BANK OF SLOVENIA EUROSYSTEM

MACROECONOMIC PROJECTIONS FOR SLOVENIA

JUNE 2017

BANKA SLOVENIJE EVROSISTEM

Title: Macroeconomic Projections for Slovenia

No.: June 2017

Published by: BANKA SLOVENIJE

Slovenska 35 1505 Ljubljana

tel.: +386 1 47 19 000 fax: +386 1 25 15 516 e-mail: bsl@bsi.si http://www.bsi.si/

The projections of macroeconomic developments in Slovenia are based on data and information available up to 23 May 2017.

The figures and text herein may only be used or published if the source is cited.

This publication is also available in Slovene.

ISSN 2463-9990



Table of contents

Executive Summary	5
International Environment and External Assumptions	7
2 Projections	8
2.1 Economic Activity	8
2.2 Labour Market	11
2.3 Inflation	12
3 Risks and Uncertainties	15
4 Comparison Between Institutions	17
4.1 Comparison of Projections Between Institutions	17
4.2 Comparison of Projection Accuracy Between Institutions	18

EVROSISTEM

Figures and tables:

Figures:

Figure1	Projection of expenditure contributions to GDP growth	9
Figure 2	Real private consumption, disposable income and savings dynamics projections	9
Figure 3	Projection of contributions of components to the growth of gross fixed capital formation	10
Figure 4	Government investment	10
Figure 5	Current account, real exports and imports projections	10
Figure 6	Revision of GDP projection by components	11
Figure 7	Unemployment rate projections	11
Figure 8	Projections of growth in employment and compensation per employee	12
Figure 9	Projections of contributions to inflation by components	12
Figure 10	Revision of inflation projection by components	13
Figure 11	Risks to the projections	15
Figure 12	Comparison of GDP projections for Slovenia	17
Figure 13	Comparison of inflation projections for Slovenia	17
Tables		
Table 1	Macroeconomic projections for Slovenia, 2017–2019	6
Table 2	Assumptions for factors from the international environment	7
Table 3	Inflation projection	13
Table 4	Basic accuracy measures of GDP growth projections, based on first available data	19
Table 5	RMSE and SRMSE of GDP growth projections, based on first available data	20
Table 6	Basic accuracy measures of inflation projections, based on first available data	21
Table 7	RMSE and SRMSE of inflation projections, based on first available data	22



Executive Summary

Macroeconomic conditions in Slovenia are improving for the fourth successive year. With the economy growing stronger at all levels and with favourable fiscal trends, the macroeconomic balance necessary for further development, investment and social well-being is re-establishing itself. The macroeconomic projection is therefore significantly more optimistic and balanced this time around, but nevertheless subject to specific risks in the domestic and foreign environments.

This year and in the next two years we expect economic growth in Slovenia to be among the highest in the euro area. On average it is expected to reach 3.2%. With such a rate of growth, convergence processes can continue once again, approximately 10 years after being interrupted by the start of the crisis. Private investment and government investment are both growing, while the strengthening of domestic demand is becoming a pillar of economic growth. Numerous investment projects by both domestic and foreign investors are about to be launched, encouraged by the diminishing uncertainty in the business environment, favourable financing conditions, increased optimism in the export sector and the strengthening of private consumption. The last of these factors will be stimulated by favourable conditions in the labour market and diminishing uncertainty among consumers, and will be a key factor of economic growth alongside investment. With the high level of retained earnings at corporates and the relatively high level of household savings, the need for external financing of both investments and consumption will be less than in the pre-crisis period, the growth in loans will be more moderate and economic growth will be more sustainable.

With the improvement in conditions in the international environment, the growth in foreign demand and thus of the export sector continues. Export growth will thus continue to be high in the future and should reach a period average of 5.5%. Despite the continuation in export growth, the contribution of net trade to economic growth will be significantly lower than in past years, since the increased domestic demand will be partially covered by higher imports. The merchandise trade surplus will narrow and as a consequence the current account surplus will also be smaller. The latter will nevertheless remain high, reflecting the external competitiveness of the economy, and act as a buffer in the event of unexpected shocks in the international environment.

Simultaneously with the economic recovery, conditions in the labour market are also improving. With favourable average employment growth of almost 1.5%, we also expect a gradual fall in the unemployment rate to the pre-crisis level of around 6% by the end of 2019. Recruitment will be more rapid in export-oriented sectors, construction and services. A gradual fall in the unemployment rate below the natural rate of unemployment and structural imbalances in the labour market will start to put pressure on wage growth which will strengthen throughout the projection horizon. Since growth in wages will outstrip growth in productivity, growth in unit labour costs will also start to increase.

Inflation will start to gradually rise and will exceed 2% at the end of the projection horizon. If the base effects in energy and food prices are set to have a significant impact on inflation this year, the growth in prices over the next two years will mainly be influenced by domestic factors. With continued economic growth above currently estimated potential growth, an output gap will also start to gradually open this year, while further upward pressures on prices will be caused by wage growth outstripping productivity. By the end of the projection horizon, core inflation will have gradually increased to approximately 2.5%, while higher growth in prices will be evident above all in the case of services, while the growth in prices of other tradable goods will be lower and more limited.

The majority of uncertainty factors accompanying the present projection could have a positive impact on both economic growth and inflation. The biggest risks to projected economic growth now come from the domestic environment, primarily

BANKA SLOVENDE

EVROSISTEM

on account of potential faster-than-expected growth in both private-sector and government investment. Particularly in the case of government investment, where major investment projects are involved, the effects on growth could be considerable. Optimism in the labour market and diminishing general uncertainty are strengthening private consumption, which given favourable financing conditions could also be considerably higher. From the point of view of the projection, the risks of potentially faster growth of developing countries and Russia, which could additionally strengthen the growth of exports, are also not negligible. In the case of inflation projections, alongside risks from the international environment, risks from the domestic environment are also getting stronger. Uncertain movement in oil prices combined with significantly faster economic growth over a longer period could increase demand-side pressures and cause faster price growth. If wage growth is simultaneously higher than expected, the effect on inflation could be even greater.

