

3. Medium-Term Projections

3.1 Current State, Short-Term Outlook and Assumptions

Changes in Key Forecast Variables

Annual and quarterly growth rates declined in the second quarter of the year. This decline implies weaker economic activity compared to the first quarter. In the second quarter, the contribution of private consumption to growth decreased further, while that of public consumption and total investments remained limited. Meanwhile, the continued positive contribution of net exports pointed to a balanced demand outlook in terms of growth composition. Indicators for the third quarter of the year suggest that domestic demand continued to decelerate and approached levels supportive of disinflation. On the other hand, backward-looking revisions were made in the national income calculations published by TURKSTAT during this period. These revisions indicated that the level of demand in the second quarter was higher than projected in the previous Inflation Report. Accordingly, output gap assumptions for the second and third quarters of 2024 were revised upwards based on revisions, realizations and leading indicators (Table 3.1.1).

Consumer inflation fell to 48.6% in October, slightly above the forecast range presented in the previous Inflation Report. Administered price hikes and tax revisions shaped the inflation outlook in the third quarter. With the mild course of global commodity prices and exchange rates, pressures driven by producer prices on consumer inflation eased further. Meanwhile, food prices, led by the fresh fruits and vegetables group, were influential in the October inflation reading (Table 3.1.1).

In the third quarter of 2024, the underlying trend of inflation slowed yet remained above the projections of the previous Inflation Report. Monthly price increases in services remained elevated in the third quarter. This was driven by adjustments in administered items and services groups with a high tendency for time-dependent price-setting and backward-indexation. However, excluding rents, monthly price increases in services displayed a gradual deceleration. Price increases in core goods were weak in this period owing to the mild course of exchange rates and the slowdown in domestic demand, remaining below those of other groups. In October, the underlying trend of inflation was higher than projected, albeit with a slowdown driven by both core goods and services. Despite the downtrend in 12- and 24-month-ahead inflation expectations, year-end inflation expectations for 2024 and 2025 remained above the forecast range presented in the previous Inflation Report. Moreover, the weaker-than-expected improvement in inflation expectations suggests that the level of inflation persistence may have picked up slightly.

Table 3.1.1: Changes in Key Forecast Variables*

	2024-II	2024-III
Output Gap	1.8	0.2
(%)	(1.5)	(-0.5)
Consumer Inflation**	61.8	48.6
(Annual % Change)	(61.8)	(45.6)
B-Index Inflation**	60.3	47.1
(Annual % Change)	(60.3)	(43.6)

* Figures in parentheses denote values presented in the previous Inflation Report.

** Denotes inflation in July for 2024-II and October for 2024-III.

Assumptions for Exogenous Variables

The global growth outlook remained broadly unchanged compared to the previous reporting period.

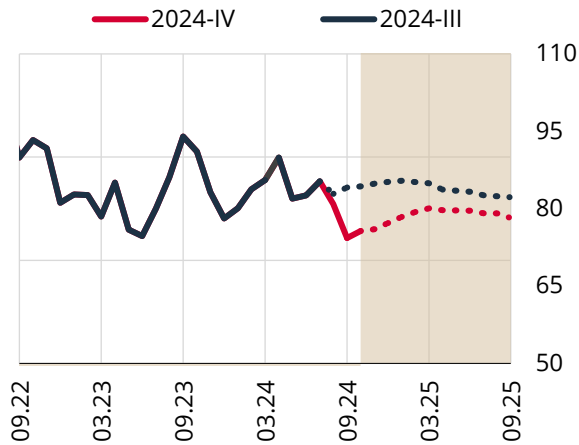
Leading indicators for global growth continued to rise slightly in the third quarter, driven by the services sector. While global PMI data for the manufacturing industry fell below the threshold value, those for the services sector remained above the threshold value, albeit weaker than the previous reporting period. While growth forecasts for 2024 have been revised upwards in advanced economies, more notably in the US, the growth outlook in Eastern Europe and the Middle East is projected to weaken somewhat. Growth forecasts for 2025 diverged across countries and were revised downwards for the euro area and upwards

for the US, the UK and the United Arab Emirates while remaining flat for China. Against this background, annual growth assumptions in the export-weighted global growth index, based on Türkiye's trading partners, were left the same as the previous reporting period at 2.0% for 2024 and 2.4% for 2025 (Table 3.1.2).

