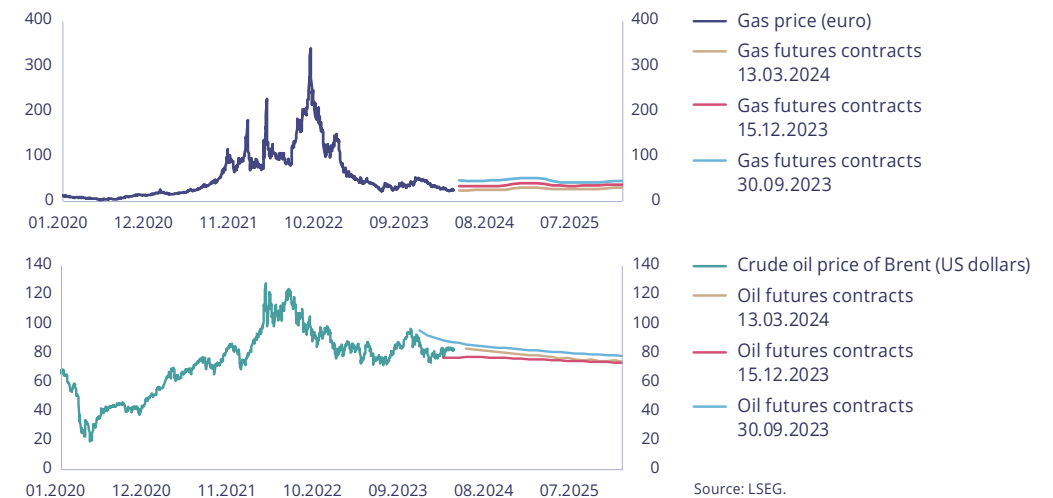
Neither the tensions in the Middle East, nor the ongoing hostilities in Ukraine have had enough impact to alter the trajectory of energy prices over the long term. Prices for natural gas have fallen gradually, as participants in the natural gas market in the autumn and winter months were reassured that natural gas reserves remained relatively well-filled at the time and

it was still possible in the market to purchase additional cargoes of liquefied natural gas freely.

Oil prices responded more strongly to the outbreak of war in the Middle East though, but the worst-case risk scenario did not materialise and the hostilities did not escalate to become regional, and so oil prices also began to slide downwards. Non-OPEC oil-exporting countries played a major role in the decline in oil prices, as they were able to boost production and thus partially offset the curbs on oil extraction imposed by the OPEC+ countries.

Futures contracts suggest that natural gas prices may rise again moderately when the filling of storage facilities resumes, while oil futures show a downward trend that most probably reflects the spare extraction capacities of the OPEC+ countries. ›

Chart 1. Natural gas prices on the Dutch TTF trading point and Brent crude oil actual and future prices (euro/MWh; US dollars/barrel)



Mirroring the trend in the energy market, grain prices have recently fallen as well. The success of the Ukrainian navy in the Black Sea and the creation of alternative corridors have allowed grain from Ukraine to enter the global market despite Russia's decision to terminate the Black Sea Grain Initiative in mid-July. Other notable factors driving the decline in grain prices have been the substantial size of the grain exports from Russia, and global grain stocks surpassing the September projections for them in March. Global wheat stocks are expected to hit an eight-year low at the end of the 2023/2024 season though, which suggests that the fall in grain prices will not last long.

Monetary policy at the leading central banks across the world

The world's leading central banks are keeping to their tight monetary policies. Although inflation has fallen steeply, central banks have noted that they need more evidence and greater confidence that inflation is persistently converging to its target level before they can start to reduce key interest rates. Inflation is currently falling because energy prices are falling, and there is some concern that domestic factors may make it harder to take the final steps towards inflation targets.

The Fed has set the stance of keeping its interest rates at 5.25–5.50%, the highest they have reached in this cycle of rate rises, because the US labour market remained robust during the autumn and winter months; job creation has, however, moderated recently. Inflation meanwhile has come down at a slower pace than expected in certain months, but economic growth has proved more resilient than predicted. Interest rates have kept high at 5.25% in the UK since September, and the Bank of England has suggested that the UK labour market is also tight. In contrast to most of the other central banks in the advanced economies, the Bank of Japan has maintained its accommodative monetary policy as it believes that inflation in Japan will not stay high over the long term.

The financial markets expect that the Fed might cut interest rates on three or four occasions by the end of the year, while the Bank of England might make no more than three rate cuts. The markets expect that once negative interest rates have been phased out, the Bank of Japan might raise interest rates by 10 basis points on two further occasions before the end of the year.

Chart 2. Wheat prices on the Euronext exchange (euro/t)



External demand

Global growth has been more buoyant overall, but external demand from Latvia's main trading partners, particularly Estonia and Germany, is estimated to have weakened slightly. Nonetheless, the situation in external markets is expected to improve gradually over the medium term.

Global economic growth might be slightly stronger in 2023 and 2024 than was estimated during the second half of last year. The IMF estimates suggest that growth reached 3.1% in 2023, and this rate is expected to be maintained this year, before increasing only to 3.2% next year. The reasons why activity has been more resilient can mostly be attributed to the US, where higher interest rates have so far had only a minor effect on the labour market, while fiscal policy is still regarded as particularly accommodative. The labour market remaining strong has supported household consumption and ensured faster growth than had been projected.

The development trends in the euro area have diverged from those observed globally, as they have been marked by slower growth and by inflation falling more swiftly than previously projected. Growth was negatively affected by tighter financial conditions and low

consumer confidence, and by exports being less competitive because the euro exchange rate rose and energy costs remained structurally higher. The ECB estimates in its latest March forecasts that GDP will grow by a mere 0.6% this year and by 1.5% next year.

The outlook for external demand from Latvia's trading partners has weakened a little further. The year concluded with weak results from several major trading partners, and further forecasts for growth for them, and thus also for Latvia's external demand, are more cautious, particularly for the sluggishly performing economies of Estonia and Germany. ›

Chart 3. IMF projections for global economic growth (annual change; %)

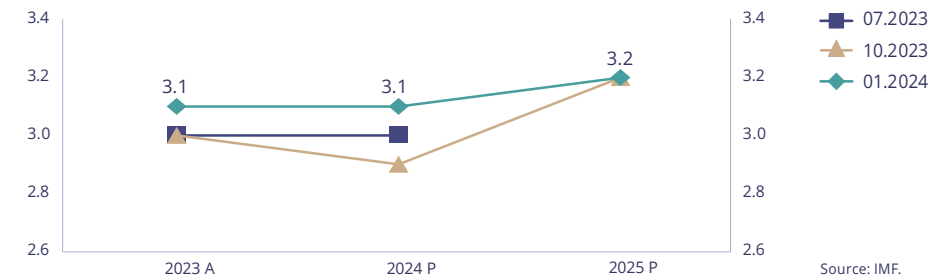
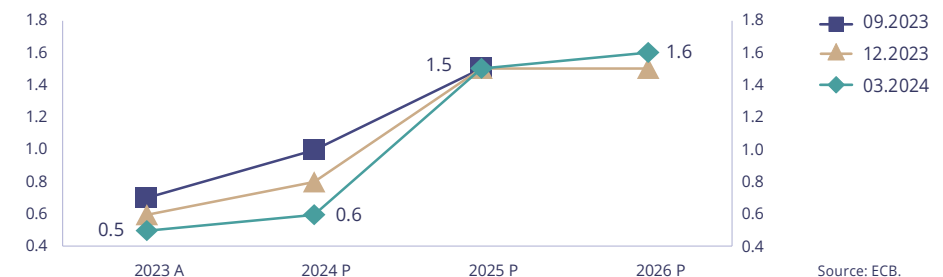


Chart 4. ECB projections for economic growth in the euro area (annual change; %)



Economic growth in Estonia has remained modest, as GDP has declined for two consecutive years and the difficulties may also linger in 2024. The recovery in shrunken private consumption is still slow for two reasons, because price pressures are relatively higher in Estonia than in the other Baltic States, and excise taxes and value added tax were increased from the start of this year. The weak external environment coupled with low external demand suggest that Estonia's economy might only recover in the second half of this year, while more buoyant growth might be expected in 2025.

Similar trends are evident in Germany, where the sentiment of economic agents remains poor and at its lowest level since the pandemic. Inflation is receding and purchasing power and consumption are rebounding, but this has not yielded sufficient support for GDP to grow. High interest rates mean that investment remains low and exports are still weak, while government support for economic growth will also be reduced by tighter fiscal policy. The days of cheap energy are also over in Germany as energy costs will remain higher than their pre-war levels, thus constraining the competitiveness of Germany's industrial sector. Germany's automotive sector is also well behind Chinese and US manufacturers in producing electric vehicles, and in the near future this will be the cause of weak dynamics of this sector in Germany. The situation might improve as interest rates fall, but the performance of Germany's industrial sector depends on global demand, particularly from China, for which current projections are not very hopeful. Germany can therefore only expect its recovery to become swifter towards 2025.

Meanwhile, demand in Lithuania might rebound faster. Economic sentiment deteriorated in the first months of the year, but it still stayed above the euro area average. Low inflation and strong wage growth are expected to help private consumption recover, while substantial government investment is also anticipated. Like for other countries though, sluggish growth in Lithuania's trading partners does not bode well for the prospects for exports.

Chart 5. GDP forecasts for 2024 across major export partners (annual change; %)

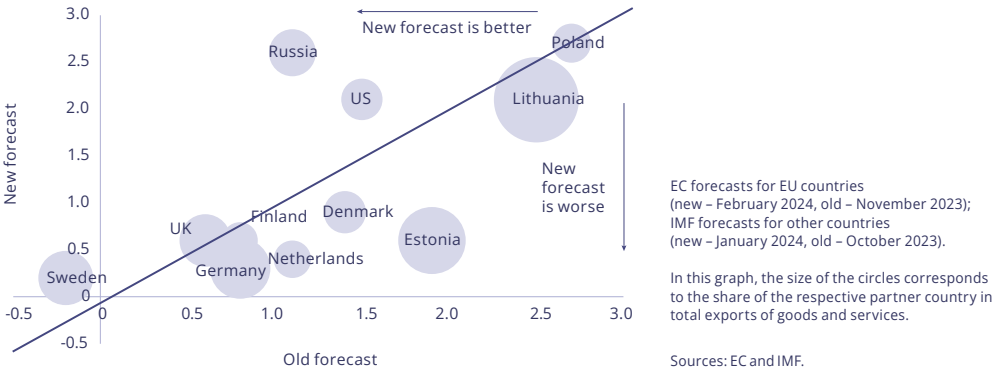
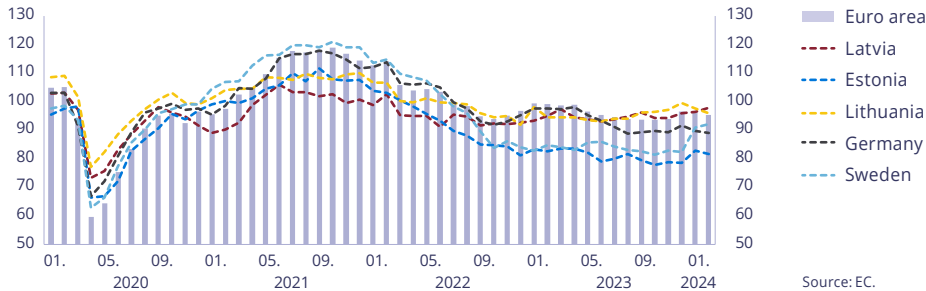


Chart 6. Economic sentiment indicator (long-term average = 100)



Monetary policy in the euro area

Inflation and the rate of economic growth in the euro area are declining more rapidly than expected. The ECB is maintaining a tight monetary policy, but financial markets expect that the pivot point is not far off. Financial conditions in the euro area have become more favourable as a consequence.

ECB monetary policy

The key interest rates set by the Governing Council of the ECB have remained unchanged for four consecutive meetings. When it decided in autumn to keep interest rates at their present levels, the ECB pointed out that although inflation is decreasing, it remains too high for too long. However, the ECB revised its inflation forecasts for 2024 and 2025 downwards in December and March, mostly because energy prices turned out to be having a significantly smaller effect than expected. At the same time, the ECB has joined other major central banks in advanced economies in pointing to the robust labour market as suggesting that domestic inflationary pressures remain high.

