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REPUBLIC OF ESTONIA

June 2024

2024 ARTICLE IV CONSULTATION—PRESS RELEASE; STAFF REPORT; AND STATEMENT BY THE EXECUTIVE DIRECTOR FOR THE REPUBLIC OF ESTONIA

Under Article IV of the IMF's Articles of Agreement, the IMF holds bilateral discussions with members, usually every year. In the context of the 2024 Article IV consultation with the Republic of Estonia, the following documents have been released and are included in this package:

- A **Press Release** summarizing the views of the Executive Board as expressed during its June 12, 2024 consideration of the staff report that concluded the Article IV consultation with the Republic of Estonia.
- The **Staff Report** prepared by a staff team of the IMF for the Executive Board's consideration on June 12, 2024, following discussions that ended on April 15, 2024, with the officials of the Republic of Estonia on economic developments and policies. Based on information available at the time of these discussions, the staff report was completed on May 23, 2024.
- An **Informational Annex** prepared by the IMF staff.
- A **Staff Statement** updating information on recent developments.
- A **Statement by the Executive Director** for the Republic of Estonia.

The documents listed below have been or will be separately released.

Selected Issues

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PRESS RELEASE

PR 24/227

IMF Staff Completes 2024 Article IV Mission to the Republic of Estonia

FOR IMMEDIATE RELEASE

Washington, DC – June 12, 2024: The Executive Board of the International Monetary Fund (IMF) concluded the Article IV consultation with the Republic of Estonia.

The economy is caught in a prolonged recession. Against expectations of a rebound in the second half of last year, contraction in Estonia's economic activity has extended further, along with weak external performance. Soft demand from key trading partners and loss of competitiveness have depressed exports, forcing firms to cut back on investment. While the labor market remained resilient and companies hoarded jobs until recently, fading prospects of an imminent recovery and increasing real wages have started taking a gradual toll on employment, even though vacancies are still reported in certain sectors. In turn, rising unemployment, combined with tighter financial conditions, has weighed on disposable income and private consumption despite higher real wages.

Inflation has eased. Driven by lower energy prices, easing supply chain disruptions, and increasing economic slack, headline inflation declined steadily to below 4 percent in late 2023, before rebounding on a 2-percentage point VAT hike. Real wage growth has started moderating recently but remains well above productivity growth.

Growth is poised to make a gradual comeback in 2024. After stagnating in early 2024, growth is projected to recover, led by a rebound in export markets. Domestic demand should also strengthen as improved business confidence, a broadly supportive policy mix and easing financial conditions encourage firms to revisit investment and, eventually, hiring plans. Better job prospects along with real wage growth should support real disposable income and consumption. The slow start in the year is set to hold back average 2024 GDP growth at -0.5 percent, but growth is projected to gain further momentum in 2025.

Executive Board Assessment

Executive Directors welcomed the expected recovery in 2024, in the context of a rebound in export markets and a broadly supportive policy mix. Directors highlighted the challenges from higher input costs and declining productivity growth and downside risks from volatile commodity prices and supply-side disruptions. Accordingly, Directors emphasized the need for a well-coordinated policy response to support the recovery and address the rising fiscal needs from national security and aging, and for ambitious reforms to increase productivity, restore competitiveness, and advance green and digital transitions.

Directors concurred that a neutral fiscal policy stance in 2024 is appropriate, given the prolonged cyclical downturn. Over the medium term, as the economy emerges from recession, Directors recommended growth-friendly fiscal consolidation, through revenue mobilization and spending prioritization. Such efforts would counter fiscal pressures and

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support structural transformation. Directors also saw merit in further strengthening the fiscal framework and in introducing a spending rule to more effectively anchor the fiscal path.

Directors noted that, while contained, financial stability risks have increased, reflecting the prolonged recession and tighter financial conditions. They urged continued close vigilance to risks in the commercial and residential real estate sectors and called for proper weighting of credit risk across the banking system. Directors agreed that the current macroprudential stance is appropriate. They also emphasized the need to ensure the adequacy of banks' capital buffers and safeguard their ability to effectively provide credit and to absorb future shocks. Noting the recent progress, Directors encouraged continued efforts to address risks related to Money Laundering/Terrorist Financing.

Directors agreed on the importance of efforts to increase productivity and regain competitiveness. They emphasized the need to address labor mismatches and continue supporting reallocation towards higher value-added products and services. Directors encouraged the authorities to enhance R&D investment and adopt digital technologies in traditional sectors, while supporting a more ambitious green transition.

Estonia: Selected Economic Indicators, 2023–25

	2023	2024	2025
		Projections	
National accounts	(Percentage change, unless otherwise indicated)		
Real GDP growth	-3.0	-0.5	2.2
Private consumption	-1.2	0.3	1.4
Gross fixed capital formation	-3.4	-2.3	3.1
Exports of goods and services	-6.9	-4.8	3.1
Imports of goods and services	-5.2	-4.1	2.7
GDP (nominal; billions of Euros)	37.7	38.8	40.8
HICP inflation			
Headline			
Period average	9.1	3.8	2.1
End-period	4.3	2.9	2.3
Core			
Period average	10.1	4.1	1.7
End-period	4.6	3.0	2.2
Labor market			
Average monthly wage (year-on-year growth in percent)	11.7	7.6	6.8
Unemployment rate (ILO definition, percent, pa)	6.4	8.4	7.7
	(Percent of GDP, unless otherwise indicated)		
General government finances (ESA10)			
Revenue	40.1	42.6	41.7
Expenditure	43.5	46.4	45.6
Fiscal balance	-3.4	-3.8	-3.9
Structural balance	-2.3	-2.4	-3.4
General government gross debt	19.6	23.0	26.2
Balance of Payment			
Current account	-2.1	-4.0	-3.3
Trade balance	0.6	-0.5	0.1
Net FDI	7.5	0.4	0.5
NIIP	-21.6	-23.7	-24.6
Exchange rate			
REER (percent change)	6.4	…	…

Sources: Estonian authorities; and IMF staff estimates and projections.

INTERNATIONAL MONETARY FUND

REPUBLIC OF ESTONIA

STAFF REPORT FOR THE 2024 ARTICLE IV CONSULTATION

May 23, 2024

KEY ISSUES

Context. Russia's war on Ukraine triggered supply side disruptions, shifting up price and cost levels compared to the euro area average and hurting competitiveness. These developments added to longer-standing problems. Estonia's export market share has stalled since soon after the GFC as productivity growth fell and the country's previous competitive edge slowly eroded.

Outlook and risks. Led by a rebound of demand in export markets and a broadly supportive policy mix, growth is projected to recover during 2024. Sizable wage gains along with the recently enacted VAT hike are expected to slow down the pace of disinflation in the near-term. Despite the cyclical upswing, however, permanently higher input costs combined with weak productivity growth are expected to leave a scar, weighing adversely on Estonia's external performance and on potential output. This baseline is uncertain, with risks still skewed to the downside.

Policy Recommendations. After a neutral fiscal stance this year, staff advocate for a return to fiscal consolidation to retain policy space along with targeted structural measures to regain competitiveness and financial policies to preserve bank capital buffers.

- **Fiscal policy.** Given the prolonged cyclical downturn, a neutral fiscal stance is recommended for this year. However, as the economy exits the recession, resolute revenue and spending measures should be ready to support fiscal consolidation and preserve policy space needed to lift productivity and foster structural transformation.
- **Financial policies.** While still contained, financial stability risks have increased and warrant close vigilance. The current macroprudential stance is appropriate. Bank capital buffers should be preserved, supporting the ability to provide credit effectively and absorb future shocks.
- **Structural reforms.** Greater emphasis should be placed on increasing corporate investment, improving the allocation of labor and capital, enhancing R&D investment and adoption of digital technologies in traditional sectors, while ensuring that real wage growth remains closely aligned with productivity growth. A more ambitious green transition would improve energy security and thereby the long-term sustainability of growth.

Approved by
Helge Berger (EUR) and Fabián Valencia (SPR)

Discussions were held in Tallinn during April 2-15, 2024. The team comprised Vincenzo Guzzo (head), Carlos de Resende, Gianluigi Ferrucci, and Bingjie Hu (all EUR). Kristel Grace Poh (LEG) and Raido Kraavik (OED) also participated in the mission. Kelly MacKinnon and Sadhna Naik (both EUR) assisted with the mission and the preparation of the staff report. The mission met with Prime Minister Kaja Kallas, Minister of Finance Mart Võrklaev, the Governor of Eesti Pank Madis Müller, the Chairman of the Financial Supervision and Resolution Authority Kilvar Kessler, the Economic Adviser to the Prime Minister Ardo Hansson, Members of the Finance and Economic Affairs Committees of the Parliament of Estonia, other senior officials, representatives of business associations, banks, non-financial corporations, academia, and think-tanks.

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CONTEXT

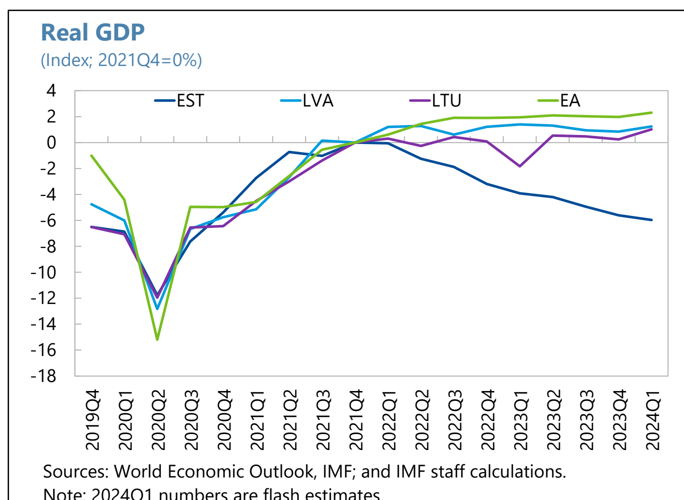
1. **Estonia, along with the other Baltic countries, is facing significant headwinds.** Russia's war on Ukraine triggered supply side disruptions and a large rise in inflation. Inflation has now eased, but wages and other input costs have shifted up compared to the euro area average hurting competitiveness. The capacity to absorb a common shock, however, has varied across the region.

2. **Estonia is underperforming.** The country is going through a protracted downturn. Problems are deeply rooted and, at least partly, reflect structural forces. A lingering decline in productivity growth, combined with the recent sharp real exchange rate appreciation, has eroded the country's competitive edge, and has led to significant losses of export market shares, taking a toll on potential growth (see Boxes 1 and 2).

3. **Estonia is confronted with challenging policy decisions.** Emerging needs to strengthen defense and accelerate the energy transition add to long-standing aging-related pressures. Earlier changes in the pension system have made contributions to the second pillar voluntary, leading to large withdrawals, and resulting in potential fiscal pressures in the longer run. The need to improve the quality and coverage of healthcare services may add to these pressures. And additional spending is needed to lift productivity and foster structural transformation. These pressures have already resulted in a deterioration of Estonia's fiscal position. A tension between retaining the competitive tax environment and moving towards broader provision of public services and a stronger social safety net may lead to further fiscal deterioration, if left unaddressed (see Box 3). The authorities have generally implemented policies in line with Fund's advice (Annex VI).

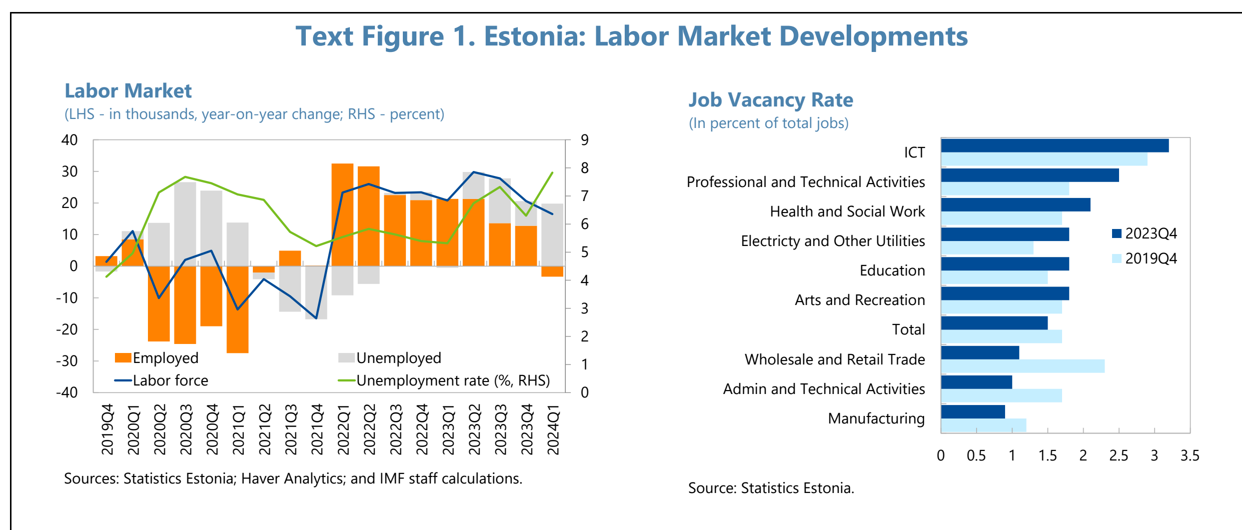
RECENT DEVELOPMENTS

4. **The economy is caught in a prolonged recession.** After recovering swiftly from the pandemic, real GDP has contracted on a sequential basis for nine consecutive quarters and is now about 6 percent below its 2021 peak. Timber and metals, previously imported from Russia and Belarus, are now sourced from more expensive markets. Euro appreciation against the Swedish and Norwegian Krona has also made Estonian products less competitive. Weak foreign demand and loss of competitiveness have depressed exports, forcing firms to cut back on investment and, more recently, jobs. In turn, rising unemployment, combined with tighter financial conditions, has weighed on disposable income and private consumption despite increasing real wages.



Sources: World Economic Outlook, IMF; and IMF staff calculations.
Note: 2024Q1 numbers are flash estimates.

5. **The labor market has been resilient, but it has weakened lately.** Companies hoarded labor until recently but fading prospects of an imminent recovery and increasing real wages have taken a gradual toll on employment. The unemployment rate stood at 7.8 percent in 2024Q1, up 2½ percentage points from a year earlier. While unemployment is rising in manufacturing and construction, sizable vacancies are reported in defense, healthcare and education, and skill shortages have constrained growth in the ICT sector. A large share of Ukrainian refugees has been integrated in the labor market.



6. **Inflation has eased.** Driven by lower energy prices, easing supply chain disruptions, and increasing economic slack, headline inflation declined steadily from a peak of about 25 percent yoy in August 2022 to below 4 percent in late 2023, before rebounding on a 2-percentage point VAT hike. Staff estimate the VAT hike to have added 1.4 percentage points to inflation, with the effect falling out of the base in 2025. While headline inflation fell to 3.1 percent in April, core inflation still stood at 5.2 percent on higher service inflation. Real wage growth has started moderating recently but remains well above productivity growth.

Box 1. Export Share Losses in Estonia and the Baltics[1]

Estonia has lost ground to its competitors in certain export markets above and beyond what can be explained by the individual dynamics in those markets – a sign of competitiveness pressures. To some extent, losses of export market shares are a regional theme. But in Latvia and Lithuania export share losses are smaller than in Estonia, and competitiveness issues play a much less prominent role overall.

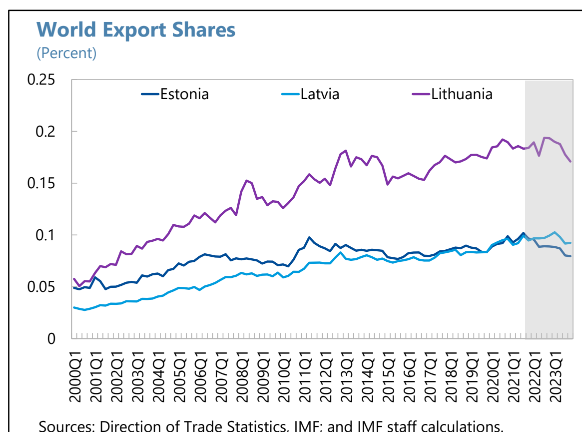
Estonia's export market share has fallen sharply in recent quarters. After a phase of significant gains in merchandise exports as a share of global exports, Estonia's competitive edge slowly started eroding after the GFC. Recent shocks have exacerbated this trend. The export market share has steadily declined for eight consecutive quarters, falling by 23 percent between 2021Q3 and 2023Q4.

Large negative contributions to the decline came from the US, the Netherlands and Latvia. The negative contribution from the US is particularly noteworthy, as the country ranked only as the 10th largest destination of Estonia's exports in 2023.[2] In contrast Sweden—one of Estonia's largest export destination absorbing 9 percent of its exports in 2023—ranks only fourth on this measure. The role of Russia—not a key export market—was also limited.

While the proximate cause of the decline has been an adverse combination of external shocks, a protracted fall in the trade share may also signal an inability of Estonian exporters to keep up with competition in destination markets. Using constant share analysis decomposition, it is possible to identify changes in export shares related to the intensive margin, i.e., a shrinking share of Estonia's exports in the destination markets, and hence a measure of country's competitiveness, from those reflecting composition effects related to changes in the size of the destination markets.

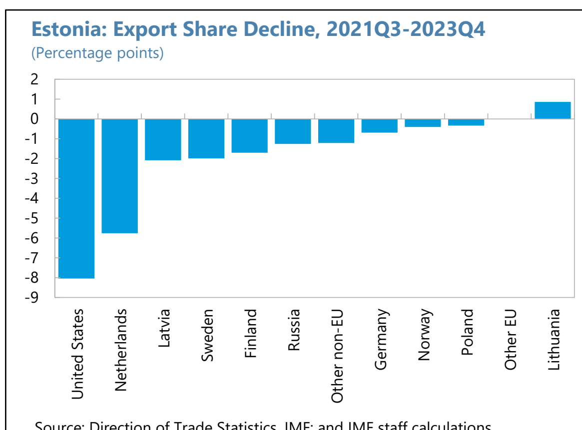
The decline in Estonia's export share has been largely driven by the intensive margin. Estonia has mostly lost ground to its competitors in certain export markets above and beyond what could be explained by the individual dynamics in those markets. During the post-Covid period, Latvia and Lithuania also experienced losses of export (cont.)

World Export Shares
(Percent)



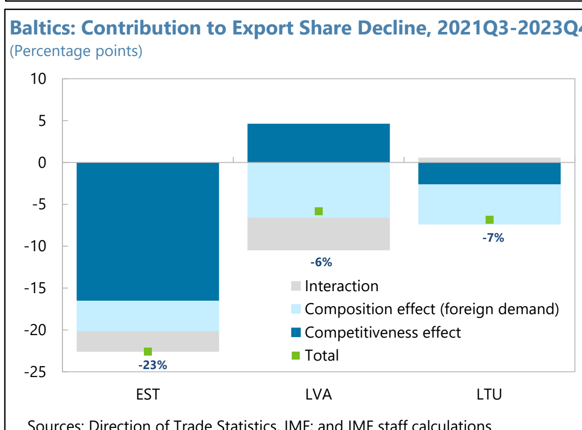
Sources: Direction of Trade Statistics, IMF; and IMF staff calculations.

Estonia: Export Share Decline, 2021Q3-2023Q4
(Percentage points)



Source: Direction of Trade Statistics, IMF; and IMF staff calculations.

Baltics: Contribution to Export Share Decline, 2021Q3-2023Q4
(Percentage points)



Sources: Direction of Trade Statistics, IMF; and IMF staff calculations.

[1] This Box was prepared by Gianluigi Ferrucci and Sadhna Naik. For an extensive discussion, see Selected Issues Paper "What Explains Estonia's Recent Losses of Export Market Shares."

[2] The decline may reflect changes in supply chains of a limited number of large exporters, a phenomenon frequently observed in small open economies.

Box 1. Export Share Losses in Estonia and the Baltics (concluded)

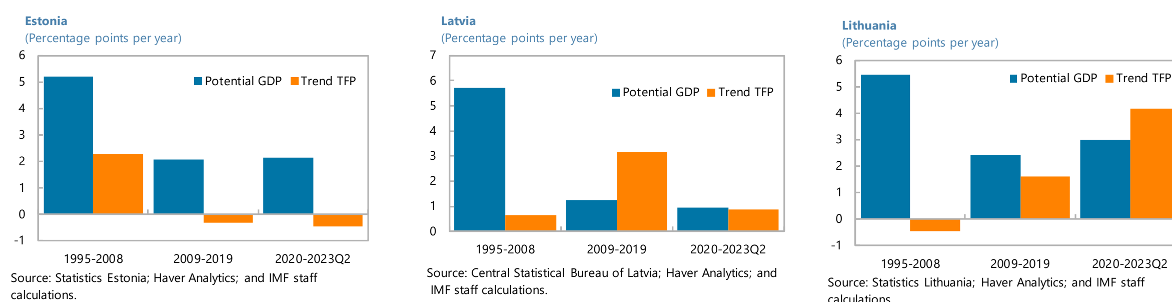
shares, but these were less pronounced than Estonia's (by 6 percent and 7 percent, respectively, vs. 22 percent in Estonia) and competitiveness played a much less prominent role overall.

Box 2. TFP-Based REER and Competitiveness in Estonia and the Baltics[1]

Like elsewhere in the Baltics, Kalman filter-based estimates of potential GDP growth in Estonia have declined since the GFC. However, in Estonia this adjustment has been primarily driven by a fall in trend TFP growth. Falling productivity growth, combined with an appreciated real exchange rate, has likely reduced Estonia's ability to absorb recent shocks, taking a toll on external performance.

Estonia's TFP growth has declined since the GFC. Before the GFC, Estonia experienced rapid GDP growth. This was a period of significant capital deepening and steady income convergence towards more advanced EU economies. TFP provided substantial contribution to potential GDP growth at this time. However, since 2009, the contribution of trend TFP has turned negative. This contrasts with other countries in the region where trend TFP continued to account for a large share of potential GDP growth.

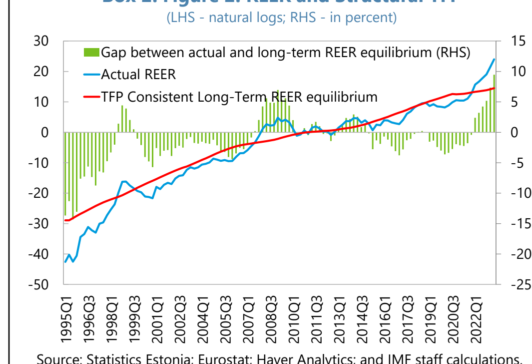
Box 2. Figure 1. Baltics: Contribution to Potential GDP Growth, 1995-2023[1]



Note: Growth rates calculated as difference in natural logarithms of the original series.

[1] Latvia: 2002Q2-2008; Lithuania – 1999-2008

Unfavorable TFP dynamics have likely reduced Estonia's ability to absorb shocks. A long-run cointegrating relationship between TFP and REER is used to produce a TFP-based REER equilibrium. Negative (positive) deviations of actual REER from this equilibrium indicate a competitive advantage (disadvantage). The analysis indicates that between 1995 and 2008 rapid TFP growth offered Estonia a competitive edge (negative REER gaps). This phase coincided with significant gains in export market shares. However, post-GFC, Estonia's advantage slowly started eroding (positive gaps). Confronted with the recent sharp adjustment in prices and TFP decline, the country had more limited ability to absorb the shock compared to other countries in the region.



[1] This Box was prepared by Carlos de Resende and Sadhna Naik. For an extensive discussion, see Selected Issues Paper "TFP Growth, the Balassa-Samuelson Hypothesis and Competitiveness in the Baltics."

7. The fiscal position has deteriorated. Despite better-than-expected personal and corporate income revenue (a reflection of the until recently resilient labor market and robust corporate profits) and capital spending under-execution (partly on slow absorption of EU funds), the general government budget recorded a deficit of 3.4 percent of GDP in 2023, up from 1 percent a year earlier. The outcome, driven by a broad-based increase in current expenditure and weaker VAT revenue during the second half of the year, entails a fiscal stimulus—measured as change in the cyclically-adjusted primary balance—of about 1 percent of GDP. Even though public debt is significantly higher than in pre-pandemic years, it remains low at just below 20 percent of GDP, with a low overall risk of sovereign stress (annex IV). Fiscal space is still substantial.

8. The budget rule was loosened. Given Estonia's low government debt ratio, significantly below 60 percent of GDP, and low risks to long-term fiscal sustainability, the medium-term objective in the State Budget Act was re-set to a structural deficit of 1 percent of GDP from an earlier balanced budget objective. Moreover, convergence towards the medium-term objective was re-defined to account for economic conditions, as opposed to the earlier requirement of a structural improvement of 0.5 percent of GDP under any circumstances (Table 1).