Central banks of advanced economies are expected to continue their rate cuts with a data-driven approach to ensure a sustained decline in inflation. Starting the rate-cutting process in September as inflation kept declining, the Fed reduced rates again in November and signaled that, depending on the data, interest rates might also be lowered in its upcoming meetings. The ECB, which went ahead with rate cuts in September, stressed that future meetings would determine cuts based on the developments in inflation and economic activity. Emerging economies have been slightly more cautious in cutting policy rates due to the slowdown in the improvement in inflation. China, on the other hand, announced expansionary monetary and fiscal policies in order to allay concerns over deflation and achieve its growth target. Against this background, advanced and emerging economies are expected to continue to cut policy rates in the upcoming period. Given the current level of global inflation, stickiness and geopolitical risks, it is envisaged that the rate cuts will continue in a way to maintain monetary tightness and ensure a sustained decline in inflation.

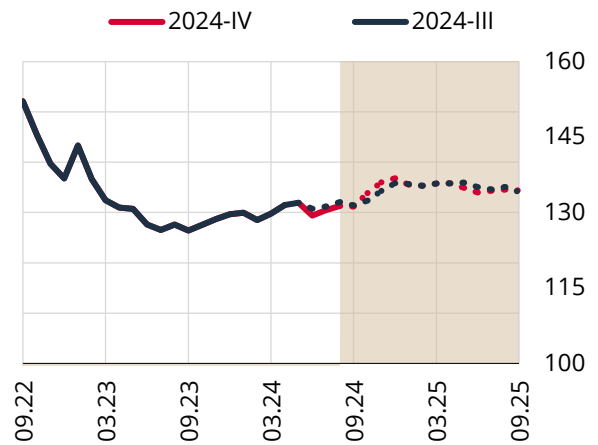
Geopolitical risks, the global growth outlook, and supply-side factors continue to shape commodity prices. Oil prices remained volatile in this reporting period. After falling in August and September, oil prices edged up in October yet remained below the levels projected in the previous Inflation Report. Although the OPEC+'s decision to cut production had an upward impact on prices, the weak course of demand outweighed this effect. Accordingly, the average oil price assumption for 2024 fell from USD 84.2 to USD 81.1 due to the realizations (Chart 3.1.1). Likewise, the oil price assumption for 2025 has been revised downwards. On the other hand, prices of industrial metals and agricultural commodities recorded significant increases in this period. Thus, the fall in energy commodity prices was offset by non-energy commodity prices, resulting in a minor revision in assumptions for import prices in general (Chart 3.1.2).

Chart 3.1.1: Revisions in Oil Price Assumptions* (USD/bbl)



Source: Bloomberg, CBRT.
* Shaded area denotes the forecast period.

Chart 3.1.2: Revisions in Import Price Assumptions* (Index, 2015=100)



Source: CBRT, TURKSTAT.
* Shaded area denotes the forecast period.

The food price assumption for 2024 was revised upwards. Annual food inflation stood at 43.7%, remaining below the headline inflation in the third quarter of 2024. In October, unprocessed food prices posted a strong increase due to the transition from field to greenhouse. Moreover, agricultural commodity price projections have been raised globally. Accordingly, the assumption for food price inflation was revised upwards to 41.8% and 22.5% for 2024 and 2025, respectively (Table 3.1.2).