The financial markets expect that the ECB will start reducing interest rates in June, cutting the

key interest rates by 100 basis points by the end of the year. However, the ECB has suggested that it needs greater confidence that inflation is converging sustainably to its 2% target in the medium term before it can take the decision to cut interest rates. The data received before the April and June meetings of the Governing Council of the ECB, particularly on labour market trends, are expected to provide additional clarity in this regard. ›

Chart 7. ECB projections for inflation in the euro area (annual change; %)

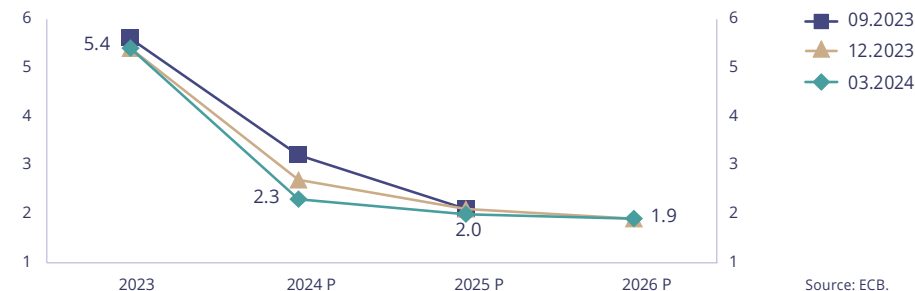
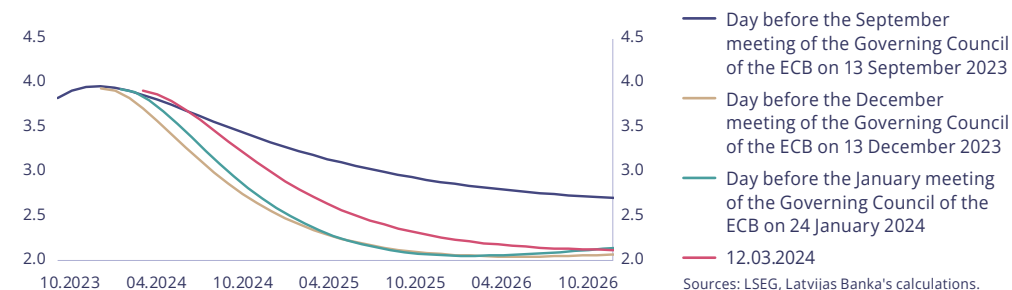


Chart 8. Market-implied path of the ECB's overnight deposit facility rate (%)



Financial conditions in the euro area

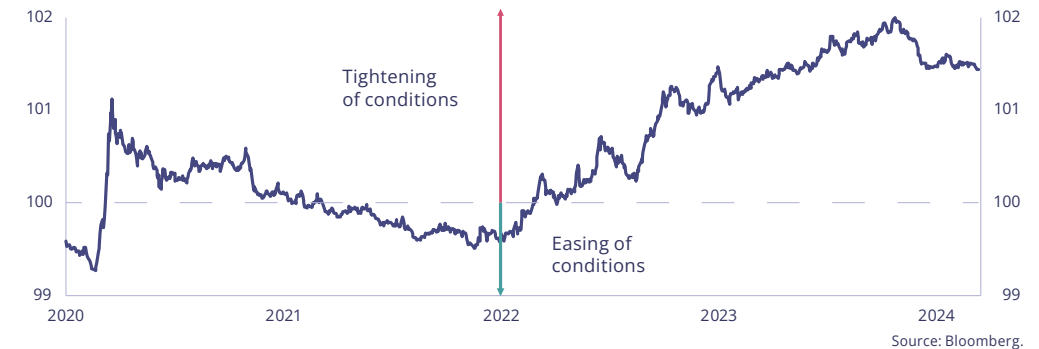
Financial conditions in the euro area became more favourable towards the end of last year. This was driven by changes in the expectations of financial market participants for the further path of interest rates, and by corporate financial indicators exceeding projections. The expectations for a cut in base rates were echoed in a fall in government bond yields, which then affected the yields on corporate debt securities. Investors tried to fix yields at favourable levels before the ECB commenced the normalisation of its monetary policy, which is why the spread narrowed between euro area government bond yields and the yields of German government bonds with the same maturity, as did the corporate bond spread over the risk-free yield.

The stock market also broadly reflected a positive risk sentiment that was rooted in expectations of a cut in interest rates, and in persistently strong corporate financial results and the hope that a deep economic recession could be avoided. The EuroStoxx index, which gives an overall picture of euro area stock markets, grew by 10.7% in total, while the S&P 500 index, which generalises US stock markets, rose by 13.5%. A boom in artificial intelligence technologies was also reflected in a strong upward movement in the stock prices for the sector in the euro area, as the EURO STOXX Technology index increased by 26.8%. Many companies exceeded the projections of analysts when they reported their financial results. Companies have cautious expectations for future trends and emphasise the amount of uncertainty, but they still consider the future outlook to be stable.

The results of the euro area bank lending survey suggest that demand for loans from non-financial corporations and for loans for house purchases from households keeps falling because lending rates are high, but as the pressure of financing costs eased in the fourth quarter of 2023, and low risk tolerance started to ease, the credit institutions in the euro area stopped tightening lending standards as aggressively.

The expectation of cuts in base rates has caused the rise in interest rates on new loans to stall in the euro area as a whole and in its largest countries. This, along with the expectation of the banks that demand for loans will be more stable, suggests that lending growth may well normalise and there will be a further recovery. However, there is a risk that the euro area banks may resume tightening lending standards if economic growth proves slower, thus restricting the credit supply.

Chart 9. Goldman Sachs Euro Area Financial Conditions Index



Financial conditions in Latvia

Even though it is expected that interest rates will soon be cut, there is caution in both the demand and supply side of the banking sector.

The Latvian capital market

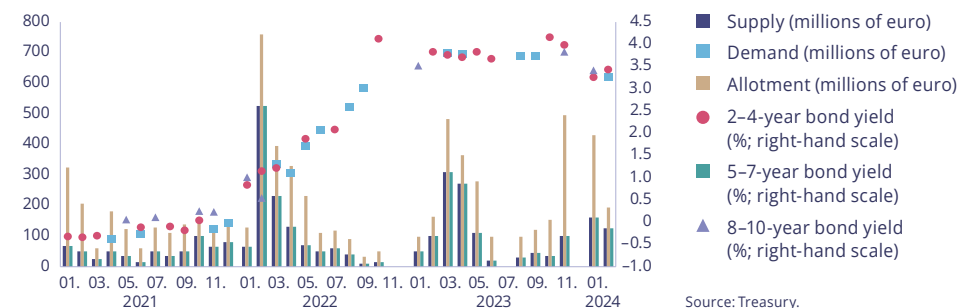
Four credit rating agencies released reports on Latvia's ratings in December 2023 and January 2024 that made no alterations to either the ratings or the future outlook.

November witnessed the third issuance of Latvian government bonds in international markets in 2023 as 600 million euro of 5.5-year bonds were issued with a yield of 3.902% and a fixed coupon of 3.875%. The issuance spread stood at 80 basis points above the mid-swap rate, which was lower than for the auction of 10-year bonds in July. The total demand markedly exceeded the amount of the issue and reached 1.8 billion euro, indicating that Latvia's position in attracting additional financial resources is robust. Investor assessments show the average yield of the auction declined, primarily because the inflation rate had fallen and because the private sector and households' debts are relatively modest. The yields observed at domestic auctions of government securities also slid downwards as market participants priced in a faster reduction in ECB interest rates in the future.

The amount issued in debt securities by non-financial corporations increased notably at the

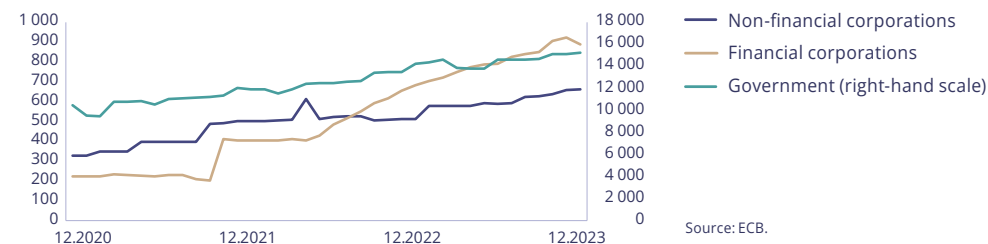
end of the year as conditions became more favourable and conducive to an influx of capital into the market in anticipation of a cut in interest rates by central banks. The principal issuers were producers of hygiene products and waste management operators. These securities commonly matured within a window of 3–4 years, offering an interest rate of around 9%–10%. Non-bank lenders continued to assert their dominance in the issuance of debt securities by financial corporations. The AS Nasdaq Riga stock index experienced a marginal fall over the past six months, suggesting that an atmosphere of caution prevails in the stock market. ›

Chart 10. Issues of Latvian government securities in the internal market
(millions of euro; %)



Source: Treasury.

Chart 11. Outstanding debt securities of Latvia's issuers by issuer group (millions of euro)



Source: ECB.

The banking sector

There was a marginal expansion in the domestic loan portfolio in the second half of 2023 despite a pronounced downturn in demand and the interest rates remaining high. The overall growth in the portfolio was shaped by the normalisation of repayments of short-term loans issued to non-financial corporations during the heating season of 2022, and by an uptick in consumer and other credit granted to households. Although the loan portfolio has expanded, it remains relatively small in size within the broader economic framework, hovering at around 27% of GDP.

The appetite for loans within the non-financial corporation sector has declined, as is indicated by the bank lending survey for the first quarter. This can be attributed to investment plans being more modest and to interest rates remaining high, as these were the main factors dampening demand. This is also evident from a gradual slowdown in the growth in long-term loans to non-financial corporations, a pattern that may persist in 2024 should the expectations of credit institutions for a continued decrease in loan demand prove correct.

The survey also reveals the trend in lending to households weakening. Credit institutions have tightened their lending standards for households in response as they have seen lending risk assessments decline and risk tolerance diminish. Meanwhile, the appetite from households for loans dwindled because consumer confidence was weaker and the interest rates on loans for house purchase were high, as they closely follow the reference indexes of the financial market. However, there is increasing momentum in issuing consumer credit as the interest rates on it are not in most cases directly tied to the reference rates of the financial market. In the first months of 2024, credit institutions made clear that they intended to ease the requirements for issuing consumer credit and that they expect demand for such loans to rise. ›

Chart 12. Domestic loans (outstanding amount; annual changes; %)

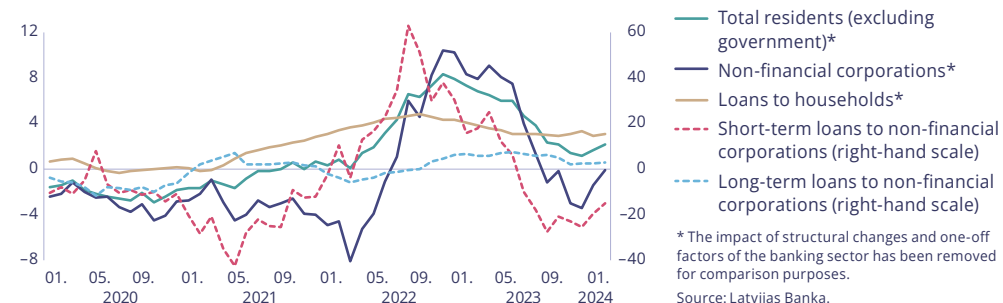
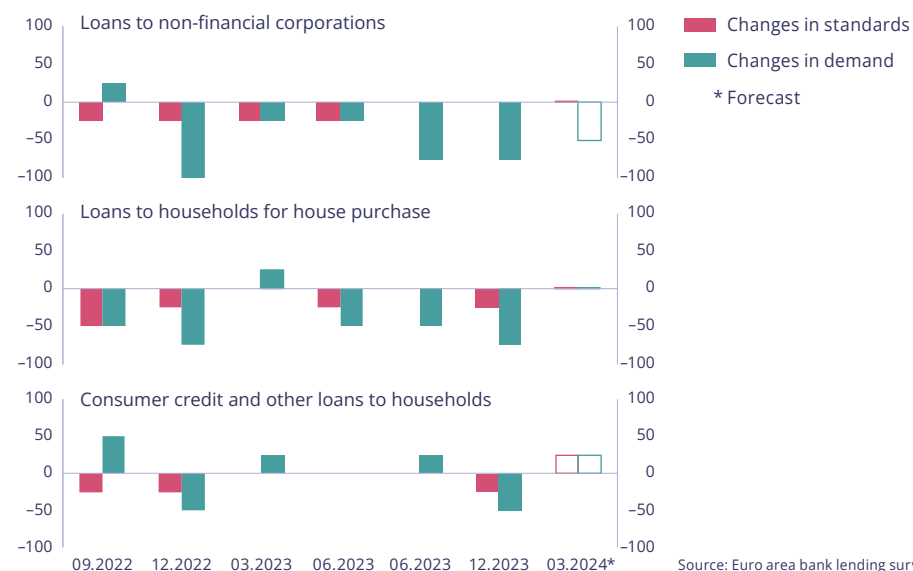


Chart 13. Changes in lending standards and loan demand (net; %)



In anticipation of a reduction in the key ECB interest rates, loan interest rates have stopped rising. Interest rates reached unprecedented highs in the fourth quarter of 2023, with the rates on loans to non-financial corporations climbing above 7%, but they made their first moves downwards at the turn of the year¹. The changes in lending rates are linked to developments in the financial markets, as expectations intensified towards the end of 2023 that the key ECB interest rates would be cut in the first half of 2024, and this consequently caused the EURIBOR market reference indexes to fall. However, the volatile nature of the expectations of participants in the financial market suggests it is premature to assume at this juncture that the reductions in loan interest rates will prove permanent.