Table 1: Macroeconomic projections for Slovenia, 2017–2019

										Projec	ctions		
	2010	2011	2012	2013	2014	2015	2016	20	17	20	18	20	19
								June	Δ	June	Δ	June	Δ
Prices	annual	average	e % cha	anges									
HICP	2.1	2.1	2.8	1.9	0.4	-0.8	-0.2	1.7	0.3	1.6	0.2	2.1	0.5
HICP excluding energy	0.3	1.0	1.8	2.0	0.7	0.5	0.6	1.4	0.1	1.8	0.3	2.4	0.7
HICP energy	13.9	8.8	9.0	1.8	-1.4	-7.8	-5.2	4.3	2.4	0.1	-0.6	0.0	-0.4
Economic activity			ates in 9						4.0		٥.		۰.
GDP (real)	1.2	0.6	-2.7	-1.1	3.1	2.3	2.5	3.5	1.0	3.1	0.5	3.0	0.5
Private consumption	1.3	0.0	-2.5	-4.0	2.0	0.5	2.8	3.0	0.8	2.8	0.5	2.6	0.3
Gov ernment consumption	-0.5	-0.7	-2.2	-2.1	-1.2	2.5	2.6	1.5	0.3	1.4	0.2	1.5	0.1
Gross fixed capital formation	-13.3	-4.9	-8.8	3.2	1.4	1.0	-3.1	6.5	2.1	7.1	3.1	5.5	1.8
of which Private sector	-16.0	-1.0	-9.9	2.2	-3.8	3.4	6.6	7.0	3.0	6.7	2.7	6.3	2.5
of which Government sector	-3.1	-17.8	-4.7	6.7	20.3	-5.9	-33.9	6.2	0.4	9.3	5.5	1.6	-1.4
Exports (goods and services)	10.2	6.9	0.6	3.1	5.7	5.6	5.9	6.1	1.2	5.4	0.6	5.4	0.8
Imports (goods and services)	6.8	5.0	-3.7	2.1	4.2	4.6	6.2	6.4	1.4	6.0	1.0	5.7	0.8
Contributions to real GDP growth	in GDF	percer	ntage po	oints									
Domestic demand (excluding inventories)	-2.7	-1.2	-3.6	-2.1	1.1	0.9	1.4	3.0	0.8	3.1	0.9	2.7	0.5
Net exports	1.9	1.3	2.8	8.0	1.4	1.1	0.3	0.3	-0.1	0.0	-0.3	0.2	0.0
Changes in inventories	1.9	0.6	-2.0	0.2	0.6	0.4	0.8	0.1	0.1	0.0	0.0	0.0	0.0
Labour market	y-o-y g	rowth ra	ates in %	6 (unles	s state	d otherv	vise)						
Unemployment growth (% of labour force)	7.3	8.2	8.9	10.1	9.8	9.0	8.0	7.3	-0.1	6.4	-0.4	6.0	-0.2
Total employment	-2.1	-1.7	-0.9	-1.1	0.4	1.1	2.0	2.1	0.7	1.3	0.1	0.9	0.0
Compensation per employee	4.0	1.5	-1.0	0.5	1.3	1.4	2.2	2.8	0.0	3.1	0.6	3.6	1.2
Productivity	3.4	2.4	-1.8	0.0	2.7	1.2	0.5	1.3	0.2	1.8	0.5	2.1	0.5
Unit labour costs (ULC)	0.6	-0.8	0.8	0.4	-1.3	0.3	1.7	1.5	-0.2	1.3	0.2	1.5	0.6
Balance of payments	у-о-у д	rowth ra	ates in %	6 (unles	s state	d otherv	vise)						
Current account: in bn EUR	0.0	0.1	0.9	1.7	2.3	2.0	2.7	2.5	-0.4	2.3	-0.6	2.3	-0.5
in % GDP	-0.1	0.2	2.6	4.8	6.2	5.2	6.8	6.0	-1.0	5.3	-1.4	5.0	-1.2
Terms of trade*	-4.0	-1.4	-1.1	0.8	1.0	1.3	0.8	-1.3	0.1	-0.7	-0.1	-0.3	0.3

^{*} Based on deflators from National Accounts data.

Δ: Difference between current projections and projections in Macroeconomic Projections for Slovenia, December 2016. Sources: Bank of Slovenia, SORS.



International Environment and External **Assumptions**

Global economic growth is projected to gradually strengthen throughout the projection horizon. GDP growth in the euro area is also expected to be encouraging, and is projected to average around 1.8%. The technical assumptions reflect a significant increase in Brent crude oil price in US dollars and a minor euro depreciation during the projection horizon.

Global economic growth is projected to gradually strengthen throughout the projection horizon. The ECB's latest projections also envisage further recovery in euro area economic activity, where the average growth is expected at around 1.8%. The assumption for growth in foreign demand in Slovenia consequently presents an encouraging picture, which should have a positive impact in the form of solid growth in Slovenia's exports during the projection horizon.

The technical assumptions reflect a significant increase in Brent crude oil price in US dollars and a minor fall in the euro during the projection horizon. The external technical assumptions¹ for developments in primary commodity prices were determined on the basis

of market expectations (average movements) on futures markets over a two-week period before the cut-off date. The assumption is that the price of a barrel of Brent crude, which averaged USD 44 in 2016, will rise to just over USD 51 in 2017 and will remain at this level over the next two years. For prices of non-energy commodities, in accordance with ECB methodology the assumption is that they will track futures prices until the second quarter of 2018, then move in line with global economic growth. The technical assumption for the euro exchange rate against the US dollar is that it will remain unchanged over the projection horizon at the average level recorded in the two-week period before the cut-off date. This means that the euro will average USD 1.09 between 2017 and 2019.

Table 2: Assumptions for factors from the international environment

					Assumptions				
	2012	2013	2014	2015	2016	2017	2018	2019	
	growth rate	s, % (if not	specified o	therwise)					
World (excluding euro area) real GDP	4.0	3.8	3.7	3.4	3.2	3.5	3.8	3.8	
Real GDP growth in Euro Area	-0.9	-0.3	1.2	2.0	1.7	1.9	1.8	1.7	
Foreign demand for Slovenia	0.7	1.9	2.8	2.0	3.0	4.5	4.0	3.9	
Oil price (in USD/barrel)	112.0	108.8	98.9	52.4	44.0	51.6	51.4	51.5	
Oil price (in EUR/barrel)	87.1	82.0	74.5	47.2	39.8	47.6	47.0	47.1	
Oil price (in USD/barrel, annual percentage change)	0.9	-2.8	-9.1	-47.0	-15.9	17.1	-0.4	0.3	
Non-energy commodity prices	-11.9	-6.9	-3.3	-16.5	-3.9	6.4	2.0	4.5	
Exchange rate (EUR/USD)	1.29	1.33	1.33	1.11	1.11	1.08	1.09	1.09	

¹ The technical assumptions are based on information available on the cut-off date of 16 May 2017. The assumptions for foreign demand in Slovenia and the external technical assumptions of medium-term projections of macroeconomic developments in Slovenia drawn up by the Bank of Slovenia within the framework of the ESCB are based on the harmonised projection assumptions within the framework of the ESCB. For more on the methodology, see the latest release of ESCB projections online (https://www.ecb.europa.eu/pub/projections/html/index.en.html), which are also available in Slovene.