Text Table 1. Matrix of Budget Requirements

		Required annual fiscal adjustment (percentage points of GDP)	
	Condition	Debt ≤ 60% and low/medium sustainability risks	Debt > 60% or high sustainability risks
Exceptionally bad times	Real growth <0 or output gap <-4	No adjustment needed	
Very bad times	-4 ≤ output gap <-3	0	0.25
Bad times	-3 ≤ output gap < -1.5	0 if growth below potential, 0.25 if growth above potential	0.25 if growth below potential, 0.5 if growth above potential
Normal times	-1.5 ≤ output gap < 1.5	0.5	> 0.5
Good times	Output gap ≥ 1.5	> 0.5 if growth below potential, ≥ 0.75 if growth above potential	≥ 0.75 if growth below potential, ≥1 if growth above potential

Source: Ministry of Finance

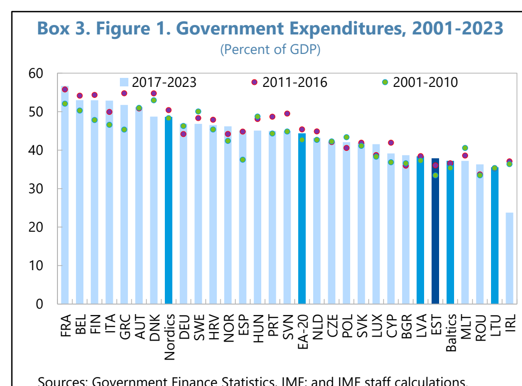
Box 3. Benchmarking Estonia's Public Finances[1]

Emerging spending needs on defense and the energy transition add to long-standing ageing-related pressures. The tension between retaining the competitive tax environment and moving towards broader provision of public services and a stronger social safety net may lead to further fiscal deterioration, if left unaddressed.

Estonia's government spending is relatively low, although in line with regional peers. Over 2017-2023, the Estonian government spent on average less than 38 percent of GDP, 11 pp and 6.5 pp less than the Nordics and EA20 countries respectively, but broadly in line with the other Baltics (Box 3. Figure 1).

But spending pressures are likely to intensify. Since 2011, government expenditure as share of GDP increased by 6 percentage points, largely driven by the wage bill and social benefits. (cont.)

Box 3. Figure 1. Government Expenditures, 2001-2023
(Percent of GDP)



Sources: Government Finance Statistics, IMF; and IMF staff calculations.

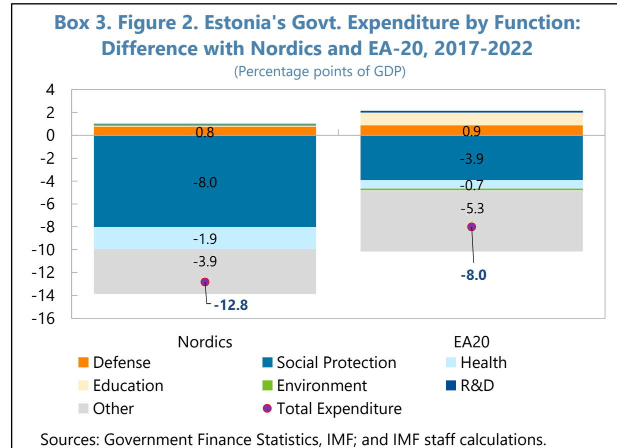
[1] This Box was prepared by Carlos de Resende and Sadhna Naik. For an extensive discussion, see Selected Issues Paper "Benchmarking Estonia's Public Finance-A Primer."

Box 3. Benchmarking Estonia's Public Finances (concluded)

In staff's baseline it is projected to go up by another 3 pp in 2024. By function, most of the increase has been in defense, health, and social protection. Except for defense, Estonia underspends the Nordics and EA20 (Box 3. Figure 2) in these areas, suggesting potential future upward pressure. And while Estonia outspends the Nordics and the EA20 on education and R&D, spending in these productivity-enhancing areas has been declining as share of GDP. Spending in environmental protection and interests will also increase, given climate commitments, and rising public debt.

Box 3. Figure 2. Estonia's Govt. Expenditure by Function: Difference with Nordics and EA-20, 2017-2022

(Percentage points of GDP)



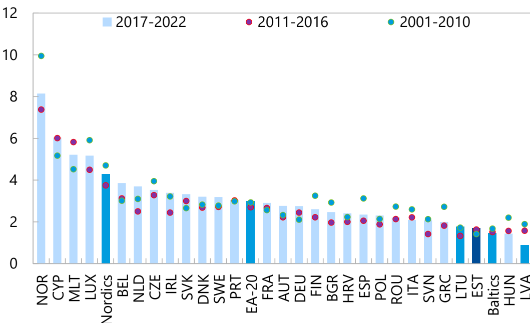
Sources: Government Finance Statistics, IMF; and IMF staff calculations.

Along with spending consolidation, options for revenue mobilization appear available. Tax revenues as share of GDP are low in Estonia relative to peers. Given Estonia's per capita income, government revenues as share of GDP would be expected to be about 3 pp higher. Scope for additional tax revenues could be explored for income (especially corporate income) and property taxes, which are particularly low in Estonia (Box 3. Figure 3). These are also less distortionary than taxes on consumption (e.g., VAT and excise duties) and labor (social contributions), which already yield similar or higher revenues as share of GDP than in the Nordics and EA20 peers.

Box 3. Figure 3. Estonia: Revenues from Corporate Income and Property Taxes, 2001-2022

Corporate Income Tax

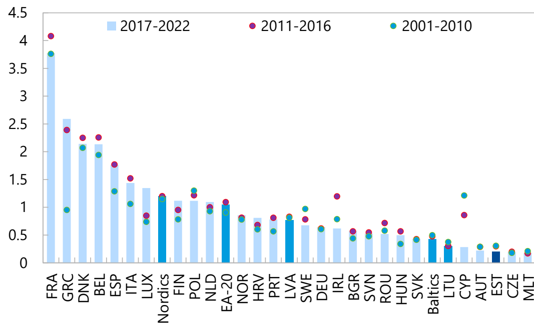
(Percent of GDP)



Sources: Government Finance Statistics, IMF; and IMF staff calculations.

Property Tax

(Percent of GDP)

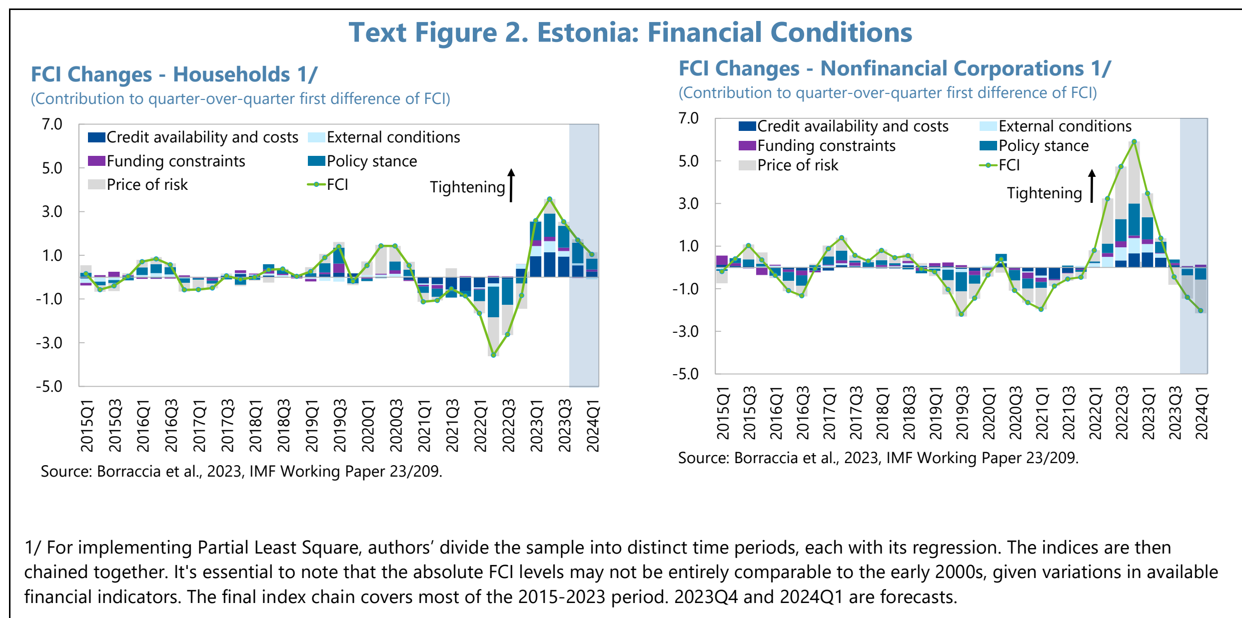


Sources: Government Finance Statistics, IMF; and IMF staff calculations.

9. Financial conditions have tightened. The pass-through of ECB's tighter monetary policy has been high, reflecting the prevalence of flexible lending rates and a significant switch from demand to term deposits. New credit has decelerated and demand of loans for house purchases and, especially, business investment has fallen sharply, according to the bank lending survey. House price inflation has moderated. A resilient labor market until recently and low corporate leverage have cushioned the impact of higher interest rates on balance sheets so far. However, financial leverage is higher among real estate companies, whose loans accounted for 37 percent of banks'

corporate credit at end-September, with even higher concentration among Less Significant Institutions (LSI).

Text Figure 2. Estonia: Financial Conditions



1/ For implementing Partial Least Square, authors' divide the sample into distinct time periods, each with its regression. The indices are then chained together. It's essential to note that the absolute FCI levels may not be entirely comparable to the early 2000s, given variations in available financial indicators. The final index chain covers most of the 2015-2023 period. 2023Q4 and 2024Q1 are forecasts.

10. Capital is adequate though solvency ratios vary significantly across banks. As elsewhere, Estonian banks registered record profits in 2023, and, despite higher interest rates, NPL ratios remain low so far. The aggregate Common Equity Tier 1 ratio is well above regulatory requirements at 20.7 percent of risk-weighted assets at end-2023, but heterogeneity across banks is significant. The two subsidiaries of Swedish banks (44 percent of total bank assets) rely on Internal Ratings-Based models, which traditionally result in lower risk-weights and higher capital ratios[1], even though in the last two years these ratios have declined. Buffers are lower for LSI, especially in some cases. Recent one-off dividend payouts will support fiscal revenue but are estimated to reduce the aggregate bank capital ratio by around 3 percentage points (see Box 4).

[1] See Sweden, Financial System Stability Assessment, March 2023 for a discussion on the relation between IRB models and risk weights.

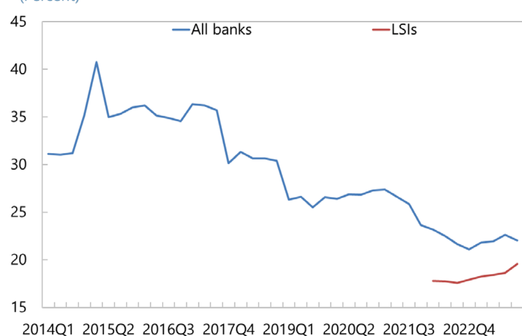
Box 4. Estonian Banks' Capitalization and Regulatory Implications[1]

While capital levels remain adequate, solvency ratios of Estonian banks have gradually declined in recent years and exhibit significant variation across institutions. Reliance on Internal Ratings-Based (IRB) models in some banks has historically resulted in lower risk weights and higher capital ratios. The combined effect of higher risk weights and a recent large one-off dividend payout would reduce banks' capital headroom considerably.

The capital position of Estonian banks has declined steadily over time and differences across institutions are significant. The average Capital Adequacy Ratio for the banking system has fallen from over 40 percent in 2014 to 21.5 percent recently, on account of several factors, including growing bank leverage and the expansion of banks' loan portfolios as well as reforms to corporate taxation, which have incentivized banks to prioritize dividend payouts over profit retention. Small banks exhibit, on average, lower capital ratios than large banks. Differences across institutions are significant, with CET1 ratios ranging from 28 percent to 10 percent (Box 4. Figure 1).

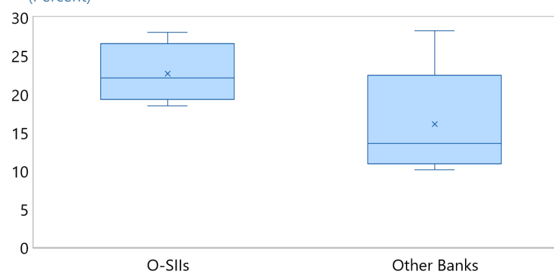
Box 4. Figure 1. Estonia: Bank Capital Adequacy

Capital Adequacy Ratio
(Percent)



Sources: Financial Supervision Authority; and IMF staff calculations.

Common Equity Tier 1 Ratio 1/
(Percent)



Sources: Financial Supervision Authority; and IMF staff calculations.
1/ The height of the box indicates the interquartile range, the whiskers indicate the min and max values, the line within the box indicates the median and the 'x' marker represents the mean.

The high capital adequacy ratios of some Estonian banks partly stem from their relatively low risk-weighted assets. This is largely due to reliance on Internal Ratings-Based (IRB) models for certain segments of their loan portfolios. A 15 percent floor on average risk weights for mortgage loans, introduced by Eesti Pank in 2019 is lower than those in some Nordic countries with equally dynamic property markets. It is also notably lower than 35 percent risk weight uniformly applied under the standardized approach.

Two counterfactual exercises illustrate how IRB methodologies may result in lower risk weights and higher capital ratios. The first exercise explores the effect of imposing a 35 percent floor on mortgage loans. The second exercise considers the impact of a higher risk weight on NFC loans. The calibrated risk weight is assumed to be in line with the average of the Estonian banking system, estimated at 85 percent. Adopting more conservative risk weights for these two lending categories lowers the overall capital adequacy ratio of the banking system by approximately 200bps, from 22 percent currently to 20 percent (Box 4. Figure 2). Recent large one-off dividend payouts are estimated to reduce the average bank capital ratio by a further 3 percentage points, although the dividend payout may have not taken place had the risk weights been higher and the capital ratios lower. The combined effect of the higher calibrated risk weights and the dividend payout would significantly reduce Estonian banks' capital headroom.

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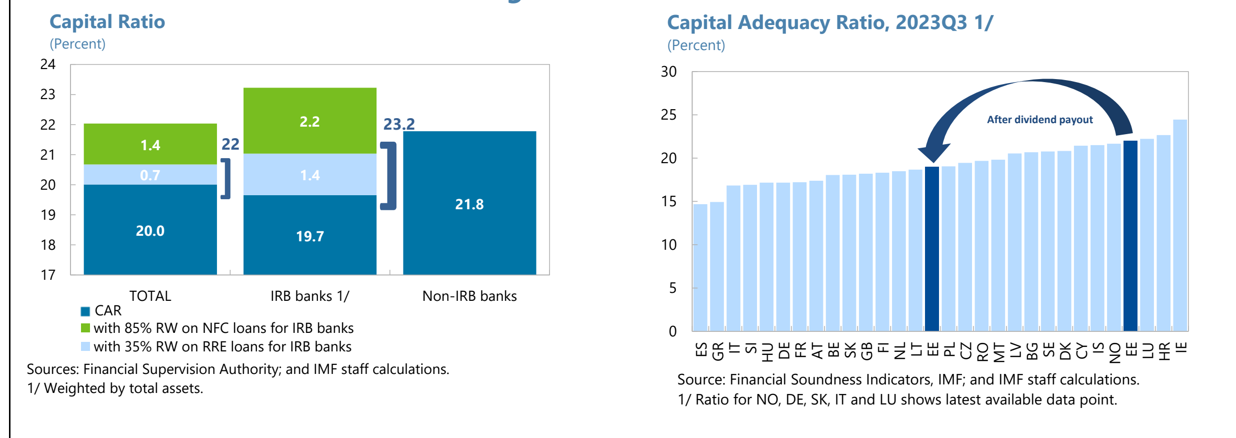
[1] This Box was prepared by Gianluigi Ferrucci and Sadhna Naik. For an extensive discussion, see Selected Issues Paper "Estonian Banks: Capitalization, Profitability and Regulatory Implications."

Box 4. Estonian Banks' Capitalization and Regulatory Implications (concluded)

Box 4. Figure 2. Counterfactual CAR



Sources: Financial Supervision Authority; and IMF staff calculations.
1/ Weighted by total assets.

Source: Financial Soundness Indicators, IMF; and IMF staff calculations.
1/ Ratio for NO, DE, SK, IT and LU shows latest available data point.

11. The external position is weaker than medium-term fundamentals and desirable policies (Annex III). In 2023, despite declining energy prices and significant import compression, weak foreign demand and real exchange rate appreciation left the current account deficit at 2.1 percent of GDP. After adjusting for one-off secondary income credits (excluding central bank monetary income) of about 0.6 percent of GDP, the current account-to-GDP ratio remained close to the widest deficit in fifteen years.

Estonia: EBA-lite Model Results, 2023

	CA model 1/	REER model
	(in percent of GDP)	
CA-Actual	**-2.1**	
Cyclical contributions (from model) (-)	0.4	
Additional temporary/statistical factors (-) 2/	0.6	
Natural disasters and conflicts (-)	0.0	
Adjusted CA	**-3.1**	
CA Norm (from model) 3/	**-0.9**	
Adjustments to the norm (+)	0.0	
Adjusted CA Norm	**-0.9**	
CA Gap	**-2.1**	**-11.6**
o/w Relative policy gap	3.8	
Elasticity	-0.5	
REER Gap (in percent)	**3.9**	**21.5**

1/ Based on the EBA-lite 3.0 methodology
2/temporary adjustor to remove the one-off effect of an large increase in secondary income in December 2023, estimated at 0.6 percent of GDP.
3/ Cyclically adjusted, including multilateral consistency adjustments.

OUTLOOK AND RISKS

12. Growth is poised to make a gradual comeback in 2024. The policy mix is expected to be broadly supportive. Following a sizable stimulus last year, fiscal policy is expected to remain neutral in 2024 with automatic stabilizers supporting a recovery in economic activity, while looser financial conditions should sustain a rebound in credit growth. After stagnating in early 2024, growth is projected to recover, led by a rebound in export markets. Domestic demand should also strengthen as improved business confidence and easing financial conditions encourage firms to revisit investment and, eventually, hiring plans. Better job prospects along with real wage growth should support real disposable income and consumption. The slow start in the year is set to hold back average 2024 GDP growth at -0.5 percent, but growth is projected to pick up from -1.6 percent yoy in H1 to +0.6 percent in H2, and to gain further momentum in 2025.

13. Disinflation is set to slow before resuming in 2025. Despite recent signs of wage moderation, earlier generous public sector agreements and minimum salary increases have already locked in sizable wage gains for the year. Near-term wage growth along with the recently enacted

VAT hike are expected to keep average inflation at around 4 percent in 2024, twice the euro area's inflation target. Disinflation is expected to resume in 2025.

Summary Medium-Term Macroframework

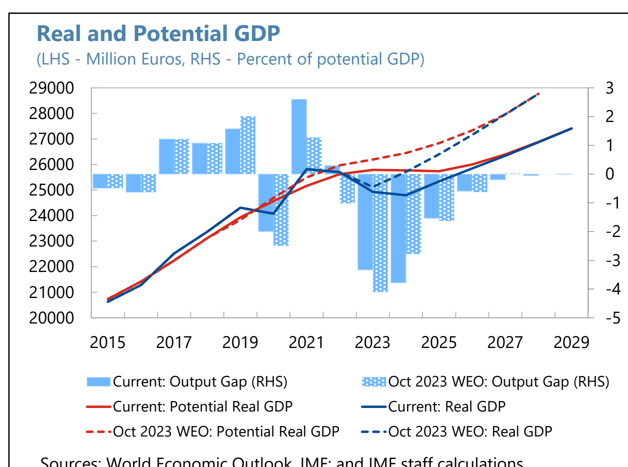
	2021	2022	2023	2024	2025	2026	2027	2028	2029
						Projections			
Real GDP growth (percent)	7.2	-0.5	-3.0	-0.5	2.2	2.0	1.9	2.0	2.0
Output gap (percent)	2.6	0.3	-3.3	-3.8	-1.5	-0.6	-0.2	-0.1	0.0
Inflation (percent)	4.5	19.4	9.1	3.8	2.1	2.3	2.3	2.3	2.3
Unemployment rate (percent)	6.2	5.6	6.4	8.4	7.7	7.0	7.1	7.2	7.3
CAB (percent of GDP)	-2.6	-3.2	-2.1	-4.0	-3.3	-2.8	-2.6	-2.5	-2.4
Fiscal balance (Percent of GDP)	-2.5	-1.0	-3.4	-3.8	-3.9	-3.5	-3.3	-3.0	-2.9
Cyclically-Adjusted Primary Balance (Percent of GDP)	-4.4	-1.2	-2.1	-2.0	-2.8	-2.7	-2.4	-2.2	-2.4
Structural balance (percent of GDP)	-4.3	-1.2	-2.3	-2.4	-3.4	-3.3	-3.2	-2.9	-2.9
General government debt (percent of GDP)	17.8	18.5	19.6	23.0	26.2	28.8	31.0	32.8	34.4

Sources: Estonian authorities; and IMF staff estimates and projections.

14. Recent shocks have left scars. The recovery will extend into 2025 as fiscal and monetary policies remain mildly supportive under the baseline. However, despite the cyclical upswing, permanently higher input costs combined with weak productivity growth are expected to weigh adversely on Estonia's external performance and potential output, with potential growth estimated at just around 2 percent (from 2¾ previously) and structural unemployment rising over the medium-term. The projected path of deficit reduction is seen missing the medium-term structural deficit target of 1 percent of GDP by a wide margin. The public debt-to-GDP ratio is expected to rise considerably to 34 percent of GDP over the forecast horizon. Interest payments are set to absorb a growing share of spending.

Real and Potential GDP

(LHS - Million Euros, RHS - Percent of potential GDP)



Sources: World Economic Outlook, IMF; and IMF staff calculations.

15. The baseline is uncertain, with risks still skewed to the downside (RAM, Annex II). On the domestic front, the prolonged cyclical downturn may intensify calls for permanently increasing public spending while aborting plans to raise revenue. In contrast, a sharper-than-anticipated downward adjustment in prices and costs would deepen the recession in the near-term but may limit scarring.

16. External downside risks are significant. Increasing fallout from Russia's war on Ukraine or an escalation of the conflict may further disrupt trade in the region and lead to a new wave of refugees. Volatility in commodity prices and renewed supply disruptions may trigger an abrupt downturn in the European economy and especially in Estonia's main trade partners, further derailing

prospects of recovery. Cyberattacks on physical or digital infrastructures may cripple payment systems and cause broader financial instability.

Authorities' Views

17. The authorities broadly agreed with staff's outlook for growth but remained more optimistic on inflation. While projecting annual growth to turn positive only next year, they expect easing supply chain disruptions, lower inflation, and looser financial conditions to boost economic activity already during 2024. They see improvement in real income and a resilient labor market supporting a recovery in consumption. Despite recognizing some near-term wage pressures and the impact of the VAT hike, they are more positive on the outlook for inflation, on account of limited domestic price pressures and lower passthrough from wages to prices. The authorities concurred that significant uncertainty surrounds the prospects for the region, reflecting ongoing geopolitical tensions, but saw increasing signs of stabilization.

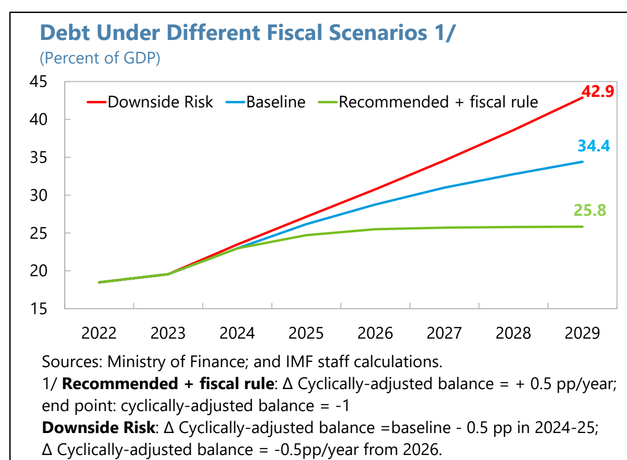
POLICIES—FOCUS ON REGAINING COMPETITIVENESS

18. A well-coordinated policy response is needed to restore productivity growth and competitiveness. The current downturn reflects not only cyclical, but also structural forces. Estonia has lost significant export market shares in the last two years, but problems predate recent developments. External performance started weakening soon after the GFC, with productivity growth failing to keep up with real exchange rate appreciation at times. These problems are not insurmountable but require a decisive policy response. After a neutral fiscal stance this year, staff advocate for a return to fiscal consolidation to retain policy space as the economy exits the recession along with targeted structural measures to regain competitiveness and financial policies to preserve bank capital buffers.

A. Fiscal Policy—Preparing for Consolidation

19. Staff support a broadly neutral fiscal policy for 2024. The 2024 budget aims to support spending in military and national defense, cyber security, education, and green transformation through additional revenue from a 2-percentage point VAT hike, a one-off bank dividend distribution, and various environmental charges, while some social benefits have been clawed back. Staff expect the budget deficit to reach 3.8 percent of GDP this year, but in the near-term they support a neutral fiscal stance, given the prolonged cyclical downturn and the negative output gap. The government recently signaled the intention of enacting a supplementary budget to contain the deficit within 3 percent of GDP, but details are still scant.