The marginal rise since July 2023 in interest rates on loans to households for house purchase was reined back by the extensive review of a record number of housing loan agreements. This review process aimed to set lower interest rates for those loans than the rates that would typically apply if new loan agreements were signed. The loan agreement review primarily aimed to reduce the remaining loan maturity or to negotiate lower margins. This suggests that households have the capacity to meet their obligations, which contradicts the assessment of credit institutions. In contrast there has since been a notable decrease in the review of housing loan agreements, as support for mortgage borrowers has been extended to those who signed agreements by 31 October 2023. The interest rate on loans for house purchase issued in the coming months will therefore be shaped by transactions with new, and possibly riskier, customers, and the average margin may follow an upward path.

¹ Stronger fluctuations in interest rates on new loans to non-financial corporations, as seen in July and November 2023, stemmed from a more vigorous examination of risky transactions by specific credit institutions that resulted in higher interest rates being applied. Lending activity by the largest credit institutions shifted in December 2023 towards lower-risk customers, leading to a fall of 1 percentage point in the average interest rate. Looking ahead, differences in the monthly transaction structure will also serve as a determinant for the risks inherent in the interest rate margins for loans to non-financial corporations.

Chart 14. New volumes of domestic loans in euro (millions of euro; 6-month average)

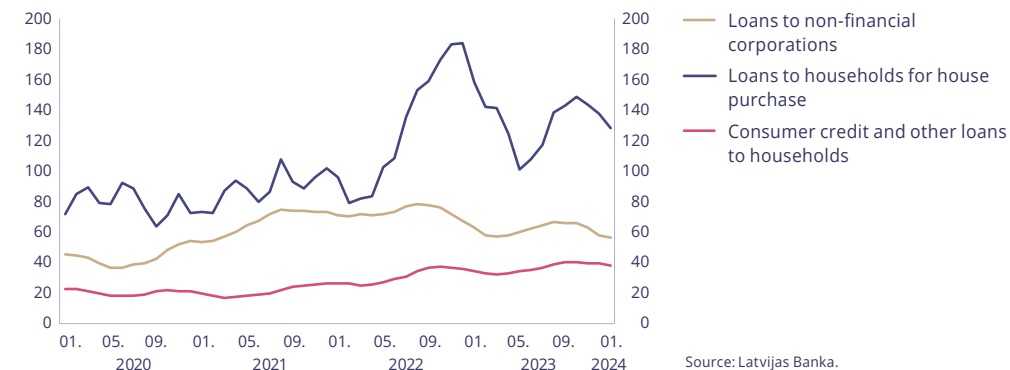
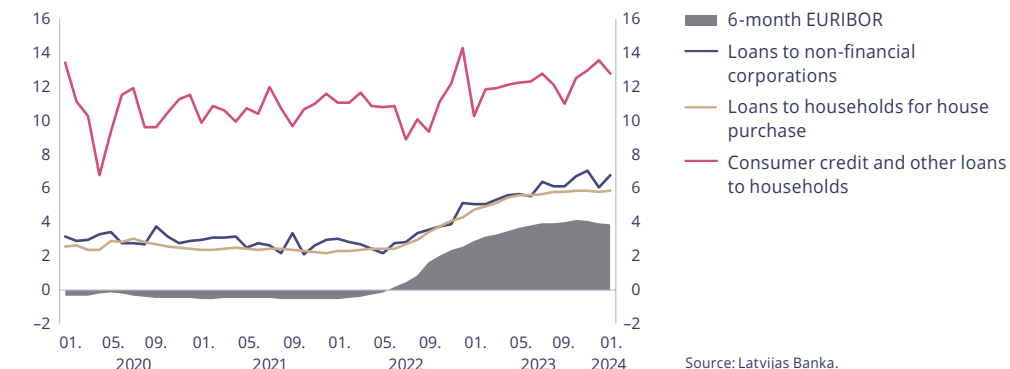


Chart 15. Interest rates on the new euro domestic loans and the 6-month EURIBOR (%)



Fiscal policy in Latvia

The assessment of the general government budget balance both for this year and for 2025 has remained broadly unchanged from the previous projections. It is now expected that government investment will increase by more than was previously thought, and so the deficit is projected to grow towards the end of the projection horizon in 2026. The budget deficit is projected to stand at 4.1% of GDP in 2024, 3.4% of GDP in 2025, and 2.3% of GDP in 2026.

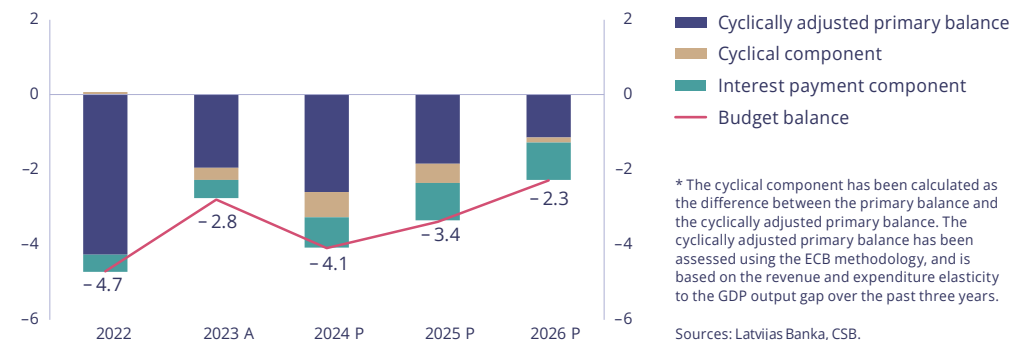
Even though economic growth has been subdued in 2024, the budget balance has remained relatively resilient because of the present cautious approach taken to fiscal forecasting.

This year, the growth of tax revenues will be smaller than last year, reflecting the diminishing impact of high inflation, which had previously contributed to consumption tax revenues. Labour tax revenues will grow at a more moderate rate, primarily because of developments in the labour market, but the growth will still remain relatively fast. It is expected that expenditures will grow at a faster rate than they did last year. This growth will be supported by growth in government investment, which will primarily be directed towards strengthening

internal and external security, and to propelling forward projects financed by EU funds and the Rail Baltica project. While the growth rate of government consumption is projected to fall this year, it will remain resilient, as it will be fuelled by the rise in the minimum wage that came into effect from the beginning of this year and the allocation of additional funding for employees in healthcare and education, and under the Ministry of the Interior. The projection for 2024 also takes the Saeima decision on support to mortgage borrowers into account. As the impact of the measure on the budget balance is neutral, since the fees received from commercial banks will be disbursed to borrowers, its effects on economic activity and inflation will be negligible.

The growth rate of tax revenues will accelerate slightly in the years ahead, spurred on by the improvement in economic growth. Meanwhile, the upward trend in government expenditure will weaken, leading to an overall decline in the budget deficit. The final phase of the period is, however, expected to witness an expansion in government investment from the previous assessment, which can be attributed to both the updated data on the Rail Baltica project and the increased spending on defence. The deficit assessment for 2026 has therefore been adjusted slightly upwards. >

Chart 16. General government budget* balance (% of GDP)



The changes from the December 2023 forecast in the expected budget balance for 2024–2026 are insignificant. The revision of the macroeconomic forecasts will have a negative impact on the budget balance, while other factors, such as expenditure on social benefits, will have the opposite effect of bolstering the budget balance. Although the rate of growth in this expenditure has remained largely unchanged, lower expenditure in the previous year has a carry-over effect that means expenditure is predicted to be lower over the projection horizon. New assumptions about the scale of expenditure on government investment have changed the expectations for 2026.

The fiscal policy will maintain its expansionary stance in 2024; moreover, the fiscal impulse will become more supportive. The deficit of the cyclically adjusted primary balance will rise to 2.6% of potential GDP in 2024, with the GDP output gap remaining in negative territory. With the deficit gradually decreasing, the fiscal impulse is expected to shift towards a more restrictive stance, while economic development will see GDP growth approach its potential in 2026.

Since nominal GDP growth is expected to weaken as inflation declines, the level of government debt has been revised upwards to 44.3% of GDP for 2024, to 45.2% in 2025 and 45.7% in 2026.

The upward trend of government debt will remain unchanged over the upcoming years, while the pace of increase in the debt will be faster than in previous projections. The government debt level for 2023 is scheduled to be announced in April 2024, but expectations are that the figure for debt will be higher than in the December assessments because of adjustments to GDP data. The adverse effects of lower inflation on government debt are steadily amplifying. They have dampened the GDP growth forecast for the coming years, suggesting a less favourable ratio of interest expenditures to growth, while the upward trajectory of government budget expenditures will remain a driving force behind the increase in debt. The expansion of government debt will outpace the earlier The Treasury throughout the projection horizon, and the debt will exceed 45% of GDP in 2025.

Chart 17. Changes in the budget balance forecast relative to the previous forecast and the factors affecting it (percentage points)

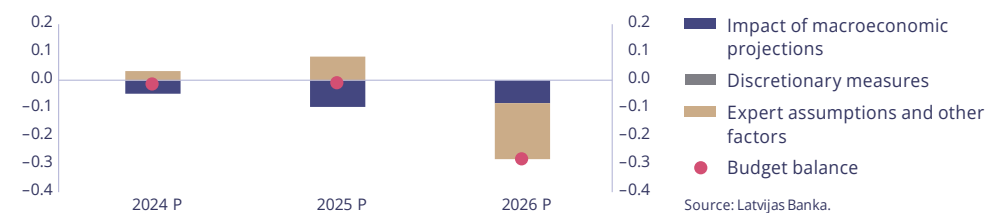


Chart 18. The cyclically adjusted primary balance* and the GDP output gap (% of potential GDP)

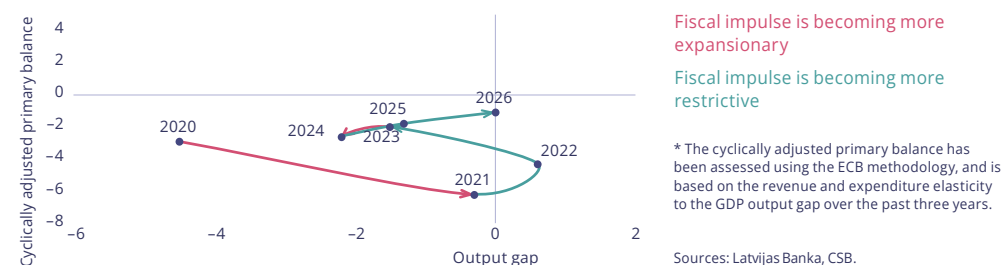
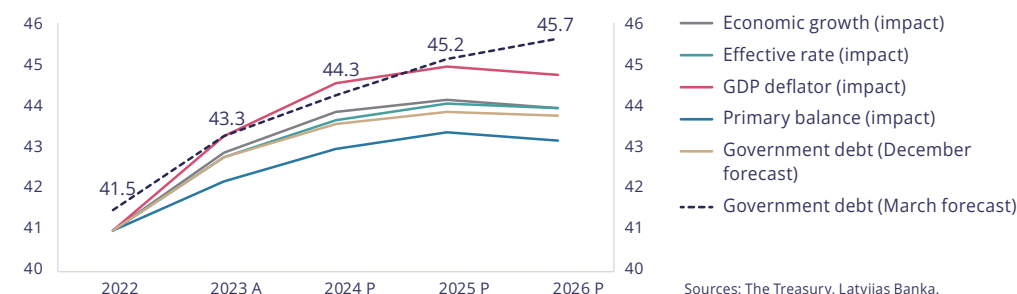


Chart 19. The trend of government debt and the underlying factors (% of GDP)



Gross domestic product – demand

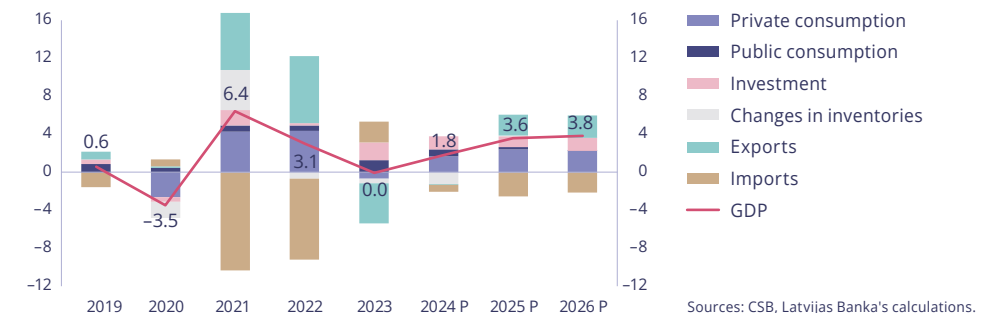
The short-term GDP growth forecast for 2024 has been revised downwards to 1.8% because external demand is proving weaker. The outlook for medium-term growth has remained unchanged at 3.6% for 2025 and 3.8% for 2026.