2 Projections

Economic growth in Slovenia is projected to remain among the highest in the euro area over the medium term. It is predicted to average above 3.0%, and is expected to be based primarily on strengthening of domestic demand components. In the context of the encouraging situation on the labour market and the decline in consumer uncertainty compared with previous years, growth in private consumption will remain solid, and will continue to be a key factor in GDP growth. Growth in private-sector investment will be subject to the gradual launch of numerous investment projects. The continuation of the investment cycle is being facilitated by high retained earnings from previous years, the anticipated strengthening of domestic demand, increased optimism in the corporate and the export sector, and a decline in uncertainty in the business environment. At the same time government investment is expected to strengthen again over the projection horizon, primarily as a result of faster disbursement of EU funds, but also partly as a result of an electoral cycle effect. The contribution made to economic growth by net exports is expected to decline slightly throughout the projection horizon, as a result of the sharp strengthening of domestic demand and the consequent import growth. Stronger activity in the domestic market is expected to be reflected in a gradual narrowing of the current account surplus. Given the favourable assumption for growth in foreign demand, export growth is nevertheless expected to remain high over the projection horizon, averaging more than 5.5%.

Developments on the labour market are expected to remain positive, as a result of the favourable economic environment. In the context of continuing employment growth, particularly in the private sector, the survey unemployment rate is also expected to fall. The latter is expected to fall to around 6% towards the end of the projection horizon, which was its level before 2007. Structural imbalances are predicted to have a major impact on the labour market alongside economic activity and inflation, as a result of which employment growth will slow towards the end of the projection horizon, while wage growth will strengthen.

Year-on-year growth in prices as measured by the HICP is expected to be under the increasing influence of the gradual strengthening of core inflation over the projection horizon. This year it is projected to be slightly higher than next year, primarily as a result of external factors in the first quarter, while in 2019 it is expected to at least temporarily exceed the monetary policy target. Year-on-year growth in energy prices is expected to be the main factor in inflation this year, while domestic factors are expected to be the key influence on inflation over the next two years as commodity prices on global markets stabilise. The favourable situation on the labour market and the solid growth in the Slovenian economy, which will primarily be driven by components of domestic demand, will put upward pressure on wages and will increase growth in services prices, which will account for just over a half of headline inflation during the projection horizon.

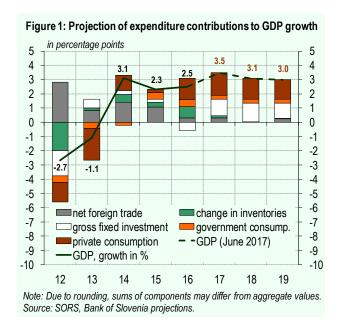
2.1 Economic activity

Economic growth in Slovenia is expected to remain

encouraging throughout the projection horizon, and among the highest in the euro area. Average GDP growth is projected to be above 3.0% over the projection

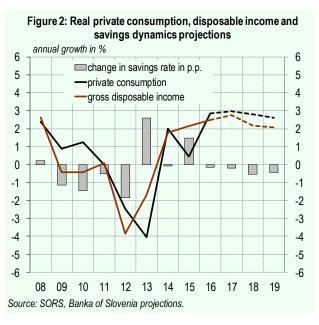


EVROSISTEM



horizon. Faster economic growth in 2017 is expected to be primarily attributable to favourable dynamics in components of domestic demand, where significant role will be played by the anticipated strengthening of household final consumption and the ongoing growth in private-sector investment, which began in the second half of 2015. An additional positive effect is also expected from a gradual increase in the final government consumption. Despite the improved outlook for growth in components of domestic demand, the export sector is expected to remain competitive, and would support balanced economic growth over the entire projection horizon. Growth is projected at 3.5% this year, while in 2018 and 2019 real GDP growth is predicted to remain at levels above 3.0%.

As the situation on the labour market remains favourable, growth in private consumption is projected to remain at average levels of around 2.8%, and will remain a key factor of GDP growth. The favourable conditions on the labour market and the relatively low interest rates are expected to be the main incentive for the ongoing release of savings. The positive signs in monthly indicators (e.g. the consumer confidence indicator) are also indicative of a lower level of uncertainty among consumers compared with previous years. In the wake of favourable corporate results and increased optimism in the business environment, a gradual reversion to more permanent forms of employment can be anticipated, which will further reduce uncertainty among consumers and the need for further saving. Growth in private consumption is

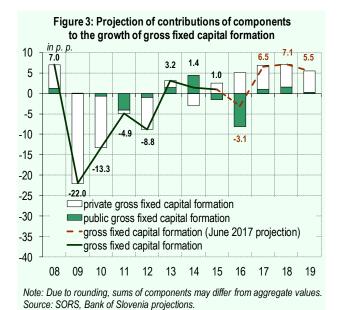


expected to be further supported by the anticipated growth in consumer lending. Real growth in disposable income is projected to be slightly lower than growth in private consumption over the projection horizon, as the projections for wage growth, employment growth and inflation suggest a moderate increase of around 2.3% each year on average.

Final government consumption is projected to grow more moderately over the projection horizon than in the last two years. Annual growth stood at around 2.5% last year and in the previous year, while it is expected at 1.5% over the projection horizon, up slightly on the projections from last December. The upward revision is primarily the result of changes in estimates of the number of employees in the government sector. The number began rising at the very beginning of 2016 as a result of the relaxation of restrictions, and was up 1.5% last year. The number of employees in the government sector is expected to remain at a similar level this year, and is expected to gradually fall by the end of the projection horizon. However, the significant increase in nominal government consumption is expected to be attributable to high growth in employment compensation, which accounts for around 60% of the total figure. The growth in government consumption is also attributable to expenditure on intermediate consumption and on social transfers in kind.

