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ESTONIAN ECONOMY AND MONETARY POLICY

2022/2

The Estonian Economy and Monetary Policy is an Eesti Pank review released four times a year that summarises the main recent events in the global and Estonian economies. Twice a year, in June and December, the review also contains a full forecast for the Estonian economy, while in March and September a brief forecast update is included.

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INTRODUCTION

Growth in the Estonian economy is expected to slow this year after a very strong start to the year. Growth would have slowed substantially this year even without a new crisis, as production resources were already running at full capacity by the end of last year, and deepening supply-side restrictions had started to get in the way of continued fast growth. The outbreak of war in February and the various impacts from it overshadow the outlook for the Estonian economy further, through the disappearance of export markets, the interruptions to supply channels, and the rise in the price of commodities. While sanctions have already led to rapid price rises, the broader impact on the economy will only start to be seen in the second half of the year.

Inflation is expected to be lower next year, but the price level will still remain higher than was earlier forecast. Inflation in Estonia has been the fastest in the euro area in recent months, mainly because of the major rise in energy prices. Higher energy costs are steadily passing into the prices of other goods and services, and as future transactions for gas, electricity and oil show no sign of prices falling soon, because of the geopolitical circumstances, the price level of the consumer basket will remain high for a longer time than was expected in earlier forecasts. The sharp rise in the cost of living is partially eased by rapidly rising incomes, as the average wage will rise by 10% this year and wage growth will remain fast in the coming years.

A large part of the high inflation in Estonia has domestic causes. That inflation is twice the average in the euro area can be explained not only by the large hikes in energy prices, but also by the rapid growth in incomes and demand, which was boosted further by the money withdrawn from the second pension pillar and by increased state spending. Money to the value of some 7% of GDP has been added into the economy in the past two years through budget deficits and funds from the European Union, and having come close to the limits of production capacity by the end of last year, the economy had to start reacting to buoyant demand through higher prices. A permanent gap of around 3% of GDP has emerged between the revenues and expenses of the general government, and this will keep the price level high in future.

Extraordinarily high inflation and upcoming rises in interest rates will restrict consumption and investment. Very high inflation will cause real wages to fall this year, and this will limit the ability to consume. Growth in consumption has remained fast in the first months of the year despite high inflation, but the savings that were built up earlier are starting to be exhausted. The rise in monetary policy interest rates and a higher cost of borrowing will also hold consumption and investment back in the coming years, but the rise in interest rates that is currently expected will have only a limited impact.

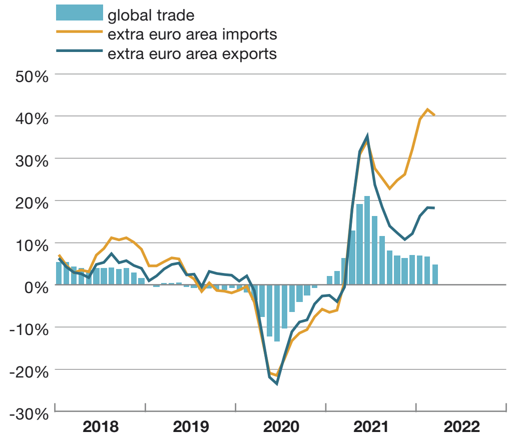
THE EXTERNAL ENVIRONMENT

THE GLOBAL ECONOMY

Growth in the global economy is being hampered by the tight coronavirus restrictions in China and the war between Russia and Ukraine. The year started with high hopes but in April the composite index for global economic activity[1] dropped quite sharply and it remained low in May as production was hurt by both the coronavirus restrictions and the war. Growth in global trade also slowed (see Figure 1). Restrictions on activity affected the industrial sector in China most, but also affected some other emerging economies (see Figure 2). The service sector is largely in a good position, as demand for services has recovered since the pandemic. However the situation remains very uncertain and tense, as shortages of raw materials and price pressures remain serious and interruptions to supplies are worse than they were in the first months of the year. There is also great volatility in global financial markets, as the stricter monetary policy applied by central banks to tackle inflation means that financing conditions are tightening. There was a tendency towards bearish sentiment in equity markets in consequence. High inflation is weakening the purchasing power of consumers and the confidence of businesses.

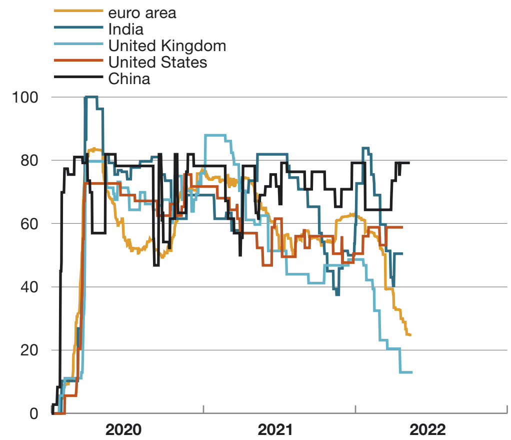
Growth in China's economy is slowing because of the tight coronavirus restrictions. Yearly growth in the economy was slower in the first quarter than previously at 4.8% (see Table 1). Like two years ago, China has been affected by the coronavirus. The policy of zero tolerance towards the spread of the virus has in many areas led to tight restrictions and lockdowns in major economic centres and ports like Shanghai and Shenzhen, which is hurting the economic outlook for the whole of China. Activity indexes fell sharply in April and remained below 50 points in May, indicating a clear downturn in economic activity. The coronavirus restrictions left

Figure 1. Yearly growth in global and euro area trade, three-month moving average



Sources: Bloomberg, Eurostat

Figure 2. Stringency index



Last observation 15.5.2022
Sources: OxCGRT, Our World in Data

Table 1. GDP growth in different regions in 2017- 2022 (change, %)*

	2017	2018	2019	2020	2021	2021 Q4	2022 Q1	2022
World	3.8	3.6	2.9	-3.1	6.1			3.6
Advanced economies	2.5	2.2	1.7	-4.5	5.2			3.3
Emerging markets and developing economies	4.8	4.5	3.7	-2.1	6.8			3.8
Euro area	2.6	1.8	1.6	-6.4	5.3	4.7 (0.2)	5.4 (0.6)	2.8
United States	2.3	2.9	2.3	-3.4	5.7	5.5 (1.7)	3.5 (1.7)	3.7
China	6.9	6.7	6.0	2.2	8.1	4.0 (1.5)	4.8 (1.3)	4.4
Japan	1.7	0.6	-0.2	-4.5	1.6	0.4 (0.9)	0.2 (-0.2)	2.4
United Kingdom	2.1	1.7	1.7	-9.4	7.4	6.6 (1.3)	8.7 (0.8)	3.7

* GDP at constant prices, quarterly growth over the previous quarter is in brackets
Sources: IMF World Economic Outlook Update (April 2022), OECD, Eurostat, National Statistics; 2021 is IMF estimate and 2022 is IMF forecast

1 J.P.Morgan Global Composite PMI™.

retail sales in April 11.1% down over the year, a fall that has not been seen since spring 2020. At the same time unemployment rose to 6% in April, which exceeds the limit of 5.5% set by the Chinese authorities. Problems remain in the real estate sector, where developers are battling high debt levels and limited ability to borrow. Although the requirements on housing loans have been eased in many areas, with smaller down payments demanded for example, sales of housing were 25% lower in the first quarter than they were a year earlier. China has not yet joined the sanctions against Russia, allowing trade relations between China and Russia to continue as normal. Although the strict coronavirus measures have affected exports from China, growth in exports was still 3.9% in April. However, the Russian war in Ukraine has limited the overland transport connections between China and the European Union, restricting trade. Inflation of 2.1% in April remained below the target of 3%. The annual growth in consumer prices was earlier restrained by lower food prices as pork became cheaper, but food prices in China have now started to rise.

Growth in the US economy slowed in the first quarter. Yearly growth in the economy came down to 3.5%, because of continuing supply difficulties, the foreign trade deficit, high inflation and the smaller fiscal stimulus. Sentiment in the service sector[2] is currently supported by the easing of restrictions, but manufacturing is finding it hard to meet high levels of domestic and foreign demand. Rising inflation in May and expectations of a rise in interest rates brought consumer confidence down[3] to its lowest level since 2011. Consumer spending has remained strong despite high inflation. The yearly growth in retail sales in April was 8.2%, which was a little less than at the start of the year though. The labour market shows events in the economy with a lag. The labour market in the US is very tight, as there is a shortage of workers and unemployment has fallen to its lowest level since February 2020 at 3.6%. Even so an average of 550,000 jobs a month were created in the first quarter as restrictions were eased and demand was strong. The labour force participation rate still remains below what it was before the pandemic though. Hourly wages have risen faster in recent months, with yearly growth approaching 5.5% in April. Inflation over the year accelerated from 8.3% in April to 8.6% in May, so consumer prices continue to rise at the fastest rate of the past 40 years.

Economic activity in Japan has started to improve gradually after its setbacks. Yearly GDP growth was 0.2% in the first quarter. Domestic consumption remains modest and the recovery from the pandemic has been slower than in other advanced economies. Activity in the production sector weakened a little in May. Activity improved however in the services sector as the coronavirus restrictions were eased, and the index climbed back above 50 points[4]. Growth in exports slowed because of the war between Russia and Ukraine, and the introduction of new coronavirus restrictions in China, but it still remains quite strong. Tighter monetary policy at the larger central banks led the exchange rate of the yen to weaken, but this also helps to make Japanese exports more competitive. Inflation in Japan was relatively modest at 2.5% in April, unlike in other advanced economies, though this was still the highest annual inflation rate since 2014. The danger remains that high inflation could start to rein in private consumption if it is not accompanied by wage rises. Unemployment remains very low in Japan at 2.6%, and the nominal rate of wage growth is only 1.2%.

Growth in the economy of the United Kingdom picked up a little. Annual growth accelerated to 8.7% in the first quarter. The composite PMI index of purchasing managers[5] weakened in April and May, as tensions in the labour market and blockages in supply chains are raising costs for companies and because general uncertainty is softening demand. Retail sales were down -4.9% in April, and consumer confidence was its lowest since 2008. Unemployment fell to 3.7% though, and the number of vacancies is almost twice what it was before the pandemic. Wage growth reached 7% in the first quarter, having begun to accelerate again from the start of the year. High inflation is making life more complicated for consumers though. Inflation has risen a lot, and it reached 9% in April, mainly because energy and housing became more expensive.

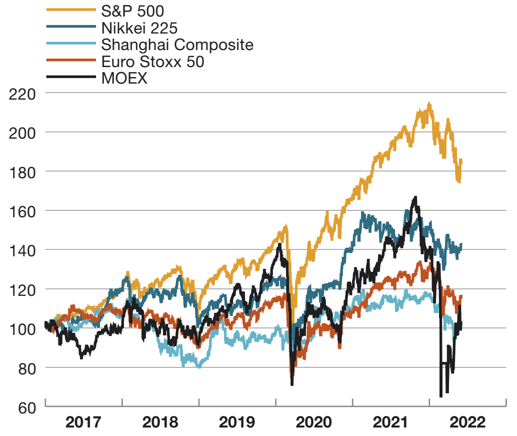
2 IHS Markit US Services PMI™.
3 Survey by the University of Michigan.
4 The au Jibun Bank Japan Services PMI.
5 The S&P Global/CIPS UK Composite PMI.

The pound has appreciated consistently against the euro since the start of the year. Foreign trade has long been in deficit, and the deficit widened further at the start of the year[6]. The impact of the sanctions on Russia was felt in the economy in March. The United Kingdom mainly imported oil, metals and gas from Russia last year, and it mainly exported cars, machinery and pharmaceutical products there. Customs duties on trade with the US will be lowered from 1 June, which should make trade easier.

Share indexes fell in April, while interest rates on bonds rose. The fall in share prices was relatively modest in the first quarter of the year, but in recent months there have been major changes in the markets. Both the MSCI World and the S&P500 indexes are down more than 20% on their peaks. Shares in the technology sector have also fallen by around 20% this year. The main concerns are similar to those in other markets, with worries about inflation, supply chain problems, the weak outlook for economic growth, and Russia's war in Ukraine. Stock markets in advanced economies were on average around 8% down by the end of the month, making their fall this year so far 14.5% (see Figure 3). Stock markets in emerging economies also continued to fall. Interest rates on short-term treasuries in the US rose particularly, but that then flattened the yield curve. Yields on euro area sovereign bonds also rose in April, and the spreads between the German 10-year sovereign bond and the same bonds from southern and eastern European countries widened. The main reason for this was the uncertainty caused by the war and the expectations of higher inflation.

