IMAD

spring forecast of
economic trends 2022

Contents

Summary

The Spring Forecast of Economic Trends was prepared in a situation of high uncertainty due to the war in Ukraine, the escalation of which could pose a downside risk to the assumptions and outlook of the baseline scenario. In preparing the assumptions, we took into account the sanctions imposed or announced by Western countries up to 11 March, as well as the then few available scenarios prepared by international institutions and banks regarding the impact of sanctions on economic activity. The European economy is exposed to Russia and Ukraine mostly through energy imports, and the two countries are also major suppliers of certain metals and food commodities. The already high commodity prices have soared since the Russian invasion of Ukraine, and we expect the negative impact of economic sanctions to affect economic growth in the euro area mainly through higher prices for energy and other commodities. Lower confidence, financial stress and reduced trade in goods will also have a significant impact on the economy. Prices for energy and commodities are expected to remain high for an extended period of time, which will increase the inflationary pressures. This will reduce real household incomes and corporate profits and, together with lower confidence, hamper consumption and investment. The sanctions will cause supply chain problems to persist or even intensify, as it is difficult for companies doing business with Russia to find financial channels to trade with Russia after major Russian banks were excluded from the SWIFT system, and trade is also hampered by disrupted transport routes. We expect economic growth in the euro area to slow to 3.4% this year and to 2.6% in 2023. Assumptions about economic growth in all of Slovenia's major trading partners are fraught with pronounced uncertainty and carry significant downside risks that could materialise in the event of continued (escalation of the) war and sanctions against Russia.

In the Spring Forecast, IMAD forecasts GDP growth of 4.2% in 2022, slowing to 3.0% next year and to 2.8% in 2024. After a deep downturn in 2020, economic activity grew by 8.1% last year, surpassing the 2019 level. For 2022 we expect 4.2% GDP growth, which is 0.5 p.p. lower than projected in Autumn Forecast. After the strong rebound in economic activity last year, we had expected a slowdown of growth even before the war in Ukraine began, mainly due to increasing price pressures from high energy and commodity prices and supply chain bottlenecks, in addition to last year's high base. Russia's invasion of Ukraine and the imposition of sanctions have exacerbated this pressure, and the sectors most dependent on trade with Russia and Ukraine are (or will be) even more severely affected, which will reduce exports to this region. In addition, lower GDP growth than last year will be influenced by lower support measures, which have a positive impact on economic growth, also taking into account the measures taken in recent days. Economic growth this year will be largely driven by growth in domestic consumption. Private consumption growth will ease off this year, after a strong rebound last year as a result of further increases in disposable income (supported by government measures and a rapid recovery in the labour market) and the release of pent-up demand from 2020. We expect the easing of containment measures to lead to faster growth, mainly in the consumption of services, which was still far behind 2019 levels last year due to restrictions related to the epidemiological situation. Private consumption growth will be lower than last year under the impact of higher

inflation, which will lead to a real stagnation in disposable income, so we also expect a decline in the savings rate, which rose sharply during the epidemic. Investment activity will continue to be high this year. Given the high production capacity utilisation, last year's favourable business results and low corporate debt, we expect further growth of investments in machinery and equipment. The growth of investment in industry will continue, and as containment measures ease, investment in the services sectors, which were most affected by the coronavirus restrictions, will also increase. Based on the data on building permits issued, we expect a further increase in housing investment, and according to the valid budget documents, we also expect further growth in general government sector investment. This is also supported by EU funds, as funding from the 2014–2020 financial perspective is coming to an end, and this is usually the time when the absorption of funds accelerates, while the contribution from the Recovery and Resilience funds is also increasing. We expect the export part of the economy to continue to grow, albeit at a slower pace than last year due to the slowdown in the growth of goods exports, which will be significantly affected by the consequences of the war in Ukraine and a sharp decline in exports to Russia, and, via the impact on the economic activity of Slovenia's main trading partners, a slowdown in the overall growth of foreign demand. In this uncertain situation, supply chain disruptions will only gradually ease over the course of this year and remain high in some sectors. The trend of bringing supply chains closer to the European markets where Slovenian companies would increasingly look for opportunities could have a positive impact. Over the next two years, GDP growth is expected to slow further, first to 3.0% and then to 2.8%. As foreign demand slows, this will also be affected by continued price pressures, which will have an impact on business costs and limit household purchasing power.

The rise in employment and the decline in unemployment will continue this year and, albeit at a slower pace, over the next two years, although this will be increasingly characterised by constraints related to labour availability impacted by demographic trends. The labour market situation started to improve rapidly in mid-2020 with the gradual lifting of containment measures and the resumption of most activities. Employment rose to its highest level last year, with a strong contribution from the employment of foreign workers, including in the context of labour shortages. Given the growing demand for labour, the number of registered unemployed fell sharply last year (to 74.3 thousand on average in 2021). We expect employment to rise by 1.7% this year and the number of registered unemployed will continue to fall, and will amount to around 61 thousand on average in 2022. We expect labour market conditions to continue to improve over the next two years, albeit at a less vigorous pace than this year, due to somewhat lower growth in economic activity and demographic trends causing a decline in the working age population (aged 20–64).

This year, nominal wage growth in the private sector will be similar to last year, while the average nominal gross wage in the public sector will fall due to the cessation of allowances and last year's high base. Real wage growth will be dampened by high inflation. Private sector wage growth will remain relatively high this year, related to increasing labour shortage pressures, the minimum wage increase in January this year and other labour market pressures to maintain income growth in the face of high inflation. After high

growth last year, wage growth in the public sector will be negative this year due to the cessation of epidemic-related allowances. As a result, nominal wage growth will be relatively low overall in 2022 (2.4%) and real wages will fall in the face of high inflation (-3.7%; private sector: -0.5%, public sector: -8.6%). For the next year we expect the growth of nominal wages to increase again to 4.0% and real wages to 0.7%.

Consumer prices rose sharply at the end of last year. Inflation is projected to persist at a relatively high level throughout most of this year, only approaching 2% in 2024, provided that price pressures ease. At the beginning of this year, inflation continued to rise as prices for energy, food, services and non-energy industrial goods increased. We expect it to remain at about the same level throughout most of this year, and even higher growth will be limited by measures to mitigate the impact of high energy prices. As containment measures ease, we expect some demand this year to be diverted from goods to services, whose price growth will accelerate. All this will lead to an overall increase in consumer prices of 6.4% in 2022 as a whole, moderating to 3.2% in 2023 and to 2.3% in 2024. Higher wages will at least partially pass through to final prices, especially in the services sector, which is less exposed to international competition.

Since the Russian invasion of Ukraine, the greatest risks to the realisation of the forecast have been related to the unfolding of the war and energy prices. Amid higher energy prices, EU Member States would be forced to rationalise energy and look for alternative sources, which would have an additional negative impact on economic activity in the short term given the EU's high dependence on Russian gas imports. The already severely weakened trade flows with Russia would decrease, which would have a negative impact on exports, at least in the short term. At the same time, inflation would remain high for an extended period of time (including next year) as oil and natural gas prices rise and are likely to remain high. Massive fiscal measures would be needed to help economies mitigate the negative impact on financial markets and the decline in consumer and business confidence, which would slow fiscal consolidation.

Downside risk to the realisation of the Spring Forecast is still related also to the epidemiological situation and increasingly to supply chain disruptions; there are, however, also some upside risks to the baseline projections. More stringent containment measures in the face of possible new waves of infections, including as a result of new and more infectious coronavirus mutations and/or insufficient vaccination coverage, remain a significant risk to a more stable recovery in some activities. The risk associated with possible prolonged persistence of supply chain problems is also increasing. In particular, a shortage of certain raw materials and semi-finished products, also as a result of further problems related to the Russian-Ukrainian conflict, would affect exports in particular and increase the risks of a more severe cost pressure. Economic growth could also be stronger than the baseline forecast for Slovenia and the assumptions for its trading partners, depending mainly on the situation in Ukraine and the adjustment of businesses to the situation, including through increased investment activity to accelerate reduction in dependence on Russian energy, and on the global capacity to cope with the pandemic, as well as on the effectiveness in terms of absorption of EU funds.

Slovenia's main macroeconomic aggregates

	2021	Spring forecast (March 2022)		
		2022	**2023**	**2024**
GROSS DOMESTIC PRODUCT				
GDP, real growth in %	8.1	4.2	3.0	2.8
GDP, nominal growth in %	10.9	8.0	6.4	5.2
GDP in EUR billion, current prices	52.0	56.2	59.8	62.9
Exports of goods and services, real growth in %	13.2	7.1	5.5	5.0
Imports of goods and services, real growth in %	17.4	7.2	4.9	4.6
External balance of goods and services (contribution to growth in p.p.)	-1.6	0.3	0.8	0.6
Private consumption, real growth in %	11.6	4.3	1.4	1.6
Government consumption, real growth in %	3.9	0.6	1.3	1.5
Gross fixed capital formation, real growth in %	12.3	6.5	5.0	5.0
Change in inventories and valuables (contribution to growth in p.p.)	0.8	0.2	0.1	0.0
EMPLOYMENT, WAGES AND PRODUCTIVITY				
Employment according to the SNA, growth in %	1.4	1.7	1.0	0.7
Number of registered unemployed, annual average in '000	74.3	61.1	58.9	56.8
Registered unemployment rate in %	7.6	6.2	6.0	5.7
ILO unemployment rate in %	4.8	4.3	4.1	3.9
Gross wage per employee, nominal growth in %*	6.1	2.4	4.0	3.9
Gross wages per employee, real growth in %*	4.1	-3.7	0.7	1.6
- private sector	4.1	-0.5	1.0	1.9
- public sector	4.5	-8.6	0.2	1.0
Labour productivity (GDP per employee), real growth in %	6.6	2.4	1.9	2.1
BALANCE OF PAYMENTS STATISTICS				
Current account BALANCE, in EUR billion	1.7	1.2	1.5	1.7
- as a % of GDP	3.2	2.1	2.5	2.6
PRICES AND EFFECTIVE EXCHANGE RATE				
Inflation (Dec/Dec), in %	4.9	5.4	2.4	2.1
Inflation (annual average), in %	1.9	6.4	3.2	2.3
Real effective exchange rate deflated by unit labour costs	0.0	-0.6	0.6	-0.1
ASSUMPTIONS				
Foreign demand (imports of trading partners), real growth in %	10.7	5.0	4.0	3.4
GDP in the euro area, real growth in %	5.3	3.4	2.6	1.8
Brent crude oil price in USD/barrel	70.7	111.8	95.7	90.7
Non-energy commodity prices in USD, growth	34.4	15.0	-3.0	-2.5
USD/EUR exchange rate	1.184	1.100	1.093	1.093

Sources: Year 2021 SURS (2022), BoS (2022b), ECB (2022a), EIA (2022); 2022–2024 forecasts by IMAD.

Note: *The Spring Forecast takes into account the methodological specifics regarding the reporting of wages (that do not include compensation paid by the government for 2020 and 2021), which also affects 2022.

The Spring Forecast is based on statistical data, information and adopted measures known at the cut-off date of 11 March 2022.

spring forecast of economic trends 2022

1   Assumptions of the Spring Forecast of Economic Trends 2022

Growth in euro area economic activity slowed markedly in the last quarter of last year and remained weak at the beginning of 2022. After a strong rebound in the second and third quarters of last year (more than 2% quarter-on-quarter growth in both quarters), economic growth in the last quarter slowed to 0.3% quarter-on-quarter due to the worsening epidemiological situation, ongoing supply chain disruptions, high energy prices and resulting high inflation, and labour shortages, and increased year-on-year to 4.6% (both seasonally adjusted) relative to last year's low base. After a significant downturn in 2020 (-6.4%), the euro area economy recorded 5.3% growth last year (seasonally adjusted) and reached its pre-crisis level. Given a significant easing of containment measures and adaptation of businesses to the pandemic situation, all GDP components recovered, with private consumption contributing the most to growth. The majority of Slovenia's main trading partners recorded high and broad-based economic growth, the highest by Croatia and France. Available indicators (ESI, PMI) suggest that economic growth in the euro area remained weak in January this year, as it was at the end of last year, then picked up in February with a gradual improvement of the epidemiological situation, but is expected to deteriorate in March due to geopolitical tensions in Eastern Europe.

Economic forecasts for Slovenia's major trading partners are accompanied by a very high level of uncertainty, largely related to Russia's military aggression against Ukraine. In their forecasts published up until mid-February 2022, international institutions assumed that the economic activity of Slovenia's trading partners will continue to grow in the coming quarters. Growth was expected to pick up again in the second quarter as supply chain problems and inflationary pressures were expected to start to ease. Growth was expected to be driven by favourable labour market conditions, high household savings, still favourable financing and the Recovery and Resilience Facility funds. At the beginning of February, the European Commission projected growth in the euro area to be 4% in 2022, moderating to 2.7% in 2023, which is lower than its previous forecast and lower than expected at the time of writing of our Autumn Forecast. Russia's invasion of Ukraine will certainly cause euro area growth to contract, but since the duration and extent of the crisis cannot be predicted and the sanctions and their effects are not yet fully known, it is difficult to assess the negative impact on individual countries and industries. In preparing the assumptions, we have taken into account the sanctions imposed or announced by Western countries (see Box 1) up to 11 March, as well as the then few available scenarios prepared by international institutions and banks[1] regarding the impact of sanctions on economic activity. The European economy is exposed to Russia and Ukraine mainly through energy imports, and the two countries are also major suppliers of certain metals and food commodities. Since the Russian invasion of Ukraine, the already high commodity prices have soared. Therefore we expect the negative impact of economic sanctions to affect economic growth in the euro area mainly through higher prices for energy and other commodities. Lower confidence, financial

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[1] Allianz, ECB, EIU, Intesa Sanpaolo, NIESR, Oxford Economics, Raiffeisen.

stress and reduced trade in goods will also have a significant impact on the economy. Prices for energy and other commodities are projected to remain high for an extended period of time, which will increase the inflationary pressures. This will reduce real household incomes and corporate profits, and, together with lower confidence, hamper consumption and investment. The sanctions will cause supply chain problems to persist or even intensify, as it is difficult for companies doing business with Russia to find financial channels to trade with Russia after major Russian banks were excluded from the SWIFT system, and supply is also hampered by disrupted transport routes. For the euro area, we expect economic growth to slow to 3.4% this year and to 2.6% in 2023. Although the impact of sanctions on the Russian economy will be partially mitigated by higher oil and gas prices, the economy will be severely affected by the sharp depreciation of the rouble and reduced trade. According to the latest estimates, Russia's GDP is expected to fall by 8.0% this year and by 2.0% next year. Assumptions about economic growth in all of Slovenia's major trading partners are fraught with pronounced uncertainty and carry significant downside risks that could materialise in the event of continued escalation of war and sanctions against Russia and prolonged conflict.

Table 1: Assumptions of the forecast for GDP growth in Slovenia's main trading partners

Real GDP growth rates, in %	2021	2022		2023		2024
		September 2021	March 2022	September 2021	March 2022	March 2022
EU	5.3	4.4	3.4	2.4	2.7	1.9
Euro area	5.3	4.4	3.4	2.1	2.6	1.8
Germany	2.9	4.4	2.8	1.9	2.5	1.7
Italy	6.6	4.3	3.4	2.1	2.2	1.7
Austria	4.5	4.4	3.5	2.4	2.2	2.0
France	7.0	3.9	3.2	2.2	2.0	1.7
Croatia	10.4	4.4	4.3	3.4	3.0	2.8
Russia	4.3	2.8	-8.0	2.1	-2.0	1.0

Sources: for 2021 Eurostat (2022b); for other years Allianz Research (2022), Bank of Russia (2022), Consensus Economics (2022), EC (2022c), ECB (2022b), EIU (2022), FocusEconomics (2022), Intesa Sanpaolo (2022), Istat (2022), NIESR (2022), Oxford Economics (2022), Raiffeisen Research (2022), IMAD estimate.

Figure 1: Growth of commodity prices accelerated after the Russian military agresion

Source: WB.
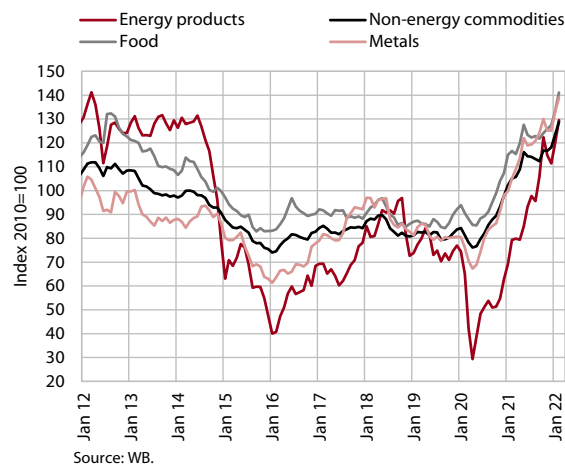
Figure 2: Assumptions for prices of oil and non-energy commodities

Source: ECB, EIA, calculations by IMAD. Note: The line indicates the annual average taking into account the assumption of the forecast for 2022 and 2023.
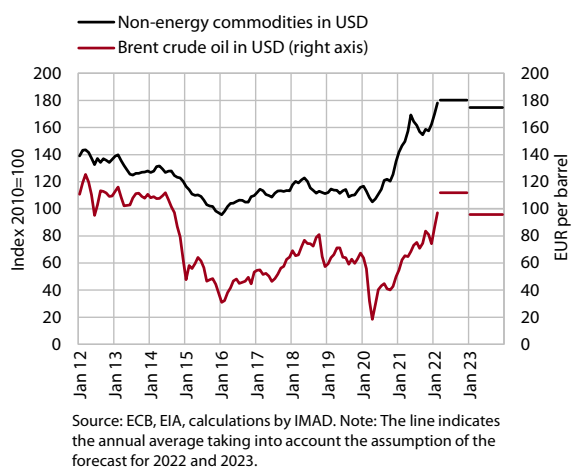
Figure 3: After last year's strong recovery, economic growth in the euro area is projected to slow in the next two years

Source: Eurostat, IMAD assumption based on sources under Table 1.
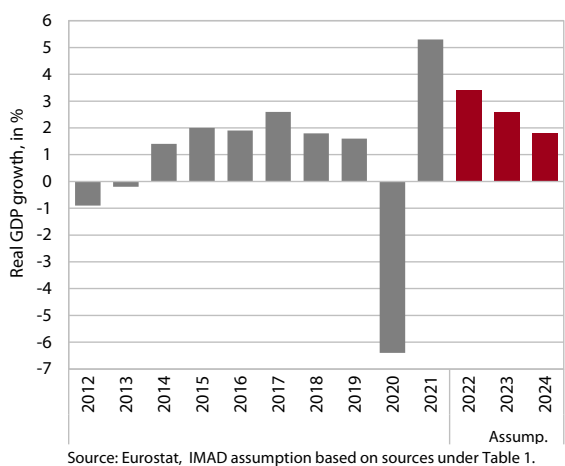
Figure 4: Growth in demand for Slovenian exports will halve this year compared to last year

Source: SURS, IMAD assumption based on sources under Table 1.
Note: *Real imports of trading partners weighted by Slovenia's share of exports to these countries.
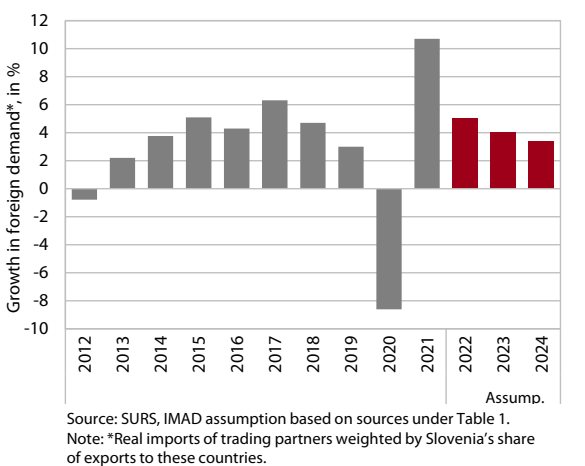
Brent crude oil and non-energy commodity prices are expected to remain high in 2022 and highly volatile. Based on market expectations on futures markets in the beginning of March, the technical assumption for the average Brent crude oil price underlying the forecast for 2022 is USD 111.8 per barrel. This is a significant increase on the previous year (by 58%), which is mainly the consequence of geopolitical tensions. Volatility was very high at the time of preparation of this forecast. The technical assumption for the oil price, which is based on the market expectation that energy prices will remain high for an extended period of time (see also Box 4), is lowered to USD 95.7/barrel in 2023 and to USD 90.7/barrel in 2024. Taking into account the technical assumption for the EUR/USD exchange rate, euro prices of oil will rise even more than dollar prices this year, by 69.9%. We assume a 15% increase in dollar prices of non-energy commodities this year and a decrease of around 3% in the next two years.

Table 2: Assumptions for oil and non-energy commodity prices and the USD/EUR exchange rate

	2021	2022		2023		2024
		September 2021	March 2022	September 2021	March 2022	March 2022
Brent crude oil prices, in USD	70.7	67.3	111.8	64.0	95.7	90.68
Brent crude oil prices, in EUR	59.9	57.1	101.8	54.3	87.6	82.97
Non-energy commodity prices, in USD, growth*	34.4	-1.0	15.0	-7.0	-3.0	-2.5
USD/EUR exchange rate	1.184	1.180	1.100	1.180	1.093	1.093

Sources: Barchart (n. d.), ECB (2022a), EIA (2022), IMAD estimate. Note: The assumptions are based on the futures prices on 7 March 2022. * The structure of EMU with regard to commodity consumption.

Box 1	Exposure of Slovenian economy due to the war in Ukraine

Russia's military attack on Ukraine was met with a strong international response that will have a significant impact on international trade and economic activity. At the end of February, the EU, the US and several other major world economies imposed comprehensive sanctions against Russia in order to isolate it financially and economically. The financial package of sanctions includes limitations on the Russian government's and Central Bank's access to international financial and capital markets, making it very difficult for the government and the Central Bank to access foreign reserves, affecting foreign borrowing capacity, devaluing the rouble and raising Russian interest rates. Major Russian banks (about 70% of the Russian banking market) were excluded from the SWIFT payments system, which will further affect trade flows with Russia and limit business activity. Faced with reduced liquidity, Russia's largest bank, Sberbank, stopped doing business in the EU a few days after the sanctions were imposed, on the orders of the ECB. Further highly restrictive measures in the areas of transport (restrictions on air traffic and a ban on Russian aircraft using the airspace of most EU Member States), energy (suspension of the announced Nord Stream 2 certification), trade (restriction on exports of high-technology and dual-use products or products that can also be used for military purposes), visa policy and access to the Russian media aim to weaken the position of Russian industry and, by restricting access to high technology, also weaken the main technology sectors (EC, 2022b). At the same time, several foreign corporations announced that they would halt operations in Russia and withdraw from the Russian market. On 8 March, the US announced a ban on imports of Russian oil, natural gas and coal; the UK also announced a ban on imports of Russian oil to be implemented within a month. According to initial estimates, these sanctions will severely affect the Russian economy. The disruption of international payments and supply chains and rising commodity prices will also affect the European economy.[2]

The direct exposure of the Slovenian economy to Russia and Ukraine is relatively low; in this part, the high dependence on energy imports and the exposure of the Slovenian pharmaceutical and chemical industry are especially important. Slovenia's exports are more exposed to the Russian market than those of most other EU Member States (with the exception of the Baltic States and Finland), but the share of exports to this market is still low (around 2.4%). The most exposed activities are the manufacture of organic chemical compounds and pharmaceutical products, followed by the manufacture of electrical machinery and equipment. On the import side, the key products include energy, especially natural gas and, to a lesser extent, oil. The Slovenian economy has more external financial

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[2] Russia is the EU's fifth largest trading partner and accounts for about 5% of the EU's total trade in goods with non-EU countries, while the EU accounts for 40% of Russia's total trade in goods. The EU exports machinery, transport equipment, medicines and chemicals to Russia, while it imports raw materials from Russia, in particular oil (crude and refined), gas and metals (iron, steel, aluminium, nickel).

assets than liabilities vis-à-vis both Russia and Ukraine. Russia is Slovenia's fifth largest foreign direct investment partner,[3] accounting for 6.1% of total foreign investment, while Slovenian investment in Ukraine is much lower (accounting for less than 1%).

Slovenia is a net exporter to Russia and Ukraine, with pharmaceutical products accounting for the largest share of exports. In recent years, Slovenia has recorded a significant surplus in trade in goods with Russia and Ukraine and has been a net exporter to both countries since 2001, while services trade with Russia (data for Ukraine is not available) is relatively small, accounting for only about 1.2%[4] of total trade in services. In 2021, Slovenian exports of goods to Russia amounted to EUR 855 million, which is about 2.4% of all goods exports in 2021, and exports to both countries amounted to about EUR 1.1 billion (3.1% of all Slovenian exports in 2021).[5] Medical and pharmaceutical products accounted for almost 40% of goods exports to Russia. Other important exports include electrical machinery and equipment (13%), organic chemical products (11.6%) and general-purpose industrial machinery (5.7%). Medical and pharmaceutical products are also Slovenia's main exports to Ukraine (almost 50%), and as with Russia, other important exports include electrical machinery and equipment (15.3 %) and industrial machinery (5.4 %). Exposure of export-oriented activities is very high in the manufacture of chemical products, with a quarter of all organic chemical products exported to Russia, and in the pharmaceutical industry, where both countries together account for about 12.5% of total (direct) exports of medical and pharmaceutical products.[6] A detailed analysis of companies shows that those most directly affected by the sanctions against Russia are from the manufacturing sector, especially the pharmaceutical industry. A cross-reference between the SloExport database (CCIS, 2022), which identifies companies that export to Russia and/or have a direct presence in the Russian market, and the Ajpes (2021) data shows that in 2020 almost 60% of companies that did business with Russia were engaged in manufacturing (C), followed by professional, scientific and technical services (M), trade (G) and transportation (H). In 2020, these companies, which have at least some direct links with Russia, generated 18% of value added, 40.6% of sales revenues outside the EU and employed 13.4% of all workers in companies.

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[3] At the end of 2020, foreign direct investment to Russia amounted to EUR 425 million. This makes Russia the second largest recipient of Slovenian investments, just behind the markets of the territory of former Yugoslavia.

[4] Before the COVID-19 epidemic, Russia was a relatively important market for Slovenian tourism, with overnight stays by Russian tourists in Slovenia accounting for 3% of all foreign overnight stays in 2019.

[5] Adjusted for re-export of medical and pharmaceutical products to Switzerland. IMAD estimate based on foreign trade data published by SURS. Detailed data will be available after the publication of the current account balance of payments by country.
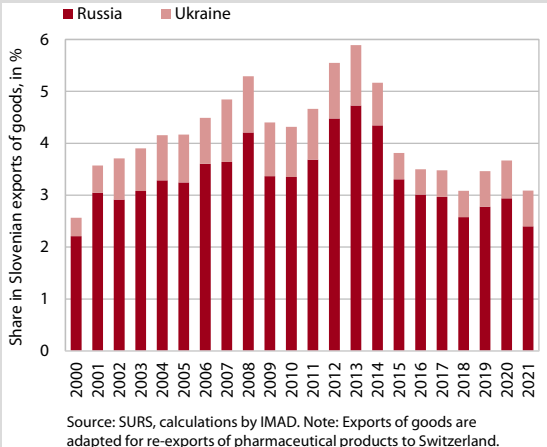
[6] Exports of organic chemical products to Russia and Ukraine amounted to EUR 102 million in 2021, while exports of medical and pharmaceutical products totalled EUR 452 million.

Nominal imports of goods and services from Russia and Ukraine are relatively low; exposure is particularly high for imports of energy commodities. Imports from the two countries accounts for only about 1.1% of total imports of goods, while imports of services accounts for 1.8%[7] of total imports of services. The largest share of direct imports from Russia is accounted for by energy commodities, i.e. natural gas, oil and petroleum products. According to Eurostat (2022b), more than 75% of all gas imports to Slovenia come either directly or indirectly (via EU trading partners, especially Austria) from Russia.[8] Imports from Ukraine mainly include various intermediate goods (iron and steel, metals, cork and wood products), although their share in total imports of these products is not significant. The same applies to food imports, especially cereals from Ukraine, whose direct share in imports is very small (less than 0.1% of total cereal imports), while the indirect impact could be greater (through higher prices on the world market).

Figure 5: Trade with Russia and Ukraine has been stable in recent years; annual fluctuations in imports from Russia are mainly influenced by imports of energy commodities

Source: SURS.

Figure 6: The share of total goods exports to Russia and Ukraine decreased markedly after 2014

Source: SURS, calculations by IMAD. Note: Exports of goods are adapted for re-exports of pharmaceutical products to Switzerland.

The total exposure is slightly higher when indirect trade with Russia is taken into account, through participation in the production of Slovenia's main trading partners. According to the latest available data (for 2018), the share of Slovenian value added exports to Russia (which includes both direct and indirect value added exports) is 3.3%. According to this criterion, the pharmaceutical industry is most exposed to Russia, since its share of value-added exports is 13.5%. The average share of value added

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[7] Data only for Russia for 2020. According to UN Comtrade (2022), total imports of services from Russia and Ukraine before the COVID-19 epidemic were around 2.2% of the total services imports. This is mainly due to imports of other business services (professional and management consultancy activities and technical, trade-related and other business services).

[8] In recent years, Slovenia has directly imported between 40% and 50% of its total natural gas from Russia (according to SITC, Group 34).

exports of EU Member States to Russia is slightly lower at 2.3%. In 2018, the share of Slovenian imports of value-added from Russia (which includes both direct and indirect imports of value-added) was 3.1%, slightly below the EU average, which is 3.6% (OECD, 2022). In terms of value-added imports, the EU Member States and also Slovenia are on average most exposed to Russian industries related to oil and gas production.[9]

The extent of the impact of the Russian invasion of Ukraine on the Slovenian economy will depend on the possible escalation of the situation. The impact of war in Ukraine on the Slovenian economy will depend on further sanctions, their duration, possible retaliatory sanctions and the adjustment of economies to the changed conditions. Possible disruptions in the supply of energy products, especially natural gas, could have a significant direct impact on the economy and households.

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[9] This includes the following NACE activities: mining of coal and lignite (section 5), extraction of crude petroleum and natural gas (section 6), manufacture of coke and refined petroleum products (section 19) and mining support service activities (section 9).

2   Extensive measures to mitigate the consequences of the pandemic and support the recovery of the economy

Since mid-March 2020, Slovenia has faced several waves of coronavirus infections, characterised by containment measures, which were largely eased in February this year. At the beginning of this year, the fifth wave of the epidemic began with a rapid increase in the number of infections. As the Omicron variant appears to be less severe and the number of new infections has decreased, the government decided in mid-February to lift the recovered/vaccinated/tested rule for access to most activities[10] and to lift restrictions on public gatherings and working hours (The Government of the Republic of Slovenia, n. d.).[11]

Since the epidemic was first declared, the government has taken a number of measures to mitigate the negative impact on the population and the economy and to achieve a faster recovery.[12] Most of these measures expired at the end of 2021. The measure that had a great impact on public finances was wage compensation for temporarily laid-off workers, which was in place until the end of June 2021. Another important measure was partial subsidising of short-time work, which remained in force until the end of September 2021. Important measures were also the basic monthly income for the self-employed, farmers and religious employees, which expired in the middle of last year, and one-off crisis allowance for the most vulnerable population groups.[13] Businesses hardest hit by the epidemic were also entitled to a partial subsidy of fixed costs, which was in place until the middle of last year. At the same time, the possibility of deferred payment and instalment payments of tax liabilities and certain contributions also expired. By the end of last year, the last moratoria or deferrals of obligations for affected borrowers under loan agreements expired. Until the end of December 2021, employers could benefit from partial relief due to the increase in the minimum wage in January 2020, introduced by PKP8.[14] Various extended deadlines related to the enforcement of insolvency law expired last year, where the cause of business problems was the epidemic. Various epidemic-related allowances were also an important category of general government expenditure, and the most important among them was the allowance for work in crisis conditions in accordance with the collective agreement for the public sector.

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[10] Except in healthcare and social care institutions and in prisons.

[11] https://www.gov.si/teme/koronavirus-sars-cov-2/ukrepi-za-zajezitev-sirjenja-okuzb/.

[12] For more detailed information on the measures adopted, see the Spring Forecast (IMAD, 2021b) and Autumn Forecast (IMAD, 2021a).

[13] In addition to allowances for pensioners, students, farmers and families, this includes an allowance for employees whose monthly salary did not exceed twice the minimum wage, who received a crisis allowance of EUR 200 in addition to the salary for the month of December 2020.

[14] Act on Additional Measures to Mitigate the Consequences of COVID-19 (ZDUOP, 2021).

The measures currently in force are mainly related to the tenth anti-corona package. Adopted in December 2021,[15] it again brought one-off solidarity allowances for the most vulnerable groups of the population and introduced an allowance for hazardous working conditions and additional workload[16] that will be in place by the middle of this year. It also extended the measure of reimbursement of 80% of the wage compensation for workers who stay at home due to quarantine or *force majeure* under PKP9[17] until the end of March. In addition, the validity of the 2020 tourism vouchers was extended until 30 June 2022. The vouchers from 2021 were also extended for the same period by a decision taken by the Government of the Republic of Slovenia last December. Until the end of this year, PKP10 also extends the measure to reduce administrative barriers to the implementation of significant investments introduced by PKP3[18], provides liquidity funds to enterprises for financial products[19] and reintroduces co-financing of antigent rapid tests for companies, which was extended until the end of February by the Government decision in January.[20] It enables hiring of additional staff in education without an open competition, but no longer than until the end of August this year. It also extends some measures in the field of health services.[21] In December 2021, the Government of the Republic of Slovenia also extended the period for payment of the allowance for work with COVID-19 patients from PKP7[22] until the middle of this year. Also until the middle of this year, the Government extended some social protection measures with two decisions taken at the end of last year and the beginning of this year.[23] The financing of additional staff in social welfare institutions also remains in force, which PKP4[24] set for a period of two years in July 2020.