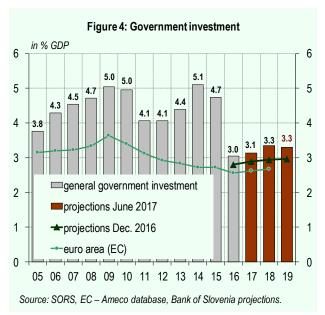
Growth in private-sector investment in this and next year will be subject to the gradual launch of numer-

EVROSISTEM



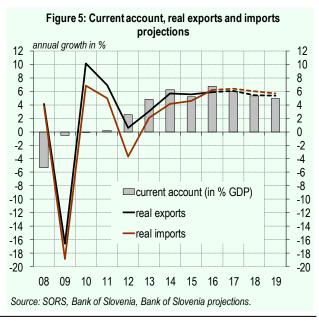
ous investment projects in the private sector, but is then expected to slow to around 5% in 2019. In the context of high capacity utilisation, the main factors enabling further growth in investment, particularly in machinery and equipment, are the high level of retained earnings from previous years, the anticipated strengthening of domestic demand and the favourable assumptions for growth in foreign demand. Other signs that are pointing at the continuation of the new investment cycle are the increased optimism in the corporate and the export sector, the decline in uncertainty in the business environment, the high level of new orders, and an easing of the factors limiting investment, which are all being reflected in surveys. The low interest rate environment and the gradual increase in corporate financing by banks are also expected to have a favourable impact on growth. Alongside the encouraging economic growth projection, there is an additional optimism in the construction sector, where further evidence is seen in the rise in the number of issued building permits in 2016, and the monthly indicators of the assessment of building activity and order books expectations.

Government investment will strengthen again over the projection horizon, as a result of the faster disbursement of EU funds, and also as a result of an electoral cycle effect. In the wake of the changeover to the new European financial framework, last year's ratio of



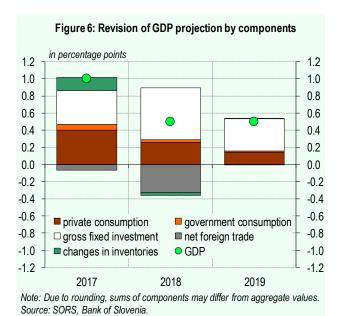
government investment to GDP was the lowest since 1995.² The figure stood at 3%. The disbursement of EU funds is expected to gradually strengthen, although the dynamic remains relatively uncertain. Next year brings local elections, which usually lead to an increase in investment expenditure at the local level. Government investment is therefore projected to strengthen to around 3.3% of GDP during the projection horizon.

The contribution made to economic growth by net exports is expected to decline slightly during the projection horizon, in the wake of the stronger strengthening of domestic demand and the resulting stronger



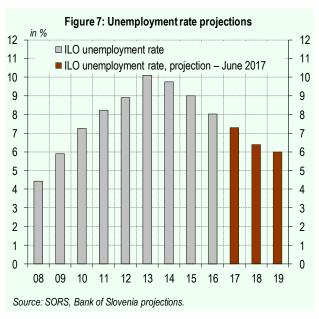
² The period for which data according to the ESA 2010 methodology is available.





growth in imports. Given the favourable assumption for growth in foreign demand, export growth is expected to remain high over the projection horizon, with the average rates remaining above 5.5%. In addition to the encouraging outlook from the external environment, export growth will also be influenced by the beginning of the new cycle in the automotive industry in 2017 (Revoz), a faster recovery in developing countries, Russia in particular, and the anticipated growth in exports of transport and travel services. On the other hand, the recovery in domestic demand is expected to be reflected primarily in stronger import growth, which will gradually reduce the current account surplus.

Compared with the December projections, economic growth has been revised upwards for all three years, with largest revision recorded in 2017. The upward revision in the economic growth projections for all three years is attributable primarily to stronger growth in private consumption and private-sector investment, while government consumption is also expected to rise slightly in the first two years, primarily as a result of less restrictive fiscal policy. The recovery in components of domestic demand will lead to stronger growth in imports, thereby reducing the contribution made to GDP growth by net exports relative to the December projections.



2.2 Labour market

Developments on the labour market remain favoura**ble.** According to the national accounts figures, year-onyear growth in employment strengthened in each quarter of last year to average 2.0% over the year, taking employment to a level comparable to that of 2010. Employment was up in both the private sector and the government sector, with the largest contributions coming from industry, trade and repair of motor vehicles, transportation and storage, and accommodation and food services. Growth in nominal wages³ averaged 2.2% last year, the highest figure since 2010, while the government sector recorded wage growth of 4.8%, more than three times that of the private sector. Registered unemployment and surveyed unemployment are both continuing to fall. Surveys of employment expectations suggest that employment will continue rising in the coming months, while the further implementation of labour market measures within the framework of the National Reform Programme is also expected. The latter are primarily designed to improve the functioning of the labour market, to create high-quality jobs and to speed up the inclusion of young people in the labour market. Active employment policy measures will focus primarily on the long-term unemployed, older people, low skilled labour and the young.

Growth in employment is expected to continue this year, but to slow by the end of the projection horizon.

³ The analysis used national accounts figures, where the average wage is calculated as employee compensation per employee.

BANKA SLOVENUE

EVROSISTEM

The projection is for employment growth to remain high this year in export-oriented sectors, construction and services, as a result of the favourable economic situation. Employment growth is projected to gradually slow over the next two years, primarily as a result of increased structural imbalances on the labour market,⁴ which will make it harder to recruit the right staff. Increasingly negative demographics mean that high employment growth is not expected in the medium term. The employment growth projection for this year and next year has been revised upwards from the previous projections, primarily as a result of the more favourable economic situation and the higher-than-expected growth in employment last year.

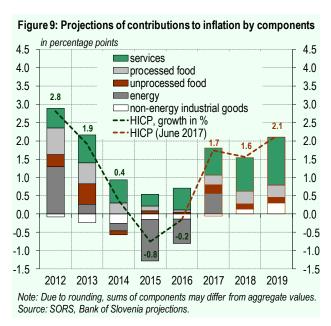
Growth in nominal wages is expected to strengthen during the projection horizon. Growth in nominal wages is expected to strengthen during the projection horizon primarily on account of the favourable economic environment and inflation, while the increasing structural imbalances on the labour market and the fall in unemployment will also be significant factors. Wage growth is projected to strengthen in the private sector, exceeding growth in the government sector by the end of the projection hori-

Figure 8: Projections of growth in compensation per employee annual growth in % 10 10 private sector □government 8 8 total, projections June 2017 6 -total 6 4 3 1 2.2 2 2 0 -2 -2 -4 08 09 10 11 12 13 14 15 16 17 18 19 Source: SORS, Bank of Slovenia projections.

zon. Wage growth in the government sector is projected at 4.4% this year, as a result of wage agreements in the public sector,⁵ but it is projected to slow towards the end of the projection horizon, although it will remain above 3% in the wake of the gradual relaxation of the remaining austerity measures and the resumption of regular promotions. The wage growth projection for 2018 and 2019 has been revised upwards since the previous projection, primarily because of the higher estimates of economic growth and inflation.