Prices in commodities markets have moved in different directions. Prices for energy and fuels leapt up after Russia invaded Ukraine, and have since remained volatile. Brent crude fluctuated in April and May between 98 and 120 dollars a barrel (see Figure 4). The US released part of its strategic oil reserves in April, which lowered the oil price a little, while OPEC+ agreed to increase oil production. The oil price rose again though when the European Union agreed a partial embargo on oil deliveries from Russia. The price of natural gas rose for the same reason.

Figure 3. World stock indexes, 01 January 2017 = 100



Last observation 31.5.2022
Source: Bloomberg

Figure 4. Commodity price indexes and the oil price

Sources: HWWI, Reuters, Bloomberg

The price of gas may rise further moving forwards, as Russia is threatening that it will cut off gas supplies to countries that do not agree to trade on Russian terms by paying for the gas in roubles. Fortunately the heating period in Europe is ending, though gas is still needed in the industrial sector. Prices have fallen for some industrial commodities like aluminium, copper and tin, but the price level is generally higher than before[7]. Prices for food commodities continue to rise though and the situation is made worse for cereals by Russia's blockade of Ukrainian exports of grain and by export restrictions imposed by some countries on grain.

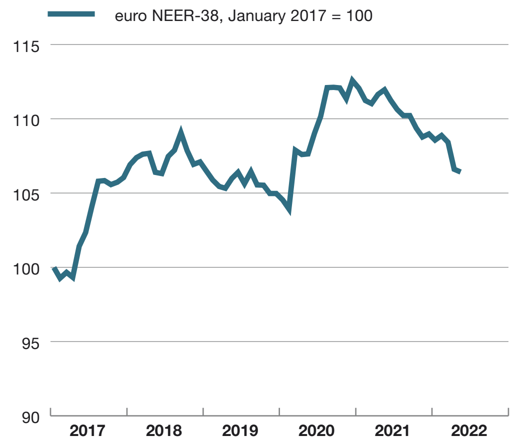
6 Possibly partly because of changes in customs statistics.
7 https://blogs.worldbank.org/opendata/commodity-prices-stabilized-april-pink-sheet.

THE EURO AREA

The euro area economy held up quite well despite the difficulties that appeared in the first quarter. Growth in the economy was 0.6% in the first quarter, which was more than in the final quarter of last year, and yearly growth was as high as 5.4%. The only large country in the euro area where the economy declined slightly from the previous quarter was France, where growth was -0.2%. Various surveys and sentiment and activity indexes indicate though that Europe is facing a substantial confidence and inflation shock because of the war in Ukraine. Consumer confidence felt the biggest blow in April, but industrial sentiment[8] also fell, hitting its lowest level of almost 12 months. Activity in the services sector strengthened even so in April and in May, climbing to its highest level of recent years. This was supported by strong demand for services, as euro area consumers built up enough savings during the pandemic to keep spending at least for now. Nevertheless, the opinion of consumers in the euro area about their financial position moving forward is among the weakest that the surveys have ever recorded, and they no longer dare to plan large purchases. The improvement in the services sector kept the Markit activity composite index[9] up, as the fall in May to 54.8 points left it only a little down on its peak from February. Activity weakened though in the industrial sector, as the war, strong inflation pressures, and lasting supply disruptions following the closure of production and ports in China overshadowed the outlook for profits at euro area companies.

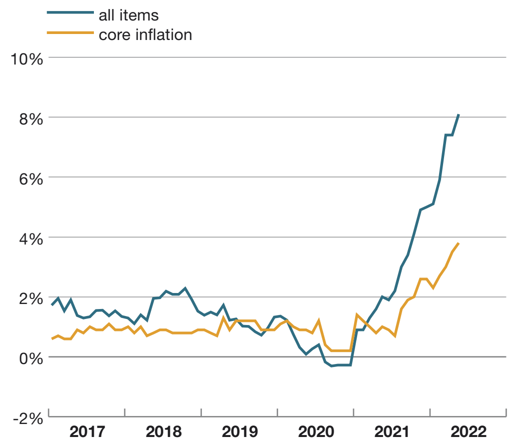
The coronavirus restrictions in China, supply difficulties, and Russia's war in Ukraine have all left traces in the non-financial economy. Industrial output was 0.8% lower in March than it was a year earlier, though growth in output was still 1.7% in February. Foreign trade data for the euro area show that the trade deficit deepened further in March as energy prices rose and the euro depreciated. Although goods exports grew strongly, increasing by 14% over the year, imports grew even more, at 35.4%. High inflation meant that imports at current prices were at record levels. Energy and fuel imports were particularly noticeable in this, and the trade deficit with Russia and China widened. This shows that the war in Ukraine made the energy crisis in the euro area even worse. Imports of oils and other chemical products increased as well as imports of fuels, indicating that demand remained very strong for production inputs. Exporters are also currently benefiting from the lower exchange rate of the euro against the currencies of trading partners and from funding conditions remaining favourable (see Figure 5). Yearly growth in retail sales slowed from 5% in January to 3.9% in April, confirming that inflation and economic uncertainty have reduced the purchasing power of consumers. Retail sales were down over the month by 1.3%, which is a little more than was expected. Sales of cars continued to fall, and the decline reached 20.6% in April[10].

Figure 5. Trade-weighted euro exchange rate



Source: European Central Bank

Figure 6. Euro area inflation

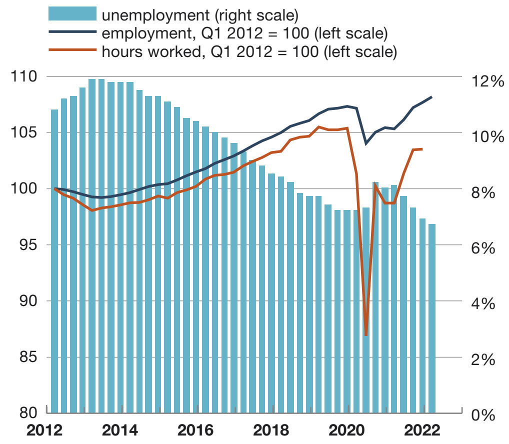


Source: Eurostat

8 European Commission Economic Sentiment Indicator (ESI).
9 S&P Global Flash Eurozone PMI Composite Output Index.
10 https://www.acea.auto

Annual inflation in the euro area picked up from 7.4% in April to 8.1% in May. This is the record highest inflation in the history of the euro area, as the war between Ukraine and Russia and the sanctions on Russia raised the prices of oil and natural gas sharply (see Figure 6). This meant inflation was again driven most by the rise in energy prices, though also by higher prices for services and food goods. Inflation was also pushed up again by strong demand, rising producer prices, and transport prices rising because of disruptions to transport. Core inflation also hit a record of 3.8%, while the producer price inflation climbed as high as 37.2% in March. Moving forwards this will hurt the profitability of companies, and producer price inflation will increasingly be passed on into consumer prices. The situation in the labour market in the euro area remains good however and the weakness in the economy is not yet reflected in the labour market. Unemployment remained low in the euro area at 6.8% (see Figure 7), while the number of people in employment rose by a quarterly 0.6% in the first quarter. Wage growth has not particularly accelerated yet though, remaining at only 1.5%.

Figure 7. Employment and unemployment in the euro area



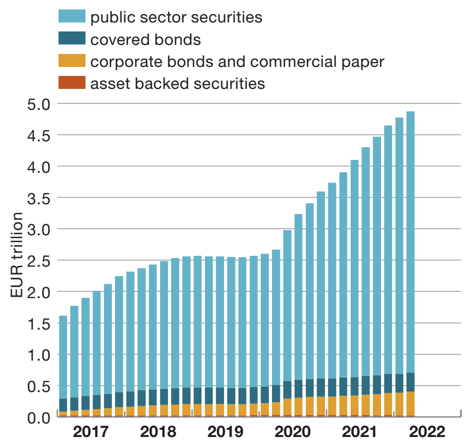
Source: Eurostat

Box 1: The monetary policy environment of the euro area

The most important objective of the Eurosystem monetary policy is to maintain price stability in the euro area. The European Central Bank defines price stability as annual inflation of 2% over the medium term. Inflation in the euro area has increased substantially, and the baseline scenario in the June forecast by the Eurosystem puts inflation in 2022 at 6.8% on average, after which it falls to 3.5% in 2023 and 2.1% in 2024. There are few practical ways for central banks to intervene, as the inflation is being caused by geopolitics, the sharp rise in energy prices, and problems in supply chains. Even so, the Governing Council of the European Central Bank decided in its most recent meeting to increase the pace of the reduction in its monetary policy stimulus.

The Governing Council decided in June to end net asset purchases under its asset purchase programme (APP) as of 1 July 2022. Moving forwards, only reinvestment of the portfolio of the APP and the PEPP will be continued[11]. The total value of bonds purchased under the APP and the PEPP on the balance sheet of the Eurosystem at the end of March was 4.9 trillion euros (see Figure B1.1). At 4.2 trillion euros, the largest part of the portfolio consists of public sector bonds. There were 77 million euros of Estonian sovereign bonds on the Eesti Pank balance sheet as at the end of April.

Figure B1.1. Eurosystem holdings under asset purchase programmes (APP and PEPP)



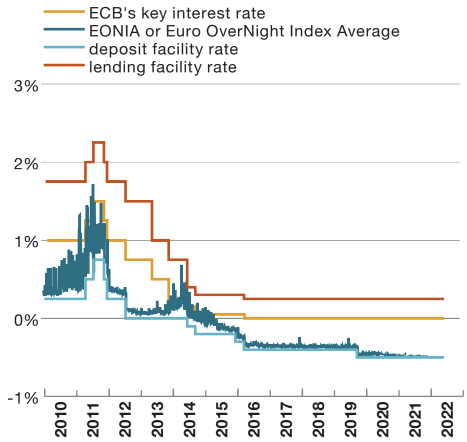
Last observation 31.03.2022
Source: European Central Bank

11 The Governing Council intends to continue reinvesting, in full, the principal payments from maturing securities purchased under the APP for an extended period of time past the date when it starts raising the key ECB interest rates, and in any case for as long as necessary to maintain ample liquidity conditions and an appropriate monetary policy stance. It is also possible that net asset purchases under the PEPP could be restarted if the pandemic delivers a further negative shock. The principal repaid on securities purchased under the PEPP that reach maturity will be reinvested until at least the end of 2024.

Monetary policy interest rates remained unchanged in April and June, as the interest rate on the deposit facility was left at -0.50%, the rate on main refinancing operations remained at 0.00% and the marginal lending rate remained at 0.25% (see Figure B1.2). The Governing Council of the ECB announced in June that it intended to raise the key ECB interest rates by 25 basis points at its July monetary policy meeting. The Governing Council expects to raise the key ECB interest rates again in September. If the medium-term inflation outlook persists or deteriorates, a larger increment will be appropriate at the September meeting. Beyond September, the Governing Council anticipates from its current assessment that a gradual but sustained path of further increases in interest rates will be appropriate. In line with the Governing Council's commitment to its 2% medium-term inflation target, the pace at which the Governing Council adjusts its monetary policy will depend on the incoming data and how it assesses inflation will develop in the medium term.

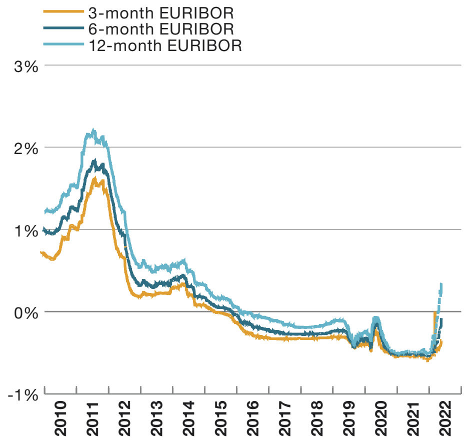
The special conditions applicable under the third series of the targeted longer-term refinancing operations (TLTRO III), including an interest rate 50 basis points below the deposit facility rate, will end in June 2022. The Governing Council will continue to monitor bank funding conditions and ensure that the maturing of operations under TLTRO III does not hamper the smooth transmission of its monetary policy.