Debt Under Different Fiscal Scenarios 1/
(Percent of GDP)



Sources: Ministry of Finance; and IMF staff calculations.
1/ **Recommended + fiscal rule**: Δ Cyclically-adjusted balance = + 0.5 pp/year; end point: cyclically-adjusted balance = -1
Downside Risk: Δ Cyclically-adjusted balance =baseline - 0.5 pp in 2024-25; Δ Cyclically-adjusted balance = -0.5pp/year from 2026.

20. However, a tighter fiscal stance is needed over the medium-term to support competitiveness and preserve buffers. A car registration and road tax worth ½ percent of GDP, already delayed until 2025, is still awaiting adoption by parliament. In addition, revenue measures of about 1 percent of GDP per year during 2025-27 are needed to secure convergence towards the new rule's medium-term objective of a structural deficit of 1 percent of GDP. Scarring effects imply lower potential growth than previously anticipated and a narrower output gap (and thus a structural deficit further away from target), requiring a more prudent fiscal stance. As the economy exits the recession and the output gap gradually narrows, more resolute measures should be ready to support fiscal consolidation and preserve the policy space needed to lift productivity and foster structural transformation. Fiscal expansion, for example in the form of abandoning plans to raise fiscal revenue, would further erode the buffers needed to counter future spending needs. It might also slow disinflation and delay the improvement of Estonia's external performance.

21. Revenue measures should be considered to achieve fiscal consolidation. Under staff's baseline, the structural deficit is projected at 2.4 percent of GDP in 2024 and is seen deteriorating further in 2025. The staff-recommended fiscal path instead entails a structural improvement of about 0.5 percent of GDP per year over the forecast horizon. In particular, staff urge the authorities to:

- promptly adopt the car registration and road tax, to both raise tax revenue and support the green transition;
- identify revenue measures worth one percent of GDP already planned in the budget strategy; and
- accelerate the implementation of updated land taxable values and lift the exemption on primary residence plots, while considering the introduction of an immovable property tax.

Text Table 2. Potential Measures to Support Fiscal Consolidation

Measures	Estimated Impact (percent of GDP)
Revenue	
Adopt car registration and road tax	0.5
Identify planned additional revenue measures	1.0
Accelerate implementation of new land tax values, lift exemption on primary residence plots, and introduce immovable property tax	1.0
Enhance progressivity of personal income tax	0.3
Harmonize effective carbon prices including in non-ETS sectors	0.3
Expenditure	
Contain public sector wage bill below 2020-22 average	0.4
Identify efficiency gains through spending reviews	0.3

Sources: Ministry of Finance, IMF staff calculations

The combined effect of a higher personal income tax rate and basic allowance for all taxpayers is set to lower revenue and reduce overall progressivity of the tax system from 2025. In this context, staff encourage the authorities to assess whether the structure

of the tax system meets the intended degree of progressivity.

22. Consolidation efforts should be accompanied by measures on the spending side. The public sector wage bill expanded considerably in 2023 on the back of ad hoc agreements with specific workers' categories. Going forward, it is critical to contain public sector wages while limiting the discretion of line ministries, local authorities, and independent government agencies to raise wages. Staff welcome the ongoing spending reviews of the ministries of finance, economic affairs, and social protection and encourage the authorities to introduce means testing for social benefits.

23. The scope for strengthening the fiscal framework should be explored. The changes in the national budget rule have made the fiscal framework less ambitious, while the low government debt ratio along with low risks to long-term fiscal sustainability reduces the sense of urgency for fiscal consolidation, needed to prepare for future spending pressures. The uncertainty in assessing the volatile output gap and the structural balance further complicate matters. Among the options that could be considered to anchor the fiscal path more effectively is the introduction of a spending rule. Strengthening the resources and technical capacity of the Fiscal Council would also be important, along with a review of its governance arrangements.

Authorities' Views

24. The authorities shared the thrust of staff's advice on fiscal policy. They stressed the importance of sound public finance. While noting that fiscal policy has played an important role in supporting the economy in response to recent shocks and in limiting the extent of the downturn, they recognized that a budget stimulus would be no longer needed as the economy returns to growth. The authorities recognized that, in the absence of corrective measures, the budget deficit-to-GDP ratio would rise sharply in the coming years and so would the debt ratio, significantly constraining the ability of the economy to respond to future shocks and providing support as needed. The authorities concurred with staff that any fiscal adjustment should involve both expenditure and revenue measures.

25. However, the authorities noted that significant fiscal consolidation in 2025 may prove challenging. On revenue, they reiterated their commitment to adopt the planned car registration and road tax but noted that enacting other revenue-enhancing measures would likely take more time, given the legal requirement to pass any tax legislation at least six months ahead of its entry into effect. They discussed plans to introduce a broad-based national security tax to finance the increase in defense spending, but its implementation would likely be deferred to 2026. On spending, they welcomed staff's advice to contain public sector wages while limiting the discretion of line ministries and other government agencies to negotiate ad hoc agreements with specific workers' categories. They stressed the ongoing efforts in advancing targeted spending reviews, but cautioned on the expected cost savings that may be generated.

26. The authorities showed interest in staff's proposal to strengthen the national fiscal framework. They agreed with staff that the low government debt ratio may reduce the sense of urgency for fiscal consolidation, while also recognizing the challenges involved in estimating a volatile output gap. Supplementing the existing framework with a spending rule was seen as

instrumental to limit excessive growth in public expenditure going forward, while ensuring the long-term sustainability of public finance. The case for a debt rule was also given consideration in discussions with staff.

B. Financial Policies—Monitoring Risks and Preserving Capital Buffers

27. While still contained, financial stability risks have increased, reflecting the prolonged recession and tighter financial conditions. Developments in commercial and residential real estate warrant close vigilance, given the higher level of leverage among companies operating in this sector and the high concentration of real estate loans in banks' credit portfolios, including for LSI. In 2019, Eesti Pank introduced a 15 percent risk weight floor for mortgage loans. Staff recommend that the authorities review bank exposures and ensure that credit risk is properly reflected in risk weights across the banking system.

28. The current macroprudential stance is appropriate. Despite the recent lending slowdown, staff support the decision to leave the countercyclical capital buffer at 1.5 percent (Table 3), given rapid credit growth in previous years. Staff also concur with the recent reduction of the reference rate used in debt service-to-income calculations, which had become excessively stringent against the background of tighter monetary policy (see Annex I).[2] Recent efforts to improve harmonization of regulatory practices for LSIs, including use of Supervisory Review and Evaluation Processes, are welcome. Building on that progress, scope for higher macro- and micro-prudential buffers should be considered.

Text Table 3. Macroprudential Measures

Measure		Requirement
Countercyclical capital buffer		1.50%
Other systemically important institutions buffer	Swedbank AS AS SEB Pank Luminor Bank AS AS LHV Pank	2%
Risk weight floor for mortgage loans		15%
Requirements for issuing housing loans	Loan-to-value (LTV) limit Debt service-to-income (DSTI) limit Maximum maturity	85% 50% 30 years

Source: Eesti Pank.

29. Initiatives aimed at targeting bank profits to secure public funds should be discouraged as they weaken capital buffers. Higher bank profits are largely cyclical. Banks have already experienced declining lending volumes and higher funding costs and, over time, will likely face weakening asset quality. Against this backdrop, windfall taxes on excess profits and initiatives encouraging higher taxable dividend payouts should be avoided as they divert potential sources of capital from banks, reducing their ability to provide credit effectively and absorb future shocks.

30. Building on recent progress, systems should be further enhanced to address Money Laundering/Terrorist Financing (ML/TF) risks. Staff welcome ongoing efforts to enhance the

[2] The reference rate is currently the highest between the interest rate in the loan contract plus two percentage points or an annual rate of 6 percent. As of April 1, 2024, the two additional percentage points in the formula will no longer be applied.

supervisory capacity of the Financial Supervision and Resolution Authority and the Financial Intelligence Unit. In response to a recent MONEYVAL assessment, which found Estonia's Anti-Money Laundering / Combating the Financing of Terrorism (AML/CFT) systems in need of further improvement, continuous priority should be given to mitigating cross-border ML/TF risks from higher-risk countries with material financial flows, further enhancing ML/TF risk assessments, and improving risk-based supervision of banks and virtual asset service providers. The legislation on crypto assets should be finalized given elevated risks stemming from the fintech sector.

Authorities' Views

31. The authorities assessed the Estonian financial sector to have remained healthy, and potential risks to be limited so far. They emphasized that firms and households have absorbed well the impact of higher interest rates, thanks to strong balance sheets and a resilient labor market, but cautioned that banks' asset quality could deteriorate if unemployment were to rise further. The authorities concurred with staff that risks stemming from commercial and residential real estate warranted close vigilance. While agreeing on the importance of credit risk being properly reflected in risk weights across the banking system, they deemed the current 15 percent risk-weight floor on mortgage loans appropriate and expected that the adoption of finalized Basel III rules in the EU next year would help reduce model risk and limit unwarranted variability in capital requirements of banks using internal models.

32. The authorities agreed on the importance of preserving bank capital buffers. They noted that while bank capitalization remains strong, it has declined in recent years reflecting change in the tax regime which encourage profit distribution. The authorities shared staff's concerns about additional dividend payouts, which are estimated to reduce capital headroom considerably. The authorities concurred with staff that maintaining adequate buffers is critical to allow banks to absorb future shocks and ensure effective provision of credit over time.

33. The authorities highlighted their progress in dealing with ML/TF risks. They stressed ongoing efforts to strengthen the supervisory capacity of the Financial Supervision and Resolution Authority and the Financial Intelligence Unit and improved collaboration among agencies. They cited several initiatives to address the MONEYVAL recommendations and progress in enhancing reporting obligations of virtual asset service providers. The authorities also noted increased cybersecurity capabilities.

C. Structural Policies—Supporting Productivity and Fostering Transformation

34. Measures to boost competitiveness and counter structural headwinds are a priority. Against the backdrop of a structural decline in productivity growth and falling export shares, staff call for greater emphasis on supply-side policies. This includes measures aimed at increasing the quantity and quality of corporate investment, improving the reallocation of labor and capital towards higher value-added products and services, enhancing the adoption of digital technologies in traditional sectors, and ensuring that real wage growth remains closely aligned with productivity growth.

35. Staff encourage the authorities to build further on their progress in supporting labor reallocation. Staff analysis on allocative efficiency shows that insufficient labor reallocation across sectors and firms may have contributed to lower productivity growth.[3] Staff welcome ongoing efforts to address labor mismatches and support reallocation through active labor market policies. Building on this progress, the authorities are encouraged to improve targeting of these schemes to cover segments of the labor market not sufficiently addressed and design outreach strategies to raise awareness. Scope for lifting immigration quotas should be assessed, while ensuring that minimum sectoral salaries properly reflect skills and qualifications. Efforts to reduce gender inequality in higher education and the labor market should be further pursued.

36. R&D investment and adoption of digital technologies in traditional sectors could be enhanced. Targeted subsidies may encourage applied innovation across firms and support the quality of corporate investment. Estonia has high venture capital and startup intensity but lacks corporate scale. Grants and measures to improve access to finance, especially in high social return sectors like green technologies, may support scaling up of startups and young firms. Public investment in basic scientific research with broad economic applications may further support productivity and innovation. Public-private cooperation, including with universities, can create positive synergies at lower cost for public finances. Recalibrating current spending towards productivity-enhancing capital spending, including through timely and efficient absorption of EU funds, would also be important to restore competitiveness.

37. Estonia's economic transformation could also be supported by a more ambitious green transition. At current policies, Estonia's goal to achieve climate neutrality by 2050 is largely out of reach. Phasing out the domestic oil-shale sector, introducing a carbon tax, and extending the coverage of sectors where carbon pricing applies, currently the lowest in the EU, remain key to achieving EU climate objectives. Fossil fuel subsidies should also be revisited with a view to facilitate decarbonization. Staff welcome the recent progress in accelerating deployment of renewables and urge the authorities to boost energy efficiency in the building and road transport sectors.

Authorities' Views

38. The authorities agreed with staff on the importance of boosting productivity and restoring competitiveness. They emphasized that the long-term prospects of the Estonian economy largely hinge on firms' ability to remain competitive in export markets and attract productivity-enhancing investment. They acknowledged that inflation and supply chain disruptions have now receded, but input costs are significantly higher. They also recognized that while weak demand from key trading partners has depressed exports lately, a vanishing price advantage may have also contributed to Estonia's loss of market shares.

39. The authorities highlighted the role of human capital in raising potential growth. While emphasizing their progress on reskilling and upskilling workers through active labor market policies, the authorities saw merits in staff's recommendations to improve targeting and raise awareness

[3] See Selected Issues Paper "The Role of Allocative Efficiency in Productivity Growth".

around available schemes. They expressed interest in staff's proposal to lift immigration quotas. The authorities also acknowledged the importance of increasing the share of STEM university graduates, including by addressing the existing gender bias, to mitigate the structural shortage of skilled labor in the ICT sector.

40. The authorities also concurred with the need of further raising Estonia's stock of physical capital. To this end, they noted that EU funds can play an important role in catalyzing private investment, while recognizing the challenges encountered in absorbing and allocating these funds efficiently. The authorities also highlighted ongoing efforts in boosting Estonia's long-standing digital advantage, increasing its attractiveness as an investment destination, and gathering venture capital to develop start-ups. They agreed on the importance of enhancing R&D investment and adoption of digital technologies in traditional sectors.

41. The authorities saw scope for a more ambitious green agenda. The authorities are committed to enhancing the energy mix by gradually reducing reliance on oil shale in electricity generation and boosting investment in renewables, especially wind farms, where regulatory and legal constraints are being eased. They intend to decrease current subsidies for fossil fuels, expand the coverage of sectors where carbon pricing applies, and enhance the energy efficiency of the transportation and construction industries.

STAFF APPRAISAL

42. Estonia is going through a prolonged downturn, but problems predate recent developments. Russia's war on Ukraine triggered supply side disruptions and a large rise in inflation in the Baltic region. Inflation has now eased, but input costs have shifted up compared to the euro area average. These developments compounded longer-standing problems for Estonia. A secular decline in productivity growth, combined with the recent real exchange rate appreciation, has eroded the country's competitive edge, and has led to significant losses of export market shares. The external position is weaker than medium-term fundamentals and desirable policies.

43. Growth is poised to make a gradual comeback. Led by a rebound of foreign demand and a broadly supportive policy mix, growth is projected to recover after stagnating in early 2024. Domestic demand should strengthen as well as improved business confidence and easing financial conditions encourage firms to invest and, eventually, hire. Better job prospects along with real wage growth should support real disposable income and consumption. Inflation has slowed, but sizable wage gains along with the recently enacted VAT hike are sources of near-term upward pressure.

44. But recent shocks have left a mark. The recovery is expected to continue into 2025 as the policy mix remains mildly supportive under the baseline. Despite the cyclical upswing, however, permanently higher input costs combined with weak productivity growth are expected to leave a scar, weighing adversely on Estonia's external performance and on potential output.

45. The baseline is uncertain, with risks still skewed to the downside. On the domestic front, the prolonged cyclical downturn may intensify calls for permanently increasing public spending

while aborting plans to raise revenue. In contrast, a sharper-than-anticipated downward adjustment in prices and costs would deepen the recession in the near term but may limit scarring.

46. External downside risks are also significant. Increasing fallout from Russia's war on Ukraine or an escalation of the conflict may further disrupt trade in the region and lead to a new wave of refugees. Volatility in commodity prices and renewed supply disruptions may trigger an abrupt downturn in the European economy and in Estonia's main trade partners, further derailing prospects of recovery. Cyberattacks on physical or digital infrastructures may cripple payment systems and cause broader financial instability.

47. A well-coordinated policy response is needed to restore competitiveness. Problems are not insurmountable but require decisive policy actions. After a neutral fiscal stance this year, staff advocate for a return to fiscal consolidation to retain policy space as the economy exits the recession along with targeted structural measures to raise productivity and regain competitiveness and financial policies to preserve bank capital buffers.

48. Staff support a broadly neutral fiscal policy for 2024, but a tighter stance is needed over the medium-term. Given the persistent negative output gap and substantial fiscal space, a neutral fiscal stance for this year is appropriate. However, as the economy exits the recession, and the output gap gradually narrows, more resolute measures both on the revenue and the spending side should be ready to support fiscal consolidation and preserve the policy space needed to lift productivity and foster structural transformation. The introduction of a spending rule could be considered to anchor the fiscal path more effectively.

49. While still contained, financial stability risks have increased, reflecting the prolonged recession and tighter financial conditions. Developments in commercial and residential real estate warrant close vigilance, given the higher leverage among firms in this sector and the high concentration of real estate loans in banks' credit portfolios, including for LSIs. Staff recommend that the authorities review bank exposures and ensure that credit risk is properly reflected in risk weights across the banking system.

50. Bank capital buffers should be preserved. The current macroprudential stance is appropriate. Recent efforts to improve harmonization of regulatory practices for LSIs are welcome. Windfall taxes on excess profits and initiatives encouraging higher taxable dividend payouts should be avoided as they divert potential sources of capital from banks, reducing their ability to provide credit effectively and absorb future shocks. Building on recent progress, systems should be further enhanced to address ML/TF risks.

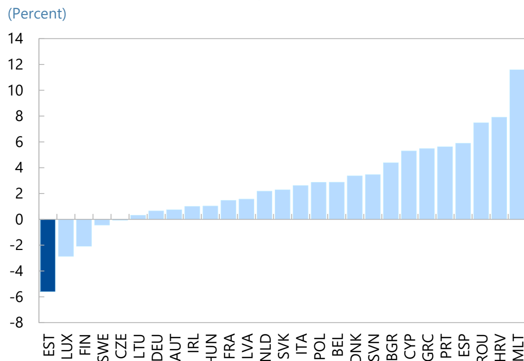
51. Measures to lift productivity and regain competitiveness are a priority. Greater emphasis should be placed on increasing the quantity and quality of corporate investment, improving the reallocation of labor and capital towards higher value-added products and services, enhancing R&D investment and adoption of digital technologies in traditional sectors, while ensuring that real wage growth remains closely aligned with productivity growth. Estonia's economic transformation would be supported by a more ambitious green transition.

52. It is recommended that the next Article IV consultation be completed on the standard 12-month cycle.

Figure 1. Estonia: Growth Developments

EU Countries: GDP Growth, 2023Q4 vs 2021Q4

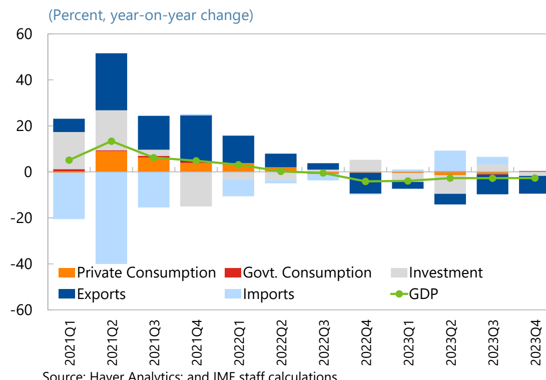
(Percent)



Sources: World Economic Outlook, IMF; and IMF staff calculations.

GDP Growth and Contributors

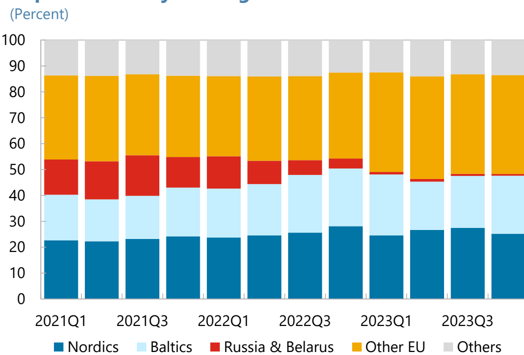
(Percent, year-on-year change)



Source: Haver Analytics; and IMF staff calculations.

Import Shares by Trading Partner

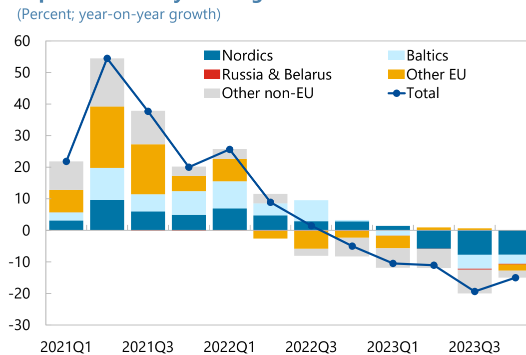
(Percent)



Sources: Direction of Trade Statistics, IMF; and IMF staff calculations.

Export Growth by Trading Partners

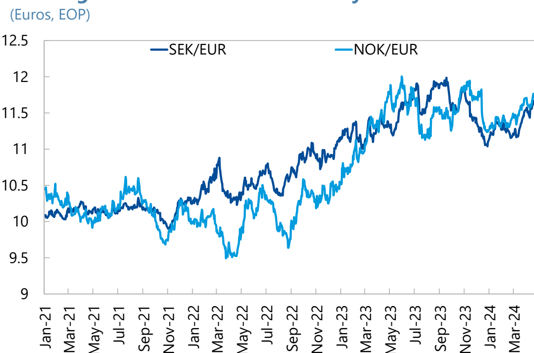
(Percent; year-on-year growth)



Sources: Direction of Trade Statistics, IMF; and IMF staff calculations.

Exchange Rates: Sweden and Norway

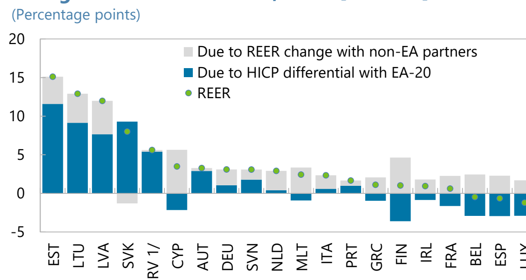
(Euros, EOP)



Sources: European Central Bank; Eurostat; and Haver Analytics.

Change in HICP Based REER, 2021Q4-2023Q4

(Percentage points)

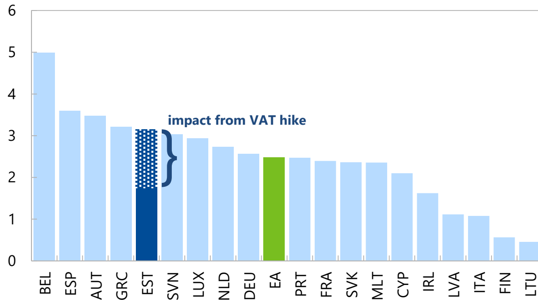


Sources: European Commission; World Economic Outlook, IMF; and IMF staff calculations.

1/ For the period between 2021Q4-2022Q4, there is also a bilateral exchange rate effect between the Croatian Kuna and the Euro which is incorporated in the HICP differential component.

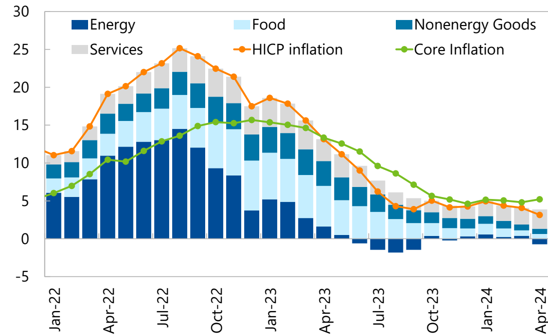
Figure 2. Estonia: Inflation Developments

Inflation, April 2024
(Percent; year-on-year growth; seasonally adjusted)



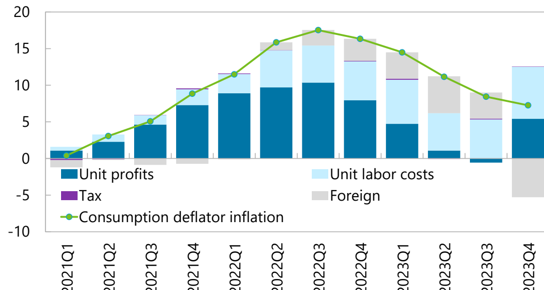
Sources: Eurostat; Haver Analytics; and IMF staff calculations.

Inflation Decomposition
(Percentage points)



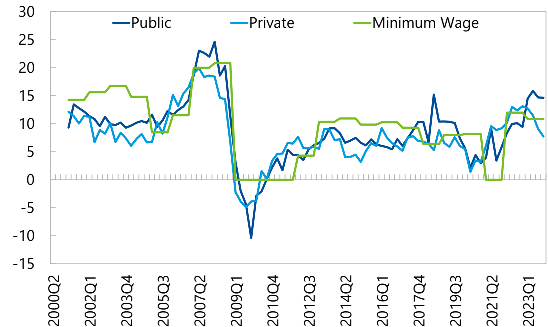
Sources: Eurostat, Haver Analytics, and IMF staff calculations.