Table 3.1.2: Revisions in Assumptions*

	2024	2025
Export-Weighted Global Growth Index (Annual Average % Change)	2.0 (2.0)	2.4 (2.4)
Oil Prices (Average, USD)	81.1 (84.2)	78.8 (82.9)
Import Prices (USD, Annual Average % Change)	0.8 (0.7)	2.8 (2.8)
Food Price Inflation (Year-End % Change)	41.8 (35.5)	22.5 (15.0)

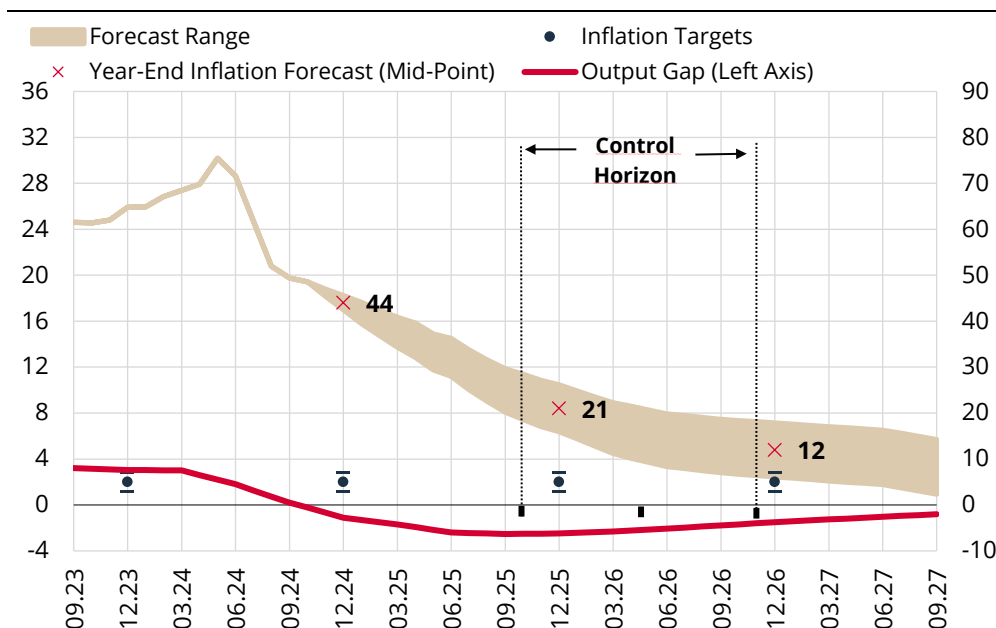
* Figures in parentheses denote values presented in the previous Inflation Report.

The forecasts are based on an outlook in which macroeconomic policies are determined in a coordinated manner focused on disinflation by adopting a medium-term perspective. In this context, it is assumed that the contribution of fiscal policy to the rebalancing process in the economy will strengthen further, and that administered prices, borrowing and tax and income policies will be determined to support the disinflation process. In fact, the MTP for 2025-2027 indicates that fiscal policy will be supportive of disinflation in the upcoming period as the projected improvement in budget balances will be achieved through a reduction in primary expenditures rather than a rise in tax revenues (Box 2.4).

3.2 Medium-Term Outlook

Year-end inflation forecasts for 2024, 2025 and 2026 have been revised to 44%, 21% and 12%, respectively.

With 70% probability, inflation is projected to be between 42% and 46% (with a mid-point of 44%) at end-2024, between 16% and 26% (with a mid-point of 21%) at end-2025 and between 6% and 18% (with a mid-point of 12%) at end-2026. Inflation is then expected to stabilize at 5%, the medium-term inflation target (Chart 3.2.1). Medium-term forecasts are based on an outlook in which the tight monetary policy stance would be maintained until the inflation outlook displays a significant and sustained decline, and the coordination among economic policies would be strengthened.

Chart 3.2.1: Inflation Forecasts* (%)


Source: CBRT, TURKSTAT.

* Shaded area denotes the 70% confidence interval for the forecast.

The revision in the end-2024 inflation forecast to 44% was driven by the forecast deviation following the inflation realizations in September and October and the limited improvement in the underlying trend and expectations. In October, annual consumer inflation stood at 48.6%, 0.2 percentage points above the forecast range projected in the previous Report. The underlying trend of inflation continued to improve in this period, albeit at a slower-than-expected pace. Meanwhile, inflation inertia is expected to display a slightly weaker improvement in the upcoming period, due to items such as rent, which include structural issues in their pricing dynamics, and the slower-than-expected improvement in expectations. With the lagged effects of monetary tightening, the demand is expected to slow further and remain supportive of disinflation. The increase in the end-2024 inflation forecast was driven by the food price assumption and the revision in the underlying trend of inflation and initial conditions. In addition to these effects, the revision in the administered price assumptions and the reflections of the regulations on electricity pricing dynamics also played a role in the revised year-end inflation forecast for 2025 (Table 3.2.1).