Figure B1.2. Eurosystem key interest rates and EONIA



Last observation 27.5.2022
Source: European Central Bank

Figure B1.3. Euro area money market interest rates



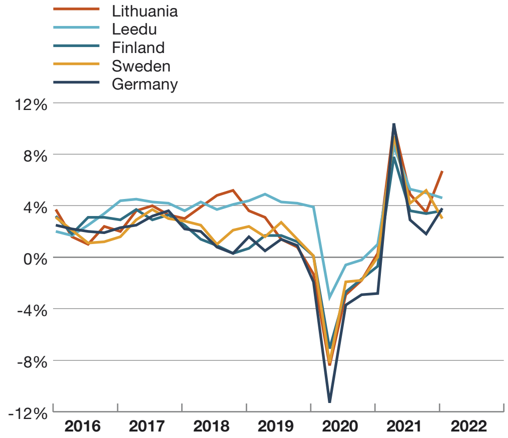
Last observation 20.5.2022
Source: Bloomberg

Money market interest rates in the euro area have been climbing since the start of the year and the 12-month Euribor rose above 0% in April for the first time in six years (see Figure B1.3). As at 20 May 2021 the 3-month Euribor was at -0.35%, the 6-month Euribor was at -0.08%, and the 12-month Euribor was at 0.35%. Yearly growth of the money supply in the euro area has slowed and it was 6% for the broad indicator M3 in April, but it remains strong with support from the accommodative measures taken by the Eurosystem and through credit creation. Yearly growth in loan volumes to non-financial companies accelerated to 5.2% in April while yearly growth in loans to households remained close to 4.5%. The financing conditions of the banks remain favourable, and their capitalisation is strong.

ESTONIA'S MAIN TRADING PARTNERS

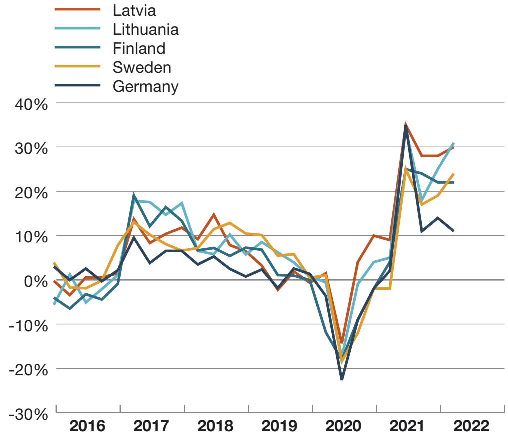
GDP growth over the year in Estonia's main trading partners was in the range of 3–7% in the first quarter (see Figure 8), which indicates that those countries were in a strong position economically before Russia attacked Ukraine at the end of February. The Covid-19 restrictions were gradually disappearing and economic activity was improving, especially through a strong recovery in the service sector. Economic activity was held back by disruptions in supply chains and rapidly rising prices for production inputs,

Figure 8. Yearly growth rates of GDP of trading partners



Source: Eurostat

Figure 9. Yearly export growth of trading partners



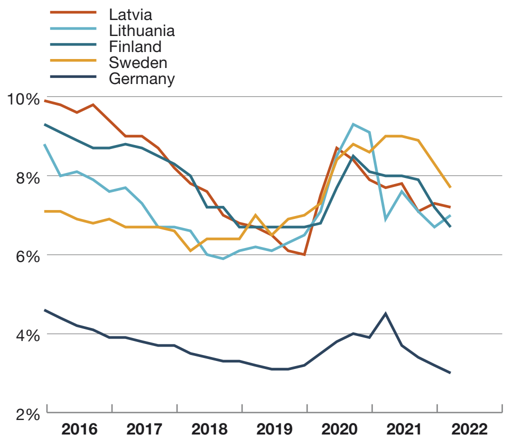
Source: Reuters

which have now become more serious problems because of the war in Ukraine and are slowing economic growth. The drop in confidence has not affected private consumption in the same way that it did under the Covid-19 restrictions at the start of the past two years. Trade in goods with partners remained quite active in the first quarter (see Figure 9), as sanctions had not yet affected it very much. Demand for Estonian goods from the main trading partners has also kept up. The war between Russia and Ukraine has not yet reduced global demand for trade. The disappearance of the Russian market has had some impact in Latvia and Lithuania, but the biggest changes had already happened in 2014 when Russia first attacked Ukraine.

The labour markets in Estonia's partners remained strong in the first quarter. Unemployment has fallen steadily (see Figure 10) and employment has increased. The service sector has benefited greatly from the loosening of the Covid-19 restrictions, and this has helped increase the number of jobs and employment in the sector. The war between Russia and Ukraine has however caused uncertainty about future developments in the labour markets in Estonia's partners.

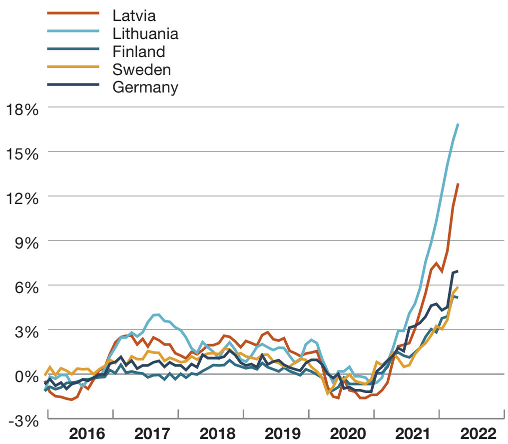
The cost of living is increasing at varying rates in Estonia's main trading partners (see Figure 11). Consumer prices in Finland were 5.7% higher in April than a year earlier, and in Sweden they were up 6.4% primarily because transport costs and household spending rose since

Figure 10. Unemployment rates of trading partners



Source: Eurostat

Figure 11. CPI inflation of trading partners



Source: Eurostat

electricity, fuels and food were more expensive than a year earlier. The rate of inflation is lower across the Nordic countries than in the Baltic states. Consumer price inflation in Germany picked up to 7.4% in April as energy and food prices rose. At the same time, inflation hit new records in April of 13.0% in Latvia and 16.8% in Lithuania. The Baltic states stand out for fast growth in food prices. Prices for food and non-alcoholic drinks were up 17.4% in Latvia over the year, and up 21.7% in Lithuania. The increase in consumer prices in this segment over the year is below 10% in other trading partners.

THE ESTONIAN ECONOMY

ECONOMIC ACTIVITY

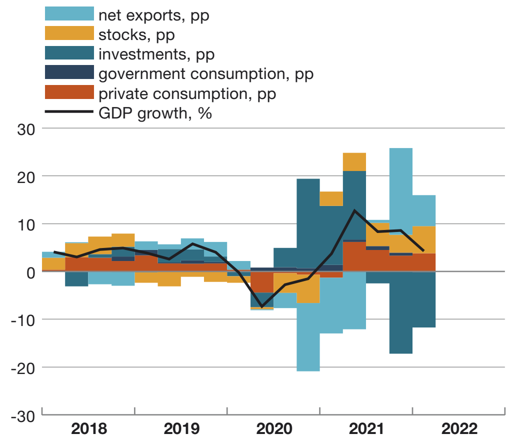
The Estonian economy grew by 4.3% over the year to the first quarter, and by 0.1% from the fourth quarter of 2021. Growth in the economy remained strong and the war in Ukraine had not yet had an evident impact on GDP. The war has however substantially affected the structure of GDP (see Figure 12). Companies expanded their inventories in the expectation that the deterioration in relations with Russia would reduce access to raw materials in the future. Private consumption also grew fast, which is probably partly because of a similar desire to stock up as a precaution.

The growth was broadly based across branches of the economy. A large part of the growth came from information and communications and from business services (see Figure 13), as it had in earlier quarters. The share of these branches in GDP has grown steadily over time. Accommodation and food service recovered from the pandemic and manufacturing performed well as export markets also recovered from the previous crisis. The turnover of manufacturing exports was some 30% higher in the first quarter than a year earlier, though a large part of that was due to inflation. Estonian producers export goods that have become more expensive on global markets. The growth in volumes of manufactured exports still exceeded that in the economy though.

There were contradictions in the statistics for the first quarter that are an indication of the large changes that are happening during difficult times. Sectors that saw an unexpectedly sharp decline in value added were energy and mining. Higher energy prices made the Estonian oil shale sector more competitive, and so industrial production volumes in those sectors increased in the first quarter. There was also an increase of 14% in construction volumes over the year, but the value added of construction within GDP fell. The fall of around 5% in the value added of retail within GDP also seems unbelievable given the very fast growth in private consumption.

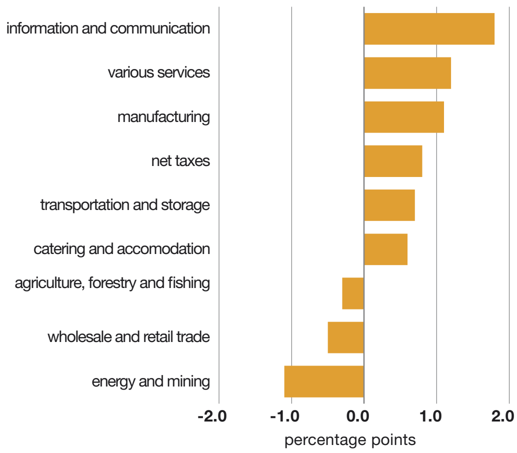
The expectations of businesses and consumers have become a little more pessimistic than they were at the end of last year (see Figure 14), though the economic sentiment index showing expectations was close to its historical

Figure 12. GDP growth



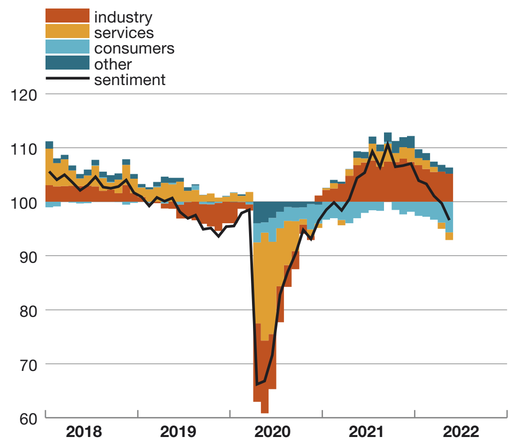
Source: Statistics Estonia

Figure 13. Contributions to GDP growth by sector in Q1 2022



Source: Statistics Estonia

Figure 14. Economic sentiment index

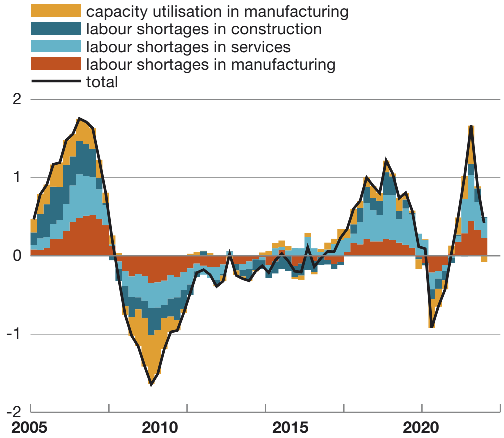


Source: European Commission

average in May. The overall figure is pulled down by consumer confidence, which takes a more pessimistic view of the state of the economy over the next 12 months. Such pessimism is not yet evident in the figures for actual consumption, as growth in retail sales remains strong. The expectations of companies meanwhile have stayed relatively optimistic. Manufacturing companies consider they do not currently have sufficient stocks of finished products and expect output to increase in the coming months. Their expectations for rises in selling prices also remain high.

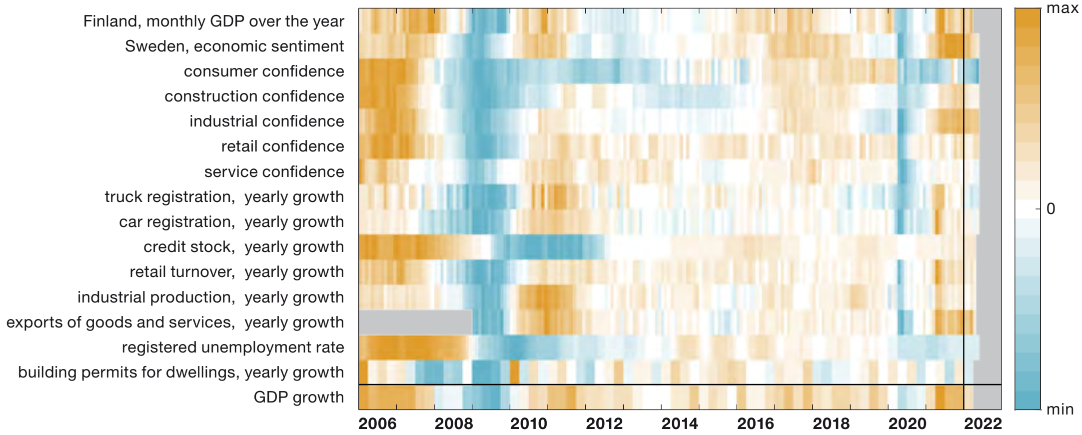
Corporate assessments of indicators for the business cycle are weaker than in previous quarters (see Figure 15). The assessment by the

Figure 15. Standardised survey indicators of the business cycle



Sources: European Commission, Eesti Pank

Figure 16. Heatmap of the Estonian economy



Sources: Reuters, European Commission, Eesti Pank, Statistics Estonia

manufacturing sector of production capacity utilisation has declined, as have the assessments of labour shortages. This shows that the signs of the economy running hot are starting to fade, at least in the survey responses. This may equally be because of the expectation that higher inflation and difficulties with supplies are hurting the overall position of the economy and will ease the supply-side tensions that have been felt. This may not necessarily happen though.