GDP growth in 2024 will predominantly rely on domestic demand, which gives a clear signal that development will be sluggish ahead. As the economic situation of foreign trade partners improves, export gains will bolster the capacity for growth in the medium term.

While private consumption has rebounded faster than was earlier projected, its future growth will decelerate as the provisions available diminish. Estimates suggest that the trajectory of the recovery of growth will move to a more moderate pace as a consequence not only of the unexpected surge in consumption witnessed towards the end of last year but also of data revisions made by the CSB. These revisions have adjusted consumption data from previous years upwards, and so they consequently reduce the assessment of the total savings that are available to households. Private consumption is rebounding at a pace that surpasses the earlier projections, and, moreover, real expenditure is on the rise across all groups of

goods and services, from non-durable goods to durable goods and miscellaneous services. The improvement in consumer sentiment is serving to catalyse the acceleration of the recovery in consumption, since consumers are more confident about the outlook for both the financial prospects of their families and the trajectory of the Latvian economy. With concerns about increasing expenditure waning, price stabilisation has induced a significant sense of optimism. Furthermore, this stabilisation will fortify consumption in the future as well.

Chart 20. GDP (annual growth; %; seasonally and calendar adjusted data); **expenditure components and Latvijas Banka's projections** (contribution; percentage points)



The increase in real purchasing power and the positive shift in consumer sentiment will alleviate the need to build up precautionary savings. At the same time, the impact of inflation diminishing will lead households to reduce their reliance on savings they have accumulated previously to cover the rising prices of essential goods and services. Savings being less liquid will also curtail spending by households, as those funds with a longer investment maturity will be less immediately available for spending in the near term. The rise in deposit rates as monetary policy tightened prompted households to transfer their surplus funds from their current accounts to term deposit accounts and other income-generating assets. In Latvia, government savings bonds represent one of the key investment options, and investment in

these bonds has increased tenfold within the course of a year, from 25 million euro in January 2023 to 260 million euro in January 2024.

Placing funds in investment that is less liquid might limit their availability for consumption. However, base interest rates for the euro have by now already peaked, and market expectations point to them gradually decreasing in the coming months. Deposit rates have begun to descend in response to these expectations and the downwards trend in inflation, and the weighted average interest rate on household term deposits was recorded at 3.2% in January, which was 0.3 percentage point below the peak of this cycle in November. Yields from alternative investment, such as savings bonds, are declining and the yields for 12-month savings bonds currently stand at 3.4% having fallen from their autumn peak of over 4%. The decline in yields, paired with a continued rise in real wages and a diminishing sense of caution, will encourage households to ramp up their spending. The forecast scenario predicts that the trajectory of consumption growth will closely mirror the rise in real disposable income. The total amount of deposits will consequently remain relatively stable in the foreseeable future.

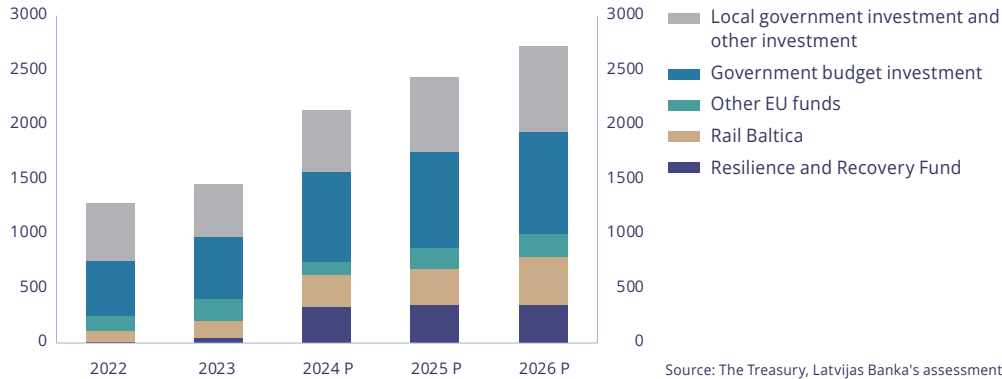
Government investment will spearhead growth in investment in the short term, while the activity of private investors will gain traction in the medium term as financial conditions become more favourable. The outlook for the investment environment and financial conditions remains relatively unchanged, and the geopolitical landscape in the region continues to be the foremost long-term risk. Investment-level forecasts have, however, been enhanced. Estimates suggest that government investment are set to grow substantially across the entire projection horizon. Additional details have been provided about ongoing and prospective investment projects financed through EU funds.

A significant number of investors are adopting a cautious stance because of the persistently elevated geopolitical risks, and they are taking a wait-and-see approach to their planned investment. Estimates consequently suggest there will be a downturn in private investment

over the course of 2024. Businesses in need of loans for their investment projects retained their standoffish approach as lending rates rose as well. The interest rate ceiling has now been reached though and financial conditions are slowly becoming more favourable, so there is potential for investment plans to resurface on the agenda. The predominant drivers of private investment are currently the availability of EU funds and the internal financing of businesses, particularly in sectors that have demonstrated strong profitability in earlier years, such as the wood industry and electronics. The gradual deterioration in indicators for business profitability last year means that the scope for internal financing options will narrow, which could lead to heightened interest in alternative sources of funding.

There will be a significant increase in public procurements and investment volumes over the next few years. The Rail Baltica project will steadily ascend in prominence within the construction sector alongside other sizeable projects supported by EU funding, and a contract was signed towards the end of 2023 to build the main line, while other substantial procurement projects are currently in the pipeline. Construction also continues at facilities that are crucial for internal and external security, such as the Latvian–Russian border, the firing range in the Sēlija region, and Liepāja prison. Deliveries of military equipment will also be ramped up substantially from 2026 in line with the objectives outlined in the National Defence Concept of enhancing Latvia's capabilities in air defence, coastal defence, long-range missile artillery, and drone technology. At the same time, enhancing the short-range air defence system remains a priority, alongside the ongoing efforts to modernise aircraft and ground vehicles. Investment in the military sector will consequently provide an additional boost to overall public investment. ›

Chart 21. **Public investment** (cash flow; millions of euro)



Weak demand is making exporters confront the challenge of remaining competitive, which is made harder by the sustained surge in labour costs, and this challenge is expected to last even with demand recovering over the medium term. Towards the end of last year, exports increased beyond earlier expectations, but projections for external demand have now been revised downwards, hinting that the performance of exports will be weaker in the forthcoming quarters than was earlier projected. The recovery in growth in Latvia's trading partners is hampered by the combination of restrictive monetary policy and geopolitical instability. Moreover, the imposition of sanctions on Russia and Belarus is reducing export volumes, while mounting public pressure to curb unethical practices is intensifying, prompting the need for new regulatory requirements to terminate economic ties with these countries. Increasingly severe sanctions and restrictions will therefore weigh on exports, driving some exporters to search determinedly for new export markets.

The final quarter of 2023 proved in the end to be somewhat more prosperous in external trade than had been expected. Exports of goods, particularly exports of agricultural products and

exports of wood products, benefited notably from fulfilling some substantial orders. Exporters of wood products faced the challenge of a combination of weak demand and declining prices in export markets, which can be attributed to the slowdown in construction, but industry representatives are hopeful of a gradual turnaround closer to the middle of the year. The trajectory of the global timber index also offers support for the view that wood prices are stabilising, and the index has historically exhibited a strong correlation with comparable prices in Latvia. A favourable perspective on the resilience of the uptick in exports of agricultural products towards the end of the year comes from the expansion of land used for cereal cultivation. Harvest volumes in Latvia are expected to increase, and this coincides with forecasts of global wheat stocks being reduced, which could lead to a rise in cereal prices. The downturn over the past year in energy exports, covering gas, oil and electricity, was particularly pronounced, and it was driven largely by the fall in prices. Exports of mechanical appliances and electrical equipment are expected to remain resilient. Exports of ICT and other business services that experienced a decline at the end of last year will also recover as global demand expands.

Services exports faced considerable hurdles as the year drew to a close, with a concurrent decrease in freight traffic adding to the difficulties. Air transport has displayed a more favourable outcome, primarily because of its integral role in passenger transportation. Its development moving forward can be projected to tandem the growth trajectory of AirBaltic. With European economic growth rebounding, the tourism sector and travel exports will continue to recover, and projections indicate a gradual ascent towards pre-pandemic levels of activity in tourism.

The performance of exports is intertwined with the risk of competitiveness being lost as wages soar, a challenge that will be further maintained by constraints on the labour supply. During the first three quarters of 2023, there was overall stability in Latvian market shares in global and European markets. The growth in exports in the fourth quarter in spite of the challenging conditions prevailing in export markets suggests that market share remained stable through the end of the year. Labour costs show that Latvia has maintained

its cost competitiveness relative to Lithuania and Estonia, which are Latvia's primary export destinations. Unit labour costs have exhibited a prolonged and significant upward trend in all three Baltic countries. However, the increase in them over the past year was slowest in Latvia, so Latvia's cost competitiveness within the Baltic region has not necessarily been eroded. However, the Baltic countries have experienced a more pronounced rise in labour costs than other euro area countries, and consequently the battle for market shares in Europe is expected to continue fiercely.

Chart 22. Unit labour costs in the Baltics and the euro area (2019 = 100)

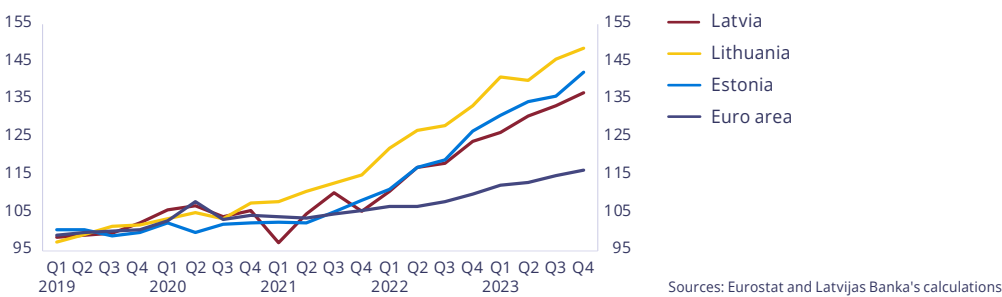
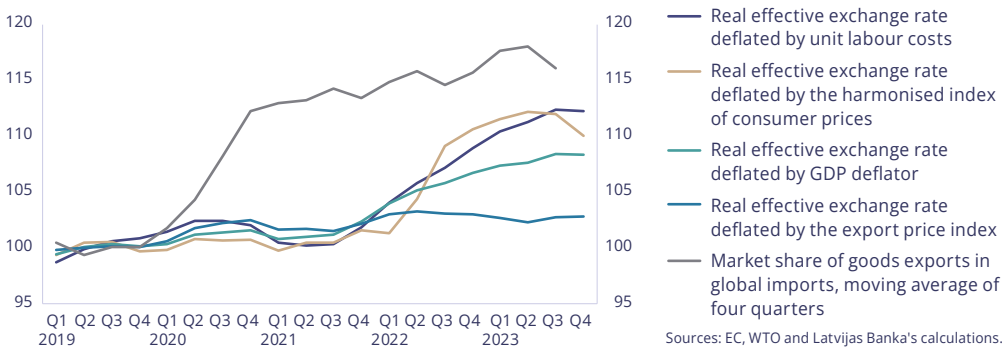


Chart 23. Export market share and the real effective exchange rate (2019 = 100)



Economic sectors

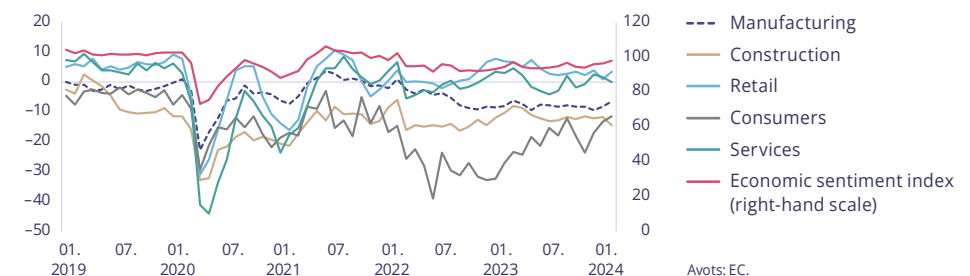
In the short term, activity in the manufacturing and transport sectors is expected to be more subdued, given the weakness in external demand. Retail trade has exhibited more inertia as consumer sentiment is improving only slowly despite purchasing power increasing. The outlook for the construction sector has remained broadly unchanged as the sector will benefit from the progress made in implementing large infrastructure projects financed by EU funds and from a gradual expansion of investment in the private sector.