2.3 Inflation

Year-on-year inflation as measured by the HICP this year is projected to be slightly higher than in 2018, as a result of one-off external factors; in 2019 inflation is expected to rise again and exceed 2%. The somewhat higher increase in inflation in the first quarter of this year in Slovenia and across the euro area was primarily the result of external factors, most notably increases in oil prices on global markets and the rise in prices of unprocessed food in the wake of a supply shock of fresh food



⁴ The structural imbalances primarily include structural unemployment, i.e. the proportion of long-term unemployed, and mismatching between supply and demand on the labour market.

⁵ This year's high growth in average wages in the government sector is attributable to: a) the impact of the measures taken last year, b) measures agreed with public sector unions (higher annual leave allowance, a gradual reduction in supplementary pension insurance premiums, the elimination of anomalies in the wage system), and c) an agreement with the physicians' and dentists' union (improved valuation of the medical profession within the framework of the public sector wage system, a special one-year project to reduce waiting lists in healthcare). Public employees being promoted in 2017 and 2018 will acquire the right to higher pay in December. Under the agreement the freeze on ordinary performance-related pay and the reduced performance-related payments for workload remain in force in 2018.

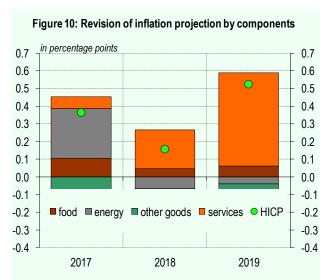
BANKA SLOVENUE

due to weather conditions in the Mediterranean. Inflation is expected to reach 1.7% this year, primarily as a result of the high dynamics from the early part of the year, but it is expected to slightly slow next year, in line with the assumptions for a slower growth in oil prices and primary commodity prices on global markets. In concurrence with solid growth in economic activity and, to some extent, higher growth in wages, growth in prices of consumer goods is expected to exceed the monetary policy target towards the end of the projection horizon, at least temporarily.

Year-on-year growth in energy prices this year is expected to make a significant contribution to overall growth in consumer prices. This year's year-on-year growth in energy prices is primarily attributable to a base effect, which is the result of a sharper fall in oil prices on global markets in the first quarter of last year and the price dynamics over the remainder of 2016. The contribution made to headline inflation by energy prices is expected to slightly decline after the first quarter of this year, while growth in energy prices is projected to average 4.3% over the year. The contribution to headline inflation is expected to be negligible over the next two years, which is in line with the assumptions for stabilisation of oil prices on global markets.

Core inflation is projected to rise over the entire projection horizon. Core inflation is expected to gradually increase, as a result of both demand-side and supplyside pressures. The growth of the economic activity, which is expected to outpace the potential growth in the Slovenian economy over the entire projection horizon mainly due to growth in private consumption and investment, and cost pressures due to wage growth will be the key drivers of inflation, particularly in the service sector. Core inflation as measured by the HICP excluding energy this year is projected to average 1.4%, while for 2018 and 2019 it is expected to average 1.8% and 2.4%, respectively.

Compared to the previous projection round there have been an upward revision of the inflation projections for the entire projection horizon. The upward



Note: Due to rounding, sums of components may differ from aggregate values. Source: SORS, Bank of Slovenia.

Table 3: Inflation projection

						Projections							
						20		2018		2019			
	2012	2013	2014	2015	2016	June	Δ	June	Δ	June	Δ		
Consumer prices (HICP)	2.8	1.9	0.4	-0.8	-0.2	1.7	0.3	1.6	0.2	2.1	0.5		
food	4.7	4.9	0.8	0.9	0.5	2.2	0.4	2.1	0.2	2.1	0.3		
energy	9.0	1.8	-1.4	-7.8	-5.2	4.3	2.4	0.1	-0.6	0.0	-0.4		
other goods	-0.2	-0.8	-1.0	-0.6	-0.5	-0.2	-0.3	0.5	-0.1	0.9	-0.2		
services	1.5	2.3	1.8	0.9	1.6	2.0	0.1	2.5	0.6	3.6	1.4		
Core inflation indicators (HICP)													
ex cluding energy	1.8	2.0	0.7	0.4	0.6	1.4	0.1	1.8	0.3	2.4	0.7		
excl. energy and unprocessed food	1.5	1.4	0.9	0.4	0.6	1.2	0.0	1.7	0.2	2.4	0.7		
ex cl. energy, food, alcohol and tobacco	0.7	0.9	0.6	0.3	0.7	1.1	0.0	1.6	0.2	2.5	0.8		

Δ: Difference between current projections and projections in Macroeconomic Projections for Slovenia, December 2016. Source: SORS, Bank of Slovenia.

EVROSISTEM

revision for 2017 is largely attributable to the aforementioned external factors, which include 1) the supply-side shock on the unprocessed food market in the first quarter of this year, and 2) the dynamics of oil price growth in the first quarter of this year and a slightly larger base effect than in previous projection round. In line with the upward revision of the economic activity, particularly on account of components of domestic demand, growth in services prices is also expected to be slightly higher, which is the main factor behind the higher inflation in 2018 and 2019. This year's slightly lower growth in prices of other goods is primarily attributable to a decline in realisation relative to the previous projections. The projections for growth in prices of industrial goods, both energy products and other goods, over the next two years have also been revised in line with the new assumptions for growth in oil prices and primary commodity prices on global markets.



Risks and Uncertainties

The majority of the factors of uncertainty accompanying the current projections could have a positive impact on both economic growth and inflation. The domestic risks in regard to economic growth are primarily related to private-sector and government investment, while the prevailing risks from the external environment are the uncertain geopolitical situation in Europe and Asia, and the economic recovery in Russia. The risks to the inflation projections are on the upside, and they are primarily related to the uncertainties surrounding energy prices, which could rise more sharply as a result of growth in oil prices on global markets being faster than the current expectations. The favourable situation on the labour market could be reflected in higher upward pressure on wages, which could additionally encourage faster growth in prices over the projection horizon.

