spring forecast of economic trends 2021

IMAD

Spring Forecast of Economic Trends 2021
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Summary

The COVID-19 pandemic, in combination with strict health and containment measures, markedly affected economic activity in 2020; its impact is also significant in the first quarter of this year. The strict measures to contain the spread of the virus caused a sharp decline in economic activity globally and in Slovenia last year. It was most pronounced in the second quarter, given the closure of businesses in non-essential service activities and activity being hampered in manufacturing and other service activities. Restrictions on movement, limited spending opportunities and high uncertainty significantly reduced the volume of household consumption. With high uncertainty and disrupted global supply chains, international trade shrank sharply, as did investment. Following the considerable recovery of most sectors during the summer months, the deterioration in epidemiological conditions observed from September onwards required a reinstatement of stringent containment measures. Unlike during the first wave, the impact of measures was much more concentrated on service activities, which were restricted or prohibited due to the epidemic, i.e. entertainment, sports, recreational and personal services, accommodation and food service activities and a large part of the trade sector. The decline in activity in these sectors was similar to that in the spring and, as during the first wave, resulted in a substantial fall in household consumption. On the other hand, some other activities, particularly those related to external trade (transportation and manufacturing), but also construction, were significantly less affected in the last quarter and recovered throughout the second half of the year. Investment has also been rising in quarterly terms since the middle of the year, driven especially by rebounding investment in machinery and equipment in the third quarter, and construction investment (both infrastructure and housing) in the entire second half of the year. This, together with a gradual adaptation of businesses and consumers to the new situation, led to a much smaller overall contraction of activity in the last quarter and a smaller drop in GDP in 2020 (-5.5%) than expected in IMAD's Winter Forecast. Similar dynamics in activity to those in the last quarter of 2020 were also observed in the first two months of this year.

After the outbreak of the epidemic, a range of measures to alleviate its negative consequences for the population and the economy and for faster economic recovery were adopted both at the national level and by the ECB and the European Commission. The comprehensive packages of measures significantly mitigated the pandemic-related income losses of the economy and the population, and provided companies with liquidity and support to cope with the negative consequences. They significantly cushioned last year's contraction of economic activity and prevented a collapse of some particularly exposed sectors. We estimate that GDP would have fallen by at least 4 p.p. more without the measures. The impact of the anti-corona measures will also be crucial this year, first for sustaining, and later in the year, increasingly for a rebound particularly of service activities and the recovery of overall economic activity.

Economic activity in the euro area will recover this year. Last year, economic activity also fell sharply in the euro area (-6.6%), albeit less than expected, mainly due to a smaller contraction in the last quarter. This is partly related to the gradual adaptation of businesses and consumers to the new situation. As in Slovenia, particularly production in the manufacturing sector was higher than expected. Similar dynamics in activity were also observed in the first quarter of this year. This, together with the rapid development of vaccines and better prospects regarding the start of mass vaccination, was reflected in an upward

revision of international institutions' forecasts for the euro area in recent weeks. These assume that with a gradual relaxation of containment measures, economic activity should start picking up in the second quarter, and then more vigorously in the second half of the year when the most vulnerable persons and an increasing share of the adult population should have been vaccinated. Driven particularly by private consumption and with support from world trade, euro area GDP is forecast to expand by 3.8% this year and next, thus returning to pre-epidemic levels in 2022. The depth of last year's decline and the speed of recovery vary significantly across EU countries, reflecting not only the progress of the epidemic and the strictness of containment measures, but also differences in economic structure (particularly the share of tourism) and domestic policy responses. The euro area recovery will continue to be supported by comprehensive stimulus packages in individual countries as well as those agreed at the EU level, increased public investment and accommodative monetary policies.

In the Spring Forecast, we predict that GDP will grow by 4.6% this year and at a similar rate in 2022 (4.4%); in 2023, it will expand by 3.3%. The available high-frequency data and confidence indicators indicate that the developments seen at the end of last year are continuing in the first months of this year. No noticeable recovery is yet expected in the first quarter, mainly due to the retention of restrictions on activity in some service sectors. In the second quarter, given the expected improvement in the epidemiological situation, a recovery is also expected in service sectors, which will have a positive impact on growth in overall economic activity. Assuming that, with increased vaccination coverage and thus better containment of the epidemic, containment measures will ease even more in the second half of the year, economic recovery should accelerate by the end of the year. Support from fiscal policy measures at the national and EU levels will continue to play a crucial role, together with monetary policy measures of the ECB. Economic recovery will remain differentiated across sectors. We expect further growth in manufacturing and construction, as well as in related service activities, which were already less affected during the second wave of the epidemic. Most of these activities should already achieve 2019 levels of activity this year. We also predict relatively strong growth in investment, especially in infrastructure and housing investment, while investment in machinery and equipment will recover at a somewhat slower pace amid the still uncertain conditions. Growth in external trade will continue as well, particularly for goods and gradually also for most segments of services. The slowest and longest recovery is expected in those related to tourism. After last year's deep fall, private consumption will also pick up in the spring with a gradual opening of service activities, reflecting growth in disposable income, but also a release of accumulated savings and hence a gradual decline in the household saving rate. This is nevertheless likely to remain significantly higher than in 2019. The expected redemption of tourism vouchers will also have a positive impact. Growth in government consumption will also increase further this year. In the next two years, the recovery will continue. Economic activity is expected to reach the pre-crisis levels of 2019 in 2022, also as a result of the retention of some measures to mitigate the consequences of the epidemic this year.

After the deterioration in 2020, labour market conditions should gradually improve somewhat by 2023, but the average number of unemployed will remain higher than in 2019. In the spring months of 2020, the favourable labour market trend observed for several years was interrupted by the first wave of the epidemic; employment fell sharply while unemployment soared, but the deterioration in labour market conditions was quickly contained by the

adoption of measures to preserve jobs. In 2020, employment was thus 1% lower on average, while registered unemployment was 14.6% higher. With the easing of epidemiological conditions, employment will continue to recover gradually this year, while unemployment will remain similar to that last year in the year as a whole. We expect government measures to continue mitigating the negative impact of the coronavirus crisis on the labour market, particularly in the first half of 2021, and being lifted only gradually. In the next two years, employment growth will continue to strengthen amid further economic recovery, but the annual average number of unemployed will remain higher than in 2019.

After last year's deflation, consumer prices will gradually approach 2% growth again, assuming a moderate economic recovery. This year, inflation will average 0.8%. Assuming that the economy gradually recovers, inflation will be driven particularly by higher energy and food prices. Growth in prices of goods and services will remain modest. In the next two years, inflation is set to come close to 2%, largely due to more vigorous growth in goods and services prices in connection with the further recovery.

The greatest risk to the realisation of the forecast is still associated with the epidemiological situation in Slovenia and its most important trading partners; another important factor is a gradual and well-planned lifting of measures for mitigating the consequences of the epidemic. In the event of a prolonged persistence of tight epidemiological conditions, more stringent containment measures due to new waves of infections, also as a consequence of new and more infectious coronavirus mutations or slower progress in vaccination, and thus further major closures of economies, the recovery could be slower than forecast. A longer maintenance or reintroduction of stringent containment measures would have an even more detrimental impact on service activities. In the event of a major closure of activities, the consequences would also be felt in industry. A premature withdrawal of measures to cushion the consequences of the epidemic could, in deteriorated economic conditions, also lead to higher unemployment and more companies facing difficulties in pursuing their activities. Liquidity problems could turn into long-term insolvency and lead to more bankruptcies. The banking sector could be affected due to an increase in non-performing loans. In the event of a faster permanent improvement in epidemiological conditions or faster-than-expected availability of a vaccine or medicine for fast widespread use, activity could, however, also recover more rapidly than predicted. Another key factor will be the speed and efficiency of the absorption of resources from the new multi-annual financial framework and the Recovery and Resilience Facility in Slovenia and its main trading partners and their targeted use to address the main development challenges.

Slovenia's main macroeconomic aggregates

	2020	Spring forecast (March 2021)		
		2021	2022	2023
GDP				
GDP, real growth in %	-5.5	**4.6**	**4.4**	**3.3**
GDP, nominal growth in %	-4.3	**4.7**	**6.0**	**5.2**
GDP in EUR billion, current prices	46.3	**48.5**	**51.3**	**54.0**
Exports of goods and services, real growth in %	-8.7	**8.6**	**7.3**	**5.5**
Imports of goods and services, real growth in %	-10.2	**8.8**	**8.1**	**6.1**
External balance of goods and services (contribution to growth in p.p.)	0.4	**0.7**	**0.1**	**0.2**
Private consumption, real growth in %	-9.7	**4.0**	**4.7**	**2.9**
Government consumption, real growth in %	1.8	**2.4**	**1.7**	**1.4**
Gross fixed capital formation, real growth in %	-4.1	**9.0**	**8.0**	**6.5**
Change in inventories and valuables (contribution to growth in p.p.)	-0.4	**-0.3**	**0.0**	**0.0**
EMPLOYMENT, WAGES AND PRODUCTIVITY				
Employment according to the SNA, growth in %	-1.0	**0.8**	**1.5**	**1.5**
Number of registered unemployed, annual average in '000	85.0	**83.1**	**80.7**	**76.5**
Registered unemployment rate in %	8.7	**8.5**	**8.1**	**7.6**
ILO unemployment rate in %	5.0	**5.0**	**4.8**	**4.5**
Gross wage per employee, nominal growth* in %	5.8	**0.4**	**2.1**	**2.7**
Labour productivity (GDP per employee), real growth in %	-4.6	**3.8**	**2.8**	**1.7**
BALANCE OF PAYMENTS STATISTICS				
Current account BALANCE, in EUR billon	3.4	**3.2**	**3.1**	**3.1**
- as a % of GDP	7.3	**6.6**	**6.1**	**5.8**
PRICES AND EFFECTIVE EXCHANGE RATE				
Inflation (Dec/Dec), in %	-1.1	**1.1**	**1.5**	**2.0**
Inflation (annual average), in %	-0.1	**0.8**	**1.2**	**1.7**
Real effective exchange rate deflated by unit labour costs	2.8	**0.1**	**-1.8**	**-0.8**
ASSUMPTIONS				
Foreign demand (imports of trading partners), real growth in %	-9.5	**7.0**	**5.5**	**4.1**
GDP in the euro area, real growth in %	-6.6	**3.8**	**3.8**	**2.1**
Brent Crude oil price in USD/barrel	41.8	**58.6**	**55.3**	**53.3**
Non-energy commodity prices in USD, growth	3.6	**10.0**	**0.5**	**1.5**
USD/EUR exchange rate	1.141	**1.208**	**1.208**	**1.208**

Source: Year 2020 SURS, BoS, ECB, EIA; 2021–2023 forecasts by IMAD.
Note: *Like the Summer, Autumn and Winter Forecasts 2020, the Spring Forecast 2021 takes into account the methodological specifics regarding the reporting of wages (which do not include compensation paid by the government) and the impact on wage movements, as shown by statistical data in 2020–2022.

The Spring Forecast is based on statistical data, information and adopted measures known at the cut-off date of 9 March 2021.

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1 Assumptions of the Spring Forecast of Economic Trends 2021

In the last quarter of 2020, euro area economic activity contracted due to the resurgence of the epidemic, but significantly less than during the first wave of the epidemic. In the year as a whole, the decline was 6.6% (not seasonally adjusted), which is more favourable than expected. A renewed sharp rise in COVID-19 infections last autumn and the emergence of new, more contagious variants of the virus prompted many countries to reintroduce or tighten containment measures. In the last quarter, the economy in the euro area thus contracted again (-0.7% q-o-q, seasonally adjusted, or -4.9% y-o-y, seasonally adjusted), albeit markedly less than during the first wave of the epidemic (-3.8% q-o-q in the first quarter, seasonally adjusted, and -11.6% in the second), as businesses and consumers had already partly adapted to the new situation and as containment measures during the second wave were mainly focused on service activities. The available economic indicators for the euro area show an interruption of the recovery of activity and confidence in service activities in the last quarter of 2020, while activity in manufacturing continued to grow, thus preventing a larger fall in GDP. Similar dynamics of activity were also observed in the first quarter of this year.

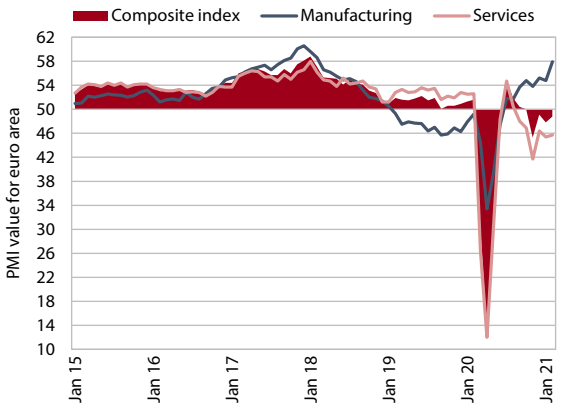
The most recent forecasts of international institutions assume that euro area economic activity will start recovering in the second quarter as containment measures gradually ease. The assumptions for euro area economic activity for this year and next have improved somewhat relative to the Winter Forecast of Economic Trends, as part of the economy recovered more than expected by international institutions in the last quarter of 2020. The outlook also improved due to a faster development of vaccines and the beginning of mass vaccinations, but also due to better expectations for the most important global economies, particularly the US. The recovery of the euro area will strengthen particularly in the second half of the year, assuming that the most vulnerable persons and an increasing share of the adult population are vaccinated. The forecasts also assume that businesses will continue to adapt to containment measures, which will gradually reduce the impact of restrictions on economic activity. After a contraction in 2020, euro area GDP is projected to grow at 3.8% growth rates in the next two years, reaching pre-crisis levels in 2022. However, the economic impact of the pandemic is very uneven across euro area countries. The speed of recovery is also expected to vary significantly, reflecting mainly the evolution of the epidemic and differences in economic structure (particularly the share of tourism). The recovery will be supported by comprehensive stimulus packages at national and EU levels, increased public investment, government support for businesses and the population, and accommodative monetary policies. GDP growth in the euro area is set to be driven mainly by private consumption, which is expected to rebound relatively strongly this year with households gradually releasing accumulated savings due to lower uncertainty. With an increase in global demand, the recovery should also be supported by exports.

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

		2021		2022		2023
Real growth rates, in %	2020	December 2020	March 2021	December 2020	March 2021	March 2021
EU	-6.2	3.6	**3.7**	3.3	**3.9**	**2.4**
Euro area	-6.6	3.7	**3.8**	3.3	**3.8**	**2.1**
Germany	-4.9	3.0	**3.4**	3.3	**3.1**	**1.9**
Italy	-8.9	4.3	**3.4**	3.2	**3.5**	**1.7**
Austria	-6.6	2.5	**2.0**	2.3	**5.1**	**1.9**
France	-8.1	5.8	**5.5**	3.3	**4.4**	**2.2**
Croatia	-8.4	5.0	**5.3**	3.7	**4.6**	**3.5**
Russia	-3.1	2.8	**2.9**	2.2	**3.9**	**2.1**

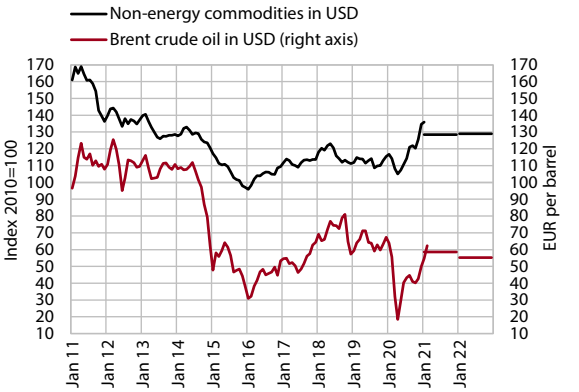
Source: for 2020 Eurostat; for other years, Consensus Forecasts, February 2021; Eastern Consensus Forecasts, February 2021; EC Winter Forecast, February 2021; Focus Economics Consensus Forecast, Central & Eastern Europe, March 2021; Focus Economics Consensus Forecast, Euro Area, March 2021; IMF World Economic Outlook, January 2021; IMAD estimate.

Figure 1: Indicators of confidence in the euro area in recent months mainly indicate a continuation of the worse situation in services



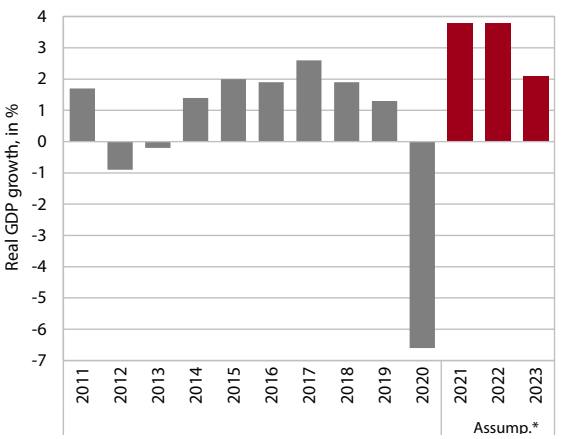
Source: Markit. Note: A reading above 50 signals an expansion, while a figure below 50 indicates a contraction.

Figure 2: Oil and non-energy commodity prices



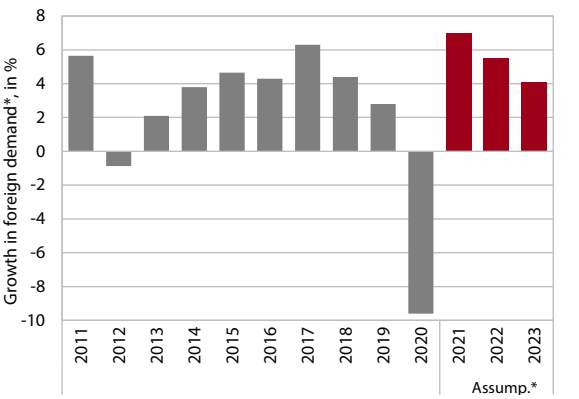
Source: ECB, EIA; calculations by IMAD. Note: The line indicates the annual average taking into account the assumption of the forecast for 2020 and 2021.

Figure 3: After a deep fall in 2020, we assume a recovery in the euro area



Source: Eurostat; * IMAD assumption based on sources under Table 1.

Figure 4: Growth in demand for Slovenian exports



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.

We assume strong growth in oil prices and, to a lesser extent, in non-energy commodities in 2021 and more moderate movements in the next two years.[1] Based on price developments at the beginning of the year and prices on futures markets, the technical assumption for the average Brent Crude price underlying the forecast for 2021 is USD 58.6 per barrel. This is a significant increase on the previous year (by 40.2%), which is largely a consequence of increased demand for oil due to the recovery of the global economy and a temporary cut in oil production by OPEC+. Taking into account the technical assumption for the EUR/USD exchange rate,[2] euro prices of oil will increase by 32.5%. We assume a 10% increase in dollar prices of non-energy commodities this year and a further slight increase in the next two.

[1] The oil price assumption is based on the average futures prices and the USD/EUR exchange rates between 1 and 18 February 2021. The assumption for non-energy commodity prices is based on the ECB's data available up to 18 February 2021.

[2] The assumed USD/EUR exchange rate for the period after 18 February is equal to the average exchange rate between 1 and 18 February 2021.

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

		2021		2022		2023
	2020	December 2020	March 2021	December 2020	March 2021	March 2021
Brent Crude prices, in USD	41.8	43.4	**58.6**	45.3	**55.3**	**53.3**
Brent Crude prices, in EUR	36.6	36.8	**48.5**	38.4	**45.8**	**44.2**
Non-energy commodity prices, in USD, growth*	3.6	5.0	**10.0**	2.5	**0.5**	**1.5**
USD/EUR exchange rate	1.141	1.180	**1.208**	1.180	**1.208**	**1.208**

Source: EIA, ECB, CME; IMAD estimate.
Note: The assumptions are based on the average values and futures prices between 1 and 18 February 2021. * The structure of EMU with regard to commodity consumption.