Economic growth in Latvia is still being held back by the weakness in external demand, which is weighing on the momentum of the manufacturing and transport sectors. The restrictive impact of the high interest rates and costs is still being felt in the construction sector and the real estate market. Data for the first months of 2024 overall suggest that economic activity was relatively subdued in the first quarter, but growth in some sectors will rebound in the following quarters. Inflation returning to a low level and income rising are already being reflected in a more positive assessment of demand for the coming months from the services sector and will also support

retail trade, while the progress made in large infrastructure projects financed by EU funds and a gradual expansion of investment in the private sector, in building and renovating housing for example, will support construction activity. The demand for exports is expected to increase over the forecast horizon, which is likely to coincide with the vision pursued by several producers that are currently making investments in production capacity. The transport sector will, however, still be hindered by geopolitical risks, including the expansion of sanctions on Russia and Belarus.

The manufacturing sector started the year on a very weak footing, but the situation will improve gradually once demand rebounds in export markets. External demand remains weak, and so there is no reason to expect any drastic improvement in manufacturing activity in the near term. The dramatic drop in output in January should, however, be interpreted as exceptional rather than as part of a pattern because January is a quieter month after busy November and December, when there are lots of large orders to be handled. Although the assessment of export orders by businesses in manufacturing is lower than at the time the previous projections were prepared at the end of last year, February brought some signs of improvement both in the overall level of manufacturing confidence and in employment expectations for the next three months, suggesting that production volumes may return to their previous levels. ›

Chart 24. **Sectoral sentiment indicators** (net responses), **ESI** (January 2000–February 2024; long-term average = 100)



The businesses in manufacturing hold differing views about the timing of when growth might accelerate, as some parts of the sector expect it to happen as early as the spring, while others see a more positive picture only at the close of the year or even next year. The situation in wood, metals and building materials as sub-sectors of construction could improve slightly towards the summer following a prolonged period of weak economic activity in foreign trade partners. The demand for computers and electronic products will remain relatively strong and is supported by investment in the infrastructure needed for electric vehicles and in new production capacity. The demand for medium-term use goods such as furniture and household appliances will remain weak this year as it always follows changes in construction activity with a delay. External demand will recover to be stronger overall in 2025, giving Latvian producers more room for manoeuvre in increasing their exports.

The growth of the construction sector will be driven by public procurement orders, the more active implementation of projects financed by EU funds, and the construction of the Rail Baltica railway. Activity has moderated in the real estate market and the construction confidence indicator deteriorated slightly in February because of high interest rates and inflation, though it might also have been affected by both the stagnating dynamics of lending and the caution of private investors in launching new projects, but businesses in the construction sector still report a stable outlook for orders for the coming months. Demand in the construction sector is also supported by supply remaining insufficient in the energy-efficient housing market, the increase in the number of projects financed by EU funds, the rise in public sector investment, and the work on the Rail Baltica project. Construction costs staying persistently high may hinder the recovery of private investment, but the growing inflows of investment from the EU Recovery Fund and other EU funds will allow public sector investment to be increased, while the construction of Rail Baltica will continue despite the uncertainty surrounding the financing of this sizeable project, and so the medium-term prospects for growth in the construction sector are quite positive.

Trade activity was still quite low at the beginning of the year, and although the recovery in purchasing power will improve consumer confidence, an upswing in consumption is yet to come. The short-term data on the turnover of retail trade, card payments and the registration of vehicles point for the time being to consumers having well-considered purchases and consumption habits in the first quarter. Activity could improve gradually during this year with the economy in general growing and economic sentiment improving. This will allow the retail trade of non-essentials such as household goods and house furnishings to thrive. The rise in income and the rapid drop in inflation have allowed consumers to become more optimistic in recent months, but the level of consumer confidence is even lower than it was in some months of the pandemic.

Businesses in the retail trade of food products are of the view that investment will continue this year in opening new shopping venues and in strengthening the capacity of logistics. This does not mean that the sub-sector is expanding, but it points to competition intensifying and to a struggle to win over the customers that have been more deliberate in their purchasing decisions recently because of the high housing costs, rising interest rates and tax changes. The increase in the reduced VAT rate for certain food products has already come into effect, while the rise in the natural resource tax rate from 1 July 2024 could hurt the trade in second-hand goods, principally clothing, and spark discussions about sustainability, but is unlikely to affect the overall growth of retail trade significantly.

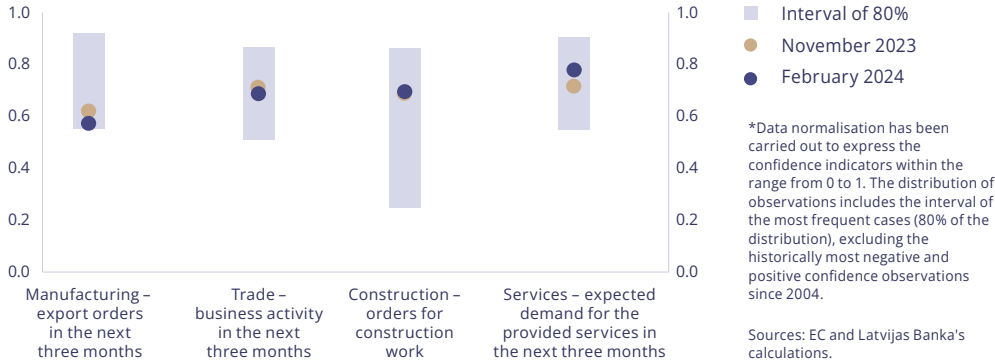
The transport sector will still be hindered by the geopolitical situation and by external demand recovering more slowly than was previously expected. Demand for freight transport in Europe has gradually started to increase, but it still remains low. The confidence indicators show that the demand will recover later than expected, and so growth in the sector is not expected to become more dynamic before the second half of the year. ›

The rebound in demand will mainly boost the performance of Latvian road carriers in international and export transport, where the turnover of freight decreased significantly last year.

Freight volumes in Latvia's largest ports and freight transportation by rail will stabilise at all-time low levels this year, and so the volatility will become less pronounced than before. Latvia introduced a ban on imports of agricultural and fodder products from Russia and Belarus at the beginning of the year, but the share of these cargoes is relatively small and their impact on the overall freight volumes will not be significant. Having said that, future developments will be driven by the geopolitical situation. The expansion of sanctions will increasingly affect current freight flows, but it will not be possible to increase the volumes of freight transit in the coming years.

Air transport will remain the most stable part of the sector again this year. The increase in the number of passengers will moderate progressively, but it will be more pronounced than in the other Baltic States, while the total number of passengers will already approach its pre-pandemic level this year. The rebound in economic activity is expected to contribute to the flows of transit passengers at Riga Airport, but their numbers will remain lower than they were before the pandemic because of the geopolitical situation.

Chart 25. Assessment by businesses of future business growth (coefficient, three-month moving average)



Labour market – unemployment

Economic activity being weaker has caused the unemployment forecasts to be revised slightly upwards to 6.5% for 2024 and 6.3% in 2025. The unemployment forecast for 2026 has remained consistent with its previous forecast at 6.1%.

Economic activity has been weaker and so unemployment has stabilised at a slightly higher level and is expected to change in line with the economic recovery in the future. Although the unemployment rate rose slightly at the end of the year and economic activity was expected to be weaker than previously estimated at the beginning of 2024, no further increase in the unemployment rate is expected. Preliminary data on registered unemployment² suggest there has been a slight drop in the rate of unemployment, and the data also show that labour hoarding is currently no longer widespread, which reduces the risk of further growth in unemployment.

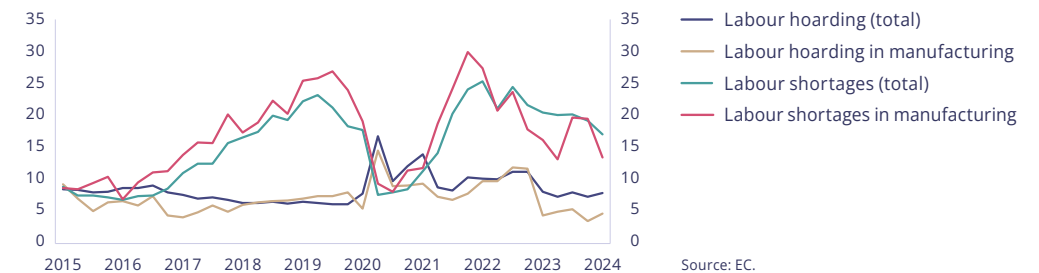
The challenges of labour shortages have become less pronounced in the environment where economic activity is weaker, but the increase in the number of vacancies³ and employment expectations point to businesses being willing to hire new employees. The percentage of the population that is economically

² Seasonally adjusted data from the State Employment Agency.

³ Seasonally adjusted data from the State Employment Agency.

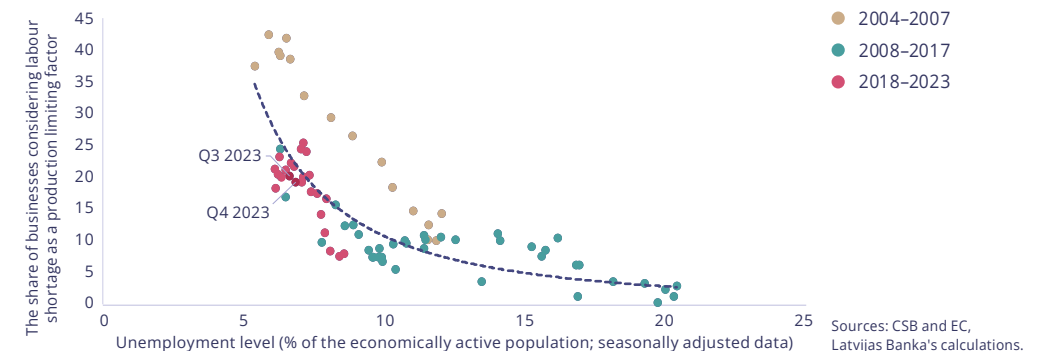
active has not yet recovered to pre-pandemic levels, but it might increase in the second half of the year as job prospects get better. The age group of young people still has a relatively good chance of filling labour shortages, mainly in simpler professions.

Chart 26. Share of businesses considering labour shortage as a production limiting factor and that hoard employees (seasonally adjusted data; %)



Source: EC.

Chart 27. Beveridge curve in 2004–2023



Sources: CSB and EC, Latvijas Banka's calculations.

Labour market – wages

There have been no revisions to the wage forecast, and the projected increases in wages remain above their long-term averages at 8.0% for 2024 and at 7.9% in 2025 and 7.6% in 2026.

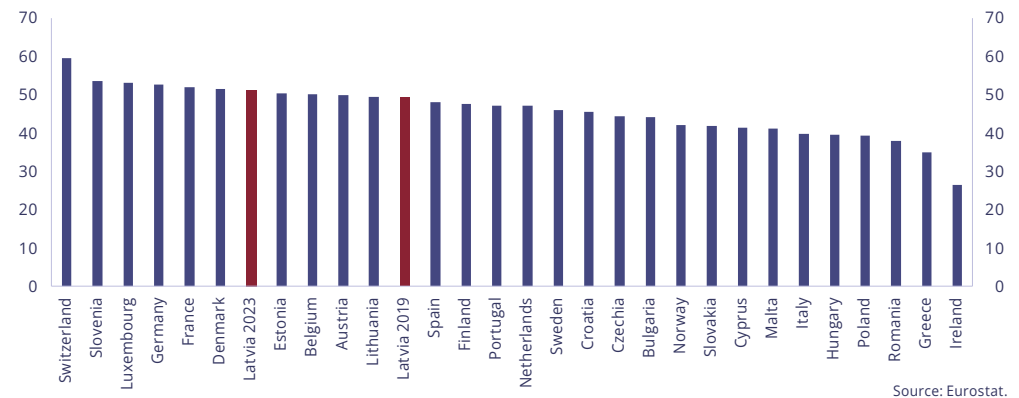
The projected increase in wages is still considered to be rapid, and so it poses a risk to the sustainability of economic growth. The labour market is favourable for employees, and it is expected that it will remain so in the future. This is because the rate of unemployment is relatively low and the labour supply is insufficient, which is also driven by the structural distortions in the labour market. Labour market conditions that favour employees increase wage pressures, and this presents the risk of competitiveness being lost if wage increases are not matched by improvements in productivity.