Table 3.2.1: Revisions in Year-End Inflation Forecasts for 2024 and 2025 and Sources of Revisions

	2024	2025
Inflation Report 2024-III Forecast (%)	38	14
Inflation Report 2024-IV Forecast (%)	44	21
Forecast Revision Compared to Inflation Report 2024-III	6.0	7.0
Sources of Forecast Revision (% Points)		
Food Prices	1.6	1.9
TL-Denominated Import Prices	0.2	0.5
Output Gap	0.3	0.2
Administered Prices	-	0.9
Initial Conditions, Underlying Trend and Inflation Inertia	3.9	3.5

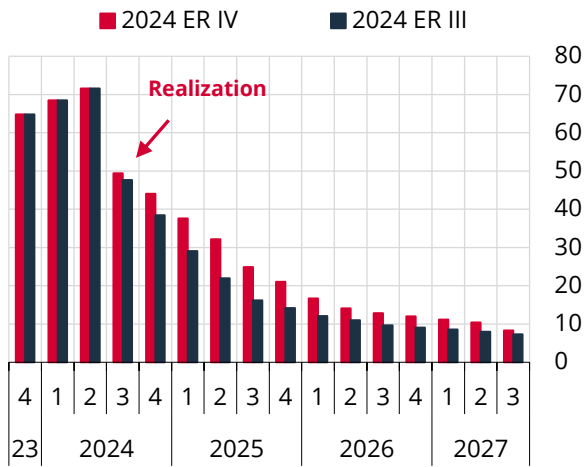
Source: CBRT.

The year-end inflation forecast for 2024 was revised upwards to 44% (Chart 3.2.2). Revisions-and realizations-driven upward adjustment to output gap assumptions had an impact of 0.3 percentage points on the year-end inflation forecast (Chart 3.2.3). The revision from the TL-denominated import prices pushed forecasts up by 0.2 percentage points. Revised assumptions for food inflation pulled forecasts up by 1.6 percentage points (Table 3.2.1). The slower-than-expected decline in underlying inflation and expectations and the revision in initial conditions raised the end-2024 forecast by 3.9 points.

The year-end inflation forecast for 2025 was revised upwards to 21% (Chart 3.2.2). The revision in the output gap path had an impact of 0.2 percentage points on the year-end forecast for 2025 (Chart 3.2.3). Regulations on electricity pricing dynamics had an upward impact on consumer inflation when compared to the assumptions presented in the previous Inflation Report.¹ Administered price assumptions were also revised in line with the upward revision in the inflation forecast. These factors pushed the year-end inflation forecast upwards by 0.9 percentage points in total. Revisions to TL-denominated import price and food price assumptions added 0.5 and 1.9 percentage points to the inflation forecast, respectively (Table 3.2.1). The year-end forecast for 2025 was up by 3.5 percentage points, given the impact of the revision in the year-end forecast for 2024 on inflation inertia and the underlying trend.

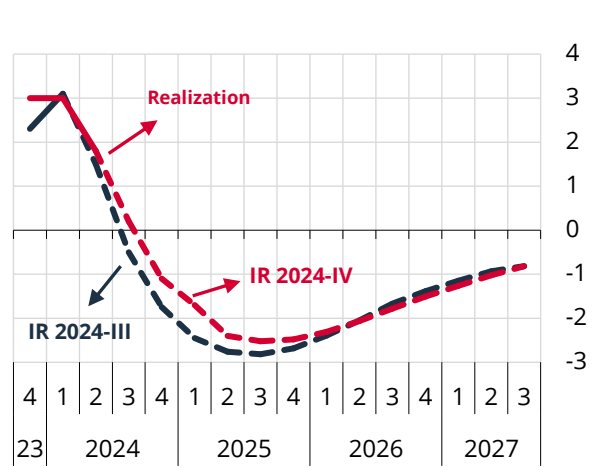
¹ As part of the re-regulation of the End-Source Supply Tariff limits by the Energy Market Regulatory Authority, a change will be introduced in the electricity market as of February 2025. Accordingly, there will be no change in the electricity price for households with annual consumption below 5,000 kilowatt-hours (the majority of households), while the cost-based pricing system will be implemented for households with consumption above the relevant limit. With this implementation, the electricity price for high-consumption households will increase in February 2025, the month of transition. The electricity price for this group may fluctuate from month to month depending on the costs in the market. The regulation will also have implications for businesses.

