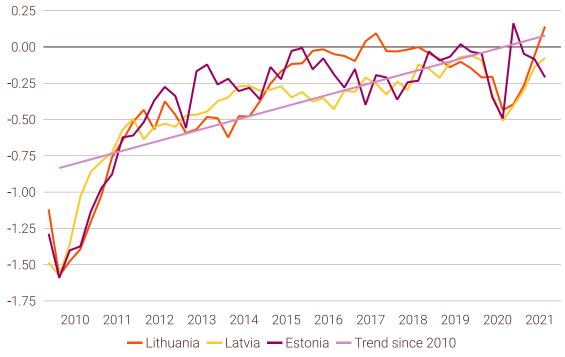


Economy Heat Index: the temperature is just right

The trick is to keep it steady

Economy Heat Index

Average of underlying indicators z-scores



Sources: Swedbank Research & Macrobond

2021 was a good year for the Baltic economies – GDP grew rapidly, domestic demand recovered, and the labour market followed. Economic temperature ticked up in all three Baltic states and is already approaching the long-run average.

Heat is building up gradually, as employment grows, excess trade surpluses shrink, and real estate prices shoot up. The key driver of the Economy Heat Index (EHI) was in the past quarters obviously inflation. Rapid price growth is usually a signal of excessive demand and overheating economies. However, a lot of the current inflation originates in the global markets and does not reflect domestic issues.

There are a few pockets of the economy that require attention. Housing markets in the capital cities are getting rather hot, labour shortages in some sectors could become an obstacle to growth. The ongoing energy crisis reminds us yet again that investments in energy independence and renewable energy development are a necessity.

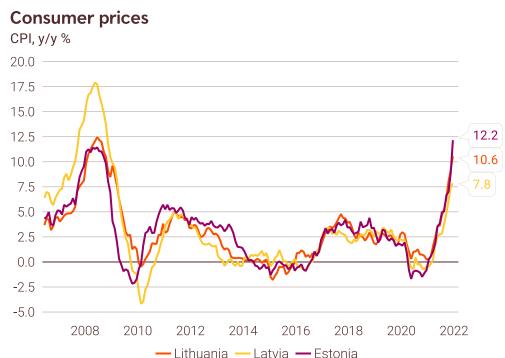
The Baltics are in a good spot – there are plenty of jobs, incomes and investments are rising. There are enormous economic and social benefits of keeping the economies on the warm side – strong demand could induce investments and promote productivity growth that would improve longer term growth prospects.

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Inflation is a concern originating outside the Baltics

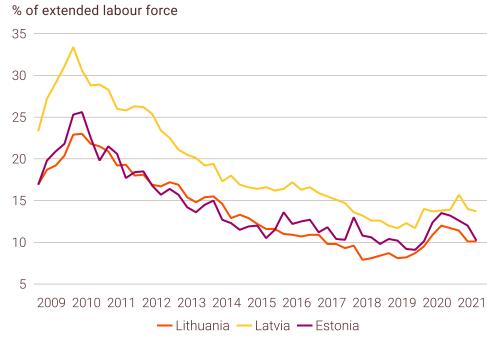
Domestic price pressures are gradually building up as well



Sources: Swedbank Research & Macrobond

- Growing inflation is often a symptom of an overheating economy and surely it was one of the main contributors to rising EHI lately. However, current high inflation is more a reflection of global rather than domestic price pressures. Baltic economies are among the most open in Europe and that makes their domestic prices more sensitive to commodity, and especially, energy price movements.
- Current spike in inflation is expected to fade towards the second half of the year.
 Inflation is expected to stabilise below 3% in 2023.

Labour market slack

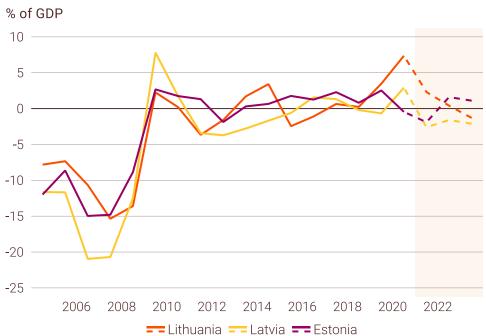


- Unemployment dropped significantly over the past year, however broader measures of labour slack show that there still exist considerable underutilised resources in the labour market.
- Nevertheless, labour shortages are becoming a problem. The number of firms
 reporting hiring problems is growing. Partly, the issue could be attributed to the
 pandemic-induced changes to the labour-market structure. Strong worker
 negotiating position is visible in the rapid wage growth. Over time, this situation
 could lead to domestic price pressure that is stronger than usual.