The rapid rate of rise in wages will slow, though only moderately, as inflation has now moved persistently to a significantly lower level. After wage rises of more than 10% last year, which were in line with the projections, the impact of inflation on wage changes has not yet faded to its historical average level, and this is expected to happen only gradually. Moreover, inflation being much lower than wage growth will drive a further rise in purchasing power and reduce the pressure on employers to increase wages to compensate for higher prices. The

purchasing power of lower-income employees will also improve as the minimum wage rises. Labour shortages are far less important as a factor driving business activity, which reduces the pressure on wages.

Although the weakness in economic activity has somewhat reduced the demand for labour, elevated labour costs will continue to hurt cost competitiveness where there are labour shortages, particularly as the economy recovers. The challenge for businesses is to shift the rising labour costs on to consumers by increasing their prices, or to reduce their profit margins. Either way, this presents risks to the resilience of Latvia's economic growth and to competitiveness through weakness in investment activity or uncompetitive sales prices.

Chart 28. **Share of remuneration in GDP in 2023 (%)**



Inflation

The inflation forecasts for 2024 and 2025 have been revised downwards to 1.5% and 1.9% respectively. This is primarily because of a significant decline in the global prices of natural gas. The inflation forecast for 2026 has remained unchanged at 1.8%.

Inflation will decline by more than expected over the short term mostly because global prices of natural gas are falling. Harmonised consumer price inflation in Latvia was among the lowest in the euro area countries in February at 0.6%. The incoming data on inflation in Latvia have been close to the figures in the December forecast, but significantly lower natural gas prices have not only passed through into lower energy prices in Latvia, but have also eased the upwards pressure on the prices of other goods and services.

Global oil prices have risen slightly, pushing up the future expectations for the oil price by more than projected, but the lower expectations for the future natural gas price have cushioned the impact of energy prices on inflation for this year and for 2025. Furthermore, lower energy prices will also mean that services prices rise by less than previously expected, which is also reflected in the downward revision of the core inflation forecast to 4.0% for 2024.

Meanwhile, the analysis of core inflation shows that the price increases will be smaller both for products that had initially registered the steepest rises, and also for other product groups.»

Chart 29. Harmonised consumer price inflation in Latvia and contributions (annual change; percentage points), **core inflation** (%)

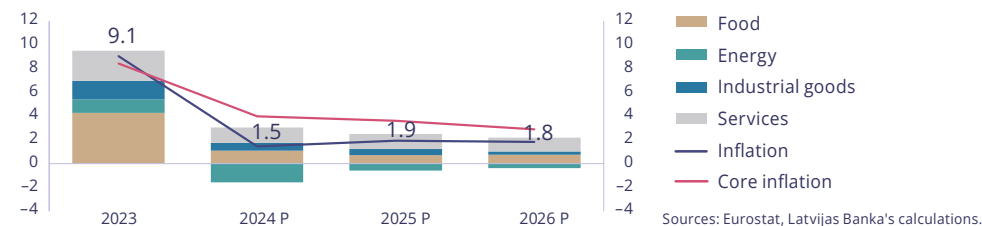
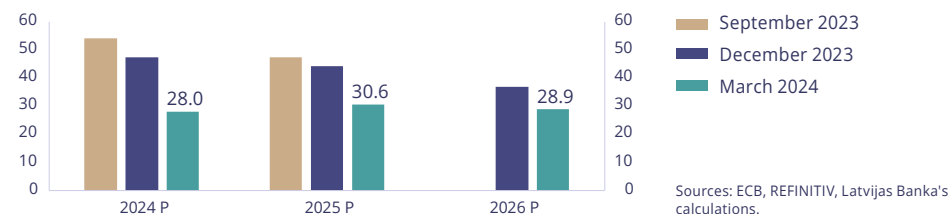


Chart 30. Oil price (euro per barrel)



Chart 31. Natural gas price (euro/MWh)



Inflation will be affected by changes in some tax rates in 2024. The VAT rate of 12% instead of 5% on the fruit and vegetables that are typically produced in Latvia has applied since the beginning of 2024; the tax rate has been raised, though by less than the restoration of the full VAT rate that was planned previously. Given that those products make up a small share of the consumption basket, the tax changes will affect headline inflation by a mere 0.1 percentage point in 2024. The price dynamics for this product category are driven very much by various promotions, and the change in the tax rate has not resulted in any sharp increase in prices at the beginning of the year. There has also been no significant impact from global supply chain disruptions on the development of prices of industrial goods in Latvia.

The period of record high energy prices is over. A majority of the government support programmes rolled out for the energy crisis in Latvia were terminated last year. This year, however, additional support was introduced to cover the increase in electricity distribution tariffs, with the government setting caps on the tariffs' increase, and so the tariffs rose at the beginning of 2024, but by less than they would have done without this support coming into force. Inflation will be 0.4 percentage points lower in 2024 and 0.2 percentage points higher in 2025 as a consequence of the introduction of the ceiling for the increase in electricity distribution tariffs.

In the medium term, inflation developments will be guided by the persistent rise in wages. The impact of the labour supply being insufficient is projected to persist in the future after a rapid rise in remuneration last year that prevented core inflation falling as fast as headline inflation. Labour shortages are expected to keep wage growth high as economic growth resumes at a faster pace, allowing the unemployment rate to stay low. So although the indirect impact of energy prices on core inflation will be smaller this year and next year, reducing the rate

of increase in the prices of services and industrial goods, higher labour costs and resilient demand will combine to keep core inflation higher than headline inflation as wages rise. A stronger rise than projected in remuneration is an upside risk to the inflation forecast.

Chart 32. **Decomposition of the factors affecting inflation** (annual change and contributions; % and percentage points)

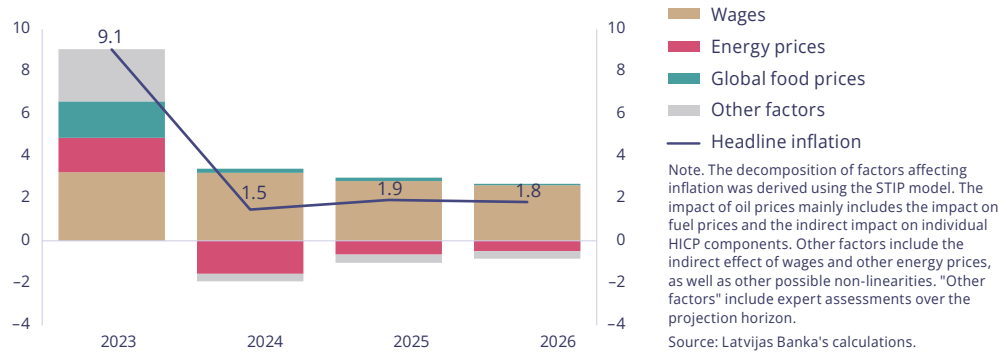
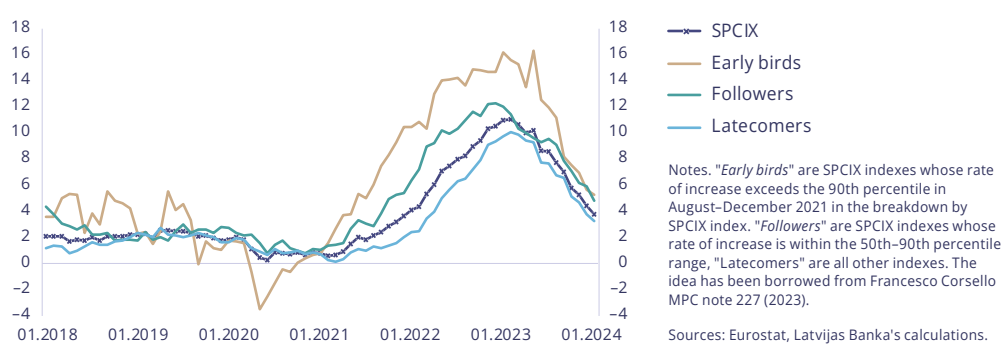


Chart 33. **Core inflation components by speed of growth** (annual change; %)



Scenario analysis

The impact of the mortgage borrower support measures on Latvia's economy⁴

Amendments to the Consumer Rights Protection Law that came into force on 1 January 2024 provide that 30% of mortgage interest payments will be compensated in 2024, up to a maximum of 2 percentage points of the total interest rate for the loan in the period concerned.

Support will be provided to natural persons whose:

- mortgage contracts were signed by 31 October 2023;
- outstanding loans do not exceed 250 000 euro;
- loans are backed by a mortgage on real estate located in Latvia;
- loans have not been issued with fixed interest rates for the entire loan repayment period.

These criteria stipulated in the amendments mean that an overwhelming majority⁵ of mortgages will qualify for the support.

The support that will be disbursed to individual borrowers for 2024 is expected to range from

⁴ By Ginters Bušs, Andrejs Semjonovs and Kārlis Vilerts, economists at Latvijas Banka.

⁵ The share of loans qualifying for support will also depend on the number of mortgages that are subject to refinancing or repayment schedule changes in 2024. Estimates based on data from the Latvijas Banka's Credit Register suggest that 99.7% of mortgages issued to natural persons for house purchase by 31 October 2023 would qualify for the support.

less than one euro to about 4800 euro, with a median value of approximately 550 euro. The total amount of support is estimated at roughly 85 million euro or almost 0.2% of GDP.

To understand how the support measures will impact Latvia's economy, Latvijas Banka has conducted a scenario analysis using the DSGE model for Latvia.⁶

Simulation

Only a relatively small fraction of Latvia's population, at approximately 13% of all households, holds a mortgage, and a large majority of those mortgage borrowers are relatively well-off. This means there is uncertainty about how much of the support will be used for consuming goods and services and how much will be left for savings. We therefore analyse two extreme scenarios⁷:

- 1) households receiving support are financially constrained and immediately consume all the support money;
- 2) households receiving support are financially unconstrained and save most of the support money.⁸

The analysis reveals that the macroeconomic impact is small in both scenarios, with GDP increasing by up to 0.06% and 0.02% in 2024 and 2025 respectively (Chart 34). ›

⁶ Ginters Bušs & Patrick Grüning (2023) Fiscal DSGE model for Latvia, *Baltic Journal of Economics*, 23:1, DOI: [10.1080/1406099X.2023.2173915](https://doi.org/10.1080/1406099X.2023.2173915).

⁷ The model scenarios are simulated as government transfers to households. To isolate the impact of this support from any possible changes in fiscal policy, the fiscal rules in the model scenario simulations are suspended for two years from the moment of the fiscal shock, after that a weak lumpsum tax on optimising households is introduced. The potential negative impact that the mortgage borrower protection fee might have on the banking sector is not modelled in the simulations.

⁸ The assumption of the second scenario is consistent with the definition of an optimising household in the DSGE model for Latvia. Roughly one third of their budget is allocated to consumption expenditure, while their marginal propensity to consume varies in time.

The economic impact of the support is transferred mainly through higher private consumption, partly offset by a corresponding increase in imports. The economic impact is overall small for two main reasons.

- 1) Mortgage borrowers are a small fraction of the population in Latvia and so the amount of support is relatively modest at a mere 0.3% of the total annual consumption of Latvian households. Moreover, the more of the support is allocated towards savings, the smaller the impact on consumption and GDP will be.
- 2) The VAT included in the expenditure on consumption reduces the actual consumption by about one fifth.

The small impact on consumption implies that the impact on inflation is below 0.01 percentage points. Therefore, the support for mortgage borrowers will not significantly interfere with monetary policy efforts to reduce inflation.

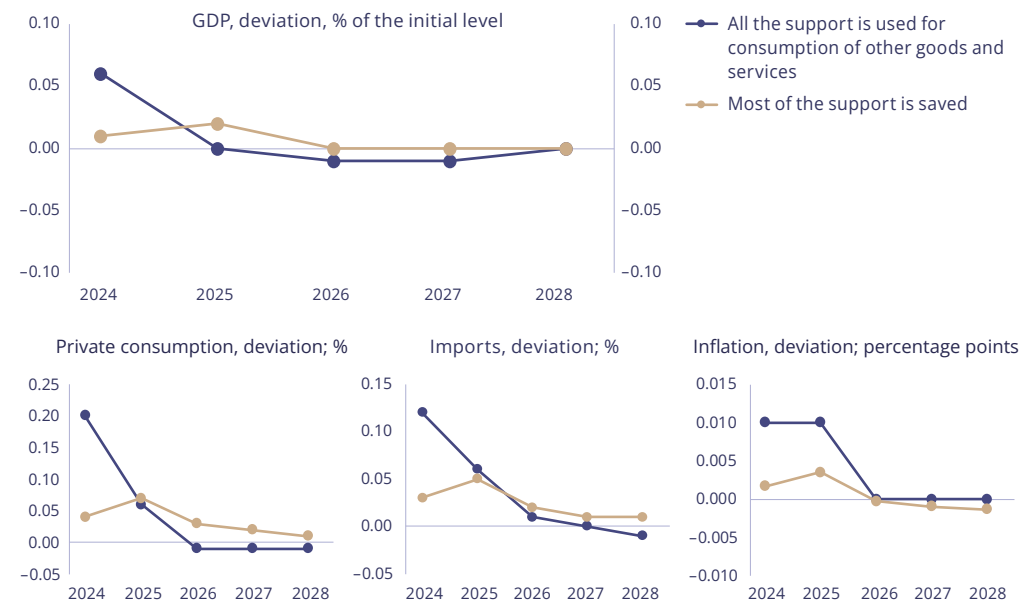
The calculations by Latvijas Banka of March 2023 suggested that the impact of higher interest rates on the level of private consumption via the household budget channel would be about 0.2% in 2024–2025. The support for mortgage borrowers thus offsets this impact to some extent. It is, however, important to note that the impact of higher interest rates on economic activity in Latvia is largely transferred through other channels such as the declining economic activity in Latvia's trade partners, and the postponement of investments and government spending due to higher borrowing costs. These channels are unaffected by the support to mortgage borrowers.