At the EU level, comprehensive measures were adopted to mitigate the negative consequences of the crisis and support the recovery of economies. A EUR 540 billion fiscal package (3.9% of EU GDP from 2019) to support economic recovery in the short-term was already adopted in the first months of the epidemic.[25] In July 2020, an agreement was reached on a financial

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[15] Act on Additional Measures to Stop Spreading and Mitigate, Control, Recover and Eliminate the Consequences of COVID-19 (ZDUPŠOP, 2021).

[16] This is paid to protection, relief and rescue personnel and to students who assist or are invited to assist in the care of patients in health or social care facilities and who are involved in mobile testing and vaccination.

[17] The measure is described in detail in the Healthcare Intervention Measures Act (ZNUPZ, 2021).

[18] The measure is described in detail in the Intervention Act to Remove Obstacles to the Implementation of Significant Investments to Start the Economy After the COVID-19 Epidemic (IZOOPIZG, 2020).

[19] In the budgets of the Republic of Slovenia for 2021 and 2022, funds in the amount of EUR 10 million per year will be allocated for the implementation of financial products.

[20] Under the PKP10, this measure was in force from 8 November 2021 until the end of January 2022.

[21] Until the middle of this year, it is possible to temporarily redeploy healthcare workers, who are entitled to a 20% wage supplement; funding for telemedicine treatment was extended for the same period, etc.

[22] Act Determining Intervention Measures to Assist in Mitigating the Consequences of the Second Wave of the COVID-19 Epidemic (ZIUPOPDVE, 2020).

[23] This covers the loss of revenue due to unutilized capacity and the cost of renting additional premises, as well as the right to funds for co-financing personal protective equipment and disinfectants – both from PKP5 or the Act Determining Temporary Measures to Mitigate and Remedy the Consequences of COVID-19 (ZZUOOP, 2020).

[24] Act Determining Intervention Measures to Prepare for the Second Wave of COVID-19 (ZIUPDV, 2020).

[25] Within that, EUR 240 billion in precautionary loans from the European Stability Mechanism (EMS) to support Member States in their response to the pandemic crisis, EUR 200 billion from the Pan-European Guarantee Fund of the European Investment Bank (EIB) for loans to enterprises (small and medium-sized enterprises in particular) and EUR 100 billion in the form of favourable loans from the pan-European short-time work scheme (SURE) to prevent layoffs.

package for the recovery of the EU economy after COVID-19. The package in the overall amount of EUR 1,824.3 billion (just over 13% of EU GDP from 2019) consists of the classical multi-annual financial framework for 2021–2027 in the total amount of EUR 1,074.3 billion and the NextGenerationEU (NGEU) extraordinary recovery instrument amounting to EUR 750 billion[26] (EUR 390 billion in grants and EUR 360 billion in loans). Member States' national recovery and resilience plans under the Recovery and Resilience Facility, a key element of the NGEU instrument, were validated for most Member States.[27] The European Commission will obtain resources for its financing via borrowing on the financial markets, but the EU will also work towards introducing new own resources.[28] Slovenia was assigned EUR 2.098 billion in grants[29] and EUR 666 million[30] in loans under this extraordinary recovery instrument (with the possibility of additional borrowing).[31] Slovenia received pre-financing payment under the Recovery and Resilience Facility in the amount of 13% of total aid.

After providing liquidity to the economy and households through additional measures following the outbreak of the epidemic, the ECB announced a gradual phasing-out of monetary stimulus measures given the favourable economic developments and rising inflation, which will be slightly accelerated in view of the high price growth. Already at the beginning of this year, the ECB reduced its net purchases of securities under the Pandemic Emergency Purchase Programme (hereinafter PEPP), which amount to EUR 1,850 billion,[32] and will discontinue net purchases by the end of the first quarter of 2022. Under this programme, the ECB intends to reinvest the principal payments from maturing securities at least until the end of 2024, which means that the size of the ECB's balance sheet and the amount of money in circulation will not decrease significantly until then. After the discontinuation of net purchases under the PEPP, the ECB will temporarily increase net purchases under the asset purchase programme (APP) to EUR 40 billion per month in April and to EUR 30 billion in May. In June, net purchases will return to their current level of EUR 20 billion. The volume of net purchases in the third quarter of 2022

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[26] This is the amount in constant prices from 2018, which in current prices amounts to EUR 800 billion.

[27] At the time the Spring Forecast was being prepared, 22 Member States' plans had been approved at EU level.

[28] New own resources will be based on the Carbon Border Adjustment Mechanism (CBAM) and a digital levy (to be introduced by 2023). The payment of contributions based on the amount of non-recycled plastic packaging waste was introduced as a new source in the framework of the last negotiations on the Multiannual Financial Framework, so payments have already been made since the end of last year.

[29] This is the amount in constant prices from 2018, which in current prices amounts to EUR 2.319 billion. This amount was later reduced by EUR 55 million to EUR 2.264 billion as the Commission reduced its React-EU funding at the end of last year due to strong macroeconomic indicators.

[30] This is the amount in constant prices from 2018, which in current prices amounts to EUR 705 billion.

[31] NextGenerationEU consists of four programmes: the Recovery and Resilience Facility (EUR 1,589 million at constant 2018 prices or EUR 1,777 million at current prices in the form of grants to Slovenia to support investments and reforms essential for a sustainable recovery, to improve Member States' resilience and to support the green and digital transition), React-EU (EUR 312 million at constant 2018 prices or EUR 333 million at current prices, including EUR 9 million to support poor families; EUR 55 million were drawn down by the Commission from Slovenia due to strong macroeconomic indicators; this left EUR 269 million available under this instrument for labour market recovery investments, including support to small and medium-sized enterprises), the Just Transition Fund (EUR 129 million at constant 2018 prices or EUR 145 million at current prices for regions which have had or will have higher costs due to the structural changes necessary for the transition from fossil-intensive industries to a low-carbon economy and society by 2050) and Fund for Rural Development (EUR 68 million at constant 2018 prices or EUR 73 million at current prices).

[32] Which accounts for more than 15% of euro area GDP in 2019.

will depend on the economic situation at the time.[33] The special conditions for targeted longer-term refinancing operations III[34] are expected to end in June this year. However, a gradual increase in the ECB's main interest rates is not expected until some time after the discontinuation of net purchases of securities under the APP by ECB. Unexpectedly high inflation and rising inflation risks have significantly increased market expectations of a faster withdrawal of non-standard monetary policy measures and an increase in key interest rates since the start of the war in Ukraine. The timing of these two measures will depend on how much and for how long the tightened situation will affect inflation and economic growth. In particular, market participants expect greater flexibility from the ECB (BoS, 2022c).[35] The measures taken by the ECB at the beginning of the pandemic have boosted bank lending in the euro area, so that lending to businesses first accelerated year-on-year, then slowed down, partly due to the higher base, and started to accelerate again in recent months. In Slovenia, lending to enterprises decreased after the outbreak of the epidemic, but in recent months, lending activity has increased considerably and year-on-year growth is already higher than in the EMU.

Fiscal measures financed from national and EU sources to mitigate the impact of the epidemic proved to be a strong support to the economic recovery in 2020 and 2021. In 2022, this expenditure is declining and project funding expenditure under the Recovery and Resilience Plan will increase. According to the IMAD estimate, general government expenditure on various measures to support the economy and the population as well as the functioning of public services to mitigate the impact of the COVID-19 epidemic amounted to 5.2% of GDP in 2020 and remained high in 2021, i.e. 4.5% of GDP.[36] According to our estimate, this has reduced the decline in GDP by at least 4 p.p. in 2020 and contributed at least 3.4 p.p. to last year's growth.[37] The structure of this expenditure has also changed. Last year, more funds were allocated to public services than in 2020 and, as part of the measures to support the economy, this support has increasingly focused on the activities that were most affected by the epidemic during the year. IMAD's Spring Forecast assumes that mitigation measures, mainly arising from PKP 10, will amount to around EUR 374 million, i.e. 0.7% of GDP in 2022 (Figure 8). After the measures to mitigate the impact of the epidemic are gradually phased out, fiscal support for economic activity is shifting to other forms, including through the resources of the current EU financial perspective (until 2023), the Recovery and Resilience Facility (until 2026) and the new EU financial perspective (2021–2027), which

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[33] If the medium-term inflation outlook does not weaken, net purchases will be discontinued in the third quarter of 2022. However, should the situation change, the Governing Council will examine the implementation of the programme, both in terms of volume of net purchases and its duration.

[34] The programme comprises 10 long-term refinancing operations with which the ECB provided banks with additional sources of funding under certain conditions.

[35] For example, as regards the level and pace of the raising of interest rates, the completion of securities purchases, the manner in which maturing securities are reinvested, or the reduction of central banks' balance sheets.

[36] In addition, in accordance with intervention legislation, deferrals, instalment payments and write-offs of certain tax liabilities were granted to support businesses, as well as liquidity loans and guarantees.

[37] This was assessed on the basis of a multiplier, taking into account only expenditure paid from the state budget (without deferrals, instalment payments and liquidity loans). After 2009, the estimates of multipliers increased (see, for example Blanchard and Leigh, 2013) and were often substantially above 1. Our estimate is that the multiplier is around 0.8. The reduction is due to measures and safeguards that change consumer behaviour ("forced saving").

will support high levels of government investment. Post-pandemic support to businesses and households will also be provided through measures to mitigate the impact of high energy prices in the form of transfers, cost reimbursements and lower excise duties on energy and electricity (see Box 4) estimated at EUR 230 million, i.e. 0.5% of GDP, while revenue loss in the amount of EUR 82 million or 0.1% of GDP due to lower network and RES and CHP[38] charges will be borne by other economic entities.

Figure 7: In Slovenia, lending activity to companies has strengthened significantly in recent months and its year-on-year growth is already higher than in the EMU
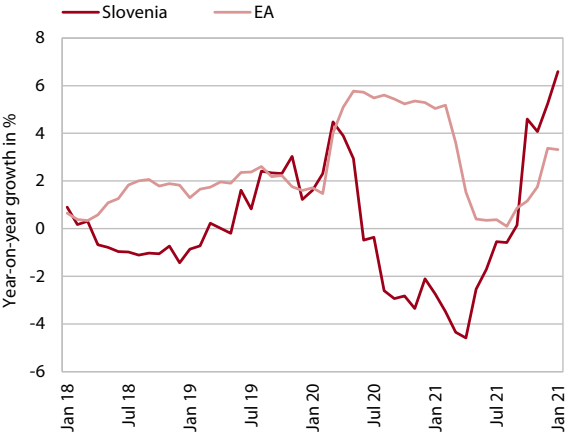
Source: BoS and ECB.

Figure 8: Estimate of the amount of measures (expenditure on accrual basis) to mitigate the consequences of the COVID-19 epidemic and support recovery
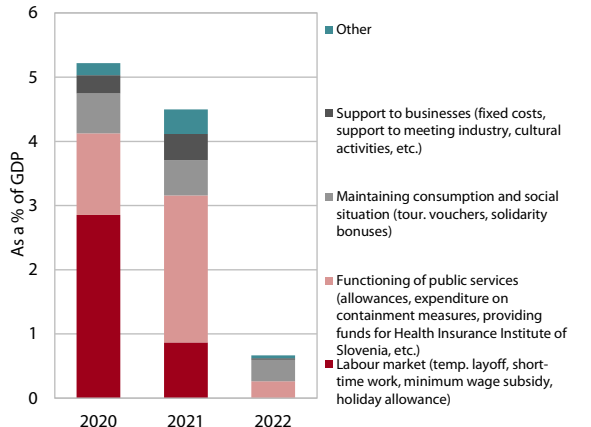
Source: MF, 2020–2022 IMAD estimate.

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[38] Contributions to support electricity production from renewable energy sources and from high-efficiency cogeneration.

3   Spring Forecast of Economic Trends in Slovenia

3.1   Gross domestic product – consumption aggregates

Last year, real GDP recovered quickly after a sharp downturn in 2020 and exceeded pre-epidemic levels, growing by 8.1%. GDP growth in 2021 exceeded IMAD's expectations from its Autumn Forecast and also IMAD's December 2021 estimate, largely reflecting the continued successful adjustment of the economy and the population to the changed situation. In particular, household spending accelerated and, somewhat surprisingly, growth of trade in goods increased significantly in the last quarter despite ongoing problems related to supply chain disruptions.

Last year, all expenditure components of GDP recovered quickly and were above the 2019 level, while government consumption continued to rise. Growth in private consumption, which was severely affected by the epidemic in 2020, was as high as 11.6% last year. This was due to the phasing out of containment measures in the spring and summer months and the subsequent broader implementation of the recovered/vaccinated/tested rule, which allowed limited operation of the most exposed activities also in times of a deteriorated epidemiological situation. Growth was also stimulated by the redemption of vouchers, which was mainly reflected in the increase in overnight stays by domestic tourists and spending on accommodation and food service activities, creative and arts activities and recreation. The high growth in private consumption was also supported by growth in disposable income, which was significantly influenced by government job retention measures and measures to help the population, as well as by a recovery in the labour market. The savings rate, which rose sharply in 2020, fell last year but remained higher than before the epidemic. Last year, gross fixed capital formation, which had already started to recover in the second half of 2020, recorded further growth (12.3%). This was the result of a favourable development of investment in machinery and equipment and in intellectual property products, while growth of construction investment was slow overall last year and remained lower than in 2019. According to our estimates, the lag in construction investment is mainly due to lower private sector investment, which is related principally to lower non-residential construction. Along with the recovery in foreign demand, export and import growth was also high last year (13.2% and 17.4% respectively). Trade in goods, which began to recover soon after a deep downturn in April 2020, already exceeded pre-epidemic levels at the end of 2020 and the beginning of 2021. Growth continued over the past year but was characterized by large quarter-on-quarter fluctuations, mainly due to supply chain disruptions. Exports of goods increased significantly in the last quarter, mainly due to exports of high-technology and certain medium-high-technology products, while exports of vehicles also recovered slightly after a long period of decline. Trade in services also recovered significantly last year and, with the exception of trade in travel, was mostly above pre-epidemic levels at the end of the year. Due to the faster growth of imports and domestic consumption than exports, the contribution of

external trade to GDP growth was negative last year. Final government consumption also increased last year (3.9%), driven by expenditure on measures to contain the epidemic and rising employment in the general government sector.

In the Spring Forecast, IMAD forecasts GDP growth of 4.2% in 2022, slowing to 3.0% next year and to 2.8% in 2024. The forecast for economic growth in 2022 is 0.5 p.p. lower than the Autumn forecast. After the strong rebound in economic activity last year, we had expected a slowdown of growth even before the start of the war in Ukraine, mainly due to last year's high base as well as increasing price pressures from high energy and commodity prices and supply chain bottlenecks. Russia's invasion of Ukraine and the imposition of sanctions have exacerbated these pressures, and the sectors most dependent on trade with Russia and Ukraine are (or will be) even more severely affected, leading to a decline in exports to this region. In addition, lower GDP growth than last year will be influenced by a lower volume of support measures that have a positive impact on economic growth, even taking into account the measures taken in recent days. Economic growth this year will be largely driven by growth of domestic consumption. After a strong rebound last year, the growth of private consumption will ease off this year. We expect the easing of containment measures to lead to faster growth in the consumption of services, which was still far behind the 2019 level last year due to restrictions related to the epidemiological situation. Private consumption growth will be lower than last year under the influence of higher inflation, which will lead to a real stagnation in disposable income, so we also expect a decline in the savings rate, which rose sharply during the epidemic. Investment activity will continue to be high this year. Given the high capacity utilisation in manufacturing, last year's favourable business results and low corporate debt, we expect further growth of investments in machinery and equipment. Based on the data on building permits issued, we expect a further increase in housing investment, and according to the valid budget documents, we also expect further growth in general government sector investment. This is also supported by EU funds, as funding from the 2014–2020 financial perspective is coming to an end, and this is usually the time when the absorption of funds accelerates, while the contribution from the Recovery and Resilience Facility is also increasing. We expect the export part of the economy to continue to grow, albeit at a slower pace than last year due to the slowdown in the growth of goods exports, which will be significantly affected by the consequences of the war in Ukraine and a sharp decline in exports to Russia (see also Box 1) and, through the impact on the economic activity of Slovenia's major trading partners, also by a moderation of overall growth in foreign demand. In this uncertain situation, supply chain disruptions will only gradually ease over the course of this year and remain high in some sectors. The trend of bringing supply chains closer to European markets where Slovenian companies would increasingly seek opportunities could have a positive impact. Over the next two years, GDP growth is expected to slow further, first to 3.0% and then to 2.8%. As foreign demand slows, this will also be affected by continued price pressures, which will have an impact on business costs and limit household purchasing power.

After a strong upswing, private consumption growth will be significantly lower this year and in the next two years than last year. After a strong rebound last year, which, in addition to further growth in disposable income (supported by government measures and a rapid recovery of the labour market) was also the result of the release of pent-up demand from 2020, mainly related to the purchase of goods, private consumption growth will slow down this year. We expect the easing of restrictive measures to lead to faster growth in the consumption of services this year, which was still far behind the 2019 level last year due to restrictions related to the epidemiological situation. As travel gradually normalises, growth this year and in the next two years will also be influenced by higher spending abroad. The lower real growth in private consumption this year and next (4.3% and 1.4% respectively) compared to last year's rebound will be influenced by relatively high inflation, which will reduce household purchasing power. After increasing in recent years, disposable income will remain roughly at last year's level in real terms this year, which given the lower compensation of employees, will be positively influenced by amendments to the Personal Income Tax Act (ZDoh-2Z, 2022). We expect disposable income to increase by 1.0% in real terms in 2023 and by 2.0% in 2024. With such developments, the savings rate will fall to pre-epidemic levels over the forecast period.

Figure 9: In the last quarter of last year, year-on-year growth of GDP was high, with private investment standing out in particular

Source: SURS.
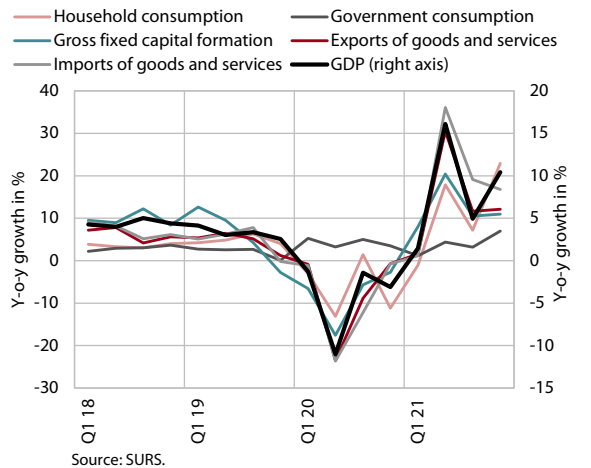
Figure 10: Last year, growth of investment in machinery and equipment was particularly high, while growth of construction investment was very slow overall last year and remained lower than in 2019

Source: SURS.
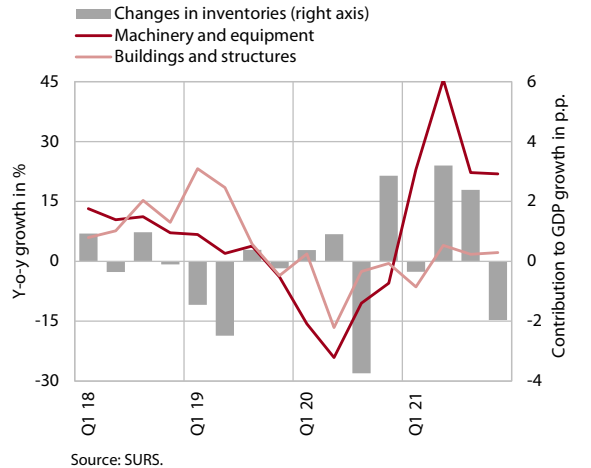
Figure 11: Exports of goods already exceeded the pre-crisis levels last year, while exports of services still lag behind

Source: SURS, calculations UMAR.
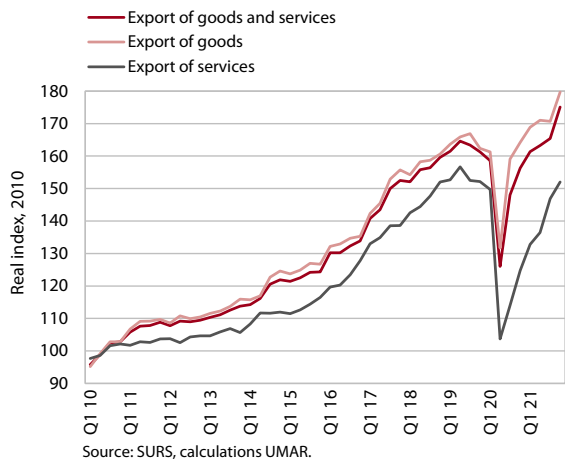
Figure 12: Economic sentiment indicators were still favourable in January and in the first half of February, before the geopolitical situation deteriorated

Source: SURS.
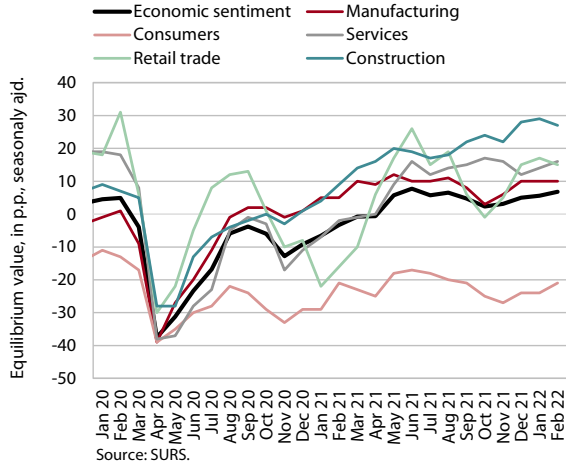
Table 3: Forecast of economic growth

Real growth rates, in %	2021	2022		2023		2024
		September 2021	March 2022	September 2021	March 2022	March 2022
GDP	8.1	4.7	4.2	3.3	3.0	2.8
Exports	13.2	8.2	7.1	5.6	5.5	5.0
Imports	17.4	8.8	7.2	5.8	4.9	4.6
External balance of goods and services (contribution to growth in p.p.)	-1.6	0.2	0.3	0.3	0.8	0.6
Private consumption	11.6	6.0	4.3	3.1	1.4	1.6
Government consumption	3.9	1.5	0.6	1.0	1.3	1.5
Gross fixed capital formation	12.3	8.0	6.5	6.0	5.0	5.0
Change in inventories and valuables (contribution to growth in p.p.)	0.8	-0.3	0.2	0.0	0.1	0.0

Source: SURS (2022); 2022–2024 forecast by IMAD.

For this year and the next two years, we also forecast further growth in gross fixed capital formation. Given the high capacity utilisation in manufacturing, favourable business results last year and low indebtedness, we expect further investment growth this year (6.5%). Investment in industry will continue to increase, and with the easing of containment measures, investment will also increase in those services that were most severely restricted during the epidemic (investment in accommodation and food service activities, entertainment activities, etc.). Based on the data on building permits issued, we expect a further increase in housing investment, and according to the valid budget documents, we also expect further growth in general government sector investment. A high level of investment activity in the next two years will be boosted mainly by EU funds, since funding from the 2014–2020 financial perspective is coming to an end, and this is usually the time when the absorption of funds accelerates. Investments, both government and private, will be supported by the Recovery and Resilience funds. In view of the housing shortage and high prices, we expect high activity in residential construction in the coming years.

Mainly due to lower expenditure on measures to mitigate the impact of the epidemic, growth in government consumption will be lower this year than in the two previous years, but will increase slightly again in 2023–2024. In 2021, a series of measures to contain the epidemic and mitigate its consequences significantly increased expenditure on goods and services (for tests, vaccinations, protective equipment), social benefits in kind (to contain the epidemic in public institutions, gifts for newborns, etc.) and employee compensation (wage supplements), which is expected to weaken in 2022 and lead to lower growth in government consumption (0.6%) in addition to stronger price growth.[39] Employment growth in the general government sector is also expected to weaken somewhat (from 1.6% to 1.2%), which is also related to the improvement of the epidemiological situation and the end of the Slovenian EU Presidency, while employment growth will continue to be highest in human health and social work activities. Growth in government consumption will increase slightly again in 2023 and 2024, to 1.3% and 1.5% respectively. The growth in government expenditure on final consumption will also reflect further employment growth in the general government sector, which will amount to about 1.1% in these years.

Growth in imports and exports will slow this year and in the coming years. This year, we expect growth in goods exports to continue, albeit at a slower pace than last year. The development of exports will be shaped by the Russian invasion of Ukraine and especially by the EU sanctions, which will have a significant impact on direct and indirect trade with Russia and, by affecting the economic activity of Slovenia's main trading partners, lead to a slowdown in the overall growth of foreign demand. According to estimates by international institutions and taking into account the war in Ukraine, we expect supply chain disruptions to slowly and gradually ease over the course of this year, but constraints in some sectors (e.g. the automotive industry) to remain high. In line with the assumed growth in foreign demand, the growth in goods exports will continue in the coming years. The trend of bringing supply chains closer to the European markets where Slovenian companies would increasingly look for opportunities could also have an important positive impact. The willingness and ability of industry to adapt to structural changes related to climate change (e.g. the electrification of vehicles and the development of related products) could also play an important role. This year, growth in exports of services will be comparable to last year, but is expected to slow down thereafter. This year, exports of services are also expected to reach pre-epidemic levels, and these levels will be surpassed by most major groups of activities, with the exception of travel, which was the most affected during the epidemic and will not reach pre-epidemic levels until 2024. Export growth is expected to continue to outpace foreign demand growth throughout the forecast period, although exporters will face competitiveness and profitability pressures from labour costs and, especially in 2022, from commodity price increases, in an environment where shocks from the international environment are much larger than forecast in the autumn. Imports of goods and services will grow slightly faster than exports in the forecast period, which we attribute to increased domestic consumption,

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[39] Payments of epidemic-related allowances in 2021 affected nominal government consumption, which was consequently significantly higher than real government consumption (8.9% versus 3.9% in real terms). As most allowances will no longer be paid in 2022 (only the allowances for work with COVID-19 patients are maintained, the amount of which is small), this will lead to an expected decrease in nominal government consumption in 2022.

especially investment growth. Imports of services have risen sharply over the past year and have approached their pre-crisis levels, so their growth will slow gradually this year and over the next two years.

Figure 13: Contributions of expenditure components to GDP change

Source: SURS, IMAD forecast.
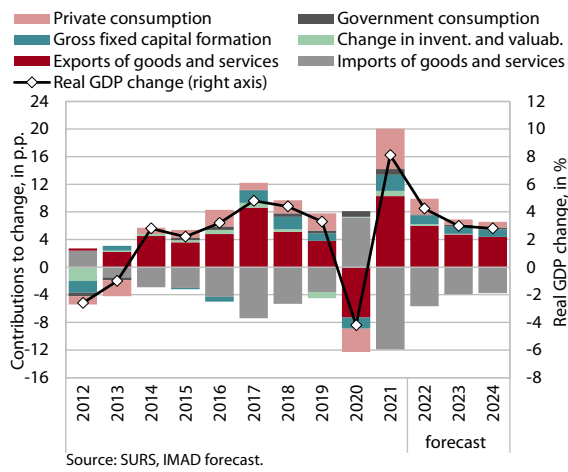
Figure 14: The lower growth of private consumption than last year is influenced by the stagnation of disposable income this year amid rising inflation

Source: SURS, IMAD forecast.
Note: *deflated by private consumption deflator.
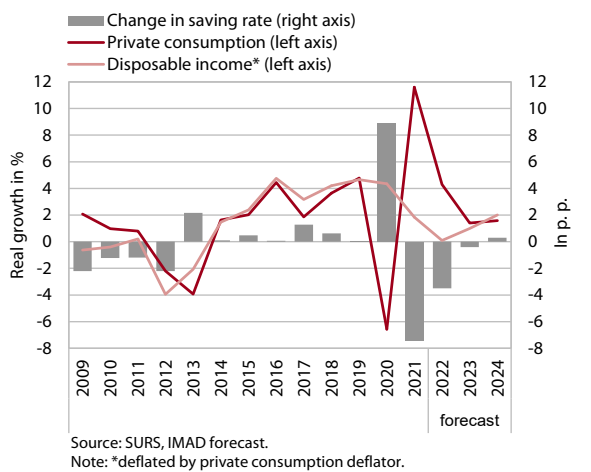
Figure 15: Investment in machinery and equipment contributed the most to the growth of total investments last year, and the contribution of construction investments will also increase in the future

Source: SURS, IMAD forecast.
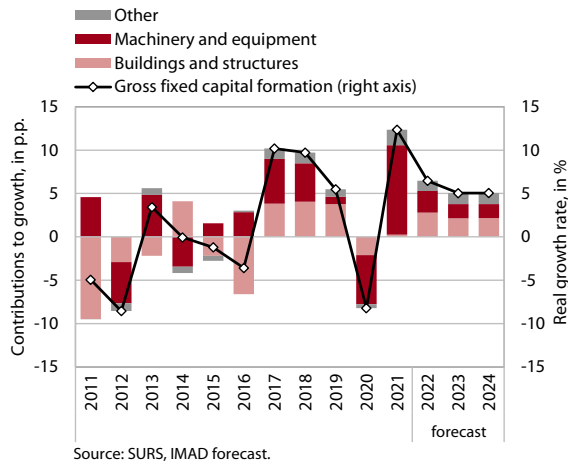
Figure 16: Export growth is expected to surpass growth in foreign demand in the forecast period

Source: SURS, IMAD forecast for exports and IMAD assumption for foreign demand based on sources under Table 1.
Note: *Real imports of goods and services of the trading partners weighted by Slovenia's share of exports to these countries.
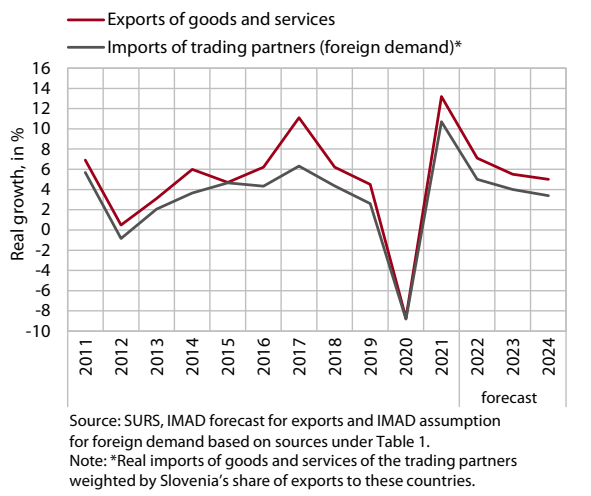
Box 2   **Dwelling prices**

In Slovenia, growth of dwelling prices accelerated in 2021. After a decline during the global financial crisis, property prices started to rise in 2015, with growth accelerating significantly in 2017–2019 (average annual nominal growth was 7.9%). After slowing to 4.6% in 2020, price growth accelerated significantly again to 10.1% in the first nine months of 2021. The number of transactions of dwellings had also increased markedly until 2017, after which the number of transactions declined. This was due to the lack of newly built dwellings, which otherwise represent only a small part of the supply (7% on average over the period 2010–2020) and in 2020 mainly due to operating restrictions during the epidemic. In the first nine months of 2021, the number of transactions was again above average.

Figure 17: The growth of dwelling prices in Slovenia accelerated last year

Source: SURS, calculations by IMAD. Due to methodological changes, data on transactions are available from 2010 onwards.
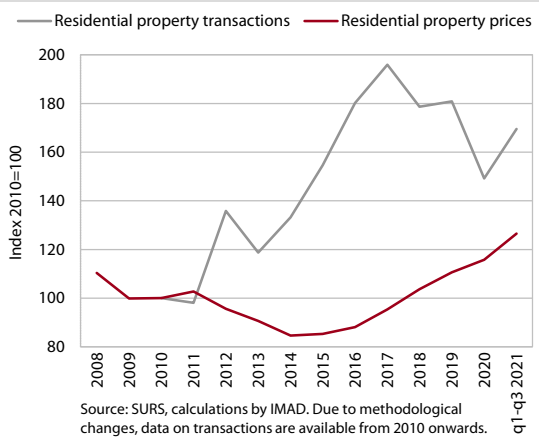
Figure 18: Last year, prices of existing and newly built dwellings increased by around one-tenth

Source: SURS, calculations by IMAD.
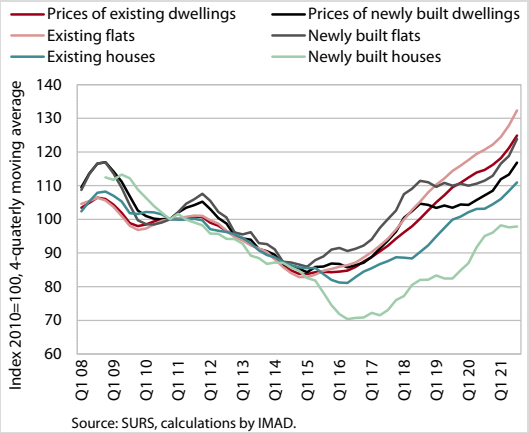
Figure 19: Dwelling prices in the EU have been increasing since 2014 ...