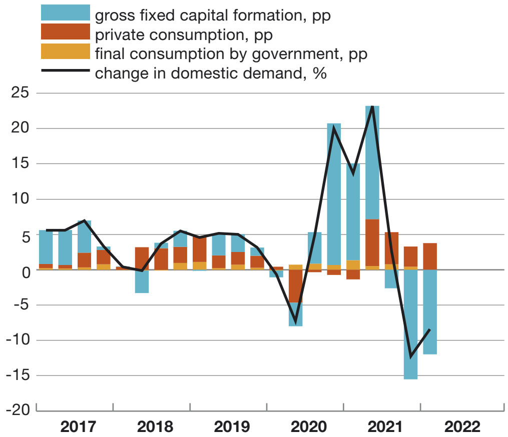
These trends can all be seen in the heatmap of the Estonian economy (see Figure 16). The temperature in the first months of the second quarter is cooler throughout than it was in the first quarter, indicating growth in the economy is slowing.

DOMESTIC DEMAND

Domestic demand was supported in the first quarter by strong private consumption, while investment by companies, the public sector and households declined (see Figure 17). The growth in private consumption came from the relatively low reference base during the pandemic last year, a labour market that had recovered well, and to some extent the money that was withdrawn from second pension pillar funds.

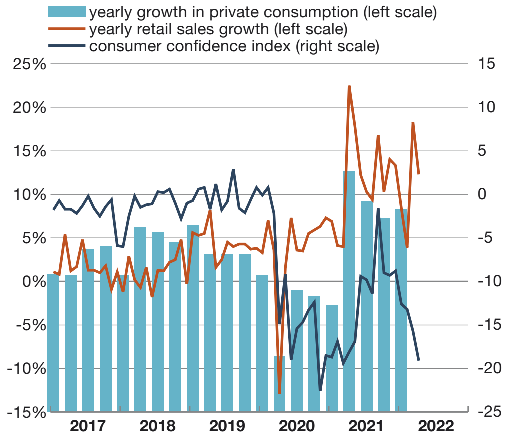
Private consumption at constant prices was up by 8.3% in the first quarter despite prices rising for energy and food (see Figure 18). The measures taken to mitigate energy prices limited the negative impact of higher costs for essential

Figure 17. Contributions to change in domestic demand*



*Excluding change in inventories
Sources: Statistics Estonia, Eesti Pank

Figure 18. Private consumption and retail sales



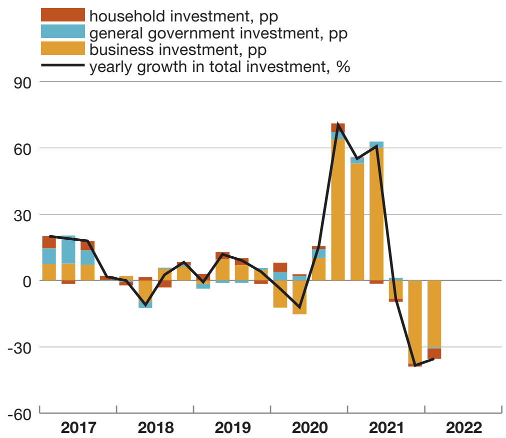
Sources: Statistics Estonia, European Commission

spending to some degree. See Box 2 for more on how inflation impacted households. The money withdrawn from the second pension pillar in September continued to be spent in the first quarter, and in early May former pension savers received a further 140 million euros. The money from the second pension pillar will play less of a role in supporting consumption in future though. Spending on travel is currently at around 60% of the level of 2019, and statistics for April and May show that travel continued to recover and took an increasing share of consumption.

Retail sales increased rapidly throughout the first quarter and in April, primarily on the back of sales of manufactured goods and fuels. Although fuel became more expensive, retail sales volumes of motor fuels in the first four months of the year were larger than in the same period of 2019, even when adjusted for inflation. Sales of electronics and of home and construction goods have also remained strong, as households are probably encouraged to make purchases earlier in fear of later price rises. Consumers spent more on food goods in April than they did last year measured in euros, but the amount that they purchased was smaller. Sales in food shops have probably also declined because a larger share of people are going to the office and to school than last spring, when there was more remote studying and working.

Gross fixed capital formation fell in the first quarter of 2022 and was down 35.3% on the same quarter of the previous year (see Figure 19). Investment fell below 22% as a share of

Figure 19. Gross fixed capital formation

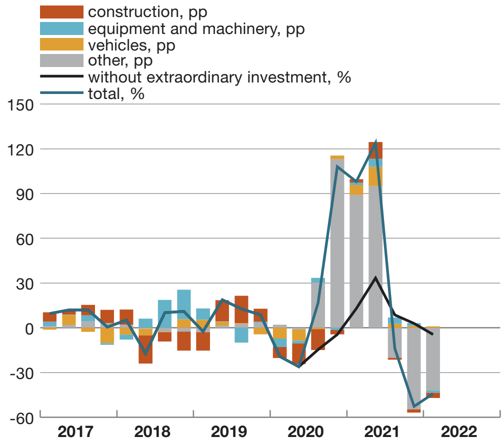


Sources: Statistics Estonia, Eesti Pank

GDP. The large fall was however not a result of the uncertainty caused by the war or of investments being postponed, but came from the high reference base of last year and extraordinarily large capital injections by the VW Group. Without that factor, the fall in investment at constant prices would have been around 10%, of which two thirds would have been caused by reduced investment by households in housing. General government investment fell alongside that from the non-financial sector.

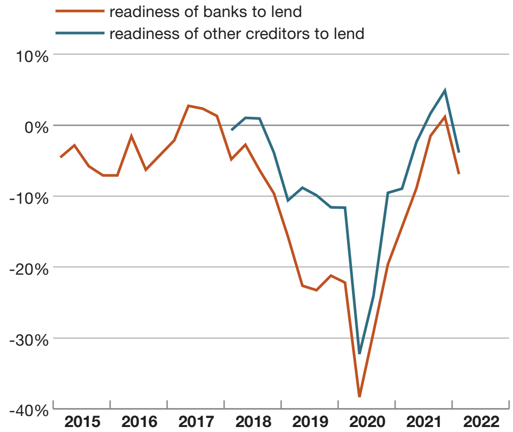
Investments by non-financial companies were down over the year by more than 44% at constant prices in the first quarter because of the high reference base. Without the extraordinary transaction by the VW Group, corporate investment would have been only around 4.5% less than

Figure 20. Yearly growth in gross fixed capital formation of non-financial corporations



Sources: Statistics Estonia, Eesti Pank

Figure 21. Assessment by businesses of the lending environment



The percentage shows the difference between the shares of respondents giving favourable and unfavourable assessments
Source: Estonian Institute of Economic Research

a year previously (see Figure 20), and that largely because of reduced investment in construction.

The decline in investment by households at constant prices reached 27% in the first quarter, with investment in housing falling by 28.5%. Investment in housing is limited by the lack of supply of new housing and by rapidly rising prices. Levels of demand and activity in the housing market are high though. More capital than a year earlier went into vehicles, telecommunications equipment, and cultivated biological resources such as livestock, orchards and crops.

The war in Ukraine has so far had a modest impact on the supply of credit and the demand for it. Funding conditions remain good given the increased competition, even though lenders have tightened their lending conditions in places (see Figure 21). Demand for loans dropped for a couple of weeks after the war started as real estate purchases were postponed, but it soon started to recover. Banks sense some reduction in demand for corporate investment loans, but borrowing has increased substantially for purchasing inventory, though this is probably a temporary phenomenon. Overall, borrowing by companies and households continued to grow fast in the first four months of the year.

Russia's offensive in Ukraine and supply problems led companies to expand their own inventories rapidly in the first quarter. Retail companies have increased their stock of goods held for sale, while manufacturing companies have substantially increased their stocks of raw materials, among them companies in food processing and metal production that usually sourced their production inputs from Russia or Ukraine.

Box 2: Differences in inflation across income groups

Very high inflation has reached Estonia, like other countries in the euro area, after a time of prices rising relatively gently. Inflation reflects the price change in the average consumer basket, and it is evident that the costs are distributed differently for people in different income groups. This box compares inflation for income groups by taking the shares of goods and services that households actually consume[12].

The largest increase has been in spending on essentials

When inflation started to pick up rapidly last summer, it was led by electricity, gas and transport fuels, which were followed by higher prices for other raw materials, the indirect impact of energy inflation, and disruptions to production and supply that have been felt more broadly

12 The share of goods and services in spending on consumption across income groups is found from the household budget survey by Statistics Estonia, which was last run in 2020. The contributions of groups of goods and services to the consumer price index are a little different to this.

throughout the consumer basket. Inflation has consequently been linked most to housing and food, which is essential spending that makes up quite a large part of consumption (see Figure B2.1).

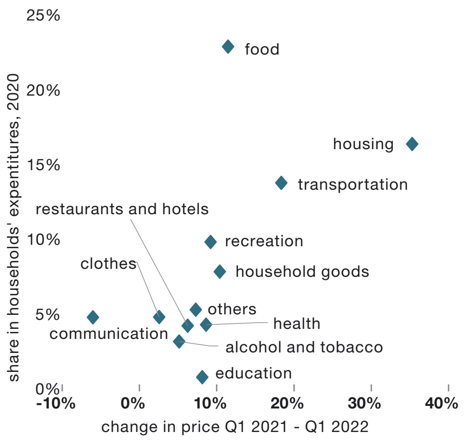
The balance of goods and services in the consumption basket is different for different households and depends partly on the income of the consumer. Housing costs and food goods are a larger share for those on smaller incomes, at around 45% in the first income quintile, and a smaller share in higher income quintiles, at a little under 35% in the fifth income quintile. Services make up a relatively large share of the consumption of the highest quintile. This difference means that a rise in the price of food goods for example raises the cost of the consumption basket differently in different quintiles. Spending on essentials is a smaller share of the basket for those on higher incomes, leaving them more room to adjust their consumption by cutting spending on non-essential goods and services.

The difference between the first and fifth quintiles for spending on energy, where prices have risen fastest, is around 4 percentage points. Around half of this comes from electricity, which took 4.9% of the spending of households in the lowest income group in 2020, and 2.8% of the spending of the highest group[13]. The rest of the difference comes from solid fuels like firewood and from central heating. Energy also covers spending on natural gas and on transportation fuels, but the share of these in total consumption is quite similar over different income groups. The explanation for this can be that people on higher incomes live in larger residential spaces that have correspondingly higher costs for local gas heating, and that they use personal transport more. Given the different shares of spending, energy costs and food goods have made a large contribution to inflation in the first income quintile (see Figures B2.2 and B2.3).

Higher prices for services impact households with larger incomes more

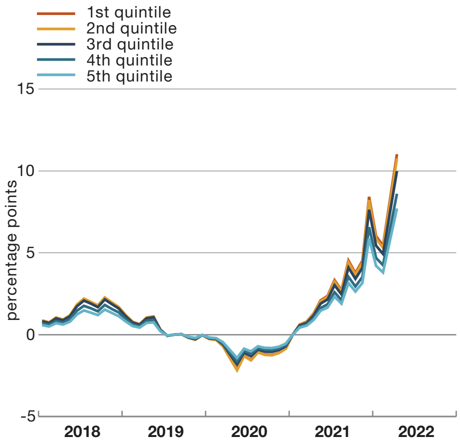
Consumption of services dropped sharply when the pandemic erupted in spring 2020. Accommodation, eating out, and transport

Figure B2.1. Share in consumption and yearly inflation



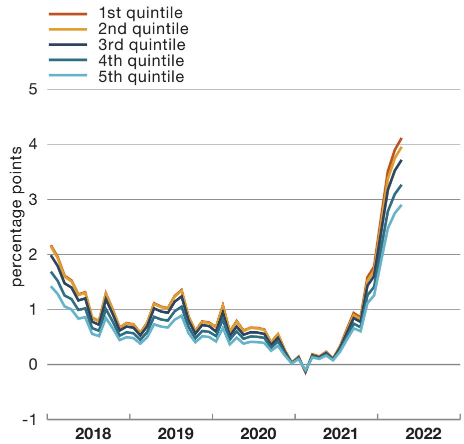
Sources: Statistics Estonia, European Commission

Figure B2.2. Contribution of energy to inflation



Sources: Statistics Estonia, European Commission

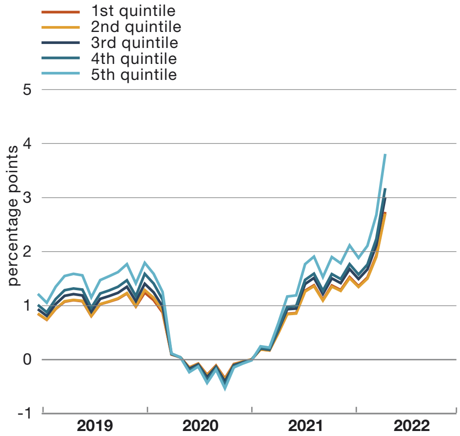
Figure B2.3. Contribution of food to inflation



Sources: Statistics Estonia, European Commission

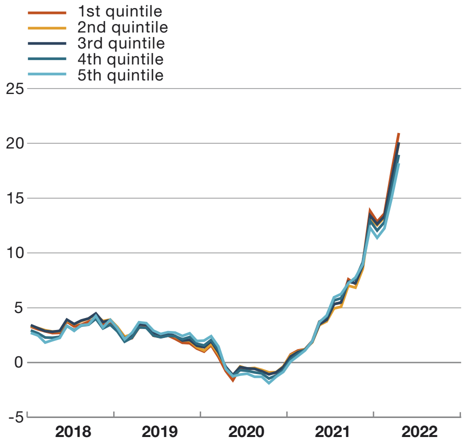
13 These figures have probably changed by now, but the aim here is to assess the differences between quintiles.