Consumption Deflator Composition
(Percentage points, year-on-year)



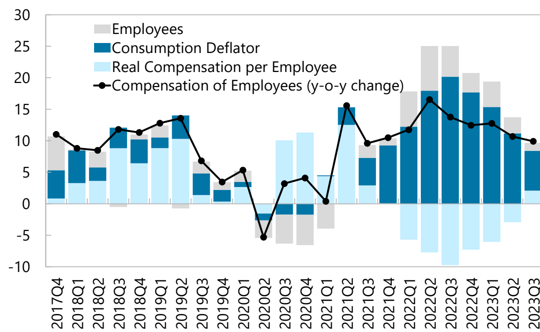
Sources: Hansen, Niels-Jakob, Frederik Toscani, Jing Zhou. 2023. "The Role of Import Prices, Profits and Wages in the Current Inflation Episode in the Euro Area" IMF Working Paper 23/131

Average Monthly Wages in the Public and Private Sector
(year-on-year percentage change)



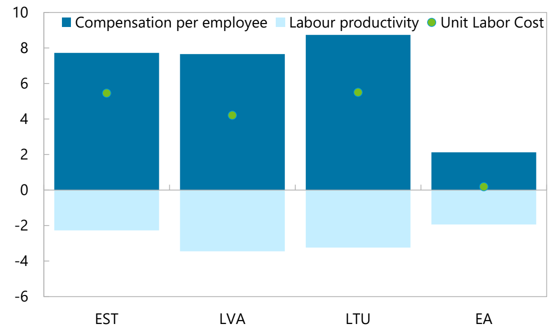
Sources: Statistics Estonia; Eurostat; and IMF staff calculations.

Compensation of Employees and Components
(Percentage points)



Source: European Central Bank.

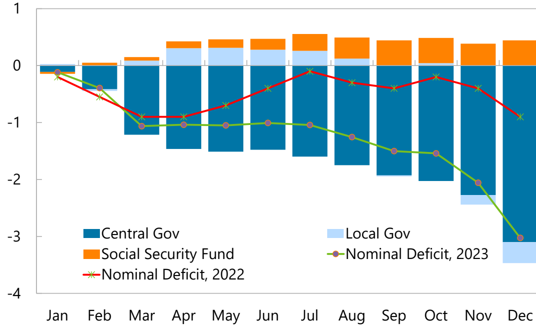
Unit Labor Cost, 2001-2023
(Percent, average year-on-year growth)



Sources: European Central Bank; and IMF staff calculations.

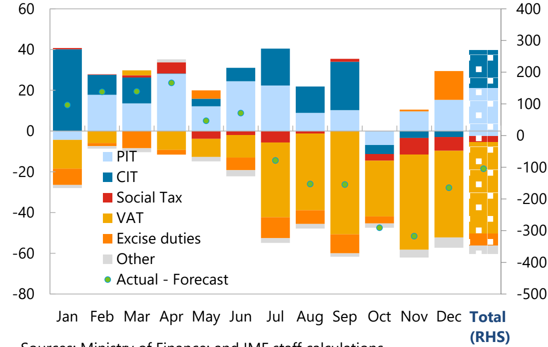
Figure 3. Estonia: General Government Fiscal Performance

General Government Nominal Deficit, 2023
(Percent of GDP)



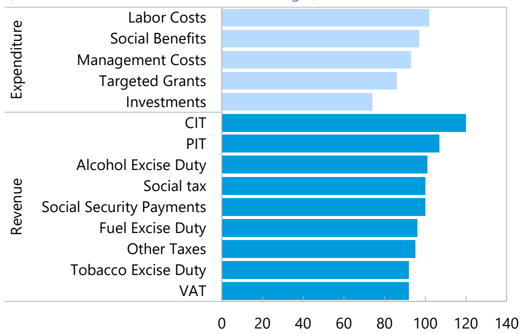
Source: Ministry of Finance.

Tax Revenues: Actual vs Budget, 2023
(Mil. Euros)



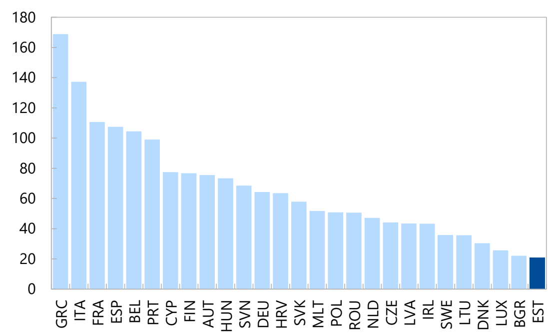
Sources: Ministry of Finance; and IMF staff calculations.

State Budget Execution, December 2023
(Percent; measured as a share of 2023 budget)



Source: Ministry of Finance.

General Government Debt Stock EU-27, 2023
(Percent of GDP)

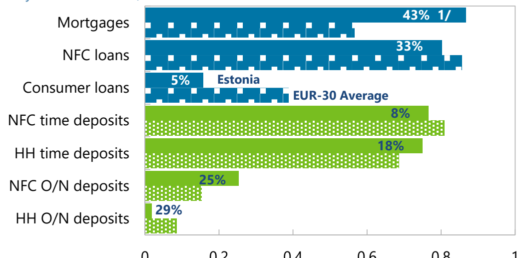


Sources: World Economic Outlook, IMF; and IMF staff calculations.

Figure 4. Estonia: Bank Credit Developments

Bank Interest Rate Betas

(Ratio of cumulative change in interest rates relative to cumulative changes in the policy rate since 2021)

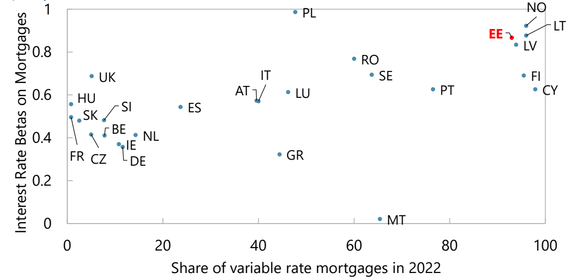


Sources: Beyer, R.,Chen, R., Li, C., Misch, F., Ozturk, E., and Ratnovski, L. (2024). Monetary Policy Pass-Through to Interest Rates: Stylized Facts from 30 European Countries. IMF Working Paper WP/24/9

1/ Percentages reflect share of each segment in banks' total assets and liabilities.

Interest Rate Betas on Mortgages

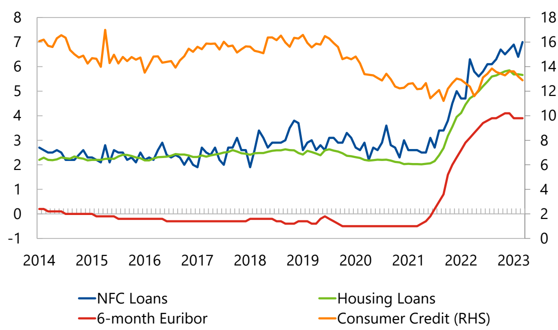
(Y-axis: Ratio of cumulative change in interest rates relative to cumulative changes in t policy rate since 2021; X-axis: Percent)



Sources: Beyer, R.,Chen, R., Li, C., Misch, F., Ozturk, E., and Ratnovski, L. (2024). Monetary Policy Pass-Through to Interest Rates: Stylized Facts from 30 European Countries. IMF Working Paper WP/24/9

Lending Rates

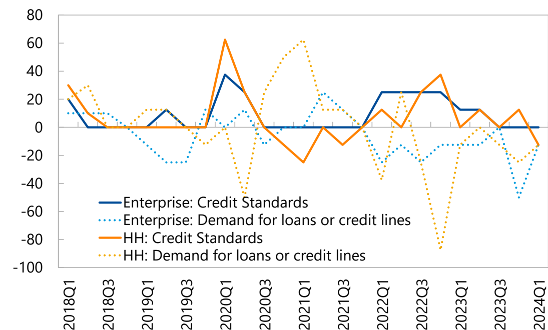
(Percent)



Source: Eesti Pank.

Bank Lending Survey

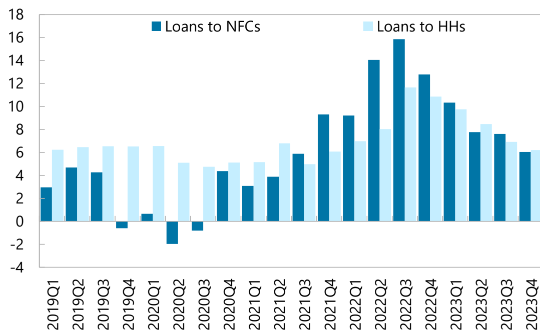
(Diffusion Index measuring changes in past three months, 0+ = tightening)



Source: Eesti Pank; and Haver Analytics.

Outstanding Loans

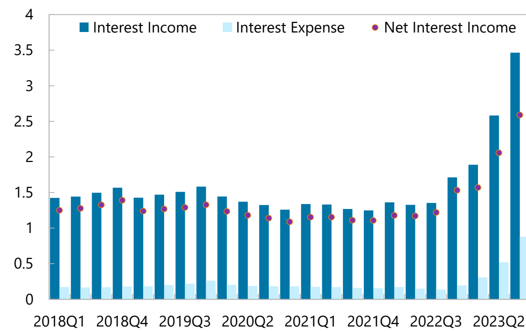
(Year-on-year percentage change)



Sources: Haver Analytics; and IMF staff calculations.

Interest Income and Expenses

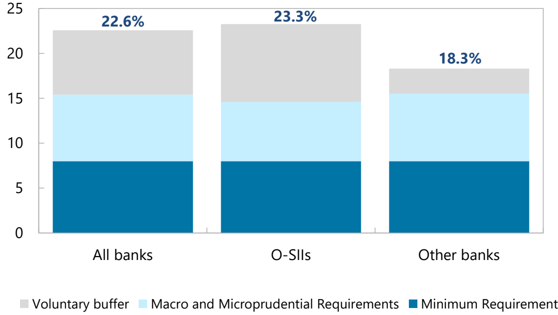
(Percent of total assets)



Sources: European Central Bank; and Haver Analytics.

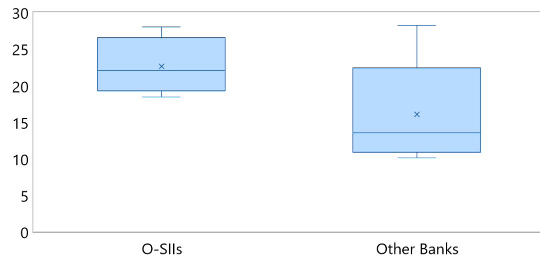
Figure 5. Estonia: Bank Capital Adequacy and Asset Quality

Capital Adequacy Ratio
(Percent of risk-weighted assets)



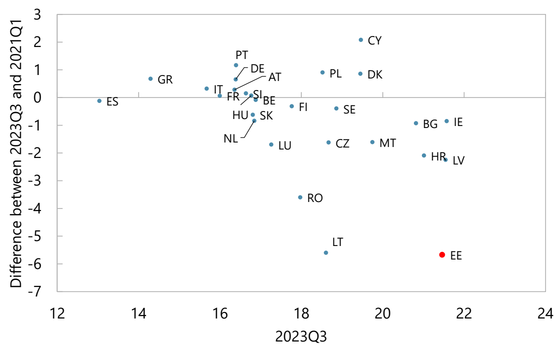
Source: Financial Supervision Authority; Bank of Estonia; and IMF staff calculations.

Common Equity Tier 1 Ratio 1/
(Percent)



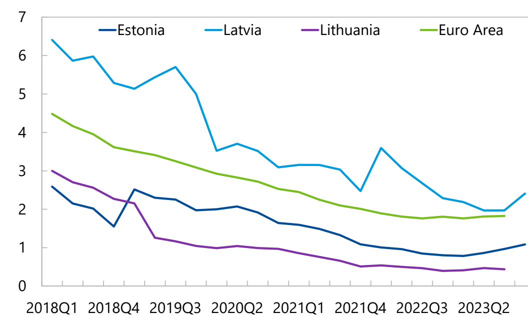
Sources: Financial Supervision Authority; and IMF staff calculations.
1/ The height of the box indicates the interquartile range, the whiskers indicate the min and max values, the line within the box indicates the median and the 'x' marker represents the mean.

Common Equity Tier 1 Ratio
(X-axis: percent; Y-axis: percentage points)



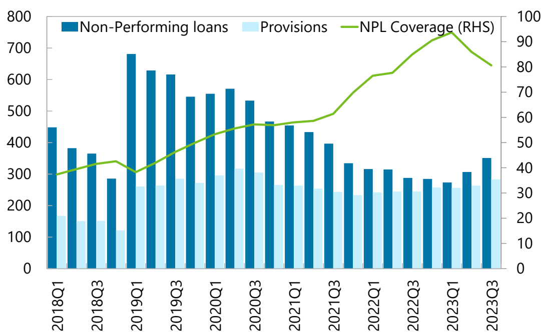
Sources: European Central Bank; Haver Analytics; and IMF staff calculations.

Non-Performing Loans
(Percent of outstanding loans)



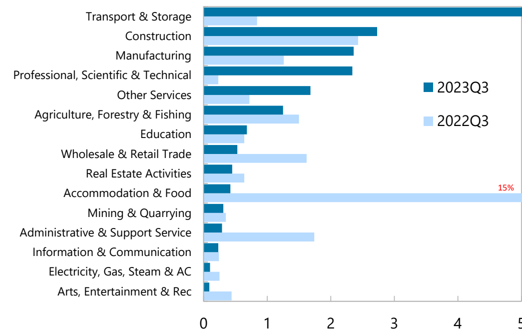
Source: Financial Soundness Indicators Database, IMF; European Central Bank; and Haver Analytics.

Provisions and Non-Performing Loans
(LHS - Mil. Euros; RHS - Percent)



Sources: Financial Soundness Indicators Database, IMF; and IMF staff calculations.

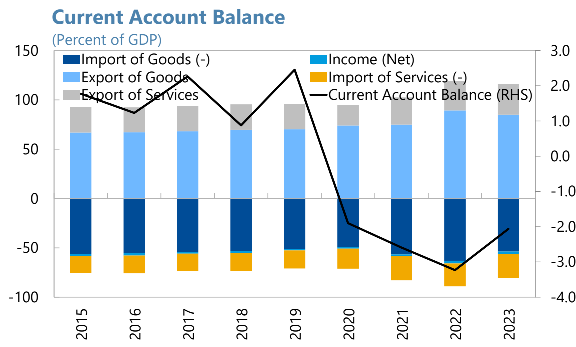
Non-Performing Loan Ratios by Sector
(Percent)



Sources: European Banking Authority; and Haver Analytics.

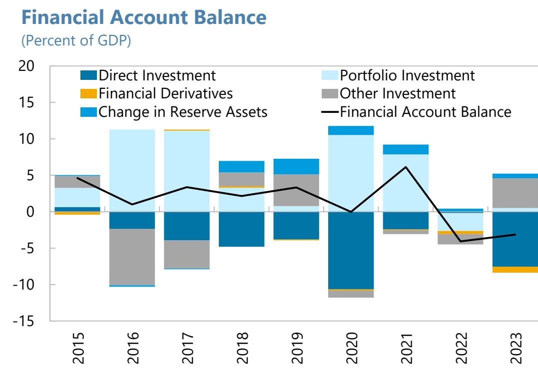
Figure 6. Estonia: External Position

Current Account Balance
(Percent of GDP)



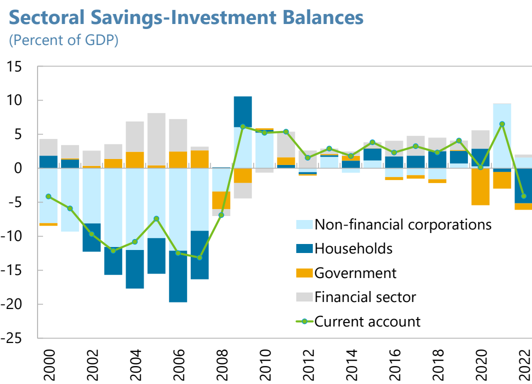
Sources: Statistics Estonia; and IMF staff calculations.

Financial Account Balance
(Percent of GDP)



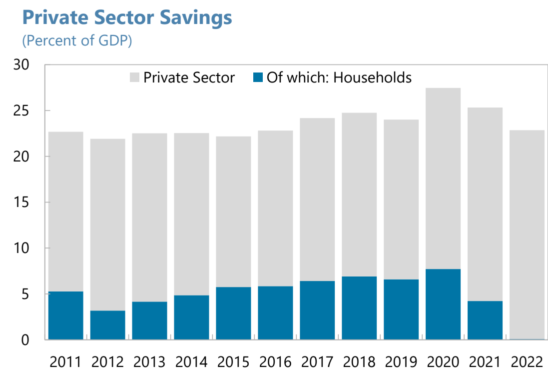
Sources: Haver Analytics; and IMF staff calculations.

Sectoral Savings-Investment Balances
(Percent of GDP)



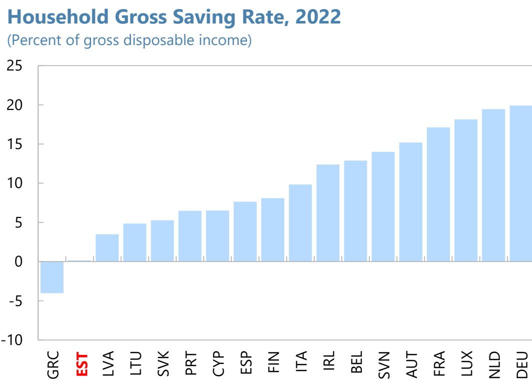
Sources: Eurostat; and IMF staff calculations.

Private Sector Savings
(Percent of GDP)



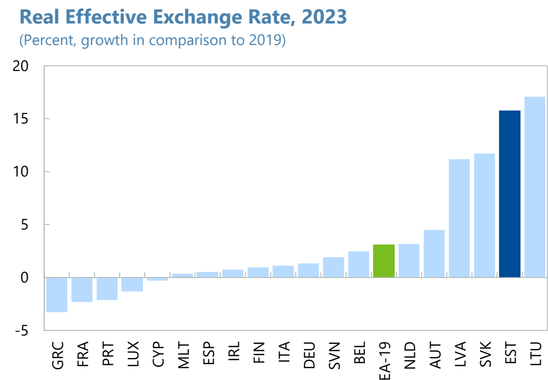
Sources: Statistics Estonia; Eurostat; and IMF staff calculations.

Household Gross Saving Rate, 2022
(Percent of gross disposable income)



Source: Eurostat.

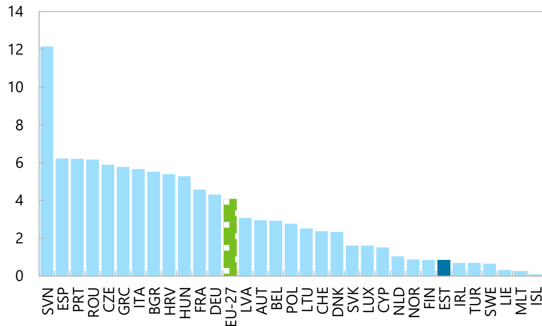
Real Effective Exchange Rate, 2023
(Percent, growth in comparison to 2019)



Sources: Information Notice System, IMF; and IMF staff calculations.

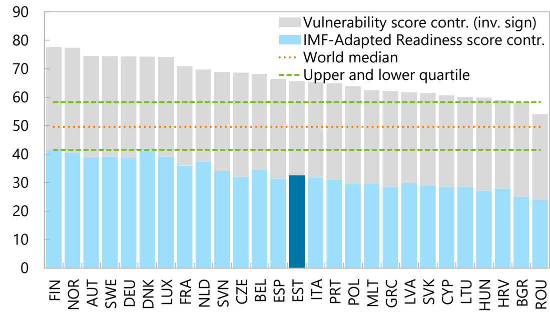
Figure 7. Estonia: Climate Change Indicators

Economic Losses from Extreme Weather and Climate-Related Events (Cumulative losses over 1988-2022 in percent of 2022 GDP)



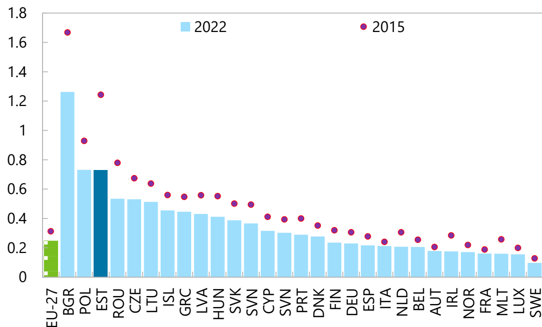
Source: European Environment Agency.

IMF-Adapted ND-GAIN Index, 2021
(Score from 0 to 100, higher is better)



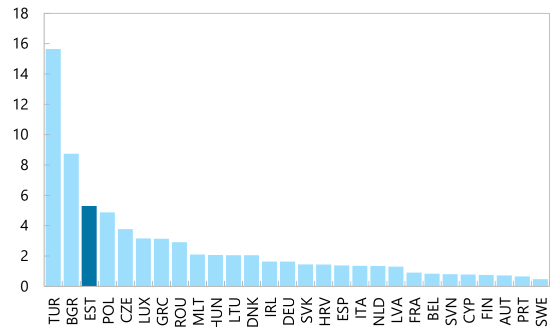
Source: IMF-Adapted ND-GAIN; Findex - The Global Findex Database 2021; Worldwide GovernanceIndicators; and IMF staff calculations.

Emission Intensities
(Kilograms of GHG equivalent per Euro of GDP, 2010 chain linked volumes)



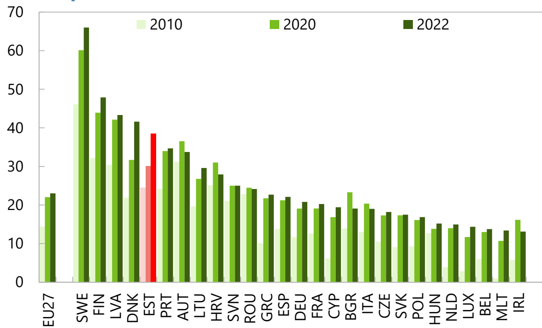
Source: Eurostat.

Fossil Fuel Subsidies, 2021
(Percent of GDP)



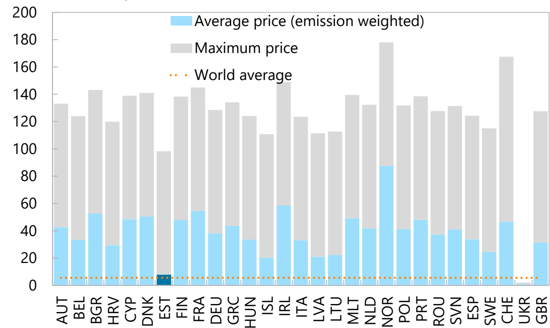
Source: IMF staff calculations.

Share of Renewable Energy in Gross Final Energy Consumption (Percent)



Sources: Eurostat; and IMF staff calculations.

Average and Maximum Carbon Price in European Countries, 2022 (2021 USD per ton of CO2)



Source: IMF staff calculations based on Dolphin and Xiahou (2022).

Table 1. Estonia: Selected Macroeconomic and Social Indicators, 2022–29

(Units as indicated)

	2022	2023	2024	2025	2026	2027	2028	2029
					Projections			
National income, prices, and wages								
GDP (nominal; billions of Euro)	36.0	37.7	38.8	40.8	42.9	45.0	47.4	49.8
Annual change (in percent)	15.5	4.6	3.0	5.1	5.1	5.1	5.2	5.1
Real GDP growth (year-on-year in percent)	-0.5	-3.0	-0.5	2.2	2.0	1.9	2.0	2.0
Private consumption	2.0	-1.2	0.3	1.4	2.2	2.4	2.9	2.5
Government consumption	0.1	0.9	3.3	1.5	0.6	1.5	1.0	1.8
Gross fixed capital formation	-3.7	-3.4	-2.3	3.1	2.9	2.7	2.6	2.5
Exports of goods and services	3.0	-6.9	-4.8	3.1	3.7	4.0	3.3	2.7
Imports of goods and services	3.2	-5.2	-4.1	2.7	3.6	4.3	3.7	3.1
Average HICP (year-on-year change in percent)	19.4	9.1	3.8	2.1	2.3	2.3	2.3	2.3
Average Core HICP inflation	11.8	10.1	4.1	1.7	2.2	2.2	2.2	2.2
GDP deflator (year-on-year change in percent)	16.1	7.9	3.5	2.8	3.1	3.1	3.1	3.1
Average monthly wage (year-on-year growth in percent)	8.9	11.7	7.6	6.8	6.8	6.8	6.8	6.8
Unemployment rate (ILO definition, percent, pa)	5.6	6.4	8.4	7.7	7.0	7.1	7.2	7.3
Average nominal ULC (year-on-year growth in percent)	14.1	13.7	8.0	4.8	5.2	4.4	4.2	4.2
General government (ESA10 basis; percent of GDP)								
Revenue	38.8	40.1	42.6	41.7	41.6	41.1	41.1	41.1
Expenditure	39.8	43.5	46.4	45.6	45.1	44.4	44.1	44.1
Fiscal Balance	-1.0	-3.4	-3.8	-3.9	-3.5	-3.3	-3.0	-2.9
Cyclically-Adjusted Primary Balance	-1.2	-2.1	-2.0	-2.8	-2.7	-2.4	-2.2	-2.4
Structural balance	-1.2	-2.3	-2.4	-3.4	-3.3	-3.2	-2.9	-2.9
Total general government debt	18.5	19.6	23.0	26.2	28.8	31.0	32.8	34.4
Net government debt 1/	4.0	6.6	10.4	14.2	17.4	20.2	22.5	24.6
External sector (percent of GDP)								
Merchandise trade balance	-7.1	-6.3	-7.3	-6.9	-6.8	-6.9	-6.9	-6.9
Service balance	6.6	6.9	6.8	7.0	7.2	7.3	7.4	7.4
Primary income balance	-2.4	-3.1	-3.0	-2.9	-2.8	-2.6	-2.5	-2.4
Current account	-3.2	-2.1	-4.0	-3.3	-2.8	-2.6	-2.5	-2.4
Gross external debt/GDP (percent) 2/	84.7	90.2	94.0	96.0	97.7	99.4	101.0	102.6
Exchange rate (US$/Euro - period averages)	1.05	1.08	1.08	1.07	1.07	1.07	1.07	1.07
Real effective exchange rate (annual changes in percent)	6.3	6.4	...	...	...	...	...	...
Nominal effective exchange rate (annual changes in percent)	-2.3	4.6	...	...	...	...	...	...
Money and credit (year-on-year growth in percent)								
Credit to the economy	11.1	...	...	...	...	...	...	...
Output gap (in percent of potential output)	0.3	-3.3	-3.8	-1.5	-0.6	-0.2	-0.1	0.0
Growth rate of potential output (in percent)	1.8	0.6	-0.1	-0.2	1.0	1.5	1.9	2.0

Social Indicators (reference year):
Population (2023): 1.36 million; Per capita GDP (2022): $28,136; Life expectancy at birth: 81.3 (female) and 72.4 (male);
At-risk-of-poverty rate (2022): 22.5 percent; Main exports: machinery and appliances.