Source: Eurostat.
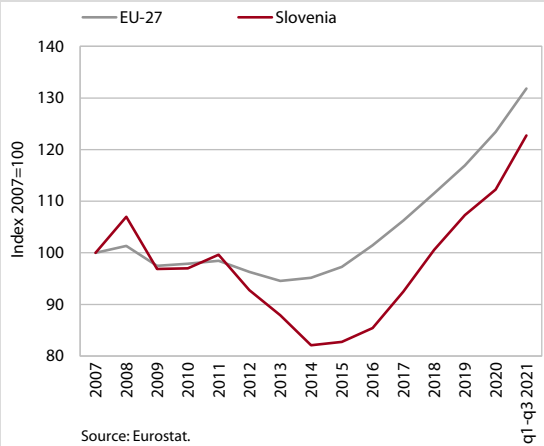
Figure 20: … and continued to increase in 2021, but the price increase was less pronounced than in Slovenia

Source: Eurostat.
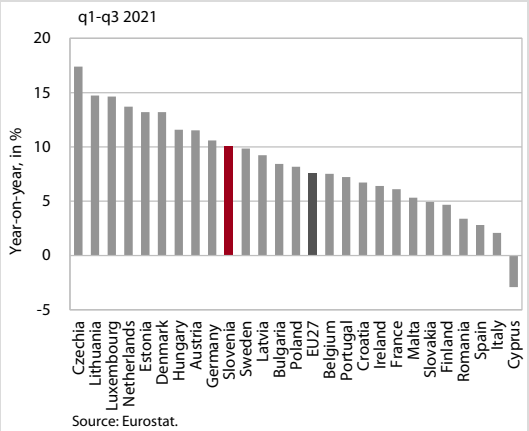
Recent price growth has been driven by both demand and supply side factors. The rise in dwelling prices in the pre-pandemic period was mainly a result of the favourable economic situation, the increase in household disposable income and the favourable bank lending conditions. In 2020, dwelling prices continued to grow. The price increase was mainly due to the fact that households continued to have relatively high incomes in 2020 (supported by government measures) and increased their savings on average, and lending for the purchase of dwellings also remained high under favourable credit conditions. The introduction of fees on large bank deposits, working from home and the restriction of movement during the epidemic probably also had a minor impact on price growth. Growth of dwelling prices in Slovenia has responded to the economic recovery in 2021 with accelerated growth. In addition to continued high demand and steady growth in household disposable income, high overall household savings, continued favourable credit conditions and continued relatively high growth in housing loans, this was also affected by a limited supply of newly built dwellings, higher prices of building materials, higher labour costs, expectations of higher inflation and the related depreciation of savings in real terms.

In 2021, growth in dwelling prices also accelerated in the EU. On average, prices in the EU-27 have increased since 2014 and in 2020 were 23% above 2007 levels in nominal terms and 22% above the record prices of 2008. After an average growth of 4.7% in 2016–2019, growth further strengthened in 2020 despite a strong recession. Thus, the already high growth of dwelling prices for instance in Luxembourg, Poland, Germany and Austria strengthened significantly in 2020, while growth slowed down in some countries (e.g. Hungary, Croatia) but remained high in most countries. Growth continued in 2021, with prices rising year-on-year on average in the first three quarters in all countries except Cyprus.

Figure 21: Dwelling prices in Slovenia, deflated by inflation, already exceed 2008 record levels …

Source: SURS. calculations by IMAD. Note: average for O3 2007–2021.
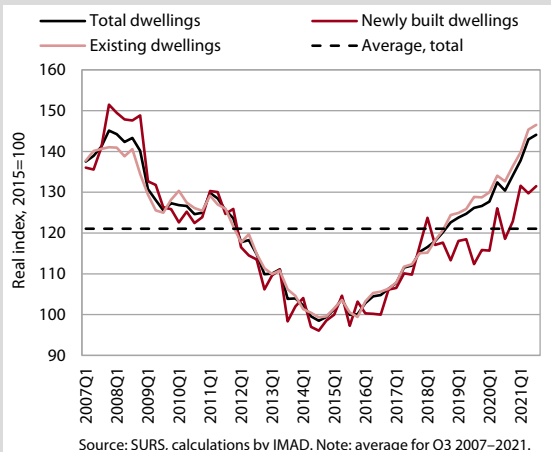
Figure 22: … deflated by wage growth, they still lag behind the record levels, but exceed the long-term average

Source: SURS. calculations by IMAD. Note: average for O3 2007–2021.
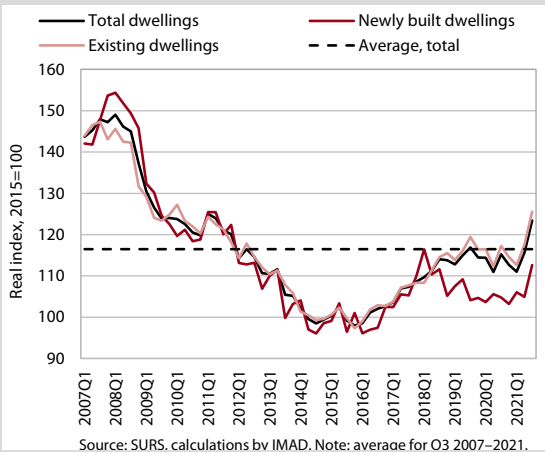
Already in 2019, nominal dwelling prices in Slovenia had surpassed the then record prices of 2008, but if we take into account wage growth, prices in 2021 were still lagging behind the record high prices. In nominal terms, prices in the third quarter of 2021 were 18% higher than average prices in 2008 – prices for existing dwellings were 24% higher and prices for newly built dwellings were 4% higher. Even taking into account overall price growth (inflation), average dwelling prices reached the 2008 peak in the third quarter of 2021 – prices of existing dwellings were 6% above this level, while prices of newly built dwellings were still 11% lower. Prices deflated with nominal gross wage lagged behind the record high prices more significantly in the third quarter of last year, by 14%, but were last year much higher than the long-term average.[40] According to the Bank of Slovenia (BoS, 2021), some other indicators, such as the ratio between property prices and rents, which was 15 p.p. above the long-term average at the beginning of 2021, deviated significantly from the average value.

Some factors suggest that prices of dwellings may remain high in the short term, as in recent years mainly due to high demand amid higher prices and insufficient supply. The main factors in maintaining high prices in the short term could be the following:

a) *Good financial situation of households.* Disposable household income growth was still high last year. Slovenian household debt remains low and well below the euro area average (BoS, 2022a). Savings remained high as the stock of deposits increased by a further EUR 1.6 billion year-on-year at the end of 2021, while the value of other financial assets (shares and other equity and life insurance and pension schemes) also increased in the third quarter of last year. Last year, borrowers reacted to a possible future rise in interest rates with a higher share of new housing loans with a fixed interest rate (71% of all new housing loans in the first half of last year). As a result, the share of fixed-interest housing loans in all housing loans increased by 5 p.p. to 39% in the first half of the year (BoS, 2021). At the end of 2019, banks tightened the conditions for obtaining housing loans, so that loans can be taken out mainly by households with higher incomes, which means that their creditworthiness would probably be relatively less affected in the case of an increase in interest rates (in the case of variable-rate loans) and instalments.

b) *Great willingness of the population to invest in their living environment.* Consumers' intention to purchase or build a home within 12 months or take on home improvements is high. More and more people are working from home, creating increasing demand for properties with an extra room, garden, etc. (Bank of England, 2021).[41]

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[40] Average value in the period from 2007 to the third quarter of 2021.

[41] Analysis by the Bank of England shows that just under half of last year's price rise in the UK can be attributed to increased demand for larger properties outside city centres.

Figure 23: The stock of household deposits increased in 2021

Source: BoS.
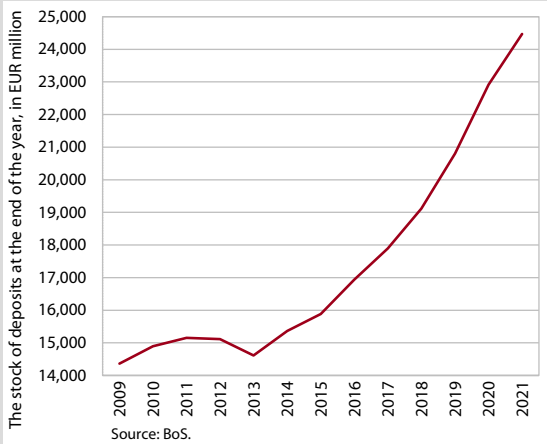
Figure 24: Consumer expectations of buying or building homes and home improvements also remain high

Source: SURS, calculations by IMAD.
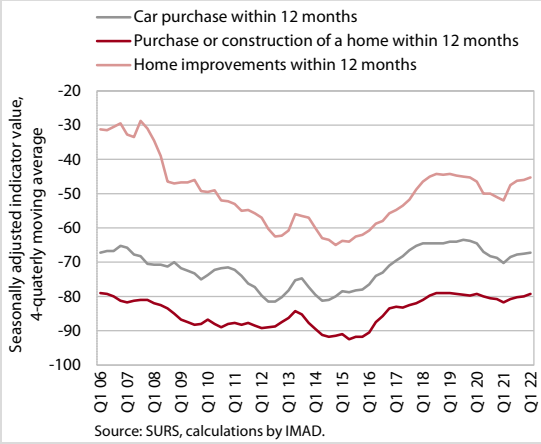
c) *Investment in real estate for fear of high inflation.* The purchase of real estate is also fuelled by the expectations of high inflation and the consequent devaluation of savings deposits. Slovenians tend to be more conservative when it comes to investment, so they rather invest in real estate than in funds, shares or cryptocurrencies. For example, 75% of the population live in their own dwellings,[42] while this share is 70% in the EU, with 72% of Slovenians living in houses, while in the EU only 53% (Eurostat, 2022b).

d) *Supply-side constraints.* In recent years, the increased demand for dwellings has led to price increases, as supply has failed to keep up. The increase in building permits issued in Slovenia last year is a sign of greater supply in the coming years, but the construction of new housing is currently hampered by material and labour shortages. These cost pressures lead to higher growth in the prices of newly built properties.

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[42] According to the 2015 census, the percentage of owner-occupied dwellings in Slovenia was 81.2%, approaching the data of the previous census in 2002 (83.6%), which took into account the information provided by residents on the ownership of their dwelling and not the formal legal situation in the registers.

3.2   Value added by activity

After a strong drop in 2020, value added increased in most activities last year. The growth in activities related to international trade, which already started to strengthen in 2020, continued throughout the year, while the growth in domestic market-oriented activities gradually increased. This was significantly influenced by the relaxation of containment measures during the spring and summer months and by the wider implementation of the recovered/vaccinated/tested rule, which allowed the most exposed activities to continue to operate on a limited scale even during the worsened epidemiological situation. The redemption of vouchers also had a positive impact. Following a deep slump in 2020, accommodation and food service activities,[43] entertainment, sports, recreation and personal services were already significantly above the previous year's level but still lagged behind the pre-crisis levels. Turnover growth in trade was high, almost 12%, with no decline in value added during the epidemic due to the positive impact of wholesale trade.[44] Growth of activity in manufacturing, which was already above pre-crisis levels at the end of 2020, continued last year and reached 10.2%. The quarterly movements, especially the slowdown in the second half of the year, were caused by semiconductor shortages and supply chain disruptions mainly related to problems in the automotive industry. Activity in the latter remained lower than a year ago and before the epidemic despite a recovery in the last quarter. However, most other manufacturing sectors have already surpassed pre-crisis levels. Activity in transportation and storage also continued to grow. Value added in construction, where pre-crisis levels were already reached in the last quarter of 2020, was slightly higher year-on-year (2.8%), mainly due to the low base. Data on the value of construction work during the year shows fluctuations and a decline in the construction of non-residential buildings. The problems are mainly related to rising prices and material supply constraints. Value added in public services, which has risen consistently since the beginning of the epidemic, also increased in 2021 (1.8%), mainly due to continued high growth in human health and social work activities and relatively high growth in education. After growing in 2020, value added in agriculture fell last year (-6.2%). This is due to the frosts in spring, the cold spring and the drought in summer, which reduced yields of crops, vegetables and fruit.

Growth in manufacturing and related services, most of which already reached 2019 levels last year, will slow this year and over the next two years, while growth in construction is projected to be higher than last year. Growth in manufacturing will continue this year, but will be lower on average than last year. This will be mainly the result of weaker foreign demand and the economic consequences of the war in Ukraine, which will hit the pharmaceutical industry in particular. The most vulnerable sectors also include the manufacture of electrical equipment and the manufacture of chemicals and chemical products. The war will also lead to continued disruptions in the supply of raw materials and semi-finished products, and labour shortage will also have a negative impact on the growth of value added. Disruptions in semiconductor

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[43] The number of foreign tourists also increased, with overnight stays still lagging 58% behind the 2019 level.

[44] Wholesale trade performed well in 2020 due to the recovery of manufacturing and transportation and good performance of industries supplying pharmaceutical and medical products and materials.

supply are not expected to subside until 2023, and the most affected sector will still be the automotive industry. In 2023–2024, value added in manufacturing will continue to increase, but growth will gradually slow due to weaker foreign demand. We expect construction activity to grow this year and in the next two years, influenced by Slovenia's investment activity stimulated by EU funds from the Recovery and Resilience Facility and the upcoming end of the financial perspective for the 2014–2020 period. Growth will also be significantly affected by continued growth in housing construction. Services more related to manufacturing, construction and economic recovery in general (e.g. architectural and engineering activities, consultancy activities and transportation) also reached pre-crisis levels last year, with the exception of transportation, which was hampered by public transport restrictions. Growth in these services will gradually slow this year and in the next two years after last year's strong upswing.

Services, which have been most severely hit by the epidemic, started to recover last year and will mostly reach their pre-crisis levels this year, except tourism-related services, which will reach that level by 2024. As private consumption continues to grow, growth of services, the operation of which was still limited last year, will accelerate this year. This will also be partly affected by the extension of the deadline for redeeming 2020 and 2021 vouchers. We expect foreign tourists to return this year and in the next two years, which will have a positive impact on accommodation and food service activities and also on creative, arts and entertainment activities, sports activities and personal services, which are expected to reach their 2019 pre-crisis level this year. In 2022, growth of turnover in trade is expected to ease, mainly as a result of lower growth in non-food retail trade as demand is expected to shift from goods to services. Lower growth is also expected for wholesale trade, which did not decline during the epidemic and contributed to the fact that value added did not fall during the epidemic. In 2023–2024, growth in trade will be similar to this year, but in all other services mentioned, it will slow down. Other, more tourism-related services are expected to reach pre-crisis levels by 2024.

Value added in public services is expected to grow by more than 2% this year, with growth being only slightly lower over the entire forecast period. This is mainly due to continued high growth in health and social work this year, which is expected to remain at a similarly high level in the coming years, mainly due to increased resources to strengthen healthcare and the adoption of the Long-Term Care Act.[45]

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[45] Employment in these sectors has continued to increase overall in 2021 to address the shortage of health and care workers. Employment has increased sharply in residential care activities, where PKP4 provided additional funding for 620 jobs in institutional care, 550 of which in nursing homes. The growth of employment in non-residential care has been even higher, since the number of personal assistants has increased very rapidly since the beginning of 2019, based on the Personal Assistance Act (ZOA, 2017). Growth will continue to be high this year and in the coming years due to the expansion of nursing home facilities (in 2021, concessions for 1,285 places were awarded and a tender for a further 1,100 places was published) and a further increase in personal assistance and home care, where there is still a severe shortage of facilities. The growth in these activities is supported by EU funding to cushion the increased need for ageing-related services, as well as by increasing funds from the state budget under the new Long Term Care Act (ZDOsk, 2021), which is expected to enable additional employment from 2023.

Figure 25: In the last quarter of last year, most manufacturing activities were above their pre-crisis levels, while the automotive industry is the only main industry to lag behind

Source: SURS, calculations by IMAD.
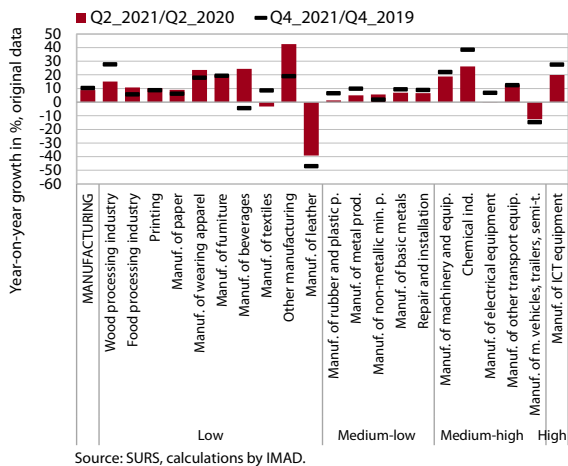
Figure 26: The pace of recovery in the services sector varies; services that were more severely hit by the epidemic have not yet reached 2019 levels

Source: SURS, calculations by IMAD. Note: *including real estate.
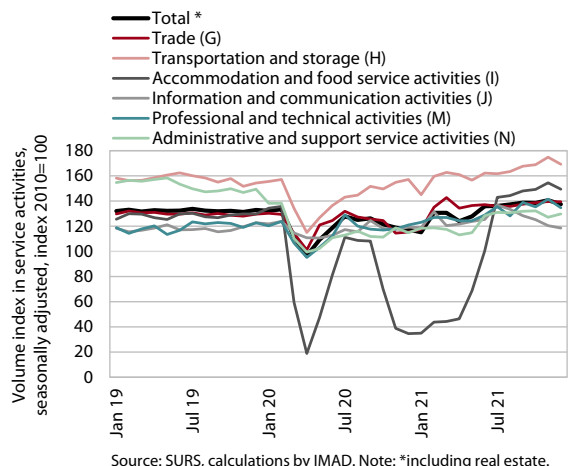
Figure 27: Contributions of value added growth to GDP change, by activity

Source: SURS, IMAD forecast.
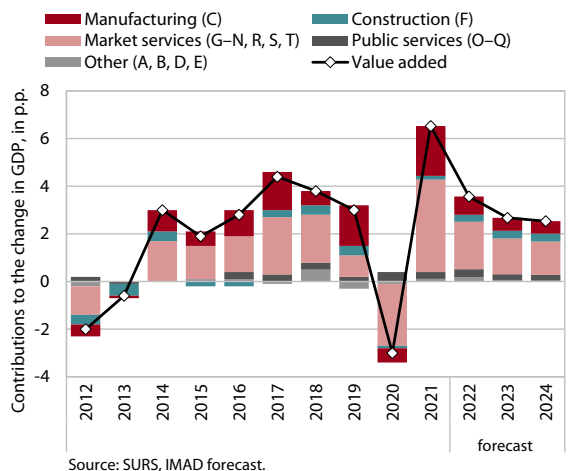
Box 3   **Global supply chain problems**

The rapid recovery in global consumption and increased demand for certain raw materials and commodities after the initial shock caused by the outbreak of the epidemic collided with limited supply as a result of containment measures, interrupted or hampered supply routes, certain natural disasters and increasing labour shortages. All this has led to supply-side bottlenecks that had a negative impact on industrial production, and the disruptions persist also in 2022 (EC, 2021a). The Global Supply Chain Pressure Index (hereinafter GSCPI)[46] shows that severe supply chain disruptions first occurred in early 2020 following the outbreak of COVID-19 in China. Measures to control the virus' spread shut down factories, first in China and then around the world. After the situation temporarily stabilised, it started to deteriorate again in 2021 and pressure in the production chains peaked in October 2021, followed by the first signs of a possible improvement. Shortages of raw materials and intermediate goods due to supply chain disruptions led to a sharp increase in the share of manufacturers, especially in 2021, who identified this as one of the main limiting factors for production (Eurostat, 2022a), both in Slovenia and the EU. Data for the first quarter of 2022 in this segment showed the first signs of a possible improvement, which were more pronounced in Slovenia than in the EU.

Figure 28: Last November and December, the GSCPI suggested that supply chain pressures could potentially subside

Source: Federal Reserve Bank of New York.
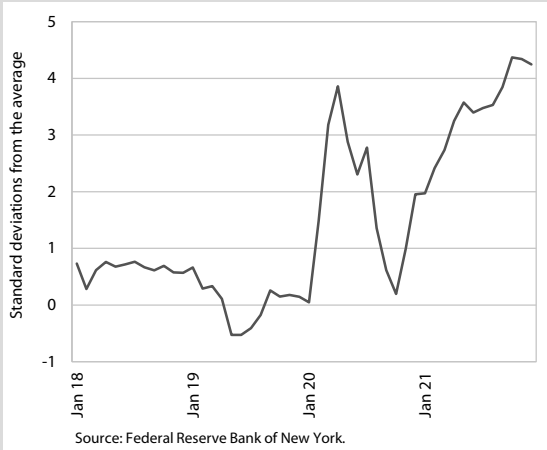
Figure 29: The increase in the share of manufacturers who believe that their company's production is hampered by a lack of raw materials was interrupted in Slovenia at the beginning of the year

Source: Eurostat, Business and consumer surveys.

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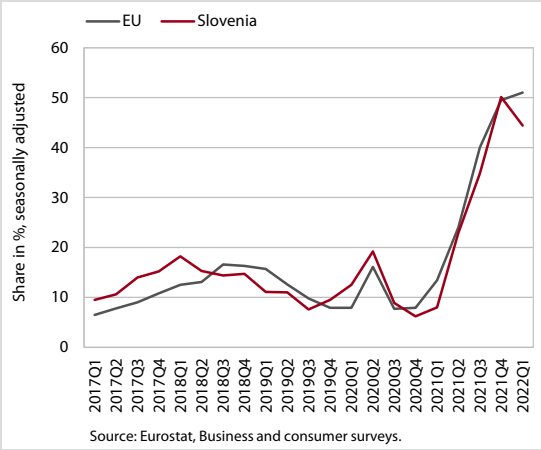
[46] This is a new indicator developed by the US Federal Reserve to monitor global supply chain pressures (Federal Reserve Bank of New York, 2022).

The shortage of semiconductors due to the sharp increase in demand and limited production capacities has hit the automotive industry the hardest, both in Slovenia and in the EU. As the COVID-19 epidemic spread, demand for some goods containing semiconductors, such as computer equipment, increased sharply. Given the lower vehicle demand and production at the beginning of the epidemic, some of the semiconductors produced were shifted to other industries.[47] With the unexpectedly rapid resurgence of demand for vehicles and the limited semiconductor production capacity, the automotive industry faced a severe shortage of semiconductors (WIIW, 2022).

The main industries within the manufacturing sector in Slovenia that are affected by a shortage of raw materials and intermediate goods due to supply chain disruptions, apart from the automotive industry, are the manufacture of fabricated metal products, electrical equipment, machinery and equipment n.e.c., and rubber and plastic products.[48] The seasonally adjusted survey data for these industries show signs that shortages of raw materials and intermediate goods have eased in all segments except the automotive industry in the first quarter of 2022, which is consistent with the expectation that the semiconductor supply problems will last longer than supply disruptions for other goods. Nevertheless, there were signs of recovery in both the European and Slovenian automotive industries in the last quarter of last year.

Figure 30: The percentage of manufacturers in Slovenia who believe that their company's production is limited by material shortages fell at the beginning of this year in all sectors except the automotive industry
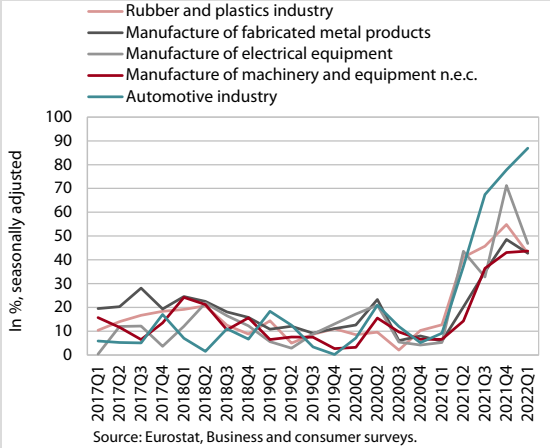
Figure 31: Despite the shortage of raw materials and intermediate goods, the automotive industry was also showing signs of recovery in the last quarter of last year

Source: Eurostat, Business and consumer surveys.

Source: Eurostat, SURS, calculations and seasonal adjustment by IMAD.

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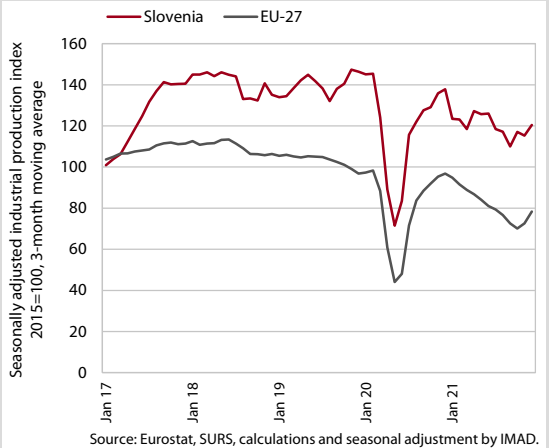
[47] See Box 3 in IMAD's Autumn Forecast (IMAD, 2021a).

[48] The extent of the material shortage problems reported by each industry was weighted by the weights used in the aggregation of industrial production indices published by SURS.

The war in Ukraine is exacerbating supply chain disruptions due to difficult supplies of certain materials and components. The first negative impacts are already being seen in certain industries which are heavily integrated into global value chains, including the automotive industry. Due to disruptions in the supply of components from Ukraine, production has already come to a standstill in some car factories in Europe and Russia. Car manufacturers could also face shortages of some important metals, such as palladium, which is used in the production of semiconductors (Milač, 2022; Swanson, 2022). This is expected to further exacerbate the problems caused by the epidemic and slow down the recovery of the already affected automotive industry.

3.3   Employment and unemployment

After the interruption of years of favourable labour market developments in early 2020, employment rose to its highest level measured to date, supported by intervention measures and the recovery in economic activity in 2021, while unemployment fell sharply. The labour market conditions already started to improve in the middle of 2020 when containment measures were gradually lifted and most activities resumed. Growth continued last year as economic activity recovered, despite the gradual lifting of intervention job retention measures. While the recovery was initially very uneven across sectors due to certain containment measures, year-on-year growth strengthened by the last quarter in most sectors, especially in accommodation and food service activities (base effect), construction, manufacturing, and professional, scientific and technical activities. Employment of foreign workers contributed markedly to employment growth of 1.4%, partly due to labour shortages, which are particularly pronounced in manufacturing and construction.[49] Despite a rapid recovery, employment in accommodation and food service activities, manufacturing and administrative and support service activities, including employment activities, has not yet surpassed its end-2019 levels.[50] Public sector employment growth last year was similar to the previous year (2.6%), and due to the increase in demand, it was again highest in human health activities (4.6%) and education (2.1%).[51] Given the growing demand for labour, the number of registered unemployed fell sharply last year (to 74.3 thousand in 2021 in total), which is similar to the total for 2019. Their numbers continued to decline in the first two months of this year. At the end of February, 64,783 people were unemployed, which is 26.4% less than a year ago and 16.4% less than at the end of February 2020.

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[49] According to SRE data, the increase in the number of employed foreign citizens (6,730 persons) contributed slightly more than half of the total increase in the number of employed persons in 2021 (11,821 persons). The number of employed foreigners averaged 106,535 in 2021; their share in the total number of employed persons rose to 12.1%, i.e. 0.9 p.p. more than in 2019.

[50] Although the number of employed foreign workers was higher last year than before 2019, according to SRE, the number of people employed in employment agencies (NACE activity N78), which are usually among the largest employers of foreign workers, has not yet exceeded this level. In our opinion, this could indicate that more companies are directly employing foreign workers.

[51] In 2021, employment growth remained high in health care and increased in social work activities. Employment growth in education also increased slightly year-on-year, with the highest growth in post-upper secondary education.

Figure 32: Employment rose to its highest recorded level last year, and unemployment approached its lowest level

— Employment according to the national accounts statistics (left axis)
— Registered unemployed* (right axis)

Source: SURS. Note: *The data for Q1 22 is the average of January and February.
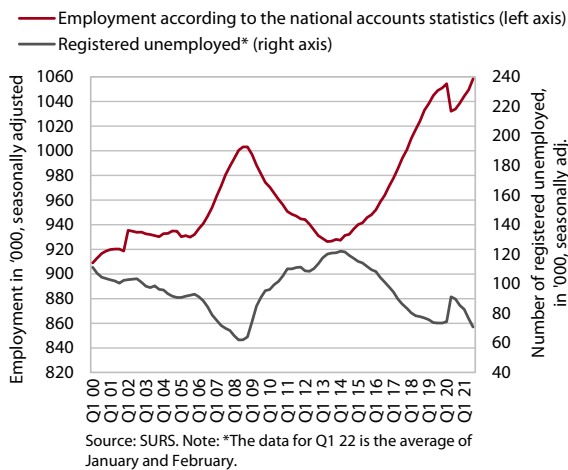
Figure 33: Employment growth was broad-based last year

Agriculture | Industry
Construction | Tradable services (GHI)
Non-tradable services | Public services
— Total

Source: SURS.
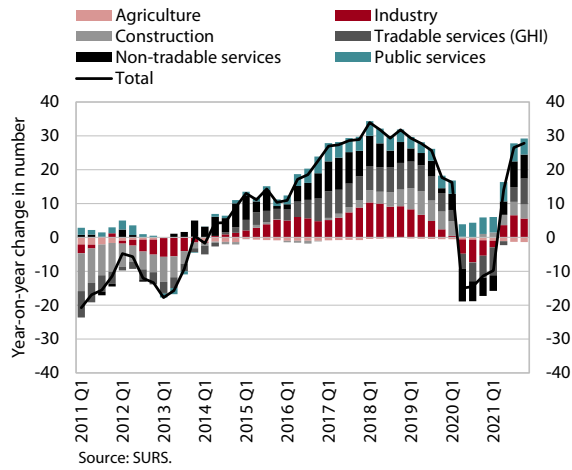
Given the high demand for labour, labour shortage is becoming an increasingly pressing problem in most activities. The high demand for labour and its insufficient supply are reflected in the vacancy rate,[52] which remained at its highest level ever (2.8%) in the last quarter of 2021. According to SURS data, 20.5 thousand vacancies were recorded at the end of the year, about 5 thousand more than at the end of 2019. According to survey data from the ESS Employment Forecast (ESS, 2021), half of all employers in Slovenia faced labour shortages in the second half of the year. Large companies were most exposed to this problem (75% of companies).[53] Labour shortages vary across activities; in the final quarter, the labour shortage surpassed its previous peak in manufacturing and approached its peak in construction, transportation and certain other activities. A sharp increase was recorded mainly in the accommodation and food service activities, probably due to a sharp drop in employment related to temporary closure, and as activities resumed, vacancies could not be filled in such a short time. Despite the growing demand for labour, however, some available indicators do not yet suggest that the mismatch between labour supply and demand has widened over the past two years.[54]

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[52] The job vacancy rate is the percentage of job vacancies relative to total jobs (vacancies + occupied posts).

[53] Employment forecast data (ESS, 2021) show that when faced with labour shortages, about one third of companies decide to look for workers abroad and a quarter of companies decide to relax their conditions of employment.

[54] The relationship between labour supply (survey unemployment rate) and labour demand (vacancy rate) is depicted by the Beveridge curve (Figure 35). The curve shows the usual decline in the unemployment rate and a simultaneous increase in the vacancy rate, which is characteristic of periods of rising economic activity and thus rising demand for labour. A permanent worsening of the supply-demand mismatch problem would be reflected in an upward shift of the curve, but according to the current data, a counter-clockwise shift is characteristic of a cyclical shift, as activities are resuming and the number of vacancies is quickly increasing, while it is impossible to fill all new vacancies in such a short time.

Figure 34: The vacancy rate rose sharply in certain activities last year

Source: Eurostat.
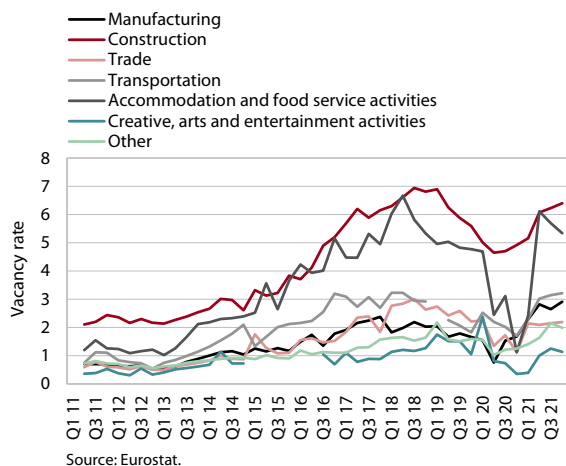
Figure 35: The Beveridge curve (the relationship between labour supply and demand) does not indicate a deterioration of mismatch for the time being

Source: SURS, calculations by IMAD.
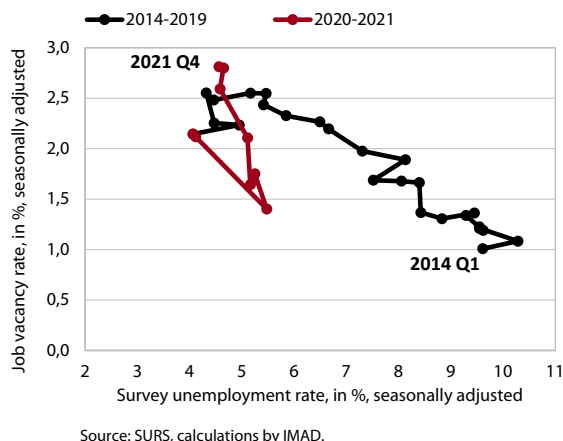
The growth of employment and the decline in unemployment will continue this year and, albeit at a slower pace, in the next two years, which will be increasingly marked by constraints related to labour shortages due to demographic changes. The relatively high level of the short-term employment indicator suggests that employment is holding up this year. We expect employment to rise by 1.7% this year, while the number of registered unemployed will continue to fall and will amount to around 61 thousand in 2022 as a whole. With the growth in demand for labour and the ever increasing constraints on the supply side, the number of hours worked will also increase moderately.[55] Over the next two years, similar trends in the labour market are expected to continue, albeit at a significantly slower pace. The activity rate of the 55–64 and also 15–29 age groups is expected to increase, and people who (temporarily) moved to inactivity, especially at the beginning of 2020, are expected to re-enter the labour market gradually, which will be reflected in a further increase in the activity rate. Demand for labour will remain a driving factor for attracting foreign workers, leading to gradually higher positive net migration, which was modest in the first half of last year.[56] However, despite higher labour market participation and a larger influx of foreign workers, labour supply will not keep pace with demand, reflecting, among other things, the persistently unfavourable demographic situation leading to a decline in the working-age population. Labour market conditions could therefore be an ever greater obstacle to the growth of value added, as was the case even before the COVID-19 crisis.

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[55] The number of hours worked per employee in the last quarter of 2021 was 3.7% higher than in the last quarter of 2019. Given the general and long-term trend towards a gradual decline in hours worked per worker, due to broader changes in the industry, forms of work and types of work, among other factors, we believe that the scope for a larger increase in hours worked is relatively limited.