Figure B2.4. Contribution of services to inflation



Sources: Statistics Estonia, European Commission

Figure B2.5. Relative inflation by quntiles, %



Sources: Statistics Estonia, European Commission

services including flying make up a large part of services, and are generally consumed by people on higher incomes. Prices for these services fell in 2020 because of the pandemic, and so the price of services in total fell more for those in the highest income quintiles (see Figure B2.4).

Conversely, when consumption of services revived in summer 2021 prices rose fast for services and households on higher incomes were touched more by inflation (see Figure B2.4). Another part of services on top of accommodation and food services is rent and rental costs, which are higher for those on larger incomes.

In summary, the large share of services means that core inflation, which is inflation without food and energy, has been relatively higher for households on higher incomes. However, as the lowest income quintiles spend proportionately significantly more on essential expenditures on food and energy, which have risen particularly fast in price, it is the shopping basket of the households on the lowest incomes that has risen more in price (see Figure B2.5).

EXTERNAL BALANCE AND COMPETITIVENESS

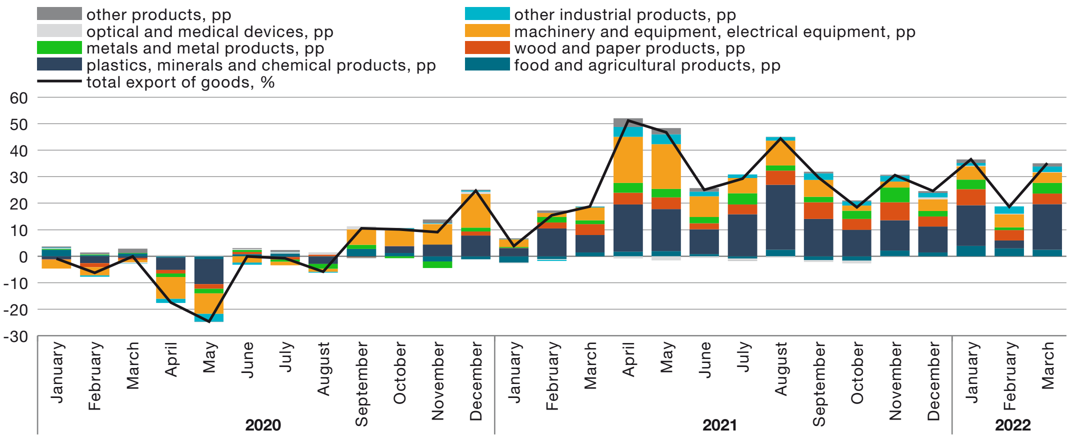
The general position of Estonia's foreign trade was strong at the start of this year. Despite the geopolitical difficulties caused by the outbreak of war, the war did not hinder Estonia's trade in the first half of the year. Data from the national accounts show that total foreign trade volumes increased in the first quarter. Exports of goods and services increased by 12.9% at constant prices, while imports of goods and services were up 4.5% at constant prices.

The economies of Estonia's trading partners continued to grow at the start of the year, which supported demand for Estonian exports. Exports of goods were up by 11.3% at constant prices in the first quarter, and it was again the largest groups of goods that contributed to exports, notably mineral products, machinery and equipment, metals and metal products, and wood and wood products (see Figure 22).

Services exports continued to grow and gave support to the current account. Balance of payments data show that services exports increased by 29% at current prices in the first quarter and by 16% at constant prices. Services have not escaped the impact of inflation though. The biggest contributions to the growth in exports of services came from transport services, telecommunications and computer services, and other business services. Exports of travel services are also recovering (see Figure 23).

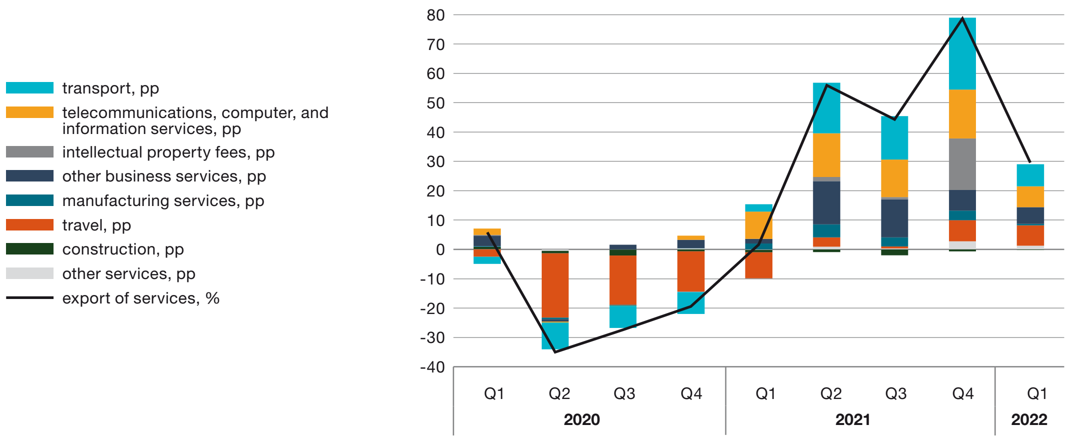
The current account was in surplus by 115.7 million euros in the first quarter, which was 1.4% of GDP. The balance in the services account gave support to the current account,

Figure 22. Yearly growth in exports of goods and contributions of groups of goods by months



Source: Statistics Estonia

Figure 23. Yearly growth in exports of services and contributions of groups of services

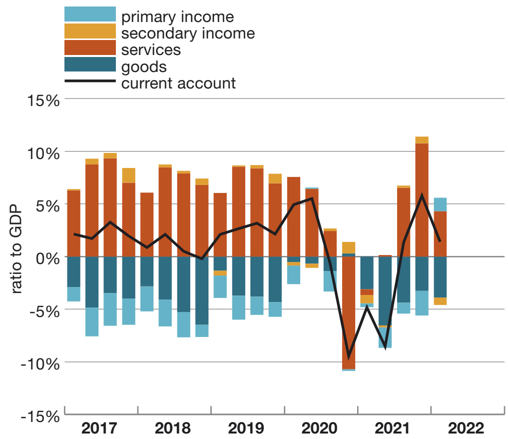


Source: Eesti Pank

while the deficit on the goods account was the same size as in previous quarters (see Figure 24).

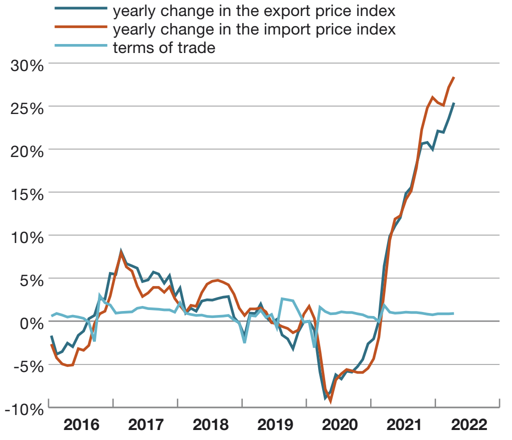
Prices continued to rise fast in the global commodities markets in the first quarter under the impact of coronavirus restrictions in China and the shock of war. The trends in global prices are affected by both import and export prices. Export prices increased by 25% in April and import prices by 28% (see Figure 25). Import prices were again affected by rising prices for various fuels. Terms of trade (ToT) have been deteriorating since the end of last year, and import prices have risen by more than export prices, though the picture varies across sectors (see Figure 26). Terms of trade in manufacturing as a whole have actually improved since the

Figure 24. The current account



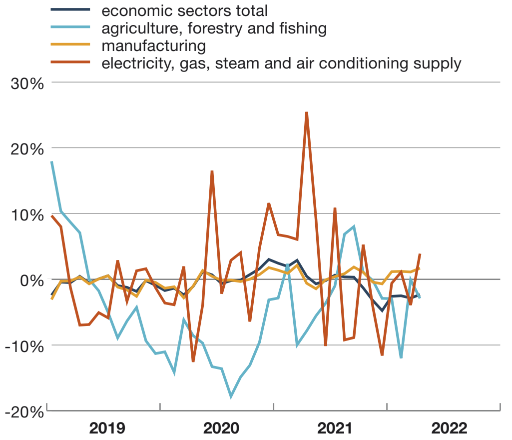
Sources: Statistics Estonia, Eesti Pank

Figure 25. Export and import price indexes



Source: Statistics Estonia

Figure 26. Yearly change in terms of trade by sector



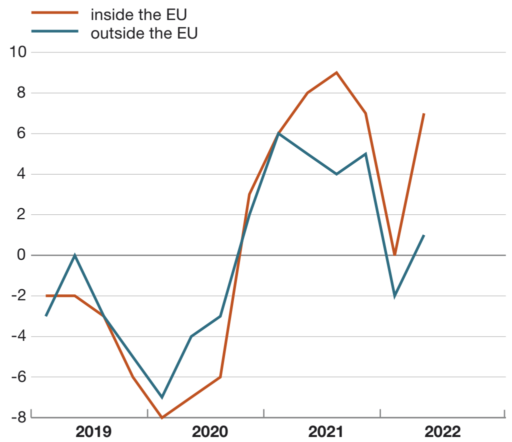
Source: Statistics Estonia

start of this year, while those in the energy sector have been deteriorating since the middle of last year, although the change in them is very volatile from month to month. However, businesses will not see any major loss in competitiveness in the coming months, though their assessments were more pessimistic at the start of the year (see Figure 27).

THE LABOUR MARKET

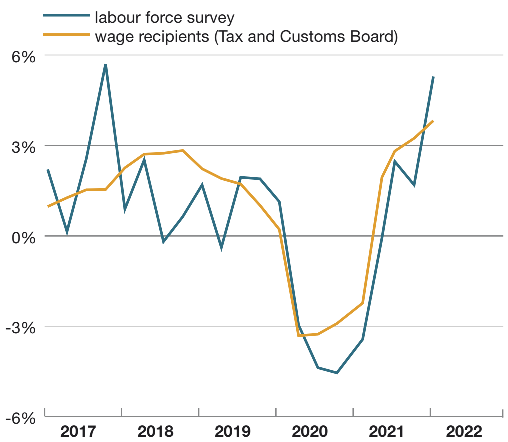
The labour market was very strong in the first quarter of 2022. Employment had recovered after falling because of the Covid-19 pandemic, and the expectations of employers for employment were at record high levels despite the increased uncertainty. Labour shortages were also felt to be at peak levels. Employers became more pessimistic in April about developments for employment, and the perception of labour shortages decreased. The labour force survey shows that growth in employment increased in the first quarter of 2022 to 5.1% (see Figure 28), and it was also fast in the data of the Tax and Customs Board at 3.8%. Data from the Tax and Customs Board show the number receiving a wage in the first quarter of 2022 exceeded the level from the fourth quarter of 2019 before the pandemic by a little more than 1%, and the data in the labour force survey show there are around 0.5% more people in employment. There were more people receiving taxed income in both the private and public sectors than there were before the pandemic. Survey data show the number of people receiving a wage from a private company was a little lower than before the pandemic.