Domestic demand is strong but not excessive

But trade surpluses are likely to fade away

Current account balance



Sources: Swedbank Research & Macrobond

- Foreign trade balance shows that Baltic countries' ability to produce and sell was roughly matched to domestic demand. Lithuania maintained a healthy surplus; Estonia's deficit was a result of a massive one-off Volkswagen investment. Current account balances would have been even better if not for the steep energy prices.
- Domestic credit growth has recovered across the Baltics after a slump in 2020.
 Credit growth is likely to be an important source of demand in the upcoming years.
 But so far it is sustainable leverage ratios are stable, and credit grows in line with nominal GDP.

Loans growth

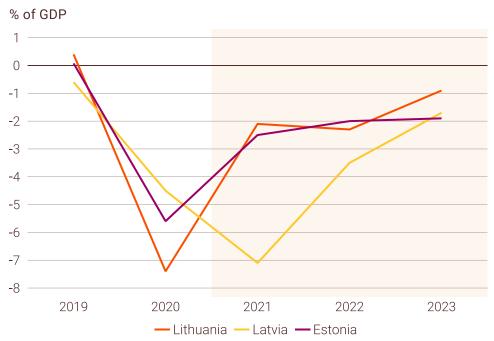


- The housing markets, particularly in Estonia and Lithuania, are heating up, and were the main driver for lending. These countries are attempting to reign in the market with additional macroprudential regulation.
- We expect that the domestic demand will grow at a faster pace than production in the medium term, resulting in moderate current account deficits. That is not necessarily a bad thing, if it means stronger domestic investments. Baltic countries would still benefit massively from capital deepening and trade surpluses are of no benefit by themselves.

Economic policy will support further growth

Burden of business cycle management falls on fiscal policy

Fiscal balance and forecasts



Sources: Swedbank Research & Macrobond

- Baltic states managed to utilise fiscal policy successfully to combat the economic downturn. The membership in the euro area enabled governments to engage in very aggressive fiscal stimulus without the fear of financial costs.
- Public finances are in the process of consolidation and stimulus is being withdrawn. However, the risk remains, that due to political pressures, fiscal stance could stay too loose in the medium term. Large inflows of European funds will support public investments, but there is a risk of generating excess demand in some sectors.

ECB Deposit facility rate



- Meanwhile, monetary policy is expected to remain extremely loose over the forecast horizon, key interest rates are likely to increase only in 2024.
- Therefore, aggregate demand management will fall on the fiscal and macroprudential policy. The paths laid out by the national governments look sustainable, but vigilance is needed to spot macroeconomic imbalances early.

Economy heat index: Methodology

Purpose

The purpose is to measure changes in the balance between demand and supply in an economy. The heat index helps to identify potential imbalances and risks in an economy, and could be helpful in guiding appropriate macroeconomic policy.

Indicators

- Core HICP (harmonized index of consumer prices) growth price pressures are an essential indicator of supply shortage in an economy. Core price growth is chosen to exclude volatile food and energy prices, as well as effects of alcohol and tobacco taxation.
- Inverted current account balance as share of GDP a worsening trade balance indicates excessive demand in an economy.
- Inverted unemployment rate very low unemployment signals that there is very little spare capacity in the labour market.
- Difference in credit and nominal GDP growth rates excessive credit growth indicates unsustainable consumption.
- Difference between wage and productivity growth a widening gap between wages and productivity would signify inflationary pressures and capacity constraints in an economy.
- Ratio of apartment average price to net wage in a capital city a deteriorating ratio could signal either bubble formation or unbalanced demand and supply in an economy.