[56] Net migration (difference between the number of immigrants and the number of emigrants), which was highly positive in 2018 and 2019 (amounting to about 15 thousand persons per year), decreased significantly in 2020 (to 10 thousand persons; adjusted for methodological specifics in Q3 2020), due to measures and restrictions related to the coronavirus crisis. It was also low in the first half of 2021 (only 758 persons compared to 9,720 persons in the first half of 2019), as many activities were closed for an extended period of time due to the second wave of the epidemic and the increased uncertainty about its duration.

Figure 36: Short-term employment expectations point to further increase in employment

Source: Eurostat.
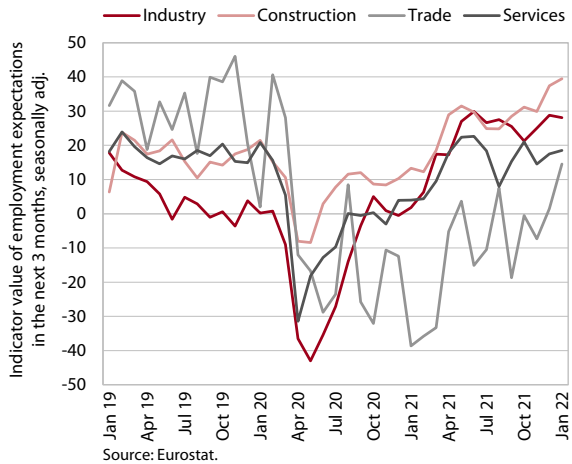
Figure 37: Labour force participation in the most active age group (30–54 years) is already high, which is why in the future it will increase especially among older persons

Source: Eurostat, forecast by IMAD.
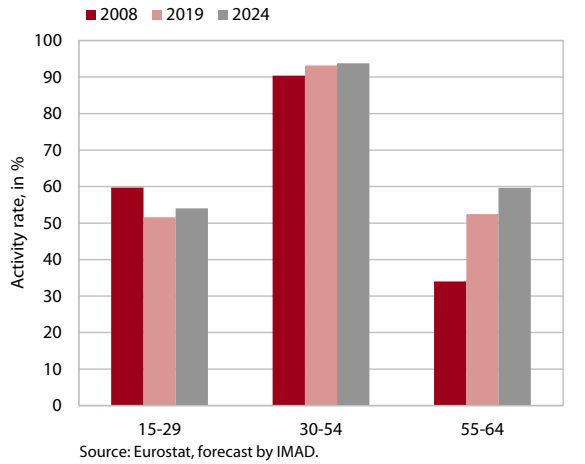
Figure 38: Demographic trends (declining share of the population aged 20–64) will exacerbate labour shortage problems in the future

Source: Eurostat, forecast by IMAD.
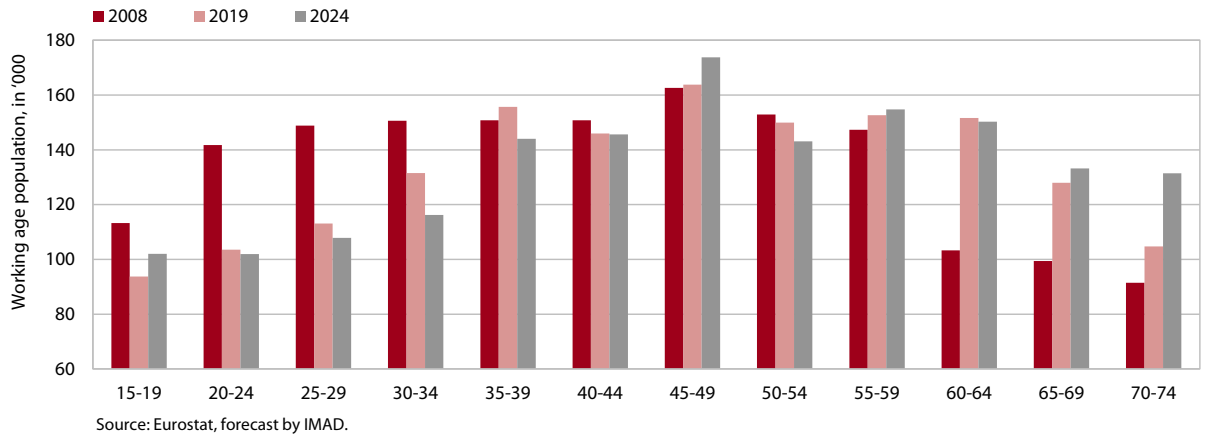
Table 4: Forecasts of employment and unemployment

In %	2021	2022		2023		2024
		September 2021	March 2022	September 2021	March 2022	March 2022
Employment according to the SNA, growth	1.4	1.5	**1.7**	1.2	**1.0**	**0.7**
Number of registered unemployed, annual average	74.3	67.8	**61.1**	65.0	**58.9**	**56.8**
Registered unemployment rate	7.6	6.9	**6.2**	6.6	**6.0**	**5.7**
ILO unemployment rate	4.8	4.3	**4.3**	4.2	**4.1**	**3.9**

Source: SURS (2022); 2022–2024 forecast by IMAD.

3.4   Wages

The growth in the statistically recorded average nominal gross wage over the last two years has been marked significantly by intervention job-retention measures (in connection with the methodology for calculating the average wage) and by the payment of various allowances related to the declaration of the epidemic. During the epidemic and the validity of the job-retention measures, the evolution of the average monthly wage did not reflect the evolution of employees' earnings or the basis for social security contributions, which was especially the case for the private sector. This was influenced by the method of calculating wages in connection with the intervention measures adopted to retain jobs, given that wage statistics consider as wages only the part of the wage compensation paid by the employer and not also the part paid by the government.[57] While the increase in the average nominal wage in the private sector in 2020 was mainly related to the participation in intervention measures, its growth in 2021 (6.1%) was influenced not only by the dynamics of workers returning to employment, but also by higher minimum wages[58] and growing pressure due to labour shortages.[59] Growth at the end of last year was also influenced by extraordinary payments (13th salaries and Christmas bonuses), which were higher than in the same periods of 2020 and 2019, given the good performance of companies. In the public sector, wage growth in both years was largely influenced by the dynamics of allowance payments.[60] Due to the cessation of allowance payments, year-on-year wage growth slowed significantly in the second half of last year and already turned negative in November and December. Nevertheless, the nominal average wage in the public sector increased by 6.5% in 2021 as a whole and overall nominal wage growth also remained high (6.1%).

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[57] The number of wage earners decreased significantly as many workers were temporarily laid off, meaning that they were not included in the wage statistics.

[58] The increase in the minimum wage, however, was not fully reflected in the statistically recorded average wage, as PKP8 provided for subsidies for the increase in the minimum wage in the amount of EUR 50 per month in the first half of the year, which, because of the methodological specifics, did not show in the average gross wage. In the second half of the year, the government reduced the tax burden for employers by lowering the minimum base for the calculation of social security contributions to the level of the minimum wage.

[59] Growth was highest in sectors facing the largest labour shortages, namely accommodation and food service activities (12.7%), construction (7.1%) and manufacturing (6.2%).

[60] Especially the allowance for work in crisis conditions in accordance with the collective agreement in the public sector and the allowance for hazardous working conditions and for additional workload under ZIUZEOP (2020) during the epidemic.

Figure 39: Over the last two years, intervention job-retention measures affected the growth in the statistically recorded wage bill and the number of wage earners, which was reflected in significant fluctuations in average wage growth per employee

Source: SURS.
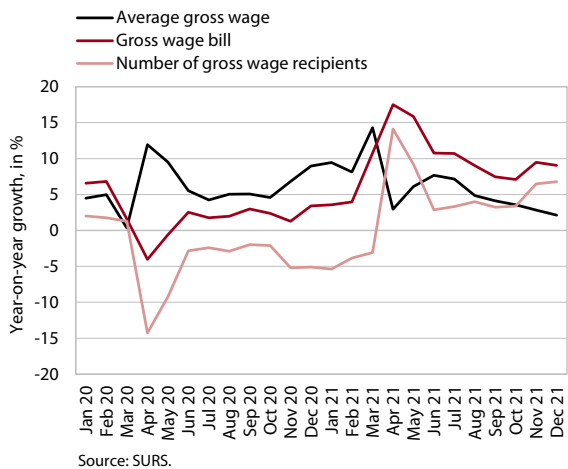
Figure 40: Average gross wage dynamics in the private sector were affected mainly by the changes in the number of people participating in the measures, and in the public sector by the payment of allowances for work in crisis conditions

Source: SURS.
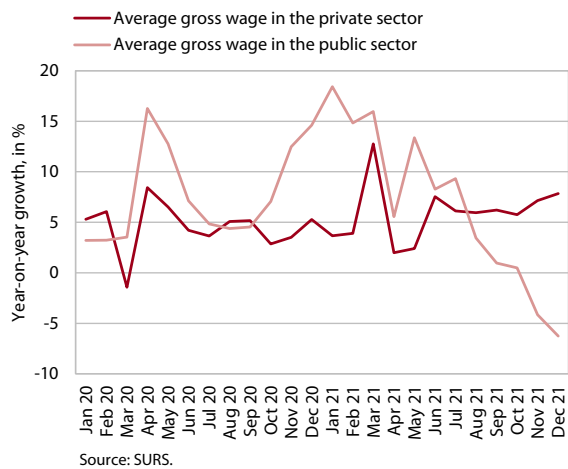
The growth of the statistically recorded gross nominal wage is expected to be much lower this year than last year, mainly due to the cessation of allowances and last year's high base, before strengthening gradually towards the end of the forecast period. Nominal wage growth in the private sector will remain relatively high this year, influenced by increasing labour shortage pressures, the minimum wage increase in January this year and other labour market pressures to maintain income growth in the face of high inflation.[61] After high growth last year, wage growth in the public sector will be negative this year due to the cessation of allowances. This will lead to a relatively low overall nominal wage growth (2.4%) and fall in real wages (-3.7%) in 2022. For next year, we expect growth of nominal wages to increase to 4.0% and real wages to 0.7%. At the end of the forecast period, nominal wage growth will continue to increase in line with difficulties in finding qualified workers, but will be slowed somewhat by cost competitiveness pressures on companies. The forecast of gross wage growth is subject to significant risks related to pressures, especially in the public sector. Upside risks to growth forecasts also arise from high price growth, which could lead to a larger pass-through to wages in an environment where such conditions persist for a longer period of time.

The growth in the estimated nominal contribution base, which forms the basis for the development of social security contributions, will be lower this year than last year and will pick up again in the next two years. After high rates in the pre-epidemic years, the growth of the nominal contribution base in 2020 was about 4%, partly due to a decline in the earnings of workers

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[61] High price growth can pass-through to higher wages through certain mechanisms. In Slovenia, this applies, among other things, to the annual adjustment of the minimum wage, the minimum increase of which is based on the year-on-year price increase in December of the previous year. High inflation can spill over to wages also through some collective agreements that stipulate the indexation of minimum basic wages (e.g. in trade, the metal industry, banking).

participating in job retention schemes, but also to lower employment and a sharp decline in some other remunerations.[62] Last year, its growth was high (8.9%) due to the recovery in employment, high epidemic-related public sector allowances in the first half of the year, the phasing out of temporary layoff measures and the recovery of other remuneration categories.[63] This year, growth will be much more moderate (4.4%), given the cessation of epidemic-related allowances, but will strengthen slightly by 2024.

Table 5: Forecast for growth in the average wage per employee

Growth rates, in %	2021	2022		2023		2024
		September 2021	March 2022	September 2021	March 2022	March 2022
Gross wage per employee – nominal*	6.1	1.2	**2.4**	2.9	**4.0**	**3.9**
- private sector	6.1	3.1	**5.8**	2.8	**4.2**	**4.2**
- public sector	6.5	-1.6	**-2.8**	3.1	**3.4**	**3.3**
Gross wage per employee – real	4.1	-0.8	**-3.7**	1.0	**0.7**	**1.6**
- private sector	4.1	1.0	**-0.5**	0.9	**1.0**	**1.9**
- public sector	4.5	-3.5	**-8.6**	1.1	**0.2**	**1.0**

Sources: SURS (2022); 2022–2024 forecast by IMAD.

Note: *We took into account the methodological specifics regarding the reporting of wages (which do not include compensation paid by the government for 2020 and 2021), which also affects 2022.

Figure 41: Estimation and forecast of nominal contribution base growth
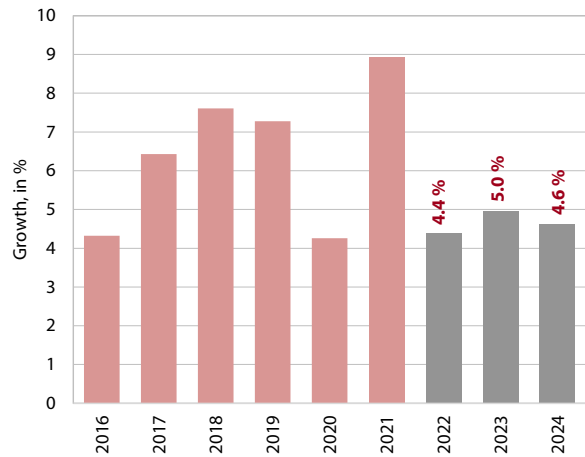
Source: MF, forecast by IMAD.

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[62] E.g. student work, contract-based payments, holiday allowance.

[63] According to the consolidated general government budgetary accounts.

3.5   Inflation

Consumer prices rose sharply at the end of last year. Inflation is projected to remain at a relatively high level for most of this year, only approaching 2% in 2024, provided that price pressures ease. Consumer prices, whose year-on-year growth was still negative at the beginning of last year, rose sharply towards the end of the year (to 4.9% in December), with an average growth of 1.9% in 2021. The main reasons for the increase and broader-based growth were the economic recovery, supply chain problems and significantly higher energy prices. This last contributed most to inflation, while the contribution of non-energy industrial goods prices was also much higher. Higher prices for energy, inputs and raw materials (e.g. fertilisers and animal feed), as well as a poorer harvest led to an increase in prices for food, both processed and unprocessed. At the beginning of this year, inflation continued to rise (to an average of 6.3% in the first two months) as prices for energy,[64] food, services and non-energy industrial goods increased. It was only slightly mitigated by government measures to temporarily reduce excise duties on electricity and energy.[65] We expect inflation to hover around the levels reached for most of this year, despite the measures taken, partly because of geopolitical tensions. Thereafter, it will gradually decline, provided the situation in energy markets and supply chains eases, and approach 2% by the end of 2024. As containment measures ease, we expect part of the demand this year to be diverted from goods to services, whose price growth will accelerate. All this will lead to an overall increase in consumer prices of 6.4% in 2022 as a whole, moderating to 3.2% in 2023 and 2.3% in 2024, when higher wages will have at least some impact on final price growth, especially in the services sector, which is less exposed to international competition. We assume that firms will have to raise wages due to labour shortages in several sectors, which will then translate into higher growth in final prices mainly due to higher business costs and increased demand.

Table 6: Inflation forecast

In %	2021	2022		2023		2024
		September 2021	March 2022	September 2021	March 2022	March 2022
Inflation – Dec/Dec	4.9	1.9	5.4	2.0	2.4	2.1
Inflation – annual average	1.9	2.0	6.4	1.9	3.2	2.3

Source: SURS (2022); 2022–2024 forecast by IMAD.

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[64] The weight of energy products also increased by about a tenth, to 11.8%, slightly above the 2019 level but still 0.5 p.p. below the ten-year average.

[65] The measure of a temporary exemption of low-voltage end-users without electricity metres and all households from paying certain contributions is not yet taken into account in inflation for February 2022.

Figure 42: Rising energy prices have been the main contributors to inflation in recent months

Source: SURS, calculations by IMAD.
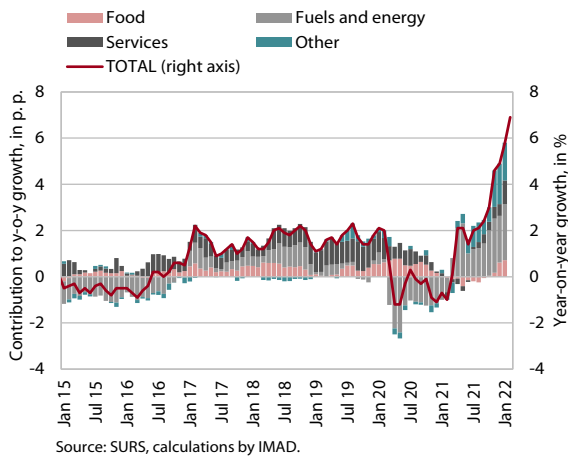
Figure 43: Inflation will rise sharply this year and then gradually decline

Source: SURS, forecast by IMAD.
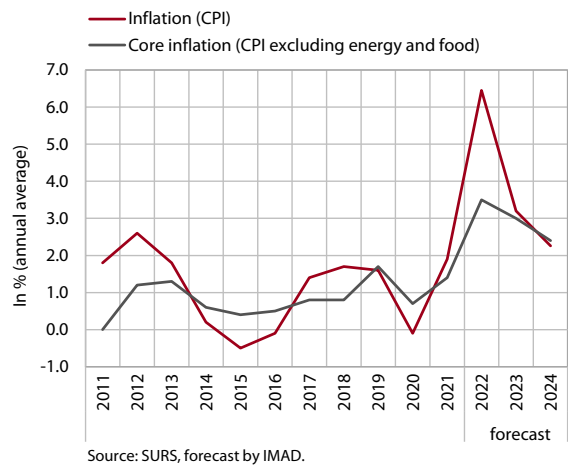
Box 4

Energy prices and their impact on inflation

As the global economy recovered, demand for energy, which experienced a sharp decline due to the COVID-19 epidemic, surged and prices have soared in the face of limited supply; after the Russian invasion of Ukraine, the situation is rapidly deteriorating. High energy prices are due to a combination of various factors that have tightened market conditions. Investment in oil and gas infrastructure has declined in recent years and not enough has been invested in expanding clean energy and technologies to fill the gap. One of the reasons for the lack of supply and the resulting rising prices is the extremely cold last winter in Europe, which led to a sharp drop in energy stocks. Increased environmental awareness that gas is more environmentally friendly than coal has contributed to increased demand for gas outside Europe, which in turn has reduced its supply to Europe. At the same time, due to weather conditions, the supply of energy from some other sources, such as wind power in Europe and hydropower in South America, has decreased significantly over the past year. All this led to a rapid growth in gas prices, which had a strong impact on higher wholesale electricity prices, as these are largely determined by gas-fired power plants.[66] Oil prices also rose sharply, due to stronger demand as well as limited supply from OPEC+[67] and slower growth in shale oil production in the US (ECB, 2021 and OECD, 2021). Energy prices were also driven up by increasing tensions between Russia and Ukraine, and have surged since the Russian

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[66] The exchange price of electricity is determined by the production costs of the most expensive unit in the system, which are currently gas-fired power plants.

[67] In April 2020, the OPEC+ countries agreed to a cut in production of nearly 10 million barrels per day from May 2020 to April 2022 as the coronavirus crisis hammered demand (S&P Global, 2022).

invasion of Ukraine.[68] In the medium term, the prices for greenhouse gas emissions under the EU Emissions Trading Scheme (ETS), which had risen sharply before the outbreak of the war in Ukraine due to increased demand or purchases by obligated parties, i.e. the major polluters, also play an important role in shaping energy prices and have had an impact on the rise in energy prices in the last few months.[69] The increased demand was also a result of the proposed reform of the European carbon market[70] (EC, 2021b), which will introduce emissions trading in new sectors and tighten the trading system by phasing out free allowances by 2035. The increased purchase of allowances is also related to some short-term changes in the structure of electricity generation, such as higher generation from coal-fired power plants due to higher natural gas prices and lower generation from certain renewable energy sources.

Energy futures prices at the beginning of March 2022 suggest that prices could start to fall in May this year, but would remain high until the end of the forecast period. After reaching their lowest level in eighteen years in the first wave of the pandemic in the spring of 2020, Brent crude oil prices were 56% higher year-on-year in February 2022 and reached their highest level since 2012 in March at over USD 120 per barrel on 8 March. Natural gas prices on the European market fell slightly in February 2022 after peaking in December, but remained significantly higher year-on-year (by 101%). After the start of Russian military aggression in Ukraine, prices rose again to historic high levels. Wholesale electricity prices in the EU, whose dynamics are similar to gas prices, increased significantly in December 2021 and remain high. In the short term, geopolitical factors will have a decisive influence on energy prices, while in the medium term energy and climate policies of the EU and the Member States as well as the availability of renewable energy sources will have the greatest influence. As long as energy efficiency and the production capacity of renewable energy sources do not increase sufficiently, the demand for fossil fuels will probably remain high and volatile.

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[68] Russia is the world's largest exporter of natural gas and the second largest exporter of oil.

[69] In February this year, carbonal prices rose to more than EUR 90 per tonne of CO_2 equivalent. Since the start of war in Ukraine, they fell below EUR 70, mainly as a result of increased sales of allowances. Investors do not expect ETS reform to be one of the European Commission's main tasks in the coming months, as the focus will be on mitigating the impact of high energy prices and efforts to slow their increase.

[70] The EU Emissions Trading Scheme (ETS) puts a price on carbon and lowers the cap on emissions from certain economic sectors every year. It has successfully brought down emissions from power generation and energy-intensive industries by 42.8% in the past 16 years. The EC is proposing to lower the overall emission cap even further and increase its annual rate of reduction. The EC is also proposing to phase out free emission allowances for aviation and align with the global Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA) and to include shipping emissions for the first time in the EU ETS. To address the lack of emissions reductions in road transport and buildings, a separate new emissions trading system will be set up for fuel distribution for road transport and buildings (EC, n. d.).

Figure 44: Brent crude oil futures prices

Source: EIA, Barchart.

Figure 45: TTF gas prices

Source: ICE. Note: Title Transfer Facility (TTF) is a virtual trading point for natural gas in the Netherlands.
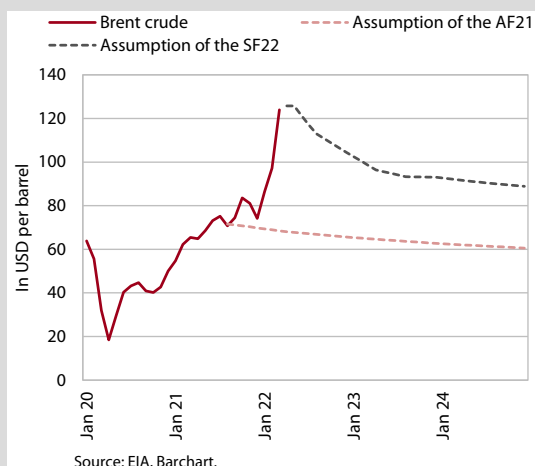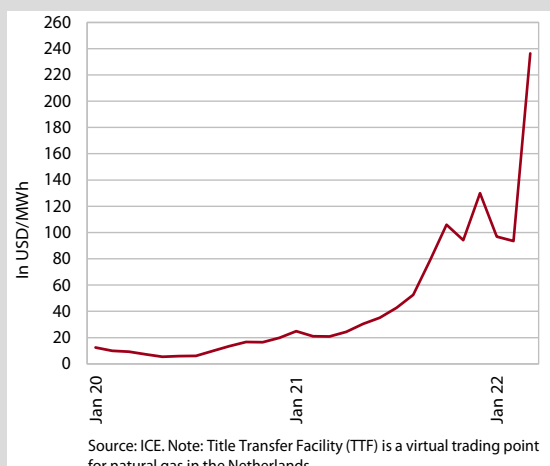
High energy prices on world markets have led to a faster increase in retail energy prices in Slovenia as well as in other EU Member States.[71] However, the speed and extent to which this pressure is passed on to consumers varies greatly from Member State to Member State. This is due to differences in the pass-through of wholesale prices to consumer prices, which depends on the price composition, the price-setting mechanism, the energy mix used to produce electricity and the contractual relationships with energy suppliers. In addition, various euro area countries have introduced temporary measures to cushion the impact of rising energy prices on consumers (ECB, 2021). This leads to significant differences in inflation across euro area Member States. In February 2022, the lowest inflation was recorded in France (4.1%) and the highest in Lithuania (13.9%). In almost all Member States, energy contributed more than 50% to headline inflation. On average in the first two months of the year, consumer prices in Slovenia were 6.5% higher year-on-year (5.8% in EA).[72] Around 3.0 p.p. of this increase were accounted for by energy prices.[73] The prices of petroleum products contributed the most to inflation. Heat energy also made an important contribution, with prices rising by more than 50% year-on-year (their growth slowed slightly at the beginning of the year). This year has also seen a significant increase in the contribution of gas and electricity prices.[74]

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[71] The range of increase in individual energy prices was extremely high in the EU Member States, with gas and electricity prices standing out the most.

[72] Both according to the HICP index.

[73] In the EU, energy prices in January contributed about half to 5.6% inflation.

[74] According to our estimates, the 15% higher network charges for the electricity distribution system contributed significantly to the rise in electricity prices in January. The contribution of electricity and gas to headline inflation averaged 0.4 and 0.3 p.p. respectively in the first two months, and over the past year they together contributed 0.1 p.p. to inflation.

Figure 46: Inflation and contributions of individual categories in EU Member States in 2021

Source: Eurostat, calculations by IMAD. Note: Contributions vary due to different growth in individual countries and different weights.
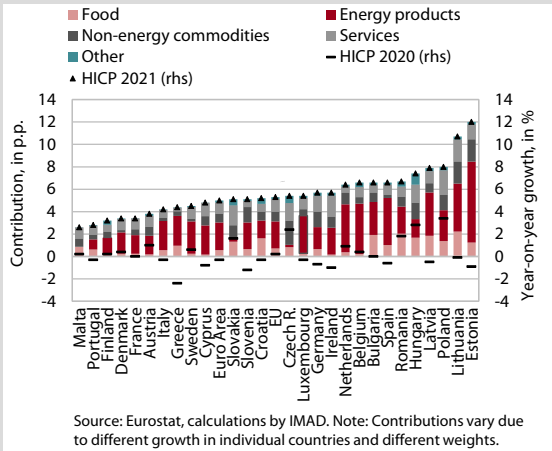
Figure 47: Year-on-year energy price growth in EU, 2021

Source: Eurostat.
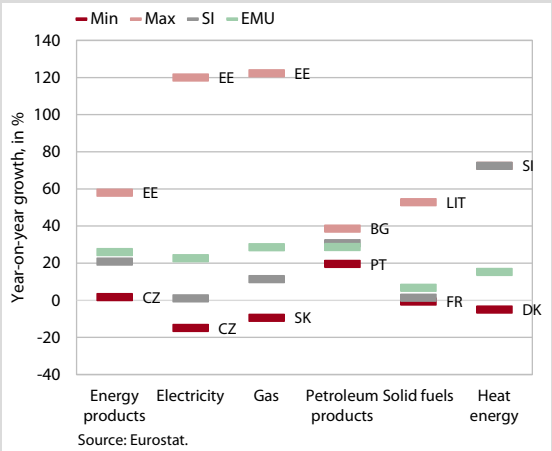
Using a vector autoregression model (VAR),[75] **we estimated the impact of energy prices in international markets on the overall consumer price index and on the price index in the energy group based on past data for Slovenia.** For energy prices in international markets we used an energy price index based on the commodity price index adjusted for Slovenia[76] published by the IMF. According to the model estimates, a 1% increase in energy prices on international markets is reflected in a 0.26% increase in energy prices in Slovenia two months after the shock, when the effect is greatest (Figure 48). This lasts for less than a year, and then the response becomes statistically insignificant. The impact on the overall consumer price index is much more modest (around 0.04% three months after the shock), but more persistent, as it is slow to return to the initial level (Figure 49).[77] This in turn could be an indication of the indirect and secondary effects of higher energy prices on headline inflation.[78]

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[75] In the model-based approach, we used the Cholesky identification scheme, which suggests an ordering of variables based on their degree of exogeneity, from the most exogenous to the most endogenous. The energy price index in international markets was ordered first and the consumer price index or price index in the energy group (two separate models) was ordered second. By including the price index in the energy group, we mainly wanted to take into account the direct effects of energy prices on international markets, and by including the total consumer price index, we also wanted to take into account the indirect effects through other price groups in addition to the direct effects. The model was estimated at a monthly time frequency using logarithmic values of the variables for the period from January 2007 to December 2019.

[76] The Commodity Price Index, which is calculated for a large number of countries (including Slovenia), consists of the international prices of up to 45 individual commodities (which are divided into four different categories: agricultural raw materials, food and beverages, energy and metals), weighted using commodity-level trade data for the respective country. The energy part of the index consists of the prices of coal, crude oil and natural gas. Additional information on the calculation of the index is available in Kebhaj and Gruss (2019) and in the IMF database (2022).

[77] Similar data is obtained by using only Brent crude oil prices on international markets instead of the energy price index published by IMF.

[78] The various channels for the pass-through of energy prices (especially oil) to inflation are explained in more detail in ECB (2010), p. 86.

Figure 48: Impulse responses of the price index in the energy group in Slovenia to the 1% energy price shock in international markets

Source: Model assessment by IMAD based on SURS and MDS data.
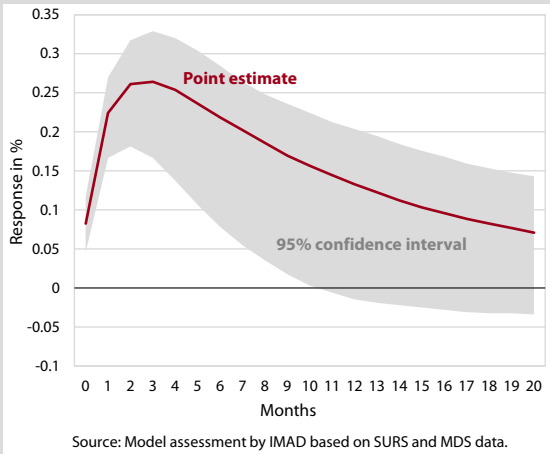
Figure 49: Impulse responses of the overall consumer price index in Slovenia to the 1% energy price shock in international markets

Source: Model assessment by IMAD based on SURS and MDS data.
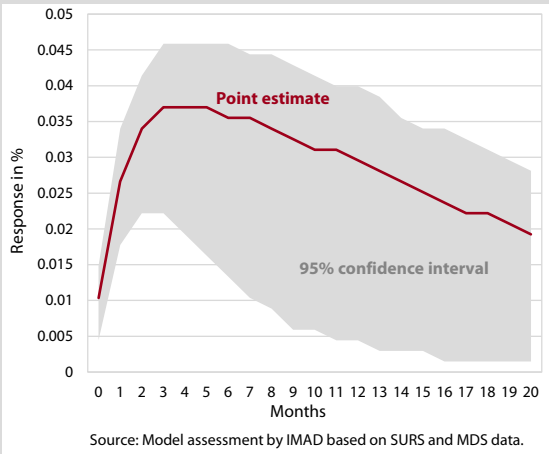
Several measures have already been taken in Slovenia to mitigate the consequences of high energy prices. At the end of last year, the government reintroduced regulation of heating oil prices.[79] Earlier this year, a comprehensive package of measures was adopted based on the Act on Emergency Measures to Mitigate the Consequences of High Energy Prices (ZUOPVCE, 2022) by which the government (i) granted a one-off solidarity bonus to cushion the impact of rising energy prices for certain groups of the population, (ii) exempted low-voltage end-users without electricity metres and all households from paying certain contributions from February to April 2022, (iii) temporarily exempted all consumer groups from paying the capacity charges and active energy acquired, and (iv) established equal rights of households and flat owners in multi-dwelling buildings who heat their flats with common natural gas boilers. It also reduced excise duties on energy for the same period. We estimate that all measures taken will temporarily reduce inflation by about 1.5 p.p.

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[79] We estimate that after the abolition of price regulation in 2016, margins for heating oil increased significantly and heating oil prices were above the EU average. According to our estimates, after the reintroduction of regulation, the price of heating oil will be about 10 cents lower.

3.6   Current account of the balance of payments

After widening in recent years, the current account surplus narrowed to 3.2% of GDP last year and is set to decline further in 2022–2024. Its decline is in line with the decline in private sector savings (households and non-financial corporations), which has approached somewhat the level of investment, which is increasing. Last year, the surplus narrowed under the impact of lower surplus in trade in goods as domestic demand recovered faster than external demand and the terms of trade deteriorated. This year, the surplus will further narrow, mainly due to the balance of *trade in goods*, which will be negative for the first time since 2012. Besides the faster real growth of imports than exports, this year's deficit in trade in goods will also be affected by the 1.8% deterioration in the terms of trade,[80] as import price growth is higher (7.7%) than export price growth (5.8%).[81] In 2023–2024, the trade deficit will remain at a similar level to this year, as growth of exports is still slower than growth of imports, supported by subdued growth of domestic demand. From this year onwards, only trade in services will contribute to the current account surplus, as the surplus in services increased again last year after declining in 2020 and is expected to increase further in 2022–2024. This will also be the main reason for the increase in the surplus from 2.1% of GDP this year to 2.6% of GDP in 2024. Growth will be recorded in all segments of *trade in services*, and the highest will be recorded in trade in travel services.[82] The deficits in the balances of *primary and secondary income* will rise over the forecast period, thus contributing slightly to the decline in the current account surplus. The former will rise through the gradual increase in net payments of income on equity (dividends and profits). However, in this period, Slovenia will receive less in subsidies from the EU budget.[83] The deficit in *secondary income* will increase particularly due to lower receipts from the European Social Fund,[84] higher GNI- and VAT-based payments into the EU budget and higher net payments of private sector transfers abroad.

Table 7: Forecast for the current account balance – balance of payments statistics

	2021	2022		2023		2024
		September 2021	March 2022	September 2021	March 2022	March 2022
Current account, in EUR million	1,663	2,138	1,167	2,116	1,492	1,654
Current account, as a % of GDP	3.2	4.0	2.1	3.8	2.5	2.6

Source: BoS (2022b); 2022–2024 forecast by IMAD.

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[80] The Slovenian economy has traditionally been very open, with trade in goods and services as a share of GDP averaging 154% of GDP in 2015–2021. Due to this openness of the economy, foreign trade conditions have a significant impact on foreign trade and consequently on GDP.

[81] In 2023 and 2024, we expect roughly unchanged terms of trade, as prices for energy and other commodities are expected to fall based on technical assumptions.