Figure 27. Assessment by businesses of their competitive position in foreign markets



Source: Estonian Institute of Economic Research

Figure 28. Yearly growth in employment at Estonian companies and institutions



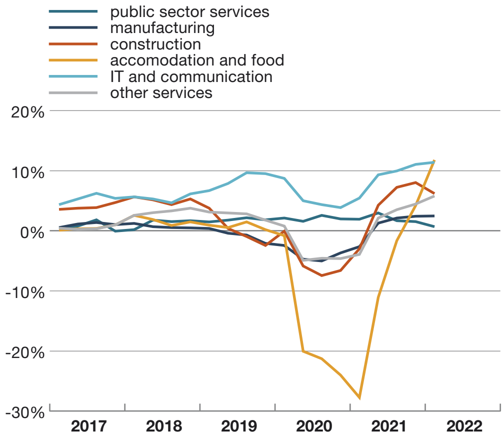
Sources: Statistics Estonia, Tax and Customs Board, Eesti Pank calculations

The impact of the pandemic is still evident in the differences in how employment has recovered across sectors. Employment in accommodation and food service remains around a fifth lower than before Covid-19 despite the double digit growth, because of the low numbers of foreign tourists, and possibly partly because of difficulties in hiring. The number of workers in manufacturing has barely returned to its pre-Covid level but parts of the service sector with high levels of value added and wages have done well. Employment in information and communications was 16.8% higher than it was before the crisis in the data from the Tax and Customs Board for example, and employment has increased in the financial sector, in professional, scientific and technical activities, and in the public sector (see Figure 29).

Expectations of companies for employment became more pessimistic in April and May, though this is in comparison to the extraordinarily optimistic levels at the start of the year. Rapid rises in the prices of energy and raw materials and the economic blow from Russia's military aggression reduced the share of companies planning to hire additional labour (see Figure 30). The number of vacancies intermediated by Töötukassa remained large in March and April, as it was up over the year and over the previous quarter. The number of job announcements may have been increased in April by the increased labour supply from Ukrainian refugees entering the labour market, which increased the probability of employers filling positions needing low qualifications, for which it had earlier been difficult to find staff.

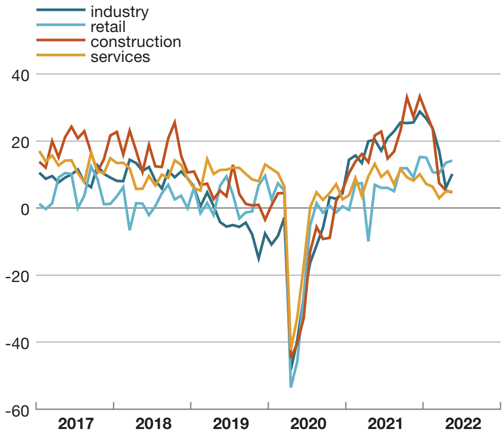
The unemployment rate was 5.5% in the first quarter of 2022. The seasonally adjusted unemployment rate was lower than in the previous quarter despite the large rise in labour participation. The registered unemployment rate also fell steeply in the second half of 2021 and the first quarter of 2022 (see Figure 31). Refugees from the war in Ukraine entering the labour market have added to the registered unemployed since the middle of March. Their numbers reached 4578 by the end of May and they accounted for a tenth of all the registered unemployed. The war did not cause any increase in redundancies in the first four months of 2022.

Figure 29. Yearly change in declared wage recipients



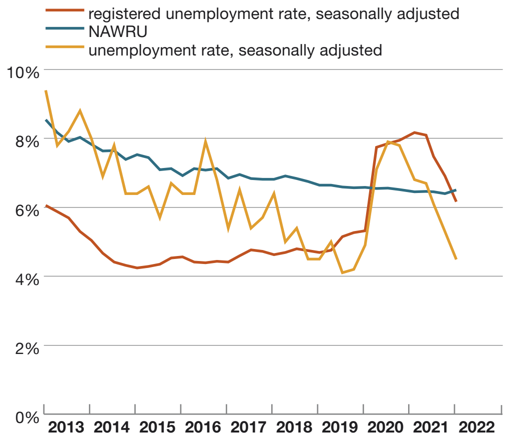
Sources: Tax and Customs Board, Eesti Pank calculations

Figure 30. Employment expectations



Sources: European Commission, Eesti Pank calculations

Figure 31. Unemployment



Sources: Statistics Estonia, Töötukassa, Eesti Pank

Russia's war and the economic impact of it did however reduce the share of companies that see labour shortages as the main obstacle to expanding production (see Figure 32). The new level was similar to that seen before the pandemic though, because the perception of labour shortages was very acute at the start of 2022. It is still higher than it was before Covid-19 in manufacturing, where labour shortages reached historical peaks in 2021.

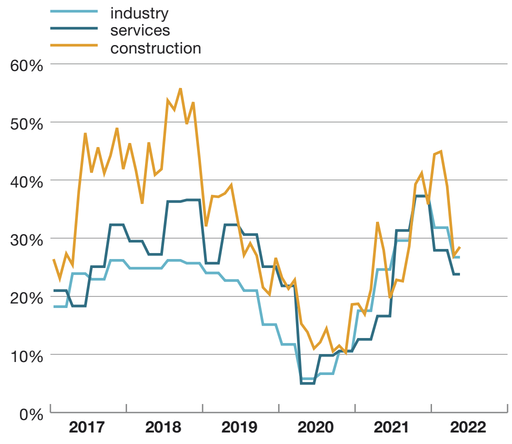
The growth in the average wage continued to accelerate in the first quarter of 2022, reaching 8.1% over the year (see Figure 33). At the same time, consumer price inflation reduced real wages by 4.2%. The average wage at private companies with Estonian ownership and in state administration rose by around 10%. Wages at Estonian companies rose partly because of the recovery in demand for labour in sectors that had suffered from the pandemic and the consequent need to hire additional labour, which pushed companies to increase their wage offers. This segment was also affected by the rise of 12% in the minimum wage. Wages in the public sector rose overall by less than those in the private sector, though that is affected by local governments, while wages in state administration increased notably. The increase was expected, given that wage growth in the sector was lower than that in the private sector throughout the previous year.

Growth in the economy slowing while employment grew strongly meant that labour productivity abruptly stopped increasing in early 2022. The accelerating nominal growth in value added shows though that companies were able to sell their output at a higher price than before. Value added per employee increased in nominal terms by around 14%, while wages rose by 8%, and so real unit labour costs continued to fall (see Figure 34). The fall in real unit labour costs means that corporate profits again grew faster than the payroll did. When the economy is cyclically slowing, profits usually decline first as it takes time for labour costs to adjust. However inflation increases profits first, as it is slow to pass through into wages.

PRICES

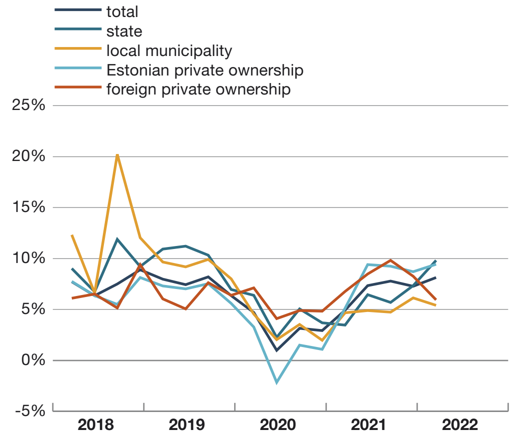
Inflation has continued to accelerate this year. Consumer prices were up 18.8% on the year in April. Inflation is mainly being driven by higher

Figure 32. Labour shortages



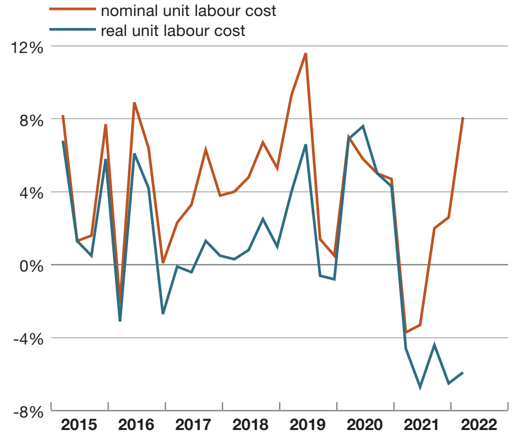
Sources: European Commission, Eesti Pank calculations

Figure 33. Yearly change in average wages by ownership status of employer



Sources: Statistics Estonia, Eesti Pank

Figure 34. Growth in unit labour cost



Source: Statistics Estonia

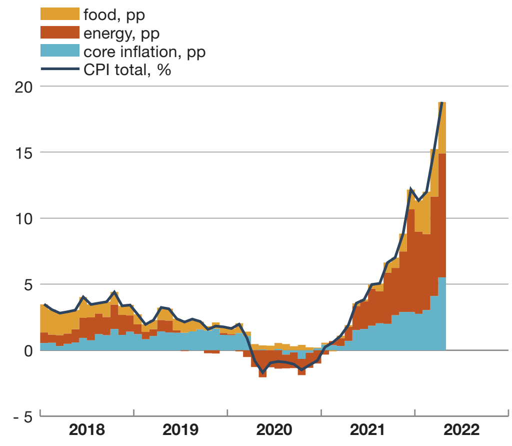
global prices for energy and food commodities. A new factor causing prices to rise for production inputs is the Russian war in Ukraine. Energy prices accounted for only half of total annual inflation in April, and inflation has become broadly based (see Figure 35). Consumer demand for manufactured goods and services is being supported by rapid wage rises and because households built up large additional savings during the pandemic of the past two years.

The rapid rise in energy prices to record levels has been an unpleasant surprise for both consumers and many businesses. The biggest rises over the year in April were of 217% in the price of natural gas, and of 119% in the price of electricity. The exchange price of electricity has been very volatile in recent months for various reasons (see Figure 36). In March the government ended its support designed to ease the impact of higher energy prices, which had earlier restrained overall inflation. Prices have risen for motor fuels because the oil price has risen and also because the exchange rate of the euro has fallen.

Rising prices for food commodities on the global market, which started last spring, have been passed after a long lag into the consumer prices of food in the European Union and Estonia. Prices of dairy and fish products were already up by more than a tenth at the end of last year, but higher inflation has now also reached the prices of meat and bakery products.

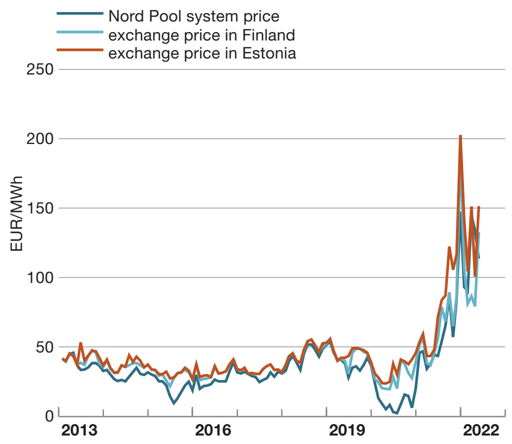
Continuing supply shortages and strong demand are contributing to price increases for manufactured goods. Prices for manufactured goods were up 10% over the year in April, meaning that inflation for manufactured goods in Estonia has been higher than that in other euro area countries. The causes of the differences between inflation rates in Estonia and the euro area are covered in more detail in Box 3. Supply difficulties with new cars appeared at the end of last year. Inflation has also accelerated for clothing and footwear, as well as for durables, as prices of raw materials on the global market have passed through strongly into the prices of imports and intermediate goods.

Figure 35. CPI growth



Sources: Statistics Estonia, Eesti Pank

Figure 36. Electricity exchange prices



Source: Nord Pool

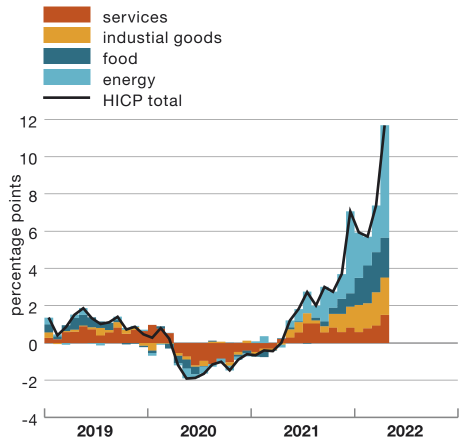
Prices for services have mainly increased because of rapid wage rises, but also because of higher transport costs. Service price inflation was approaching 10% in April. Higher prices for fuels have pushed up the prices of transport services, while rent prices have been boosted by the inflow of refugees from the war. The prices of leisure time services have exited their deep depression of previous years as the pandemic has faded.

Box 3: The background to the high inflation in Estonia

Inflation in Estonia this year has been the highest in the euro area. In April 2022 it was 12 percentage points higher than the average inflation in the countries of the euro area. This box considers the factors that have caused such a large difference in inflation rates.