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

In the second wave of the epidemic, Slovenia reintroduced stringent measures to contain the spread of infections, which were then eased gradually with the improvement of the epidemiological situation. An epidemic was declared officially for the first time from mid-March to the end of May 2020, when, to contain the spread of the virus, the government temporarily closed most educational institutions and banned most non-essential services. Due to the improvement in the epidemiological situation, some strict containment measures already started to relax gradually in April, provided that protective measures were respected. The number of infections started to rise again in September. In October, when the growth of infections became exponential, the government tightened restrictions on gatherings in public places. This was followed by a ban on movement between regions and a prohibition of certain non-essential services (e.g. in fitness centres), and remote schooling was gradually introduced for all pupils and students. The declaration of an epidemic (19 October) was followed by a night curfew, a closure of most other non-essential services (bars, hotels, hair and beauty salons, etc.) and a ban on movement between municipalities. In mid-November, public passenger transport was temporarily suspended, sales of non-essential goods were banned, and court hearings were allowed to be held only for urgent cases. At the beginning of December, the government announced a plan for the relaxation of measures once the epidemiological picture improved. On 15 December, public passenger transport was restored and, temporarily, the provision of some non-essential services. In statistical regions with a better epidemiological situation, shops with non-essential goods opened and movement between municipalities was allowed, both temporarily. During the Christmas and New Year holidays, the measures were tightened again. At the end of January, the easing resumed – in regions with a better epidemiological situation, some non-essential shops and kindergartens reopened and pupils in the first three grades returned to school. As the epidemiological situation improved, measures continued to ease in February. All shops opened and most services were allowed. Kindergartens also opened in other regions, as well as primary schools and high schools for pupils in the final year and, in March, alternately, for pupils in other grades. The ban on movement between municipalities was relaxed and gatherings of up to ten persons were again allowed. Crossing the state borders remains limited. The measures continue to be adjusted depending on the epidemiological picture.[3]

The government adopted a number of measures to mitigate the negative consequences of the epidemic for the population and the economy and for its faster recovery. The main measures of the intervention legislation and anti-corona packages[4] (hereinafter PKP) to help the population were the following: reimbursement of 80% of wage compensation to workers on temporary layoff or at home due to *force majeure,* payment of basic monthly income for the self-employed, farmers, religious employees and their exemption from paying social contributions, and exemption from the payment of pension and disability insurance contributions for private sector employees who worked[5] during the first wave of the epidemic. In addition, extraordinary one-off government transfers were paid to various population groups (crisis allowances for pensioners, students, recipients of social transfers, etc.), the Health Insurance Institute of Slovenia paid sickness benefits from the first day of absence, temporary compensation was introduced for workers who had lost their job because of the epidemic and would otherwise not be entitled to unemployment benefits, and a bonus for work during the epidemic in critical sectors such as health and social work. These measures remained in place from mid-March to the end of May 2020 when the end of the first wave of the epidemic was declared, with the exception of the temporary layoff measure, which was extended through PKP8[6] (5 February 2021) until the end of April, with the possibility of an additional extension until the end of June. PKP3 additionally introduced the measure of partial subsidising of short-time work until the end of the year (as of 1 June 2020), which was extended by the government until the end of June 2021 in the middle of December. PKP4 (11 July 2020) reintroduced the reimbursement of wage compensation due to *force majeure*, which was complemented by PKP5[7] (24 October 2020), PKP6[8] (28 November 2020) and the government's decision[9] from the beginning of this year, which extended the validity of the measure until the end of March. PKP4 provided funds for financing additional staff in social welfare institutions, while PKP5 brought new wage supplements for staff in the health and social care sectors and allocated resources for financing health and social care expenditure for

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

[4] For more detailed information on the packages adopted up until the beginning of December 2020 and for additional measures, see the Summer, Autumn and Winter Forecasts 2020.

[5] This was also the basis for the payment of a crisis allowance of EUR 200 by the employer.

[6] Act on Additional Measures to Mitigate the Consequences of COVID-19 (ZDUOP) (available at http://www.pisrs.si/Pis.web/pregledPredpisa?id=ZAKO8321).

[7] Act Determining Temporary Measures to Mitigate and Remedy the Consequences of COVID-19 (ZZUOOP) (available at: http://www.pisrs.si/Pis.web/pregledPredpisa?id=ZAKO8254).

[8] Act Determining the Intervention Measures to Mitigate the Consequences of the Second Wave of the COVID-19 Epidemic (ZIUOPDVE) (available at: http://www.pisrs.si/Pis.web/pregledPredpisa?id=ZAKO8272).

[9] Decision on the extension of certain measures from the Act on Additional Measures to Mitigate the Consequences of COVID-19 and the Act Determining the Intervention Measures to Mitigate the Consequences of the Second Wave of the COVID-19 Epidemic (available at http://www.pisrs.si/Pis.web/pregledPredpisa?id=SKLE12275).

various purposes.[10] These measures were complemented by PKP6[11] and PKP7[12][13] (31 December 2020). PKP5 and PKP7 re-introduced the payment of the basic monthly income for the self-employed, farmers and religious employees as of October. With the government's decision at the beginning of this year, this measure was extended until the end of March 2021. PKP7 brought another one-off crisis allowance for the most vulnerable population groups, and PKP8 extended the circle of its recipients.

The government also adopted other measures to support businesses. In March 2020, support for businesses was ensured by intervention measures (some of which were substituted or adapted by PKP1) by allowing a freeze on advance payments of income tax, VAT and some contributions, and by requiring banks to grant affected borrowers a one-year moratorium on payments deriving from liabilities under loan agreements. For this measure, PKP7 extended the possibility to apply until the end of February 2021. Beneficiaries are companies that have not yet used this measure or have used it for less than nine months before applying. The last moratorium expires at the end of November 2021. In addition, in a decision issued at the end of last year, the government extended the possibility of deferring the payment of taxes and some contributions until the end of March 2021. PKP2 entered into force on 1 May 2020 and was intended to provide additional liquidity to the economy through bank loans secured by a guarantee of the Republic of Slovenia, but this measure is still largely unused. PKP5 extended this scheme until mid-2021, while PKP6 raised the ceiling on loans to make the scheme more attractive to businesses. PKP3 introduced additional support for the severely affected tourism sector in the form of vouchers for all citizens (worth a total of EUR 357 million), valid until the end of 2020, and removed administrative barriers to the launch of key investments to facilitate the recovery of the economy. In early December, the government extended the validity of tourism vouchers until the end of 2021, as only around 36% of them had been redeemed last year. PKP6 brought a partial subsidy of fixed costs for businesses most affected by the epidemic, PKP7 ensured a larger share of fixed costs coverage, and the government decision from the beginning of this year extended this measure until the end of March 2021. PKP7 also introduced special loans with state guarantee, subsidised purchases of rapid tests, and compensation for transport service providers' loss of income. PKP8 financed part of employers' burden due to the increase in the minimum wage as of January 2021.

At the EU level, comprehensive measures have been adopted to mitigate the negative consequences of the crisis and for the recovery of economies. To mitigate the impact of the novel coronavirus pandemic, the European Commission allows EU Member States more flexibility in the use of funds from the current multiannual financial framework[14] and state aid. It has also ensured resources for direct response to the COVID-19 crisis and resources from the EU Solidarity Fund to enable countries to rapidly respond to the worsened socio-economic conditions caused by the epidemic. A EUR 540 billion financial package (3.9% of EU GDP from 2019) intended to support economic recovery was already adopted in the first months of the epidemic.[15] At the end of July, EU Member States reached a political agreement on another financial 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 2021–27 in the total amount of EUR 1,074.3 billion and the extraordinary recovery instrument "Next Generation EU" (NGEU) amounting to EUR 750 billion (EUR 390 billion in grants and EUR 360 billion in loans). In November, the Council and the European Parliament reached a political agreement on the EU budget, and in February 2021, the European Parliament confirmed the political agreement on the recovery and resilience facility, which is the key element of the NGEU instrument. Slovenia was assigned EUR 2.098 billion in grants and EUR 3.593 billion in loans under this instrument.[16] The European Commission will obtain resources for its financing by borrowing on the financial markets, but the Union will also work towards introducing new own resources.[17]

[10] Such as financing protection equipment, improving access to health services and covering loss of income due to vacant capacities.

[11] By compensating income losses of social welfare institutions and bonuses for work in grey and red zones, regardless of the declaration of the epidemic.

[12] By raising hourly wages and subsidising tests and medical devices.

[13] Act Determining Intervention Measures to Assist in Mitigating the Consequences of the Second Wave of the COVID-19 Epidemic (ZIUPOPDVE) (available at: http://www.pisrs.si/Pis.web/pregledPredpisa?id=ZAKO8304).

[14] Also through the release of unspent resources and cohesion policy resources (from the structural and investment funds) – what is called the investment incentive in response to the COVID-19 outbreak to support health care systems, small and medium-sized enterprises and the labour market.

[15] Within that, EUR 240 billion in precautionary loans from the European Stability Mechanism (ESM) 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.

[16] The "Next EU generation" instrument is based on four pillars: the Recovery and Resilience Facility (EUR 1,589 million in grants for Slovenia) to support investments and reforms essential to a lasting recovery, to improve the resilience of Member States, and to support the green and digital transitions, React EU (EUR 312 million) for investment to repair labour markets, including by providing support to small and medium-sized enterprises, the Just Transition Mechanism (EUR 129 million) 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 Rural Development (EUR 68 million).

[17] A new own resource, which will be based on national contributions calculated on the amount of non-recycled plastic packaging waste in individual Member States, will be introduced in 2021. This year, the Commission should also put forward a proposal for a carbon border adjustment mechanism and a digital levy (to be introduced by 2023).

Supportive fiscal policies and the provision of liquidity to the economy and citizens via commercial banks are being complemented by the monetary policy of the ECB, which has further increased the volume of measures and extended their duration in recent months. The emergency programme of asset purchases is thus EUR 500 billion higher (its current amount is EUR 1,850 billion, which is more than 15% of euro area GDP from 2019). The measure has been extended to at least the end of March 2022. Due to the tightening of financial market conditions, the ECB decided to expand asset purchases in the second quarter of this year, but the total amount of purchases remains unchanged for the duration of the measure. The ECB further increased the volume of loans available to commercial banks at exceptionally low interest rates and retained lower capital requirements[18] from the beginning of the crisis and lower criteria for collateral accepted for Eurosystem credit operations. The ECB also recommended that banks refrain from dividends until September 2021. The ECB's measures have boosted bank lending activity in the euro area, so that lending to enterprises accelerated year on year and now maintains the level achieved. In Slovenia, however, this was not the case and lending activity has remained lower year on year.

The measures, funded from domestic and EU sources, prevented an even sharper contraction of economic activity in 2020 and will remain of key importance in supporting its rebound and addressing developmental challenges in the coming years. In the period from March 2020 to February 2021, close to EUR 2.5 billion (5.4% of last year's GDP) was paid from the state budget for various measures to support the economy and the population and for the functioning of public services to stem the impact of the COVID-19 epidemic. We estimate that many payments completed in January and partly also in February this year relate to 2020. The measures played a crucial role in preventing an even larger decline in economic activity, at least by 4 p.p.[19] In addition, tax deferrals, instalment payments and unpaid advance payments approved under the intervention legislation amounted to EUR 400 million. Support to the economy was also provided by liquidity loans (SID bank, SEF[20]) and guarantees. The total amount of all measures up to February 2021 was EUR 3.5 billion.[21] As pointed out by international institutions (e.g. OECD, European Commission), maintaining targeted support measures in a period when many activities are not yet able to operate due to containment measures, operate only to a reduced extent or, after a long period of non-operation, have only just started to gain their first market revenues, is also essential during the early stages of recovery. In the Spring Forecast we have taken into account that in 2021 the recovery of GDP will be underpinned by measures (expenditure on accrual basis) estimated at around EUR 0.9 billion or 1.8% of expected GDP (Figure 6), financed from domestic and EU sources. The amount of approved deferrals and instalment payments of tax liabilities is also expected to be lower than last year. The expected recovery of the economy, supported by strong investment activity on the part of the government, will also be influenced by the upcoming termination of the current financial perspective for EU funds absorption (by 2023). We assume that, particularly in the coming years, the financing of projects will also be supported by resources from the "New Generation EU" instrument, the Recovery and Resilience Facility.[22]

[18] Due to the relaxation of capital buffers, banks are able to more effectively face the challenges of the epidemic.

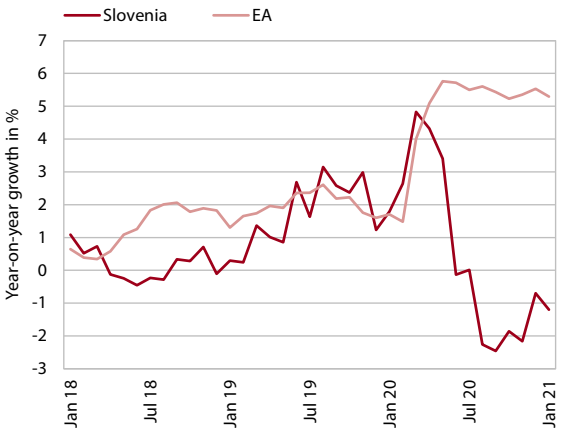
[19] This was assessed on the basis of a multiplier, taking into account only expenditure paid from the state budget (without deferrals, instalment payments and liquidity loans). After 2009 the estimates of multipliers increased (see, for example, Oliver Blanchard and Daniel Leigh: "Growth Forecast Errors and Fiscal Multipliers"), often substantially above 1. Our estimate is that the multiplier for the current year is around 0.8. Its decline is a consequence of two factors: (i) the measures and protective practices are changing consumer behaviour (forced saving) and (ii) some fiscal incentives were implemented in the second half of last year (and will thus have an additional positive effect this year).

[20] Slovene Enterprise Fund.

[21] Fiscal Council, Monthly information, March 2021.

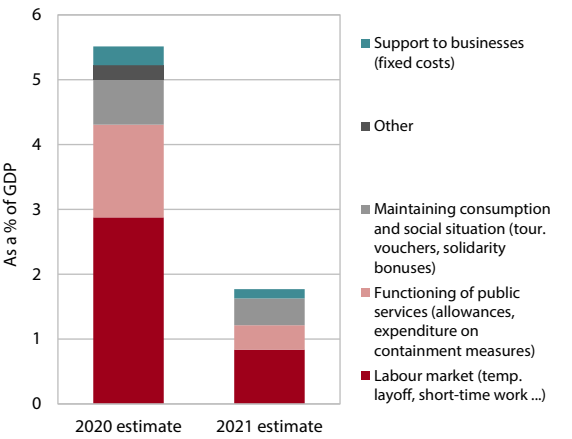
[22] The government confirmed the first starting points for the use of these resources (grants and loans) at the end of August 2020. A new draft was confirmed in December 2020. Currently new amendments are underway, in particular to the reform part of the plan, which should complement the proposals for investment. After being confirmed in Slovenia and submitted in April 2021, the final plan also has to be approved at the level of EU leaders.

Figure 5: In EMU, lending to enterprises accelerated and remains at the achieved levels also due to the ECB's measures; in Slovenia, it remains lower year on year



Source: BoS.

Figure 6: Estimate of the amount of measures (expenditure side) to mitigate the COVID-19 epidemic and support recovery

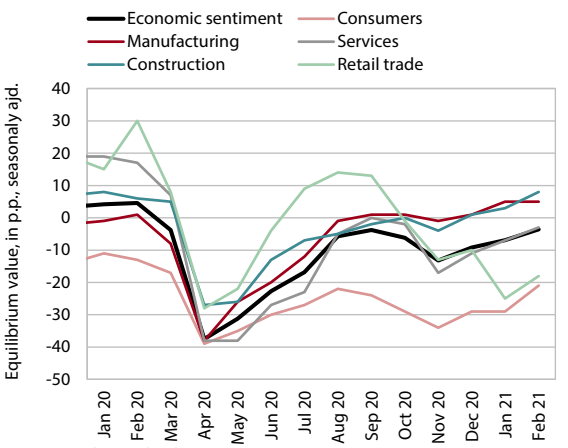


Source: MF; IMAD estimate.

3 Spring Forecast of Economic Trends in Slovenia

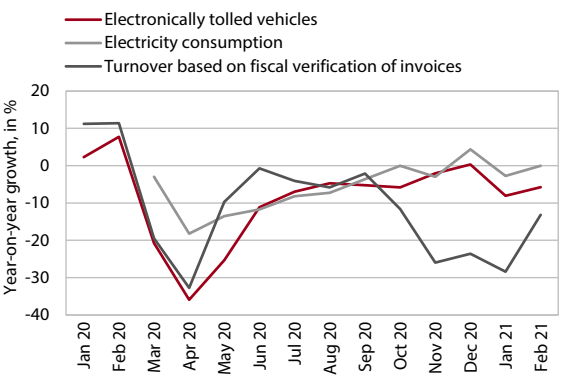
After last year's deep decline, we expect 4.6% GDP growth this year and similar growth next year; in 2023, growth will be somewhat lower. Economic activity contracted by 5.5% last year. After a sharp fall in the second quarter last year, particularly activities integrated into international trade (manufacturing and transport) and construction were recovering in the entire second half of the year. This was also reflected in the movements of goods exports and imports and investment. The introduction of extensive protection and containment measures in the last quarter, amid the renewed deterioration in epidemiological conditions at home and abroad, affected particularly those service sectors whose activity was restricted or not allowed, i.e. entertainment, sports, recreational and personal services, accommodation and food service activities and a large part of trade. Household consumption therefore also fell considerably. The available high-frequency data and confidence indicators indicate that the movements from the end of the last quarter also continued in the first months of this year. Businesses and consumers have otherwise partly adapted to the new reality, but in accommodation and food service activities, entertainment, sports, recreational and personal services, the recovery is still hampered by their closure or restricted activity. In the second quarter, given the expected improvement in the epidemiological situation, recovery is also expected to start in services, which will have a positive impact on growth in private consumption and overall economic activity. With higher vaccination coverage and thus better control of the epidemic, containment measures should ease even more in the second half of the year, which, with support from measures for the recovery of the economy, relatively favourable financing conditions and an accommodative monetary policy, will enable a faster recovery in the remainder of the year. Slovenia would thus achieve 4.6% economic growth in the year as a whole. Because of better prospects regarding the containment of the epidemic due to the availability of larger quantities of effective vaccines, and as the second wave of the epidemic has had a smaller-than-expected negative impact on export-oriented activities and goods trade, this is higher growth than we projected in the Winter Forecast. For this year, we also expect relatively strong growth in investment, especially in infrastructure and housing, while investment in machinery and equipment will be recovering at a somewhat slower pace under the still uncertain conditions. Over the next two years, the economy will continue to pick up. In 2022, economic activity should thus reach the pre-crisis level of 2019, in part also because some measures to mitigate the consequences of the epidemic will remain in place this year. Certain containment measures are, however, expected to be retained (particularly in 2022), which will limit a full recovery in certain service activities (e.g. travel). After two years of relatively strong growth, we forecast 3.3% GDP growth in 2023.

Figure 7: The negative impact of the epidemiological situation on economic sentiment has moderated in recent months; it remains more pronounced in retail trade and other service activities



Source: SURS.

Figure 8: Electricity consumption and freight traffic indicate a smaller decline in activity in the second wave of the epidemic in comparison with the first, while turnover according to fiscally verified invoices mainly shows a greater negative effect on service activities and trade



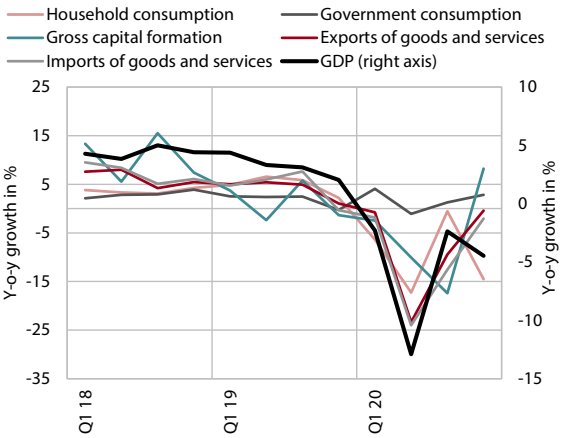
Source: DARS internal reports, ENTSO-E, Bruegel.org and FURS, IMAD calculations. Notes: For electricity only consumption on working days between 8.00 and 18.00 is considered. The percentage change is corrected for temperature.

3.1 Gross domestic product – consumption aggregates

With the worsening of epidemiological conditions and extensive containment measures, real GDP declined by 5.5% last year, which is better than expected in the Winter Forecast and largely a consequence of a smaller fall in the last quarter. Despite the deterioration in epidemiological conditions, the quarterly decline was significantly smaller than in the second quarter (-1% compared with -10.1%). This was mainly attributable to the partial adaptation of businesses and consumers to the new situation, the containment measures, which this time were mainly targeted at service activities, and a further rapid recovery of international trade in the absence of major disruptions in global value chains, which exceeded the expectations of international institutions. All consumption aggregates declined in the year as whole, except government consumption. The decline in private consumption was largely a consequence of the closure of non-essential shops and services in the first and second waves of the epidemic, other measures to limit physical contact and restrictions on travel abroad. High uncertainty about the future was also reflected in more cautious buying decisions of households and their postponement of non-essential purchases. Consequently, the savings rate increased noticeably (from 13.3% in 2019 to around 23% in 2020),[23] given that disposable income did not fall, which was to a great extent due to government measures to mitigate income losses as a consequence of COVID-19. The contraction of economic activity was also attributable to gross fixed capital formation, particularly to its sharp decline in the second quarter. In the third quarter, gross fixed capital formation, however, strengthened markedly, and in the last, it was even higher than in the same period of the previous year. The upswing was more pronounced in investment in machinery and equipment, while construction investment was less volatile. Imports and exports fell sharply last year, particularly due to a fall in global trade, international trade barriers and containment measures at home and in the EU, especially in the second quarter. After a steep fall in April, the year-on-year decline in goods exports decreased gradually in the second half of last year, and in the last quarter goods exports already exceeded the 2019 level. This was, in addition to a larger number of working days, also due to the favourable impact of the export structure, as intermediate goods exports rose considerably due to the recovery of industrial production in the most important trading partners. Goods imports also recovered at a similar pace and reached 2019 levels towards the end of the year. In most services, the decline was larger than in goods, being most pronounced in tourism-related services, although in the second quarter trade in transport services also fell significantly. Only government consumption, which was strengthening under the impact of rising employment and expenditure

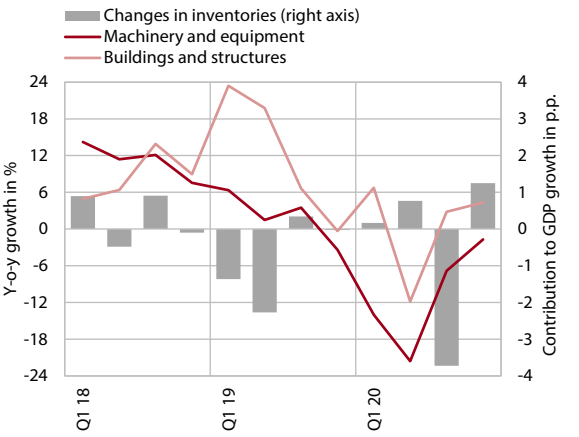
[23] IMAD estimate, as official data for 2020 will only be available at the end of March 2021.