Chart 3.2.2: Inflation Forecast (Quarter-End, Annual, %)



Source: CBRT, TURKSTAT.

Chart 3.2.3: Output Gap Forecast (%)



Source: CBRT.

Forecasts are based on the assumption that uncertainty regarding global financial markets fades somewhat compared to the previous reporting period, and that the global growth outlook will remain consistent with past projections. The fact that the Fed joined the group of major central banks initiating rate cuts, and that inflation and economic activity data in advanced economies came out in line with the disinflationary path underpinned the recovery in the global risk appetite. However, geopolitical developments and uncertainties arising from the US elections continue to cause the global risk appetite to fluctuate. Therefore, portfolio inflows towards emerging economies show fluctuations. In the current reporting period, the strong growth in CBRT reserves continued, and Türkiye's risk premium declined. The fact that the tight monetary policy stance will be maintained in Türkiye until sustained price stability is achieved will help mitigate the potential adverse effects of global financial market volatility on the country's risk premium.

Forecasts rely on a monetary policy that will remain tight until a significant and sustained decline in the underlying trend of monthly inflation is observed, and inflation expectations converge to the projected forecast range. Inflation expectations and pricing behavior are risk factors for the disinflation process, and the uncertainty regarding the pace of the improvement in inflation is high. Backed by financial policies to support and strengthen the monetary transmission and monetary policy communication that stresses a decisive tight stance, the convergence of inflation expectations to the Inflation Report forecasts in the short term and to the inflation targets in the medium term is critical to achieve a sustained decline in inflation. The CBRT evaluated that the monetary transmission mechanism will be supported by additional macroprudential measures, and sterilization tools will continue to be used effectively. Loan growth is predicted to remain consistent with the moderation in domestic demand. Moreover, the forecast is based on an outlook in which coordination among economic policies will be strengthened.

The acceleration in the disinflation process in the third quarter is expected to continue into the last quarter of the year amid the slowdown in demand and tight financial conditions. Demand conditions are estimated to pull inflation down in the last quarter. While core goods inflation remains low, the improvement in services inflation in October is expected to continue in the last quarter. Meanwhile, the time-dependent and backward-indexed pricing behavior, prevalent in the services sector, leads to significant inertia and a protracted impact of shocks on inflation. This outlook causes services inflation to weaken with a lag. In particular, due to its structural factors, the dynamics of the rent group differ from other services, causing them to exhibit high persistence.

Along with the decline in headline inflation, inflation expectations across all sectors continue to improve gradually. However, expectations remained above the forecast range, and the pace of improvement has not yet reached the desired levels. The convergence of inflation expectations to the Report's forecast range is critical for the cost of disinflation. The continued decline in inflation will contribute to the improvement in expectations. The supportive course of demand conditions to disinflation will become more pronounced in

the upcoming period as the tight stance continues, and the tightness in financial conditions is maintained, in view of the lagged effects of the monetary tightening. With the contribution of all these factors, the decline in the underlying trend of monthly inflation is projected to continue and decline steadily in the medium term. As producer price pressures diminish, the stickiness of services inflation eases and the tight monetary stance is maintained, the underlying trend of inflation will recede further to historical averages. The decisive monetary policy stance will support the fall in the underlying trend of inflation on the back of the moderation in domestic demand, the real appreciation of the Turkish lira and the improvement in inflation expectations.