Many groups of goods and services have seen higher inflation in Estonia than elsewhere. Energy prices provided 52% of the price difference in April and food products accounted for 18%, while the rest of the difference in the price rises came from core inflation (see Figure B3.1).

Figure B3.1. Contributions to the difference in inflation rates between Estonia and the euro area



Sources: Eurostat, Eesti Pank

Energy prices made the biggest difference to inflation rates in the form of electricity, heating energy and motor fuels, which together provided 4.5 percentage points of the inflation rate. Inflation for services was also much higher in Estonia in April at 10.3% than in the rest of the euro area, where it was 3.3%. Rent prices were up 34% over the year in April in Estonia, but in the euro area on average they were up only 1.3%. This meant that rent contributed 0.6 percentage point to the difference between the inflation rates in Estonia and the euro area. Some prices in Estonia have risen by less than they have in other countries of the euro area, or have even fallen, and the prices of heating oils, mobile communication services, and footwear for example have narrowed the inflation differences between Estonia and the euro area.

The structure of the HICP basket is somewhat different to that in the euro area, and this has also affected inflation. Consumers in wealthier countries spend a smaller share of their income on energy and food products, but a larger share on services and consumption goods. Higher spending on energy and food made inflation in Estonia 0.6 percentage point higher in the first months of this year. Motor fuels and heating energy have a larger part of the consumption basket in Estonia than they do in the euro area on average, while natural gas and rent are a smaller part. Households in Estonia spend on average 2.7% of their income on rent while those in Germany spend 11%, as there are relatively few rental tenants in Estonia and relatively more apartment owners.

As a large part of the differences between inflation rates in Estonia and the euro area come from the prices of manufactured goods and services, the reasons why inflation is higher may lie in domestic price factors. To assess empirically the relationship between the business cycle and inflation, only those items of HICP inflation that are deemed sensitive to slack are used, excluding energy and food, as measured by the output gap[14]. Underlying price pressures would be better reflected by measures of supercore inflation.

The correlation between the prices in the consumer basket and the output gap was quite weak until the start of the Covid-19 pandemic in Estonia. Of 88 groups of goods, there were only 26 that were strongly correlated with the business cycle in Estonia, and they accounted for 28% of the consumer basket. Since the start of the pandemic, the share of prices that are affected by the business cycle has increased to 43%. The decline in the output gap had a negative impact on the prices of rents, tourism services and transport services.

14 The methodology used by the European Central Bank for calculating supercore inflation is based on estimating a regression model of a Phillips curve type. The variables were the annualised quarterly price rises of 88 groups of goods and the output gap with one or two lags:

$$y\_(i,t)=\rho\_0+\rho\_1\, y\_(i,t\text{-}1)+\rho\_2\, x\_(t\text{-}1)+\rho\_3\, x\_(t\text{-}2)+\varepsilon\_t\,.$$

In-sample recursive forecasts are compiled for each HICP item for the years 2010-2021 on a four-quarter horizon. The in-sample forecast accuracy of these models was compared with the performance of the autoregressive (AR) benchmark model. If one of the Phillips curve specifications improved on the AR model, then the item was included in the supercore. In addition, the coefficients for the output gap had to be statistically significant.

As consumer prices in Estonia have been relatively weakly correlated with the economic cycle, the correlation between the goods and services in the consumer basket and the import deflator can be considered instead. Foreign prices describe the development of inflation in Estonia in the past decade much better than the output gap did, as 61% of the consumer basket was strongly dependent on import prices. However, the correlation between consumer prices and import prices has weakened since the outbreak of the Covid-19 pandemic. This mainly reflects the strong demand in recent years for cars and some light manufacturing products, which pushed consumer prices upwards.

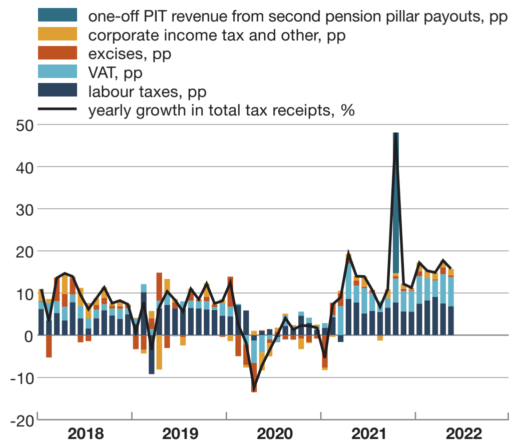
Rising food prices will probably start to widen the inflation gap between Estonia and the rest of the euro area in the forecast horizon. Food prices rose notably faster in Estonia in the past decade than they did on average in the euro area, which was one of the main causes of the higher inflation rates. On top of the changes in the price of food commodities, consumer prices were substantially affected by higher excise rates for alcohol and tobacco. The price level for food products has already reached the euro area average by now, and competition will be encouraged by the arrival in the Estonian market of new retail chains.

GENERAL GOVERNMENT FINANCING

Tax receipts have so far exceeded what was planned in the state budget. The labour market was in a very strong position in the first quarter of this year, which meant that the yearly growth in labour tax receipts was faster in the first months of the year than at the end of last year. Larger purchases of inventories by companies than earlier together with consumers still wanting to consume despite high inflation have led to rapid growth in receipts of VAT in recent months (see Figure 37). The VAT receipts from March that appeared in the state budget in April were 25.8% more than a year earlier, and excise receipts were up 17.4%. Yearly growth in VAT receipts picked up to 29% in May.

General government spending on investment was a tenth larger in the first quarter than it was a year earlier. High inflation meant though that after two years of rapid increase, investment by the general government at constant prices was 4.3% less than at the same time a year earlier. Inflation particularly affected investment in construction. General government investment in construction at constant prices was 12.9% down on a year earlier. Investment continued to grow in products related to intellectual property rights.

Figure 37. Tax receipts in the state budget*



* Including PIT transferred to local governments
Sources: Statistics Estonia, Tax and Customs Board, Eesti Pank

Despite rising inflation, the final consumption of the general government increased in the first quarter at the same rate as it did in the second half of last year on average, growing by around a tenth. Yearly growth in the payroll for general government employees was a little faster than in the second half of last year in the data from both Statistics Estonia and the Tax and Customs Board. Public sector wage growth remained slower than that in the private sector though. The yearly growth in social benefits paid out has also risen a little. Spending on sickness benefit was almost a third more than it was in the first quarter of last year for example.

THE EESTI PANK ECONOMIC FORECAST FOR 2022-2024

The Eesti Pank economic forecast is produced jointly by experts from the central bank's Economics and Research Department and Financial Stability Department. This forecast takes account of new information received since the forecast published in March on the economies of Estonia and other countries. New data on the labour market, foreign trade, the general government, the financial sector and prices as at 24 May 2022 have also been taken into account. The forecast assumptions for the external environment, including main trading partners, have also been updated as at 20 May 2022. This forecast reflects the scenario considered the most likely, but the geopolitical situation and increased uncertainty mean that reality could turn out better or worse. The Eesti Pank forecasts are compiled using EMMA, the macro-model of the Estonian economy developed and regularly updated by Eesti Pank.

THE INTERNATIONAL ECONOMIC ENVIRONMENT

Russia's military aggression and China's tight coronavirus restrictions have caused the outlook for the global economy to deteriorate. High energy and food prices, supply difficulties, and the impact of the broad sanctions on Russia are resulting in rising inflation and slower growth in the economy than was earlier expected. On top of the production problems caused by difficulties with supplies, demand is starting to be affected by interest rates rising as monetary policy is tightened. For all these reasons the International Monetary Fund has reduced its growth forecast for the global economy to 3.6% for this year and next[15]. It may be noted in this that the difficult geopolitical situation that has already hurt economies in several ways could yet get worse, and so the economic outlook could be made gloomier by rising food prices and food shortages, which may lead to famine and public unrest in parts of the world.

The setbacks delivered by the war are weakening the euro area as it recovers from the pandemic. The rise in the prices of energy and various raw materials that are a direct consequence of Russia's military activities is gradually being passed through into the prices of many other goods and services. The high price level and reduced confidence are showing up in private consumption even though the labour market has so far remained strong, with unemployment low and incomes rising. This forecast assumes that the replacement of Russian fuels and energy in European countries will be managed without supply problems in the meantime. It should be recognised though that the sanctions on Russia and the possible substantial restriction or stoppage of energy supplies would push several euro area countries into recession, as it takes time to build alternative supply channels and put them to work.

Demand is still increasing in Estonia's main export markets. The supply chains of Estonia's main trading partners and their sources of fuels are changing, and this will further increase inflation pressures and reduce the purchasing power of consumers. The current circumstances are causing growth in the economies of Estonia's main trading partners to slow, and the central banks of those countries forecast that demand for the goods and services imported from Estonia will increase this year and in the next two years by around 3% (see Table 2 for the external assumptions in the forecast). There remains great uncertainty about the future though and a change in the geopolitical circumstances and possible sanctions could mean that international trade and commodities prices differ substantially from this forecast.

Table 2. External assumptions in the forecast

					March 2022 projection		
	2021	**2022**	**2023**	**2024**	**2022**	**2023**	**2024**
Foreign demand growth (%)*	9.7	3.1	2.8	3.0	0.5	2.5	3.2
Oil price (USD/barrel)	71.1	105.8	93.4	84.3	100.2	89.0	82.1
Interest rate (three-month EURIBOR, %)	-0.55	-0.02	1.32	1.56	-0.39	-0.32	0.65
USD/EUR exchange rate	1.184	1.071	1.051	1.051	1.122	1.119	1.119

*Foreign demand growth is the weighted growth of imports of trading partners
Source: European Central Bank

15 World Economic Outlook, April 2022: War Sets Back The Global Recovery.

Table 3.Economic forecast by key indicators*

	2020	2021	2022	2023	2024
Nominal GDP (EUR billion)	26.82	30.59	34.32	36.17	38.27
GDP volume**	-2.6	8.2	1.5	1.9	3.1
Private consumption expenditures***	-2.5	6.5	2.9	0.9	2.7
Government consumption expenditures	3.1	4.0	1.9	-2.2	-0.6
Gross fixed capital formation****	17.0	7.3	-15.7	3.9	9.2
Exports	-4.9	19.9	5.7	2.2	3.0
Imports****	0.6	20.9	-0.1	-0.3	3.8
Output gap (% of potential GDP)	-3.7	0.8	0.2	-0.9	-0.6
CPI	-0.4	4.6	15.1	4.3	1.9
HICP	-0.6	4.5	15.4	4.5	1.8
GDP deflator	-0.6	5.4	10.5	3.4	2.6
Unemployment rate (% of the labour force)	6.9	6.2	5.6	6.8	6.6
Employment*****	-2.7	0.1	3.1	0.8	-0.8
Average gross wage (EUR)	1448	1547	1713	1854	1966
Average gross wage growth	2.9	6.8	10.7	8.2	6.1
GDP per employee	0.1	8.1	-1.5	1.1	3.9
Current account (% of GDP)****	-0.3	-1.2	-0.4	1.4	0.6
Budget balance (% of GDP)	-5.6	-2.4	-3.7	-3.2	-3.0

* Numbers reported are annual rates of change in per cent, if not noted otherwise, ** GDP and its components are chain-linked, *** including NPISH, **** does not include future possible extraordinarily large transactions by MNEs, ***** employment by domestic production units.
Sources: Statistics Estonia, Eesti Pank

ECONOMIC GROWTH

Growth in the Estonian economy will slow from its very strong position at the start of this year, when production resources were running at full capacity and supply-side restrictions were tightening. The Estonian economy was already expecting growth to slow this year before the new crisis erupted, as the recovery from the pandemic was very fast and companies considered that the business cycle had already reached a similar position by the end of last year to where it was in 2007. Although the outbreak of war in February and the various impacts from it overshadow the outlook for the Estonian economy, a substantial contributor to GDP growth slowing to 1.5% in 2022 is the fall in investment, which reflects the discontinuation of the extraordinary large transaction in the last year. The economy will grow by 1.9% next year and 3.1% the year after (see key indicators for the forecast in Table 3 and comparison with forecasts by other institutions in Table 4).