Figure 9: In the last quarter, economic activity contracted much less than in the second



Source: SURS; calculations by IMAD.

Figure 10: Investment already started to recover in the second half of last year



Source: SURS; calculations by IMAD.

Figure 11: Exports of services fell more than exports of goods, particularly due to a decline in tourist and business travel

Source: SURS, calculations UMAR.

Table 3: Forecast of economic growth

Real growth rates in%	2020	2021		2022		2023
		December 2020	March 2021	December 2020	March 2021	March 2021
GDP	-5.5	4.3	**4.6**	4.4	**4.4**	**3.3**
Exports	-8.7	7.6	**8.6**	8.6	**7.3**	**5.5**
Imports	-10.2	9.3	**8.8**	9.5	**8.1**	**6.1**
External balance of goods and services (contribution to growth in p.p.)	*0.4*	*-0.5*	***0.7***	*0.0*	***0.1***	***0.1***
Private consumption	-9.7	4.1	**4.0**	4.6	**4.7**	**2.9**
Government consumption	1.8	2.4	**2.4**	1.6	**1.7**	**1.4**
Gross fixed capital formation	-4.1	10.0	**9.0**	8.5	**8.0**	**6.5**
Change in inventories and valuables (contribution to growth in p.p.)	*-0.4*	*0.3*	***-0.3***	*0.0*	***0.0***	***0.0***

Source: SURS; 2021–2023 forecast by IMAD.

related to the containment of the epidemic, was up year on year in 2020.[24]

This year and in the next two, we expect a gradual strengthening of private consumption, but it will not surpass the pre-crisis level of 2019 before 2023. As containment measures are being relaxed only gradually, private consumption, which declined strongly last year, will start recovering faster only in the spring months. With the further easing of measures amid higher vaccination coverage and a decline in uncertainty, its growth will accelerate in the summer months and reach 4% on average in the year as a whole. With a further improvement in labour market conditions (see Section 3.3) and more possibilities for travel, we expect faster growth in 2022. Later it will slow down slightly. Growth in private consumption will arise from growth in disposable income, which will be 2% this year and next (in nominal terms). The savings rate will also fall, though it will remain higher than before the epidemic in the entire forecast period.

After a decline in 2020, we project an increase in investment in fixed assets in 2021, which will be boosted particularly by infrastructure investment; in the following years, growth will continue. We estimate that the relatively favourable movements from the second half of last year will continue this year. Capacity utilisation in manufacturing was above the long-term average at the beginning of the year. Companies' export expectations improved significantly, which has a positive impact on their investment activity and will be reflected in investment in machinery and equipment. The government will also significantly strengthen investment this year,[25] according to the budgetary documents in force. The prospects for housing investment are favourable as well: overall 3,610 building permits were issued for flats last year, 7.7% more than in 2019 and close to the highest numbers in the last ten years. In the next two years, government investment activity is expected to be boosted by EU funds, as funding under the previous financial perspective (2014–2020) is coming to an end, which is the time when, experience shows, investment usually accelerates. Government – but also private sector – investment will, at the same time, also be supported by resources from the Recovery and Resilience Facility. In 2022–2023, investment activity will also pick up in sectors that had to close or significantly limit operations during the epidemic.

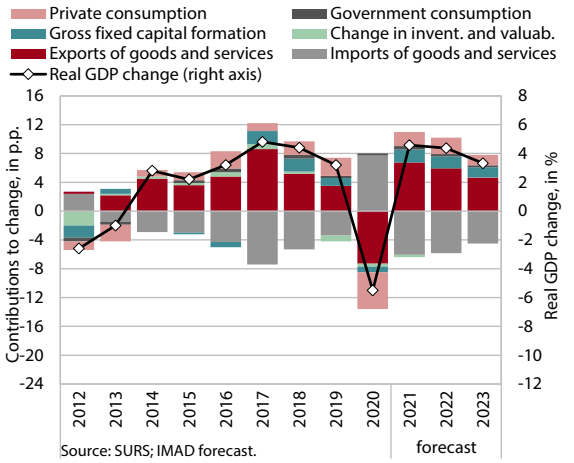
Government consumption growth will increase further this year before moderating gradually in the next two. In 2021, it is still expected to be affected by expenditure to contain the epidemic, particularly in the health sector (equipment, tests, vaccines, etc.). With a gradual normalisation of the situation, we also expect a strengthening of other expenditures on goods and services. Employment growth in the general government sector will slow slightly, to 1.2%. It is set to remain highest in health and social work. The impact of the increased epidemic-related expenditure and employment growth in the general government sector in 2020 and 2021, which was influenced by hiring due to the epidemic and Slovenia's presidency of the EU, will be temporary. In 2022 and 2023, growth in government consumption will thus decline slightly.

After last year's deep decline, export and import growth will be strong this year; in the next two years, similar movements will continue, albeit at a somewhat slower pace. This year, a significant contribution to the

[24] Growth arose from employment growth in the general government sector (1.4%), which strengthened year on year in public administration due to the beginning of preparations for the Slovenian Presidency of the Council of the EU in 2021. It remained high in health care, while slowing in education. We estimate that government consumption growth also reflected a decline in revenues of public institutes and other general government units from the sale of goods and services for the market, which has been hampered during the epidemic (as this represents a deductible category, their decline last year strengthened government consumption growth). Nominal growth in government consumption (6%) was significantly stronger due to the payment of allowances for general government employees during the epidemic.

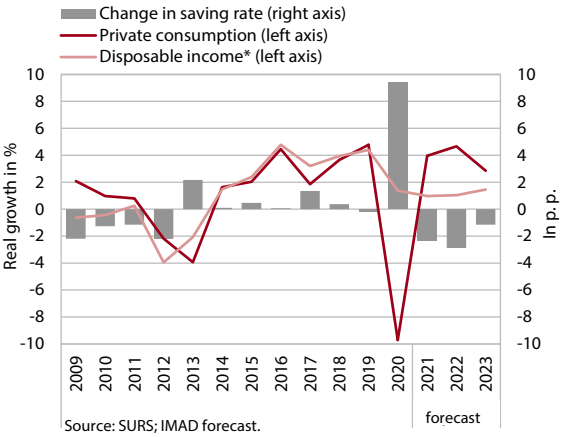
[25] Investment in railway and road infrastructure is to be strengthened, new train compositions have been planned, and a number of projects in the area of environmental management and climate change adaptation (improving energy efficiency, flood protection, etc.) are underway.

Figure 12: Contributions of consumption expenditure components to GDP change



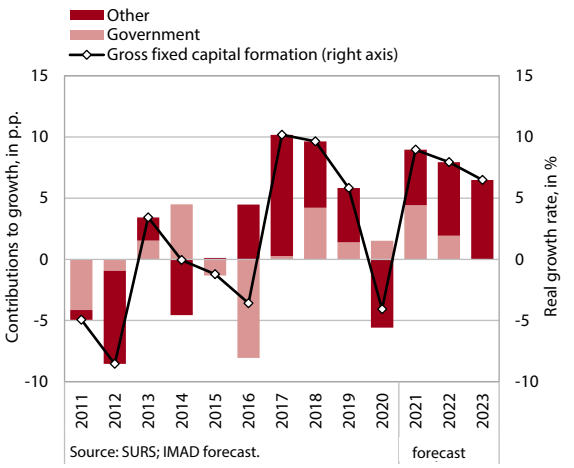
Source: SURS; IMAD forecast.

Figure 13: The savings rate will decline slightly from its high level in the coming years



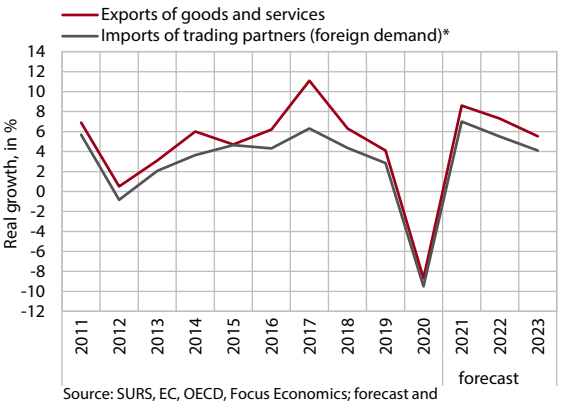
Source: SURS; IMAD forecast.
Note: * deflated by private consumption deflator.

Figure 14: Government investment mitigated last year's fall in investment and will contribute to its faster recovery in the coming years



Source: SURS; IMAD forecast.

Figure 15: Export growth is expected to surpass growth in foreign demand in the forecast period



Source: SURS, EC, OECD, Focus Economics; forecast and calculations by IMAD. Note: * Real imports of goods and services of the trading partners weighted by Slovenia's share of exports to these countries.

further recovery in exports of goods, which started in the second half of 2020, is expected from the rebound in economic activity in Slovenia's main trading partners and the expected improvement in the epidemiological situation. Exports of services, particularly travel, will not recover markedly before 2022. Total exports will therefore reach the pre-crisis level of 2019 in 2022 (goods exports, on average, already this year, services exports only in 2023). Real growth in exports will continue to exceed growth in foreign demand.[26] Imports of goods and services will expand somewhat faster than exports in the forecast period, mainly due to growth in investment and the gradual recovery of private consumption and their larger decline in 2020. Imports of services, similar to their exports, will recover more strongly only in 2022. Total imports and goods imports will thus, on average, reach pre-crisis levels next year, imports of services in 2023.

[26] Measured as the weighted growth of trading partners' imports.

3.2 Value added by activity

Last year, value added fell in most sectors due to the strong contraction of activity over the duration of protection measures related to the coronavirus epidemic. The sharpest drop was in entertainment, sports, recreational and personal services, particularly due to their closure or reduced activity during the period of the heaviest restrictions in the spring and, in the last months of the year and in the interim period, the retention of certain containment measures (physical distancing and wearing masks) and self-protective behaviour. Containment measures during the first and second wave also led to a sharp fall in accommodation and food service activities, where tourism vouchers otherwise did contribute to the recovery in the third quarter but could not fully offset the loss. In 2020, value added also declined noticeably in trade, although wholesale trade was relatively less affected by the second wave of the epidemic, partly also due to better performance in manufacturing and transportation. More specifically, the containment measures taken at the end of last year had a lesser impact on activity in transportation and export-oriented manufacturing, which after a strong decline in the spring months due to a fall in orders and supply chain disruptions, gradually recovered in the second half of the year. In manufacturing, it was already positive year on year in the last quarter, mainly due to the recovery of production in medium-technology industries (chiefly the manufacture of electrical equipment and metal products). Production in high-technology industries (pharmaceuticals and ICT equipment manufacturing) was higher in 2020 than in 2019 despite somewhat more modest year-on-year results in the second half of the year. The construction sector also rebounded after a steep fall in the second quarter, largely due to a pick-up in residential construction and, to some extent, growth in civil engineering.[27] Value added in the second half of the year was thus already positive year on year. Last year, value added was also slightly negative in public services, due to a decline in education.[28] In 2020 as a whole, it was higher than in 2019 in financial and insurance activities[29] and real estate.[30]

Manufacturing, construction and services related to these two sectors, which were relatively less affected during the second wave of the epidemic, will recover further and mostly already reach the pre-crisis levels of 2019 this year. We expect a rapid recovery in construction, which already started in the second half of last year. Based on data on new contracts, the outlook looks best for civil-engineering works (boosted by government funding), but we also expect growth in housing construction (see also the section on investment forecasts). The outlook for non-residential construction looks worse, reflecting the worse situation in service activities that were hardest hit by the epidemic and are relatively important investors in this part of construction. A faster recovery of their investment is expected only in the coming years. Construction activity will also be boosted by the expected high level of government investment related to funds from the EU Recovery and Resilience Facility and the expiry of the financial framework 2014–2020. This year, recovery should also continue in manufacturing. It will be fairly moderate in the first half of the year before strengthening in the second. Most sectors will thus already reach their 2019 levels on average this year, with the exception of motor vehicle manufacturing, which will do so only in 2022, as its year-on-year growth in 2021 will remain modest despite relatively rapidly growing demand.[31] Services more closely linked to construction, manufacturing, or the recovery of economic activity in general (such as architectural, engineering, consultancy and transport services) will be recovering faster, some of them expected to achieve pre-crisis levels this year already, or, because of expected further restrictions on public transport, next year.

Services that were more affected by the epidemic will start recovering this year and mostly reach pre-epidemic levels by 2023. The recovery of other services, which have been relatively more affected by the coronavirus crisis, will be slower. We expect containment measures to ease only gradually this year, which will make it difficult to fully normalise business operations particularly in travel, accommodation and food service activities and recreational, sports and cultural services. This also holds true for the trade sector. After the opening of the remaining stores in February, trade started to recover and is expected to reach pre-crisis levels next year. An improvement in a larger part of accommodation and food service activities, gambling and betting activities and most entertainment activities is mainly expected in the second half of the second quarter. In the summer months, growth should strengthen further as a consequence of more overnight stays and visits by domestic tourists, who will be more focused on the domestic market due to the use of tourism vouchers. Particularly in the second half of the year, we also expect a partial return of some foreign tourists, chiefly from neighbouring countries, which will also have a positive impact on other service activities (cultural, entertainment, sports and personal care services). With an increase in foreign tourist arrivals from more distant countries too, growth in all these services is expected to strengthen further in 2022 and remain relatively strong in 2023. These activities will thus reach pre-crisis levels towards the end of the forecast period.

[27] Activity in the construction of non-residential buildings declined.

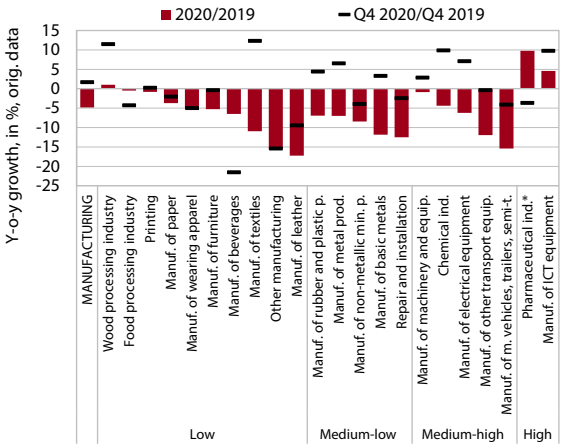
[28] Also as a consequence of lower hiring in this sector, largely due to the closure of kindergartens and remote schooling, and hence no need for additional hiring.

[29] Mainly due to better results in insurance activities.

[30] Real estate activities show a fairly constant growth mainly as a large part of it is accounted for by imputed rents.

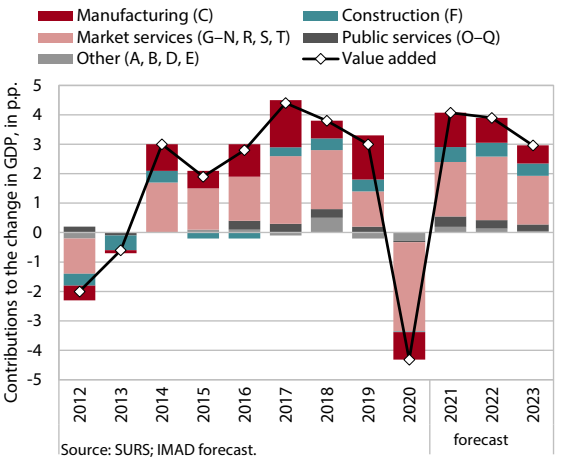
[31] This year's increase in new passenger car registrations in the EU amounts to 10% year on year, according to ACEA forecasts.

Figure 16: Last year, output volume declined in all manufacturing industries, except high-technology



Source: SURS; calculations by IMAD. Note: * Pharmaceutical ind. – IMAD estimate.

Figure 17: Contributions of value added growth to GDP change, by activity



Source: SURS; IMAD forecast.

Value added in public services is expected to rise by more than 2% this year, then its growth will gradually weaken over the forecast period. This will mainly be a consequence of this year's strong growth in education,[32] which will moderate later on, while capacities in health and social work activities will continue to strengthen.[33]

3.3 Employment and unemployment

In the spring months of 2020, the favourable labour market developments seen for the last several years were interrupted by the first wave of the epidemic; a major decline in employment was prevented by intervention measures. At the end of 2019, employment was still historically high while unemployment was approaching record lows. After the relatively favourable first two months of 2020, labour market conditions rapidly deteriorated in the next two months due to the adoption of measures to contain the coronavirus epidemic in mid-March. A pronounced year-on-year fall in employment and a rise in registered unemployment were recorded particularly in April (by 0.9% and 19.9%, respectively). With the adoption of intervention legislation targeted at the labour market and a gradual lifting of containment measures and thus a rebound of most activities, labour market conditions had stabilised markedly by mid-year. In the second half of the year, employment recovered at a moderate pace, while unemployment declined gradually. In the private sector, a rapid recovery of employment was recorded particularly in export-oriented activities (manufacturing and transportation) and construction. In accommodation and food service activities, trade and some other sectors, labour market conditions deteriorated further due to a renewed tightening of restrictions in the last quarter of the year. In the public sector, employment strengthened last year due to rising needs particularly in the health sector. Employment was thus 1.0% lower, and registered unemployment 14.6% higher in 2020 as a whole.

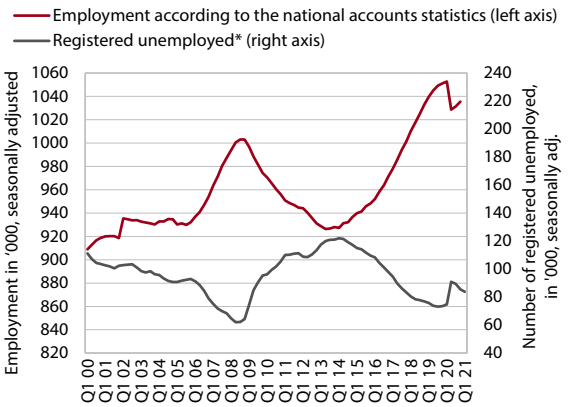
With the moderation of epidemiological conditions and further support from measures to preserve jobs, employment will continue to recover gradually, while unemployment will remain higher than in 2019. As a result of job retention measures and the recovery of some activities, the decline in employment and the increase in unemployment came to a halt in the second half of 2020.[34] With a number of job retention measures still in place, in February 2021 the number of unemployed persons dropped for the ninth consecutive month, totalling 88,051 at the end of the month (13.6% more than in the same period of last year) according to seasonally adjusted data. With a gradual relaxation of containment measures and the opening of activities, we expect faster activity growth in the remainder of the year and people included in the temporary layoff and short-time work schemes will gradually return to work. A continuation of the moderate recovery of new employment and a gradual fall in the number of registered unemployed are also suggested by the higher value of the short-term indicator of expected future employment. With a gradual improvement in the epidemiological situation, this year employment is also projected to pick up in activities that were hardest hit by containment measures. In the next two years, labour market conditions will recover further, but in 2023, the

[32] Education was the only public service activity where last year value added declined. This year's relatively strong growth is thus mainly a consequence of the recovery amid a gradual normalisation of the situation.

[33] In these activities we expect capacity to expand. A change in staffing norms is expected too, which will lead to further hiring. Above-average growth is also expected in care at home, an area that is severely understaffed and where further hiring of care workers and personal assistants is expected.

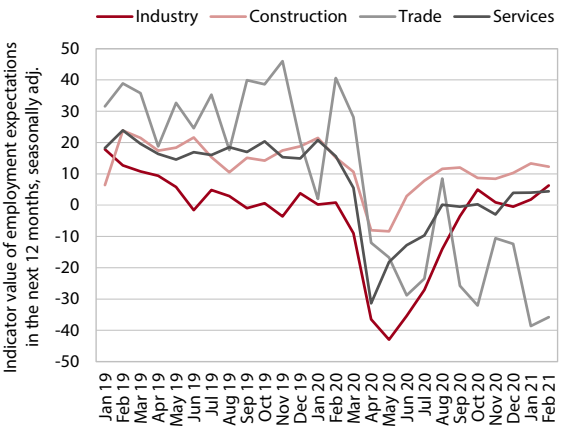
[34] The number of employed persons according to the Statistical Register of Employment rose in the second half of the year, seasonally adjusted, while the seasonally adjusted decline in the number of unemployed persons also continued in the first two months of this year.

Figure 18: The fall in employment and growth in unemployment in 2020, and also 2021, were significantly mitigated by government measures



Source: SURS. Note: * The data for Q1 21 is the average of January and February.

Figure 19: Employment expectations indicate moderate labour market recovery



Source: Eurostat.