Construction of the index

Data are transformed by converting all indicators into so-called Z-scores (see formula below). This means that the average value of each indicator over time is equal to 0, while a value of 1 is equal to one standard deviation. This transformation allows the comparison of indicators with different units of measurement, as their standard deviations are analysed instead. The combined index is constructed by taking the average of underlying indicator Z-scores:

$$Z = \frac{v_i - v_m}{\sigma} \qquad Index = \sum z_i / n$$

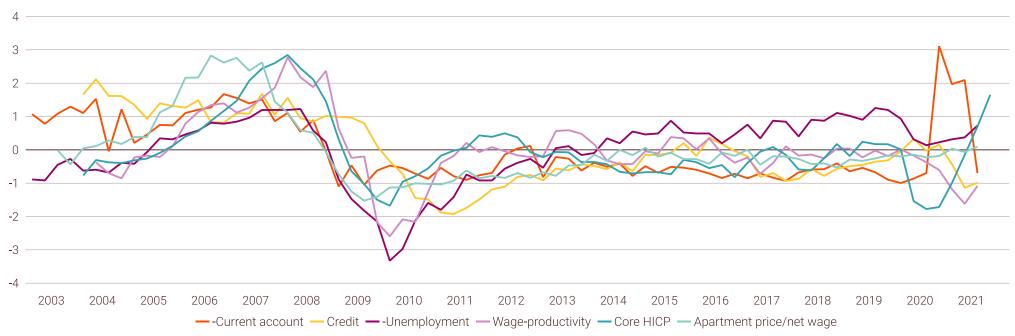
Z - z-score, v_i - value of indicator at a point in time, v_m - historical average of an indicator, σ - standard deviation, n - number of indicators.

Completed: 26 January 2022. 14:04 Disseminated: 26 January 2022.09:00 Please see important disclosures at the end of this document

Appendix

Estonia overheating index

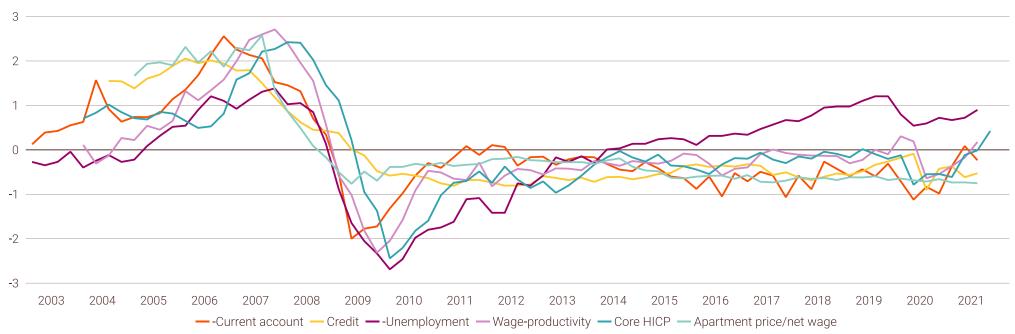
Z-scrore of different factors



Appendix

Latvia overheating index

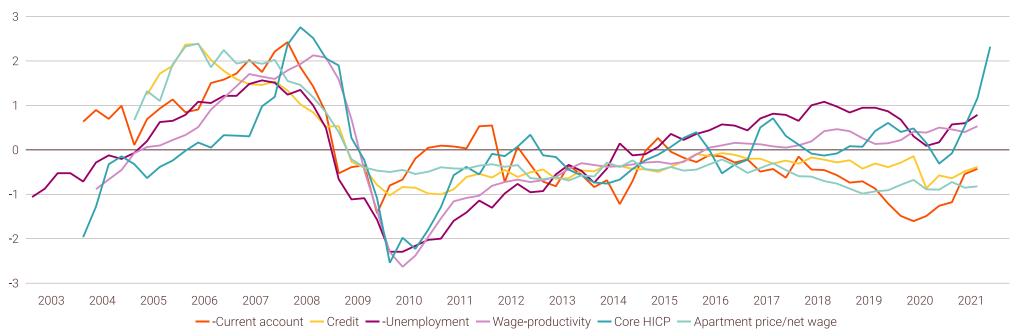
Z-score of different factors



Appendix

Lithuania overheating index

Z-score of different factors



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