Sources: Estonian authorities; Eurostat; and IMF staff estimates and projections.
1/ Includes the Stabilization Reserve Fund (SRF).
2/ Includes trade credits.

Table 2. Estonia: Summary of General Government Operations, 2022-29

(Percent of GDP)

	2022	2023	2024	2025	2026	2027	2028	2029
			Projections					
Revenue and Grants	38.8	40.1	42.6	41.7	41.6	41.1	41.1	41.1
Revenue	36.5	37.9	39.9	39.1	39.2	39.1	39.5	39.5
Tax revenue	21.2	21.7	23.0	23.0	22.9	22.9	22.7	22.7
Direct taxes	8.0	8.2	8.4	8.3	8.3	8.2	8.1	8.2
Personal income tax	6.3	6.3	6.3	6.2	6.3	6.2	6.2	6.2
Corporate profits tax	1.7	1.9	2.1	2.1	2.0	2.0	2.0	2.0
Indirect taxes	13.2	13.4	14.6	14.7	14.6	14.7	14.6	14.6
VAT	9.2	9.2	10.1	10.0	9.9	9.9	9.9	9.9
Excises	2.8	2.7	3.0	3.2	3.2	3.3	3.2	3.2
Other taxes (incl. land tax)	1.3	1.5	1.5	1.5	1.5	1.5	1.5	1.5
Social contributions	11.7	12.5	12.8	13.0	13.2	13.2	13.3	13.3
Pension insurance (net)	5.9	6.3	6.5	6.6	6.7	6.8	6.8	6.8
Health insurance	4.3	4.6	4.7	4.8	4.9	4.9	4.9	4.9
Unemployment insurance tax	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
Other (incl. self employed)	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
Nontax revenue	3.6	3.8	4.0	3.2	3.1	3.0	3.5	3.5
O/w: Interest income	0.0	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Grants	2.3	2.2	2.7	2.6	2.4	2.0	1.6	1.6
O/w: EU	1.9	1.8	1.8	1.7	1.6	1.3	1.1	1.1
Expenditure	39.8	43.5	46.4	45.6	45.1	44.4	44.1	44.1
Expense (current expenditure)	34.2	36.9	39.3	38.7	38.3	38.9	38.4	38.4
Compensation of employees	10.5	11.7	12.1	11.9	11.8	11.6	11.4	11.4
Wages and salaries	7.6	8.5	8.4	8.3	8.2	8.1	8.0	8.0
Employers' social contributions	2.8	3.2	3.6	3.6	3.5	3.5	3.4	3.4
Other goods and services	6.5	6.8	7.0	6.9	6.5	6.6	6.4	6.4
Transfers and subsidies	17.2	18.4	20.2	20.0	20.0	20.7	20.7	20.7
Subsidies	0.9	0.7	0.6	0.6	0.6	0.6	0.5	0.5
Transfers to households	13.9	14.9	15.8	16.0	16.1	16.2	16.4	16.4
Social benefits	11.5	12.6	13.4	13.6	13.7	13.7	13.9	13.9
Social transfers in kind	2.3	2.3	2.3	2.4	2.4	2.4	2.5	2.5
Other transfers	2.4	2.8	3.8	3.5	3.3	3.9	3.7	3.7
Property income	0.1	0.3	0.6	0.7	0.8	0.9	0.9	0.7
O/w: Interest expenses	0.1	0.3	0.6	0.7	0.8	0.9	0.9	0.7
Other current transfers	1.8	2.0	2.0	2.0	2.0	2.0	1.9	2.1
Capital transfers	0.5	0.5	1.2	0.7	0.5	1.1	0.9	0.9
Net acquisition of NFA (capital expenditure)	5.6	6.6	7.1	6.9	6.8	5.5	5.6	5.6
Acquisition	5.7	...	...	...	...	...	...	...
Disposal	-0.1	...	...	...	...	...	...	...
Financial surplus (+) / deficit (-)	-1.0	-3.4	-3.8	-3.9	-3.5	-3.3	-3.0	-2.9
One-off items	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cyclical adjustment	0.1	-1.1	-1.4	-0.6	-0.2	-0.1	0.0	0.0
Structural balance	-1.2	-2.3	-2.4	-3.4	-3.3	-3.2	-2.9	-2.9
Financing (accrual basis)	0.5	4.0	3.8	3.9	3.5	3.3	3.0	2.9
Net incurrence of liabilities	4.2	4.3	4.0	4.3	3.9	3.6	3.3	3.2
Net acquisition of financial assets	3.7	0.3	0.2	0.4	0.4	0.4	0.3	0.3
Other and Errors and Omissions	-0.5	0.6	0.0	0.0	0.0	0.0	0.0	0.0

Sources: Eurostat; Statistics Estonia; and IMF staff calculations.

Table 3. Estonia: General Government Financial Assets and Liabilities, 2016–23

(In millions of euros)

	2016	2017	2018	2019	2020	2021	2022	2023
Total Assets	**9,059**	**9,405**	**9,647**	**9,656**	**11,034**	**12,117**	**15,076**	**15,483**
Fiscal reserves	2,144	2,146	2,149	2,553	2,958	3,457	4,562	4,431
Currency and deposits	1,063	1,368	1,220	1,738	2,190	2,653	2,278	2,464
Securities other than shares, excl. financial derivatives	825	527	645	526	430	475	1,893	1,465
Short-term securities, excl. financial derivatives	470	270	256	242	214	132	1,304	793
Long-term securities, excl. financial derivatives	356	257	389	284	217	343	589	672
Financial derivatives	0	0	0	0	0	0	0	0
Other	256	252	284	290	338	330	391	501
Loans	706	713	724	719	985	997	1,062	951
Short-term	5	4	4	3	2	3	3	2
Long-term	701	708	720	716	983	995	1,060	949
Equity	5,186	5,539	5,637	5,225	5,740	6,344	7,887	8,098
Other	1,023	1,007	1,137	1,159	1,351	1,319	1,564	2,004
Total Liabilities 1/	**2,979**	**3,128**	**3,351**	**3,748**	**6,804**	**7,649**	**9,189**	**10,792**
Securities other than shares, excl. financial derivatives	221	264	194	248	2,263	2,002	2,658	3,473
O/W: Long-term securities, excl. financial derivatives	221	264	194	148	1,638	1,603	2,308	2,952
Loans	1,927	1,894	1,931	2,116	3,080	3,502	3,663	3,735
Short-term	7	8	5	4	2	3	6	4
Long-term	1,920	1,885	1,925	2,112	3,078	3,499	3,658	3,731
Other accounts receivable/payable	770	908	1,172	1,322	1,395	2,018	2,705	3,443

Source: Statistics Estonia.

1/ Including commitments under the European Financial Stability Fund.

Table 4. Estonia: Summary Balance of Payments, 2022–29

	2022	2023	2024	2025	2026	2027	2028	2029
			Projections					
			(Millions of Euros)					
Current Account	-1,164	-777	-1,551	-1,349	-1,220	-1,180	-1,176	-1,178
Primary Current Account 1/	1,722	3,042	2,382	2,697	2,940	3,094	3,211	3,322
Trade Balance	-191	227	-188	23	162	211	225	232
Exports of goods	20,143	17,868	16,964	17,673	18,552	19,531	20,427	21,235
Imports of goods	22,715	20,255	19,793	20,502	21,465	22,617	23,704	24,691
Services Balance	2,381	2,614	2,641	2,852	3,075	3,298	3,502	3,688
Exports of services	10,748	11,668	11,617	12,202	12,928	13,736	14,500	15,214
Imports of services	8,367	9,054	8,976	9,350	9,852	10,438	10,998	11,526
of which: imports of computer services	1,429	1,756	...	...	...	...	...	...
Primary Income	-862	-1,169	-1,174	-1,178	-1,183	-1,187	-1,192	-1,197
Receipts	2,024	2,650	2,759	2,868	2,977	3,086	3,195	3,304
Payments	2,886	3,819	3,933	4,046	4,160	4,273	4,387	4,500
Secondary Income	-111	165	-190	-194	-199	-204	-208	-213
Capital Account	126	477	491	516	542	570	599	630
Net lending (+) / borrowing (-) balance	-1,038	-300	-1,060	-833	-677	-610	-576	-548
Financial Account	-1,465	-1,188	-1,060	-833	-677	-610	-576	-548
Direct investment	-68	-2,843	-145	-221	-298	-375	-691	-959
Assets	1,628	2,035	1,819	2,010	2,201	2,392	2,344	2,344
Liabilities	1,696	4,878	1,964	2,232	2,500	2,767	3,035	3,303
Portfolio investment	-885	189	-801	-716	-632	-548	-463	-379
Financial derivatives	-153	-316	-164	-174	-184	-194	-204	-214
Loans and other investments (net) 2/	-511	1,540	-246	-71	34	50	271	439
Change in reserves	152	242	295	349	403	457	511	565
Errors and Omissions	-427	-888	0	0	0	0	0	0
			(In percent of GDP, unless otherwise specified)					
Current Account	-3.2	-2.1	-4.0	-3.3	-2.8	-2.6	-2.5	-2.4
Trade balance	-0.5	0.6	-0.5	0.1	0.4	0.5	0.5	0.5
Service balance	6.6	6.9	6.8	7.0	7.2	7.3	7.4	7.4
Primary income balance	-2.4	-3.1	-3.0	-2.9	-2.8	-2.6	-2.5	-2.4
Secondary income balance	-0.3	0.4	-0.5	-0.5	-0.5	-0.5	-0.4	-0.4
Net lending (+) / borrowing (-) balance	-2.9	-0.8	-2.7	-2.0	-1.6	-1.4	-1.2	-1.1
Exports of goods and services (growth in percent)	23.5	-4.4	-3.2	4.5	5.4	5.7	5.0	4.4
Imports of goods and services (growth in percent)	22.7	-5.7	-1.8	3.8	4.9	5.5	5.0	4.4
Net FDI from abroad	0.2	7.5	0.4	0.5	0.7	0.8	1.5	1.9
Total external debt 3/								
Gross	84.7	90.2	94.0	96.0	97.7	99.4	101.0	102.6

Sources: Eesti Pank; and IMF staff estimates and projections.

1/ Excluding interest payments and reinvested earnings.

2/ Includes operations in debt securities.

3/ Starting in 2000, the definition of external debt was widened to include money market instruments and financial derivatives.

Table 5. Estonia: Macroeconomic Framework, 2022–29

(Percent of GDP, unless otherwise indicated)

	2022	2023	2024	2025	2026	2027	2028	2029
			Projections					
Real GDP growth (percent)	-0.5	-3.0	-0.5	2.2	2.0	1.9	2.0	2.0
Domestic demand real growth (percent)	0.9	-2.9	-1.5	1.9	2.1	2.3	2.5	2.4
Final consumption real growth (percent)	1.5	-0.7	1.1	1.4	1.7	2.1	2.4	2.4
Capital formation real growth (percent)	-0.1	-7.5	-7.1	3.1	2.9	2.7	2.7	2.5
Fixed capital formation real growth (percent)	-3.7	-3.4	-2.3	3.1	2.9	2.7	2.6	2.5
Net exports contribution to real GDP (ppts)	-0.3	-1.2	-0.3	0.2	-0.2	-0.5	-0.6	-0.6
Exports real growth (percent)	3.0	-6.9	-4.8	3.1	3.7	4.0	3.3	2.7
Imports real growth (percent)	3.2	-5.2	-4.1	2.7	3.6	4.3	3.7	3.1
Statistical discrepancy contribution to real GDP (ppts)	-1.1	62.1	-61.5	0.0	0.0	0.0	0.0	0.0
Gross saving	27.5	24.6	20.8	21.3	21.7	21.8	21.7	21.6
Private	22.9	21.4	17.5	18.3	18.4	19.5	19.0	18.9
Public	4.6	3.2	3.3	3.0	3.3	2.3	2.7	2.7
Investment	30.7	26.7	24.8	24.6	24.5	24.4	24.2	24.0
O/w: Fixed investment	27.5	26.6	25.9	25.8	25.7	25.5	25.3	25.1
Private	21.8	19.9	19.0	19.0	18.9	20.0	19.7	19.5
Public	5.7	6.7	7.0	6.8	6.8	5.5	5.6	5.6
Current account	-3.2	-2.1	-4.0	-3.3	-2.8	-2.6	-2.5	-2.4
Memorandum items:								
Fiscal balance 1/	-1.0	-3.4	-3.8	-3.9	-3.5	-3.3	-3.0	-2.9
Revenues	38.8	40.1	42.6	41.7	41.6	41.1	41.1	41.1
Expenditure	39.8	43.5	46.4	45.6	45.1	44.4	44.1	44.1
Structural balance	-1.2	-2.3	-2.4	-3.4	-3.3	-3.2	-2.9	-2.9
Total general government debt	18.5	19.6	23.0	26.2	28.8	31.0	32.8	34.4
Net non-debt creating capital inflows ("+" inflow)	2.6	14.7	4.3	5.0	5.6	6.2	6.7	7.1
Capital transfers 2/	0.4	1.3	1.3	1.3	1.3	1.3	1.3	1.3
Portfolio investment (net)	-2.5	0.5	-2.1	-1.8	-1.5	-1.2	-1.0	-0.8
FDI liabilities	4.7	12.9	5.1	5.5	5.8	6.1	6.4	6.6
Average HICP inflation (percent)	19.4	9.1	3.8	2.1	2.3	2.3	2.3	2.3
Unemployment rate (percent)	5.6	6.4	8.4	7.7	7.0	7.1	7.2	7.3
Average wage growth (percent)	8.9	11.7	7.6	6.8	6.8	6.8	6.8	6.8
Labor compensation share of GDP	47.6	50.1	52.3	53.3	54.4	55.1	55.7	56.3
Output gap (in percent of potential output)	0.3	-3.3	-3.8	-1.5	-0.6	-0.2	-0.1	0.0
Growth rate of potential output (in percent)	1.8	0.6	-0.1	-0.2	1.0	1.5	1.9	2.0

Sources: Estonian authorities; and IMF staff estimates and projections.

1/ Public savings minus public investment differs from the fiscal balance by the amount of capital transfers received from abroad.

2/ Mainly EU capital grants, all of which are channelled through the budget.

Table 6. Estonia: Summary of Monetary Accounts, 2014-2023
(In millions of Euros, unless otherwise specified)

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
CENTRAL BANK										
Net foreign assets	4188	4805	4851	6660	7425	7894	8528	12146	11006	12075
Net domestic assets	1235	1308	1235	908	602	444	2308	1678	681	946
Net domestic claims	58	129	150	-48	-150	-202	1759	1282	312	508
Claims on Central government (net)	0	0	-7	-209	-204	-229	-252	-794	-203	95
Claims on Private Sector	6	54	71	70	4	4	3	3	2	1
Claims on Other Depository Corporations	52	75	86	91	50	23	2008	2073	513	412
Other items net	1177	1179	1085	956	752	646	549	396	369	438
Monetary base	5424	6115	6086	7570	8027	8340	10836	13822	11688	13021
OTHER DEPOSITORY CORPORATIONS										
Net foreign assets	-2764	-3523	-3452	-3750	-3426	-1196	1352	-256	-1198	-3211
Net domestic assets	14087	16161	17304	18413	19790	18926	23964	28856	27243	29794
Net domestic claims	17001	19074	20402	22079	23497	23747	26810	31634	31780	35240
Claims on Central government (net)	-834	-600	-662	-788	-589	-1079	-1129	-697	-979	-1113
Claims on State and Local Government	401	405	414	461	476	364	577	628	687	796
Claims on Private Sector	13481	14175	15109	15215	16061	16578	17400	18647	20772	22114
of which: Private Sector Credit	13462	14147	15081	15187	16030	16544	17367	18627	20739	22084
Claims on Central Bank	2948	3471	3357	4725	5009	5072	7187	9904	7671	9005
Claims on Other Financial Corporations	1005	1623	2184	2466	2540	2812	2775	3152	3629	4438
Other items net	-2914	-2913	-3098	-3666	-3707	-4821	-2846	-2778	-4537	-5446
Liabilities to the Central Bank	52	75	86	97	62	23	2008	2073	513	412
Liquid Liabilities	11015	12284	13500	14267	15672	16800	19726	22850	23140	23771
Transferable deposits	8070	9730	10889	12016	13266	14356	17618	20882	20436	16476
Other deposits	2945	2554	2611	2186	2395	2439	2096	1964	2701	7281
Securities other than shares	0	0	0	65	11	5	12	4	3	14
Non-liquid liabilities	257	277	265	298	630	905	3583	3677	2397	2398
DEPOSITORY CORPORATIONS										
Net foreign assets	1424	1282	1399	2910	3999	6698	9880	11890	9808	8864
Net domestic assets	12065	13646	14831	14201	14699	13393	13488	14879	17344	18880
Net domestic claims	14059	15657	17109	17215	18288	18450	19374	20939	23908	26331
Claims on Central government (net)	-834	-600	-669	-997	-793	-1308	-1381	-1491	-1182	-1018
Claims on State and Local Government	401	405	414	461	476	364	577	628	687	796
Claims on Private Sector	13487	14229	15180	15285	16065	16582	17403	18650	20774	22115
of which: Private Sector Credit	13468	14201	15152	15257	16034	16548	17370	18630	20741	22085
Claims on Other Financial Corporations	1005	1623	2184	2466	2540	2812	2775	3152	3629	4438
Other items net	-1994	-2011	-2278	-3014	-3589	-5057	-5886	-6060	-6564	-7451
Broad money	13491	14928	16229	17112	18698	20091	23369	26767	27158	27742
Memorandum items:										
Year-on-year growth (percent)										
Monetary base	46.0	12.7	-0.5	24.4	6.0	3.9	29.9	27.6	-15.4	11.4
Broad money	10.5	10.7	8.7	5.4	9.3	7.4	16.3	14.5	1.5	2.2
Depository Corporations ,Claims on Private Sector	2.6	5.5	6.7	0.7	5.1	3.2	5.0	7.2	11.4	6.5
Depository Corporations, Credit to Private Sector	2.7	5.4	6.7	0.7	5.1	3.2	5.0	7.3	11.3	6.5
Financial Corporations, Credit to Private Sector										
Broad money multiplier (ratio)	2.5	2.4	2.7	2.3	2.3	2.4	2.2	1.9	2.3	2.1

Source: Eesti Pank; European Central Bank; and IMF staff calculations.

Table 7. Estonia: Indicators of External Vulnerability, 2016–23
(Percent of GDP, unless otherwise indicated)

	2016	2017	2018	2019	2020	2021	2022	2023
External Indicators								
Exports of goods and services (year-on-year, percent)	4.8	7.9	6.7	6.4	-7.4	31.8	23.5	-4.4
Imports of goods and services (year-on-year, percent)	5.3	7.1	8.6	4.3	-1.2	32.4	22.7	-5.7
Current account balance	1.2	2.3	0.9	2.5	-1.9	-2.6	-3.2	-2.1
Capital and financial account balance	2.3	3.2	2.3	4.1	0.0	6.4	-2.9	-0.8
Total external debt 1/	88.7	83.4	77.9	75.6	88.7	85.1	84.7	90.2
Debt service to exports of GNFS	69.5	61.2	51.4	46.4	57.5	48.7	45.7	53.0
External interest payments to exports of GNFS (percent)	1.9	1.7	1.6	1.5	1.7	1.3	1.1	1.1
External amortization payments to exports of GNFS (percent)	67.7	59.4	49.4	44.4	55.6	47.1	44.1	50.2
Exchange rate (per US$, period average)	1.11	1.13	1.18	1.12	1.14	1.18	1.05	1.08
Financial Market Indicators								
Stock market index 2/	1076	1242	1163	1280	1344	2001	1767	1769
Foreign currency debt rating 3/	AA-	AA-	AA-	AA-	AA-	AA-	AA-	AA-

Sources: Estonian authorities; Bloomberg; Standard & Poor's; and IMF staff estimates.

1/ External debt includes money market instruments and financial derivatives.

2/ Tallinn stock exchange index (OMX Tallinn), end of period.

3/ Standard & Poor's long-term foreign exchange sovereign rating.

Table 8. Estonia: Households, Financial Assets and Liabilities, 2016–23
(In millions of euros)

	2016	2017	2018	2019	2020	2021	2022	2023
Total Assets	**25,904**	**29,266**	**32,018**	**35,612**	**39,048**	**42,427**	**43,017**	**49,141**
Currency and deposits	7,040	7,262	7,983	8,590	9,760	11,583	11,936	12,559
Securities other than shares	65	68	83	115	114	125	130	177
Shares and other equity	14,539	17,144	18,756	20,773	22,348	28,904	29,268	34,637
Insurance technical reserves	3,589	4,150	4,458	5,356	5,910	648	533	528
Other	671	642	738	778	916	1,167	1,150	1,240
Total Liabilities	**8,996**	**9,679**	**10,298**	**11,043**	**11,514**	**12,324**	**13,340**	**14,466**
Loans	8,404	9,045	9,585	10,283	10,722	11,412	12,372	13,471
Short-term	153	169	255	279	259	224	231	261
Long-term	8,251	8,876	9,330	10,003	10,464	11,188	12,141	13,210
Other	592	634	713	760	792	912	968	995
Net Financial Assets	**16,908**	**19,587**	**21,720**	**24,569**	**27,534**	**30,103**	**29,677**	**34,675**
Memorandum item								
Liabilities to gross wages and salaries ratio	115.2	113.6	109.7	108.2	111.0	108.8	103.5	101.7

Sources: Eesti Pank; and Statistics Estonia.

Table 9. Estonia: Financial Soundness Indicators, 2016–23

(Percent)

	2016	2017	2018	2019	2020	2021	2022	2023
Capital adequacy								
Regulatory capital to risk-weighted assets	35.1	30.6	31.0	27.0	27.9	24.4	22.0	22.1
Common Equity Tier 1 capital to risk-weighted assets	34.5	30.1	30.4	26.6	27.3	23.6	21.2	21.3
Tier 1 capital to assets	14.0	13.1	12.7	12.1	10.5	9.3	9.5	9.3
NPLs net of provisions to capital	4.8	7.8	5.0	5.8	4.1	2.2	0.5	1.8
Asset composition and quality								
NPLs to gross loans (non-financial sector)	2.2	2.4	1.6	2.0	1.6	1.1	0.8	1.1
Provisions to Nonperforming loans	54.5	38.9	42.6	49.9	56.9	69.8	90.5	76.3
Sectoral distribution of loans to non-financial sector:								
Loans to households	42.5	44.4	44.9	46.2	46.2	45.5	..	..
Loans to non-financial corporations	40.8	37.7	37.5	35.9	35.7	35.4	..	..
Earnings and profitability								
Return on assets	2.5	2.2	2.0	1.4	1.1	1.2	1.8	2.8
Return on equity	13.9	11.4	10.8	8.8	7.3	9.4	14.2	21.4
Interest margin to gross income	54.5	57.9	59.8	59.2	60.7	62.6	66.7	76.5
Noninterest expenses to gross income	43.4	46.8	47.2	56.3	55.5	57.2	52.1	41.3
Liquidity								
Liquid assets to total assets	26.1	23.6	22.4	21.5	27.0	27.6	22.7	26.1
Liquidity coverage Ratio			155.7	147.6	185.1	154.6	145.8	190.5
Liquid assets to total short-term liabilities	31.5	28.1	26.4	25.0	30.6	31.0	25.7	29.7
Loans to deposits	103.8	118.7	114.4	105.5	90.0	93.5	98.8	93.8
Net stable funding ratio	219.9	188.6	187.0	195.7	137.3	142.2	137.9	144.3
Net open position in foreign exchange to capital	0.7	0.4	0.4	1.0	0.5	0.8	0.7	0.3

Sources: IFS database, Eesti Pank, and Financial Supervisory Authority.