Table 4: Forecasts of employment and unemployment

In %	2020	2021		2022		2023
		December 2020	March 2021	December 2020	March 2021	March 2021
Employment according to the SNA, growth	-1.0	-0.1	**0.8**	1.0	**1.5**	**1.5**
Number of registered unemployed, annual average	85.0	90.2	**83.1**	81.9	**80.7**	**76.5**
Registered unemployment rate	8.7	9.2	**8.5**	8.4	**8.1**	**7.6**
ILO unemployment rate	5.0	5.4	**5.0**	4.9	**4.8**	**4.5**

Source: SURS; 2021–2023 forecast by IMAD.

average number of unemployed will remain higher than in 2019. People who (temporarily) moved to inactivity, particularly at the beginning of last year, are expected to re-enter the labour market gradually, which will be reflected in a further increase in the activity rate. In the medium-term, unemployment will again approach historical lows, meaning that Slovenia could again be faced by limitations related to labour shortages.

3.4 Wages

Last year's growth of the statistically recorded average gross wage was marked significantly by intervention measures to preserve jobs in connection with the methodology for calculating the average wage and by the payment of various allowances related to the epidemic. In previous years, gross wage growth gradually strengthened under the pressure of labour shortages. In the first two months of last year, the year-on-year growth of the average wage was still strong due to the increase in the minimum wage, a general shortage of workers and the agreements with public sector trade unions from 2018. Since March, the movement of the average wage, particularly in the private sector, has mainly been influenced by the method of calculating wages in connection with the intervention measures adopted to preserve 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. Due to the placement of many employed persons on temporary layoff and the use of the measure of partial subsidising of full-time work, the wage bill paid by employers has decreased significantly and the number of wage recipients has declined even more (see Box 1).[35] Despite the contraction of economic activity, this, together with allowances for work in crisis conditions,[36] contributed to strong gross wage growth in the year as a whole (5.8%). In the circumstances of the epidemic and measures to preserve jobs, the movement of the average wage therefore does not reflect the movement of employed persons' earnings and the base for social security contributions.[37]

As employed persons included in the intervention schemes will gradually return to work, and due to the absence of the payment of epidemic-related allowances, the growth of the statistically recorded gross wage is expected to moderate this year before strengthening gradually with the recovery of economic activity in the next two years. With the expected lifting of containment measures and a decline in the number of persons included in intervention job retention schemes, in the private sector, both the recorded wage bill and the number of wage recipients will increase in the first half of the year due to the methodological effect, meaning that growth in the average wage will remain moderate. The impact of the statutory increase in the minimum wage at the beginning of the year will be slightly positive.[38] The absence of upward pressures on overall wage growth will also be a consequence of the expected lower amount of crisis allowances paid in the public sector. In the next two years, wage growth will pick up slightly, consistent with economic recovery and a gradual improvement in labour market conditions.

The forecast for gross wages taking into consideration methodological specifics is based on some important assumptions. In preparing gross wage forecasts for 2021 and 2021, we had to take into account methodological specifics (see also Box 1) and, among other things, assess or assume i) the monthly dynamics of the number of employed persons who will be included in the temporary layoff and short-time work schemes, ii) their distribution by activity and by the level of gross wage, iii) the share of the month they will be included in the scheme, iv) the number of employed wage recipients and their wage bill which will not be included in the wage statistics, and v) the amount of wage compensation paid by the government. Additionally, we also took into account the impact of subsidies for the increase in the minimum wage in 2021. The payment of allowances in the public sector is also dependent on the length of the declared epidemic.

[35] The recorded wage bill was to a greater extent affected by the temporary layoff scheme, as it was already introduced in March 2020, while the short-time working scheme was introduced as of June. The number of people included in the temporary layoff scheme was also significantly higher than the number of those under the short-time working scheme. In the period from March to December 2020, 676,000 persons received compensation under the temporary layoff scheme according to ESS data, the most in the periods from March to May and from October to December. Subsidies under the short-time working scheme were paid to 116,000 persons in the period from June to December.

[36] A temporary introduction of allowances for hazardous work and for higher workloads and the payment of the bonus for work in high-risk conditions (according to the collective agreement) in the public sector and the payment of the allowance for work during the epidemic in the private sector.

[37] The movement of employed persons' earnings is better reflected in data on compensation of employees according to the National Accounts Statistics, which, by definition, in addition to the gross wage and other remunerations (such as holiday allowance, compensation for meals during work, transport to and from work, student work, contract-based payments, etc.) also includes compensation paid by the government under the job-retention schemes. Last year's growth in compensation of employees was otherwise 1.1%, which is significantly less than the estimated growth of the gross wage bill (according to the Statistics of Earnings of Persons Employed by Legal Persons) including compensation paid by the government (7.1%, see Box 1). This is mainly a consequence of lower (or negative) growth in some other remunerations, particularly holiday allowance, which are part of compensation of employees, but not also part of the gross wage bill according to the wage statistics. Owing to last year's low level and this year's expected recovery of other categories of remunerations, this year's growth in compensation of employees will be higher (3.8%) than the estimated growth of the gross wage bill according to the wage statistics, which includes wage compensation paid by the government (-0.9%). This effect will also influence the difference in growth next year. We estimate that from 2023 onwards, the growth of compensation and the growth of the wage bill will again be similar, as was the case in the period before the implementation of intervention measures.

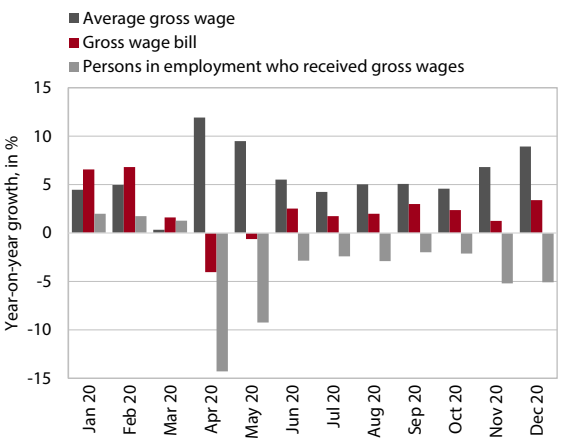
[38] The increase in the minimum wage will, however, not be fully reflected in the statistically recorded average wage, as PKP8 provides for subsidies for the increase in the minimum wage in the amount of EUR 50 per month in the first half of the year, which, because of the methodological specifics,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

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

Growth rates, in %	2020	2021		2022		2023
		December 2020	March 2021	December 2020	March 2021	March 2021
Gross wage per employee – nominal*	5.8	1.4	**0.4**	1.9	**2.1**	**2.7**
- private sector	4.4	1.5	**1.1**	2.2	**2.4**	**2.8**
- public sector	7.8	1.4	**-0.4**	1.5	**1.9**	**2.5**
Gross wage per employee – real*	5.9	0.7	**-0.4**	0.0	**0.9**	**1.1**
- private sector	4.5	0.9	**0.2**	0.3	**1.2**	**1.1**
- public sector	7.9	0.8	**-1.2**	-0.4	**0.7**	**0.8**

Source: SURS; 2021–2023 forecast by IMAD.
Note: * In the Spring Forecast 2021 and Winter Forecast 2020, we took into account the methodological specifics regarding the reporting of wages (i.e. excluding compensation paid by the government).

Figure 20: Intervention job retention measures influenced growth in the statistically recorded wage bill paid by employers and the number of wage recipients, which was reflected in significant fluctuations in average wage growth



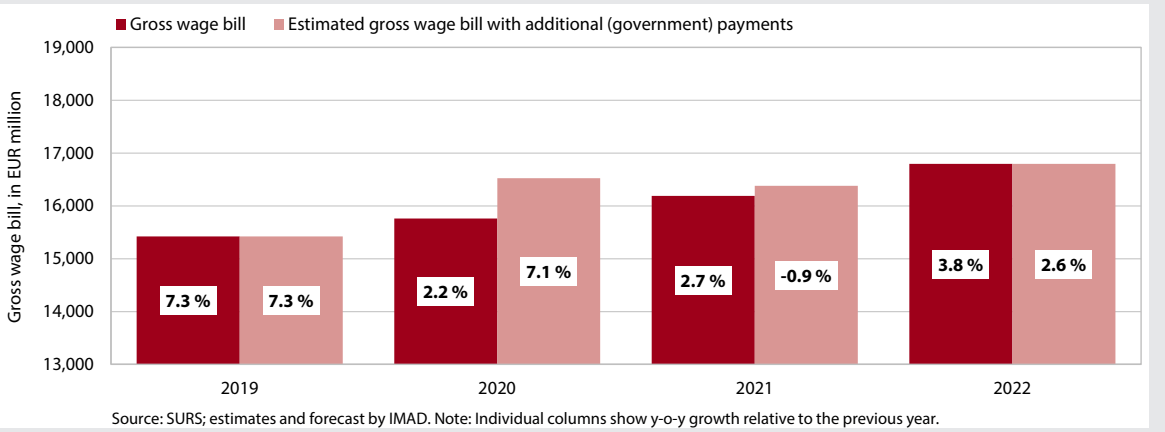
Source: SURS.

Box 1: The impact of intervention measures and methodological specifics on the movement and forecast of the average gross wage

The movement of the statistically calculated average gross wage since the first introduction of job retention measures at the beginning of last year has been to a great extent affected by the methodology for calculating the average gross wage. The methodology regulating how employers report wages (the statistical survey Earnings of Persons in Paid Employment by Legal Persons) prescribes that employers report only the number of recipients of wage compensation and the amount of wage compensation that is paid from their own resources. Wage compensation (or part of wage compensation) that is paid by the government is thus not reported. Depending on the number of employed persons under intervention schemes, the statistically recorded wage bill or the number of wage recipients can therefore decline significantly, which is reflected in significant fluctuations in the statistically recorded average gross wage. These factors affect wage movements in both the public and private sector, but in the private sector the methodological effect of temporary layoffs is significantly higher as more people have been placed on temporary layoff.

For the purpose of the forecast for the gross wage (for people employed with legal persons) and the preparation of an estimate of the contribution base (growth in the wage bill), we made an estimate of the contribution base, in which we also included compensation paid by the government. Among the more important additional remunerations that belong to the gross wage and were paid by the government, we included, among other things, wage compensation for temporary layoffs, subsidies for short-time work, certain contributions on the part of the government and December's crisis allowance. Estimated in this way, the wage bill was significantly higher last year than the recorded (published) wage bill (Figure 21). This year, we expect a slight decline in the estimated wage bill, particularly due to a lower amount of crisis allowances in both the public and private sectors.

Figure 21: The recorded gross wage bill with legal persons and the estimated gross wage bill including additional payments (contribution base)



Source: SURS; estimates and forecast by IMAD. Note: Individual columns show y-o-y growth relative to the previous year.

3.5 Inflation

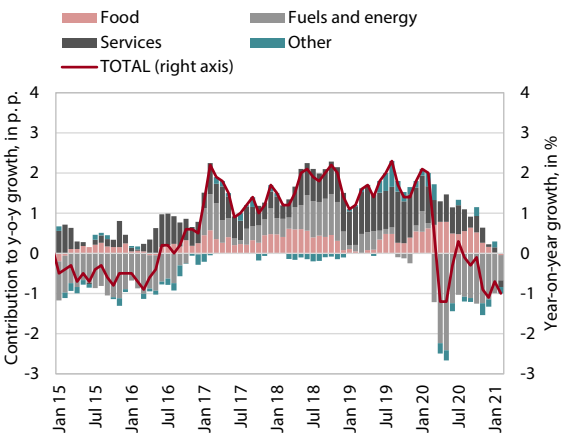
After last year's deflation, consumer prices will again be gradually rising towards 2% growth year on year this year and in the next two under the assumption of a moderate economic recovery. Last year, consumer prices fell slightly, on average, mainly due to year-on-year lower prices of oil products and electricity.[39] In other price groups, growth was moderate amid lower economic activity. Particularly growth in food prices was relatively higher, but it moderated towards the end of the year. In the first two months of 2021, prices[40] remained down year on year (by 0.8%) largely due to lower prices of energy and semi-durables (clothing and footwear), where, as in food prices (Box 2), changes in seasonal movements have been observed due to the epidemic. In the coming months, inflation is expected to start rising, mainly owing to higher prices of energy after last year's sharp decline. Higher demand due to the opening of the economy and higher prices of intermediate goods will be reflected in a strengthening in prices of food. Growth in prices of non-energy industrial goods and services will be less pronounced, as increased demand tends to spill over into these prices more gradually. All of this[41] will contribute to 0.8% overall consumer price growth in the year as a whole, which will strengthen somewhat next year (to 1.2%) as the economic recovery continues. In addition to food prices, growth will also be influenced by prices of goods and services, with the exception of services where activity will remain limited due to measures to contain the spread of infections and where growth is expected after 2022.

Table 6: Inflation forecast

		2021		2022		2023
In %	2020	December 2020	March 2021	December 2020	March 2021	March 2021
Inflation – Dec/Dec	-1.1	1.6	**1.1**	1.8	**1.5**	**2.0**
Inflation – annual average	-0.1	0.6	**0.8**	1.9	**1.2**	**1.7**

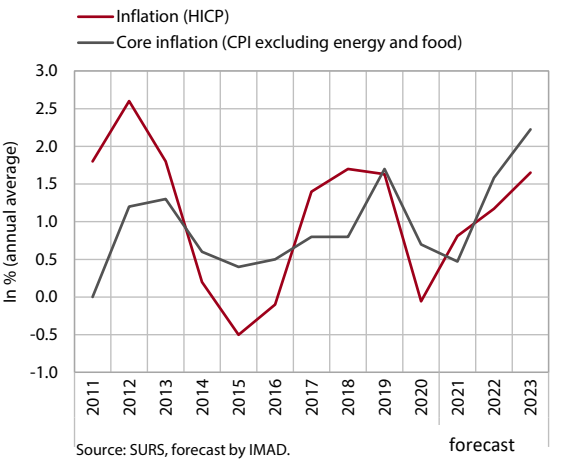
Source: SURS; 2021–2023 forecast by IMAD.

Figure 22: Last year and in the first two months of this year, deflation was mainly a consequence of a fall in energy prices



Source: SURS; calculations by IMAD.

Figure 23: In the next two years, inflation will approach 2%



Source: SURS, forecast by IMAD.

[39] To alleviate the consequences of the crisis conditions, the government lowered electricity prices for households and small businesses from the beginning of March until the end of May.

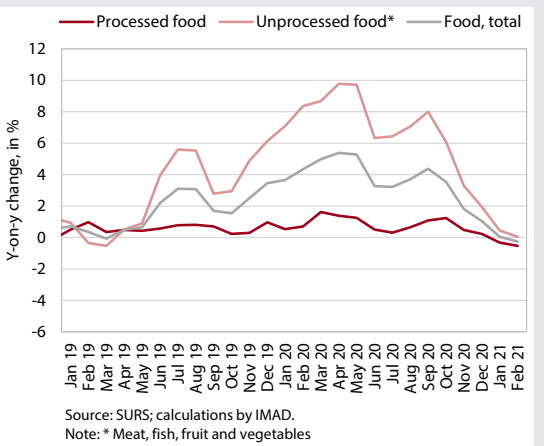
[40] This year, but also last year, their movement was significantly affected by the changed set of prices included in the calculation, as certain goods and services prices were not available in the period when the adopted measures applied. The share of missing prices changes from month to month. In April 2020, it accounted for 18.3% of the consumer price index. In February, it was only 4.9%. Missing prices were imputed using the average price change of similar products or the last price available. For example, for services with seasonal patterns (package holidays), imputation with the monthly change of the previous year was used.

[41] Due to the changed structure of consumption related to the epidemic, the weights for individual groups of the CPI also changed somewhat more in 2021. The share of food strengthened, while the share of energy (oil products in particular) and services (especially package holidays) declined.

Box 2: Food price developments after the outbreak of the epidemic

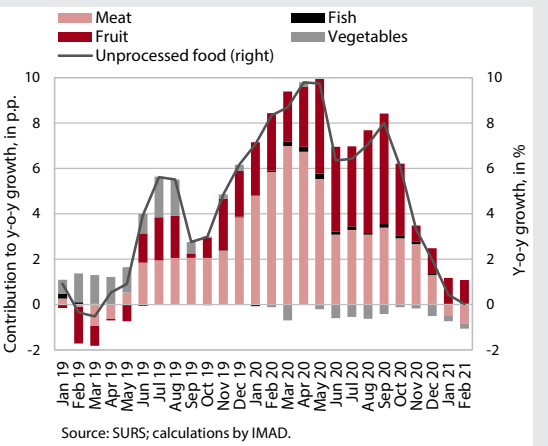
Following the outbreak of the epidemic, food price growth strengthened further before moderating due to the improvement in epidemiological conditions and lower demand from larger consumers. Food price growth has already been strengthening since mid-2019, underpinned by higher meat and meat product prices, largely due to the outbreak of African swine fever. Following the outbreak of the epidemic, food price growth strengthened further as a consequence of increased demand from households stockpiling food due to higher uncertainty. There was also a further fall in supply as a consequence of disrupted supply chains, particularly from countries that were significantly affected by the epidemic (Italy, Spain, etc.). Both outweighed the fall in demand from major consumers (for example, restaurants, hotels and schools), which were for the most part closed. With the improvement in the epidemiological situation in the middle of last year, which contributed to the normalisation of the food supply chain and lessened the need to stock up on food, price growth moderated somewhat amid a higher base (especially for meat). The slowdown was even more pronounced after the outbreak of the second wave of the epidemic. We estimate that this was largely a consequence of lower demand due to the partial or full closure of some activities (restaurants, hotels and schools). Also, unlike during the first wave, there seemed to be no greater need for households to stockpile food. The lower prices were also partly due to the good harvest. With a gradual rebound in activity, particularly in sectors related to the preparation and supply of food, but also due to higher commodity prices (oil products, feeds and other agricultural inputs), food prices are expected to strengthen again in the future.

Figure 24: Food prices first rose strongly after the outbreak of the epidemic, then their growth moderated



Source: SURS; calculations by IMAD.
Note: * Meat, fish, fruit and vegetables

Figure 25: Contributions to growth in prices of unprocessed food



Source: SURS; calculations by IMAD.

3.6 Current account

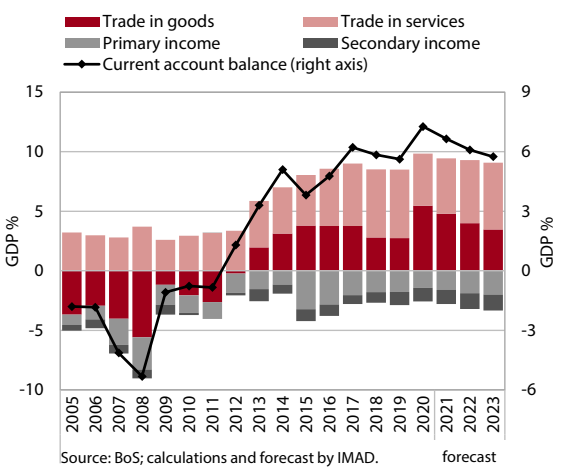
In 2021–2023, the current account surplus will maintain its high level relative to GDP (around 6% of GDP). The persistently high surplus relative to GDP is attributable to strong private sector saving (households and non-financial corporations), which exceeds investment. The surplus will continue to be underpinned by trade in both goods and services – the impact of *trade in services* will increase over the forecast period due to its recovery (particularly in the travel segment) after last year's deep fall, while the surplus in *trade in goods* will decline. This will be the main reason for the decline in the surplus from 6.6% of GDP this year to 5.8% in 2023. This year, the surplus in goods trade will also narrow under the impact of deteriorated terms of trade,[42] which will be slightly mitigated by a positive volume effect despite faster real growth in imports than exports of goods.[43] Due to this year's growth in energy and other primary commodity prices after their fall last year, growth in import prices will be stronger than in export prices, which will deteriorate the terms of trade by 1.2%. From 2022 onwards, however, the surplus in goods trade will decline due to further more moderate growth in exports than imports, which will be supported by solid growth in domestic consumption. 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 increase in the former will be due to higher net payments of dividends and reinvested earnings owing to the recovery of economic activity. Particularly this year, net payments of interest abroad will increase due to higher general government borrowing.[44] The widening of the deficit in primary income will be partly cushioned by subsidies from the EU budget.[45] The deficit in *secondary income* will increase particularly due to lower receipts from the European Social Fund[46] and higher GNI- and VAT-based payments into the EU budget.

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

		2021		2022		2023
	2020	December 2020	March 2021	December 2020	March 2021	March 2021
Current account, in EUR million	3,366	3,115	3,220	3,018	3,128	3,107
Current account, as a % of GDP	7.3	6.4	6.6	5.9	6.1	5.8

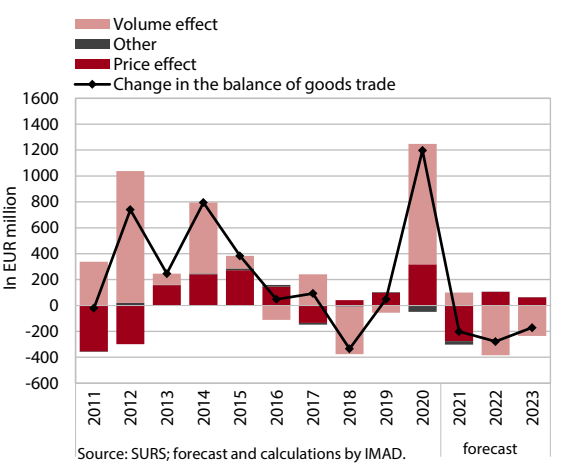
Source: BoS – Balance of payments statistics; 2021–2023 forecast by IMAD.