Conclusions

The results of the scenario analysis suggest that the macroeconomic impact of the amendments to the Consumer Rights Protection Law, which provide for a 30% compensation

of mortgage interest payments in 2024, is small. It can also be concluded that although the amendments will reduce the monetary policy transmission through the household budget channel, they will not restrict the overall transmission of monetary policy. ›

Chart 34. The impact of mortgage borrower support measures on Latvia's economy



Source: Latvijas Banka's estimates based on the DSGE model for Latvia (Bušs & Grüning, 2023).

The impact of raising the carbon price on Latvia's economy⁹

Motivation

As climate change accelerates, the green transformation is becoming increasingly urgent¹⁰. Countries that ratified the Paris Agreement on climate change committed themselves to reducing their greenhouse gas emissions, such as emissions of carbon dioxide and methane, in order to limit global warming and to "keep the increase in global average temperature to well below 2°C above pre-industrial levels and to pursue efforts to limit it to 1.5°C"¹¹. To achieve this target, each country has a nationally determined contribution defined for it that specifies the rates at which greenhouse gas emissions will be cut each year.

The EU is committed to becoming climate-neutral by 2050 and to reducing its greenhouse gas emissions by 55% by as soon as 2030¹². Several sectors are, however, currently unable to cut their emissions significantly within a short time frame without reducing their output¹³. To estimate the near-term implications for Latvia's economy of cutting greenhouse gas emissions before the mass introduction of climate-neutral technologies, Latvijas Banka has conducted a scenario analysis for Latvia based on the CGE-EUROMOD model¹⁴.

Description of the simulation

The EU uses the most efficient method available for facilitating the reduction in greenhouse

gas emissions¹⁵, which is the EU Emissions Trading System (EU ETS). Under the EU ETS, companies must buy allowances per each unit of greenhouse gas that they emit, measured in t CO₂e, or tonnes of carbon dioxide equivalent. The EU sets a cap on the total amount of emissions so that if emissions fall more slowly, the allowances become more expensive. In addition, each country has its own carbon taxes. In Latvia, the Natural Resources Tax Law requires that industries pay 15 euro for each t CO₂e¹⁶. Moreover, the excise tax on fuel also functions to some degree as a carbon tax. All these costs associated with greenhouse gas emissions collectively constitute the carbon price.

The current climate policy is insufficient for meeting the commitments to emission cuts^{17, 18}. Therefore, the carbon price must be raised to ensure sufficient progress in combating climate change in the short term without resorting to economically crippling restrictions. Latvijas Banka has analysed three scenarios for raising the carbon price, each of which aligns with one of the scenarios of the Network for Greening the Financial System (NGFS).

The NGFS brings together 114 central banks and financial supervisors to facilitate the dissemination of best practices in combating climate change in the financial sector and to promote the financing of the green transformation. As part of its work, the organisation designs uniform global scenarios that illustrate the correlation between the steps taken to slow climate change down and the rate of reduction in global greenhouse gas emissions, and also show the severity of climate-related disasters and losses in the future. Each scenario is based on a different carbon price and a different objective for reducing greenhouse gas emissions. ›

⁹ By Oļegs Matvejevs, economist at Latvijas Banka.

¹⁰ For instance, see [here](#).

¹¹ [Paris Agreement on climate change – Consilium \(europa.eu\)](#).

¹² See also [here](#).

¹³ Cutting greenhouse gas emissions is particularly difficult in the industries with the highest emission levels, which are transport, agriculture, heat and power supply, cement production and some other manufacturing sectors.

¹⁴ CGE-EUROMOD is a model developed by Latvijas Banka and BICEPS, combining the general equilibrium macroeconomic model, which is based on Latvia's cost and output database, with EUROMOD, a tax-benefit microsimulation model.

¹⁵ See, for instance, de Mooij, R.A., Keen, M. & Parry, I.W.H. [Fiscal Policy to Mitigate Climate Change. A Guide for Policymakers](#). International Monetary Fund, 2012.

¹⁶ See [Natural Resources Tax Law \(likumi.lv\)](#)

¹⁷ The EU ETS allowance price was recently cut almost in half and it applies to only 18% of Latvia's emissions, while the natural resources tax applies to only a small fraction of the remaining emissions.

¹⁸ European Environment Agency: [ES tiesību akti nespēj sasniegt nospraustos mērķus \(EU legal acts fall short in ensuring the achievement of the targets\) | WWF Latvia \(panda.org\)](#)

This report simulates the carbon price in Latvia being raised starting from 2025 under the three NGFS scenarios described in Table 2¹⁹ It is assumed that the carbon price is raised²⁰ from the current carbon price, which is made up of the costs of the EU ETS allowances and the natural resources tax²¹ and excise tax²² payments, to the same level for all industries in each scenario analysed.

Impact on the economy

The results of the model simulation, as illustrated in Chart 35, suggest that the 'Net Zero' scenario of raising the carbon price in all industries to 258 euro/t CO₂e in 2025, which would pave the fastest path to climate-neutrality, would result in short-term²³ reductions in greenhouse gas emissions of 3.7%. Economic activity²⁴ would be 1.4% lower than in the baseline scenario where no changes are introduced. The average real wage would fall by 0.9%, with private consumption also shrinking by 1.2% as purchasing power declines. The contraction of the workforce would reach 1.0%, leading to a rise of 0.7 percentage point in the unemployment rate.

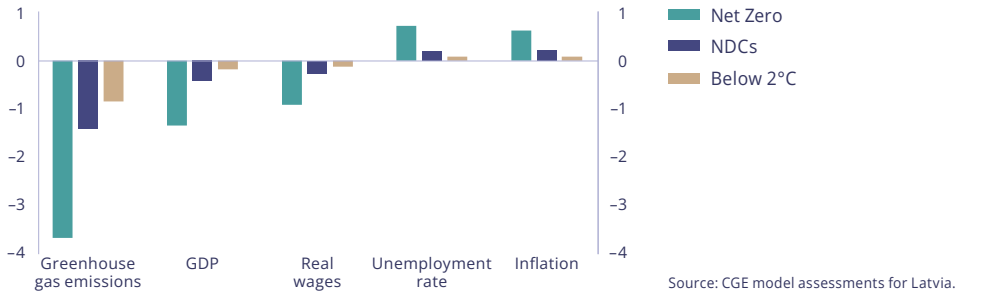
The negative implications for the economy of raising the carbon price to 102 euro/t CO₂e would be smaller by a factor of 3.5 , as GDP would decline by 0.41%, while the average income would fall by 0.25%. The reduction of greenhouse gas emissions relative to the baseline scenario would

be 1.43%, or 38.5% of the reduction in the 'Net Zero' scenario. The negative impact from raising the carbon price to 64 euro/t CO₂e, as outlined in the third scenario 'Below 2°C', would be even smaller for the economy at roughly half that in the second scenario. However the reduction of GHG emissions would be by 40% smaller. ›

Table 2. Simulated NGFS scenarios

Name	Carbon price in 2025	Reduction in greenhouse gas emissions at the given carbon price
Net Zero	258 euro/t CO ₂ e	The scenario assumes a carbon price trajectory that would be sufficient to reach climate neutrality by 2050 and to halt global warming over the long term, keeping the rise in temperature below 1.5°C.
NDCs	102 euro/t CO ₂ e	The scenario assumes a carbon price trajectory consistent with the countries meeting their commitments according to the nationally determined contributions (NDCs).
Below 2°C	64 euro/t CO ₂ e	The scenario assumes a short-term carbon price trajectory that would be sufficient to halt global warming over the long term, with a 67% likelihood of keeping the rise in temperature below 2°C.

Chart 35. Scenario analysis results: the macroeconomic impact of various carbon prices following the NGFS scenarios (% change relative to the current policy)



¹⁹ The other NGFS scenarios are not analysed as they have been developed to appreciate the consequences that may arise should climate policies remain unchanged in most parts of the world until 2030. In all the scenarios that are not analysed, the damage to nature and society over both the medium and longer terms is much more severe than what is described in the three selected scenarios.

²⁰ Some industries have already seen their actual carbon prices exceed 64 or even 102 euro/t CO₂-eq. If the carbon price of a given scenario is below the actual carbon price, it is assumed that the price remains unchanged.

²¹ Only the corporate natural resources tax payments that concern greenhouse gas emissions are being considered. The natural resources tax is also imposed on other activities that cause environmental pollution such as heavy metal contamination and water pollution.

²² Here, the excise tax on fuel products (petrol and diesel, and liquefied and natural gas) is taken into account and interpreted as a carbon tax based on the amount of greenhouse gas emissions generated by the fuel product in question.

²³ The simulation reflects the impact on the economy over one year, assuming that a new equilibrium in all product markets is achieved during this time or, in other words, prices, wages and output volumes are completely adjusted to the new carbon price. In reality, however, the transformation process may take longer than one year.

²⁴ Measured with GDP.

Chart 36 shows the changes in the consumer prices of some important product groups. The rising carbon prices assumed within the Net Zero scenario would cause the prices for heat supply and electricity to increase most notably, as they gain more than 4% over the medium term. While the price rises may be steeper in the short term, they will certainly be only a fraction of those experienced in 2022. Transport and food are two other important product groups that would be subject to significant increases in consumption prices, while the average rise in the real price of services would be only 0.7%.

Several important assumptions made in the modelling process should be noted to interpret these results correctly. Firstly, the simulation assumes that when companies see how higher carbon prices actually push up the prices of emissions-intensive energy resources, they adapt by curtailing their consumption of those resources and, in part, by replacing them with cleaner alternatives. The CGE model was recently improved to ensure that these structural changes in the energy and manufacturing industries are modelled as realistically as they can be²⁵. Energy efficiency meanwhile is assumed to improve at a fixed annual rate, but in reality, making polluting energy resources more expensive may motivate companies to improve their energy efficiency faster. The effects of this strategy would, however, become more noticeable in the longer run.

The second assumption that the simulations are based on is that the carbon price is raised to the same level in all industries. It is likely, however, that several industries will be shielded from carbon price increases, especially those of strategic importance. One such industry is agriculture, as that industry is crucial for ensuring that enough food to feed Latvia's population can be produced within the country, so that there is no need to excessively rely on international trade partners. It would therefore be socially unacceptable to raise taxes on this industry at the same rate as those on other industries. It should also be taken into account that

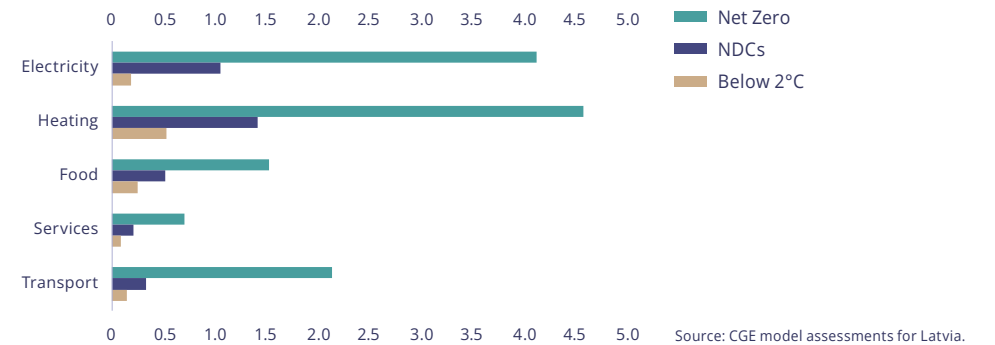
²⁵ The working paper "A Purpose-Based Energy Substitution Structure for CGE" details the energy resources substitution structure and the CGE system for accounting for emissions and taxation.

some industries incur greater financial losses than others when they reduce their greenhouse gas emissions.²⁶ That said, extending incentives to certain industries is a political decision that must result from the democratic process.

The third assumption of the scenario analysis is that carbon prices change only in Latvia. In reality, the climate policy is likely to be coordinated at the EU level, as is usually the case. Should the carbon price concurrently rise in foreign countries as well, the loss of competitiveness for Latvia's exports would be less pronounced than is reflected in the simulations, hence the decline in export volumes would be less notable.