Annex I. Changes to the Debt Service-to-Income Limit in Estonia[1]

The Estonian authorities have recently reduced the reference rate used in debt service-to-income calculations. Until recently, the reference rate was the highest between the interest rate in the loan contract plus two percentage points or an annual rate of 6 percent. As of April 1, 2024, the two additional percentage points in the formula are no longer applied. While the previously used calibration appropriately addressed the risk of sharply rising rates in a low-interest-rate environment, it had become too stringent for the average borrower during the recent period of high interest rates. IMF staff are broadly supportive of the change, while inviting the authorities to holistically evaluate the appropriateness of the 50 percent parameter limit as well.

1. Macroprudential lending limits are intended to bolster the resilience of both borrowers and lenders against adverse economic conditions. When properly calibrated, limits on individual loans may discourage excessively risky lending, foster a more robust lending framework, and reduce the likelihood and extent of cyclical risk accumulation. As such, they can effectively complement capital buffers. While capital buffer requirements influence the supply side of the credit market, debt limits operate on the demand side, contributing to a more stable financial environment.

2. Since March 2015, banks in Estonia have been required to adhere to three prudential requirements when issuing housing loans. These requirements are: i) a debt service-to-income (DSTI) limit of 50 percent; ii) a loan-to-value (LTV) limit of 85 percent; and iii) a maximum loan maturity of 30 years. A permitted exception of up to 15 percent of the amount of housing loans issued by a credit institution in a quarter is envisaged to ensure banks have sufficient flexibility in making their lending decisions.

Recent Changes to the DSTI

3. In April 2024, Eesti Pank amended the requirements that regulate the calculations of the DSTI limit. While the limit was left unchanged – the sum of all loan and leasing payments of a borrower may not exceed 50 percent of their net income – the reference rate used to assess the borrower's maximum borrowing capacity was reduced. Prior to the change, banks had to use either the interest rate in the loan contract plus two percentage points, or an annual rate of 6 percent, whichever was higher. As of April 1, the two-percentage points add-on in the formula is no longer applied. The new calculations apply either the interest rate in the loan contract, or an annual rate of 6 percent, whichever is higher.

The main motivation for the change is twofold.

4. First, it aims to better align the macroprudential nature and objectives of the DSTI requirement. From a macroprudential perspective, the authorities deem it appropriate and sufficient to base the calculation of loan payments for the DSTI requirement on the highest average

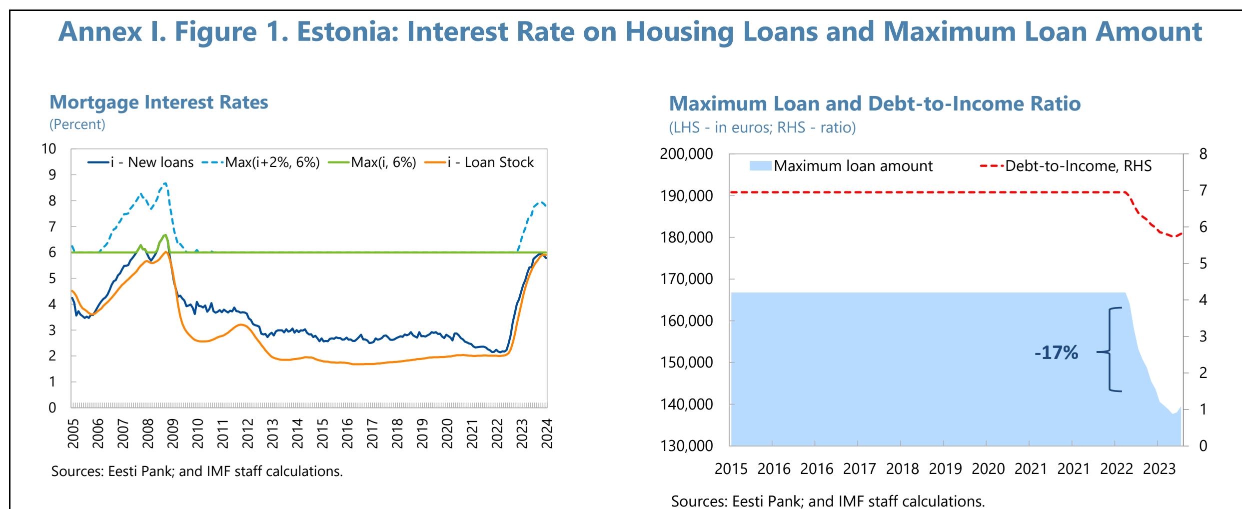
[1] This Annex was prepared by Gianluigi Ferrucci with inputs by Jaunius Karmelavičius (MCM).

loan interest rate over the past interest rate cycle, which is 6 percent (Annex I. Figure 1). The retrospective calculation of the average reference rate under the previously used rule for newly issued mortgages (blue dotted line) shows that the stock interest rate and the interest rate on new loans never reached the stressed rate, implying that the interest rate rule was overly restrictive from a historical perspective.

5. **Second, it ensures that borrowers' capacity is not unduly constrained in a high interest rate environment.** The quick base rate hikes over the past year and a half have already had a tightening effect on the credit environment. The potential loan volume has been limited by the requirement to add two percentage points to the interest rate when calculating monthly repayments. At end-2023, for example, the maximum loan amount for a borrower with a notional monthly loan repayment of EUR1,000 over 30 years was 17 percent lower than in November 2022, when the average reference rate calculated under the previously used rule rose above the 6 percent threshold and the 2-percentage point add-on became binding (Annex I. Figure 1).

6. **The authorities do not expect the change to lead to an excessive relaxation of credit standards.** Accordingly, they clarified that in assessing the credit capacity of a borrower, banks still need to abide by prudential guidelines that require performing sensitivity analyses where the potential future rise in interest rates is considered. They stand ready to establish more stringent rules on issuing housing loans if loan growth picks up considerably and a loan boom starts looming.

Annex I. Figure 1. Estonia: Interest Rate on Housing Loans and Maximum Loan Amount



7. **Other European countries use a similar calibration to the new measure.** For example, Estonia's revised calibration of the stressed interest rate is in line with Lithuanian regulation, which uses a 5 percent floor in the interest rate stress test and caps the stressed-DSTI at 50 percent. It is also in line with that of Iceland for first-time buyers and non-indexed loans, which are subject to a 40 percent DSTI cap using a 5.5 percent interest rate floor, with a maturity ceiling of 40 years, as well

as that of Finland (60 percent DSTI cap using a 6 percent interest floor, with maturity ceiling of 25 years).[2]

8. IMF staff are supportive of the proposed change. The interest rate implied by the new rule is retrospectively in line with the maximum of the interest rate for outstanding mortgages. Thus, switching off the 2-percentage points add-on in the stressed DSTI calculation seems appropriate, especially since monetary policy is not expected to tighten much further.

9. A holistic approach to the DSTI measure would require evaluating the appropriateness of the 50 percent parameter limit as well. Using probability of default models trained on Lithuanian mortgage-level data, Dirma and Karmelavičius (2023) find that an appropriate stressed-DSTI limit should lie around 40 percent. Converting this limit to the Estonian DSTI using a 6 percent interest rate floor would imply a 45 percent DSTI cap, suggesting that the 50 percent cap may be somewhat on the loose end. To address this, the Estonian authorities could assess the retrospective bindingness of their new requirement using historical loan distributional data, and evaluate the DSTI cap from the household resilience perspective employing similar methods to the aforementioned paper, or methods of Gross and Poblacion (2017) and Giannoulakis et al. (2023).

[2] For more information, see the ESRB's Overview of national macroprudential measures, at this link (accessed on April 29, 2024).

Annex II. Risk Assessment Matrix

Conjunctural Risks [1]			
Risks	**Likelihood**	**Impact on the Estonia**	**Recommended Policy Response**
Intensification of Regional Conflict(s). Escalation or spread of the conflict in Gaza and Israel, Russia's war in Ukraine, and/or other regional conflicts or terrorism disrupt trade (e.g., energy, food, tourism, supply chains), remittances, FDI and financial flows, payment systems, and increase refugee flows.	**High**	**High** Geopolitical and diplomatic tensions from the war in Ukraine remain high, though Estonia has diversified its imports and gas exposures away from Russia. The likelihood of negative confidence shocks remains high.	Continue to diversify trade, imports, and sources of energy supplies. Enhance investments in energy efficiency and increase reliance on renewable sources of energy. Step up AML/CFT and cybersecurity risk monitoring.
Commodity Price Volatility. A succession of supply disruptions (e.g., due to conflicts, export restrictions, and OPEC+ decisions) and demand fluctuations causes recurrent commodity price volatility, external and fiscal pressures in EMDEs, cross-border spillovers, and social and economic instability.	**High**	**High** High energy price inflation and supply disruptions have fueled food price volatility in the region.	Keep participating in European policy responses. Diversify energy and food supply. Incentivize domestic production of food and renewable energy.
Abrupt Global Slowdown or Recession. Global and idiosyncratic risk factors cause a sharp growth downturn in Europe, with recessions in some countries, adverse spillovers through trade and financial channels, and market fragmentation.	**Medium**	**Medium** As a small open economy, Estonia would be affected through its trading partners. However, limited complex production processes and industrial clusters reduce the likelihood of large supply chain disruptions.	Participate in global and European policy initiatives. Manage risk through supply diversification, contingency plans, and investment in energy efficiency.
Monetary Policy Miscalibration. Amid high economic uncertainty, major central banks loosen policy stance prematurely, hindering disinflation, or keep it tight for longer than warranted, causing abrupt adjustments in financial markets, and weakening the credibility of central banks.	**Medium**	**Medium** A looser ECB monetary policy could exacerbate inflationary pressures on Estonia, and de-anchor inflation expectations. This could further increase scarring including related to competitiveness erosion and increase the risk-of-poverty.	Adjust fiscal spending to be better targeted and efficient, while allowing automatic stabilizers. Contain public sector wage growth. Reduce vulnerabilities of households and corporates including using macroprudential policy tools.
Systemic Financial Instability. High interest rates and risk premia and asset repricing amid economic slowdowns and political uncertainty (e.g., from elections) trigger market dislocations, with cross-border spillovers and an adverse macro-financial feedback loop affecting weak banks and NBFIs.	**Medium**	**Medium** Rising rates and unemployment could affect the ability of households and corporate to service their debt.	Maintain sufficient capital buffers especially for small banks. Mitigate the risks associated with cross-border lending including to Latvia and Lithuania.
Social Discontent. Real income loss, spillovers from conflicts (including migration), worsening inequality, and disputed elections cause social unrest and detrimental populist policies. This exacerbates imbalances, slows growth, and leads to policy uncertainty and market repricing.	**Medium**	**Medium** Undermining of fiscal anchors and sustainability, with negative impact of the disinflation process and Estonia's external price-competitiveness.	Keep participating in European policy responses. Diversify energy and food supply. Incentivize domestic production of food and renewable energy. Target support measures to vulnerable members of the population. Maintain sound fiscal position.

[1] The Risk Assessment Matrix (RAM) shows events that could materially alter the baseline path. The relative likelihood is the staff's subjective assessment of the risks surrounding the baseline ("low" is meant to indicate a probability below 10 percent, "medium" a probability between 10 and 30 percent, and "high" a probability between 30 and 50 percent). The RAM reflects staff views on the source of risks and overall level of concern as of the time of discussions with the authorities. Non-mutually exclusive risks may interact and materialize jointly. The conjunctural shocks and scenarios highlight risks that may materialize over a shorter horizon (between 12 to 18 months) given the current baseline. Structural risks are those that are likely to remain salient over a longer horizon.

Structural Risks			
Source of Risks, Likelihood, and Time Horizon		**Impact on the Estonia**	**Recommended Policy Response**
Deepening Geo-economic Fragmentation. Broader conflicts, inward-oriented policies, and weakened international cooperation result in a less efficient configuration of trade and FDI, supply disruptions, protectionism, policy uncertainty, technological and payments systems fragmentation, rising shipping and input costs, financial instability, a fracturing of international monetary system, and lower growth.	**High**	**High** Geopolitical tensions with Russia are high due to Estonia's staunch support of Ukraine. Falling demand in Estonia's trading partners could negatively affect trade and further value chains disruption could lower potential growth.	Ensure that support and spending in security-related areas are adequate. Continue implementing reforms of the AML/CFT system to protect the integrity of the financial sector, including the recommendations of the Moneyval assessment and the IMF TA report on financial flows analysis.
Cyberthreats. Cyberattacks on physical or digital infrastructure and service providers (including digital currency and crypto assets) or misuse of AI technologies trigger financial and economic instability.	**Medium**	**High** Geopolitical tensions with Russia and frequent cyber-attacks point to elevated risks going forward.	Continue to enhance preparedness for cyberattacks through extensive risk monitoring in cooperation with private and public sector stakeholders.
Extreme Climate Events. Extreme climate events driven by rising temperatures cause loss of human lives, severe damage to infrastructure, supply disruptions, lower growth, and financial instability.	**Medium**	**Medium** The Estonia's strategy on climate adaptation identifies industry and energy as the main sectors subject to climate change risks and put emphasis on connectivity across sectors.	Accelerate the implementation the National Action Plan on Adaptation which established a robust scheme to build and enhance energy sector's climate resilience.

Annex III. External Sector Assessment[1]

Overall Assessment: *Estonia's external position is weaker than that implied by medium-term fundamentals and desirable policies. In 2023, despite declining energy prices and significant import compression, weak demand from export markets and real exchange rate appreciation left the current account deficit close to the widest ratio in fifteen years. As in recent years, a large goods trade deficit was offset by a surplus of the services balance, with the primary income balance also recording a sizable deficit. Over the medium term, the current account deficit is expected to remain wider than the norm, reflecting pressure on external competitiveness. The real effective exchange rate model points to an overvaluation of more than 20 percent.*

Potential Policy Responses: *Russia's war on Ukraine has triggered supply side disruptions and a large rise in inflation in the Baltic region. Inflation has now eased, but price and cost levels have shifted up compared to the rest of the euro area, hurting competitiveness. Fiscal policy should allow automatic stabilizers to play in the near term, given the prolonged recession and the negative output gap, but turn tighter over time to support competitiveness and preserve buffers. Macroprudential policies should mitigate financial risks. Structural policies should focus on boosting productivity and fostering economic transformation.*

Foreign Assets and Liabilities: Position and Trajectory

Background. Estonia's net international investment position (NIIP) weakened from -20.2 percent of GDP in 2022 to -21.6 percent in 2023. The weakening in NIIP reflects large foreign direct investment inflows. Estonia's NIIP still compares favorably with European peers. Gross external debt increased from 85 percent of GDP in 2022 to 90 percent in 2023. Government liquidity reserves remain robust at about 11.8 percent of GDP.

Assessment.

2023 (% GDP)	NIIP: -21.6	Gross Assets: 179.7	Debt Assets: 49.8	Gross Liab.: 200.7	Debt Liab.: 13.8

Current Account

Background. After adjusting for a large one-off increase in secondary income in late 2023, Estonia's current account (CA) stood at -2.7 percent of GDP in 2023, narrowing from -3.2 percent registered a year earlier. The CA was in deficit for a fourth consecutive year after years of surpluses. While narrowing slightly, the goods trade balance recorded a deficit of 6.3 percent of GDP, remaining much wider than the pre-pandemic average of 4.2 percent of GDP. The deficit was offset by a 6.9 percent surplus of the services balance, slightly wider than a year earlier. The primary income balance was also in deficit.

Estonia: EBA-lite Model Results, 2023

	CA model 1/	REER model
	(in percent of GDP)	
CA-Actual	**-2.1**	
Cyclical contributions (from model) (-)	0.4	
Additional temporary/statistical factors (-) 2/	0.6	
Natural disasters and conflicts (-)	0.0	
Adjusted CA	**-3.1**	
CA Norm (from model) 3/	**-0.9**	
Adjustments to the norm (+)	0.0	
Adjusted CA Norm	**-0.9**	
CA Gap	**-2.1**	**-11.6**
o/w Relative policy gap	3.8	
Elasticity	-0.5	
REER Gap (in percent)	**3.9**	**21.5**

1/ Based on the EBA-lite 3.0 methodology
2/temporary adjustor to remove the one-off effect of an large increase in secondary income in December 2023, estimated at 0.6 percent of GDP.
3/ Cyclically adjusted, including multilateral consistency adjustments.

[1] Prepared by Bingjie Hu, EURPB.

Assessment. The CA position in 2023 was weaker than that implied by fundamentals and desirable policies. The EBA-lite CA methodology suggests that Estonia has a multilaterally consistent CA norm of -0.9 percent of GDP (text table). The estimated policy gap is 3.8 percent of GDP, reflecting primarily a gap between public health expenditure and its desirable level. Going forward, the current account dynamics will be shaped by multiple forces. As demand in external markets pick up, so do exports of goods and services. But, with the economy exiting the recession and domestic demand accelerating, import growth increases as well, given the high import content of demand, with the latter effect expected to dominate the former amid continued erosion of external performance. Staff expects the external position to remain weaker than during the pre-pandemic years, absent more decisive fiscal consolidation and structural reforms.

Real Exchange Rate

Background. The real effective exchange rate appreciated by 6.2 percent in 2023, on higher inflation compared to trading partners and a 4.6 percent nominal effective exchange rate appreciation, in turn reflecting moderate strengthening of the euro against the currencies of major trading partners.
Assessment. The EBA-lite CA method points to a real effective exchange rate overvaluation of 3.9 percent. In contrast, the REER method suggests a real exchange rate overvaluation of more than 21 percent. Unit labor costs increased by 14 percent, partly reflecting a decline in labor productivity and pointing to further weakening in Estonia’s competitive position. Unit labor costs, productivity, and nonprice competitiveness warrant close monitoring.

Capital and Financial Accounts: Flows and Policy Measures

Background. The capital account balance stood at 1.3 percent of GDP in 2023. The financial account (BPM6 methodology) registered net inflows of 3.2 percent of GDP in 2023, led by foreign direct investment inflows, while portfolio investment was broadly in balance.
Assessment. Despite rising uncertainty over financial conditions in international capital markets, risks of an abrupt change in capital flows are assessed to be contained.

FX Intervention and Reserves Level

Background. The Euro has the status of a global reserve currency. Thus, reserves held by euro area economies are typically low by standard metrics (6.2 percent of GDP for Estonia as of end-2023).
Assessment. The reserve level is assessed to be adequate.

Annex IV. Debt Sustainability Analysis

The planned large fiscal expansion in 2023—to address the cost-of-living crisis and rising security challenges—only partly materialized. However, the fiscal deficit is expected to rise further in 2024, on the back of additional spending and delayed fiscal consolidation, before starting to decline gradually. As a result, debt is expected to increase by more than 11 percentage points of GDP over the forecast horizon to 34.4 percent of GDP, reflecting only gradual fiscal consolidation under the new, less strict fiscal rule. Financial risks are expected to remain low, firmly underpinned by strong fiscal institutions and sound financial management.

1. Driven by a larger primary deficit, Estonia's debt stock continued to increase in 2023. The overall fiscal deficit widened from 1 percent in 2022 to 3.4 percent of GDP in 2023, and new (net) borrowings amounted to EUR 1.16 billion (3.1 percent of GDP). General government debt increased by 0.9 percentage point of GDP to 19.6 percent of GDP, driven by the increase in the primary deficit while the net contributions of automatic debt dynamics factors (real interest, real GDP growth, and inflation rates) and other flows were negative. Estonia's public debt remains the lowest in the EU, and mostly consists of longer-term instruments. On the asset side, the government's fiscal reserves are estimated (with data available up to 2023Q3) to have declined to 11.8 percent of GDP in 2023, from 12.7 percent the previous year. Although still low, net government debt increased to 6.6 percent of GDP in 2023.

2. Debt is projected to increase in 2024 while almost no fiscal consolidation is expected over the forecast horizon. Staff estimates that the 2024 fiscal deficit will widen to 3.8 percent of GDP and debt will increase to 23 percent of GDP. In addition, reflecting recent increases in the stock of debt and higher interest rates, net interest payments are projected to increase by 0.3 percentage points to 0.4 percent of GDP in 2024 and to 0.8 percent over the medium term.

3. Debt is expected to continue rising over the medium term, reflecting substantial new spending pressures. After the projected increase in 2024, the fiscal deficit is expected to further widen to 3.9 percent in 2025 before slowly decreasing to 2.9 percent of GDP by 2029, amidst social, national security, and energy security spending pressures, as well as delayed fiscal consolidation under the new, more flexible fiscal rule. The new fiscal rule not only allows a slower adjustment towards the structural balance target but also reduced that target to -1 percent of GDP (from -0.5 percent of GDP under the previous rule). Gross financing needs are expected to increase in 2024 (to 5.2 percent of GDP)—reflecting the widening deficit and greater amortization costs—only gradually decreasing over time to about 4.8 percent of GDP in 2029 but picking up again in 2030 due to scheduled amortizations of Eurobonds. Accordingly, Estonia's debt-to-GDP ratio is expected to continue increasing to 34.4 percent of GDP by 2029.

4. Despite recent increases in fiscal deficit and debt, financial risks remain low, supported by strong institutions, favorable amortization profile, and a (new) credible fiscal rule. The Treasury's asset-liability management (ALM) principles aim to match the duration of financial assets and liabilities, minimize liquidity and refinancing risks, as well as the potential impact of interest rate

changes on the government's balance sheet. Credit risk is mitigated by the requirement to invest financial reserves only in highly rated assets. Although interest rate risk has increased, and it is expected to continue increasing in the near-term, sound interest rate risk management and the relatively high debt portfolio's average time to refixing (4.9 years in 2023) contribute to mitigate it. The weighted average interest rate of the debt portfolio has increased in 2023 at 2.8 percent per annum. Currency risks related to the MoF's debt obligations are equally limited since all obligations are denominated in euros. Refinancing risks are contained by the financial risk management rules, with average term to maturity remaining relatively high, despite recent decline to 6.5 years, at end-2023.

Annex IV. Figure 1. Estonia: Risk of Sovereign Stress

Horizon	Mechanical signal	Final assessment	Comments
Overall	...	Low	
Near-term 1/			
Medium-term	Low	Low	
Fanchart	Moderate	...	
GFN	Low	...	
Stress test		...	
Long-term	...	Low	
Sustainability assessment 2/	Not required for surveillance countries	Not required for surveillance countries	
Debt stabilization in the baseline			No

DSA Summary Assessment

Commentary: Estonia has the lowest public debt ratio in the European Union, prudent public finances management, and strong institutions. The country is at a low overall risk of sovereign stress. The medium-term liquidity risks as analyzed by the GFN Financeability Module are low. Over the longer run, Estonia should continue with reforms, monitor the evolution of new spending needs related to climate, social protection and defense, and focus on investments to enhance productivity growth and safeguard competitiveness.

Source: Fund staff.

Note: The risk of sovereign stress is a broader concept than debt sustainability. Unsustainable debt can only be resolved through exceptional measures (such as debt restructuring). In contrast, a sovereign can face stress without its debt necessarily being unsustainable, and there can be various measures—that do not involve a debt restructuring—to remedy such a situation, such as fiscal adjustment and new financing.

1/ The near-term assessment is not applicable in cases where there is a disbursing IMF arrangement. In surveillance-only cases or in cases with precautionary IMF arrangements, the near-term assessment is performed but not published.

2/ A debt sustainability assessment is optional for surveillance-only cases and mandatory in cases where there is a Fund arrangement. The mechanical signal of the debt sustainability assessment is deleted before publication. In surveillance-only cases or cases with IMF arrangements with normal access, the qualifier indicating probability of sustainable debt ("with high probability" or "but not with high probability") is deleted before publication.

Annex IV. Figure 2. Estonia: Debt Coverage and Disclosures

						Comments
1. Debt coverage in the DSA: 1/	CG	GG	NFPS	CPS	Other	
1a. If central government, are non-central government entities insignificant?					n.a.	
2. Subsectors included in the chosen coverage in (1) above:						
Subsectors captured in the baseline					Inclusion	
1 Budgetary central government					Yes	
2 Extra budgetary funds (EBFs)					No	Not applicable
3 Social security funds (SSFs)					Yes	
4 State governments					Yes	
5 Local governments					Yes	
6 Public nonfinancial corporations					Yes	
7 Central bank					Yes	
8 Other public financial corporations					Yes	
3. Instrument coverage:	Currency & deposits	Loans	Debt securities	Oth acct. payable 2/	IPSGSs 3/	
4. Accounting principles:	Basis of recording		Valuation of debt stock			
	Non-cash basis 4/	Cash basis	Nominal value 5/	Face value 6/	Market value 7/	
5. Debt consolidation across sectors:		Consolidated		Non-consolidated		

Groupings: CPS (1–8); NFPS (1–6); GG: expected (1–5); CG (1–3).