Figure 26: The current account surplus will remain high in the forecast period



Source: BoS; calculations and forecast by IMAD.

Figure 27: Price movements will have a greater negative impact on goods trade balance this year



Source: SURS; forecast and calculations by IMAD.

[42] In 2022 and 2023, the terms of trade are expected to change only slightly, as, assuming a relatively low volatility of energy and other commodity prices, growth in export and import prices will be moderate in the next two years.

[43] The share of goods exports in GDP is somewhat higher than of imports, which translates into a positive volume effect.

[44] Due to the measures to mitigate the impact of the pandemic, in 2020, the government significantly increased its indebtedness to foreign portfolio investors in order to finance the budget deficit and repay the principal on government debt.

[45] 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, according to the balance of payments statistics, are recorded in the capital account of the balance of payments.

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

4 Risks to the forecast

The greatest risk to the realisation of the Spring Forecast is associated with the epidemiological situation in Slovenia and its most important trading partners; another important factor is a gradual and well-planned lifting of the measures to mitigate the consequences of the epidemic. A prolonged persistence of tight epidemiological conditions, possible more stringent containment measures due to new waves of infections, also as a consequence of new and more infectious coronavirus mutations or slower progress in vaccination, and thus further major closures of economies, pose the greatest risk to a more stable recovery. This should start in the second quarter of this year according to the assumptions of the baseline scenario. A longer maintenance or reintroduction of stringent containment measures would further affect particularly service activities. In the event of a major closure of activities, the consequences would also be felt in industry. A premature withdrawal of measures for alleviating the consequences of the epidemic could, in deteriorated economic conditions, also lead to higher unemployment and more companies facing difficulties in pursuing their activities. Liquidity problems could turn into long-term insolvency and lead to further bankruptcies. The banking sector could be affected due to an increase in non-performing loans. All of this would also be reflected in a slower recovery. Another downside risk to economic activity is a possible return to the fiscal rules in 2023. At the beginning of March 2021, the EC issued a communication[47] on the coordination of fiscal policies in the euro area, in which it states, based on an assessment of the economic situation and future prospects (from its Winter Forecast), which are still marked by significant risks, that preliminary indications suggest that the general escape clause should continue to be applied in 2022, but be deactivated as of 2023.[48] This should make it possible for countries to phase out emergency measures gradually and shift from general to more targeted measures and measures that facilitate reallocation of resources. At the time of the preparation of our Spring Forecast, detailed country-specific fiscal recommendations and the medium-term fiscal framework for Slovenia are thus not yet known.

There are, however, also some possibilities for higher-than-forecast economic growth. In the event of a faster permanent improvement in epidemiological conditions or faster-than-expected availability of a vaccine or medicine for widespread use, activity could also recover more rapidly. The confidence of the population and thus their willingness to be vaccinated will also play a significant role. One possibility for a more rapid recovery lies in a faster, efficient start of absorption of resources from the new multi-annual financial framework agreed in July and the extraordinary financial package (New Generation EU) in Slovenia and its main trading partners. Indeed, in their forecasts, international institutions took into account only credibly announced measures related to the new EU instrument for economic recovery. The EU funds represent an opportunity to address development challenges, of which the following are key: strengthening support for research and development, innovation and digital transformation to enhance 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. At the current stage of document preparation, it is therefore crucial to select the most important objectives that address these challenges. More efficient absorption and faster use of resources will also depend on minimising the fragmentation of funds, which has hampered the efficiency of their use in the past. All of this can lower uncertainty about the ability to meet future challenges and attract accumulated private resources to the necessary development transformation, which would improve economic sentiment and foster investment and growth in production and final consumption.

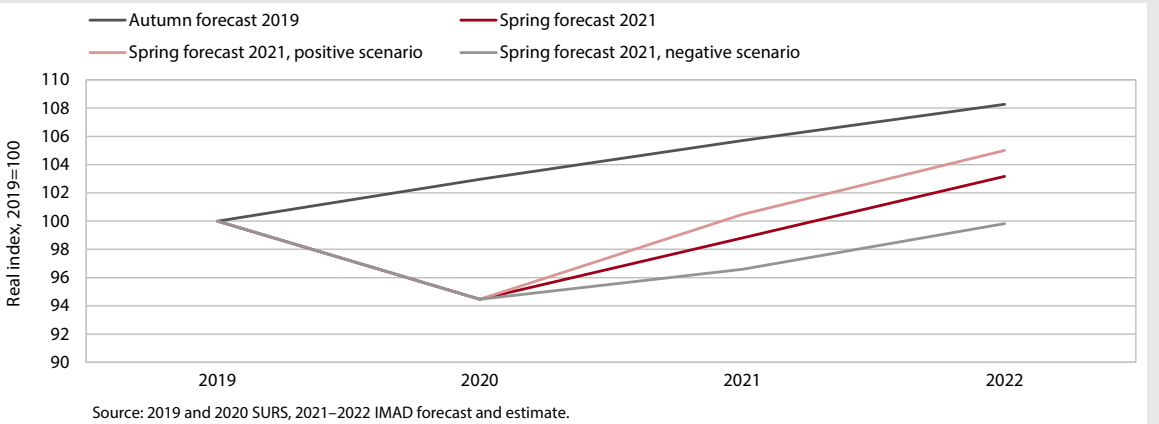
[47] https://ec.europa.eu/info/files/one-year-outbreak-covid-19-fiscal-policy-response_en.

[48] The Commission will further assess the deactivation or continued activation of the escape clause on the basis of its Spring Forecast this year.

Box 3: Alternative scenarios

Uncertainty and risks remain elevated and crucially dependent on epidemiological conditions. In the event of lower vaccination coverage and a new outbreak of the virus, business operations in some service activities would again be hampered. Household consumption would be affected in particular, and, to some extent, investment and exports. An increased number of bankruptcies and higher unemployment would also lead to a slower recovery next year. Were this to be the case, the pre-crisis level of 2019 would not yet be reached in 2022. There are, however, also some upside risks: a faster improvement in the epidemiological situation would lead to a faster rise in domestic demand and an easing of restrictions on service activities. If this were also to happen in a broader international environment, we would also see stronger growth in exports. Given the openness of the Slovenian economy, part of this additional demand would, however, also be reflected in higher imports, but economic growth would be significantly higher. In this case, the pre-crisis levels would already be achieved this year.

Figure 28: The baseline and alternative scenarios



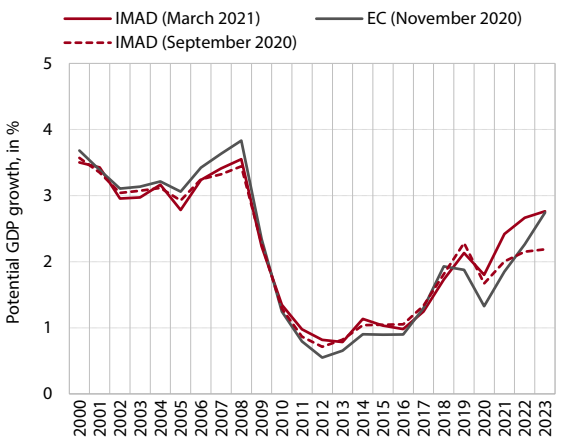
Source: 2019 and 2020 SURS, 2021–2022 IMAD forecast and estimate.

5 Output gap and potential GDP growth

Under the current conditions of domestic and international risks related to the epidemiological situation, the estimate of potential GDP[49] and consequently the output gap is subject to high uncertainties and risks of subsequent changes. As potential GDP cannot be measured directly, its estimates can change depending on input data or the methodology. Input data often change due to revisions of GDP growth in previous years, changes in the forecasts of GDP growth and other input categories in the coming years 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 significant changes in the level of potential GDP and the output gap. In the present situation, there is a strong probability of future revisions of input data. The current estimates of potential GDP and the output gap should therefore be considered only in the context of the assumptions and broader economic picture at the time when they were made.

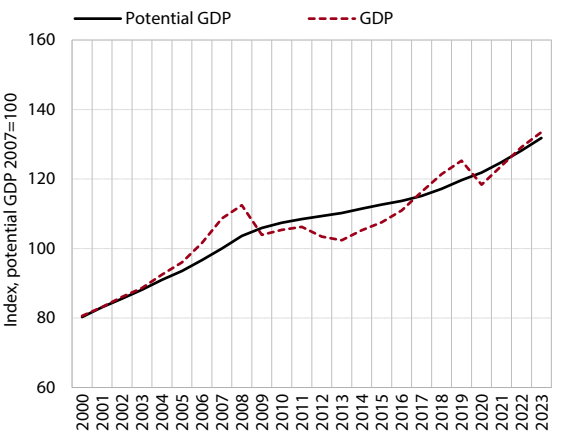
According to the current estimate, potential GDP should recover relatively rapidly this year and in the next two after last year's modest growth, driven by a strengthening of investment and capital and improvement in labour market conditions. Growth is expected to amount to 2.6% on average in the forecast period (2021–2023). This is more than in the last ten-year period, when it was affected by the crisis, but less than before 2009, when Slovenia was even more rapidly catching up with more developed EU Member States. The greatest contribution to potential growth in the forecast period will still be made by *total factor productivity* (1.3 p.p.), whose growth is expected to be similar to that before the previous economic and financial crisis. With the expected rise in investment related to additional EU funds, the contribution of *capital* should increase gradually in the 2021-2023 period, but it will remain lower on average (at 0.7 p.p.) than in the longer period before the previous crisis.[50] This is a consequence of the low level of investment in the several-year period following the beginning of the economic and financial crisis. *Labour* is expected to contribute 0.7 p.p. on average to potential growth in the forecast period, reflecting the expected continuation of favourable dynamics in foreign labour inflows, which remained high last year despite the tightened conditions, and a further increase in the activity rate. 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.

Figure 29: Potential GDP change, a comparison of IMAD and Commission calculations



Source: SURS; calculations by IMAD and the EC.

Figure 30: GDP and potential GDP

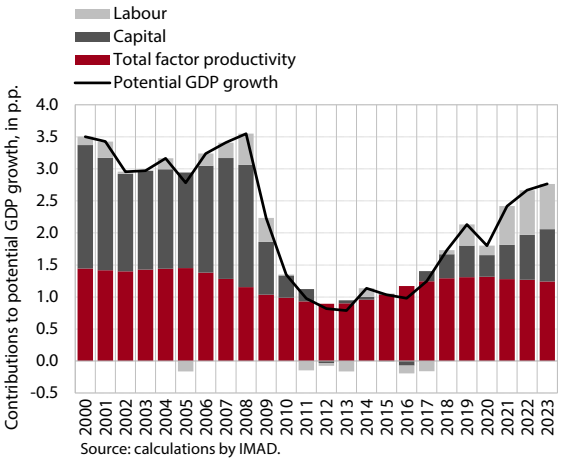


Source: SURS; calculations by IMAD.

[49] 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. 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 differ from the European Commission's method in its essential attributes. 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 and the natural unemployment rate), *capital* and *total factor productivity*. The disparities between potential GDP or output gap calculations by IMAD and the Commission 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 demographic projections calculated by a microsimulation model by the IER (source: SURS); 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).

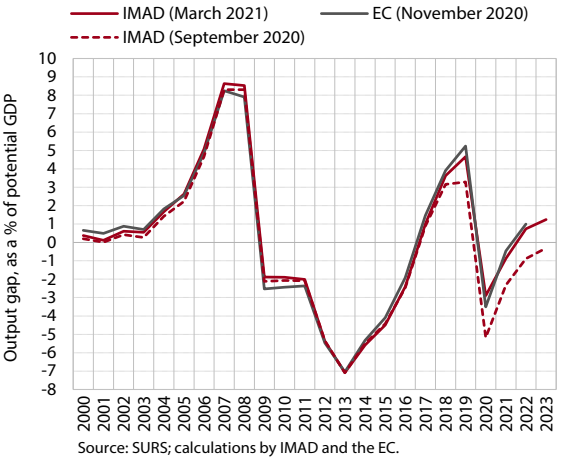
[50] The contribution of capital to potential GDP growth in the 2000–2008 period, when it was also relatively stable, averaged 1.7 p.p.

Figure 31: Contributions of individual components to potential GDP growth



Source: calculations by IMAD.

Figure 32: Output gap, a comparison of IMAD and Commission calculations



Source: SURS; calculations by IMAD and the EC.

Appendix

1 Assessing forecasting performance

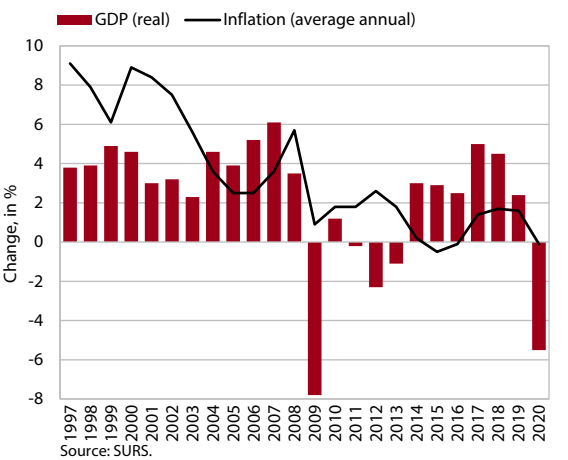
1.1 Introductory remarks

In 2020, macroeconomic forecasts were prepared in high uncertainty and under rapidly changing conditions due to the COVID-19 epidemic. The preparation of the forecasts was accompanied by uncertainty about the further spread of the epidemic in Slovenia and among its main trading partners and the related containment measures, as well as by the adoption of a number of measures to mitigate the impact of the epidemic on the population and businesses, which were being adjusted and supplemented throughout the year. This was reflected in rapid changes in our forecasts, which we checked each time quarterly GDP data were released and supplemented with other, interim, forecasts. This being a special year, we slightly adjusted our regular assessment of forecast accuracy this year. We excluded the forecasts for 2020, which were prepared by forecasting institutions in 2019, when the epidemic was not yet to be expected. In addition, in assessing forecasting performance, we took into account only those regular spring and autumn forecasts that were produced after the declaration of the epidemic in Slovenia on 12 March 2020, as we wanted to include only the forecasts with the same baseline information about the extent of the virus spread and the first measures, which was a major unknown before that date. In the case of IMAD, we included the Summer Forecast of June 2020 as the first comprehensive forecast after the declaration of the epidemic. It was prepared for the needs of outlining a revised state budget for 2020.

1.2 Methodology

IMAD regularly assesses the accuracy of its forecasts in comparison with other institutions[51] that publish forecasts of economic trends for Slovenia. The analysis, which captures the latest data for 2020, covers the forecasts for two key macroeconomic variables,[52] economic growth and average annual inflation. The movement of the actual values of the two variables over time is shown in Figure 33. 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.[53] In the following paragraphs we present an overview of the errors made by individual institutions in their forecasts for 2020, 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 2020, as this is the longest period for which forecasts of most institutions are available.[54]

Figure 33: Movements of real GDP growth and average annual inflation, 1997–2020



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 34, most institutions publish their forecasts at a later time than IMAD. The exception was the year 2020.[55] 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

[51] In addition to the forecasts made by the Institute of Macroeconomic Analysis and Development (IMAD), the analysis covers forecasts by the Bank of Slovenia (BoS), the Chamber of Commerce and Industry of Slovenia (CCIS) and, among international institutions, the European Commission (EC), the International Monetary Fund (IMF), Wiener Institut fuer Internationale Wirtschaftsvergleiche (WIIW) and, for the last few years, the Organisation for Economic Co-operation and Development (OECD) and Consensus Economics.

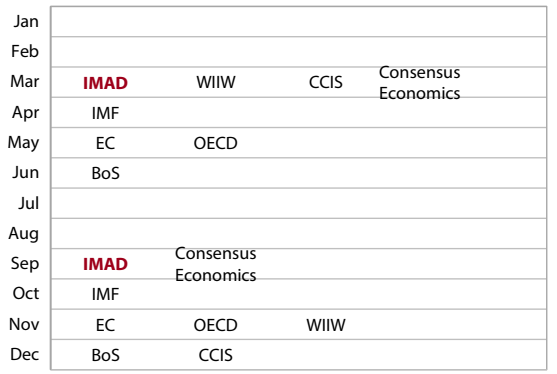
[52] Spring forecasts for the year ahead (SF_{t+1}), autumn forecasts for the year ahead (AF_{t+1}), spring forecasts for the current year (SF_t) and autumn forecasts for the current year (AF_t).

[53] 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.

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

[55] In 2020, we took into account the Summer Forecast, which was published in June 2020, instead of the Spring Forecast, which is usually published in March.

Figure 34: The usual timeline of forecasts published by individual institutions*



Source: Forecasts of individual institutions. Note: *In 2020, we took into account the Summer Forecast, which was published in June 2020, instead of the Spring Forecast, which is usually published in March.

new, less biased method[56] 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.

1.3 An overview of the development of the forecasts for 2020

All institutions overestimated the depth of the decline in real GDP in their forecasts for 2020. The epidemic was an unexpected event. In early March last year, institutions still predicted weaker growth in their first forecasts for 2020.[57] Soon after, the outlook deteriorated sharply due to the rapid spread of the epidemic and the adoption of stringent containment measures, and it became clear that GDP would decline. In their spring forecasts, most institutions expected a more then 7% fall in GDP, which they mitigated in their later forecasts. During the summer, when the first wave of infections subsided, the recovery gained strong momentum with the easing of containment measures, until the autumn, when the prospects for economic activity at the end of the year deteriorated again due to a renewed rise in infections. In the end, the decline in economic activity was 5.5% according to the preliminary statistical estimate. This is less than predicted by all institutions, mainly due to the favourable developments in the export part of the economy and in construction in the last quarter of the year. IMAD's error in the Summer Forecast was 2.1 p.p.[58] In the spring forecast, the smallest errors were made by Consensus (0.2 p.p.) and the BoS (1 p.p.). In the autumn forecast, IMAD's error was 1.2 p.p. The same error was made by the IMF and WIIW. The errors of the other institutions were larger, the greatest being that of the BoS (2.1 p.p.).

Table 8: Evolution of real GDP growth forecasts for 2020, by forecasting institution

	Spring forecast from 2019 (SF_{t+1})	Autumn forecast from 2019 (AF_{t+1})	Spring/summer forecast from 2020 (SF_t)		Autumn forecast from 2019 (AF_t)	
Actual: -5.5 %	**Forecast**	**Forecast**	**Forecast**	**Error in p.p.**	**Forecast**	**Error in p.p.**
IMAD*	3.1	3.0	-7.6	2.1	-6.7	1.2
BoS	2.9	2.5	-6.5	1.0	-7.6	2.1
CCIS	2.2	2.7	N/A	N/A	-6.5**	1.0
EC	2.8	2.7	-7.0	1.5	-7.1	1.6
IMF	2.8	2.9	-8.0	2.5	-6.7	1.2
WIIW	3.0	2.8	-9.5	4.0	-6.7	1.2
OECD	3.1	3.0	-7.8	2.3	-7.5	2.0
Consensus Economics	2.8	2.8	-5.3	–0.2	-7.5	2.0

Source: Forecasts by individual institutions; calculations by IMAD.
Notes: Negative values of errors indicate an underestimation, while positive values indicate an overestimation of the actual decline.* Instead of IMAD's Spring Forecast, we took into account the Summer Forecast of June 2020, which, like other comparable forecasts, was made after the declaration of the epidemic. ** The CCIS estimate is from January 2021, as in 2020 the CCIS did not publish any forecasts.

[56] This method was used for the first time in the Autumn Forecast of Economic Trends 2018 (see Section 5). For a detailed description of the method see Andersson, M. K., Aranki, T. and Reslow, A. (2017). "Adjusting for Information Content when Comparing Forecast Performance". *Journal of Forecasting*, 36(7), 784–794.

[57] IMAD predicted 1.5% GDP growth in 2020 in its Spring Forecast 2020.

[58] Instead of the Spring Forecast, we took into account the Summer Forecast published in June 2020.

Table 9: Evolution of average annual inflation forecasts for 2020, by forecasting institution

Actual: CPI: -0.1 % HICP: -0.3%	Spring forecast from 2019 (SF_{t+1})	Autumn forecast from 2019 (AF_{t+1})	Spring/summer forecast from 2020 (SF_t)		Autumn forecast from 2019 (AF_t)	
	Forecast	Forecast	Forecast	Error in p.p.	Forecast	Error in p.p.
IMAD*	1.9	2.0	0.4	0.5	0.3	0.4
BoS	2.0	2.0	0.0	0.3	-0.2	0.1
CCIS	2.2	1.9	N/A	N/A	N/A	N/A
EC	2.1	1.9	0.5	0.8	0.0	0.3
IMF	1.6	1.9	0.4	0.5	0.5	0.6
WIIW	1.8	1.8	0.5	0.8	0.3	0.6
OECD	2.1	2.4	1.0	1.3	0.1	0.4
Consensus Economics	1.8	1.7	1.0	1.3	0.5	0.6

Source: Forecasts by individual institutions; calculations by IMAD.
Notes: * The forecasts by the BoS, EC, WIIW and OECD refer to HICP inflation. Positive values mean that the forecast value was higher than the actual value. The CCIS issued no forecast in 2020. * Instead of IMAD's Spring Forecast, we took into account the Summer Forecast of June 2020, which, similar to other comparable forecasts, was made after the declaration of the epidemic.