Table 4. Estonian economic forecasts by other institutions

	GDP real growth, %				CPI inflation, %			
	2021	2022	2023	2024	2021	2022	2023	2024
Eesti Pank	8.2	1.5	1.9	3.1	4.6 4.5*	15.1 15.4*	4.3 4.5*	1.9 1.8*
Ministry of Finance	8.3	-1.0	1.2	3.2	4.6 4.5*	12.7 12.4*	2.1 2.0*	1.2 1.2*
European Commission	8.3	1.0	2.4		4.5*	11.2*	2.5*	
IMF	8.3	0.2	2.2	3.8	4.5*	11.9*	4.6*	2.5*
OECD	8.2	1.3	1.8		4.5*	14.5*	10.9*	3.2*
Consensus Economics	8.3	1.9	3.0		4.7	12.4	3.9	
Luminor	8.2	1.0	4.0		4.6	12.0	3.0	
SEB	8.3	0.6	2.0		4.5*	13.0*	0.8*	
Swedbank	8.3	1.5	2.0		4.6	10.0	4.5	

** HICP*
Sources: Eesti Pank, June forecast, 14.06.2022; MoF, Spring 2022 forecast, 07.04.2022; European Commission, Economic Forecast Spring 2022, 16.05.2022; IMF, WEO, April 2022, 19.04.2022; OECD, Economic Outlook, June 2022, 08.06.2022; Consensus Economics, Eastern Europe Consensus Forecasts, May 2022, 16.05.2022; Luminor forecast, 20.04.2022; SEB, Nordic Outlook, May 2022, 10.05.2022; Swedbank Economic Outlook 06.04.2022

The figure for economic growth is higher than it was in the Eesti Pank forecast in March mainly because of the additional spending in the supplementary budget.

The circumstances will be made worse for the Estonian economy by supply problems, high inflation and tighter monetary policy. The supply problems that emerged at the start of the pandemic and have not yet fully dissipated are worsening because of interruptions to supply caused by the war, which affected growth in some sectors, especially parts of manufacturing and construction, and led prices to rise because of supply shortages or the higher prices of alternative sources of supply. Very high inflation will cause real wages to fall this year, and this will limit the ability to consume, slowing the growth in the economy as demand declines. Monetary policy interest rates rising and the cost of borrowing becoming more expensive at a faster rate than expected will also start gradually to limit the rate of growth in the coming years.

Growth in the exporting sector will be restrained by the weaker position of foreign markets and the need to find new target markets. High inflation and increased uncertainty will limit demand for consumer goods in target markets, while geopolitical problems will restrict demand for investment goods in the region. The fall in demand will affect the outlook for exports most in the second half of this year. The forecast assumes the disappearance of the Russian market, and although the Russian market has become less important over the years as a market for exports, the interruption to trade in goods will affect some branches of the economy and individual companies appreciably. The total impact of the disappearance of the Russian export market is estimated at around 2% of GDP, assuming that replacement markets are not found. Corporate expectations for export orders in the first half of the year are more modest than they have been. No reduction in competitiveness has been perceived though, despite the rapid rise in production costs.

Corporate investment will again be boosted once the geopolitical situation becomes clearer and confidence returns. The utilisation of production resources has fallen, but to its average level of the past decade, meaning that no increase in investment activity is expected in the near future given the general state of the economy. The commercial banks consider that demand from companies for investment loans has also declined and will remain weak in the coming quarters. The forecast assumes that the sanctions imposed because of the war will remain in place at least until the end of the forecast horizon, and so the volume of investment during this period will depend on the speed of adaption to the new circumstances. Rising interest rates will make investment opportunities quite different to what they have been in the past decade. It may be expected that interest margins will fall as Euribor rises, but this will not compensate entirely for the rise in the base interest rates.

Growth in employment will slow. Both labour force participation and employment grew sharply in the first quarter of 2022. The deterioration in the economic climate is reflected in the labour market with a delay, and the demand for new employees will decline as the year goes on. This is also indicated by corporate expectations of employment. Weaker demand for labour will raise the unemployment rate, but the reaction to the current crisis will be milder than that during the pandemic, as companies have less labour slack available.

Refugees from Ukraine will start to be reflected in the labour market statistics from 2023. As at 26 May, Estonia had received a little over 40,000 refugees, of whom around 26,000 had applied for temporary protection, but because of the methodology, refugees from the war do not yet show up in the statistics of the labour market in 2022, except those for the average wage and total compensation to employees. The forecast assumes in consequence that the population will increase by 30,000 people at the start of 2023 and that some two thirds of those people will be of working age, and 70% of them will participate in the labour market. Language barriers and the time needed to recognise qualifications mean that the unemployment rate for Ukrainian refugees who enter the labour market will be higher than that for local residents, and so the unemployment rate will rise in early 2023.

Wage growth will remain fast in the near term. The average wage will continue to rise faster in the coming quarters in sectors that have not been affected much by Russia's invasion of Ukraine. Growth in wages will also be kept high by the rise of 12% in the minimum wage in early 2022 and by the return of wage rises in the state sector. The large rise in consumer prices will also drive growth in wages. The pass-through of inflation into wages will be eased though by the low prevalence of automatic indexing and the slower growth in demand for labour (see Box 4 on changes to wages).

Box 4. Changes in wages and profitability

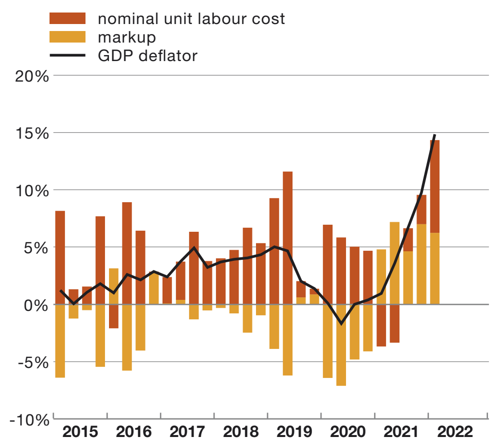
The wage survey shows that the yearly rise in the average wage reached 8.1% in the first quarter of 2022, having increased by a little below 1 percentage point over the quarter. Data from the Tax and Customs Board put wage growth faster at 9.3% with an acceleration of two percentage points. Although wages have risen fast, they have still done so more slowly than consumer and producer prices, and so real wages have fallen. Unlike a few years ago, when the rapid rise in labour costs came at the expense of profits, the profitability of businesses has this time increased together with wages. In the long perspective, the relationship between profitability and labour costs is defined by fundamental economic indicators such as the level of risk appetite and the labour market institutions. As these have not changed, there should in future be a decline in the profit share and an increase in labour costs.

Wage growth exceeding growth in productivity is generally considered an indication of price pressures, as labour costs are a very large part of production costs. In reality the direction of the relationship is not entirely clear. Data from the USA[16] show for example that wages and prices move together. Data from four countries in the euro area[17] show though that changes in wages are more likely to cause inflation than the other way round. Inflation can affect wage growth through several channels. It might for example raise reservation wages[18], if benefits and allowances are adjusted for the rising cost of living, some wages are indexed to inflation, and a rise in the price level is used as an argument for raising wages through collective negotiations about the minimum wage and in negotiations at the individual level.

The rise in the price of production from Estonia can be measured using the GDP deflator, which in stable times has been explained by the growth in the labour costs that are needed to produce one unit of value added (see Figure B4.1). The yellow columns below zero on the horizontal axis in the figure indicate a reduction in profit as a share of GDP. This indicator shows that domestic inflation in 2021 and the first quarter of 2022, when it exceeded 15%, was substantially more than the growth in labour costs.

The development in 2021 undoubtedly reflects a recovery of the profitability lost during the pandemic, but from the middle of last year labour costs have been a smaller share of value added than they were before the

Figure B4.1. The contribution of labour costs and markups to the growth rate of the GDP deflator



Sources: Statistics Estonia, Eesti Pank calculations

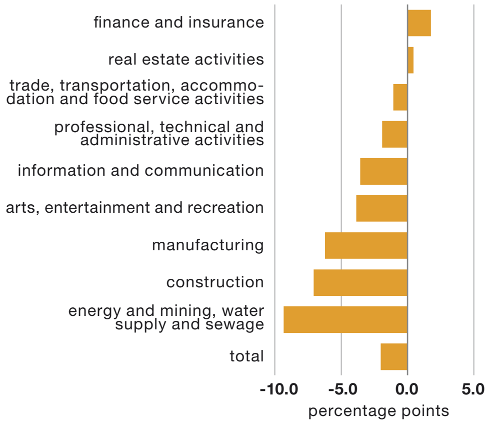
16 See Knotek (2014) https://www.clevelandfed.org/newsroom-and-events/publications/economic-commentary/2014-economic-commentaries/ec-201414-on-the-relationships-between-wages-prices-and-economic-activity.aspx.

17 https://www.ecb.europa.eu/pub/pdf/scpwps/ecb.wp2235~69b97077ff.en.pdf?fbclid=IwAR0uEx_70SRqf-F05BrjLUY-e8BdTQJdrtN-93yizdNcftRH727vRFnGZDM.

18 The lowest wage for which an unemployed person is prepared to go to work.

pandemic, indicating that the profit margin of businesses now exceeds its pre-pandemic level. Labour costs have been reduced by more than the average in the industrial sector (see Figure B4.2).

Figure B4.2. Change in the labour share within value added by sector*



* Q1 2022 over the average for 2019, seasonally adjusted
Sources: Statistics Estonia, Eesti Pank calculations

The decline in the share of labour costs and the increase in profitability mean that companies have on average been able to raise their sales prices faster than would have been needed to pass higher wage costs on into sales prices. The second half of 2021 saw commodities prices start to rise fast, meaning that production inputs for businesses suffered an upwards price shock, at the same time that sales prices in export markets started to rise faster. Companies in some sectors gained from the rapid rise in prices and were able to use it to increase their profit margins. The opposite applied for other companies as more expensive inputs reduced their profits. The growth in profitability may prove temporary. Shocks to prices and demand often affect profits first and then wages later, as wages are stable in the short term and are only changed after a fixed period. Statistical tests do not show the rise in profitability being followed by rapid wage growth throughout the economy, but the steep growth in consumer prices means that there is certainly upwards pressure on wages, and increased profitability will make it easier to meet demands for wage rises.

PRICES

Both domestic and external factors will cause prices to rise rapidly in the forecast horizon. The rise in the price of the consumer basket has become broadly based, as higher energy prices are being passed on into the prices of many other goods and services. Consumer prices will rise by 15.1% this year, and general inflation may be expected to decline from the first half of next year. Inflation for energy and manufactured goods will slow in the second half of this year, but food prices will continue to rise rapidly after that. Prices for food commodities are expected to rise by 41% this year. Prices for dairy products and cereals will rise most, with Russia's invasion of Ukraine having a major impact on them. Domestic inflation will be pushed up by strong demand that has resulted from a loose fiscal policy, rapidly rising wages, the savings built up during the pandemic, and the money that was withdrawn from the second pension pillar.

Energy inflation will ease, though the high prices will be passed through into other components of the consumer basket. Future transactions suggest that natural gas prices will fall in April next year, and that the electricity price will remain high this summer. The price differences between the Baltic countries and the Nordic countries have widened and a new bottleneck will form during the forecast horizon in the electrical connection between Finland and Sweden, as Finland has stopped buying Russian electricity and that might keep electricity prices high in Estonia. The secondary impact of energy prices and higher labour costs will together raise prices for services at a faster rate than usual in the coming years.

Both supply difficulties and strong demand will cause prices to rise for manufactured goods. Inflation for manufactured goods will in consequence barely fall over the forecast horizon. Supply difficulties and rising prices for commodities will be reflected in increasing inflation for intermediate goods throughout Europe. Prices for maritime transport will also remain high.

GENERAL GOVERNMENT FINANCING

The rapid growth in wages and prices will boost tax receipts this year despite the slow growth in the economy. Tax revenues will grow more slowly this year but this is a reflection of the large extraordinary receipts last year that resulted from the tax paid on the money withdrawn from the second pension pillar. Leaving that aside, the growth in tax revenues would accelerate this year. The high and unexpected inflation will increase tax revenues, but growth in state spending will not react to the same extent. As the social benefits and pensions paid by the state are not fully indexed to inflation, inflation will not pass into state spending to the same degree.

Extraordinary measures, inflation and upwards wage pressures will increase state spending. Although the support measures used during the pandemic will disappear from expenditures this year, further general government expenditures will be added for the costs of the compensation measures for energy prices, the costs of helping refugees from the war, and spending on various security and energy security measures. Increased spending on defence will keep the growth in costs high in the years ahead. Inflation will also affect general government spending, as administrative costs rise and investment becomes more expensive. Very fast growth in wages in the private sector will also force wage growth to accelerate in the public sector.

The general government budget deficit will be larger than it was in 2021. A supplementary budget has been passed on top of the spending planned in the 2022 state budget, and it contains 724 million euros of expenditure measures. The negative impact of the supplementary budget on the general government fiscal position will still be less than that though, as the benefits paid from the budget will increase the receipts of labour and consumption taxes at the same time. The deficit this year will be 3.7% of GDP, and it will remain close to the limit permitted for the deficit of 3% for the next two years.