Color code: chosen coverage; Missing from recommended coverage; Not applicable

Reporting on Intra-Government Debt Holdings

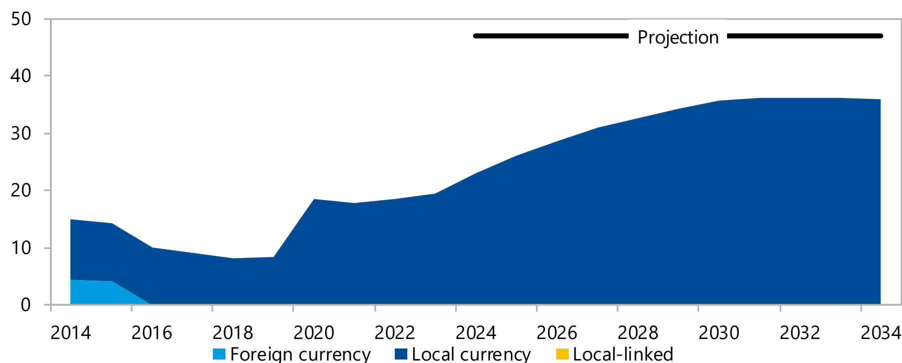
Issuer \ Holder	Budget. central govt	Extra-budget. funds	Social security funds	State govt.	Local govt.	Nonfin. pub. corp.	Central bank	Oth. pub. fin corp	Total
1 Budget. central govt									0
2 Extra-budget. funds									0
3 Social security funds									0
4 State govt.									0
5 Local govt.									0
6 Nonfin pub. corp.									0
7 Central bank									0
8 Oth. pub. fin. corp									0
Total	0	0	0	0	0	0	0	0	0

1/ CG=Central government; GG=General government; NFPS=Nonfinancial public sector; PS=Public sector.
2/ Stock of arrears could be used as a proxy in the absence of accrual data on other accounts payable.
3/ Insurance, Pension, and Standardized Guarantee Schemes, typically including government employee pension liabilities.
4/ Includes accrual recording, commitment basis, due for payment, etc.
5/ Nominal value at any moment in time is the amount the debtor owes to the creditor. It reflects the value of the instrument at creation and subsequent economic flows (such as transactions, exchange rate, and other valuation changes other than market price changes, and other volume changes).
6/ The face value of a debt instrument is the undiscounted amount of principal to be paid at (or before) maturity.
7/ Market value of debt instruments is the value as if they were acquired in market transactions on the balance sheet reporting date (reference date). Only traded debt securities have observed market values.

Commentary: The fraction of central government's debt held by central bank and social security funds is limited.

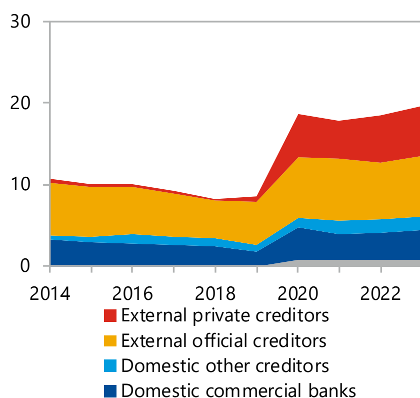
Annex IV. Figure 3. Estonia: Public Debt Structure Indicators

Debt by Currency (Percent of GDP)



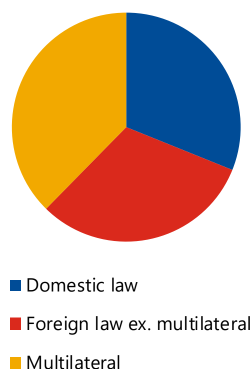
Note: The perimeter shown is consolidated public sector.

Public Debt by Holder (Percent of GDP)



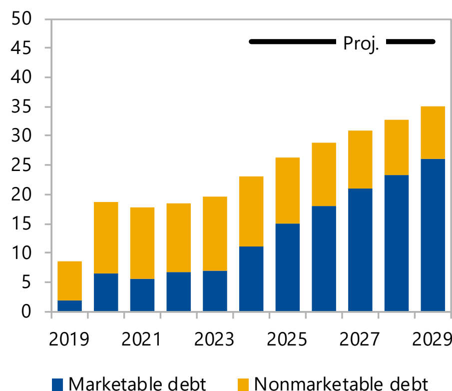
Note: The perimeter shown is general government.

Public Debt by Governing Law, 2023 (Percent)



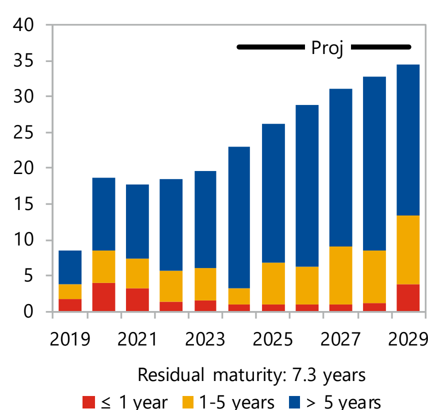
Note: The perimeter shown is general government.

Debt by Instruments (Percent of GDP)



Note: The perimeter shown is general government.

Public Debt by Maturity (Percent of GDP)



Note: The perimeter shown is general government.

Commentary: General government debt—mostly euro-denominated—increased by about 12.0 percentages points since 2019, with most of the debt held by external creditors (eurobond issuances and International financial institutions). The average maturity of debt stood at 7.1 years in 2023Q3 and debt is expected to stabilize around 33 percent of GDP in the long run.

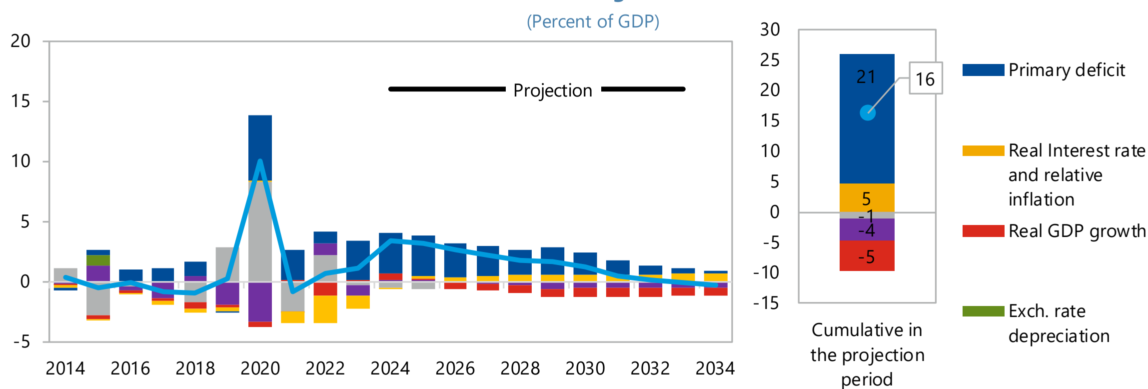
Annex IV. Figure 4. Estonia: Baseline Scenario

(Percent of GDP unless indicated otherwise)

	Actual	Medium-term projection						Extended projection				
	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Public debt	19.6	23.0	26.2	28.8	31.0	32.8	34.4	35.6	36.1	36.2	36.1	35.9
Change in public debt	1.1	3.4	3.2	2.6	2.2	1.8	1.6	1.2	0.5	0.1	-0.1	-0.3
Contribution of identified flows	1.4	3.9	3.8	2.5	2.2	1.8	1.6	1.2	0.5	0.1	-0.1	-0.3
Primary deficit	3.3	3.4	3.4	2.9	2.5	2.2	2.4	1.9	1.2	0.7	0.5	0.3
Noninterest revenues	40.0	42.4	41.6	41.4	41.0	41.0	41.0	40.9	41.3	40.8	40.6	40.3
Noninterest expenditures	43.2	45.8	44.9	44.3	43.5	43.1	43.3	42.9	42.4	41.6	41.1	40.6
Automatic debt dynamics	-1.0	0.5	0.3	-0.3	-0.1	-0.1	-0.1	-0.2	-0.1	-0.1	-0.1	-0.1
Real interest rate and relative inflation	-1.0	-0.2	0.2	0.3	0.5	0.5	0.5	0.5	0.6	0.6	0.6	0.6
Real interest rate	-1.0	-0.2	0.2	0.3	0.5	0.5	0.5	0.5	0.6	0.6	0.6	0.6
Relative inflation	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Real growth rate	0.1	0.6	0.1	-0.6	-0.6	-0.6	-0.6	-0.7	-0.7	-0.7	-0.7	...
Real exchange rate	0.0	...	...	...	...	...	...	...	...	...	...	0.0
Other identified flows	-0.9	0.1	0.1	-0.1	-0.2	-0.3	-0.6	-0.6	-0.5	-0.5	-0.5	-0.5
Contingent liabilities	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
(minus) Interest Revenues	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.1	-0.1	-0.1	-0.1	-0.1
Other transactions	-0.8	0.3	0.3	0.1	0.0	-0.1	-0.4	-0.4	-0.4	-0.4	-0.4	-0.4
Contribution of residual	-0.3	-0.5	-0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Gross financing needs	4.5	5.2	5.0	4.8	4.6	4.4	4.8	7.0	3.3	5.5	2.7	6.9
of which: debt service	1.4	2.1	1.8	2.1	2.3	2.3	2.6	5.2	2.3	4.9	2.3	6.8
Local currency	1.4	2.1	1.8	2.1	2.3	2.3	2.6	5.2	2.3	4.9	2.3	6.8
Foreign currency	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Memo:												
Real GDP growth (percent)	-0.5	-3.0	-0.5	2.2	2.0	1.9	2.0	2.0	2.0	2.0	2.0	2.0
Inflation (GDP deflator; percent)	7.9	3.5	2.8	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1
Nominal GDP growth (percent)	4.6	3.0	5.1	5.1	5.1	5.2	5.1	5.1	5.1	5.1	5.1	5.1
Effective interest rate (percent)	1.8	2.7	3.6	4.2	4.8	4.8	4.7	4.7	4.8	4.8	5.0	4.9

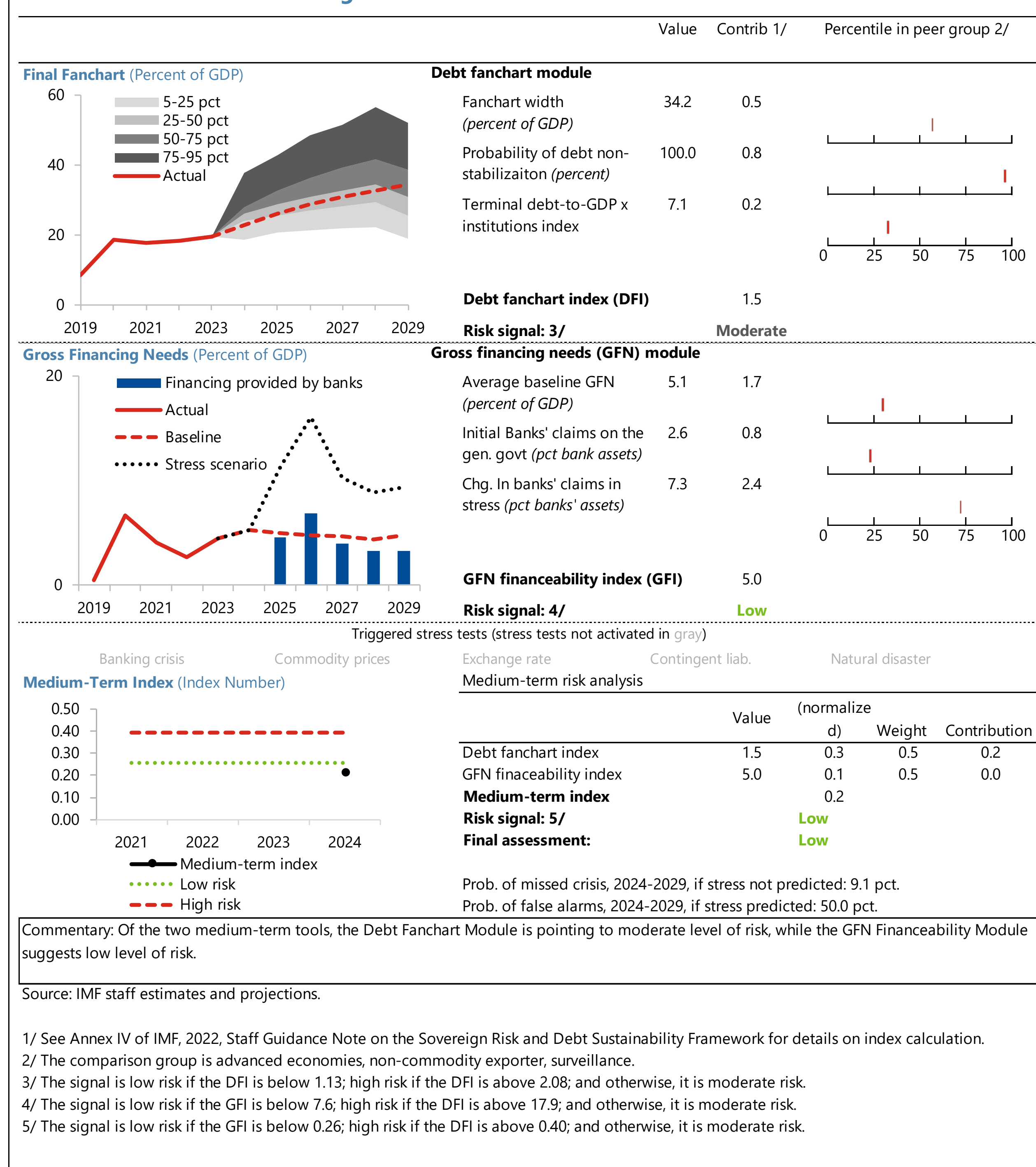
Contribution to Change in Public Debt

(Percent of GDP)



Commentary: Public debt is expected to peak in 2031, before starting a downward trajectory, mainly driven by GDP growth and improvement in primary balance.

Annex IV. Figure 5. Estonia: Medium-Term Risk Assessment



	Value	Contrib 1/
Debt fanchart module		
Fanchart width *(percent of GDP)*	34.2	0.5
Probability of debt non-stabilizaiton *(percent)*	100.0	0.8
Terminal debt-to-GDP x institutions index	7.1	0.2
Debt fanchart index (DFI)		1.5
Risk signal: 3/		**Moderate**
Gross financing needs (GFN) module		
Average baseline GFN *(percent of GDP)*	5.1	1.7
Initial Banks' claims on the gen. govt *(pct bank assets)*	2.6	0.8
Chg. In banks' claims in stress *(pct banks' assets)*	7.3	2.4
GFN financeability index (GFI)		5.0
Risk signal: 4/		**Low**

Triggered stress tests (stress tests not activated in gray)

Banking crisis | Commodity prices | Exchange rate | Contingent liab. | Natural disaster

Medium-term risk analysis

	Value	(normalized)	Weight	Contribution
Debt fanchart index	1.5	0.3	0.5	0.2
GFN finaceability index	5.0	0.1	0.5	0.0
Medium-term index		0.2		
Risk signal: 5/		**Low**		
Final assessment:		**Low**		

Prob. of missed crisis, 2024-2029, if stress not predicted: 9.1 pct.

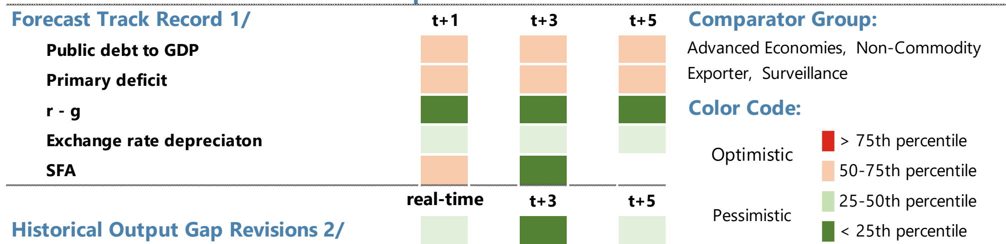
Prob. of false alarms, 2024-2029, if stress predicted: 50.0 pct.

Commentary: Of the two medium-term tools, the Debt Fanchart Module is pointing to moderate level of risk, while the GFN Financeability Module suggests low level of risk.

Source: IMF staff estimates and projections.

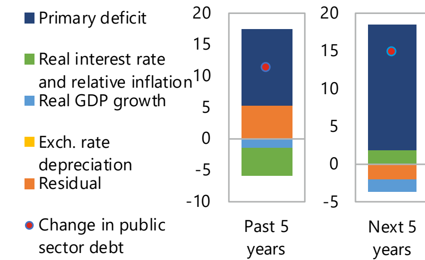
1/ See Annex IV of IMF, 2022, Staff Guidance Note on the Sovereign Risk and Debt Sustainability Framework for details on index calculation.
2/ The comparison group is advanced economies, non-commodity exporter, surveillance.
3/ The signal is low risk if the DFI is below 1.13; high risk if the DFI is above 2.08; and otherwise, it is moderate risk.
4/ The signal is low risk if the GFI is below 7.6; high risk if the DFI is above 17.9; and otherwise, it is moderate risk.
5/ The signal is low risk if the GFI is below 0.26; high risk if the DFI is above 0.40; and otherwise, it is moderate risk.

Annex IV. Figure 6. Estonia: Realism of Baseline Assumptions

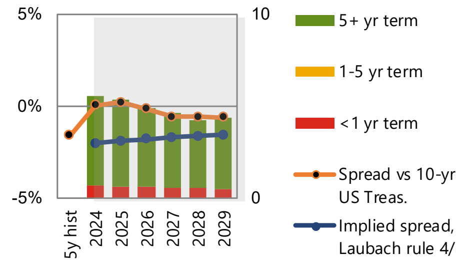


Public Debt Creating Flows

(Percent of GDP)

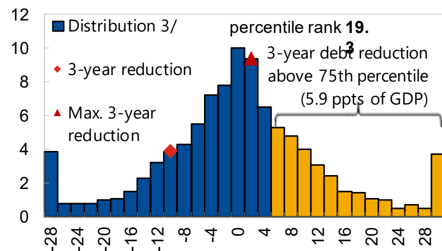


Bond Issuances (Bars, debt issuances (RHS, %GDP); lines, avg marginal interest rates (LHS, percent))

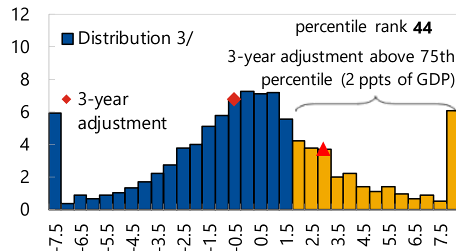


3-Year Debt Reduction

(Percent of GDP)

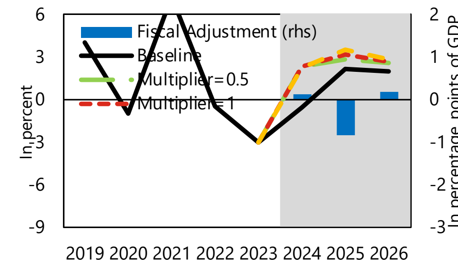


3-Year Adjustment in Cyclically-Adjusted Primary Balance (Percent of GDP)



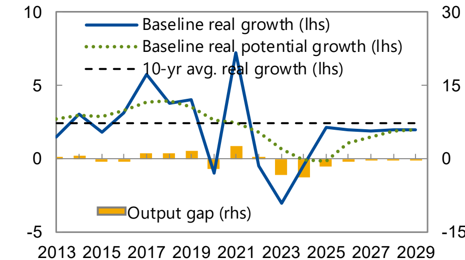
Fiscal Adjustment and Possible Growth Paths

(Lines, real growth using multiplier (LHS); bars, fiscal adj. (RHS))



Real GDP Growth

(In percent)



Commentary: The realism analysis does not point to major concerns: past forecast errors do not reveal any systematic biases and the projected fiscal adjustment and debt reduction are well within norms. Real GDP growth and the primary decifit are expected to be the main drivers of debt reduction.

Source : IMF Staff.

1/ Projections made in the October and April WEO vintage.

2/ Calculated as the percentile rank of the country's output gap revisions (defined as the difference between real time/period ahead estimates

3/ Data cover annual obervations from 1990 to 2019 for MAC advanced and emerging economies. Percent of sample on vertical axis.

4/ The Laubach (2009) rule is a linear rule assuming bond spreads increase by about 4 bps in response to a 1 ppt increase in the projected debt-to-GDP ratio.

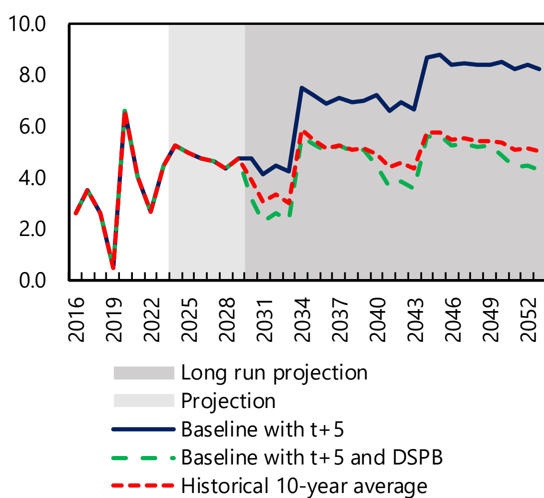
Annex IV. Figure 7. Estonia: Triggered Modules

Large amortizations	Pensions	Climate change: Adaptation	Natural Resources
	Health	**Climate change: Mitigation**	

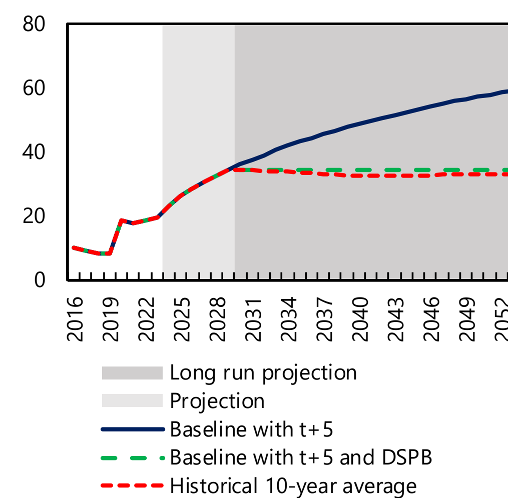
Estonia: Long-Term Risk Assessment: Large Amortization

Projection	Variable	Risk Indication
Medium-term extrapolation	GFN-to-GDP ratio Amortization-to-GDP ratio Amortization	
Medium-term extrapolation with debt stabilizing primary balance	GFN-to-GDP ratio Amortization-to-GDP ratio Amortization	
Historical average assumptions	GFN-to-GDP ratio Amortization-to-GDP ratio Amortization	
Overall Risk Indication		

GFN-to-GDP Ratio



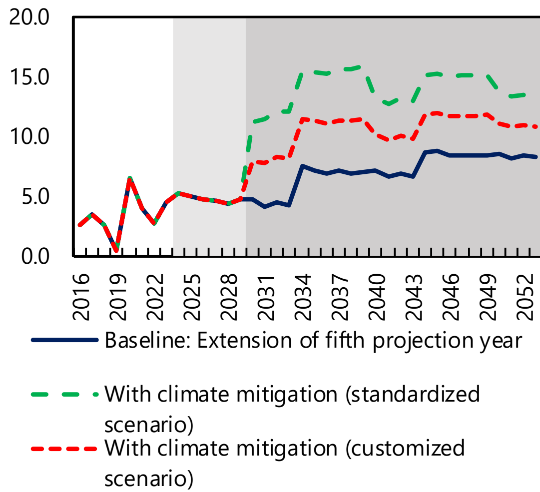
Total Public Debt-to-GDP Ratio



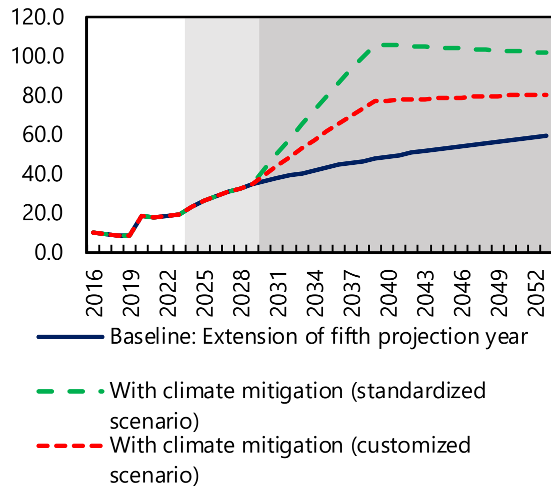
Commentary: In the long term, unusually large amortizations can trigger debt sustainability risks.

Annex 4. Figure 8. Estonia: Climate Change: Mitigation

GFN-to-GDP Ratio



Total Public Debt-to-GDP Ratio



Commentary: In the long-term, additional spending needs for climate mitigation can trigger debt sustainability risks.