3.3. Key Risks to Inflation Forecasts and Possible Impact Channels

The outlook underlying the medium-term forecasts presented in the previous section is shaped by the assessments and assumptions of the Monetary Policy Committee. However, the inflation outlook may be subject to various risks associated with these factors, leading to a divergence from the monetary policy stance projected in the baseline scenario. The risks that are identified in the baseline scenario and have the potential to change the outlook are listed below and summarized in Table 3.3.1.

Inflation expectations and pricing behavior remain a risk factor for the disinflation process. Inflation expectations of market participants, firms and consumers play an important role in pricing behavior, portfolio preferences and consumption/credit demand. High inflation expectations may pose an upside risk to the consumption trend and credit demand. Recently, expectations of both market participants and firms have declined, while the improvement in inflation expectations of households, which are highly sensitive to inflation realizations, has been stronger on the back of the decline in annual inflation (Box 3.1). In addition to the level, the sensitivity of expectations to short-term data surprises is also important. This necessitates keeping a cautious and decisive stance in monetary policy.

The ongoing stickiness in services prices poses an upside risk to inflation forecasts. The prevailing price-setting behavior in the services sector leads to significant inertia, a protracted impact of shocks on inflation and causes price increases in this sector to be inconsistent with the disinflationary path. Despite a slight deceleration compared to the previous quarter, price increases in the services sector remained robust in the third quarter. In this period, the highest price hike was observed in the rent subgroup. On the other hand, monthly rent inflation is expected to decelerate in the last quarter of the year as the rates of increase used as reference in contract renewals and contracts will decline. However, rent price dynamics show high inertia and also include structural factors. Therefore, rents remain a risk factor for the inflation forecast. Moreover, other subgroups with strong price increases were transport services due to adjustments in administered items and education services due to university fees. The ongoing stickiness in services inflation feeds upward pressures on consumer inflation.

The course of unprocessed food prices poses a risk to inflation forecasts. In the third quarter, the main contribution to the fall in annual consumer inflation came from food prices, which declined on the back of the unprocessed food subgroup. In this period, the fresh fruits and vegetables sub-item determined the decline in unprocessed food prices. However, the rise in unprocessed food prices in October due to the transition from field to greenhouse played a major role in the monthly increase in food prices. Besides, having risen recently, agricultural commodity prices can be volatile in general. In this respect, the volatility in food, particularly in unprocessed food prices, keeps downside and upside risks to inflation forecasts alive.

The level of domestic demand and consumption and savings profiles of different income groups are critical for the pace of disinflation. Indicators for the recent period suggest that domestic demand continued to moderate in the third quarter. Domestic demand conditions by goods and services indicate that demand for goods excluding automobiles may have increased slightly in the third quarter, while demand for services may have declined. On the other hand, the differing pace of the slowdown in consumption across different income groups is critical with respect to the effectiveness of the monetary policy transmission. In fact, the concentration of high credit card balances on the upper quantile of the income distribution emerges as a standout factor.² The tightening in financial conditions failing to reflect in the consumption and saving decisions of high-income groups may cause aggregate demand conditions not to remain disinflationary to the desired extent.

² For further details, see Bölükbaş, M., Çolak, M. S., & Ocakverdi, E. (2024). "Differentiation of Maximum Contractual Interest Rates for Personal Credit Cards Based on Balances", CBRT Blog.

Volatility in commodity prices arising from geopolitical developments and supply-side factors poses upside risks to inflation forecasts. Lingerin g geopolitical tensions in Russia-Ukraine and the Middle East as well as OPEC+ member countries' output cut decisions cause upward supply pressures on oil prices to persist. Fluctuations also prevail in natural gas prices. Moreover, industrial and agricultural commodity prices have also increased significantly compared to the previous reporting period. The effects of these developments on transportation and input costs are monitored. Geopolitical developments may also affect risk perceptions towards Türkiye through foreign demand and export revenues.