[82] The value of travel imports is expected to exceed the 2019 pre-crisis level in 2023 and the value of travel exports in 2024.

[83] Most subsidies are resources for the implementation of the Common Agricultural and Fisheries Policy, while part of the subsidies are funds from the Recovery and Resilience Facility. The bulk of receipts from the EU budget are investment transfers, which, in terms of the balance of payments statistics, are recorded in the capital account of the balance of payments.

[84] The bulk of ESF resources available under the current multi-annual financial framework have already been drawn.

Figure 50: The current account surplus narrowed significantly and will further narrow over the forecast period

Source: BoS, calculations and forecast by IMAD.
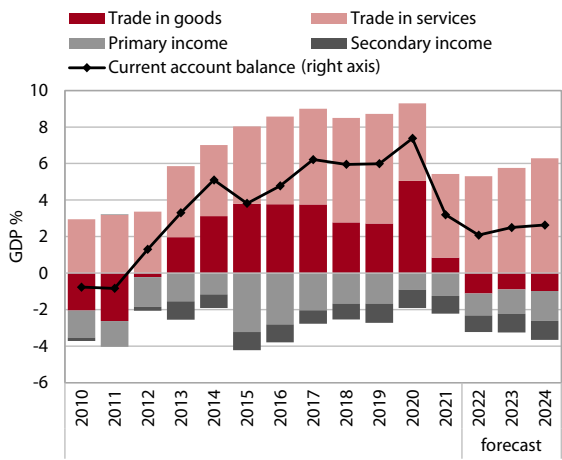
Figure 51: Price trends will have a significant negative impact on goods trade balance also this year

Source: SURS, BoS, forecast and calculations by IMAD.
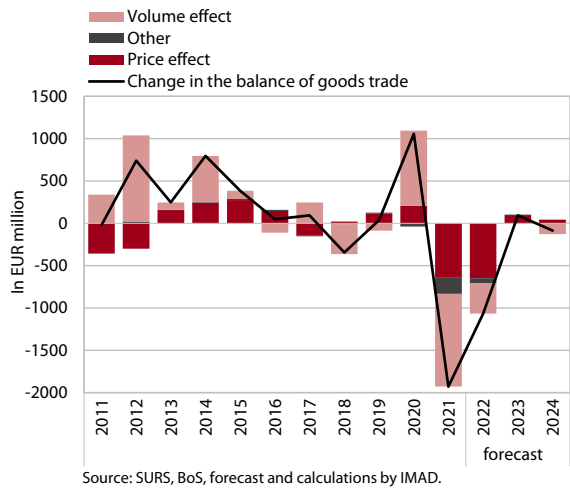
4   Risks to the forecast

Since the Russian invasion of Ukraine, the greatest risks to the realisation of the forecast have been related to the unfolding of the war and energy prices. Amid higher energy prices, EU Member States would be forced to rationalise energy and look for alternative sources, which would have an additional negative impact on economic activity in the short term given the EU's high dependence on Russian gas imports.[85] The already severely weakened trade flows with Russia would decrease, which would have a negative impact on exports, at least in the short term. At the same time, inflation would remain high for an extended period of time (including next year) as oil and natural gas prices rise and are likely to remain high. The persistence of high inflation, especially if these price pressures pass through to a greater extent from higher producer prices to higher consumer prices, could lead to the demand for higher wages, which will already be affected by a shortage of skilled labour. A possible faster tightening of monetary policy as a result of high inflation would have a negative impact on lending and investment activity. Massive fiscal measures would be needed to help economies mitigate the severe negative impact on financial markets and the decline in consumer and business confidence, which would slow fiscal consolidation. The course of fiscal consolidation after 2022 remains uncertain also due to a possible overhaul of economic governance in the EU, which is still under discussion and on which the EC is to draw up proposals by the middle of this year. However, in view of fiscal policy guidance to Member States for 2023, which were published by the EC at the beginning of March 2022 (EC, 2022a), we assume that after the deactivation of the escape clause as of 2023, consolidation will take place gradually and without significant cuts in flexible expenditure categories.[86]

Downside risks related to supply chain disruptions are also becoming increasingly important, and other global risks remain. The epidemic has led to an imbalance between supply and demand, and a possible prolonged persistence of supply chain problems, in particular a shortage of certain raw materials and semi-finished products, in part as a consequence of further problems related to the Russian-Ukrainian conflict, would mainly affect manufacturing and thus exports, as well as increase the risks of increased cost pressures. At the global level, other downside risks to economic activity are still associated with trade tensions, a slowdown in growth in China in the event of a major negative impact of the crisis on the real estate market there, other geopolitical conflicts, social unrest, cyberattacks and the consequences of climate change.

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[85] On 8 March 2022, the European Commission proposed an outline of a plan to make Europe independent from Russian fossil fuels, starting with gas, in light of Russia's invasion of Ukraine. The Commission proposes that by 1 October 2022, gas storage in the EU has to be filled up to at least 90%, while the measures to protect European households and businesses against the impact of the exceptionally high prices of natural gas include price regulation, state aid and tax measures and a possibility to redistribute revenue from high energy sector profits and emissions trading to consumers (EC, 2022d).

[86] At the beginning of March 2022, the EC published guidelines on the conduct of fiscal policy in 2023 that should be taken into account by Member States when they prepare their stability and convergence programmes. However, given the high level of uncertainty surrounding the situation in Ukraine and the impact on the economy, EC will reassess the deactivation of the general escape clause as of 2023 on the basis of its Spring Forecast (May 2022) and adjust its policy if necessary.

Downside risk to the realisation of the Spring forecast is still related also to the epidemiological situation. Possible more stringent containment measures in the face of new waves of infections, including as a result of new and more infectious coronavirus mutations and/or insufficient vaccination coverage, remain a significant risk to a more stable recovery. Increased uncertainty would also lead to increased precautionary and forced household savings or their slower easing. The greater impact of business problems, especially in certain more severely affected service sectors, could translate into a greater number of bankruptcies, which in turn could lead to additional supply-side constraints. Therefore, a well-planned adaptation of measures to contain the epidemic and mitigate its consequences remains very important in case of a deterioration in the epidemiological situation.

There are, however, also some upside risks to the baseline projections. This will depend on how the war in Ukraine unfolds. A relatively quick stabilisation of the situation could cushion the pressure of high energy and commodity prices and accelerate the easing of supply bottlenecks. Economic growth could also be higher in the event of a permanent improvement in the global epidemiological situation, also due to the approval of new vaccines and medicines and their increased production and the higher willingness to be vaccinated, as well as in the case of an even more effective adjustment of the economy to these conditions. This could lead to a faster unwinding of excess household savings and also faster growth in investment due to higher confidence. The recovery will also depend significantly on the effective absorption of the entire package of EU funds, both in Slovenia and among its main trading partners. This will provide an opportunity to strengthen the development content, which includes: greater support for research, innovation and digitalisation to boost productivity; green transformation with the transition to more sustainable economic development; and systemic adjustments to social protection systems, which are for the most part dictated by demographic trends. This could increase the long-term potential of EU Member States through the reallocation of resources, which has already been accelerated by the epidemic, with significant positive cross-sectoral and transnational impacts. In this context, the realisation of the planned public and private investment projects will play a significant role. In the medium term, investment could be further boosted by the reduction or elimination of our dependence on Russian gas and the accelerated electrification of the EU resulting from the draft REPowerEU plan (EC, 2022d). In the short term, i.e. in 2022 and 2023, the high ceilings on general government expenditure resulting from the budgetary framework (OdPSD22–24, 2021) may lead to a further increase in government spending. In the medium term, the impact of additional structural measures is uncertain and depends on the speed of the necessary fiscal consolidation, for which no post-2023 targets have yet been agreed at the EU level.

5   Output gap and potential GDP growth

Under the current conditions of domestic and international risks, the estimate of potential GDP[87] and consequently the output gap is subject to high uncertainties and risks of subsequent changes. Potential GDP is not directly observable and therefore must be estimated, and its estimates may change depending on input data or the methodology used. Input data often change due to revisions of GDP growth in previous years, changes in the forecasts of GDP growth or other input categories, and changes in the length of the time series included. As a result of these factors, ex-post estimates for the same period can lead to changes in the level of potential GDP and the output gap. In the present situation of high risk to the realization of the forecast, the current estimates of potential GDP and the output gap should be considered only in the context of the assumptions and broader economic situation at the time when they were made.

According to the current estimate, growth of potential GDP is expected to be relatively favourable this year and in the next two years, driven by the envisaged strengthening of investment and consequently capital and improvement in labour market conditions. Growth of potential GDP strengthened gradually until 2019. After being slightly lower in 2020, growth increased again last year, and we estimate that the impact of the coronavirus crisis on production factors was limited due to the job retention measures taken. Potential growth is expected to amount to 2.8% on average in the forecast period (2022–2024). The greatest contribution to potential growth in the forecast period will still be made by *total factor productivity* (1.6 p.p.), whose growth is expected to be similar to that before the global financial crisis. With the expected rise in investment related to additional EU funds, the contribution of *capital* should increase significantly in 2022–2024, but it will remain lower on average (at 0.7 p.p.) than over a long period before the previous crisis.[88] This is a consequence of the low level of investment in the several-year period following the onset of the global financial crisis. *Labour* is expected to contribute 0.5 p.p. on average to potential growth in the forecast period, which will also be a consequence of the expected further increase in the activity rate and net inflow of foreign labour. This will also significantly mitigate the steady decline in the working-age population (20–64 years), which has had a negative impact on the available pool of labour in the last ten years.

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[87] Potential GDP is a macroeconomic indicator which shows the output an economy can achieve without creating inflationary pressure (i.e. by overheating). If the actual output of an economy (actual GDP) is greater than the potential output (potential GDP), this causes an increase in inflation (and vice versa). The difference between actual GDP and potential GDP expressed as a percentage of potential GDP is referred to as a country's output gap. IMAD's calculation of potential GDP is based on a production function method, which does not significantly differ from the European Commission's method. The method assumes that potential GDP can be represented by a combination of the production factors *labour* (this is dependent on demographic factors, the activity rate, number of hours worked and the natural unemployment rate), *capital* and *total factor productivity*. The disparities between potential GDP or output gap calculations by IMAD and the EC are largely due to the differences in i) the lengths of the forecast periods, ii) the forecasts of macroeconomic indicators and iii) certain input data (IMAD uses the August revision of SURS data and updated own demographic projections calculated by a microsimulation model by the IER (based on SURS data); in the series of data on employment according to national accounts statistics, IMAD's calculations also take into account a correction for the break in the data series in 2002).

[88] The contribution of capital to potential GDP growth in 2000–2008, when it was relatively stable, averaged 1.7 p.p.

Figure 52: Potential GDP change: a comparison of IMAD and EC calculations

Source: SURS; calculations by IMAD and the EC.
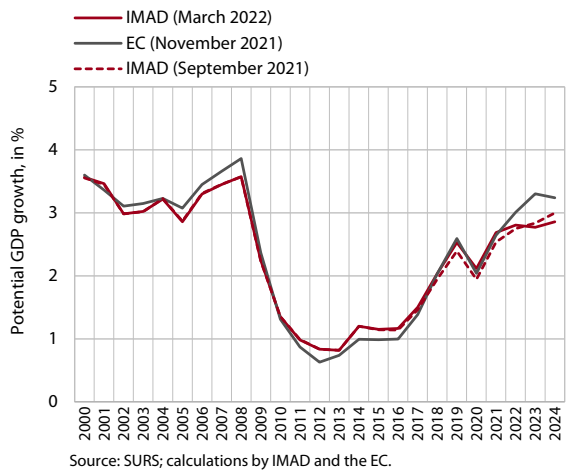
Figure 53: GDP and potential GDP

Source: SURS, calculations by IMAD.
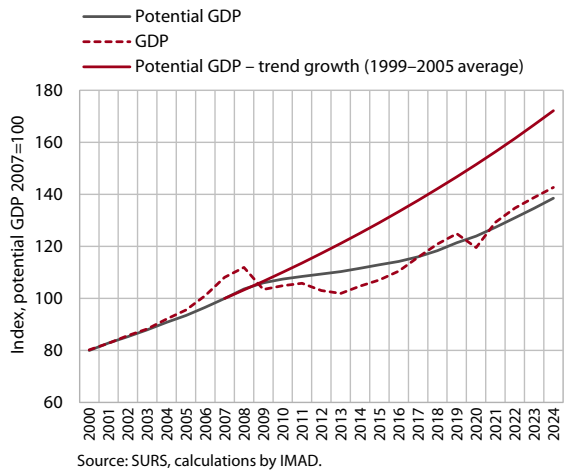
Figure 54: Contributions of individual components to potential GDP growth

Source: calculations by IMAD.

Figure 55: Output gap: a comparison of IMAD and EC calculations

Source: SURS, calculations by IMAD and the EC.
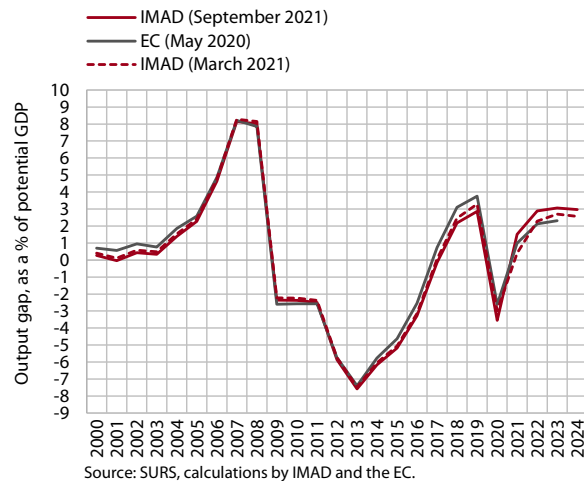
6   Bibliography and sources

AJPES. (2021). Statistical data from balance sheets and profit and loss statements of companies and sole traders. Ljubljana: Agency of the Republic of Slovenia for Public Legal Records and Related Services.

Allianz Research. (2022). Russia-Ukraine crisis: Conflict escalation. Munich: Allianz SE. Retrieved from https://www.allianz.com/en/economic_research/publications/specials_fmo/2022_02_24_RussiaUkraine.html

Andersson, M. K., Aranki, T. and Reslow, A. (2017). Adjusting for information content when comparing forecast performance. *Journal of Forecasting*, 36(7), 784–794. https://doi.org/10.1002/for.2470

Bank of England. (2021 December). How much of the recent house price growth can be explained by the 'race for space'? Retrieved 3 February 2022 at https://www.bankofengland.co.uk/bank-overground/2021/how-much-of-the-recent-house-price-growth-can-be-explained-by-the-race-for-space

Bank of Russia. (2022). Macroeconomic survey of the Bank of Russia. Retrieved from https://www.cbr.ru/eng/statistics/ddkp/mo_br/

Barchart. (n. d.). Energies Futures Prices. Barchart. Retrieved from https://www.barchart.com/futures/energies

Blanchard, O. J. and Leigh, D. (2013). Growth forecast errors and fiscal multipliers. *American Economic Review*, 103(3), 117–120.

BoS. (2021). Financial stability review. Ljubljana: Bank of Slovenia. Retrieved from https://bankaslovenije.blob.core.windows.net/publication-files/fsr_oktober_2021_en.pdf

BoS. (2022a). Economic and financial developments. Ljubljana: Bank of Slovenia. Retrieved from https://bankaslovenije.blob.core.windows.net/publication-files/economic-and-financial-developments-jan-2022.pdf

BoS. (2022b). Data Series - Bank of Slovenia [database]. Ljubljana: Bank of Slovenia. Retrieved from https://px.bsi.si/pxweb/sl/serije_slo/

BoS. (2022c). Review of macroeconomic developments. Ljubljana: Bank of Slovenia. Retrieved from https://bankaslovenije.blob.core.windows.net/publication-files/review-of-macroeconomic-developments-march-2022.pdf

BoS. (several years-a). Economic and financial developments with projections (2013–2015). Ljubljana: Bank of Slovenia.

BoS. (several years-b). Macroeconomic projections (2016–2021). Ljubljana: Bank of Slovenia.

BoS. (several years-c). Financial stability review (2007–2012). Ljubljana: Bank of Slovenia.

BoS. (several years-d). Monetary policy report (2004–2006). Ljubljana: Bank of Slovenia.

BoS. (several years-e). Implementation of short-term monetary policy framework (2001–2003). Ljubljana: Bank of Slovenia.

CCIS. (2022). SLOEXPORT – database of Slovenian exporters [database]. Ljubljana: Chamber of Commerce and Industry of Slovenia. Retrieved from http://www.sloexport.si/

CCIS Analytics. (2021a). Economic forecast for Slovenia for 2021–2023 (autumn forecast, October 2021). Ljubljana: Chamber of Commerce and Industry of Slovenia. Retrieved from https://analitika.gzs.si/Novice/ArticleId/81319/gospodarska-pricakovanja-ugodna-tudi-po-mocnem-post-pandemicnem-preobratu-v-2021

CCIS Analytics. (2021b). Macroeconomic forecast for Slovenia for 2021–2023 (spring forecast, March 2021). Ljubljana: Chamber of Commerce and Industry of Slovenia. Retrieved from https://analitika.gzs.si/Novice/ArticleId/79046/gospodarske-napovedi-2021-2023

CCIS Analytics. (several years). Konjukturna gibanja (2002–2019). Ljubljana; Chamber of Commerce and Industry of Slovenia.

Consensus Economics. (2020a). Eastern Europe Consensus Forecast (April 2020). London: Consensus Economics Inc.

Consensus Economics. (2020b). Eastern Europe Consensus Forecast (September 2020). London: Consensus Economics Inc.

Consensus Economics. (2021a). Eastern Europe Consensus Forecast (March 2021). London: Consensus Economics Inc.

Consensus Economics. (2021b). Eastern Europe Consensus Forecast (September 2021). London: Consensus Economics Inc.

Consensus Economics. (2022). Eastern Europe Consensus Forecast (February 2022). Consensus Economics Inc.

EC. (2021a). European Economic Forecast, Autumn 2021, Institutional Paper 160. Luxembourg: European Commission. Retrieved from https://ec.europa.eu/info/business-economy-euro/economic-performance-and-forecasts/economic-forecasts/autumn-2021-economic-forecast_en#documents

EC. (2021b, July 14). 'Fit for 55' - delivering the EU's 2030 climate target on the way to climate neutrality. COM(2021) 550 final. Retrieved from https://ec.europa.eu/info/strategy/priorities-2019-2024/european-green-deal/delivering-european-green-deal_en#documents

EC. (2022a). Communication from the commission to the council: fiscal policy guidance for 2023. Brussels: European Commission. Retrieved from https://ec.europa.eu/info/business-economy-euro/economic-and-fiscal-policy-coordination/eu-economic-governance-monitoring-prevention-correction/stability-and-growth-pact/fiscal-policy-guidance-2023_en

EC. (2022b). EU sanctions against Russia following the invasion of Ukraine. Retrieved 9 March 2022 at https://ec.europa.eu/info/strategy/priorities-2019-2024/stronger-europe-world/eu-solidarity-ukraine/eu-sanctions-against-russia-following-invasion-ukraine_en

EC. (2022c). European Economic Forecast, Winter 2022. Luxembourg: European Commission. Retrieved from https://ec.europa.eu/info/business-economy-euro/economic-performance-and-forecasts/economic-forecasts/winter-2022-economic-forecast-growth-expected-regain-traction-after-winter-slowdown_en

EC. (2022d). REPowerEU: Joint European action for more affordable, secure and sustainable energy. European Commission. Retrieved from https://ec.europa.eu/commission/presscorner/detail/en/IP_22_1511

EC. (n. d.). EU Emissions Trading System. Brussels: European Commission. Retrieved from https://ec.europa.eu/clima/eu-action/eu-emissions-trading-system-eu-ets_en

EC. (several years). European Economic Forecast (2002–2021). Brussels: European Commission.

ECB. (2010). ECB Monthly Bulletin August 2010. Frankfurt: European Central Bank. Retrieved from https://www.ecb.europa.eu/pub/pdf/mobu/mb201008en.pdf

ECB. (2021). Eurosystem staff macroeconomic projections for the euro area. Frankfurt: European Central Bank. Retrieved from https://www.ecb.europa.eu/pub/projections/html/ecb.projections202112_eurosystemstaff~32e481d712.en.html

ECB. (2022a). ECB Statistical Data Warehouse [database]. Frankfurt: European Central Bank. Retrieved from https://sdw.ecb.europa.eu/

ECB. (2022b). Eurosystem staff macroeconomic projections for the euro area, March 2022. European Central Bank. Retrieved from https://www.ecb.europa.eu/pub/pdf/other/ecb.projections202203_ecbstaff~44f998dfd7.en.pdf

EIA. (2022). Spot Prices. Washington, DC: U.S. Energy Information Administration. Retrieved from https://www.eia.gov/dnav/pet/pet_pri_spt_s1_d.htm

EIU. (2022). What are the global implications of the Russia-Ukraine war? Economist Intelligence Unit. Retrieved from http://country.eiu.com/article.aspx?articleid=301897413&Country=United+States&topic=Economy&subtopic=Recent+developments

ESS. (2021). Napovednik zaposlovanja 2021/II. Ljubljana: Employment Service of Slovenia. Retrieved from https://www.ess.gov.si/_files/14807/Porocilo_Napovednik_zaposlovanja_2021_jesen.pdf

Eurostat. (2022a). Business and consumer surveys [database]. Retrieved from https://ec.europa.eu/info/business-economy-euro/indicators-statistics/economic-databases/business-and-consumer-surveys_en

Eurostat. (2022b). Eurostat [database]. Luxembourg: Eurostat. Retrieved from https://ec.europa.eu/eurostat/data/database

Federal Reserve Bank of New York. (2022, January 4). A New Barometer of Global Supply Chain Pressures. Retrieved 1 March 2022 at https://libertystreeteconomics.newyorkfed.org/2022/01/a-new-barometer-of-global-supply-chain-pressures/

FocusEconomics. (2022). Euro Area Consensus Forecast (March 2022). FocusEconomics S.L.U.

Gligorov, V. and Podkaminer, L. (2006). Broader-based Growth Resilient to Global Uncertainties, wiiw Research Report No. 328. Vienna: The Vienna Institute for International Economic Studies. Retrieved from https://wiiw.ac.at/broader-based-growth-resilient-to-global-uncertainties-dlp-380.pdf

Gligorov, V. and Podkaminer, L. (2007). Private Consumption and Flourishing Exports Keep the Region on High Growth Track, wiiw Research Report No. 335. Vienna: The Vienna Institute for International Economic Studies. Retrieved from https://wiiw.ac.at/private-consumption-and-flourishing-exports-keep-the-region-on-high-growth-track-dlp-409.pdf

Gligorov, V., Pöschl, J. and Richter, S. (2004). As East You Go, the More They Grow: Transition Economies in a New Setting, wiiw Research Report No. 308. Vienna: The Vienna Institute for International Economic Studies. Retrieved from https://wiiw.ac.at/as-east-you-go-the-more-they-grow-transition-economies-in-a-new-setting-dlp-278.pdf

Gligorov, V. and Richter, S. (2007). High Growth Continues, with Risks of
    Overheating on the Horizon, wiiw Research Report No. 341. Vienna: The
    Vienna Institute for International Economic Studies. Retrieved from
    https://wiiw.ac.at/high-growth-continues-with-risks-of-overheating-on-the-
    horizon-dlp-432.pdf

Government of the Republic of Slovenia. (n. d.). Ukrepi za zajezitev širjenja
    okužb. Retrieved 30 August 2021 at https://www.gov.si/teme/koronavirus-
    sars-cov-2/ukrepi-za-zajezitev-sirjenja-okuzb/

Havlik, P. (2002). EU Enlargement: Economic Impacts on Austria and the Five
    Acceding Central European Countries, wiiw Research Report No. 290.
    Vienna: The Vienna Institute for International Economic Studies. Retrieved
    from https://wiiw.ac.at/eu-enlargement-economic-impacts-on-austria-and-
    the-five-acceding-central-european-countries-dlp-217.pdf

Havlik, P. (2003). Transition Countries in 2003: Reforms and Restructuring
    Keep the Global Economic Slowdown at Bay, wiiw Research Report No.
    297. Vienna: The Vienna Institute for International Economic Studies.
    Retrieved from https://wiiw.ac.at/transition-countries-in-2003-reforms-and-
    restructuring-keep-the-global-economic-slowdown-at-bay-dlp-239.pdf

Havlik, P., Podkaminer, L. and Gligorov, V. (2005). Accelerating GDP Growth,
    Improved Prospects for European Integration, wiiw Research Report No.
    314. Vienna: The Vienna Institute for International Economic Studies.
    Retrieved from https://wiiw.ac.at/accelerating-gdp-growth-improved-
    prospects-for-european-integration-dlp-303.pdf

ICE. (n. d.). Dutch TTF Gas Futures. Retrieved from
    https://www.theice.com/products/27996665/Dutch-TTF-Gas-
    Futures/data?marketId=5360399

IMAD. (2018). Autumn Forecast of Economic Trends 2018. Ljubljana: Institute
    of Macroeconomic Analysis and Development. Retrieved from
    https://www.umar.gov.si/fileadmin/user_upload/napovedi/jesen/2018/aJNG
    G-2018_22okt.pdf

IMAD. (2020). Summer Forecast of Economic Trends 2020. Ljubljana: Institute
    of Macroeconomic Analysis and Development. Retrieved from
    https://www.umar.gov.si/fileadmin/user_upload/napovedi/vmesna/poletna_
    2020/angleska/Poletna_napoved_2020_ANG1.pdf

IMAD. (2021a). Autumn Forecast of Economic Trends 2021. Ljubljana:
    Institute of Macroeconomic Analysis and Development. Retrieved from
    https://www.umar.gov.si/fileadmin/user_upload/napovedi/jesen/2021/angle
    ski/JNGG_2021_ENG.pdf

IMAD. (2021b). Spring Forecast of Economic Trends 2021. Ljubljana: Institute
    of Macroeconomic Analysis and Development. Retrieved from
    https://www.umar.gov.si/fileadmin/user_upload/napovedi/pomlad/pomlada
    nska_2021/angleska/Spring_Forecast_of_Economic_Trends_2021_01.pdf

IMAD. (several years-a). Autumn Forecast of Economic Trends (2005–2021).
    Institute of Macroeconomic Analysis and Development.

IMAD. (several years -b). Autumn report (1997-2006). Ljubljana: Institute of
    Macroeconomic Analysis and Development.

IMAD. (several years-c). Spring Forecast of Economic Trends (2005–2021).
    Ljubljana: Institute of Macroeconomic Analysis and Development.

IMAD. (several years-d). Spring report (1997–2006). Ljubljana: Institute of
    Macroeconomic Analysis and Development.

IMF. (2022). Commodity Terms of Trade [database]. Washington, DC: International Monetary Fund. Retrieved from https://data.imf.org/?sk=2CDDCCB8-0B59-43E9-B6A0-59210D5605D2

IMF. (several years). World Economic Forecast (2002–2021). Washington, DC: International Monetary Fund.

Intesa Sanpaolo. (2022). Macroeconomic implications of the Russian invasion of Ukraine. Torino: Intesa Sanpaolo. Retrieved from https://group.intesasanpaolo.com/content/dam/portalgroup/repository-files/macro/en/macroeconomic/macrofocus/2022/03/20220301MacroFocus_Implications%20of%20the%20Russian%20invasion%20of%20Ukraine_eng.pdf

Istat. (2022). Monthly Report on the Italian Economy. Rome: Istat. Retrieved from https://www.istat.it/it/files//2022/03/MonRep_feb_2022.pdf

IZOOPIZG – Interventni zakon za odpravo ovir pri izvedbi pomembnih investicij za zagon gospodarstva po epidemiji COVID-19 (Intervention Act to Remove Obstacles to the Implementation of Significant Investments to Start the Economy After the COVID-19 Epidemic). (2020). Official Gazette of the Republic of Slovenia Nos 80/20 and 206/21. Retrieved from http://pisrs.si/Pis.web/pregledPredpisa?id=ZAKO8207

Kebhaj, B. and Gruss, S. (2019). Commodity Terms of Trade: A New Database, IMF Working paper WP/19/21. Washington, DC: International Monetary Fund. Retrieved from https://www.imf.org/en/Publications/WP/Issues/2019/01/24/Commodity-Terms-of-Trade-A-New-Database-46522

MF. (2022a). Consolidated general government budgetary accounts. Ljubljana: Ministry of Finance. Retrieved from https://www.gov.si/teme/fiskalna-in-javnofinancna-politika/

MF. (2022b). State budget expenditure for the mitigation of COVID-19 consequences [internal data]. Ljubljana: Ministry of Finance.

Milač, M. (2022, February 3). Kako vojna v Ukrajini pustoši po evropski avtoindustriji. *Finance*. Retrieved from https://avto.finance.si/8987758

NIESR. (2022). The Economic Costs of the Russia-Ukraine Conflict. London: National Institute of Economic and Social Research. Retrieved from https://www.niesr.ac.uk/wp-content/uploads/2022/03/PP32-Economic-Costs-Russia-Ukraine.pdf

OdPSD22–24 – Odlok o okviru za pripravo proračunov sektorja država v obdobju 2022 do 2024 (Ordinance on the framework for the preparation of the general government budget for the 2022–2024 period). (2021). Official Gazette of the Republic of Slovenia Nos 65/21 and 183/21. Retrieved from http://www.pisrs.si/Pis.web/pregledPredpisa?id=ODLO2410

OECD. (2021). OECD Economic Outlook. Paris: OECD Publishing. Retrieved from https://www.oecd-ilibrary.org/sites/66c5ac2c-en/index.html?itemId=/content/publication/66c5ac2c-en

OECD. (2022). Trade in Value Added (TiVA) 2021 ed: Principal Indicators [database]. Paris: Organisation for Economic Co-operation and Development. Retrieved from https://stats.oecd.org/Index.aspx?DataSetCode=TIVA_2021_C1

OECD. (several years). OECD Economic Outlook: Statistics and Projections (2020–2021). Paris: Organisation for Economic Co-operation and Development. Retrieved from https://www.oecd-ilibrary.org/economics/data/oecd-economic-outlook-statistics-and-projections_eo-data-en

Oxford Economics. (2022). How the clash with Russia will affect Europe's economy. Oxford Economics. Retrieved from https://blog.oxfordeconomics.com/content/eurozone-how-the-clash-with-russia-will-affect-europes-economy

Podkaminer, L. and Gligorov, V. (2006). Strong Growth, Driven by Exports in the NMS and by Consumption in the Future EU Members, wiiw Research Report No. 325. Vienna: The Vienna Institute for International Economic Studies. Retrieved from https://wiiw.ac.at/strong-growth-driven-by-exports-in-the-nms-and-by-consumption-in-the-future-eu-members-dlp-355.pdf

Podkaminer, L. (2003). Transition Countries Resist Global Slowdown: Productivity Gains Offset Effects of Appreciation, wiiw Research Report No. 293. Vienna: The Vienna Institute for International Economic Studies. Retrieved from https://wiiw.ac.at/transition-countries-resist-global-slowdown-productivity-gains-offset-effects-of-appreciation-dlp-222.pdf

Podkaminer, L. (2004). Transition Countries on the Eve of EU Enlargement, wiiw Research Report No. 303. Vienna The Vienna Institute for International Economic Studies. Retrieved from https://wiiw.ac.at/transition-countries-on-the-eve-of-eu-enlargement-dlp-260.pdf

Podkaminer, L. and Hunya, G. (2005). Back from the Peak, Growth in Transition Countries Returns to Standard Rate of Catching-up, wiiw Research Report No. 320. Vienna: The Vienna Institute for International Economic Studies. Retrieved from https://wiiw.ac.at/back-from-the-peak-growth-in-transition-countries-returns-to-standard-rate-of-catching-up-dlp-330.pdf

Pöschl, J. (2002). Transition Countries Face Up to Global Stagnation: Is it Catching?, wiiw Research Report No. 283. Vienna: The Vienna Institute for International Economic Studies. Retrieved from https://wiiw.ac.at/transition-countries-face-up-to-global-stagnation-is-it-catching-dlp-209.pdf

Raiffeisen Research. (2022, January 3). Euro area/CEE Watch: Initial thoughts on economic impact of the war in Europe. Retrieved 7 March 2022 at https://www.raiffeisenresearch.com/servlet/NoAuthLibraryServlet?action=viewDocument&encrypt=ded1b2ce-256b-4543-9a0f-c7242f56cb98&mime=HTML&id=replaceme@bluematrix.com

S&P Global. (2022). S&P Global Commodity Insights. S&P Global. Retrieved from https://www.spglobal.com/commodity-insights/en/commodities/oil

SURS. (2022). SI-STAT [database]. Ljubljana: Statistical Office of the Republic of Slovenia. Retrieved from https://pxweb.stat.si/SiStat/sl

Swanson, A. (2022, March 1). Ukrainian Invasion Adds to Chaos for Global Supply Chains. *The New York Times*. Retrieved from https://www.nytimes.com/2022/03/01/business/economy/ukraine-russia-supply-chains.html

UN Comtrade. (2022). UN Comtrade Database [database]. New York: United Nations Statistics Division. Retrieved from https://comtrade.un.org/data/

WB. (2022). World Bank Commodity Statistics [data portal]. Washington, DC: World Bank. Retrieved from https://www.worldbank.org/en/research/commodity-markets

WIIW. (2022). Monthly Report, No. 2/2022. Vienna: The Vienna Institute for International Economic Studies. Retrieved from https://wiiw.ac.at/p-6109.html

WIIW. (several years-a). wiiw Current Analyses and Forecasts. Vienna: The Vienna Institute for International Economic Studies. Retrieved from https://wiiw.ac.at/publications-17-all-all-all-10-year-desc-0-.html

WIIW. (several years-b). wiiw Forecast Report (2014–2021). Vienna: The Vienna Institute for International Economic Studies. Retrieved from https://wiiw.ac.at/wiiw-forecast-reports-ps-50.html