Most institutions predicted weak inflation for 2020, while in the end weak deflation was observed. Most institutions expected a continuation of moderate inflation (around 2%) in 2020 in their forecasts from 2019 and revised their forecasts sharply downwards after the outbreak of the epidemic. This was mainly a consequence of lower prices of energy (oil products and electricity). During the year, most institutions predicted weak inflation in their forecasts. In the end, weak deflation was observed, at 0.1% (CPI) and 0.3% (HICP). An almost accurate forecast in the sense of deflation was made only by the BoS (in its autumn forecast).

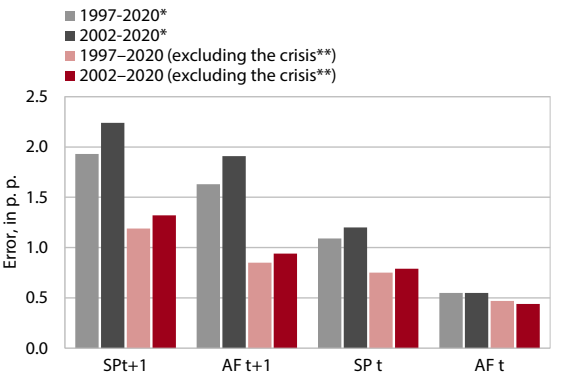
In IMAD forecasts, no major systematic deviations from actual values have been observed over a longer time horizon. In assessing the forecasting period, it is necessary to focus on a longer time horizon. Below, we first assess the performance of IMAD forecasts for GDP growth and average annual inflation 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 way of 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 1997–2020 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 (0.60 p.p. and 0.40 p.p., respectively).[59] The values of mean errors for GDP growth in SF_t[60] and AF_t are insignificant (-0.01 p.p. and -0.11 p.p., respectively), meaning that the forecasts are not biased. The forecasts for average annual inflation are not biased either, the mean error of all forecasts being only -0.01 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)[61] of the forecast (which should be as small as possible over a longer time horizon). Between 1997 and 2020, the mean absolute error in IMAD forecasts for GDP growth in SF_{t+1} was 1.93 p.p. and in AF_{t+1} 1.63 p.p.[62] In SF_t[63] and AF_t it was 1.09 p.p. in 0.55 p.p., respectively. The mean absolute error in the forecasts for inflation was somewhat smaller,[64] 1.02 p. p. in SF_{t+1}, 0.91 p.p. in AF_{t+1}, 0.42 p.p. in SF_t and 0.20 p.p. in AF_t. Somewhat larger errors are observed particularly in the forecasts for real GDP growth over a shorter time horizon (for example, in 2002–2020), 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 last year during the COVID-19 epidemic, when forecasting was more difficult due to greater uncertainty (see Figure 35). 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.

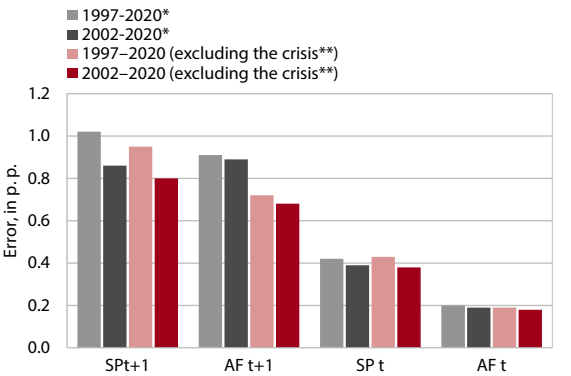
In comparing the forecasting accuracy of institutions, it is necessary to consider the time when the forecast was released. The time of release can have a significant impact on accuracy, as a forecast made later in the year may include new information, which can be manifested in smaller forecast errors and vice versa. This new information may involve not just new data on indicator movements, revisions of already released data, but also changes in the assumptions about developments in

[59] The forecasts from 2019 for 2020 are not taken into account.
[60] Instead of the Spring Forecast, the Summer Forecast issued in June 2020 was taken into account.
[61] Another measure is the RMSE, which penalises large errors, as these are less desirable.
[62] The forecasts from 2019 for 2020 are not taken into account.
[63] Instead of the Spring Forecast, we took into account the Summer Forecast published in June 2020.
[64] 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.

Figure 35: Mean absolute errors in IMAD forecasts for real 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 and 2020.



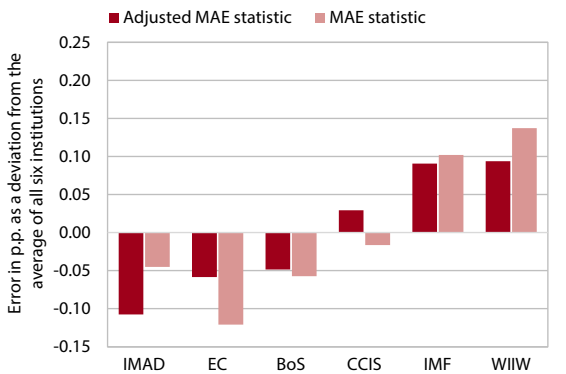
Source: IMAD forecasts. Notes: * The forecasts from 2019 for 2020 are not taken into account. In 2020, we took into account the Summer Forecast, which was published in June 2020, instead of the Spring Forecast. **Excluding 2009, 2011, 2012, 2014 and 2020.

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, and hence the deviation from the fiscal rules for 2020 and 2021, 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 real economic growth and average annual inflation. Figures 36 and 37 present the rankings of the institutions with regard to the value of the adjusted MAE statistic in the forecasts for real 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 2002–2020, and particularly IMAD and the BoS in predicting average annual inflation.[65]

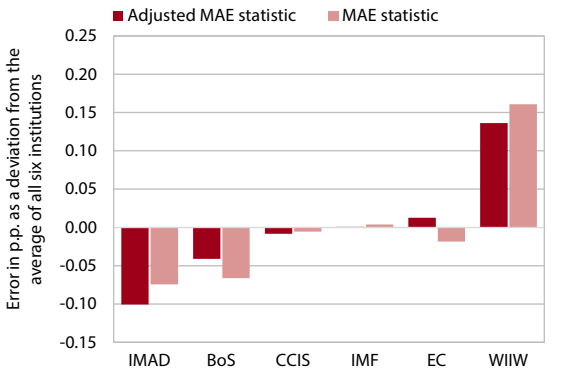
[65] With the concurrent use of CPI and HICP inflation, we implicitly assume that the ability to forecast CPI inflation is equal to the ability to forecast HICP inflation. Since the two series have similar variance and persistence, this assumption can be fully acceptable. We also assume an equal expected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

Figure 36: (Adjusted) mean absolute errors in real GDP growth forecasts for 2002–2020, 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 37: (Adjusted) mean absolute errors in average annual inflation forecasts for 2002–2020, 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.

statistical appendix

Table of contents

Table 1: Main macroeconomic indicators of Slovenia

Real growth rates in %, unless otherwise indicated

	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
									forecast		
GROSS DOMESTIC PRODUCT	-1.0	2.8	2.2	3.2	4.8	4.4	3.2	-5.5	4.6	4.4	3.3
GDP in EUR m (current prices)	36,454	37,634	38,853	40,443	43,009	45,863	48,393	46,297	48,453	51,345	54,026
GDP per capita in EUR (current prices and at current exchange rate)	17,700	18,253	18,830	19,589	20,819	22,135	23,165	22,014	22,973	24,250	25,427
GDP per capita in USD (current prices and at current exchange rate)	23,508	24,249	20,892	21,683	23,520	26,141	25,934	25,144	27,751	29,295	30,716
GDP per capita (PPS)[1]	21,600	22,100	22,700	23,500	25,100	26,400	27,200				
GDP per capita (PPS EU27=100)[1]	83	83	83	84	86	87	88				
EMPLOYMENT AND PRODUCTIVITY											
Employment according to National Accounts	-1.1	0.4	1.3	1.8	3.0	3.2	2.5	-1.0	0.8	1.5	1.5
Registered unemployed (annual average in thousand)	119.8	120.1	112.7	103.2	88.6	78.5	74.2	85.0	83.1	80.7	76.5
Rate of registered unemployment in %	13.1	13.1	12.3	11.2	9.5	8.2	7.7	8.7	8.5	8.1	7.6
Rate of unemployment by ILO in %	10.1	9.7	9.0	8.0	6.6	5.1	4.5	5.0	5.0	4.8	4.5
Labour productivity (GDP per employee)	0.1	2.4	0.9	1.3	1.8	1.2	0.7	-4.6	3.8	2.8	1.7
WAGES*											
Gross wage per employee - nominal growth in %	-0.2	1.1	1.0	1.8	2.7	3.4	4.3	5.8	0.4	2.1	2.7
Private sector activities	0.6	1.4	0.5	1.7	2.9	4.0	3.9	4.4	1.1	2.4	2.8
Public service activities	-1.3	0.9	2.1	2.3	2.9	3.0	5.4	7.8	-0.4	1.9	2.5
Gross wage per employee - real growth in %	-1.9	0.9	1.5	2.0	1.3	1.6	2.7	5.9	-0.4	0.9	1.1
Private sector activities	-1.2	1.2	1.0	1.8	1.5	2.3	2.2	4.5	0.2	1.2	1.1
Public service activities	-3.0	0.7	2.6	2.4	1.5	1.3	3.7	7.9	-1.2	0.7	0.8
INTERNATIONAL TRADE											
Exports of goods and services	3.1	6.0	4.7	6.2	11.1	6.3	4.1	-8.7	8.6	7.3	5.5
Exports of goods	3.3	6.3	5.3	5.7	11.1	5.9	4.3	-5.6	8.7	5.7	4.8
Exports of services	2.0	5.0	2.4	8.0	11.2	7.5	3.3	-20.2	8.0	14.5	8.4
Imports of goods and services	2.1	4.2	4.3	6.3	10.7	7.2	4.4	-10.2	8.8	8.1	6.1
Imports of goods	2.9	3.8	5.1	6.6	10.8	7.7	4.7	-8.9	9.1	7.4	5.8
Imports of services	-2.3	6.1	0.1	4.7	10.6	4.8	3.3	-17.5	7.0	12.1	7.5

Table 1: Main macroeconomic indicators of Slovenia - continue

Real growth rates in %, unless otherwise indicated

	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
									forecast		
BALANCE OF PAYMENTS STATISTICS											
Current account balance in EUR m	1,203	1,918	1,483	1,932	2,674	2,680	2,723	3,366	3,220	3,128	3,107
- As a per cent share relative to GDP	3.3	5.1	3.8	4.8	6.2	5.8	5.6	7.3	6.6	6.1	5.8
External balance of goods and services in EUR m	2,136	2,640	3,122	3,465	3,870	3,907	4,117	4,555	4,574	4,774	4,909
- As a per cent share relative to GDP	5.9	7.0	8.0	8.6	9.0	8.5	8.5	9.8	9.4	9.3	9.1
FINAL DOMESTIC DEMAND											
Final consumption	-3.4	1.1	2.1	3.9	1.5	3.5	4.0	-6.7	3.5	3.8	2.5
As a % of GDP	75.7	73.9	72.8	73.0	71.0	70.3	70.8	69.5	69.1	68.5	68.0
in which:											
Private consumption	-3.9	1.6	2.0	4.4	1.9	3.6	4.8	-9.7	4.0	4.7	2.9
As a % of GDP	56.1	55.0	54.0	54.0	52.6	52.1	52.4	49.2	49.2	49.1	48.9
Government consumption	-2.0	-0.2	2.3	2.4	0.4	3.0	1.7	1.8	2.4	1.7	1.4
As a % of GDP	19.6	18.9	18.8	19.0	18.4	18.2	18.4	20.4	19.9	19.4	19.1
Gross fixed capital formation	3.4	-0.1	-1.2	-3.6	10.2	9.6	5.8	-4.1	9.0	8.0	6.5
As a % of GDP	19.6	19.1	18.7	17.4	18.3	19.2	19.6	19.9	21.1	21.9	22.7
EXCHANGE RATE AND PRICES											
Ratio of USD to EUR	1.328	1.329	1.110	1.107	1.129	1.181	1.120	1.141	1.208	1.208	1.208
Real effective exchange rate - deflated by CPI[2]	1.2	-0.2	-4.1	0.2	0.4	0.8	-0.3	-0.4	-0.2	-0.5	-0.2
Inflation (end of the year), %[3]	0.7	0.2	-0.4	0.5	1.7	1.4	1.8	-1.1	1.1	1.5	2.0
Inflation (year average), %[3]	1.8	0.2	-0.5	-0.1	1.4	1.7	1.6	-0.1	0.8	1.2	1.7
Brent Crude Oil Price USD / barrel	108.6	98.9	52.4	44.8	54.3	71.0	64.3	41.8	58.6	55.3	53.3

Source of data: SURS, BS, 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.

*The Spring Forecast takes into account the methodological specifics regarding the reporting of wages (which do not include compensation paid by the government), which affects the movement of wages as shown by statistical data in 2020, 2021 and 2022. The data for gross wages in this forecast and our other forecasts or scenarios (except the Summer, Autumn and Winter Forecasts 2020) are therefore not directly comparable.

Table 2a: Gross value added by activity at basic prices and gross domestic product

EUR million, current prices

		2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
										forecast		
A	Agriculture, forestry and fishing	718.6	759.1	814.6	800.8	782.7	1,028.9	970.7	940.9	896.9	894.1	888.3
BCDE	Mining and quarrying, manufacturing, electricity and water supply, waste management	8,363.0	8,736.8	9,080.9	9,492.3	10,185.8	10,683.8	11,447.7	10,894.8	11,531.7	12,178.7	12,697.7
	of which: C Manufacturing	6,984.6	7,385.1	7,747.0	8,156.2	8,852.5	9,311.7	9,981.2	9,470.7	10,029.7	10,621.5	11,083.6
F	Construction	1,657.9	1,852.3	1,808.3	1,817.8	2,012.2	2,286.7	2,531.8	2,576.1	2,858.7	3,141.0	3,443.4
GHI	Trade, transportation and storage, accommodation and food service activities	6,303.8	6,497.2	6,852.4	7,251.2	7,803.1	8,408.0	8,812.5	7,859.4	8,358.5	8,911.3	9,443.1
J	Information and communication	1,321.2	1,391.5	1,357.4	1,388.2	1,486.1	1,543.2	1,726.2	1,740.7	1,817.5	1,966.5	2,125.8
K	Financial and insurance activities	1,257.6	1,304.1	1,362.2	1,337.5	1,406.2	1,514.3	1,604.5	1,632.8	1,575.2	1,660.1	1,749.2
L	Real estate activities	2,572.5	2,529.9	2,652.9	2,771.4	2,874.9	2,990.3	3,070.6	3,042.7	3,028.8	3,141.0	3,255.7
MN	Professional, scientific, technical, administrative and support services	3,011.0	3,222.7	3,346.6	3,459.3	3,794.9	4,092.3	4,204.9	3,934.8	4,143.2	4,417.6	4,708.4
OPQ	Public administration, education, human health and social work	5,446.7	5,389.7	5,469.2	5,805.9	6,086.7	6,416.1	6,915.2	7,367.7	7,626.2	7,880.5	8,222.3
RST	Other service activities	856.5	848.9	847.2	905.0	939.8	982.2	1,059.0	861.3	920.6	1,180.9	1,264.9
1. TOTAL VALUE ADDED		**31,508.8**	**32,532.0**	**33,591.7**	**35,029.6**	**37,372.2**	**39,945.7**	**42,343.2**	**40,851.1**	**42,757.2**	**45,371.9**	**47,798.7**
2. CORRECTIONS		4,945.6	5,102.3	5,260.9	5,413.7	5,636.9	5,916.9	6,049.4	5,446.1	5,695.3	5,973.2	6,227.4
3. GROSS DOMESTIC PRODUCT (3=1+2)		**36,454.3**	**37,634.3**	**38,852.6**	**40,443.2**	**43,009.1**	**45,862.6**	**48,392.6**	**46,297.2**	**48,452.5**	**51,345.1**	**54,026.1**

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

		2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
										forecast		
A	Agriculture, forestry and fishing	2.0	2.0	2.1	2.0	1.8	2.2	2.0	2.0	1.9	1.8	1.7
BCDE	Mining and quarrying, manufacturing, electricity and water supply, waste management	22.9	23.2	23.4	23.5	23.7	23.3	23.7	23.5	23.8	23.9	23.6
	of which: C Manufacturing	19.2	19.6	19.9	20.2	20.6	20.3	20.6	20.5	20.7	20.8	20.6
F	Construction	4.5	4.9	4.7	4.5	4.7	5.0	5.2	5.6	5.9	6.2	6.4
GHI	Trade, transportation and storage, accommodation and food service activities	17.3	17.3	17.6	17.9	18.1	18.3	18.2	17.0	17.3	17.5	17.6
J	Information and communication	3.6	3.7	3.5	3.4	3.5	3.4	3.6	3.8	3.8	3.9	4.0
K	Financial and insurance activities	3.4	3.5	3.5	3.3	3.3	3.3	3.3	3.5	3.3	3.3	3.3
L	Real estate activities	7.1	6.7	6.8	6.9	6.7	6.5	6.3	6.6	6.3	6.2	6.1
MN	Professional, scientific, technical, administrative and support services	8.3	8.6	8.6	8.6	8.8	8.9	8.7	8.5	8.6	8.7	8.8
OPQ	Public administration, education, human health and social work	14.9	14.3	14.1	14.4	14.2	14.0	14.3	15.9	15.7	15.3	15.2
RST	Other service activities	2.3	2.3	2.2	2.2	2.2	2.1	2.2	1.9	1.9	2.3	2.4
1. TOTAL VALUE ADDED		**86.4**	**86.4**	**86.5**	**86.6**	**86.9**	**87.1**	**87.5**	**88.2**	**88.2**	**88.4**	**88.5**
2. CORRECTIONS		13.6	13.6	13.5	13.4	13.1	12.9	12.5	11.8	11.8	11.6	11.5
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 2020 prices		
		2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
										forecast		
A	Agriculture, forestry and fishing	704.8	733.0	858.7	803.3	760.0	968.3	995.7	943.4	959.7	969.8	979.5
BCDE	Mining and quarrying, manufacturing, electricity and water supply, waste management	8,078.2	8,695.4	8,891.7	9,543.7	10,155.6	10,479.2	11,336.3	10,889.3	11,504.9	11,970.8	12,300.1
	of which: C Manufacturing	6,740.2	7,300.8	7,593.1	8,177.8	8,795.0	9,098.7	10,009.5	9,530.1	10,010.5	10,421.0	10,733.6
F	Construction	1,652.1	1,820.9	1,792.9	1,748.8	1,947.5	2,175.3	2,449.8	2,517.9	2,809.2	3,035.4	3,246.4
GHI	Trade, transportation and storage, accommodation and food service activities	6,261.0	6,522.2	6,858.4	7,235.4	7,815.9	8,277.1	8,687.1	7,813.6	8,389.1	8,905.0	9,256.8
J	Information and communication	1,366.6	1,383.8	1,419.0	1,351.6	1,451.4	1,551.8	1,705.6	1,717.8	1,819.0	1,910.9	2,015.1
K	Financial and insurance activities	1,325.1	1,239.6	1,261.4	1,397.8	1,330.2	1,417.4	1,583.3	1,696.4	1,583.8	1,632.1	1,696.6
L	Real estate activities	2,409.6	2,605.0	2,534.5	2,651.8	2,817.3	2,922.6	3,024.4	3,095.7	3,074.6	3,106.9	3,136.5
MN	Professional, scientific, technical, administrative and support services	2,999.7	3,287.1	3,373.6	3,453.2	3,705.2	4,052.9	4,000.7	3,839.0	4,131.5	4,340.2	4,550.7
OPQ	Public administration, education, human health and social work	5,592.5	5,460.5	5,400.5	5,603.0	5,916.9	6,198.6	6,514.7	6,891.2	7,533.5	7,672.9	7,784.3
RST	Other service activities	865.8	847.1	842.5	891.0	920.5	958.0	1,025.9	849.3	930.2	1,079.5	1,154.5
1. TOTAL VALUE ADDED		**31,255.6**	**32,594.5**	**33,233.0**	**34,679.6**	**36,820.4**	**39,001.4**	**41,323.6**	**40,253.9**	**42,735.6**	**44,623.5**	**46,120.5**
2. CORRECTIONS		4,624.6	4,868.9	5,233.0	5,413.1	5,561.5	5,893.5	5,999.4	5,461.5	5,682.4	5,910.3	6,089.1
3. GROSS DOMESTIC PRODUCT (3=1+2)		**35,880.1**	**37,463.4**	**38,466.0**	**40,092.8**	**42,381.9**	**44,894.9**	**47,323.0**	**45,715.4**	**48,418.0**	**50,533.8**	**52,209.6**

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 %

		2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
										forecast		
A	Agriculture, forestry and fishing	-1.0	2.0	13.1	-1.4	-5.1	23.7	-3.2	-2.8	2.0	1.0	1.0
BCDE	Mining and quarrying, manufacturing, electricity and water supply, waste management	-0.4	4.0	1.8	5.1	7.0	2.9	6.1	-4.9	5.6	4.0	2.8
	of which: C Manufacturing	-0.7	4.5	2.8	5.6	7.8	2.8	7.5	-4.5	5.7	4.1	3.0
F	Construction	-9.2	9.8	-3.2	-3.3	7.1	8.1	7.1	-0.5	9.0	8.0	7.0
GHI	Trade, transportation and storage, accommodation and food service activities	0.3	3.5	5.6	5.6	7.8	6.1	3.3	-11.3	6.7	6.1	4.0
J	Information and communication	1.4	4.7	2.0	-0.4	4.6	4.4	10.5	-0.5	4.5	5.0	5.5
K	Financial and insurance activities	-2.8	-1.4	-3.3	2.6	-0.5	0.8	4.6	5.7	-3.0	3.0	4.0
L	Real estate activities	0.4	1.3	0.2	0.0	1.7	1.7	1.1	0.8	1.0	1.0	1.0
MN	Professional, scientific, technical, administrative and support services	0.5	9.2	4.7	3.2	7.1	6.8	-2.2	-8.7	5.0	5.0	4.9
OPQ	Public administration, education, human health and social work	-0.7	0.3	0.2	2.4	1.9	1.8	1.5	-0.3	2.2	1.9	1.5
RST	Other service activities	0.3	-1.1	-0.8	5.2	1.6	1.9	4.4	-19.8	8.0	16.0	7.0
1. TOTAL VALUE ADDED		**-0.7**	**3.4**	**2.2**	**3.2**	**5.1**	**4.4**	**3.4**	**-4.9**	**4.6**	**4.4**	**3.4**
2. CORRECTIONS		-3.2	-1.5	2.6	2.9	2.7	4.6	1.4	-9.7	4.3	4.0	3.0
3. GROSS DOMESTIC PRODUCT (3=1+2)		**-1.0**	**2.8**	**2.2**	**3.2**	**4.8**	**4.4**	**3.2**	**-5.5**	**4.6**	**4.4**	**3.3**

Source of data: SURS, forecasts by IMAD.