The risks related to the economic growth projections suggest a potential for faster growth in GDP. The major risks come primarily from the domestic environment, and are related to private-sector investment activity, which could be more significant than the current projections. Furthermore, the government and the municipalities could launch additional construction investment. Major investment projects are currently under preparation (a second track for the Divača-Koper railway line, a second tunnel at Karavanke, a third development corridor), that is coinciding with the upcoming elections and which in the past have had a significant impact on the investment cycle at both the local and national levels. The largest up-

Figure 11: Risks to the projections circle size indicates probability of risk realisation age growth oil price investment **NFLATION** government investment recovery in border controls developing geopolitical on the EU's countries and situation external frontie Russia (Ukraine, Korean Middle East + **GDP** domestic risks external risks Source: Bank of Slovenia estimate.

side risks from the external environment relate to faster economic growth in developing countries and Russia. By contrast, a slight decline in foreign demand could be produced by the unstable geopolitical situation in Europe and Asia (Ukraine, the Middle East, the Korean peninsula). Trade with countries outside the Schengen Area could be further slowed by strengthened border controls when crossing the EU's external frontier. There remain large risks in connection with rises in oil prices. In addition to the direct impact on inflation and economic growth, a rise in oil prices could also have an indirect impact via a decline in the real household disposable income and a consequent slowdown in private consumption.

The risks with regard to inflation also suggest a potential for faster price growth. Significant risks come from both the domestic and external environments. The largest domestic risks are related to growth in domestic demand, particularly investment, which could significantly exceed the current expectations. In this context there could also be stronger pressure on wage growth, which would be reflected in additional growth in consumer prices. The main risk from the external environment is slightly higher growth in oil prices and other primary commodity prices, which could be reflected in higher growth in energy prices in Slovenia.

EVROSISTEM



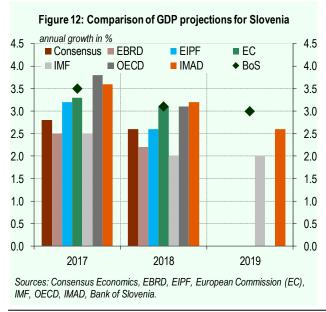
4 Comparison Between Institutions

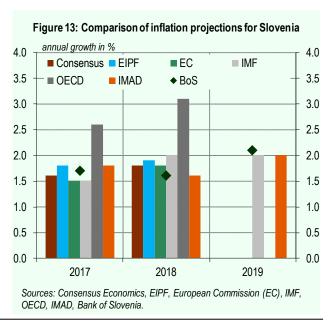
In the latest economic growth projections for Slovenia for the period 2017 to 2019 domestic institutions have been significantly more optimistic than foreign institutions. The Bank of Slovenia projections are mostly slightly above the middle of the projection interval for a particular year. Inflation projections for the period 2017-2019 by all institutions (except OECD) point to a gradual increase of price growth towards the medium-term objective of the ECB's monetary policy. A comparison of projection accuracy between institutions⁶ reveals that the Bank of Slovenia was among the most accurate in projecting real GDP growth and inflation.

4.1 Comparison of Projections Between Institutions

The economic growth projections for the 2017 to 2019 period show that domestic institutions are expecting higher growth in the Slovenian economy than foreign institutions. According to the latest projections available, the highest economic growth for 2017 is projected by the OECD (3.8%), while the lowest by the EBRD and the IMF (2.5%). The Bank of Slovenia projection is 3.5%, 0.3 percentage points above the middle of the range of projections for the current year by domestic

and foreign institutions. For the next year the highest economic growth is projected by the IMAD (3.2%), followed by the Bank of Slovenia, the European Commission and the OECD (3.1%). The lowest growth is projected by the IMF, at just 2.0%. Similarly to the 2017 projection, the Bank of Slovenia projection is 0.4 percentage points above the middle of the range of projections for the year in question. Projections for 2019 are available from three institutions, where the highest is expected by the Bank of Slovenia, at 3.0%, and the lowest by the IMF of just 2.0%.





⁶ Eight institutions that draw up macroeconomic projections for Slovenia are included in the comparative analysis of current projections of real GDP growth and consumer price growth (seven institutions in the case of the latter): Consensus Economics, the European Bank for Reconstruction and Development (EBRD), the Economics Institute of the Faculty of Law (EIPF), the European Commission, the International Monetary Fund (IMF), the Organisation for Economic Cooperation and Development (OECD), the Institute of Macroeconomic Analysis and Development (IMAD) and the Bank of Slovenia.

EVROSISTEM

In the inflation projections for the 2017 to 2019 period, all the institutions (except the OECD) are predicting a gradual recovery in annual inflation towards the **ECB monetary policy medium-term target.** The highest inflation rate in 2017 is expected by the OECD (2.6%), while the lowest growth in consumer prices is projected by the European Commission and the IMF (1.5%). The Bank of Slovenia projection is slightly below the average projection for the current year, at 1.7%. For the next year the highest inflation projection is 3.1%, again from the OECD, followed by 1.9% from the EIPF. The lowest is 1.6%, by the Bank of Slovenia and the IMAD. Also for inflation, projections from only three institutions are available for 2019. The projections are concentrated around the medium-term inflation target set by the ECB. The highest inflation projection is 2.1% from the Bank of Slovenia, followed by 2.0% from the IMF and the IMAD.

4.2 Comparison of Projection Accuracy Between Institutions

The accuracy of the real GDP growth and consumer price inflation projections over the 2001 to 2016 period is measured by comparing the statistical estimate or the observed value with the projections for the variables obtained in past periods.7 The calculations cover the mean error (ME), the mean absolute error (MAE), the standard deviation (STDEV), the root mean square error (RMSE) and the standardised RMSE (SRMSE).8 Only three of the selected institutions (the Bank of Slovenia, the European Commission and the IMF) released projections for the entire observation period. For the majority of the other institutions projections are only available from 2004 (from 2009 for the OECD, and from 2011 for the EBRD). In light of the impact of the crisis, the entire observation period excluding 2008 and 2009 and the period of 2009 to 2016 have been additionally included in the analysis.

In terms of the MAE and RMSE, the most accurate economic growth projections for the 2001 to 2016 period were from the European Commission, the IMAD and the Bank of Slovenia, while the most accurate inflation projections were provided by the Bank of Slovenia, the IMAD and the SKEP unit. In the economic growth forecasting MAE ranged from 0.6 to 3.1 over the observation period, while RMSE ranged from 0.7 to 4.7.9 The inflation projections were slightly more accurate: the aforementioned indicators had narrower ranges, namely 0.3 to 1.7 for MAE and 0.3 to 2.1 for RMSE.