ZDoh-2Z – Sprejeto besedilo zakona o spremembah in dopolnitvah Zakona o dohodnini (ZDoh-2Z) (Act amending the Personal Income Tax Act). (2022). 435-01/21-8/ EPA 1854-VIII. Retrieved from https://www.dz-rs.si/wps/portal/Home/zakonodaja/izbran/!ut/p/z1/04_Sj9CPykssy0xPLMn Mz0vMAfljo8zivSy9Hb283Q0N3E3dLQwCQ7z9g7w8nAwsnMz1w9EUGA WZGgS6GDn5BhsYGwQHG-pHEaPfAAdwNCBOPx4FUfiNL8gNDQ11VFQEAAXcoa4!/dz/d5/L2dBISEv Z0FBIS9nQSEh/?uid=BF60ECF028B0E015C12586CD004DCD7C&db=pr e_zak&mandat=VIII&tip=doc

ZDOsk – Zakon o dolgotrajni oskrbi (Long Term Care Act). (2021). Official Gazette of the Republic of Slovenia No. 196/21. Retrieved from http://www.pisrs.si/Pis.web/pregledPredpisa?id=ZAKO7621

ZDUOP – Zakon o dodatnih ukrepih za omilitev posledic COVID-19 (Act on Additional Measures for Mitigation of Consequences COVID-19). (2021). Official Gazette of the Republic of Slovenia Nos 15/21 and 112/21. Retrieved from http://www.pisrs.si/Pis.web/pregledPredpisa?id=ZAKO8321

ZDUPŠOP – Zakon o dodatnih ukrepih za preprečevanje širjenja, omilitev, obvladovanje, okrevanje in odpravo posledic COVID-19 (Act on Additional Measures to Stop Spreading and Mitigate, Control, Recover and Eliminate the Consequences of COVID-19). (2021). Official Gazette of the Republic of Slovenia No. 206/21. Retrieved from http://pisrs.si/Pis.web/pregledPredpisa?id=ZAKO8506

ZIUPDV – Zakon o interventnih ukrepih za pripravo na drugi val COVID-19 (Act Determining Intervention Measures to Prepare for the Second Wave of COVID-19). (2020). Official Gazette of the Republic of Slovenia Nos 98/20 and 152/20. Retrieved from http://www.pisrs.si/Pis.web/pregledPredpisa?id=ZAKO8231

ZIUPOPDVE – Zakon o interventnih ukrepih za pomoč pri omilitvi posledic drugega vala epidemije COVID-19 (Act Determining Intervention Measures to Assist in Mitigating the Consequences of the Second Wave of COVID-19 Epidemic). (2020). Official Gazette of the Republic of Slovenia Nos 203/20, 15/21 – ZDUOP, 82/21 – ZNB-C and 112/21 – ZNUPZ and 206/21 – ZDUPŠOP. Retrieved from http://www.pisrs.si/Pis.web/pregledPredpisa?id=ZAKO8304

ZIUZEOP – Zakon o interventnih ukrepih za zajezitev epidemije COVID-19 in omilitev njenih posledic za državljane in gospodarstvo (Act Determining the Intervention Measures to Contain the COVID-19 Epidemic and Mitigate its Consequences for Citizens and the Economy). (2020). Official Gazette of the Republic of Slovenia No. 49/20. Retrieved from http://www.pisrs.si/Pis.web/pregledPredpisa?id=ZAKO8190

ZNUPZ – Zakon o nujnih ukrepih na področju zdravstva (Healthcare Intervention Measures Act). (2021). Official Gazette of the Republic of Slovenia No. 112/21. Retrieved from http://www.pisrs.si/Pis.web/pregledPredpisa?id=ZAKO8360

ZOA – Zakon o osebni asistenci (Personal Assistance Act). (2017). Official Gazette of the Republic of Slovenia Nos 10/17, 31/18 and 172/21. Retrieved from http://www.pisrs.si/Pis.web/pregledPredpisa?id=ZAKO7568

ZUOPVCE – Zakon o nujnih ukrepih za omilitev posledic zaradi vpliva visokih cen energentov. (2022). Official Gazette of the Republic of Slovenia No. 29/22. Retrieved from https://www.uradni-list.si/glasilo-uradni-list-rs/vsebina?urlid=202229&stevilka=553

ZZUOOP – Zakon o začasnih ukrepih za omilitev in odpravo posledic COVID-19 (Act Determining Temporary Measures to Mitigate and Remedy the Consequences of COVID-19). (2020). Official Gazette of the Republic of Slovenia Nos 152/20, 175/20 – ZIUOPDVE, 82/21 – ZNB-C and 112/21 – ZNUPZ. Retrieved from http://www.pisrs.si/Pis.web/pregledPredpisa?id=ZAKO8254

1   Appendix: Assessing forecasting performance

1.1   Summary

The epidemiological situation in Slovenia and among its main trading partners in 2021 remained an important factor of uncertainty in the macroeconomic forecasts. After a sharp decline in 2020, Slovenia saw a rapid recovery in economic activity in 2021, reaching 8.1% according to the preliminary SURS estimate, despite the high risks associated with the development of the epidemic. As we pointed out in last year's Spring Forecast, all parts of the performance assessment for 2020 only include forecasts made after the epidemic had been declared in Slovenia on 12 March 2020. In the case of IMAD, instead of the regular Spring Forecast of March 2020, we took into account the Summer Forecast of June 2020, which was the first comprehensive forecast prepared for the needs of outlining a revised state budget for 2020. In addition, we excluded the forecasts for 2020, which were prepared by domestic and foreign forecasting institutions in 2019, when the epidemic was not yet to be expected.

1.2   Methodology

IMAD's assessment of forecast accuracy is based on comparison with other domestic and foreign institutions[89] **that publish forecasts of economic trends for Slovenia.** The analysis, which captures the latest data for 2021, covers the forecasts for two key macroeconomic variables,[90] economic growth and average annual inflation. The movement of the actual values of these two macroeconomic variables over time is shown in Figure 56. The assessment of forecasting performance is based on a comparison of the forecast values with the first statistical annual estimates using various statistical measures of accuracy.[91] In the following paragraphs we first present an overview

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[89] In addition to the forecasts made by the Institute of Macroeconomic Analysis and Development (IMAD, 2020, several years-a, several years-b, several years-c, several years-d), the analysis covers forecasts for Slovenia by the Bank of Slovenia (BoS, several years-a, several years-b, several years-c, several years-d, several years-e), the Chamber of Commerce and Industry of Slovenia (CCIS Analytics, 2021b, 2021a, several years) and, among international institutions, the European Commission (EC, several years), the International Monetary Fund (IMF, several years), The Vienna Institute for International Economic Studies (Pöschl, 2002; Havlik, 2002; Podkaminer, 2003; Havlik, 2003; Podkaminer, 2004; Gligorov et al., 2004; Havlik et al., 2005; Podkaminer and Hunya, 2005; Podkaminer and Gligorov, 2006; Gligorov and Podkaminer, 2006, 2007; Gligorov and Richter, 2007; WIIW, several years-a, several years-b), and, for the last few years, the Organisation for Economic Co-operation and Development (OECD, several years) and Consensus Economics (Consensus Economics, 2020b, 2020a, 2021b, 2021a). Hereinafter institutions.

[90] Spring forecasts for the year ahead (SF_{t+1}), autumn forecasts for the year ahead (AF_{t+1}), spring forecasts for the current year (SF_t) and autumn forecasts for the current year (AF_t).

[91] The arithmetic mean ($ME = \frac{1}{T}\sum_{t=1}^{T}(P_t - R_t)$), mean absolute error ($MAE = \frac{1}{T}\sum_{t=1}^{T}(|P_t - R_t|)$), root mean square error ($RMSE = \sqrt{\frac{1}{T}\sum_{t=1}^{T}(P_t - R_t)^2}$), standardised mean absolute error ($stdMAE = \frac{MAE}{sd(R_t)}$) and standardised root mean square error ($stdRMSE = \frac{RMSE}{sd(R_t)}$), where the designations of variables and symbols have the following meanings: R actual value, P forecast, sd standard deviation and T number of forecasts. For detailed results see the Statistical Appendix.

of errors made by individual institutions in their forecasts for 2021, followed by an assessment of the performance of IMAD forecasts for the period after 1997. The last part includes a comparative analysis of the forecasting performance of six institutions. The period analysed is from 2002 to 2021, as this is the longest period for which forecasts of most institutions are available.[92]

Figure 56: Overview of GDP growth and average annual inflation, 1997–2021

Source: SURS.
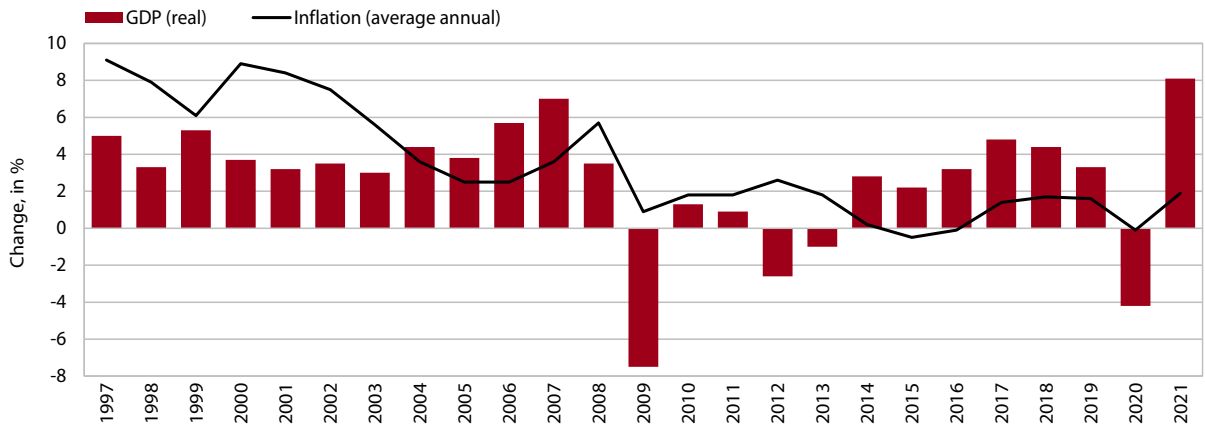
For a less biased comparison of institutions' forecasting performance, the impact of the time when the forecast was released must be excluded from the comparison. As is evident from Figure 57, most institutions publish their forecasts at a later time than IMAD. Institutions that release their forecasts at a later time have an advantage in terms of information, which can be manifested in smaller forecasting errors and vice versa. For this reason, we compared the forecasting accuracy of institutions using a new, less biased method[93] based on the calculation of an adjusted mean absolute error (the adjusted MAE statistic) which eliminates the timing effect. The adjusted MAE statistic is calculated by an econometric model which assumes that the absolute forecast error is dependent on the amount of information available to the forecasting institution when preparing the forecast, the general forecasting ability of the institution (i.e. individual or fixed effects), and the fact that some years are more difficult to forecast. The estimated individual (fixed) effects of this model can then be interpreted as adjusted absolute forecast errors.

[92] Excluding the OECD and Consensus Economics, as their forecasts for Slovenia have only been available since 2009.

[93] This method was used for the first time in the Autumn Forecast of Economic Trends 2018 (IMAD, 2018), see Section 5. For a more detailed description of the method, see Andersson et al. (2017).

Figure 57: The usual timeline of forecasts published by individual institutions

Jan				
Feb				
Mar	**IMAD**	WIIW	CCIS	Consensus Economics
Apr	IMF			
May	EC	OECD		
Jun	BoS			
Jul				
Aug				
Sep	**IMAD**	Consensus Economics		
Oct	IMF			
Nov	EC	OECD	WIIW	
Dec	BoS	CCIS		

Source: Forecasts of individual institutions.

1.3   An overview of the forecasts for 2021

Economic growth in 2021 was higher than expected by all institutions.
After a sharp decline in 2020, the recovery of the Slovenian economy, unlike
that of the euro area, already began in early 2021. Given the better
epidemiological situation, this was mainly due to the beginning of the easing of
measures and the related growth of a significant part of private consumption.
Later in the year, as measures were further eased, economic activity
strengthened, and in the third quarter it returned to the pre-crisis level of the last
quarter of 2019. The recovery was broad-based and the labour market
conditions were very favourable. The economic situation remained favourable
at the end of the year despite obstacles to international trade due to bottlenecks
and the spread of new coronavirus variants. According to the preliminary
statistical estimate, GDP increased by 8.1% in real terms in 2021, which is more
than predicted by all institutions. In 2021, the smallest error in both the spring
and autumn forecasts (2.9 p.p. and 1.4 p.p. respectively) was made by the BoS,
which is one of the last institutions to publish its forecasts. IMAD's error, which
is among the first to publish its forecasts, was 3.5 p.p. in the Spring Forecast
2021. The errors of the EC, CCIS and Consensus Economics were also very
similar, while the errors of other institutions were larger and exceeded 4 p.p. In
the Autumn Forecast 2021, IMAD's error was 2 p.p. The errors of the EC
(1.7 p.p.), CCIS (1.8 p.p.) and the IMF (1.8 p.p.) were slightly lower, while those
of WIIW, OECD and Consensus Economics were above 2 p.p. Errors were
generally lower for institutions that published their forecasts later (more on this
below in the adjusted MAE statistics).

Table 8: Overview of GDP growth forecasts for 2021, by forecasting institution

Actual: 8.1%	Spring forecast from 2020 (SF$_{t+1}$)		Autumn Forecast from 2020 (AF$_{t+1}$)		Spring forecast from 2021 (SF$_t$)		Autumn Forecast from 2021 (AF$_t$)	
	Forecast	Error in p.p.	Forecast	Error in p.p.	Forecast	Error in p.p.	Forecast	Error in p.p.
IMAD*	4.5	-3.6	5.1	-3.0	4.6	-3.5	6.1	-2.0
BoS	4.9	-3.2	3.1	-5.0	5.2	-2.9	6.7	-1.4
CCIS**	4.0	-4.1	5.0	-3.1	4.7	-3.4	6.3	-1.8
EC	6.7	-1.4	5.1	-3.0	4.9	-3.2	6.4	-1.7
IMF	5.4	-2.7	5.2	-2.9	3.7	-4.4	6.3	-1.8
WIIW	4.0	-4.1	4.5	-3.6	3.6	-4.5	5.2	-2.9
OECD	4.5	-3.6	3.4	-4.7	3.5	-4.6	5.9	-2.2
Consensus Economics	3.4	-4.7	4.7	-3.4	4.4	-3.7	5.5	-2.6

Source: Forecasts by individual institutions; calculations by IMAD. Notes: Positive (negative) values mean that the forecast value was higher (lower) than the actual value. *Instead of IMAD's regular Spring Forecast of March 2020, we took into account the Summer Forecast of June 2020, which, like other comparable forecasts, was made after the declaration of the epidemic in Slovenia. **CCIS did not issue forecasts in the form of a publication in 2020, so we took into account the forecasts sent to Consensus Economics (in April and October).

As economic activity recovered, institutions had expected inflation to be moderate in 2021, but they had ultimately underestimated it. After consumer prices had fallen in 2020, the institutions expected growth of almost 2% in 2021, as the economy was expected to recover. In the end, the average annual inflation rate was 1.9% (CPI) and 2.1% (HICP), higher than the latest forecasts of all institutions. The inflation was mainly driven by higher energy prices (especially for oil and natural gas), partly due to the low base in 2020, as well as prices for non-energy industrial goods in the face of production constraints and increased demand. In the spring forecast 2021, the smallest error in the CPI inflation forecast was made by CCIS (0.2 p.p.) and Consensus Economics (0.7 p.p.), while errors made by IMAD and IMF were 1.1 p.p. The smallest errors in HICP inflation were made by BoS and WIIW (both 0.8 p.p.), while the errors made by other institutions were above 1 p.p. In the autumn forecast 2021, the BoS prepared an almost completely accurate forecast of HICP inflation. IMAD's error in the Autumn Forecast 2021 was 0.5 p.p. and was comparable to the errors made by other institutions forecasting CPI inflation.

Table 9: Overview of average annual inflation forecasts for 2021, by forecasting institution

Actual: CPI: 1.9% HICP: 2.1%	Spring forecast from 2020 (SF$_{t+1}$)		Autumn Forecast from 2020 (AF$_{t+1}$)		Spring forecast from 2021 (SF$_t$)		Autumn Forecast from 2021 (AF$_t$)	
	Forecast	Error in p.p.	Forecast	Error in p.p.	Forecast	Error in p.p.	Forecast	Error in p.p.
IMAD*	1.7	-0.2	1.6	-0.3	0.8	-1.1	1.4	-0.5
BoS	1.3	-0.8	0.9	-1.2	1.3	-0.8	2.0	-0.1
CCIS**	2.2	0.3	1.9	0.0	1.7	-0.2	1.6	-0.3
EC	1.2	-0.9	0.9	-1.2	0.8	-1.3	1.7	-0.4
IMF	1.4	-0.5	1.8	-0.1	0.8	-1.1	1.4	-0.5
WIIW	1.0	-1.1	1.3	-0.8	1.3	-0.8	1.8	-0.3
OECD	2.0	-0.1	1.7	-0.4	0.8	-1.3	1.7	-0.4
Consensus Economics	1.5	-0.4	1.4	-0.5	1.2	-0.7	1.5	-0.4

Source: Forecasts by individual institutions; calculations by IMAD. Notes: IMAD, CCIS, IMF and Consensus Economics forecasts refer to CPI inflation, while BoS, EC, WIIW and OECD forecast HICP inflation. Positive (negative) values mean that the forecast value was higher (lower) than the actual value. *Instead of IMAD's regular Spring Forecast of March 2020, we took into account the Summer Forecast of June 2020, which, like other comparable forecasts, was made after the declaration of the epidemic in Slovenia. **CCIS did not issue forecasts in the form of a publication in 2020, so we took into account the forecasts sent to Consensus Economics (in April and October).

In IMAD forecasts, no major systematic deviations of forecast values from actual values have been observed over a longer time horizon. In assessing the forecasting performance, it is necessary to focus on a longer time horizon. Below, we first assess the performance of IMAD forecasts for GDP growth and average annual inflation in the period after 1997. This assessment is followed by a comparison of the forecasting accuracy among institutions using the previously mentioned newer method. The first characteristic by which the forecasting performance can be assessed is the forecast bias. A forecast is biased when it systematically under- or over-estimates the actual value of the projected variable. The forecast bias is determined by the sign in front of the mean error of the forecast. The calculations show that in the 1997–2021 period, IMAD slightly overestimated GDP growth in SF_{t+1} and AF_{t+1}, which is evident from the positive values of mean forecast errors, but these values are small (0.42 p.p. and 0.25 p.p., respectively). The values of mean errors for GDP growth in SF_t and AF_t are negligible (-0.15 p.p. and -0.19 p.p., respectively), indicating that the forecasts are not biased. The forecasts for average annual inflation are not biased either, since the mean error of all forecasts is negligible (-0.04 p.p.).

The accuracy of IMAD forecasts increases with the shortening of the forecast horizon. Another important factor in assessing forecasting performance is its accuracy, which is determined by calculating the mean absolute error (MAE)[94] of the forecast (which should be as small as possible over a longer time horizon). Between 1997 and 2021, the mean absolute error in IMAD forecasts for GDP growth was 2.00 p.p. in SF_{t+1} and 1.69 p.p. in AF_{t+1}; in SF_t and AF_t it amounted to 1.18 p.p. and 0.61 p.p., respectively. The mean absolute errors in the forecasts for inflation were somewhat smaller,[95] 0.95 p.p. in SF_{t+1}, 0.85 p.p. in AF_{t+1}, 0.45 p.p. in SF_t and 0.21 p.p. in AF_t.[96] Somewhat larger errors are observed particularly in the forecasts for real GDP growth over a shorter time horizon (for example, in 2002–2021), which is mainly due to larger errors during the period of the economic and financial crisis more than ten years ago and later in the transition into the phase of recovery and during the COVID-19 epidemic, when forecasting was more difficult due to greater uncertainty (see Figure 58). A detailed examination of errors in IMAD forecasts also shows that absolute errors in both economic growth and average annual inflation decline with the shortening of the forecast horizon, meaning that IMAD forecasts effectively take into account all new information available at the time of the preparation of each new forecast.

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[94] Another measure is the RMSE, which penalises large errors, as these are less desirable.

[95] The same conclusions can also be drawn based on the calculation of the standardised MAE and RSME statistics, which are more appropriate for direct comparisons of the accuracy among different variables.

[96] For other institutions' results see the Statistical Appendix.

Figure 58: Mean absolute errors in IMAD forecasts for GDP growth (left) and average annual inflation (right)

Source: IMAD forecasts. Notes: * The forecasts from 2019 for 2020 are not taken into account. In 2020, we took into account the Summer Forecast, which was published in June 2020, instead of the Spring Forecast. **Excluding 2009, 2011, 2012, 2014, 2020 and 2021.

Source: IMAD forecasts. Notes: * The forecasts from 2019 for 2020 are not taken into account. In 2020, we took into account the Summer Forecast, which was published in June 2020, instead of the Spring Forecast. **Excluding 2009, 2011, 2012, 2014, 2020 and 2021.

In comparing the forecasting accuracy of institutions, it is necessary to consider the time when the forecast was released. The time of release can have a significant impact on accuracy, as a forecast made later in the year may include new information, which can be manifested in smaller forecast errors and vice versa. This new information may involve not just new data on indicator movements and revisions of already released data, but also changes in the assumptions about developments in the international environment, which are a major factor of uncertainty for an open economy such as Slovenia's. In recent years, fiscal policy orientations and fiscal consolidation measures have also become a significant factor to consider when preparing forecasts (they are usually specified only after the completion of IMAD's forecasts). With the introduction of the fiscal rule, the forecasting process became somewhat more predictable in terms of the set goals (particularly regarding the four general government accounts), but the uncertainty about the revenue and expenditure structure, which is determined in detail only after IMAD's forecasts are completed, remains. However, the exceptional economic situation due to the COVID-19 crisis, and hence the deviation from the fiscal rules, again introduces increased uncertainty into the forecasts. For these reasons, we have based our comparative assessment of the institutions' forecasting performance on the calculation of the adjusted MAE statistic, which allows for less biased evaluations as it eliminates the timing effect.

The evaluations of the adjusted MAE statistics for a longer time period show a high reliability of IMAD's forecasts for economic growth and average annual inflation. The figures below (Figure 59 and Figure 60) present the rankings of the institutions with regard to the value of the adjusted MAE statistic in the forecasts for economic growth and average annual inflation (a negative/positive value of the statistic indicates above/below-average forecast ability of the forecaster). According to the values of the adjusted MAE statistics, IMAD, the BoS and the EC showed above-average forecasting ability

in predicting GDP growth in 2002–2021, and particularly IMAD and the BoS in predicting average annual inflation.[97]

Figure 59: (Adjusted) mean absolute errors in GDP growth forecasts for 2002–2021, by forecasting institution

Source: Forecasts by individual institutions; IMAD estimates according to the methodology of Andersson, Aranki and Reslow (2017).
Note: A neg./pos. value of the statistic means that the forecast ability of the forecasting institution is above/below avg.
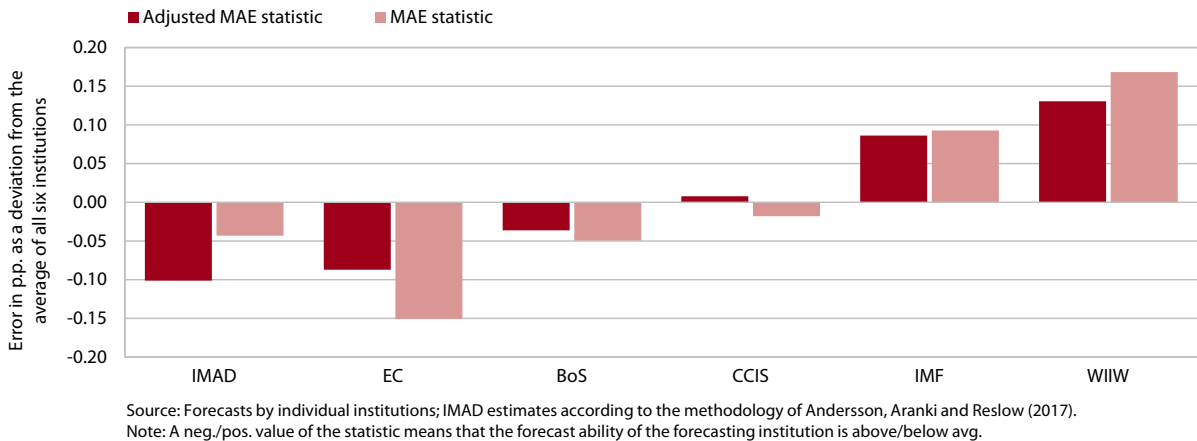
Figure 60: (Adjusted) mean absolute errors in average annual inflation forecasts for 2002–2021, by forecasting institution

Source: Forecasts by individual institutions; IMAD estimates according to the methodology of Andersson, Aranki and Reslow (2017).
Note: A neg./pos. value of the statistic means that the forecast ability of the forecasting institution is above/below avg.

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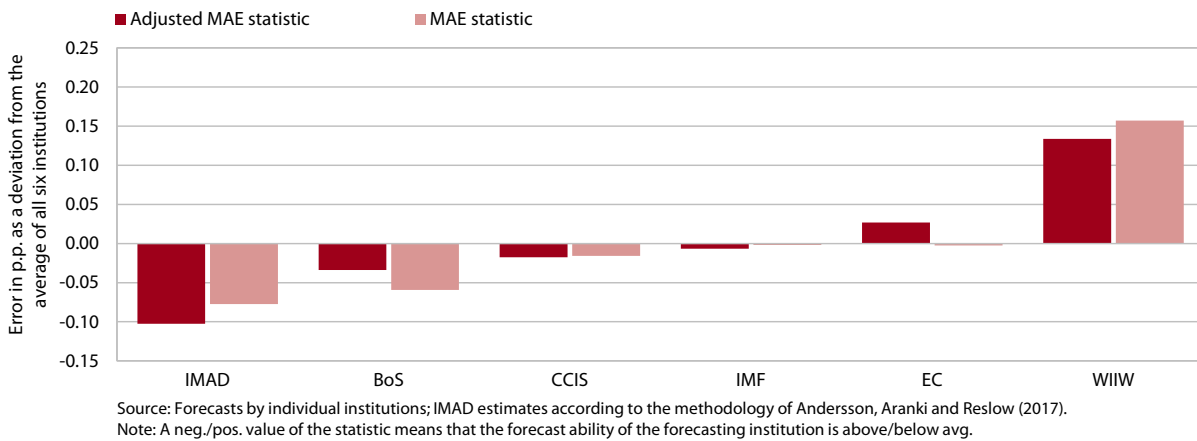
[97] With the concurrent use of CPI and HICP inflation, we implicitly assume that the ability to forecast CPI inflation is equal to the ability to forecast HICP inflation. Since the two series have similar variance and persistence, this assumption can be fully acceptable. We also assume an equal expected forecast error in CPI and HICP inflation in each time period. Since the series are very similar, this assumption is not especially problematic.

statistical appendix

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▌Table 1: Main macroeconomic indicators of Slovenia   Real growth rates in %, unless otherwise indicated

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
									forecast		
GROSS DOMESTIC PRODUCT	2.8	2.2	3.2	4.8	4.4	3.3	-4.2	8.1	4.2	3.0	2.8
GDP in EUR m (current prices)	37,634	38,853	40,443	43,011	45,864	48,397	46,918	52,020	56,167	59,768	62,882
GDP per capita in EUR (current prices and at current exchange rate)	18,253	18,830	19,589	20,820	22,136	23,167	22,312	24,678	26,601	28,243	29,647
GDP per capita in USD (current prices and at current exchange rate)	24,249	20,892	21,683	23,521	26,142	25,936	25,485	29,187	29,261	30,870	32,404
GDP per capita (PPS)[1]	22,100	22,700	23,600	25,100	26,400	27,700	26,500				
GDP per capita (PPS EU27=100)[1]	83	83	84	86	87	88	89				
EMPLOYMENT AND PRODUCTIVITY											
Employment according to National Accounts	0.4	1.3	1.8	2.9	3.2	2.5	-0.6	1.4	1.7	1.0	0.7
Registered unemployed (annual average in thousand)	120.1	112.7	103.2	88.6	78.5	74.2	85.0	74.3	61.1	58.9	56.8
Rate of registered unemployment in %	13.1	12.3	11.2	9.5	8.2	7.7	8.7	7.6	6.2	6.0	5.7
Rate of unemployment by ILO in %	9.7	9.0	8.0	6.6	5.1	4.5	5.0	4.8	4.3	4.1	3.9
Labour productivity (GDP per employee)	2.4	0.9	1.3	1.8	1.2	0.8	-3.7	6.6	2.4	1.9	2.1
WAGES*											
Gross wage per employee - nominal growth in %	1.1	1.0	1.8	2.7	3.4	4.3	5.8	6.1	2.4	4.0	3.9
Private sector activities	1.4	0.5	1.7	2.9	4.0	3.9	4.4	6.1	5.8	4.2	4.2
Public service activities	0.9	2.1	2.3	2.9	3.0	5.4	7.8	6.5	-2.8	3.4	3.3
Gross wage per employee - real growth in %	0.9	1.5	2.0	1.3	1.6	2.7	5.9	4.1	-3.7	0.7	1.6
Private sector activities	1.2	1.0	1.8	1.5	2.3	2.2	4.5	4.1	-0.5	1.0	1.9
Public service activities	0.7	2.6	2.4	1.5	1.3	3.7	7.9	4.5	-8.6	0.2	1.0
INTERNATIONAL TRADE											
Exports of goods and services	6.0	4.7	6.2	11.1	6.2	4.5	-8.7	13.2	7.1	5.5	5.0
Exports of goods	6.3	5.3	5.7	11.0	5.7	4.5	-5.5	12.3	4.9	4.4	4.0
Exports of services	5.0	2.4	8.0	11.2	7.7	4.6	-20.5	17.1	16.6	9.6	8.6
Imports of goods and services	4.2	4.3	6.3	10.7	7.1	4.7	-9.6	17.4	7.2	4.9	4.6
Imports of goods	3.8	5.1	6.6	10.7	7.4	5.0	-8.6	17.4	6.0	4.4	4.3
Imports of services	6.1	0.1	4.7	10.5	5.4	3.0	-14.9	17.3	14.5	7.5	6.4

▌Table 1: Main macroeconomic indicators of Slovenia - continue　　　Real growth rates in %, unless otherwise indicated

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
									forecast		
BALANCE OF PAYMENTS STATISTICS											
Current account balance in EUR m	1,918	1,483	1,932	2,674	2,731	2,898	3,462	1,663	1,167	1,492	1,654
- As a per cent share relative to GDP	5.1	3.8	4.8	6.2	6.0	6.0	7.4	3.2	2.1	2.5	2.6
External balance of goods and services in EUR m	2,640	3,122	3,465	3,870	3,896	4,218	4,362	2,822	2,353	2,906	3,334
- As a per cent share relative to GDP	7.0	8.0	8.6	9.0	8.5	8.7	9.3	5.4	4.2	4.9	5.3
FINAL DOMESTIC DEMAND											
Final consumption	1.1	2.1	3.9	1.5	3.4	4.1	-3.8	9.4	3.3	1.4	1.6
As a % of GDP	73.9	72.8	73.0	71.0	70.3	70.7	70.8	72.7	72.6	71.5	70.7
in which:											
Private consumption	1.6	2.0	4.4	1.9	3.6	4.8	-6.6	11.6	4.3	1.4	1.6
As a % of GDP	55.0	54.0	54.0	52.5	52.0	52.4	50.2	52.5	54.0	53.1	52.4
Government consumption	-0.2	2.3	2.4	0.4	3.0	2.0	4.2	3.9	0.6	1.3	1.5
As a % of GDP	18.9	18.8	19.0	18.5	18.3	18.3	20.6	20.2	18.7	18.4	18.2
Gross fixed capital formation	-0.1	-1.2	-3.6	10.2	9.7	5.5	-8.2	12.3	6.5	5.0	5.0
As a % of GDP	19.1	18.7	17.4	18.3	19.3	19.6	18.9	20.2	21.2	21.7	22.1
EXCHANGE RATE AND PRICES											
Ratio of USD to EUR	1.329	1.110	1.107	1.129	1.181	1.120	1.141	1.184	1.100	1.093	1.093
Real effective exchange rate - deflated by CPI[2]	-0.2	-4.1	0.2	0.4	0.8	-0.3	-0.4	-0.6	0.7	0.6	0.4
Inflation (end of the year), %[3]	0.2	-0.4	0.5	1.7	1.4	1.8	-1.1	4.9	5.4	2.4	2.1
Inflation (year average), %[3]	0.2	-0.5	-0.1	1.4	1.7	1.6	-0.1	1.9	6.4	3.2	2.3
Brent Crude Oil Price USD / barrel	98.9	52.4	44.8	54.3	71.0	64.3	41.8	70.7	111.8	95.7	90.7

Source of data: SURS, BoS, Eurostat, calculations and forecasts by IMAD.
[1] Measured in purchasing power standard.
[2] Growth in value denotes real appreciation of national currency and vice versa.
[3] Consumer price index.
* We took into account the methodological specifics regarding the reporting of wages (which do not include compensation paid by the government for 2020 and 2021), which also affects 2022.