Table 4a: Gross domestic product and primary incomes

EUR million, current prices

	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
									forecast		
1. Compensation of employees	18,073.4	18,408.0	18,935.4	19,966.0	21,240.7	22,817.1	24,583.6	24,858.3	25,792.5	26,672.5	27,782.3
Wages and salaries	15,479.2	15,792.6	16,223.9	17,167.0	18,264.9	19,607.0	21,132.0	21,348.4	22,150.7	22,906.4	23,859.6
Employers' social contributions	2,594.2	2,615.4	2,711.5	2,799.0	2,975.8	3,210.1	3,451.6	3,509.9	3,641.8	3,766.0	3,922.7
2. Taxes on production and imports	**5,474.7**	**5,638.3**	**5,799.1**	**5,959.8**	**6,191.9**	**6,492.9**	**6,692.5**	**6,045.1**	**6,329.5**	**6,639.4**	**6,909.7**
3. Subsidies	**673.7**	**581.5**	**528.1**	**548.1**	**575.3**	**604.6**	**630.6**	**2,170.7**	**1,350.0**	**839.0**	**876.0**
4. Gross operating surplus / mixed income	**13,580.0**	**14,169.5**	**14,646.4**	**15,065.5**	**16,151.9**	**17,157.2**	**17,747.1**	**17,564.6**	**17,680.4**	**18,872.2**	**20,210.0**
5. Gross domestic product (5=1+2-3+4)	**36,454.3**	**37,634.3**	**38,852.6**	**40,443.2**	**43,009.1**	**45,862.6**	**48,392.6**	**46,297.2**	**48,452.5**	**51,345.1**	**54,026.1**

Source of data: SURS, forecasts by IMAD.

Table 4b: Gross domestic product and primary incomes

Structure in %, current prices

	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
									forecast		
1. Compensation of employees	49.6	48.9	48.7	49.4	49.4	49.8	50.8	53.7	53.2	51.9	51.4
Wages and salaries	42.5	42.0	41.8	42.4	42.5	42.8	43.7	46.1	45.7	44.6	44.2
Employers' social contributions	7.1	6.9	7.0	6.9	6.9	7.0	7.1	7.6	7.5	7.3	7.3
2. Taxes on production and imports	**15.0**	**15.0**	**14.9**	**14.7**	**14.4**	**14.2**	**13.8**	**13.1**	**13.1**	**12.9**	**12.8**
3. Subsidies	**1.8**	**1.5**	**1.4**	**1.4**	**1.3**	**1.3**	**1.3**	**4.7**	**2.8**	**1.6**	**1.6**
4. Gross operating surplus / mixed income	**37.3**	**37.7**	**37.7**	**37.3**	**37.6**	**37.4**	**36.7**	**37.9**	**36.5**	**36.8**	**37.4**
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

		2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
										forecast		
1	**GROSS DOMESTIC PRODUCT (1=4+5)**	**36,454.3**	**37,634.3**	**38,852.6**	**40,443.2**	**43,009.1**	**45,862.6**	**48,392.6**	**46,297.2**	**48,452.5**	**51,345.1**	**54,026.1**
2	EXPORTS OF GOODS AND SERVICES	27,055.1	28,659.2	29,974.3	31,383.2	35,752.4	38,889.5	40,525.5	36,439.6	40,272.5	43,662.8	46,516.0
3	IMPORTS OF GOODS AND SERVICES	25,350.3	26,117.4	26,865.5	27,929.9	31,892.4	34,996.2	36,432.0	31,866.0	35,679.0	38,923.5	41,642.5
4	EXTERNAL BALANCE OF GOODS AND SERVICES (4=2-3)	1,704.8	2,541.7	3,108.8	3,453.3	3,860.0	3,893.3	4,093.5	4,573.6	4,593.4	4,739.3	4,873.5
5	TOTAL DOMESTIC CONSUMPTION (5=6+9)	34,749.5	35,092.6	35,743.8	36,989.9	39,149.1	41,969.3	44,299.1	41,723.6	43,859.0	46,605.8	49,152.6
6	FINAL CONSUMPTION (6=7+8)	27,609.3	27,801.3	28,298.3	29,537.5	30,527.2	32,255.6	34,272.3	32,189.7	33,464.2	35,186.8	36,729.3
7	PRIVATE CONSUMPTION	20,449.4	20,692.9	20,985.0	21,838.9	22,602.7	23,889.3	25,366.8	22,755.1	23,822.7	25,229.7	26,411.3
	- Households	20,107.0	20,339.1	20,640.2	21,475.4	22,223.0	23,483.5	24,936.9	22,344.7	23,401.2	24,790.3	25,955.5
	- NPISH's	342.4	353.8	344.8	363.5	379.7	405.8	429.9	410.4	421.5	439.4	455.8
8	GOVERNMENT CONSUMPTION	7,159.9	7,108.4	7,313.3	7,698.6	7,924.5	8,366.3	8,905.4	9,434.6	9,641.5	9,957.1	10,318.0
9	GROSS CAPITAL FORMATION (9=10+11)	7,140.2	7,291.3	7,445.6	7,452.4	8,622.0	9,713.7	10,026.8	9,533.9	10,394.9	11,419.0	12,423.3
10	GROSS FIXED CAPITAL FORMATION	7,157.3	7,191.0	7,247.8	7,028.7	7,877.4	8,821.6	9,503.0	9,206.6	10,215.8	11,248.6	12,237.1
11	CHANGES IN INVENTORIES AND VALUABLES	-17.1	100.3	197.8	423.8	744.6	892.1	523.8	327.3	179.0	170.4	186.1

Source of data: SURS, forecasts by IMAD.

Table 5b: Gross domestic product by expenditures

Structure in %, current prices

		2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
										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	74.2	76.2	77.1	77.6	83.1	84.8	83.7	78.7	83.1	85.0	86.1
3	IMPORTS OF GOODS AND SERVICES	69.5	69.4	69.1	69.1	74.2	76.3	75.3	68.8	73.6	75.8	77.1
4	EXTERNAL BALANCE OF GOODS AND SERVICES (4=2-3)	4.7	6.8	8.0	8.5	9.0	8.5	8.5	9.9	9.5	9.2	9.0
5	TOTAL DOMESTIC CONSUMPTION (5=6+9)	95.3	93.2	92.0	91.5	91.0	91.5	91.5	90.1	90.5	90.8	91.0
6	FINAL CONSUMPTION (6=7+8)	75.7	73.9	72.8	73.0	71.0	70.3	70.8	69.5	69.1	68.5	68.0
7	PRIVATE CONSUMPTION	56.1	55.0	54.0	54.0	52.6	52.1	52.4	49.2	49.2	49.1	48.9
	- Households	55.2	54.0	53.1	53.1	51.7	51.2	51.5	48.3	48.3	48.3	48.0
	- NPISH's	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.8
8	GOVERNMENT CONSUMPTION	19.6	18.9	18.8	19.0	18.4	18.2	18.4	20.4	19.9	19.4	19.1
9	GROSS CAPITAL FORMATION (9=10+11)	19.6	19.4	19.2	18.4	20.0	21.2	20.7	20.6	21.5	22.2	23.0
10	GROSS FIXED CAPITAL FORMATION	19.6	19.1	18.7	17.4	18.3	19.2	19.6	19.9	21.1	21.9	22.7
11	CHANGES IN INVENTORIES AND VALUABLES	0.0	0.3	0.5	1.0	1.7	1.9	1.1	0.7	0.4	0.3	0.3

Source of data: SURS, forecasts by IMAD.

Table 6a: Gross domestic product by expenditures

EUR million

		constant previous year prices								constant 2020 prices		
		2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
										forecast		
1	**GROSS DOMESTIC PRODUCT (1=4+5)**	**35,880.1**	**37,463.4**	**38,466.0**	**40,092.8**	**42,381.9**	**44,894.9**	**47,323.0**	**45,715.4**	**48,418.0**	**50,533.8**	**52,209.6**
2	EXPORTS OF GOODS AND SERVICES	27,234.8	28,681.3	30,018.0	31,821.7	34,871.2	37,991.1	40,476.9	37,011.6	39,562.2	42,443.2	44,795.4
3	IMPORTS OF GOODS AND SERVICES	25,725.4	26,404.1	27,245.3	28,555.1	30,929.3	34,192.5	36,552.9	32,704.2	34,676.5	37,490.6	39,761.1
4	EXTERNAL BALANCE OF GOODS AND SERVICES (4=2-3)	1,509.4	2,277.2	2,772.6	3,266.7	3,941.8	3,798.5	3,924.0	4,307.4	4,885.6	4,952.6	5,034.4
5	TOTAL DOMESTIC CONSUMPTION (5=6+9)	34,370.7	35,186.3	35,693.4	36,826.1	38,440.0	41,096.3	43,399.0	41,408.0	43,532.4	45,581.2	47,175.2
6	FINAL CONSUMPTION (6=7+8)	27,255.5	27,923.8	28,387.8	29,408.8	29,972.3	31,586.5	33,543.6	31,959.7	33,318.1	34,577.7	35,446.4
7	PRIVATE CONSUMPTION	20,020.4	20,781.5	21,112.7	21,918.4	22,243.9	23,426.5	25,031.7	22,897.0	23,657.1	24,757.2	25,483.5
	- Households	19,677.9	20,427.7	20,769.2	21,559.8	21,871.6	23,028.6	24,615.8	22,495.4	23,238.5	24,326.0	25,043.7
	- NPISH's	342.5	353.8	343.5	358.6	372.3	397.9	415.9	401.6	418.6	431.2	439.8
8	GOVERNMENT CONSUMPTION	7,235.1	7,142.3	7,275.1	7,490.4	7,728.4	8,160.0	8,511.9	9,062.7	9,661.0	9,820.5	9,962.9
9	GROSS CAPITAL FORMATION (9=10+11)	7,115.3	7,262.4	7,305.6	7,417.3	8,467.7	9,509.8	9,855.4	9,448.3	10,214.2	11,003.5	11,728.8
10	GROSS FIXED CAPITAL FORMATION	7,136.3	7,152.8	7,103.8	6,987.6	7,744.1	8,637.1	9,336.5	9,116.0	10,035.2	10,833.1	11,542.7
11	CHANGES IN INVENTORIES AND VALUABLES	-21.0	109.6	201.8	429.7	723.6	872.7	518.8	332.3	179.0	170.4	186.1

Source of data: SURS, forecasts by IMAD.

Table 6b: Gross domestic product by expenditures

Real growth rates in %

		2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
										forecast		
1	**GROSS DOMESTIC PRODUCT (1=4+5)**	**-1.0**	**2.8**	**2.2**	**3.2**	**4.8**	**4.4**	**3.2**	**-5.5**	**4.6**	**4.4**	**3.3**
2	EXPORTS OF GOODS AND SERVICES	3.1	6.0	4.7	6.2	11.1	6.3	4.1	-8.7	8.6	7.3	5.5
3	IMPORTS OF GOODS AND SERVICES	2.1	4.2	4.3	6.3	10.7	7.2	4.4	-10.2	8.8	8.1	6.1
4	*EXTERNAL BALANCE OF GOODS AND SERVICES*[1]	*0.8*	*1.6*	*0.6*	*0.4*	*1.2*	*-0.1*	*0.1*	*0.4*	*0.7*	*0.1*	*0.2*
5	TOTAL DOMESTIC CONSUMPTION (5=6+9)	-1.9	1.3	1.7	3.0	3.9	5.0	3.4	-6.5	4.3	4.7	3.5
6	FINAL CONSUMPTION (6=7+8)	-3.4	1.1	2.1	3.9	1.5	3.5	4.0	-6.7	3.5	3.8	2.5
7	PRIVATE CONSUMPTION	-3.9	1.6	2.0	4.4	1.9	3.6	4.8	-9.7	4.0	4.7	2.9
	- Households	-4.0	1.6	2.1	4.5	1.8	3.6	4.8	-9.8	4.0	4.7	2.9
	- NPISH's	1.5	3.3	-2.9	4.0	2.4	4.8	2.5	-6.6	2.0	3.0	2.0
8	GOVERNMENT CONSUMPTION	-2.0	-0.2	2.3	2.4	0.4	3.0	1.7	1.8	2.4	1.7	1.4
9	GROSS CAPITAL FORMATION (9=10+11)	4.6	1.7	0.2	-0.4	13.6	10.3	1.5	-5.8	7.1	7.7	6.6
10	GROSS FIXED CAPITAL FORMATION	3.4	-0.1	-1.2	-3.6	10.2	9.6	5.8	-4.1	9.0	8.0	6.5
11	*CHANGES IN INVENTORIES AND VALUABLES*[1]	*0.2*	*0.3*	*0.3*	*0.6*	*0.7*	*0.3*	*-0.8*	*-0.4*	*-0.3*	*0.0*	*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

	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
									forecast		
I. CURRENT ACCOUNT	**1,203**	**1,918**	**1,483**	**1,932**	**2,674**	**2,680**	**2,723**	**3,366**	**3,220**	**3,128**	**3,107**
1. GOODS	714	1,175	1,476	1,524	1,617	1,282	1,330	2,529	2,327	2,049	1,878
1.1. Exports of goods	21,652	22,860	23,948	24,883	28,372	30,817	32,013	29,627	32,848	35,076	37,087
1.2. Imports of goods	20,938	21,685	22,471	23,360	26,756	29,535	30,682	27,098	30,521	33,027	35,208
2. SERVICES	1,422	1,465	1,646	1,941	2,254	2,625	2,787	2,026	2,247	2,725	3,031
2.1. Exports	5,368	5,710	5,952	6,517	7,394	8,104	8,548	6,853	7,468	8,665	9,498
- Transport	1,398	1,529	1,654	1,839	2,164	2,438	2,503	2,322	2,507	2,654	2,804
- Travel	2,094	2,140	2,162	2,271	2,523	2,704	2,752	1,075	1,282	1,974	2,301
- Other	1,877	2,041	2,136	2,407	2,706	2,962	3,293	3,456	3,679	4,036	4,393
2.2. Imports	3,946	4,245	4,306	4,575	5,140	5,478	5,762	4,827	5,221	5,940	6,468
- Transport	738	814	846	917	1,098	1,106	1,185	1,115	1,195	1,267	1,342
- Travel	1,068	1,119	1,109	1,176	1,322	1,483	1,500	613	774	1,179	1,349
- Other	2,140	2,311	2,351	2,482	2,720	2,889	3,077	3,100	3,252	3,494	3,777
1., 2. EXTERNAL BALANCE OF GOODS AND SERVICES	**2,136**	**2,640**	**3,122**	**3,465**	**3,870**	**3,907**	**4,117**	**4,555**	**4,574**	**4,774**	**4,909**
Exports of goods and services	27,020	28,570	29,900	31,400	35,766	38,921	40,561	36,480	40,316	43,741	46,585
Imports of goods and services	24,884	25,930	26,778	27,935	31,896	35,014	36,444	31,925	35,742	38,967	41,676
3. PRIMARY INCOME	**-562**	**-437**	**-1,256**	**-1,139**	**-879**	**-819**	**-853**	**-662**	**-776**	**-968**	**-1,074**
3.1. Receipts	590	888	1,070	1,259	1,381	1,578	1,701	1,620	1,713	1,817	1,924
- Compensation of employees	205	238	302	355	385	431	480	422	430	445	460
- Investment	54	368	511	637	703	802	843	757	759	855	893
- Other primary income	331	282	258	267	293	345	378	440	524	517	572
3.2. Expenditure	1,152	1,326	2,326	2,398	2,260	2,397	2,554	2,281	2,489	2,785	2,998
- Compensation of employees	105	118	126	132	149	173	195	171	174	188	201
- Investment	917	1,063	2,057	2,081	1,929	2,020	2,148	1,918	2,102	2,375	2,573
- Other primary income	130	144	143	184	182	204	211	192	212	221	224
4. SECONDARY INCOME	**-371**	**-285**	**-384**	**-394**	**-317**	**-408**	**-541**	**-528**	**-578**	**-678**	**-729**
4.1. Receipts	629	706	730	713	828	793	805	851	855	795	793
4.2. Expenditure	1,000	991	1,114	1,107	1,145	1,201	1,346	1,379	1,433	1,473	1,521
II. CAPITAL ACCOUNT	**162**	**79**	**412**	**-307**	**-324**	**-225**	**-187**	**-217**			
1. Non-produced non-financial assets	-10	-24	-37	-45	-76	-47	-24	-66			
2. Capital transfers	172	102	449	-262	-248	-178	-163	-151			
III. FINANCIAL ACCOUNT	**1,619**	**2,276**	**1,779**	**1,184**	**2,112**	**2,524**	**2,454**	**2,175**			
1. Direct investment	-47	-584	-1,269	-864	-495	-934	-748	12			
- Assets	24	155	292	434	570	373	773	692			
- Liabilities	71	739	1,560	1,298	1,065	1,307	1,521	680			
2. Portfolio investment	-4,097	-3,951	3,039	5,024	2,990	744	791	-1,775			
3 Financial derivatives	27	-51	-98	-270	-185	-81	-163	27			
4. Other investment	5,731	6,773	219	-2,610	-287	2,743	2,537	3,745			
4.1. Assets	920	4,812	-643	-2,216	-1,372	2,039	3,424	5,023			
4.2. Liabilities	-4,812	-1,961	-862	395	-1,085	-704	887	1,279			
5. Reserve assets	5	89	-113	-97	89	52	37	167			
IV. NET ERRORS AND OMISSIONS	**255**	**279**	**-116**	**-441**	**-239**	**69**	**-81**	**-973**			

Source of data: BS, 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

	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
									forecast		
LABOUR SUPPLY											
Activity rate (20-64 years, in %)	74.9	75.1	76.0	76.2	78.6	79.5	79.9	80,0*	80.6	81.7	82.8
Active population (ILO definition - in thousands)	1,008	1,015	1,008	995	1,027	1,033	1,028	1.030*	1,037	1,051	1,064
- yearly growth (in %)	-0.6	0.7	-0.7	-1.3	3.2	0.7	-0.5	0,2*	0.7	1.3	1.2
EMPLOYMENT AND UNEMPLOYMENT											
Employment (National accounts concept, in thousands)	927.7	931.7	943.9	961.2	989.6	1,021.3	1,046.7	1036.6	1,044.6	1,060.6	1,076.9
- yearly growth (in %)	-1.1	0.4	1.3	1.8	3.0	3.2	2.5	-1.0	0.8	1.5	1.5
Employment (ILO concept, in thousands)	906.0	917.0	917.6	915.1	959.0	980.5	982.4	978.3	985.8	1,000.8	1,016.3
- yearly growth (in %)	-1.9	1.2	0.1	-0.3	4.8	2.2	0.2	-0.4	0.8	1.5	1.5
Employment rate (20-64 yeras, in %)	67.2	67.8	69.1	70.1	73.4	75.4	76.4	76,0*	76.6	77.9	79.1
Formal employment (statistical register, in thousands) **	793.6	797.8	804.6	817.2	845.5	872.8	894.2	888.9	896.1	910.2	924.7
- yearly growth (in %)	-2.0	0.5	0.9	1.6	3.5	3.2	2.5	-0.6	0.8	1.6	1.6
Paid employment (in thousands)	698.7	703.0	713.1	730.5	755.3	780.2	801.9	794.6	800.4	813.2	826.5
- yearly growth (in %)	-2.6	0.6	1.4	2.4	3.4	3.3	2.8	-0.9	0.7	1.6	1.6
Self employed (in thousands)	94.9	94.8	91.6	86.7	90.2	92.6	92.3	94.3	95.7	96.9	98.2
- yearly growth (in %)	2.1	-0.1	-3.4	-5.3	4.0	2.7	-0.3	2.1	1.5	1.3	1.3
Unemployment (ILO concept, in thousands)	101.8	98.0	90.5	79.7	67.5	52.8	45.7	51.5	51.4	49.9	47.3
- yearly growth (in %)	13.5	-3.7	-7.7	-11.9	-15.3	-21.8	-13.4	12.7	-0.2	-2.9	-5.2
Unemployment (registered, in thousands)	119.8	120.1	112.7	103.2	88.6	78.5	74.2	85.0	83.1	80.7	76.5
- yearly growth (in %)	8.8	0.2	-6.1	-8.5	-14.1	-11.5	-5.5	14.6	-2.2	-2.9	-5.2
Unemployment rate (ILO concept, in %)	10.1	9.7	9.0	8.0	6.6	5.1	4.5	5.0	5.0	4.8	4.5
Unemployment rate (registered, in %)	13.1	13.1	12.3	11.2	9.5	8.2	7.7	8.7	8.5	8.1	7.6