The most accurate economic growth projections over the entire period excluding 2008 and 2009 were those of the European Commission, the Bank of Slovenia and the IMAD, while the Bank of Slovenia, the IMAD and the SKEP unit again had the most accurate inflation projections. Compared with the entire observation period, the economic growth and inflation projections during the selected period were slightly more accurate, the exclusion of 2008 and 2009 having removed the majority of the crisis-related volatility. The resulting improvement in the accuracy of the economic growth projections was greater across all indicators than that of the inflation projections. In the economic growth forecasting MAE ranged from 0.5 to 2.5 over the period in question, while RMSE ranged from 0.7 to 4.0. In the inflation forecasting the two indicators again ranged over narrower intervals: 0.2 to 1.6 for MAE and 0.3 to 2.1 for RMSE.

The OECD produced the most accurate economic growth and inflation projections over the 2009 to 2016 period, followed by the European Commission, the IMAD and the Bank of Slovenia. The intervals in MAE and RMSE in economic growth forecasting narrowed markedly relative to those for the entire observation period, and ranged from 0.6 to 2.2 for MAE and 0.7 to 2.9 for RMSE. It was a similar case in the assessment of inflation forecasting accuracy: the intervals in the indicators were narrower than in the entire observation period, at 0.1 to 1.4 for MAE and 0.2 to 1.6 for RMSE.

⁷ In the examination of forecasting accuracy between institutions in the 2001 to 2016 period and in the various sub-periods, the first observed values and forecasts of variables are compared, whereby the forecasts selected are those that correspond most closely to the Bank of Slovenia's spring and autumn forecasts.

⁸ For a detailed description of the statistical measures (in Slovene), see Cimperman, Savšek (2014): http://www.bsi.si/iskalniki/raziskave.asp?Mapald=339.

⁹ The spring and autumn projections of all the institutions for the current and following year are taken into account in the values given.



Real GDP	2	2001-20	16	2	2001-200	08	2	2009-20°	16	200	08 and 2	2009	exc	l. 2008-	2009	2	2004-20	16
Near GDI	ME	MAE	STDEV	ME	MAE	STDEV	ME	MAE	STDEV	ME	MAE	STDEV	ME	MAE	STDEV	ME	MAE	STDE
			\$			3			spring	projec	tions	3						
current year																		
BS	-0.1	1.3	2.0	0.4	0.9	1.1	-0.6	1.7	2.5	-3.4	3.4	3.8	0.4	1.0	1.2	-0.1	1.5	2.2
Consensus	-0.2	1.5	2.1	0.4	1.1	1.3	-0.7	1.9	2.6	-3.5	3.5	3.3	0.4	1.2	1.5	-0.1	1.6	2.3
EBRD							0.5	1.3	1.6									
EIPF	-0.4	1.6	2.5	0.7	1.1	1.3	-1.1	1.9	2.8	-4.1	4.1	4.4	0.3	1.1	1.5	-0.4	1.6	2.5
EC	-0.1	1.3	1.7	0.3	1.1	1.3	-0.4	1.5	2.1	-2.7	2.7	2.8	0.3	1.1	1.3	0.1	1.4	1.9
MDS	-0.1	1.4	1.9	0.3	1.0	1.3	-0.5	1.7	2.4	-3.0	3.0	3.4	0.3	1.2	1.4	0.0	1.5	2.1
IMF							0.1	1.2	1.6									
SKEP	0.1	1.5	2.1	0.8	1.0	1.1	-0.4	1.8	2.5	-3.1	3.1	3.6	0.7	1.2	1.3	0.1	1.5	2.1
IMAD	-0.1	1.3	1.7	0.2	1.0	1.2	-0.4	1.6	2.1	-2.5	2.5	2.3	0.2	1.1	1.3	0.0	1.4	1.8
next year																		
BS	-1.0	2.2	3.6	-1.2	2.5	4.6	-0.7	1.9	2.4	-6.3	6.3	8.1	-0.2	1.6	2.1	-1.1	2.6	4.0
Consensus	-1.0	2.5	3.9	-1.4	2.9	5.1	-0.7	2.1	2.7	-6.0	6.6	9.3	-0.2	1.9	2.3	-1.1	2.8	4.3
EBRD							0.3	2.0	2.9									
EIPF	-1.2	3.1	4.7	-1.1	4.4	7.1	-1.2	2.2	2.7	-6.5	6.5	8.6	-0.1	2.5	3.4	-1.2	3.1	4.7
EC	-0.9	2.3	3.6	-1.4	2.6	4.5	-0.5	2.0	2.5	-5.6	6.3	8.9	-0.2	1.7	2.1	-0.9	2.6	4.1
MDS	-1.0	2.2	3.5	-1.2	2.4	4.4	-0.8	1.9	2.4	-5.8	5.8	8.2	-0.3	1.6	2.1	-1.1	2.5	3.9
IMF							-0.4	2.0	2.6									
SKEP	-1.0	2.6	4.2	-1.7	3.6	6.1	-0.6	2.0	2.5	-6.3	6.3	8.6	0.0	1.9	2.4	-1.0	2.6	4.2
IMAD	-1.0	2.4	3.7	-1.4	2.6	4.6	-0.6	2.2	2.7	-5.9	6.3	8.9	-0.3	1.8	2.3	-1.1	2.8	4.2
						s			autum	n proje	ctions	s						
current year																		
BS	0.1	0.7	0.9	0.2	0.6	0.7	0.0	0.9	1.1	-1.2	1.2	0.3	0.3	0.6	0.8	0.1	0.8	1.0
Consensus	0.0	8.0	1.0	0.0	0.7	0.9	0.0	1.0	1.2	-1.6	1.6	0.5	0.2	0.7	0.9	0.1	0.9	1.1
EBRD							0.5	0.9	1.1									
EIPF	-0.1	0.9	1.3	0.3	0.9	1.2	-0.4	0.9	1.3	-2.1	2.1	0.8	0.2	0.7	1.0	-0.1	0.9	1.3
EC	0.1	0.6	0.7	0.2	0.6	0.7	0.1	0.6	0.8	-0.8	8.0	0.1	0.3	0.5	0.7	0.1	0.6	8.0
MDS	0.0	1.0	1.4	0.2	8.0	1.0	-0.2	1.2	1.7	-2.1	2.1	1.8	0.3	0.9	1.1	0.1	1.1	1.5
IMF							0.2	0.6	0.7									
SKEP	0.1	8.0	0.9	0.0	0.8	1.0	0.2	8.0	0.9	-1.3	1.3	0.2	0.4	0.7	0.8	0.2	0.8	0.9
IMAD	0.0	0.6	0.8	0.0	0.6	0.8	0.0	0.7	0.9	-1.1	1.1	0.4	0.2	0.6	0.8	0.1	0.7	0.9
next year																		
BS	-0.6	2.1	3.6	-1.0	2.5	4.5	-0.2	1.7	2.4	-5.9	5.9	8.1	0.2	1.5	2.0	-0.8	2.5	4.0
Consensus	-0.8	2.2	3.5	-1.3	2.6	4.4	-0.2	1.8	2.4	-5.5	6.2	8.7	-0.1	1.6	2.0	-0.8	2.5	4.0
EBRD							1.1	2.2	2.8									
EIPF	-1.1	2.6	4.1	-2.0	3.5	5.9	-0.5	2.0	2.6	-5.9	6.3	8.8	-0.1	1.9	2.4	-1.1	2.6	4.1
EC	-0.5	2.0	3.4	-1.0	2.4	4.3	0.1	1.6	2.2	-5.5	5.6	7.8	0.3	1.5	1.9	-0.6	2.4	3.8
MDS	-0.6	2.3	3.7	-1.0	2.5	4.5	-0.1	2.1	2.7	-5.5	6.3	8.9	0.2	1.7	2.2	-0.7	2.6	4.2
IMF							0.1	1.8	2.2									
SKEP	-0.4	2.3	3.8	-1.3	2.9	5.2	0.3	1.8	2.3	-5.4	6.1	8.6	0.5	1.7	2.0	-0.5	2.5	4.0
IMAD	-0.7	2.1	3.5	-1.1	2.4	4.3	-0.2	1.8	2.6	-5.4	5.9	8.3	0.0	1.5	2.1	-0.8	2.5	3.9