❚ Table 2a: Gross value added by activity at basic prices and gross domestic product   EUR million, current prices

		2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
										forecast		
A	Agriculture, forestry and fishing	759.1	814.6	800.8	791.3	1,029.9	947.0	995.7	959.6	1,034.0	1,071.4	1,101.1
BCDE	Mining and quarrying, manufacturing, electricity and water supply, waste management	8,736.8	9,080.9	9,492.3	10,187.9	10,691.8	11,483.6	11,274.5	12,715.8	13,704.6	14,523.7	15,217.5
	of which: C Manufacturing	7,385.1	7,747.0	8,156.2	8,848.8	9,312.2	9,998.7	9,692.9	10,963.1	11,851.1	12,551.3	13,142.4
F	Construction	1,852.3	1,808.3	1,817.8	2,002.5	2,286.9	2,529.0	2,501.9	2,772.9	3,061.6	3,347.0	3,647.2
GHI	Trade, transportation and storage, accommodation and food service activities	6,497.2	6,852.4	7,251.2	7,815.4	8,414.3	8,836.9	7,932.8	8,721.2	9,548.3	10,230.5	10,847.8
J	Information and communication	1,391.5	1,357.4	1,388.2	1,488.1	1,544.9	1,700.4	1,750.6	1,900.8	2,106.8	2,301.1	2,484.5
K	Financial and insurance activities	1,304.1	1,362.2	1,337.5	1,407.7	1,514.7	1,604.2	1,631.8	1,836.6	1,808.6	1,943.1	2,044.3
L	Real estate activities	2,529.9	2,652.9	2,771.4	2,853.3	2,974.8	3,053.8	3,068.9	3,234.9	3,230.1	3,377.5	3,490.6
MN	Professional, scientific, technical, administrative and support services	3,222.7	3,346.6	3,459.3	3,795.0	4,089.8	4,208.8	3,908.3	4,432.9	4,859.0	5,259.6	5,565.7
OPQ	Public administration, education, human health and social work	5,389.7	5,469.2	5,805.9	6,087.1	6,419.6	6,906.5	7,528.0	8,115.3	8,570.8	9,026.2	9,427.3
RST	Other service activities	848.9	847.2	905.0	941.6	982.7	1,058.2	887.8	1,015.2	1,235.7	1,339.8	1,415.5
1. TOTAL VALUE ADDED		**32,532.0**	**33,591.7**	**35,029.6**	**37,370.0**	**39,949.3**	**42,328.5**	**41,480.4**	**45,704.9**	**49,159.4**	**52,420.0**	**55,241.5**
2. CORRECTIONS		5,102.3	5,260.9	5,413.7	5,641.4	5,915.0	6,068.2	5,437.7	6,315.3	7,007.1	7,348.3	7,640.8
3. GROSS DOMESTIC PRODUCT (3=1+2)		**37,634.3**	**38,852.6**	**40,443.2**	**43,011.3**	**45,864.2**	**48,396.7**	**46,918.0**	**52,020.2**	**56,166.5**	**59,768.3**	**62,882.4**

Source of data: SURS, forecasts by IMAD.

▮ Table 2b: Gross value added by activity at basic prices and gross domestic product   Structure in %, current prices

		2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
										forecast		
A	Agriculture, forestry and fishing	2.0	2.1	2.0	1.8	2.2	2.0	2.1	1.8	1.9	1.8	1.8
BCDE	Mining and quarrying, manufacturing, electricity and water supply, waste management	23.2	23.4	23.5	23.7	23.3	23.7	24.0	24.4	24.4	24.3	24.2
	of which: C Manufacturing	19.6	19.9	20.2	20.6	20.3	20.7	20.7	21.1	21.1	21.0	20.9
F	Construction	4.9	4.7	4.5	4.7	5.0	5.2	5.3	5.3	5.5	5.6	5.8
GHI	Trade, transportation and storage, accommodation and food service activities	17.3	17.6	17.9	18.2	18.3	18.3	16.9	16.8	17.0	17.1	17.3
J	Information and communication	3.7	3.5	3.4	3.5	3.4	3.5	3.7	3.7	3.8	3.9	4.0
K	Financial and insurance activities	3.5	3.5	3.3	3.3	3.3	3.3	3.5	3.5	3.2	3.3	3.3
L	Real estate activities	6.7	6.8	6.9	6.6	6.5	6.3	6.5	6.2	5.8	5.7	5.6
MN	Professional, scientific, technical, administrative and support services	8.6	8.6	8.6	8.8	8.9	8.7	8.3	8.5	8.7	8.8	8.9
OPQ	Public administration, education, human health and social work	14.3	14.1	14.4	14.2	14.0	14.3	16.0	15.6	15.3	15.1	15.0
RST	Other service activities	2.3	2.2	2.2	2.2	2.1	2.2	1.9	2.0	2.2	2.3	2.3
1. TOTAL VALUE ADDED		**86.4**	**86.5**	**86.6**	**86.9**	**87.1**	**87.5**	**88.4**	**87.9**	**87.5**	**87.7**	**87.8**
2. CORRECTIONS		13.6	13.5	13.4	13.1	12.9	12.5	11.6	12.1	12.5	12.3	12.2
3. GROSS DOMESTIC PRODUCT (3=1+2)		**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**

Source of data: SURS, forecasts by IMAD.

▌**Table 3a: Gross value added by activity at basic prices and gross domestic product**

EUR million

		constant previous year prices								constant 2021 prices		
		2014	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**	**2021**	**2022**	**2023**	**2024**
											forecast	
A	Agriculture, forestry and fishing	733.0	858.7	803.3	760.6	957.0	956.3	983.8	933.6	988.9	999.3	1,008.8
BCDE	Mining and quarrying, manufacturing, electricity and water supply, waste management	8,695.4	8,891.7	9,543.7	10,148.1	10,504.9	11,433.8	11,100.8	12,372.9	13,179.9	13,502.8	13,806.8
	of which: C Manufacturing	7,300.8	7,593.1	8,177.8	8,788.3	9,114.3	10,082.5	9,722.6	10,677.2	11,357.8	11,653.1	11,944.4
F	Construction	1,820.9	1,792.9	1,748.8	1,953.9	2,169.8	2,472.6	2,478.9	2,572.9	2,926.8	3,103.9	3,288.6
GHI	Trade, transportation and storage, accommodation and food service activities	6,522.2	6,858.4	7,235.4	7,800.7	8,279.4	8,703.8	8,140.0	8,853.4	9,161.6	9,441.0	9,752.6
J	Information and communication	1,383.8	1,419.0	1,351.6	1,458.3	1,569.4	1,652.6	1,746.3	1,897.1	2,025.3	2,164.0	2,288.5
K	Financial and insurance activities	1,239.6	1,261.4	1,397.8	1,331.9	1,417.6	1,587.7	1,626.1	1,830.2	1,781.5	1,826.9	1,871.7
L	Real estate activities	2,605.0	2,534.5	2,651.8	2,811.9	2,907.1	3,007.7	3,039.7	3,130.9	3,291.5	3,326.1	3,357.7
MN	Professional, scientific, technical, administrative and support services	3,287.1	3,373.6	3,453.2	3,724.3	4,049.3	3,973.4	3,777.2	4,304.9	4,710.0	4,976.1	5,197.6
OPQ	Public administration, education, human health and social work	5,460.5	5,400.5	5,603.0	5,917.1	6,206.6	6,525.7	7,116.6	7,664.6	8,286.1	8,414.6	8,548.4
RST	Other service activities	847.1	842.5	891.0	922.5	959.0	1,023.1	886.0	983.1	1,208.6	1,257.5	1,307.2
1. TOTAL VALUE ADDED		**32,594.5**	**33,233.0**	**34,679.6**	**36,829.0**	**39,020.3**	**41,337.0**	**40,895.4**	**44,543.4**	**47,560.2**	**49,012.2**	**50,427.7**
2. CORRECTIONS		4,868.9	5,233.0	5,413.1	5,561.7	5,893.2	6,018.1	5,454.4	6,181.8	6,663.6	6,831.0	6,982.0
3. GROSS DOMESTIC PRODUCT (3=1+2)		**37,463.4**	**38,466.0**	**40,092.8**	**42,390.7**	**44,913.5**	**47,355.1**	**46,349.9**	**50,725.2**	**54,223.8**	**55,843.2**	**57,409.8**

Source of data: SURS, forecasts by IMAD.

▮ Table 3b: Gross value added by activity at basic prices and gross domestic product   Real growth rates in %

		2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
											forecast	
A	Agriculture, forestry and fishing	2.0	13.1	-1.4	-5.0	20.9	-7.1	3.9	-6.2	3.0	1.0	1.0
BCDE	Mining and quarrying, manufacturing, electricity and water supply, waste management	4.0	1.8	5.1	6.9	3.1	6.9	-3.3	9.7	3.6	2.4	2.3
	of which: C Manufacturing	4.5	2.8	5.6	7.7	3.0	8.3	-2.8	10.2	3.6	2.6	2.5
F	Construction	9.8	-3.2	-3.3	7.5	8.4	8.1	-2.0	2.8	5.5	6.0	6.0
GHI	Trade, transportation and storage, accommodation and food service activities	3.5	5.6	5.6	7.6	5.9	3.4	-7.9	11.6	5.0	3.0	3.3
J	Information and communication	4.7	2.0	-0.4	5.0	5.5	7.0	2.7	8.4	6.5	6.8	5.8
K	Financial and insurance activities	-1.4	-3.3	2.6	-0.4	0.7	4.8	1.4	12.2	-3.0	2.5	2.5
L	Real estate activities	1.3	0.2	0.0	1.5	1.9	1.1	-0.5	2.0	1.7	1.0	1.0
MN	Professional, scientific, technical, administrative and support services	9.2	4.7	3.2	7.7	6.7	-2.8	-10.3	10.1	6.2	5.6	4.5
OPQ	Public administration, education, human health and social work	0.3	0.2	2.4	1.9	2.0	1.7	3.0	1.8	2.1	1.5	1.6
RST	Other service activities	-1.1	-0.8	5.2	1.8	1.8	4.1	-16.3	10.7	19.0	4.0	4.0
1. TOTAL VALUE ADDED		**3.4**	**2.2**	**3.2**	**5.1**	**4.4**	**3.5**	**-3.4**	**7.4**	**4.1**	**3.1**	**2.9**
2. CORRECTIONS		-1.5	2.6	2.9	2.7	4.5	1.7	-10.1	13.7	5.5	2.5	2.2
3. GROSS DOMESTIC PRODUCT (3=1+2)		**2.8**	**2.2**	**3.2**	**4.8**	**4.4**	**3.3**	**-4.2**	**8.1**	**4.2**	**3.0**	**2.8**

Source of data: SURS, forecasts by IMAD.

❚ Table 4a: Gross domestic product and primary incomes   EUR million, current prices

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
									forecast		
1. Compensation of employees	18,408.0	18,935.4	19,966.0	21,246.0	22,818.7	24,582.6	25,221.1	26,912.0	28,392.2	29,897.0	31,277.7
Wages and salaries	15,792.6	16,223.9	17,167.0	18,270.3	19,608.6	21,130.9	21,656.0	23,149.2	24,422.4	25,716.8	26,904.5
Employers' social contributions	2,615.4	2,711.5	2,799.0	2,975.8	3,210.1	3,451.8	3,565.1	3,762.8	3,969.8	4,180.2	4,373.2
2. Taxes on production and imports	5,638.3	5,799.1	5,959.8	6,187.1	6,483.0	6,701.5	6,024.6	6,936.7	7,673.7	8,040.9	8,358.7
3. Subsidies	581.5	528.1	548.1	575.3	604.6	630.6	2,156.2	1,529.4	915.0	767.0	635.0
4. Gross operating surplus / mixed income	14,169.5	14,646.4	15,065.5	16,153.5	17,167.2	17,743.2	17,828.5	19,700.9	21,015.6	22,597.4	23,881.0
5. Gross domestic product (5=1+2-3+4)	37,634.3	38,852.6	40,443.2	43,011.3	45,864.2	48,396.7	46,918.0	52,020.2	56,166.5	59,768.3	62,882.4

Source of data: SURS, forecasts by IMAD.

❚ Table 4b: Gross domestic product and primary incomes   Structure in %, current prices

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
									forecast		
1. Compensation of employees	48.9	48.7	49.4	49.4	49.8	50.8	53.8	51.7	50.6	50.0	49.7
Wages and salaries	42.0	41.8	42.4	42.5	42.8	43.7	46.2	44.5	43.5	43.0	42.8
Employers' social contributions	6.9	7.0	6.9	6.9	7.0	7.1	7.6	7.2	7.1	7.0	7.0
2. Taxes on production and imports	15.0	14.9	14.7	14.4	14.1	13.8	12.8	13.3	13.7	13.5	13.3
3. Subsidies	1.5	1.4	1.4	1.3	1.3	1.3	4.6	2.9	1.6	1.3	1.0
4. Gross operating surplus / mixed income	37.7	37.7	37.3	37.6	37.4	36.7	38.0	37.9	37.4	37.8	38.0
5. Gross domestic product (5=1+2-3+4)	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source of data: SURS, forecasts by IMAD.

/ **Table 5a: Gross domestic product by expenditures**   EUR million, current prices

		2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
											forecast	
1	GROSS DOMESTIC PRODUCT (1=4+5)	37,634.3	38,852.6	40,443.2	43,011.3	45,864.2	48,396.7	46,918.0	52,020.2	56,166.5	59,768.3	62,882.4
2	EXPORTS OF GOODS AND SERVICES	28,659.2	29,974.3	31,383.2	35,753.4	38,899.9	40,635.6	36,541.2	43,451.7	48,919.1	51,655.0	54,353.9
3	IMPORTS OF GOODS AND SERVICES	26,117.4	26,865.5	27,929.9	31,892.4	35,026.5	36,448.9	32,212.9	40,687.3	46,631.3	48,821.4	51,098.0
4	EXTERNAL BALANCE OF GOODS AND SERVICES (4=2-3)	2,541.7	3,108.8	3,453.3	3,860.9	3,873.4	4,186.6	4,328.2	2,764.4	2,287.7	2,833.5	3,256.0
5	TOTAL DOMESTIC CONSUMPTION (5=6+9)	35,092.6	35,743.8	36,989.9	39,150.4	41,990.9	44,210.1	42,589.8	49,255.7	53,878.8	56,934.7	59,626.4
6	FINAL CONSUMPTION (6=7+8)	27,801.3	28,298.3	29,537.5	30,535.2	32,250.2	34,230.8	33,207.3	37,802.9	40,791.5	42,712.5	44,442.7
7	PRIVATE CONSUMPTION	20,692.9	20,985.0	21,838.9	22,598.4	23,869.7	25,350.3	23,562.4	27,302.8	30,307.1	31,727.9	32,977.5
	- Households	20,339.1	20,640.2	21,475.4	22,218.6	23,463.3	24,918.5	23,160.4	26,834.7	29,794.1	31,187.9	32,415.7
	- NPISH's	353.8	344.8	363.5	379.8	406.4	431.8	402.0	468.1	513.0	540.0	561.8
8	GOVERNMENT CONSUMPTION	7,108.4	7,313.3	7,698.6	7,936.7	8,380.6	8,880.6	9,644.9	10,500.1	10,484.4	10,984.7	11,465.2
9	GROSS CAPITAL FORMATION (9=10+11)	7,291.3	7,445.6	7,452.4	8,615.2	9,740.6	9,979.3	9,382.5	11,452.9	13,087.2	14,222.2	15,183.7
10	GROSS FIXED CAPITAL FORMATION	7,191.0	7,247.8	7,028.7	7,879.8	8,834.4	9,495.4	8,860.5	10,482.9	11,918.0	12,958.0	13,911.9
11	CHANGES IN INVENTORIES AND VALUABLES	100.3	197.8	423.8	735.4	906.3	483.8	522.1	969.9	1,169.2	1,264.2	1,271.8

Source of data: SURS, forecasts by IMAD.

/ **Table 5b: Gross domestic product by expenditures**   Structure in %, current prices

		2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
											forecast	
1	GROSS DOMESTIC PRODUCT (1=4+5)	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
2	EXPORTS OF GOODS AND SERVICES	76.2	77.1	77.6	83.1	84.8	84.0	77.9	83.5	87.1	86.4	86.4
3	IMPORTS OF GOODS AND SERVICES	69.4	69.1	69.1	74.1	76.4	75.3	68.7	78.2	83.0	81.7	81.3
4	EXTERNAL BALANCE OF GOODS AND SERVICES (4=2-3)	6.8	8.0	8.5	9.0	8.4	8.7	9.2	5.3	4.1	4.7	5.2
5	TOTAL DOMESTIC CONSUMPTION (5=6+9)	93.2	92.0	91.5	91.0	91.6	91.3	90.8	94.7	95.9	95.3	94.8
6	FINAL CONSUMPTION (6=7+8)	73.9	72.8	73.0	71.0	70.3	70.7	70.8	72.7	72.6	71.5	70.7
7	PRIVATE CONSUMPTION	55.0	54.0	54.0	52.5	52.0	52.4	50.2	52.5	54.0	53.1	52.4
	- Households	54.0	53.1	53.1	51.7	51.2	51.5	49.4	51.6	53.0	52.2	51.5
	- NPISH's	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
8	GOVERNMENT CONSUMPTION	18.9	18.8	19.0	18.5	18.3	18.3	20.6	20.2	18.7	18.4	18.2
9	GROSS CAPITAL FORMATION (9=10+11)	19.4	19.2	18.4	20.0	21.2	20.6	20.0	22.0	23.3	23.8	24.1
10	GROSS FIXED CAPITAL FORMATION	19.1	18.7	17.4	18.3	19.3	19.6	18.9	20.2	21.2	21.7	22.1
11	CHANGES IN INVENTORIES AND VALUABLES	0.3	0.5	1.0	1.7	2.0	1.0	1.1	1.9	2.1	2.1	2.0

Source of data: SURS, forecasts by IMAD.

▮ **Table 6a: Gross domestic product by expenditures**   EUR million

		constant previous year prices							constant 2021 prices		
		2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
										forecast		
1	**GROSS DOMESTIC PRODUCT (1=4+5)**	**37,463.4**	**38,466.0**	**40,092.8**	**42,390.7**	**44,913.5**	**47,355.1**	**46,349.9**	**50,725.2**	**54,223.8**	**55,843.2**	**57,409.8**
2	EXPORTS OF GOODS AND SERVICES	28,681.3	30,018.0	31,821.7	34,857.7	37,954.2	40,656.9	37,115.4	41,363.5	46,558.3	49,114.8	51,558.4
3	IMPORTS OF GOODS AND SERVICES	26,404.1	27,245.3	28,555.1	30,910.5	34,152.6	36,662.5	32,957.6	37,807.2	43,635.7	45,755.3	47,854.7
4	EXTERNAL BALANCE OF GOODS AND SERVICES (4=2-3)	2,277.2	2,772.6	3,266.7	3,947.2	3,801.6	3,994.4	4,157.8	3,556.4	2,922.6	3,359.6	3,703.7
5	TOTAL DOMESTIC CONSUMPTION (5=6+9)	35,186.3	35,693.4	36,826.1	38,443.5	41,111.9	43,360.7	42,192.1	47,168.9	51,301.2	52,483.7	53,706.0
6	FINAL CONSUMPTION (6=7+8)	27,923.8	28,387.8	29,408.8	29,984.9	31,579.8	33,562.2	32,945.6	36,330.5	39,047.3	39,600.5	40,223.9
7	PRIVATE CONSUMPTION	20,781.5	21,112.7	21,918.4	22,254.5	23,407.8	25,015.2	23,688.6	26,305.7	28,484.1	28,894.8	29,357.6
	- Households	20,427.7	20,769.2	21,559.8	21,882.1	23,009.4	24,597.5	23,283.2	25,845.8	28,002.0	28,403.0	28,857.4
	- NPISH's	353.8	343.5	358.6	372.4	398.4	417.7	405.4	459.9	482.1	491.8	500.1
8	GOVERNMENT CONSUMPTION	7,142.3	7,275.1	7,490.4	7,730.3	8,172.1	8,546.9	9,257.1	10,024.8	10,563.1	10,705.7	10,866.3
9	GROSS CAPITAL FORMATION (9=10+11)	7,262.4	7,305.6	7,417.3	8,458.6	9,532.1	9,798.5	9,246.4	10,838.3	12,253.9	12,883.2	13,482.2
10	GROSS FIXED CAPITAL FORMATION	7,152.8	7,103.8	6,987.6	7,744.3	8,645.9	9,319.0	8,715.0	9,954.1	11,159.2	11,722.7	12,314.7
11	CHANGES IN INVENTORIES AND VALUABLES	109.6	201.8	429.7	714.4	886.1	479.5	531.4	884.2	1,094.8	1,160.5	1,167.5

Source of data: SURS, forecasts by IMAD.

▮ **Table 6b: Gross domestic product by expenditures**   Real growth rates in %

		2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
										forecast		
1	**GROSS DOMESTIC PRODUCT (1=4+5)**	**2.8**	**2.2**	**3.2**	**4.8**	**4.4**	**3.3**	**-4.2**	**8.1**	**4.2**	**3.0**	**2.8**
2	EXPORTS OF GOODS AND SERVICES	6.0	4.7	6.2	11.1	6.2	4.5	-8.7	13.2	7.1	5.5	5.0
3	IMPORTS OF GOODS AND SERVICES	4.2	4.3	6.3	10.7	7.1	4.7	-9.6	17.4	7.2	4.9	4.6
4	*EXTERNAL BALANCE OF GOODS AND SERVICES[1]*	*1.6*	*0.6*	*0.4*	*1.2*	*-0.1*	*0.3*	*-0.1*	*-1.6*	*0.3*	*0.8*	*0.6*
5	TOTAL DOMESTIC CONSUMPTION (5=6+9)	1.3	1.7	3.0	3.9	5.0	3.3	-4.6	10.8	4.2	2.3	2.3
6	FINAL CONSUMPTION (6=7+8)	1.1	2.1	3.9	1.5	3.4	4.1	-3.8	9.4	3.3	1.4	1.6
7	PRIVATE CONSUMPTION	1.6	2.0	4.4	1.9	3.6	4.8	-6.6	11.6	4.3	1.4	1.6
	- Households	1.6	2.1	4.5	1.9	3.6	4.8	-6.6	11.6	4.3	1.4	1.6
	- NPISH's	3.3	-2.9	4.0	2.5	4.9	2.8	-6.1	14.4	3.0	2.0	1.7
8	GOVERNMENT CONSUMPTION	-0.2	2.3	2.4	0.4	3.0	2.0	4.2	3.9	0.6	1.3	1.5
9	GROSS CAPITAL FORMATION (9=10+11)	1.7	0.2	-0.4	13.5	10.6	0.6	-7.3	15.5	7.0	5.1	4.6
10	GROSS FIXED CAPITAL FORMATION	-0.1	-1.2	-3.6	10.2	9.7	5.5	-8.2	12.3	6.5	5.0	5.0
11	*CHANGES IN INVENTORIES AND VALUABLES[1]*	*0.3*	*0.3*	*0.6*	*0.7*	*0.3*	*-0.9*	*0.1*	*0.8*	*0.2*	*0.1*	*0.0*

Source of data: SURS, forecasts by IMAD.
Note: [1] Contribution to real GDP growth (percentage points).

▮ Table 7: Balance of payments - balance of payments statistics   EUR million

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
									forecast		
I. CURRENT ACCOUNT	**1,918**	**1,483**	**1,932**	**2,674**	**2,731**	**2,898**	**3,462**	**1,663**	**1,167**	**1,492**	**1,654**
1. GOODS	1,175	1,476	1,524	1,617	1,272	1,311	2,366	438	-628	-533	-619
1.1. Exports of goods	22,860	23,948	24,883	28,372	30,808	32,013	29,656	35,248	39,122	40,795	42,402
1.2. Imports of goods	21,685	22,471	23,360	26,756	29,535	30,702	27,290	34,810	39,750	41,328	43,021
2. SERVICES	1,465	1,646	1,941	2,254	2,624	2,907	1,996	2,384	2,981	3,439	3,954
2.1. Exports	5,710	5,952	6,517	7,394	8,124	8,659	6,900	8,222	9,817	10,883	11,977
- Transport	1,529	1,654	1,839	2,164	2,431	2,512	2,330	2,689	2,891	3,040	3,218
- Travel	2,140	2,162	2,271	2,523	2,704	2,843	1,200	1,509	2,364	2,796	3,287
- Other	2,041	2,136	2,407	2,706	2,989	3,303	3,370	4,025	4,563	5,047	5,472
2.2. Imports	4,245	4,306	4,575	5,140	5,500	5,751	4,904	5,838	6,836	7,444	8,023
- Transport	814	846	917	1,098	1,107	1,185	1,128	1,535	1,711	1,837	1,945
- Travel	1,119	1,109	1,176	1,322	1,483	1,500	718	877	1,336	1,502	1,673
- Other	2,311	2,351	2,482	2,720	2,911	3,066	3,059	3,427	3,788	4,104	4,405
1., 2. EXTERNAL BALANCE OF GOODS AND SERVICES	**2,640**	**3,122**	**3,465**	**3,870**	**3,896**	**4,218**	**4,362**	**2,822**	**2,353**	**2,906**	**3,334**
Exports of goods and services	28,570	29,900	31,400	35,766	38,931	40,671	36,556	43,470	48,939	51,677	54,379
Imports of goods and services	25,930	26,778	27,935	31,896	35,036	36,453	32,194	40,648	46,586	48,772	51,044
3. PRIMARY INCOME	**-437**	**-1,256**	**-1,139**	**-879**	**-769**	**-811**	**-426**	**-651**	**-677**	**-795**	**-1,028**
3.1. Receipts	888	1,070	1,259	1,381	1,633	1,758	1,645	1,758	1,906	1,900	1,814
- Compensation of employees	238	302	355	385	486	536	493	555	560	565	570
- Investment	368	511	637	703	802	845	713	749	771	775	803
- Other primary income	282	258	267	293	345	378	439	454	575	560	441
3.2. Expenditure	1,326	2,326	2,398	2,260	2,401	2,569	2,071	2,409	2,583	2,695	2,842
- Compensation of employees	118	126	132	149	173	195	169	192	200	205	215
- Investment	1,063	2,057	2,081	1,929	2,024	2,164	1,710	1,953	2,096	2,218	2,347
- Other primary income	144	143	184	182	204	211	192	264	287	272	280
4. SECONDARY INCOME	**-285**	**-384**	**-394**	**-317**	**-396**	**-509**	**-473**	**-508**	**-510**	**-618**	**-652**
4.1. Receipts	706	730	713	828	873	934	972	1,087	1,094	1,066	1,071
4.2. Expenditure	991	1,114	1,107	1,145	1,270	1,443	1,445	1,595	1,604	1,684	1,723
II. CAPITAL ACCOUNT	**79**	**412**	**-307**	**-324**	**-203**	**-187**	**-226**	**50**			
1. Non-produced non-financial assets	-24	-37	-45	-76	-24	-24	-63	33			
2. Capital transfers	102	449	-262	-248	-178	-163	-163	17			
III. FINANCIAL ACCOUNT	**2,276**	**1,779**	**1,184**	**2,112**	**2,548**	**2,094**	**3,053**	**1,017**			
1. Direct investment	-584	-1,269	-864	-495	-934	-762	266	-523			
- Assets	155	292	434	570	373	1,157	697	1,068			
- Liabilities	739	1,560	1,298	1,065	1,307	1,919	431	1,591			
2. Portfolio investment	-3,951	3,039	5,024	2,990	744	734	-1,826	3,199			
3 Financial derivatives	-51	-98	-270	-185	-81	-163	53	-25			
4. Other investment	6,773	219	-2,610	-287	2,768	2,248	4,394	-2,458			
4.1. Assets	4,812	-643	-2,216	-1,372	2,054	3,250	4,856	2,000			
4.2. Liabilities	-1,961	-862	395	-1,085	-713	1,002	462	4,458			
5. Reserve assets	89	-113	-97	89	52	37	167	824			
IV. NET ERRORS AND OMISSIONS	**279**	**-116**	**-441**	**-239**	**20**	**-616**	**-184**	**-696**			

Source of data: BoS, forecasts by IMAD.
Note: The Slovenian Balance of Payments and International Investment Position conforms to the methodology of the the IMF's 'Balance of Payments and International Investment Position Manual'.

❚ Table 8: Labour market

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
									forecast		
LABOUR SUPPLY											
Activity rate (20-64 years, in %)	75.1	76.0	76.2	78.6	79.5	79.9	79.5	79.1	80.3	81.3	82.0
Active population (ILO definition - in thousands)	1,015	1,008	995	1,027	1,033	1,028	1,029	1,020	1,030	1,039	1,044
- yearly growth (in %)	0.7	-0.7	-1.3	3.2	0.7	-0.5	0.1	-0.9	1.0	0.8	0.5
EMPLOYMENT AND UNEMPLOYMENT											
Employment (National accounts concept, in thousands)	931.7	943.9	961.2	989.2	1,020.8	1,045.9	1,039.8	1,054.4	1,072.9	1,084.0	1,091.7
- yearly growth (in %)	0.4	1.3	1.8	2.9	3.2	2.5	-0.6	1.4	1.7	1.0	0.7
Employment (ILO concept, in thousands)	917.0	917.6	915.1	959.0	980.5	982.4	978.1	971.5	986.1	996.3	1003.4
- yearly growth (in %)	1.2	0.1	-0.3	4.8	2.2	0.2	-0.4	-0.7	1.5	1.0	0.7
Employment rate (20-64 yeras, in %)	67.8	69.1	70.1	73.4	75.4	76.4	75.6	75.4	76.9	78.1	78.9
Formal employment (statistical register, in thousands) *	797.8	804.6	817.2	845.5	872.8	894.2	888.9	900.3	919.8	929.4	936.4
- yearly growth (in %)	0.5	0.9	1.6	3.5	3.2	2.5	-0.6	1.3	2.2	1.1	0.7
Paid employment (in thousands)	703.0	713.1	730.5	755.3	780.2	801.9	794.6	804.4	822.3	831.2	837.7
- yearly growth (in %)	0.6	1.4	2.4	3.4	3.3	2.8	-0.9	1.2	2.2	1.1	0.8
Self employed (in thousands)	94.8	91.6	86.7	90.2	92.6	92.3	94.3	95.8	97.4	98.3	98.7
- yearly growth (in %)	-0.1	-3.4	-5.3	4.0	2.7	-0.3	2.1	1.6	1.7	0.8	0.5
Unemployment (ILO concept, in thousands)	98.0	90.5	79.7	67.5	52.8	45.7	51.1	48.5	43.8	42.2	40.7
- yearly growth (in %)	-3.7	-7.7	-11.9	-15.3	-21.8	-13.4	11.8	-5.1	-9.8	-3.7	-3.5
Unemployment (registered, in thousands)	120.1	112.7	103.2	88.6	78.5	74.2	85.0	74.3	61.1	58.9	56.8
- yearly growth (in %)	0.2	-6.1	-8.5	-14.1	-11.5	-5.5	14.6	-12.6	-17.8	-3.7	-3.5
Unemployment rate (ILO concept, in %)	9.7	9.0	8.0	6.6	5.1	4.5	5.0	4.8	4.3	4.1	3.9
Unemployment rate (registered, in %)	13.1	12.3	11.2	9.5	8.2	7.7	8.7	7.6	6.2	6.0	5.7

Sources of data: SURS, ESS, forecasts by IMAD and Eurostat.
Note: *According to the Statistical Register of Employment, including the estimate of self employed farmers.

❚ Table 9: Indicators of international competitiveness　　　　　　　　　annual growth rates in %

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
									forecast		
Effective exchange rate[1]											
Nominal	0.2	-3.0	0.9	0.5	0.8	-0.4	0.8	0.0	-1.0	0.0	0.0
Real - based on consumer prices	-0.2	-4.1	0.2	0.4	0.8	-0.3	-0.4	-0.6	0.7	0.6	0.4
Real - based on ULC in economy as a whole	-1.4	-3.4	1.1	0.1	0.7	0.9	3.6	0.0	-0.6	0.6	-0.1
Unit labour costs components											
Nominal unit labour costs	-1.1	0.6	1.8	1.2	2.7	4.2	7.4	-1.1	1.1	2.2	1.7
Compensation of employees per employee	1.2	1.5	3.1	3.0	3.9	5.0	3.5	5.4	3.6	4.2	3.8
Labour productivity, real [2]	2.3	0.9	1.3	1.9	1.2	0.8	-3.7	6.6	2.4	1.9	2.1
Real unit labour costs	-1.5	-0.4	0.9	-0.3	0.6	1.9	6.1	-3.6	-2.4	-1.1	-0.6
Labour productivity, nominal [3]	2.8	1.9	2.2	3.3	3.3	3.0	-2.5	9.3	6.1	5.3	4.5

Sources of data: SURS national accounts statistics, ECB, Consensus Forecasts, European Comision, Reiffeisen Research, calculations and forecasts by IMAD.
Notes: [1] Harmonised effective exchange rate - 37 group of trading partners; 19 extra Euro area and 18 Euro area countries; a rise in the value indicates appreciation and of national currency and vice versa. [2] GDP per employee (in constant prices); [3] GDP per employee (in current prices).

▌Table 10a: Consolidated general government revenues; GFS - IMF Methodology   EUR million, current prices

CONSOLIDATED GENERAL GOVERNMENT REVENUES	2014	2015	2016	2017	2018	2019	2020	2021 previous
I. TOTAL GENERAL GOVERNMENT REVENUES	15,494	15,714	15,842	16,803	18,594	19,232	18,529	21,382
TAX REVENUES	13,193	13,746	14,241	15,162	16,225	17,179	16,460	18,784
TAXES ON INCOME AND PROFIT	2,386	2,585	2,681	2,967	3,296	3,614	3,262	3,981
Personal income tax	1,916	1,986	2,079	2,197	2,447	2,592	2,488	2,845
Corporate income tax	468	595	600	766	846	997	773	1,115
SOCIAL SECURITY CONTRIBUTIONS	5,273	5,474	5,721	6,092	6,550	7,021	7,290	7,924
TAXSES ON PAYROLL AND WORKFORCE	20	20	20	21	22	23	22	24
TAXES ON PROPERTY	245	238	256	274	278	296	287	316
DOMESTIC TAXES ON GOODS AND SERVICES	5,191	5,347	5,433	5,723	5,989	6,127	5,493	6,359
Value added tax	3,153	3,229	3,272	3,504	3,757	3,872	3,528	4,231
Excise duties	1,491	1,515	1,551	1,586	1,560	1,543	1,314	1,470
TAXES ON INTERN. TRADE AND TRANSACTIONS	78	83	82	83	90	99	102	177
OTHER TAXES	0	1	48	1	0	-1	4	2
NON-TAX REVENUES	1,185	956	963	1,089	1,351	1,114	1,118	1,339
CAPITAL REVENUES	53	96	96	91	153	136	147	228
DONATIONS RECEIVED	19	12	10	10	12	14	18	22
TRANSFERED REVENUES	5	21	51	52	56	58	55	57
RECEIPTS FROM THE EU BUDGET	1,040	882	481	399	797	731	731	951

Source of data: MF, Ministry of Finance Bulletin and Government Finance Accounts of the Republic of Slovenia, SURS.