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

Table 9: Indicators of international competitiveness

annual growth rates in %

	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
									forecast		
Effective exchange rate[1]											
Nominal	0.9	0.2	-3.0	0.9	0.5	0.8	-0.4	0.8	0.2	0.0	0.0
Real - based on consumer prices	1.2	-0.2	-4.1	0.2	0.4	0.8	-0.3	-0.4	-0.2	-0.5	-0.2
Real - based on ULC in economy as a whole	-0.1	-1.4	-3.4	1.1	0.1	1.1	1.2	2.8	0.1	-1.8	-0.8
Unit labour costs components											
Nominal unit labour costs	0.4	-1.1	0.6	1.8	1.2	2.7	4.2	7.2	-0.8	-1.0	0.7
Compensation of employees per employee	0.5	1.2	1.5	3.1	3.0	3.9	4.9	2.2	2.9	1.8	2.5
Labour productivity, real [2]	0.1	2.3	0.9	1.3	1.8	1.1	0.7	-4.6	3.8	2.8	1.7
Real unit labour costs	-1.2	-1.5	-0.4	0.9	-0.3	0.6	1.9	5.8	-1.5	-2.5	-1.1
Labour productivity, nominal [3]	1.7	2.8	1.9	2.2	3.3	3.3	3.0	-3.4	4.5	4.4	3.6

Sources of data: SURS national accounts statistics, ECB, Consensus Forecasts, European Comision, 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	2013	2014	2015	2016	2017	2018	2019	2020 previous
I. TOTAL GENERAL GOVERNMENT REVENUES	**14,728**	**15,494**	**15,714**	**15,842**	**16,803**	**18,594**	**19,232**	**18,531**
TAX REVENUES	**12,648**	**13,193**	**13,746**	**14,241**	**15,162**	**16,225**	**17,179**	**16,461**
TAXES ON INCOME AND PROFIT	2,137	2,386	2,585	2,681	2,967	3,296	3,614	3,262
Personal income tax	1,868	1,916	1,986	2,079	2,197	2,447	2,592	2,488
Corporate income tax	265	468	595	600	766	846	997	773
SOCIAL SECURITY CONTRIBUTIONS	5,127	5,273	5,474	5,721	6,092	6,550	7,021	7,285
TAXSES ON PAYROLL AND WORKFORCE	23	20	20	20	21	22	23	22
TAXES ON PROPERTY	254	245	238	256	274	278	296	287
DOMESTIC TAXES ON GOODS AND SERVICES	5,027	5,191	5,347	5,433	5,723	5,989	6,127	5,493
Value added tax	3,029	3,153	3,229	3,272	3,504	3,757	3,872	3,528
Excise duties	1,491	1,491	1,515	1,551	1,586	1,560	1,543	1,314
TAXES ON INTERN. TRADE AND TRANSACTIONS	78	78	83	82	83	90	99	102
OTHER TAXES	1	0	1	48	1	0	-1	10
NON-TAX REVENUES	**989**	**1,185**	**956**	**963**	**1,089**	**1,351**	**1,114**	**1,121**
CAPITAL REVENUES	67	53	96	96	91	153	136	146
DONATIONS RECEIVED	**33**	**19**	**12**	**10**	**10**	**12**	**14**	**18**
TRANSFERED REVENUES	**53**	**5**	**21**	**51**	**52**	**56**	**58**	**55**
RECEIPTS FROM THE EU BUDGET	**938**	**1,040**	**882**	**481**	**399**	**797**	**731**	**731**

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	2013	2014	2015	2016	2017	2018	2019	2020
I. TOTAL GENERAL GOVERNMENT REVENUES	**40.4**	**41.2**	**40.4**	**39.2**	**39.1**	**40.5**	**39.7**	**40.0**
TAX REVENUES	**34.7**	**35.1**	**35.4**	**35.2**	**35.3**	**35.4**	**35.5**	**35.6**
TAXES ON INCOME AND PROFIT	5.9	6.3	6.7	6.6	6.9	7.2	7.5	7.0
Personal income tax	5.1	5.1	5.1	5.1	5.1	5.3	5.4	5.4
Corporate income tax	0.7	1.2	1.5	1.5	1.8	1.8	2.1	1.7
SOCIAL SECURITY CONTRIBUTIONS	14.1	14.0	14.1	14.1	14.2	14.3	14.5	15.7
TAXSES ON PAYROLL AND WORKFORCE	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0
TAXES ON PROPERTY	0.7	0.7	0.6	0.6	0.6	0.6	0.6	0.6
DOMESTIC TAXES ON GOODS AND SERVICES	13.8	13.8	13.8	13.4	13.3	13.1	12.7	11.9
Value added tax	8.3	8.4	8.3	8.1	8.1	8.2	8.0	7.6
Excise duties	4.1	4.0	3.9	3.8	3.7	3.4	3.2	2.8
TAXES ON INTERN. TRADE AND TRANSACTIONS	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
OTHER TAXES	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0
NON-TAX REVENUES	**2.7**	**3.1**	**2.5**	**2.4**	**2.5**	**2.9**	**2.3**	**2.4**
CAPITAL REVENUES	0.2	0.1	0.2	0.2	0.2	0.3	0.3	0.3
DONATIONS RECEIVED	**0.1**	**0.1**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
TRANSFERED REVENUES	**0.1**	**0.0**	**0.1**	**0.1**	**0.1**	**0.1**	**0.1**	**0.1**
RECEIPTS FROM THE EU BUDGET	**2.6**	**2.8**	**2.3**	**1.2**	**0.9**	**1.7**	**1.5**	**1.6**

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	2013	2014	2015	2016	2017	2018	2019	2020 previous
II. TOTAL EXPENDITURES	**16,286**	**16,755**	**16,956**	**16,497**	**17,102**	**18,067**	**18,969**	**22,074**
CURRENT EXPENDITURE	**6,838**	**7,043**	**7,168**	**7,407**	**7,733**	**7,967**	**8,228**	**9,129**
WAGES AND OTHER PERSONNEL EXPENDITURE	3,114	3,116	3,124	3,278	3,406	3,583	3,837	4,283
EMPLOYER'S SOCIAL SECURITY CONTRIBUTIONS	503	494	486	508	533	585	634	680
PURCHASES OF GOODS AND SERVICES	2,239	2,233	2,311	2,371	2,627	2,634	2,728	3,024
INTEREST PAYMENTS	840	1,097	1,043	1,074	985	868	792	778
RESERVES	143	103	204	176	183	298	238	364
CURRENT TRANSFERS	**7,671**	**7,592**	**7,540**	**7,700**	**7,913**	**8,237**	**8,704**	**10,865**
SUBSIDIES	520	467	399	397	425	444	468	1,449
TRANSFERS TO INDIVIDUALS AND HOUSEHOLDS	6,343	6,335	6,371	6,496	6,665	6,926	7,324	8,251
OTHER CURRENT TRANSFERS	809	790	770	808	822	867	913	1,165
CAPITAL EXPENDITURE AND TRANSFERS - TOTAL	**1,351**	**1,717**	**1,815**	**962**	**1,078**	**1,432**	**1,527**	**1,554**
CAPITAL EXPENDITURE	1,032	1,451	1,520	784	891	1,160	1,253	1,230
CAPITAL TRANSFERS	320	266	295	178	187	272	274	324
PAYMENTS TO THE EU BUDGET	**426**	**403**	**433**	**427**	**379**	**433**	**510**	**526**
III. GENERAL GOVERNMENT SURPLUS / DEFICIT (I. - II.)	**-1,558**	**-1,261**	**-1,242**	**-655**	**-299**	**526**	**264**	**-3,542**

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	2013	2014	2015	2016	2017	2018	2019	2020
II. TOTAL EXPENDITURES	**44.7**	**44.5**	**43.6**	**40.8**	**39.8**	**39.4**	**39.2**	**47.7**
CURRENT EXPENDITURE	**18.8**	**18.7**	**18.5**	**18.3**	**18.0**	**17.4**	**17.0**	**19.7**
WAGES AND OTHER PERSONNEL EXPENDITURE	8.5	8.3	8.0	8.1	7.9	7.8	7.9	9.3
EMPLOYER'S SOCIAL SECURITY CONTRIBUTIONS	1.4	1.3	1.3	1.3	1.2	1.3	1.3	1.5
PURCHASES OF GOODS AND SERVICES	6.1	5.9	5.9	5.9	6.1	5.7	5.6	6.5
INTEREST PAYMENTS	2.3	2.9	2.7	2.7	2.3	1.9	1.6	1.7
RESERVES	0.4	0.3	0.5	0.4	0.4	0.6	0.5	0.8
CURRENT TRANSFERS	**21.0**	**20.2**	**19.4**	**19.0**	**18.4**	**18.0**	**18.0**	**23.5**
SUBSIDIES	1.4	1.2	1.0	1.0	1.0	1.0	1.0	3.1
TRANSFERS TO INDIVIDUALS AND HOUSEHOLDS	17.4	16.8	16.4	16.1	15.5	15.1	15.1	17.8
OTHER CURRENT TRANSFERS	2.2	2.1	2.0	2.0	1.9	1.9	1.9	2.5
CAPITAL EXPENDITURE AND TRANSFERS - TOTAL	**3.7**	**4.6**	**4.7**	**2.4**	**2.5**	**3.1**	**3.2**	**3.4**
CAPITAL EXPENDITURE	2.8	3.9	3.9	1.9	2.1	2.5	2.6	2.7
CAPITAL TRANSFERS	0.9	0.7	0.8	0.4	0.4	0.6	0.6	0.7
PAYMENTS TO THE EU BUDGET	**1.2**	**1.1**	**1.1**	**1.1**	**0.9**	**0.9**	**1.1**	**1.1**
III. GENERAL GOVERNMENT SURPLUS / DEFICIT (I. - II.)	**-4.3**	**-3.4**	**-3.2**	**-1.6**	**-0.7**	**1.1**	**0.5**	**-7.7**

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	2002-2013	1.78	1.34	0.38	0.09	-0.23	0.08	-0.33	0.14
	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	N/A	N/A	-0.04	-0.07	N/A	N/A	-0.17	0.14
BoS	2002-2013	1.64	1.27	0.46	0.07	-0.37	-0.27	-0.22	0.08
	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	N/A	N/A	0.03	-0.17	N/A	N/A	-0.08	0.07
CCIS	2002-2013	1.68	1.13	0.33	0.02	-0.14	-0.03	-0.05	0.03
	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	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
EC	2002-2013	1.51	1.11	0.33	-0.09	-0.11	0.03	-0.11	0.09
	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	N/A	N/A	-0.08	-0.20	N/A	N/A	0.03	0.11
IMF	2002-2013	1.63	1.32	0.39	0.08	-0.18	-0.20	-0.35	0.01
	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	N/A	N/A	-0.19	-0.14	N/A	N/A	-0.14	0.08
WIIW	2002-2013	1.59	1.59	0.76	0.04	-0.17	-0.06	-0.14	-0.04
	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	N/A	N/A	-0.08	-0.12	N/A	N/A	0.12	0.02

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	2002-2013	2.49	2.13	1.19	0.59	0.91	0.97	0.46	0.21
	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	N/A	N/A	1.20	0.55	N/A	N/A	0.39	0.19
BoS	2002-2013	2.33	2.12	1.28	0.68	1.04	0.93	0.41	0.19
	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	N/A	N/A	1.16	0.67	N/A	N/A	0.33	0.15
CCIS	2002-2013	2.36	2.00	1.32	0.68	0.96	0.98	0.41	0.13
	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	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
EC	2002-2013	2.33	2.01	1.21	0.53	1.13	1.05	0.32	0.18
	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	N/A	N/A	1.15	0.49	N/A	N/A	0.32	0.16
IMF	2002-2013	2.32	2.23	1.31	0.93	1.01	1.06	0.46	0.26
	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	N/A	N/A	1.37	0.84	N/A	N/A	0.40	0.27
WIIW	2002-2013	2.41	2.53	1.54	1.26	1.21	1.08	0.84	0.50
	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	N/A	N/A	1.62	0.99	N/A	N/A	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	2002-2013	3.98	3.58	1.54	0.79	1.31	1.29	0.58	0.25
	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	N/A	N/A	1.48	0.72	N/A	N/A	0.49	0.23
BoS	2002-2013	3.86	3.63	1.96	0.84	1.39	1.24	0.49	0.26
	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	N/A	N/A	1.70	0.86	N/A	N/A	0.42	0.21
CCIS	2002-2013	3.91	3.51	1.86	0.81	1.39	1.24	0.52	0.14
	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	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
EC	2002-2013	3.82	3.42	1.66	0.72	1.48	1.31	0.45	0.25
	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	N/A	N/A	1.51	0.69	N/A	N/A	0.45	0.22
IMF	2002-2013	3.76	3.75	1.83	1.28	1.31	1.41	0.66	0.30
	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	N/A	N/A	1.78	1.13	N/A	N/A	0.59	0.31
WIIW	2002-2013	4.00	3.99	2.51	1.59	1.61	1.68	0.98	0.58
	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	N/A	N/A	2.39	1.33	N/A	N/A	0.93	0.50

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	2002-2013	0.64	0.54	0.30	0.15	0.46	0.49	0.23	0.11
	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	N/A	N/A	0.33	0.15	N/A	N/A	0.18	0.09
BoS	2002-2013	0.59	0.54	0.33	0.17	0.69	0.48	0.21	0.10
	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	N/A	N/A	0.32	0.18	N/A	N/A	0.15	0.07
CCIS	2002-2013	0.60	0.51	0.34	0.17	0.48	0.50	0.21	0.06
	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	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
EC	2002-2013	0.59	0.51	0.31	0.13	0.59	0.54	0.17	0.09
	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	N/A	N/A	0.31	0.13	N/A	N/A	0.15	0.08
IMF	2002-2013	0.59	0.57	0.34	0.24	0.51	0.53	0.23	0.13
	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	N/A	N/A	0.37	0.23	N/A	N/A	0.19	0.13
WIIW	2002-2013	0.62	0.65	0.39	0.32	0.63	0.56	0.43	0.26
	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	N/A	N/A	0.44	0.27	N/A	N/A	0.36	0.19

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	2002-2013	0.46	0.49	0.23	0.11	0.66	0.65	0.29	0.12
	2002-2014	0.45	0.49	0.21	0.10	0.63	0.63	0.27	0.11
	2002-2015	0.45	0.47	0.19	0.09	0.60	0.59	0.24	0.10
	2002-2016	0.44	0.45	0.18	0.09	0.58	0.57	0.23	0.10
	2002-2017	0.43	0.43	0.19	0.08	0.58	0.56	0.23	0.10
	2002-2018	0.42	0.42	0.19	0.08	0.58	0.56	0.24	0.10
	2002-2019	0.41	0.42	0.18	0.09	0.58	0.56	0.23	0.10
	2002-2020	N/A	N/A	0.18	0.09	N/A	N/A	0.23	0.11
BoS	2002-2013	0.69	0.48	0.21	0.10	0.93	0.65	0.25	0.13
	2002-2014	0.64	0.47	0.19	0.09	0.84	0.62	0.23	0.12
	2002-2015	0.60	0.45	0.18	0.08	0.76	0.57	0.22	0.11
	2002-2016	0.58	0.44	0.17	0.08	0.73	0.55	0.21	0.10
	2002-2017	0.56	0.43	0.17	0.08	0.73	0.55	0.21	0.10
	2002-2018	0.56	0.43	0.16	0.08	0.73	0.55	0.21	0.10
	2002-2019	0.56	0.43	0.16	0.07	0.73	0.55	0.21	0.10
	2002-2020	N/A	N/A	0.15	0.07	N/A	N/A	0.20	0.10
CCIS	2002-2013	0.48	0.50	0.21	0.06	0.70	0.62	0.26	0.07
	2002-2014	0.49	0.50	0.22	0.08	0.68	0.61	0.27	0.11
	2002-2015	0.49	0.50	0.21	0.07	0.66	0.61	0.25	0.10
	2002-2016	0.46	0.50	0.19	0.07	0.63	0.60	0.24	0.10
	2002-2017	0.45	0.49	N/A	N/A	0.63	0.60	N/A	N/A
	2002-2018	N/A	N/A	0.19	0.07	N/A	N/A	0.24	0.10
	2002-2019	0.46	0.50	0.19	0.07	0.65	0.62	0.24	0.10
	2002-2020	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
EC	2002-2013	0.59	0.54	0.17	0.09	0.77	0.68	0.23	0.13
	2002-2014	0.55	0.54	0.16	0.08	0.71	0.66	0.22	0.12
	2002-2015	0.53	0.51	0.16	0.08	0.67	0.62	0.22	0.11
	2002-2016	0.54	0.49	0.15	0.08	0.67	0.59	0.21	0.10
	2002-2017	0.52	0.48	0.15	0.08	0.66	0.59	0.20	0.10
	2002-2018	0.51	0.47	0.14	0.07	0.66	0.59	0.20	0.10
	2002-2019	0.50	0.47	0.14	0.08	0.66	0.59	0.20	0.10
	2002-2020	N/A	N/A	0.15	0.08	N/A	N/A	0.21	0.10
IMF	2002-2013	0.51	0.53	0.23	0.13	0.66	0.71	0.33	0.15
	2002-2014	0.51	0.53	0.24	0.13	0.64	0.68	0.33	0.15
	2002-2015	0.51	0.51	0.22	0.11	0.64	0.65	0.30	0.13
	2002-2016	0.49	0.49	0.20	0.11	0.61	0.62	0.29	0.13
	2002-2017	0.48	0.48	0.20	0.11	0.61	0.61	0.28	0.13
	2002-2018	0.48	0.47	0.19	0.12	0.61	0.61	0.28	0.14
	2002-2019	0.47	0.46	0.19	0.12	0.60	0.61	0.28	0.14
	2002-2020	N/A	N/A	0.19	0.13	N/A	N/A	0.28	0.15
WIIW	2002-2013	0.63	0.56	0.43	0.26	0.84	0.87	0.51	0.30
	2002-2014	0.61	0.55	0.44	0.24	0.80	0.83	0.51	0.28
	2002-2015	0.61	0.53	0.41	0.21	0.77	0.76	0.47	0.25
	2002-2016	0.57	0.50	0.39	0.21	0.73	0.72	0.45	0.24
	2002-2017	0.56	0.49	0.39	0.20	0.73	0.72	0.45	0.24
	2002-2018	0.56	0.48	0.38	0.20	0.73	0.72	0.45	0.24
	2002-2019	0.55	0.48	0.37	0.19	0.73	0.71	0.45	0.24
	2002-2020	N/A	N/A	0.36	0.19	N/A	N/A	0.44	0.23

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

Notes:
The assessment of the forecasting performance is based on data available at the time of the preparation of the Spring Forecast of Economic Trends 2021.
Negative values in the tables indicate an underestimation, while positive values indicate an overestimation of actual trends.
The BoS data for the forecast of inflation SFt+1 cover the period from 2003 onwards.
The CCIS forecast from 2017 for 2018 not available.
The CCIS issued no forecast in 2020.
The forecasts from 2019 for 2020 are not taken into account.
In 2020, we took into account IMAD Summer Forecast of June 2020 instead of the Spring Forecast, since the Summer Forecast, like other comparable forecasts, was made after the epidemic was declared.

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.

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Acronyms

Acronyms in the text

ACEA – European Automobile Manufacturers Association, **AF** – autumn forecast, **BoS** – Bank of Slovenia, **CA** – current account, **CCIS** – Chamber of Commerce and Industry of Slovenia, **CME** – Chicago Mercantile Exchange, **CPI** – Consumer Price Index, **DARS** – Motorway Company of the Republic of Slovenia, **EC** – European Commission, **ECB** – European Central Bank, **EIA** – Energy Information Administration, **EMU** – European Monetary Union, **ENTSO-E** – European Network of Transmission System Operators for Electricity, **ESS** – Employment Service of Slovenia, **EU** – European Union, **EUR** – euro, **EUROSTAT** – Statistical Office of the European Communities, **FURS** – Financial Administration of the Republic of Slovenia, **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, **LFS**– Labour Force Survey, **MAE** – Mean Absolute Error, **ME** – Mean Error, **MF** – Ministry of Finance, **OECD** – Organization for Economic Co-operation and Development, **PPS** – Purchasing Power Standard, **RMSE** – Root Mean Square Error, **SF** – spring forecast, **SURS** – Statistical Office of the Republic of Slovenia, **UK** – United Kingdom, **US** – United States of America, **USD** – US dollar, **WIIW** – Wiener Institut fuer Internationale Wirtschaftsvergleiche.

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