The coordination of monetary and fiscal policies is of utmost importance for the disinflation process. The incomes policy may affect inflation and expectations through the production cost and demand channels. Adjustments in administered prices and taxes that are not in line with the projected disinflation path may exert pressures on inflation. In order to achieve the projected disinflation path, it is vital to take into account the CBRT's inflation forecasts while setting the revaluation rate and the lump-sum SCT increase in early 2025, which are expected to have an impact on administered prices and tax items and to support the tight monetary policy stance with a prudent fiscal policy. Additionally, achieving the budget balance targets envisaged in the MTP by prioritizing expenditure reduction over revenue increase will underpin the disinflation process.

Table 3.3.1: Key Risks to Inflation Forecasts and Possible Impact Channels*

Risk	Evaluation of Risks Compared to the Baseline Scenario and Possible Effects on Inflation (↑ ↔ ↓)	Indicators Monitored
Inflation Expectations	<ul style="list-style-type: none"> Despite the improvement in medium-term inflation expectations, the elevated level of expectations keeps upside risks to inflation forecasts alive. <p style="text-align: right;">↑</p>	<ul style="list-style-type: none"> Key inflation indicators Indicators for inflation expectations Sectoral inflation expectations Distribution of inflation expectations Inflation uncertainty indicators Survey and market pricing-based inflation and exchange rate expectations
Inertia in services inflation	<ul style="list-style-type: none"> The ongoing stickiness of services prices keeps upside risks to inflation alive. <p style="text-align: right;">↑</p>	<ul style="list-style-type: none"> Key inflation indicators Inertia in services inflation
Food prices	<ul style="list-style-type: none"> Volatility in unprocessed food prices keeps downside and upside risks to inflation forecasts alive. <p style="text-align: right;">↔</p>	<ul style="list-style-type: none"> Prices of fresh fruits and vegetables Indicators for climate change
Demand conditions	<ul style="list-style-type: none"> Indicators for the third quarter point to a continued slowdown in domestic demand, while the divergence between demand for services and goods draws attention. Tight financial conditions have a limited impact on the high-income group. This poses a demand-driven upside risk to inflation. <p style="text-align: right;">↔</p> <p style="text-align: right;">↑</p>	<ul style="list-style-type: none"> Domestic demand indicators Retail sales volume index and trade sales volume index Interviews with firms and survey data Credit card spending White goods and automobile sales Services production index
Geopolitical developments and the course of commodity prices	<ul style="list-style-type: none"> The ongoing geopolitical tensions in Russia-Ukraine and the Red Sea and the continued production cuts by OPEC+ countries pose upside risks to oil prices from the supply channel. The volatility in natural gas prices and the surge in industrial and agricultural commodity prices keep the risks to inflation forecasts alive. Oil and commodity prices are likely to remain volatile due to geopolitical risks. <p style="text-align: right;">↑</p> <p style="text-align: right;">↑</p> <p style="text-align: right;">↑</p>	<ul style="list-style-type: none"> Crude oil prices and demand-supply balance OPEC+ decisions Indicators for domestic energy market Administered prices

Risks to the effectiveness of coordination between monetary and fiscal policies	<ul style="list-style-type: none"> • Lack of coordination between monetary and fiscal policies may pose risks to inflation and the moderation in domestic demand. ↑ • Introducing reforms in direct taxes and/or tax collection efficiency may reduce the need for indirect taxes, thereby having a downward impact on prices. ↓ • The revaluation rate and the lump-sum SCT increase, which will be determined in early 2025, pose downside and upside risks on inflation forecasts. ↔ 	<ul style="list-style-type: none"> • Adjustments in administered prices and taxes • Developments in tax revenues and public expenditures • MTP and fiscal policy measures • Budget and public debt stock indicators • Structural budget balance forecasts • Share of direct taxes in total taxes • 2025 revaluation rate and lump-sum SCT increase • Minimum wage and public wage increases
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* Each risk row in the table indicates the possible channel and the direction for the change in inflation forecasts in case the mentioned risk materializes. The signs ↑, ↓ indicate that the risk to the inflation forecast is upside and downside, respectively. The ↔ sign is used when the net impact on the inflation forecast is not completely clear. The indicators through which the risk is monitored are also listed in the right column.