At the same time, production costs abroad would grow, and this would affect Latvia through higher import prices. This means that the macroeconomic impact would be roughly the same. It is, however, difficult to predict the outcome with certainty as it is contingent on the precise calibration. ›

Chart 36. Scenario analysis results: impact of introducing carbon prices according to NGFS scenarios on consumer prices in Latvia (% change from the current policy)



²⁶ The CGE-EUROMOD model also takes this into account, as demonstrated in the 2022 September Macroeconomic Developments Report.

Conclusions

To avoid the climate change scenarios with the most devastating outcomes, greenhouse gas emissions must be reduced rapidly. This can be achieved most efficiently over the short term by raising levies on GHG emissions. The analysed scenarios show that this would have negative economic implications. It is unrealistic to reduce emissions through taxation alone without significantly changing production technologies, as doing so would be detrimental to economic growth over the long run. This means that we should step up our efforts to facilitate the green transformation by lessening the economy's dependence on the technologies that produce CO₂ emissions.

By taxing greenhouse gas emissions, the government generates additional budget revenues that can be used to facilitate green innovation, to subsidise products and production processes that are more environmentally sustainable, and to support the most vulnerable households and companies . The next Macroeconomic Projections Report will analyse the economic impact of raising the carbon tax, depending on how the generated carbon tax revenue is spent.

Box 1. Impact of the tensions in the Red Sea on inflation in the euro area¹

Tensions have escalated in the Red Sea region over the past few months, with Houthi rebels from Yemen increasingly attacking ships traversing the Bab-el-Mandeb Strait. The strait connects the Gulf of Aden with the Red Sea, which leads to the Suez Canal. This trading route is of global importance, particularly for Europe and Asia, through which 15%² of the global cargo is shipped by sea each year. The developments in this region have presented a dilemma for suppliers, individual manufacturers and retail traders, and also for central banks.

The heightened risks faced by cargo ships in the Red Sea mean that freighting companies must make the difficult choice of whether to accept the risk of attacks on their ships and pay high insurance premiums, or to redirect their ships from the Suez Canal route to a much longer route around the Cape of Good Hope in South Africa. This route spans a greater distance and takes longer, and it also means more fuel consumption and higher servicing costs. Whichever choice is made, shipping costs will eventually increase (see Chart 1.2)³.

It should be noted that this increase in prices is less dramatic than that witnessed during the pandemic, when there was a much faster rise in shipping costs. There are a number of reasons for this. There was far more uncertainty during the pandemic about the supply disruptions, and those disruptions lasted from a few months to several quarters, while the restrictive measures introduced during the pandemic meant many services became entirely unavailable, and so households shifted their consumption towards goods, thereby adding to the pressure that was put on supply chains. ›

¹ By Klāvs Zutis and Erlands Krongorns, economists at Latvijas Banka.

² <https://www.imf.org/en/Blogs/Articles/2024/03/07/Red-Sea-Attacks-Disrupt-Global-Trade>

³ The chart shows the spot market prices. A large part of transport services are performed under long-term contracts in which price adjustments are reflected with a delay.

Chart 1.1. Traffic of ships through the Suez Canal and around the Cape of Good Hope (number of ships)

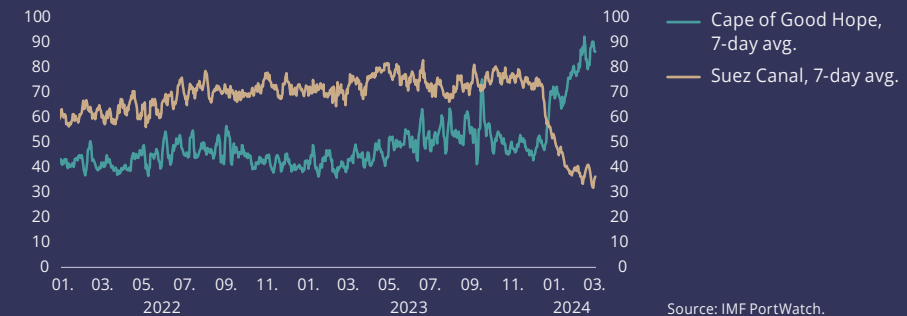


Chart 1.2. Freightos container and freight rate index (USD)



Redirecting ships around South Africa is a safe alternative at the moment, with predictable costs and delays. Moreover, demand, particularly from the euro area, is considered to have been weak over the past year, alleviating the pressure on freighting companies. The inventory levels of euro area companies are also seen as sufficient compared to their historical levels, and this allows companies to continue operating without significant disruption.

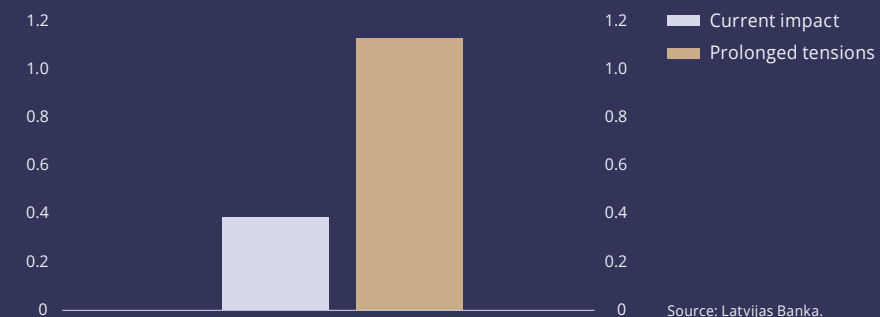
While transport costs are typically a negligible part of the final costs of imported goods, the rise observed in container freight rates has been significant enough to raise questions about its potential implications for inflation, especially considering that the tensions in the Red Sea affect roughly 15% of the goods imported into the euro area⁴.

The impact of the current tensions on inflation in the euro area is considered to have been moderate (see Chart 1.3). If the situation drags on however, until the middle of the year for example, the impact might become much more notable for two main reasons. First, long-term transport agreements would be revised more frequently if ship freight rates remain high for an extended period of time, and this would facilitate the pass-through of costs to consumers. Second, the high inventory levels of companies are currently absorbing some of the impact caused by the tensions, but inventories will diminish over time and will have to be restocked with goods at a higher price.

The tensions in the Middle East remain severe, and it is difficult to predict when the situation will develop. With disputes persisting and disruptions to the traffic of ships in the Red Sea continuing, the impact on inflation will become stronger. Inflation in the euro area is still on a downward path and financial markets are already expecting the first interest rate cuts, but the disruptions to

traffic in the Red Sea might play a role in delaying the end of tighter monetary policy.

Chart 1.3. Impact of tensions in the Red Sea on inflation in the euro area
(percentage points)



Notes. The impact of supply chain tensions on inflation in the euro area has been assessed using the BVAR model, which includes an index for global supply chain tensions, euro area export volumes, a synthetic euro area energy price index, global import volumes excluding the euro area, euro area HICP, the ratio of energy intensive to non-energy intensive manufacturing in the euro area, and the nominal effective exchange rate. The impact assessment has been conducted using the current tensions in the Red Sea as at the end of February, assuming that the tensions will continue until the middle of the year and the situation will gradually return to normal after that. The results reflect the impact on inflation at the end of 2024.⁵

⁴ Latvijas Banka's calculations based on information for 2022 are available on the UN Comtrade Database.

⁵ The model identifies shocks to: 1) external demand, 2) supply chain disruptions, 3) energy supply and 4) the nominal effective exchange rate. To identify the shocks, the model uses the following variable sign restrictions for the initial impact: the index for global supply chain tensions (1)+, (2)+; euro area export volumes (1)+, (2)-, (3)-, (4)-; the synthetic euro area energy price index (3)+; global import volumes excluding the euro area (1)+, (2)-, (3)-, (4)-; euro area HICP (1)+; and the ratio of energy intensive to non-energy intensive manufacturing in the euro area and the nominal effective exchange rate (1)+, (4)+.

Box 2. Domestic price developments in the Baltic countries¹

Following the surge of inflation in 2021 and 2022, price increase in the Baltic countries has been slowing down. The rate of change in the GDP deflator, which measures the total of all the goods and services produced in a country, ranged from 5.6% to 8% in 2023, which is roughly half of what was recorded in 2022. The factors, which drive the prices, have also changed (Chart 2.1).

The steep rise in prices for raw materials at the end of 2021 and in early 2022 was quickly reflected in higher production costs and consequently in higher prices for goods and services. To hedge against any further cost increases, companies in many cases raised prices disproportionately more than the increase in costs. The price increase in 2022 can therefore largely be explained by corporate profits, or more precisely by the gross operating surplus.

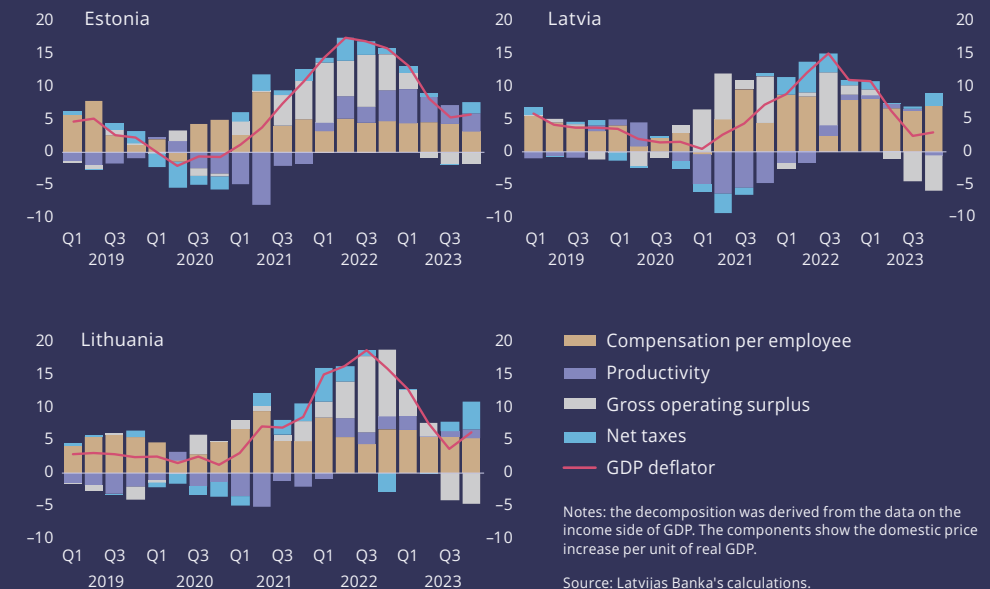
With the prices for raw materials returning to normal, the period of high inflation was over. However, the higher price levels that have resulted from increased corporate profitability translate into lower real wages and weaker purchasing power of employees. While demand for labour remaining strong though, the pressure to increase nominal wages and to compensate for the lost purchasing power is high, and so the wage component plays an increasingly important role in driving the price changes.

It was expected that nominal wages would rise over the short term after such a steep decline in purchasing power, and that companies would be able to offset this increase from their profits. Hence prices rose at a much slower rate in 2023 than in 2022 despite the strong growth in wages. Nonetheless, the ability of companies to offset the wage pressure by reducing their profits has its limits. Moreover, such a steep rise in compensation without a concurrent increase in productivity poses risks to competitiveness over the long term.

¹ By Andrejs Bessonovs, economist at Latvijas Banka.

The role of wages, as measured by compensation per employee, in the price dynamics is more pronounced in Latvia than in Lithuania or Estonia. In addition, the unit profits have declined more substantially in Latvia than in the neighbouring countries in 2023, suggesting that a further rise in nominal wages may diminish the appeal of Latvian products in export markets. Given the significance of exports for Latvia's economy, this could notably weaken economic growth. To prevent negative consequences, one must take action to increase the labour supply and improve conditions for corporate investment, as this will boost productivity down the line.

Chart 2.1. **Decomposition of the GDP deflator** (annual change; % and percentage points)



Abbreviations

A – Latvijas Banka's assessment

AS – joint stock company

CSB – Central Statistical Bureau of Latvia

EC – European Commission

ECB – European Central Bank

EU – European Union

EURIBOR – Euro Interbank Offered Rate

Fed – US Federal Reserve System

GDP – gross domestic product

HICP – Harmonised Index of Consumer Prices

IMF – International Monetary Fund

ISIN – International Securities Identification Number

OPEC – Organisation of the Petroleum Exporting Countries

OPEC+ – OPEC Member States and the Russian Federation, the Republic of Azerbaijan, the Kingdom of Bahrain, Brunei Darussalam, the Republic of South Sudan, the Republic of Kazakhstan, Malaysia, the United Mexican States, the Sultanate of Oman and the Republic of Sudan

P – Latvijas Banka's projection

UK – United Kingdom

UN – United Nations

US – United States of America

VAT – value added tax

WTO – World Trade Organisation