Annex V. Data Issues Annex

Estonia: Data Adequacy Assessment for Surveillance

Data Adequacy Assessment Rating 1/							
A							
Questionnaire Results 2/							
Assessment	National Accounts	Prices	Government Finance Statistics	External Sector Statistics	Monetary and Financial Statistics	Inter-sectoral Consistency	Median Rating
	A	A	A	A	A	A	A
Detailed Questionnaire Results							
Data Quality Characteristics							
Coverage	A	A	A	A	A		
Granularity 3/	B		B	A	A		
			A		A		
Consistency			A	A		A	
Frequency and Timeliness	A	A	A	A	A		

Note: When the questionnaire does not include a question on a specific dimension of data quality for a sector, the corresponding cell is blank.
1/ The overall data adequacy assessment is based on staff's assessment of the adequacy of the country's data for conducting analysis and formulating policy advice, and takes into consideration country-specific characteristics.
2/ The overall questionnaire assessment and the assessments for individual sectors reported in the heatmap are based on a standardized questionnaire and scoring system (see IMF *Review of the Framework for Data Adequacy Assessment for Surveillance*, January 2024, Appendix I).
3/ The top cell for "Granularity" of Government Finance Statistics shows staff's assessment of the granularity of the reported government operations data, while the bottom cell shows that of public debt statistics. The top cell for "Granularity" of Monetary and Financial Statistics shows staff's assessment of the granularity of the reported Monetary and Financial Statistics data, while the bottom cell shows that of the Financial Soundness indicators.

Rating	Description
A	The data provided to the Fund is adequate for surveillance.
B	The data provided to the Fund has some shortcomings but is broadly adequate for surveillance.
C	The data provided to the Fund has some shortcomings that somewhat hamper surveillance.
D	The data provided to the Fund has serious shortcomings that significantly hamper surveillance.

Rationale for staff assessment. Estonia's data provision to the Fund is adequate for surveillance purposes. Surveillance can be strengthened with data quality improvements to resolve the following issues: (1) increase granularity of monthly fiscal data available to the public, to make it consistent with ESA 2010 standards; (2) increase the granularity of public and external debt data, including on amortizations, to permit additional and enhanced analysis; (3) disaggregate quarterly public investment data by types of investment, agencies involved, and/or sector of activity and disseminate the data on national websites (currently data are only available through alternative sources); (4) reduce the statistical discrepancy between GDP and the sum of expenditure components, which has risen to over 3 percent of GDP recently; and (5) increase the granularity of data on the secondary income in the current account.

Changes since the last Article IV consultation. No important new releases or improvements were made since the last Article IV.

Corrective actions and capacity development priorities. Staff recommends the dissemination of more granular fiscal and debt data, as well as additional disaggregation of investment data. The authorities should continue to work to identify and reduce the statistical discrepancy present in GDP compiled by expenditure.

Use of data and/or estimates different from official statistics in the Article IV consultation. Staff relies on data provided by Eurostat and EU KLEMS for quarterly data on investment disaggregated by type of investment, agencies involved, and sector of the activity

Other data gaps. Data related to climate change, income and gender inequality, and digitalization seem broadly adequate.

Estonia: Data Standards Initiatives

Estonia adheres to the Special Data Dissemination Standard (SDDS) Plus since January 2022 and publishes the data on its National Summary Data Page. The latest SDDS Plus Annual Observance Report is available on the Dissemination Standards Bulletin Board (https://dsbb.imf.org/).

Estonia: Table of Common Indicators Required for Surveillance

As of May 15, 2024

	Data Provision to the Fund				Publication under the Data Standards Initiatives through the National Summary Data Page			
	Date of Latest Observation	Date Received	Frequency of Data[6]	Frequency of Reporting[6]	Expected Frequency[6,7]	Estonia[8]	Expected Timeliness[6,7]	Estonia[8]
Exchange Rates	15-May-24	15-May-24	D	D	D	...	...	...
International Reserve Assets and Reserve Liabilities of the Monetary Authorities[1]	Apr-24	May-24	M	M	M	...	1W	...
Reserve/Base Money	Mar-24	Apr-24	M	M	M	M	2W	9D
Broad Money	Mar-24	Apr-24	M	M	M	M	1M	4W
Central Bank Balance Sheet	Mar-24	Apr-24	Q	Q	M	M	2W	9D
Consolidated Balance Sheet of the Banking System	Mar-24	Apr-24	M	M	M	M	1M	4W
Interest Rates[2]	15-May-24	15-May-24	D	D	D	...	...	...
Consumer Price Index	Apr-24	May-24	M	M	M	M	1M	5D
Revenue, Expenditure, Balance and Composition of Financing[3]–General Government[4]	Dec-23	Mar-24	Q	Q	A/Q	A	2Q/12M	85D
Revenue, Expenditure, Balance and Composition of Financing[3]–Central Government	Dec-23	Mar-24	Q	Q	M	M	1M	1M
Stocks of Central Government and Central Government-Guaranteed Debt[5]	Dec-23	Mar-24	Q	Q	Q	Q	1Q	1Q
External Current Account Balance	Dec-23	Mar-24	Q	Q	Q	Q	1Q	NLT 6W
Exports and Imports of Goods and Services	Feb-23	Apr-24	M	M	M	M	8W	40D
GDP/GNP	Dec-23	Mar-24	Q	Q	Q	Q	1Q	2M
Gross External Debt	Dec-23	Mar-24	Q	Q	Q	Q	1Q	NLT 1Q
International Investment Position	Dec-23	Mar-24	Q	Q	Q	Q	1Q	NLT 1Q

[1] Includes reserve assets pledged or otherwise encumbered, as well as net derivative positions.

[2] Both market-based and officially determined, including discount rates, money market rates, rates on treasury bills, notes and bonds.

[3] Foreign, domestic bank, and domestic nonbank financing.

[4] The general government consists of the central government (budgetary funds, extra budgetary funds, and social security funds) and state and local governments.

[5] Including currency and maturity composition.

[6] Frequency and timeliness: ("D") daily; ("W") weekly or with a lag of no more than one week after the reference date; ("M") monthly or with lag of no more than one month after the reference date; ("Q") quarterly or with lag of no more than one quarter after the reference date; ("A") annual.; ("SA") semiannual; ("I") irregular; ("NA") not available or not applicable; and ("NLT") not later than.

[7] Encouraged frequency of data and timeliness of reporting under the e-GDDS and required frequency of data and timeliness of reporting under the SDDS and SDDS Plus. Any flexibility options or transition plans used under the SDDS or SDDS Plus are not reflected. For those countries that do not participate in the IMF Data Standards Initiatives, the required frequency and timeliness under the SDDS are shown for New Zealand, and the encouraged frequency and timeliness under the e-GDDS are shown for Eritrea, Nauru, South Sudan, and Turkmenistan.

[8] Based on the information from the Summary of Observance for SDDS and SDDS Plus participants, and the Summary of Dissemination Practices for e-GDDS participants, available from the IMF Dissemination Standards Bulletin Board (https://dsbb.imf.org/). For those countries that do not participate in the Data Standards Initiatives, as well as those that do have a National Data Summary Page, the entries are shown as "..."

Annex VI. Authorities' Response to Past IMF Policy Recommendations

	Key Recommendations of Past AIV	Recent Actions Taken
Fiscal Policy	A neutral fiscal stance—in other words an unchanged structural balance—would contribute to reducing the risk of inflation becoming entrenched and the resulting threat to long-term competitiveness. This excludes the planned increase in defense spending of around 0.7 percent of GDP, which is expected to have limited domestic impact.	The general government budget recorded an estimated structural balance of -2.3 percent of GDP in 2023 from -1.2 percent a year earlier. Despite better-than-expected personal and corporate income revenue and capital spending under-execution, the outcome was driven by a broad-based increase in current expenditure and weaker VAT revenue during the second half of the year
	The recommended path requires additional fiscal consolidation measures including means testing for social programs and savings on government operational expenditures.	The authorities are carrying out spending reviews of the ministries of finance, economic affairs, and social protection and are developing plans to introduce means testing for social benefits.
	Further progress in enhancing long-term planning, project appraisal and execution, in line with the IMF Public Investment Management Assessment would help improve the absorption of the EU Funds and support Estonia's digital advantage, green transition, and social resilience.	Ongoing efforts for upgrading fiscal management and institutional capacity should further boost spending efficiency and improve the absorption of EU Funds.
Macro-financial Policies	Comprehensive and frequent bank portfolio reviews should be accompanied by rigorous stress tests.	The authorities are closely monitoring borrowers' ability to service their debt, including through macroprudential stress tests.
	In response to rapid credit growth, the countercyclical capital buffer (CCyB) was tightened to 1 percent from December 2022, and it was further raised to 1.5 percent effective December 2023. Staff saw these actions as appropriate, given the need to preserve robust buffers against sustained increase in credit and house prices.	Despite the recent lending slowdown, the authorities decided to leave the countercyclical capital buffer at 1.5 percent, given rapid credit growth in recent years.
Structural Policies	Higher investment in R&D and innovation would enhance Estonia's digital transition.	The newly established Estonia Business and Innovation Agency should play a key role in boosting the country's long-standing digital advantage, increasing its attractiveness as an investment destination, developing start-ups, and gathering venture capital.
	Addressing labor market shortages and closing skill gaps is instrumental in strengthening long-term growth prospects.	Some progress has been made in closing existing skill gaps and limit skill downgrading through active labor market policies.
	Progress toward reducing the gender pay gap, which stands out in the EU, should be enhanced alongside efforts to address gender bias in education and the labor market, as well as the high motherhood penalty.	Recent initiatives aimed at reducing the gap have been undertaken, including the introduction of new digital tools to enhance pay transparency

INTERNATIONAL MONETARY FUND

REPUBLIC OF ESTONIA

May 23, 2024

STAFF REPORT FOR THE 2024 ARTICLE IV CONSULTATION—INFORMATIONAL ANNEX

Prepared By European Department

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FUND RELATIONS

(As of May 15, 2024)

Membership Status: Joined: May 26, 1992; Article VIII

General Resources Account

	SDR Million	Percent Quota
Quota	243.6	100.00
Fund holdings of currency	177.89	73.03
Reserve Tranche Position	65.73	26.98

SDR Department

	SDR Million	Percent Allocation
Net cumulative allocation	295.44	100.00
Holdings	262.41	88.82

Outstanding Purchases and Loans: None

Latest Financial Arrangements

In millions of SDR

Type	Approval Date	Expiration Date	Amount Approved	Amount Drawn
Stand-by	03/01/2000	08/31/2001	29.34	0.00
Stand-By	12/17/1997	03/16/1999	16.10	0.00
EFF	07/29/1996	08/28/1997	13.95	0.00

Projected Payments to Fund: None

Implementation of HIPC Initiative: Not applicable.

Implementation of MDRI Assistance: Not applicable.

Implementation of CCR Assistance: Not applicable.

Exchange Rate Arrangements: The currency of Estonia is the euro. The exchange rate arrangement of the euro area is free floating. Estonia participates in a currency union (EMU) with 19 other members of the EU and has no separate legal tender. The euro, the common currency, floats freely and independently against other currencies.

Estonia has accepted the obligations under Article VIII, Sections 2(a), 3 and 4 of the IMF's Articles of Agreement, and maintains an exchange system free of multiple currency practices and restrictions on the making of payments and transfers for current international transactions, except for those measures imposed for security reasons in accordance with Regulations of the Council of the European Union, as

notified to the Executive Board in accordance with Decision No. 144-(52/51). Estonia does not maintain any restrictions under the transitional provisions of Article XIV. An updated and comprehensive list of all EU restrictions can be found at: http://ec.europa.eu/external_relations/cfsp/sanctions/measures.htm.

Article IV Consultation: Estonia is on the 12-month consultation cycle. The last Article IV consultation was concluded on July 28, 2023. The Executive Board assessment is available at: http://www.imf.org/external/country/EST/index.htm.

FSAP Participation and ROSCs: A review under the Financial Sector Assessment Program (FSAP) was completed at the time of the 2000 Article IV Consultation. Further Reports on Observance of Standards and Codes (ROSC) modules were discussed in the 2001 Article IV Consultations and updated during the 2002 Consultation. A FAD mission concluded a fiscal transparency ROSC in January 2009 and an FSAP update was completed in February 2009.

Anti-Money Laundering (AML) and Combating Financing of Terrorism (CFT): The amendments to the AML/CFT regulation that came into force in March 2022 aim to strengthen the supervision of virtual asset service providers. The MONEYVAL report on Estonia, published in January 2023, comprehensively assessed Estonia's compliance with the Financial Action Task Force's recommendations. The report highlighted positive areas such as effective international cooperation, use of financial intelligence, and implementation of the United Nations' financial sanctions. Nonetheless, it also emphasized several areas in need of strengthening, such as a deeper understanding of money laundering (ML)/terrorist financing (TF) risks, improvements in ML and TF investigations and prosecutions, a more robust system for confiscating the proceeds of crime, a stronger approach to the private sector's implementation of AML/CFT preventative measures, and enhanced supervision and transparency of beneficial ownership. Based on these assessment results, Estonia was placed under an enhanced follow-up process which involves a more intensive process of follow-up, for countries with significant deficiencies.

The IMF Technical Assistance (TA) Report on Estonia outlined TA provided to the Nordic Baltic central banks during September 2021-November 2022 to strengthen AML/CFT systems, especially in light of international money laundering scandals. The TA project used data analysis to understand ML/TF threats, analyze high-risk financial flows, review the AML/CFT supervisory landscape, and assess potential implications for financial stability. Recommendations for Estonia included strengthening its ML/TF risk assessment, enhancing the sanctioning powers of supervisors, and clarifying the allocation of supervisory responsibilities, particularly regarding the supervision of virtual asset service providers.

Technical Assistance: The following table summarizes the technical assistance missions provided by the Fund to Estonia since 2000.

Republic of Estonia: Technical Assistance from the Fund, 2000–24				
Department	Issue	Action	Date	Counterpart
FAD	Pension reform	Mission	April 2000	Ministries of Finance and Social Affairs
MAE	Banking Supervision	Staff Visit	December 2000	Bank of Estonia
FAD	Tax Policy	Mission	March 2001	Ministry of Finance
INS	Financial Markets	Training	September 2002	Bank of Estonia
FAD	Medium-term Budget	Technical Assistance	December 2003	Ministry of Finance
FAD	Tax Reform	Technical Assistance	February 2005	Ministry of Finance
FAD	Revenue Administration	Technical Assistance	December 2013	Ministry of Finance
FAD	Public Investment Management	Technical Assistance	December 2018	Ministry of Finance
FAD	Fiscal Transparency Evaluation	Technical Assistance	December 2020	Ministry of Finance
LEG	Corporate Insolvency Law	Technical Assistance	May 2018 – April 2021	Ministry of Justice
STA	BOP and Prices statistics	Regional training	May 2017 – April 2023	Bank of Estonia
LEG	AML/CFT	Regional TA	September 2021- November 2022	Bank of Estonia

COLLABORATIONS WITH OTHER INTERNATIONAL FINANCIAL INSTITUTIONS

- As of May 15, 2024, Estonia has collaborations with the European Bank for Reconstruction and Development, and the European Investment Bank.
- Further information can be obtained from the following hyperlinks.

International Financial Institution	Hyperlink
The European Bank for Reconstruction and Development (EBRD)	https://www.ebrd.com/estonia.html
The European Investment Bank	https://www.eib.org/en/projects/country/estonia

Statement by the IMF Staff Representative
June 12, 2024

This statement provides information that has become available since the staff report was issued to the Executive Board. This information does not alter the thrust of the staff appraisal.

1. On June 5, the government reached an agreement on a negative supplementary budget of €183 million (about 0.5 percent of GDP) to contain the deficit within 3 percent of GDP in 2024. The budget, which includes €115 million in spending cuts and €68 million in revenue measures, will be submitted to Parliament for adoption in the coming days. Savings will affect administrative and operational costs across all line ministries.

2. Staff continue supporting a broadly neutral fiscal policy for 2024, while a tighter stance will be needed over the medium term. With the supplementary budget pursuing a fiscal adjustment slightly earlier than previously anticipated, staff encourage the authorities to focus their action on growth-friendly consolidation measures at a time when signs of economic recovery are still tentative.

Statement by Vitas Vasiliauskas, Executive Director for the Republic of Estonia and Raido Kraavik, Advisor to Executive Director
June 12, 2024

On behalf of the Estonian authorities, we would like to express our gratitude to the IMF mission team for the candid and constructive policy discussions. The authorities broadly share staff's views on economic developments and concur with staff's appraisal. The analysis of the key discussion topics – competitiveness, fiscal policy, and financial sector issues – is thorough and well-balanced. The policy recommendations are broadly in line with the authorities' economic policy agenda.

Recent Macroeconomic Developments, Outlook, and Risks

The prolonged recession has raised concerns regarding the medium-term competitiveness of the Estonian economy. The contraction that started in 2022 has been accentuated by a range of shocks, including those triggered by Russia's war of aggression against Ukraine. While the decline in value added has been broad-based, the negative contribution to growth has been concentrated in a few sectors, notably manufacturing, energy, transportation, and construction. The largest part of the manufacturing sector, the wood processing industry, has encountered a series of setbacks, including disruptions in the supply chain and weak external demand in key export markets. The pronounced negative contribution to growth statistics from the energy sector remains somewhat puzzling. Most services, including the ICT sector, have continued to perform relatively strongly.

However, the economy is gradually overcoming hindrances to growth. Estonia benefits from strong institutions, improved energy security, and public debt, though increasing, remaining at a relatively low level. Recently both cyclical and structural factors have become more favorable. Energy prices have declined from their peaks, inflation has dropped significantly, supply chain issues have eased, real effective exchange rates have become more favorable, and interest rates are expected to decline. This more favorable environment should incentivize the corporate sector to further increase investment activity, which coupled with improvements in capital utilization rate, may boost productivity growth going forward.

The sluggish growth of the main trading partners clouds the outlook for exports. Supply chain disruptions, cost pressures, and the real exchange rate appreciation have eroded Estonia's competitive advantage, leading to losses in export market shares. At the same time, key export markets have been facing challenging growth dynamics. The recovery in exports is therefore expected to take place at a relatively slow pace.

Private consumption is expected to remain weak in the near term and gain momentum only gradually. This is due to consumer sentiment remaining subdued and the effects of the recession reaching the labor market with a lag. While unemployment is expected to increase slightly, the labor market overall remains relatively healthy as the recession has largely been driven by capital-intensive sectors. The flexibility of the labor market continues to benefit the economy. Estonia has been successful in integrating a large number of Ukrainian refugees into the labor force, with 55 percent employed as of January 2024. At the same time, labor shortages persist in some sectors. The rising unit labor costs have increased production costs, putting

further strain on the competitiveness of the exporting sector.

Inflation has rapidly decreased from its peak. The downward trend has recently slowed as electricity and gas prices continue to cause significant volatility. Core inflation has proven more sticky although it is anticipated to gradually decrease over time. The increase in the VAT rate at the beginning of this year has had a slight impact on inflation dynamics. Due to the rapid inflation in the past years, the price level in Estonia surged much more than the EU average.

The Estonian economy is expected to return to a growth path in the second half of 2024. The easing of recent headwinds and an improvement in economic sentiment are expected to give a boost to a new growth cycle. However, the growth potential over the medium term may be lower than prior to the current recession. While staff's baseline scenario appears plausible, the authorities underscore that the forecast is subject to significant uncertainty. The authorities broadly agree that risks are skewed to the downside but note that upside risks are also present. Estonia is a highly flexible small open economy that has shown remarkable economic rebounds in the past. Although Russia's war on Ukraine has had negative spillovers to the Estonian economy, the dwindling economic links with Russia have helped reduce uncertainty in the future.

Fiscal Policy

While public debt remains low in international comparison, the authorities agree that a tighter fiscal stance is needed. They remain committed to pursuing a prudent fiscal policy. Fiscal consolidation over the medium term is required to preserve fiscal space and maintain the ability to respond to future shocks. The current sizable budget deficit is concerning, and the authorities are cognizant that the public debt level would increase substantially during the forecast horizon without corrective actions. To contain the budget deficit within 3 percent of GDP in 2024, a negative supplementary budget was proposed to Parliament earlier this week for adoption in June. Furthermore, the authorities intend to adopt car registration and road tax to become effective from 2025. However, a significant tightening of fiscal policy could be procyclical in the current recessionary environment and a careful balance will need to be struck.

The authorities stand ready to implement further measures once growth resumes. Both expenditure and revenue measures are under consideration in the medium term. Estonia's public sector is relatively efficient, but a zero-based budgeting exercise will be conducted over the next years to identify further savings. This exercise is being conducted in the Ministries of Finance, Economic Affairs, and Social Affairs already this year. Additional tax measures could become effective from 2026.

The authorities broadly agree that the fiscal framework could be further strengthened. The revised budget rules establish a medium-term objective for the structural deficit at 1 percent of GDP with the requirement of a structural improvement, the size of which depends on the economic cycle. The new budget rule, while less ambitious in terms of required fiscal adjustment during economic downturns, provides more flexibility to stabilize the economy through the cycle. The authorities however agree that estimating the output gap is challenging and emphasize the importance of limiting excessive growth in public expenditure. The Fiscal Council is well-established, yet bolstering its role further could prove beneficial in addressing these challenges.

Financial Sector Policies

The risks to financial stability remain contained. The debt servicing capacity of both companies and households may have weakened somewhat due to the tightening of financial conditions as the monetary policy pass-through has been efficient. Strong corporate and households balance sheets on aggregate, however, help cushion the borrowers from the challenges posed by larger repayments. The situation could deteriorate if the corporate profits took a severe hit or unemployment was to increase sharply. The authorities are closely monitoring the risks in the commercial and residential real estate markets. While lending to real estate and construction companies has slowed substantially, the banks' exposure to these sectors remains high. The relatively low leverage of real estate companies mitigates the related risks. The housing market has been resilient, with prices remaining stable despite weak demand, but it will be necessary to continue monitoring developments closely.

The authorities continue to mitigate risks by implementing both macro- and microprudential measures as needed. In response to the rapid credit growth in 2021-22, the countercyclical capital buffer was raised to ensure that banks have sufficient capital to absorb potential losses. Despite a notable decline in lending activity, the authorities consider it prudent to keep the buffer at the current level. The risk weight floor for mortgage loans was extended by another two years as the risk weights based on internal models may not sufficiently account for the possibility of systemic risks in the real estate market materializing. The conditions for calculating the debt-service-to-income ratio were slightly modified as the requirement had become unduly restrictive for borrowers. The Supervisory Review and Evaluation Process has helped bolster capital requirements for less significant banks.

While the capital buffers of the banking sector are declining due to extraordinary dividend pay-outs, they remain healthy. The authorities broadly agree that encouraging higher dividend payouts should be avoided as higher bank profits are largely cyclical and maintaining healthy capital buffers is needed to absorb future shocks and mitigate financial stability risks.

The authorities have successfully mitigated AML/CFT risks and continue to further strengthen the AML/CFT regime. The key deficiencies from the 2022 MONEYVAL assessment are being addressed. Furthermore, the authorities will continue to enhance the framework and strengthen the supervisory capacity of the Financial Supervision and Resolution Authority and the Financial Intelligence Unit. The authorities are also strengthening the regulation and supervision of crypto assets.

Structural Policies

Boosting productivity is crucial for restoring competitiveness. The authorities are actively designing dynamic structural measures and focusing on their effective implementation. To address the erosion of competitiveness, a Competitiveness Working Group was formed in late 2023. The Working Group conducted a comprehensive review on the issues related to the labor market tightness, the low level of private sector digitalization, high cost of financing, economic policy uncertainty, and challenges related to the green transition, among others. The policy recommendations will be published in June.

The authorities are continuing to develop the R&D ecosystem, supporting companies to embed the R&D activities in their operations. Several support schemes have been introduced

to promote applied research and innovation. A specific grant scheme is available for SMEs to adopt digital technologies. Although R&D investments have been rising, it will be important to further enhance cooperation between the public and private sectors.

Addressing skills mismatches and improving the functioning of the labor market would support productivity growth. While a wide range of active labor market policies are available to promote reskilling and upskilling, it will be important to improve outreach to increase the uptake and efficiency of these measures. Although the gender pay gap has narrowed considerably, it remains above the OECD average, and on-going efforts to close the gender pay gap are in progress. A digital gender pay gap tool became available in April and is expected to further increase transparency. The authorities are also considering options to attract qualified foreigners to alleviate vacancies in certain sectors. Work on various options to reduce current impediments is underway, including possibly fast-tracking procedures or increasing quotas for foreign workers. Integration policies will also require further strengthening, including to facilitate the integration of the Ukrainian refugees into the labor market.

The authorities have set the green transition as one of their most important strategic goals. Climate-related responsibilities have been redistributed to the newly created Climate Ministry, and the Climate Resilient Economy Law is expected to come into force in early 2025. The authorities agree that achieving the 2030 and 2050 climate targets will require further measures to be introduced. At the same time, Estonia has significantly increased the share of renewables in energy consumption, reaching almost 40 percent of the total in 2022, the fifth highest in the EU. Still, further bolstering energy security remains among the top priorities. The authorities have expedited the joint efforts with Latvia and Lithuania to synchronize their electricity grids with the European network and disconnect them from Russia and Belarus.