▌Table 10b: Consolidated general government revenues; GFS - IMF Methodology   per cent share relative to GDP

CONSOLIDATED GENERAL GOVERNMENT REVENUES	2014	2015	2016	2017	2018	2019	2020	2021 previous
I. TOTAL GENERAL GOVERNMENT REVENUES	41.2	40.4	39.2	39.1	40.5	39.7	39.5	41.1
TAX REVENUES	35.1	35.4	35.2	35.3	35.4	35.5	35.1	36.1
TAXES ON INCOME AND PROFIT	6.3	6.7	6.6	6.9	7.2	7.5	7.0	7.7
Personal income tax	5.1	5.1	5.1	5.1	5.3	5.4	5.3	5.5
Corporate income tax	1.2	1.5	1.5	1.8	1.8	2.1	1.6	2.1
SOCIAL SECURITY CONTRIBUTIONS	14.0	14.1	14.1	14.2	14.3	14.5	15.5	15.2
TAXSES ON PAYROLL AND WORKFORCE	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0
TAXES ON PROPERTY	0.7	0.6	0.6	0.6	0.6	0.6	0.6	0.6
DOMESTIC TAXES ON GOODS AND SERVICES	13.8	13.8	13.4	13.3	13.1	12.7	11.7	12.2
Value added tax	8.4	8.3	8.1	8.1	8.2	8.0	7.5	8.1
Excise duties	4.0	3.9	3.8	3.7	3.4	3.2	2.8	2.8
TAXES ON INTERN. TRADE AND TRANSACTIONS	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3
OTHER TAXES	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0
NON-TAX REVENUES	3.1	2.5	2.4	2.5	2.9	2.3	2.4	2.6
CAPITAL REVENUES	0.1	0.2	0.2	0.2	0.3	0.3	0.3	0.4
DONATIONS RECEIVED	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TRANSFERED REVENUES	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1
RECEIPTS FROM THE EU BUDGET	2.8	2.3	1.2	0.9	1.7	1.5	1.6	1.8

Source of data: MF, Ministry of Finance Bulletin and Government Finance Accounts of the Republic of Slovenia, SURS.

/Table 11a: Consolidated general government expenditure; GFS - IMF Methodology EUR million, current prices

CONSOLIDATED GENERAL GOVERNMENT EXPENDITURE	2014	2015	2016	2017	2018	2019	2020	2021 previous
II. TOTAL EXPENDITURES	16,755	16,956	16,497	17,102	18,067	18,969	22,071	24,297
CURRENT EXPENDITURE	7,043	7,168	7,407	7,733	7,967	8,228	9,128	10,390
WAGES AND OTHER PERSONNEL EXPENDITURE	3,116	3,124	3,278	3,406	3,583	3,837	4,285	5,027
EMPLOYER'S SOCIAL SECURITY CONTRIBUTIONS	494	486	508	533	585	634	681	731
PURCHASES OF GOODS AND SERVICES	2,233	2,311	2,371	2,627	2,634	2,728	3,021	3,341
INTEREST PAYMENTS	1,097	1,043	1,074	985	868	792	778	732
RESERVES	103	204	176	183	298	238	364	559
CURRENT TRANSFERS	7,592	7,540	7,700	7,913	8,237	8,704	10,868	11,321
SUBSIDIES	467	399	397	425	444	468	1,449	867
TRANSFERS TO INDIVIDUALS AND HOUSEHOLDS	6,335	6,371	6,496	6,665	6,926	7,324	8,251	9,168
OTHER CURRENT TRANSFERS	790	770	808	822	867	913	1,168	1,286
CAPITAL EXPENDITURE AND TRANSFERS - TOTAL	1,717	1,815	962	1,078	1,432	1,527	1,549	1,957
CAPITAL EXPENDITURE	1,451	1,520	784	891	1,160	1,253	1,231	1,542
CAPITAL TRANSFERS	266	295	178	187	272	274	319	416
PAYMENTS TO THE EU BUDGET	403	433	427	379	433	510	526	629
III. GENERAL GOVERNMENT SURPLUS / DEFICIT (I. - II.)	-1,261	-1,242	-655	-299	526	264	-3,542	-2,915

Source of data: MF, Ministry of Finance Bulletin and Government Finance Accounts of the Republic of Slovenia, SURS.

/Table 11b: Consolidated general government expenditure; GFS - IMF Methodology Per cent share relative to GDP

CONSOLIDATED GENERAL GOVERNMENT EXPENDITURE	2014	2015	2016	2017	2018	2019	2020	2021 previous
II. TOTAL EXPENDITURES	44.5	43.6	40.8	39.8	39.4	39.2	47.0	46.7
CURRENT EXPENDITURE	18.7	18.5	18.3	18.0	17.4	17.0	19.5	20.0
WAGES AND OTHER PERSONNEL EXPENDITURE	8.3	8.0	8.1	7.9	7.8	7.9	9.1	9.7
EMPLOYER'S SOCIAL SECURITY CONTRIBUTIONS	1.3	1.3	1.3	1.2	1.3	1.3	1.5	1.4
PURCHASES OF GOODS AND SERVICES	5.9	5.9	5.9	6.1	5.7	5.6	6.4	6.4
INTEREST PAYMENTS	2.9	2.7	2.7	2.3	1.9	1.6	1.7	1.4
RESERVES	0.3	0.5	0.4	0.4	0.6	0.5	0.8	1.1
CURRENT TRANSFERS	20.2	19.4	19.0	18.4	18.0	18.0	23.2	21.8
SUBSIDIES	1.2	1.0	1.0	1.0	1.0	1.0	3.1	1.7
TRANSFERS TO INDIVIDUALS AND HOUSEHOLDS	16.8	16.4	16.1	15.5	15.1	15.1	17.6	17.6
OTHER CURRENT TRANSFERS	2.1	2.0	2.0	1.9	1.9	1.9	2.5	2.5
CAPITAL EXPENDITURE AND TRANSFERS - TOTAL	4.6	4.7	2.4	2.5	3.1	3.2	3.3	3.8
CAPITAL EXPENDITURE	3.9	3.9	1.9	2.1	2.5	2.6	2.6	3.0
CAPITAL TRANSFERS	0.7	0.8	0.4	0.4	0.6	0.6	0.7	0.8
PAYMENTS TO THE EU BUDGET	1.1	1.1	1.1	0.9	0.9	1.1	1.1	1.2
III. GENERAL GOVERNMENT SURPLUS / DEFICIT (I. - II.)	-3.4	-3.2	-1.6	-0.7	1.1	0.5	-7.5	-5.6

Source of data: MF, Ministry of Finance Bulletin and Government Finance Accounts of the Republic of Slovenia, SURS.

❚ Table 12: Comparison of the performance of forecasts for economic growth and inflation of individual institutions

1. Mean Error, ME		Gross domestic product, real growth				Inflation, annual average			
		SFt+1	AFt+1	SFt	AFt	SFt+1	AFt+1	SFt	AFt
IMAD	2002-2014	1.45	0.98	0.18	0.04	-0.11	0.20	-0.30	0.13
	2002-2015	1.19	0.81	0.14	0.02	0.02	0.27	-0.25	0.13
	2002-2016	1.08	0.75	0.07	0.01	0.09	0.31	-0.25	0.13
	2002-2017	0.85	0.57	-0.02	-0.03	0.07	0.29	-0.21	0.13
	2002-2018	0.72	0.50	0.02	-0.04	0.06	0.26	-0.22	0.13
	2002-2019	0.76	0.54	0.07	-0.01	0.07	0.27	-0.21	0.13
	2002-2020	0.76	0.54	-0.04	-0.07	0.07	0.27	-0.17	0.14
	2002-2021	0.53	0.36	-0.22	-0.17	0.06	0.24	-0.21	0.11
BoS	2002-2014	1.35	0.92	0.27	-0.02	-0.26	-0.14	-0.20	0.08
	2002-2015	1.15	0.74	0.20	-0.04	-0.09	-0.03	-0.14	0.09
	2002-2016	1.03	0.65	0.15	-0.05	0.00	0.05	-0.13	0.08
	2002-2017	0.81	0.45	0.04	-0.07	-0.01	0.04	-0.11	0.07
	2002-2018	0.68	0.41	0.05	-0.08	-0.03	0.00	-0.10	0.07
	2002-2019	0.72	0.44	0.09	-0.07	0.00	0.03	-0.10	0.07
	2002-2020	0.72	0.44	0.03	-0.17	0.00	0.03	-0.08	0.07
	2002-2021	0.52	0.15	-0.12	-0.24	-0.04	-0.03	-0.11	0.06
CCIS	2002-2014	1.35	0.75	0.13	-0.06	0.00	0.10	0.02	0.08
	2002-2015	1.14	0.57	0.06	-0.09	0.15	0.24	0.06	0.08
	2002-2016	1.01	0.49	0.03	-0.09	0.15	0.32	0.05	0.07
	2002-2017	0.78	0.29	N/A	N/A	0.13	0.29	N/A	N/A
	2002-2018	N/A	N/A	-0.01	-0.11	N/A	N/A	0.06	0.08
	2002-2019	0.78	0.29	0.02	-0.07	0.13	0.29	0.08	0.08
	2002-2020	0.78	0.29	0.06	-0.12	0.13	0.29	0.17	0.10
	2002-2021	0.48	0.14	-0.13	-0.21	0.20	0.35	0.15	0.08
EC	2002-2014	1.18	0.75	0.16	-0.10	-0.02	0.14	-0.07	0.09
	2002-2015	0.99	0.61	0.11	-0.11	0.12	0.26	-0.01	0.09
	2002-2016	0.90	0.53	0.05	-0.13	0.24	0.30	-0.01	0.10
	2002-2017	0.68	0.34	-0.06	-0.14	0.22	0.28	-0.01	0.10
	2002-2018	0.55	0.29	-0.05	-0.14	0.20	0.24	-0.01	0.10
	2002-2019	0.59	0.33	-0.01	-0.12	0.21	0.26	-0.01	0.10
	2002-2020	0.59	0.33	-0.08	-0.20	0.21	0.26	0.03	0.11
	2002-2021	0.48	0.15	-0.24	-0.28	0.15	0.18	-0.03	0.08
IMF	2002-2014	1.42	0.91	0.18	-0.02	-0.04	-0.06	-0.24	0.03
	2002-2015	1.18	0.74	0.11	-0.06	0.12	0.05	-0.22	0.04
	2002-2016	1.06	0.64	0.06	-0.07	0.16	0.10	-0.19	0.02
	2002-2017	0.81	0.40	-0.10	-0.13	0.12	0.07	-0.18	0.03
	2002-2018	0.61	0.26	-0.12	-0.12	0.13	0.07	-0.17	0.05
	2002-2019	0.62	0.30	-0.06	-0.08	0.15	0.08	-0.17	0.06
	2002-2020	0.62	0.30	-0.19	-0.14	0.15	0.08	-0.14	0.08
	2002-2021	0.45	0.13	-0.40	-0.23	0.11	0.07	-0.18	0.06
WIIW	2002-2014	1.31	1.24	0.46	-0.02	-0.04	0.07	-0.01	-0.01
	2002-2015	1.04	1.05	0.34	-0.04	0.16	0.19	0.08	0.01
	2002-2016	0.93	0.96	0.29	-0.04	0.19	0.22	0.12	-0.01
	2002-2017	0.70	0.75	0.14	-0.10	0.14	0.17	0.09	-0.01
	2002-2018	0.56	0.67	0.09	-0.09	0.10	0.16	0.08	-0.02
	2002-2019	0.59	0.70	0.13	-0.06	0.10	0.17	0.08	-0.01
	2002-2020	0.59	0.70	-0.08	-0.12	0.10	0.17	0.12	0.02
	2002-2021	0.35	0.47	-0.31	-0.26	0.04	0.11	0.07	0.00

▌Table 12: Comparison of the performance of forecasts for economic growth and inflation of individual institutions

2. Mean Absolute Error, MAE		Gross domestic product, real growth				Inflation, annual average			
		SFt+1	AFt+1	SFt	AFt	SFt+1	AFt+1	SFt	AFt
IMAD	2002-2014	2.48	2.22	1.26	0.59	0.94	1.03	0.43	0.20
	2002-2015	2.46	2.16	1.21	0.56	0.99	1.03	0.43	0.20
	2002-2016	2.33	2.03	1.18	0.54	1.00	1.02	0.41	0.19
	2002-2017	2.35	2.03	1.19	0.54	0.94	0.96	0.41	0.19
	2002-2018	2.29	1.95	1.16	0.52	0.90	0.91	0.40	0.18
	2002-2019	2.24	1.91	1.15	0.51	0.86	0.89	0.38	0.18
	2002-2020	2.24	1.91	1.20	0.55	0.86	0.89	0.39	0.19
	2002-2021	2.24	1.97	1.32	0.62	0.83	0.86	0.42	0.21
BoS	2002-2014	2.31	2.21	1.33	0.71	1.04	0.96	0.39	0.19
	2002-2015	2.25	2.16	1.29	0.68	1.10	1.00	0.41	0.19
	2002-2016	2.15	2.06	1.24	0.65	1.11	1.01	0.38	0.18
	2002-2017	2.17	2.09	1.26	0.63	1.05	0.95	0.37	0.17
	2002-2018	2.12	1.98	1.19	0.61	1.00	0.93	0.35	0.16
	2002-2019	2.09	1.93	1.17	0.59	0.97	0.91	0.33	0.16
	2002-2020	2.09	1.93	1.16	0.67	0.97	0.91	0.33	0.15
	2002-2021	2.09	2.09	1.25	0.71	0.96	0.92	0.35	0.15
CCIS	2002-2014	2.37	2.15	1.39	0.71	1.02	1.04	0.45	0.17
	2002-2015	2.32	2.11	1.35	0.69	1.09	1.11	0.46	0.16
	2002-2016	2.21	2.02	1.29	0.65	1.03	1.13	0.43	0.15
	2002-2017	2.25	2.06	N/A	N/A	0.98	1.08	N/A	N/A
	2002-2018	N/A	N/A	1.25	0.63	N/A	N/A	0.41	0.16
	2002-2019	2.25	2.06	1.21	0.62	0.98	1.08	0.41	0.16
	2002-2020	2.25	2.06	1.18	0.64	0.98	1.08	0.49	0.17
	2002-2021	2.14	2.07	1.29	0.71	0.93	1.03	0.47	0.17
EC	2002-2014	2.35	2.13	1.25	0.50	1.12	1.09	0.32	0.17
	2002-2015	2.29	2.06	1.21	0.49	1.18	1.13	0.36	0.17
	2002-2016	2.17	1.97	1.18	0.47	1.23	1.12	0.34	0.18
	2002-2017	2.20	1.99	1.21	0.46	1.15	1.06	0.32	0.17
	2002-2018	2.15	1.91	1.15	0.45	1.09	1.02	0.31	0.16
	2002-2019	2.10	1.85	1.13	0.43	1.05	1.00	0.30	0.16
	2002-2020	2.10	1.85	1.15	0.49	1.05	1.00	0.32	0.16
	2002-2021	2.10	1.91	1.25	0.56	1.04	1.01	0.37	0.18
IMF	2002-2014	2.22	2.37	1.39	0.95	1.06	1.10	0.50	0.26
	2002-2015	2.21	2.31	1.35	0.93	1.14	1.13	0.48	0.25
	2002-2016	2.10	2.20	1.30	0.88	1.11	1.10	0.46	0.25
	2002-2017	2.16	2.26	1.37	0.89	1.07	1.06	0.43	0.25
	2002-2018	2.18	2.25	1.32	0.84	1.02	1.00	0.41	0.25
	2002-2019	2.10	2.18	1.30	0.82	0.98	0.97	0.40	0.25
	2002-2020	2.10	2.18	1.37	0.84	0.98	0.97	0.40	0.27
	2002-2021	2.10	2.22	1.52	0.89	0.96	0.92	0.44	0.28
WIIW	2002-2014	2.38	2.56	1.66	1.22	1.24	1.12	0.89	0.48
	2002-2015	2.39	2.48	1.63	1.15	1.34	1.16	0.92	0.48
	2002-2016	2.27	2.33	1.55	1.08	1.30	1.13	0.90	0.47
	2002-2017	2.30	2.34	1.59	1.08	1.25	1.09	0.86	0.44
	2002-2018	2.26	2.24	1.53	1.01	1.21	1.04	0.82	0.42
	2002-2019	2.19	2.18	1.49	0.98	1.15	1.00	0.78	0.41
	2002-2020	2.19	2.18	1.62	0.99	1.15	1.00	0.78	0.41
	2002-2021	2.19	2.25	1.77	1.09	1.14	0.99	0.78	0.41

❚ Table 12: Comparison of the performance of forecasts for economic growth and inflation of individual institutions

3. Root Mean Square Error, RMSE		Gross domestic product, real growth				Inflation, annual average			
		SFt+1	AFt+1	SFt	AFt	SFt+1	AFt+1	SFt	AFt
IMAD	2002-2014	3.88	3.57	1.59	0.78	1.31	1.32	0.55	0.24
	2002-2015	3.78	3.45	1.54	0.75	1.34	1.31	0.54	0.23
	2002-2016	3.66	3.34	1.50	0.73	1.32	1.28	0.53	0.23
	2002-2017	3.60	3.27	1.50	0.72	1.28	1.24	0.52	0.22
	2002-2018	3.51	3.18	1.46	0.70	1.24	1.21	0.51	0.21
	2002-2019	3.42	3.11	1.44	0.69	1.21	1.18	0.49	0.21
	2002-2020	3.42	3.11	1.48	0.72	1.21	1.18	0.49	0.23
	2002-2021	3.43	3.10	1.64	0.83	1.18	1.15	0.54	0.25
BoS	2002-2014	3.75	3.61	1.96	0.85	1.37	1.25	0.47	0.25
	2002-2015	3.64	3.50	1.90	0.82	1.41	1.27	0.49	0.25
	2002-2016	3.52	3.39	1.84	0.80	1.40	1.26	0.47	0.24
	2002-2017	3.47	3.34	1.82	0.78	1.35	1.22	0.46	0.23
	2002-2018	3.38	3.24	1.77	0.76	1.31	1.19	0.44	0.22
	2002-2019	3.30	3.16	1.73	0.74	1.28	1.16	0.43	0.22
	2002-2020	3.30	3.16	1.70	0.86	1.28	1.16	0.42	0.21
	2002-2021	3.30	3.28	1.78	0.90	1.26	1.17	0.45	0.21
CCIS	2002-2014	3.82	3.55	1.90	0.83	1.42	1.28	0.56	0.24
	2002-2015	3.71	3.45	1.84	0.81	1.48	1.35	0.56	0.23
	2002-2016	3.59	3.34	1.79	0.78	1.43	1.36	0.54	0.22
	2002-2017	3.55	3.30	N/A	N/A	1.38	1.32	N/A	N/A
	2002-2018	N/A	N/A	1.74	0.76	N/A	N/A	0.52	0.22
	2002-2019	3.55	3.30	1.69	0.75	1.38	1.32	0.51	0.22
	2002-2020	3.55	3.30	1.65	0.76	1.38	1.32	0.67	0.23
	2002-2021	3.48	3.21	1.78	0.85	1.32	1.26	0.65	0.23
EC	2002-2014	3.74	3.43	1.67	0.69	1.45	1.33	0.44	0.24
	2002-2015	3.63	3.32	1.62	0.67	1.49	1.36	0.48	0.23
	2002-2016	3.51	3.22	1.58	0.65	1.52	1.34	0.47	0.24
	2002-2017	3.46	3.17	1.59	0.64	1.47	1.30	0.45	0.23
	2002-2018	3.38	3.08	1.54	0.62	1.43	1.26	0.44	0.22
	2002-2019	3.29	3.00	1.51	0.60	1.39	1.24	0.43	0.22
	2002-2020	3.29	3.00	1.51	0.69	1.39	1.24	0.45	0.22
	2002-2021	3.22	3.00	1.63	0.77	1.37	1.24	0.53	0.23
IMF	2002-2014	3.63	3.77	1.87	1.27	1.34	1.43	0.69	0.30
	2002-2015	3.54	3.65	1.81	1.24	1.41	1.43	0.67	0.30
	2002-2016	3.42	3.53	1.76	1.19	1.38	1.40	0.65	0.29
	2002-2017	3.40	3.51	1.82	1.18	1.34	1.36	0.63	0.29
	2002-2018	3.35	3.44	1.77	1.15	1.30	1.32	0.61	0.29
	2002-2019	3.26	3.35	1.73	1.12	1.27	1.28	0.59	0.29
	2002-2020	3.26	3.35	1.78	1.13	1.27	1.28	0.59	0.31
	2002-2021	3.23	3.33	1.99	1.17	1.24	1.25	0.63	0.32
WIIW	2002-2014	3.89	3.93	2.56	1.55	1.62	1.68	1.03	0.56
	2002-2015	3.80	3.80	2.49	1.49	1.71	1.68	1.05	0.55
	2002-2016	3.68	3.67	2.41	1.44	1.66	1.63	1.03	0.54
	2002-2017	3.63	3.61	2.39	1.42	1.61	1.59	1.00	0.52
	2002-2018	3.54	3.50	2.32	1.37	1.57	1.54	0.97	0.51
	2002-2019	3.45	3.41	2.27	1.34	1.53	1.50	0.94	0.49
	2002-2020	3.45	3.41	2.39	1.33	1.53	1.50	0.93	0.50
	2002-2021	3.49	3.42	2.54	1.45	1.51	1.47	0.93	0.49

/ Table 12: Comparison of the performance of forecasts for economic growth and inflation of individual institutions

4. Standardised Mean Absolute Error, stdMAE		Gross domestic product, real growth				Inflation, annual average			
		SFt+1	AFt+1	SFt	AFt	SFt+1	AFt+1	SFt	AFt
IMAD	2002-2014	0.66	0.59	0.34	0.16	0.45	0.49	0.21	0.10
	2002-2015	0.68	0.59	0.33	0.16	0.45	0.47	0.19	0.09
	2002-2016	0.67	0.58	0.34	0.15	0.44	0.45	0.18	0.09
	2002-2017	0.68	0.58	0.34	0.16	0.43	0.43	0.19	0.08
	2002-2018	0.67	0.57	0.34	0.15	0.42	0.42	0.19	0.08
	2002-2019	0.67	0.58	0.35	0.15	0.41	0.42	0.18	0.09
	2002-2020	0.67	0.58	0.33	0.15	0.41	0.42	0.18	0.09
	2002-2021	0.64	0.56	0.34	0.16	0.41	0.42	0.20	0.10
BoS	2002-2014	0.61	0.59	0.35	0.19	0.64	0.47	0.19	0.09
	2002-2015	0.62	0.60	0.35	0.19	0.60	0.45	0.18	0.08
	2002-2016	0.61	0.59	0.35	0.19	0.58	0.44	0.17	0.08
	2002-2017	0.62	0.60	0.36	0.18	0.56	0.43	0.17	0.08
	2002-2018	0.62	0.58	0.35	0.18	0.56	0.43	0.16	0.08
	2002-2019	0.63	0.58	0.35	0.18	0.56	0.43	0.16	0.07
	2002-2020	0.63	0.58	0.32	0.18	0.56	0.43	0.15	0.07
	2002-2021	0.60	0.60	0.32	0.18	0.57	0.45	0.17	0.07
CCIS	2002-2014	0.63	0.57	0.37	0.19	0.49	0.50	0.22	0.08
	2002-2015	0.64	0.58	0.37	0.19	0.49	0.50	0.21	0.07
	2002-2016	0.63	0.58	0.37	0.19	0.46	0.50	0.19	0.07
	2002-2017	0.65	0.59	N/A	N/A	0.45	0.49	N/A	N/A
	2002-2018	N/A	N/A	0.36	0.18	N/A	N/A	0.19	0.07
	2002-2019	0.67	0.61	0.36	0.19	0.46	0.50	0.19	0.07
	2002-2020	0.67	0.61	0.32	0.17	0.46	0.50	0.22	0.08
	2002-2021	0.60	0.58	0.33	0.18	0.44	0.49	0.22	0.08
EC	2002-2014	0.63	0.57	0.33	0.13	0.55	0.54	0.16	0.08
	2002-2015	0.63	0.57	0.33	0.13	0.53	0.51	0.16	0.08
	2002-2016	0.62	0.56	0.34	0.14	0.54	0.49	0.15	0.08
	2002-2017	0.63	0.57	0.35	0.13	0.52	0.48	0.15	0.08
	2002-2018	0.63	0.56	0.34	0.13	0.51	0.47	0.14	0.07
	2002-2019	0.63	0.56	0.34	0.13	0.50	0.47	0.14	0.08
	2002-2020	0.63	0.56	0.31	0.13	0.50	0.47	0.15	0.08
	2002-2021	0.60	0.55	0.33	0.14	0.51	0.49	0.18	0.08
IMF	2002-2014	0.59	0.63	0.37	0.25	0.51	0.53	0.24	0.13
	2002-2015	0.61	0.64	0.37	0.26	0.51	0.51	0.22	0.11
	2002-2016	0.60	0.63	0.37	0.25	0.49	0.49	0.20	0.11
	2002-2017	0.62	0.65	0.39	0.26	0.48	0.48	0.20	0.11
	2002-2018	0.64	0.66	0.39	0.24	0.48	0.47	0.19	0.12
	2002-2019	0.63	0.66	0.39	0.25	0.47	0.46	0.19	0.12
	2002-2020	0.63	0.66	0.37	0.23	0.47	0.46	0.19	0.13
	2002-2021	0.60	0.63	0.39	0.23	0.47	0.45	0.21	0.14
WIIW	2002-2014	0.63	0.68	0.44	0.33	0.61	0.55	0.44	0.24
	2002-2015	0.66	0.68	0.45	0.32	0.61	0.53	0.41	0.21
	2002-2016	0.65	0.67	0.44	0.31	0.57	0.50	0.39	0.21
	2002-2017	0.66	0.67	0.46	0.31	0.56	0.49	0.39	0.20
	2002-2018	0.66	0.65	0.45	0.30	0.56	0.48	0.38	0.20
	2002-2019	0.66	0.66	0.45	0.30	0.55	0.48	0.37	0.19
	2002-2020	0.66	0.66	0.44	0.27	0.55	0.48	0.36	0.19
	2002-2021	0.63	0.64	0.46	0.28	0.56	0.48	0.37	0.20

▌Table 12: Comparison of the performance of forecasts for economic growth and inflation of individual institutions

5. Standardised Root Mean Square Error, stdRMSE		Gross domestic product, real growth				Inflation, annual average			
		SFt+1	AFt+1	SFt	AFt	SFt+1	AFt+1	SFt	AFt
IMAD	2002-2014	1.03	0.95	0.42	0.21	0.63	0.63	0.27	0.11
	2002-2015	1.04	0.95	0.43	0.21	0.60	0.59	0.24	0.10
	2002-2016	1.04	0.95	0.43	0.21	0.58	0.57	0.23	0.10
	2002-2017	1.04	0.94	0.43	0.21	0.58	0.56	0.23	0.10
	2002-2018	1.02	0.93	0.43	0.20	0.58	0.56	0.24	0.10
	2002-2019	1.03	0.94	0.43	0.21	0.58	0.56	0.23	0.10
	2002-2020	1.03	0.94	0.40	0.20	0.58	0.56	0.23	0.11
	2002-2021	0.98	0.88	0.43	0.22	0.58	0.56	0.26	0.12
BoS	2002-2014	1.00	0.96	0.52	0.23	0.84	0.62	0.23	0.12
	2002-2015	1.00	0.97	0.52	0.23	0.76	0.57	0.22	0.11
	2002-2016	1.01	0.97	0.53	0.23	0.73	0.55	0.21	0.10
	2002-2017	1.00	0.96	0.52	0.22	0.73	0.55	0.21	0.10
	2002-2018	0.99	0.95	0.52	0.22	0.73	0.55	0.21	0.10
	2002-2019	0.99	0.95	0.52	0.22	0.73	0.55	0.21	0.10
	2002-2020	0.99	0.95	0.46	0.24	0.73	0.55	0.20	0.10
	2002-2021	0.94	0.94	0.46	0.23	0.74	0.57	0.22	0.10
CCIS	2002-2014	1.02	0.94	0.51	0.22	0.68	0.61	0.27	0.11
	2002-2015	1.02	0.95	0.51	0.22	0.66	0.61	0.25	0.10
	2002-2016	1.03	0.95	0.51	0.22	0.63	0.60	0.24	0.10
	2002-2017	1.02	0.95	N/A	N/A	0.63	0.60	N/A	N/A
	2002-2018	N/A	N/A	0.50	0.22	N/A	N/A	0.24	0.10
	2002-2019	1.05	0.98	0.51	0.22	0.65	0.62	0.24	0.10
	2002-2020	1.05	0.98	0.45	0.21	0.65	0.62	0.31	0.11
	2002-2021	0.98	0.90	0.46	0.22	0.63	0.60	0.31	0.11
EC	2002-2014	1.00	0.91	0.45	0.18	0.71	0.66	0.22	0.12
	2002-2015	1.00	0.92	0.45	0.19	0.67	0.62	0.22	0.11
	2002-2016	1.00	0.92	0.45	0.19	0.67	0.59	0.21	0.10
	2002-2017	1.00	0.91	0.46	0.18	0.66	0.59	0.20	0.10
	2002-2018	0.99	0.90	0.45	0.18	0.66	0.59	0.20	0.10
	2002-2019	0.99	0.90	0.45	0.18	0.66	0.59	0.20	0.10
	2002-2020	0.99	0.90	0.41	0.19	0.66	0.59	0.21	0.10
	2002-2021	0.92	0.86	0.42	0.20	0.67	0.61	0.25	0.11
IMF	2002-2014	0.97	1.00	0.50	0.34	0.64	0.68	0.33	0.15
	2002-2015	0.98	1.01	0.50	0.34	0.64	0.65	0.30	0.13
	2002-2016	0.98	1.01	0.50	0.34	0.61	0.62	0.29	0.13
	2002-2017	0.98	1.01	0.52	0.34	0.61	0.61	0.28	0.13
	2002-2018	0.98	1.01	0.52	0.34	0.61	0.61	0.28	0.14
	2002-2019	0.98	1.01	0.52	0.34	0.60	0.61	0.28	0.14
	2002-2020	0.98	1.01	0.48	0.31	0.60	0.61	0.28	0.15
	2002-2021	0.92	0.95	0.52	0.30	0.61	0.61	0.30	0.16
WIIW	2002-2014	1.04	1.04	0.68	0.41	0.80	0.83	0.51	0.28
	2002-2015	1.05	1.05	0.69	0.41	0.77	0.76	0.47	0.25
	2002-2016	1.05	1.05	0.69	0.41	0.73	0.72	0.45	0.24
	2002-2017	1.04	1.04	0.69	0.41	0.73	0.72	0.45	0.24
	2002-2018	1.03	1.02	0.68	0.40	0.73	0.72	0.45	0.24
	2002-2019	1.04	1.03	0.68	0.40	0.73	0.71	0.45	0.24
	2002-2020	1.04	1.03	0.65	0.36	0.73	0.71	0.44	0.23
	2002-2021	1.00	0.98	0.66	0.38	0.74	0.72	0.44	0.24

▌ Table 12: Comparison of the performance of forecasts for economic growth and inflation of individual institutions

Source:
forecasts by institutions.

Notes:
Negative values in the tables indicate an underestimation, while positive values indicate an overestimation of actual trends.
The 2019 forecasts for 2020 are not taken into account as the epidemic could not be predicted at that time.
For 2020, all institutions took into account only the forecasts made after the epidemic was declared in Slovenia on 12 March 2020. IMAD took into account the Summer Forecast of June 2020 instead of the regular Spring Forecast of March 2020.

Abbreviations:
SFt+1 – Spring forecast for the year ahead;
AFt+1 – Autumn forecast for the year ahead;
SFt – Spring forecast for the current year;
AFt – Autumn Forecast for the current year;
ME – Mean Error;
MAE – Mean Absolute Error;
RMSE – Root Mean Square Error;
stdMAE – Standardised Mean Absolute Error;
stdRMSE - Standardised Root Mean Square Error.

Acronyms

Acronyms in the text

AF – autumn forecast, **AJPES** – Agency for Public Legal Records and Related Services, **APP** – Asset purchases programme, **BoS** – Bank of Slovenia, **CA** – current account, **CCIS** – Chamber of Commerce and Industry of Slovenia, **CHP** – cogeneration of heat and electricity, **CORSIA** – Carbon Offsetting and Reduction Scheme for International Aviation, **CPI** – Consumer Price Index, **EC** – European Commission, **ECB** – European Central Bank, **EIA** – Energy Information Administration, **EIB** – European Investment Bank, **EMU** – European Monetary Union, **ESI** – Economic Sentiment Indicator, **ESM** – European Stability Mechanism, **ESS** – Employment service of Slovenia, **ETS** – Emissions Trading System, **EU** – European Union, **EUR** – euro, **EUROSTAT** – Statistical Office of the European Communities, **GDP** – gross domestic product, **GFS** – Government Finance Statistics, **HICP** – Harmonised Index of Consumer Prices, **IER** – Institute for Economic Research, **IMAD** – Institute of Macroeconomic Analysis and Development, **IMF** – International Monetary Fund, **MAE** – Mean Absolute Error, **ME** – Mean Error, **MF** – Ministry of Finance, **NACE** – standard classification of activities, **OECD** – Organisation for Economic Cooperation and Development, **OPEC** – Organization of the Petroleum Exporting Countries, **PEPP** – Pandemic emergency purchase programme, **PMI** – Purchasing Managers' Index, **PPS** – Purchasing Power Standard, **React-EU** – Recovery Assistance for Cohesion and the Territories of Europe, **RES** – renewable energy sources, **RMSE** – Root Mean Square Error, **SF** – spring forecast, **SITC** – Standard International Trade Classification, **SNA** – System of National Accounts, **SRE** – Statistical Register of Employment, **SURS** – Statistical Office of the Republic of Slovenia, **UK** – United Kingdom, **US** – United States of America, **USD** – US dollar, **WB** – World Bank, **WIIW** – The Vienna Institute for International Economic Studies.

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