Sources: Bank of Slovenia, Consensus Economics, EBRD, EIPF, European Commission (EC), IMF, OECD, SKEP, IMAD.

EVROSISTEM

Real GDP			RI	MSE			SRMSE							
Real GDP	01-16	01-08	09-16	08 and 09	ex cl. 08-09	04-16	01-16	01-08	09-16	08 and 09	ex cl. 08-09	04-16		
					5	spring pro	pjections							
current year														
BS .	1.9	1.1	2.4	4.3	1.6	2.1	0.5	0.7	0.7	0.5	0.6	0.5		
Consensus	2.1	1.3	2.6	4.2	1.8	2.2	0.6	0.9	0.7	0.5	0.7	0.6		
EBRD			1.6						0.4					
EIPF	2.4	1.3	2.9	5.1	2.0	2.4	0.7	0.9	0.8	0.6	0.8	0.6		
EC	1.7	1.3	2.0	3.4	1.5	1.8	0.5	0.8	0.5	0.4	0.6	0.5		
MF	1.9	1.2	2.3	3.8	1.6	2.0	0.5	0.8	0.6	0.5	0.7	0.5		
OECD			1.5						0.4					
SKEP	2.0	1.3	2.4	4.0	1.8	2.0	0.6	0.9	0.6	0.5	0.7	0.5		
IMAD	1.6	1.1	2.0	3.0	1.5	1.7	0.5	0.8	0.5	0.4	0.6	0.4		
next year														
BS	3.6	4.4	2.4	8.5	3.0	4.0	1.0	3.0	0.6	1.0	1.2	1.0		
Consensus	3.9	5.0	2.5	8.8	3.2	4.2	1.1	3.3	0.7	1.1	1.3	1.1		
EBRD			2.6						0.7					
EIPF	4.7	6.4	2.8	8.8	4.0	4.7	1.3	4.3	0.8	1.1	1.6	1.2		
EC	3.6	4.4	2.4	8.4	3.0	4.0	1.0	3.0	0.7	1.0	1.2	1.0		
IMF	3.5	4.3	2.4	8.2	2.9	3.9	1.0	2.9	0.6	1.0	1.2	1.0		
OECD			2.4						0.7					
SKEP	4.1	5.7	2.4	8.7	3.4	4.1	1.2	3.8	0.6	1.1	1.4	1.1		
IMAD	3.8	4.5	2.6	8.6	3.1	4.2	1.1	3.1	0.7	1.1	1.3	1.1		
	0.0			0.0				U	•					
					á	iutumn pi	rojections							
current year	0.0	0.7	4.0	4.0	0.0	4.0	0.0	0.5	0.0	0.4	0.0	0.0		
BS	0.9	0.7	1.0	1.2	0.8	1.0	0.2	0.5	0.3	0.1	0.3	0.2		
Consensus	1.0	0.8	1.2	1.6	1.0	1.1	0.3	0.6	0.3	0.2	0.4	0.3		
EBRD			1.1						0.3					
EIPF 	1.2	1.1	1.3	2.2	1.1	1.2	0.3	0.7	0.4	0.3	0.4	0.3		
EC	0.7	0.6	0.8	0.8	0.7	0.8	0.2	0.4	0.2	0.1	0.3	0.2		
IMF	1.3	1.0	1.6	2.5	1.2	1.4	0.4	0.7	0.4	0.3	0.5	0.4		
OECD			0.7						0.2					
SKEP	0.9	0.9	0.9	1.3	0.9	0.9	0.3	0.6	0.2	0.2	0.3	0.2		
IMAD	8.0	0.7	0.9	1.1	0.8	0.9	0.2	0.5	0.2	0.1	0.3	0.2		
next year														
BS	3.5	4.3	2.2	8.2	2.9	3.9	1.0	2.9	0.6	1.0	1.2	1.0		
Consensus	3.5	4.3	2.2	8.2	2.9	3.9	1.0	2.9	0.6	1.0	1.2	1.0		
EBRD			2.8						0.8					
EIPF	4.1	5.6	2.5	8.6	3.4	4.1	1.2	3.8	0.7	1.0	1.4	1.0		
EC	3.3	4.1	2.1	7.8	2.7	3.7	0.9	2.8	0.6	0.9	1.1	0.9		
MF	3.6	4.4	2.5	8.4	3.0	4.0	1.0	2.9	0.7	1.0	1.2	1.0		
OECD			2.0						0.6					
SKEP	3.7	4.9	2.2	8.1	3.0	3.8	1.0	3.3	0.6	1.0	1.2	1.0		
IMAD	3.4	4.2	2.4	7.9	2.9	3.8	1.0	2.8	0.6	1.0	1.2	1.0		

Sources: Bank of Slovenia, Consensus Economics, EBRD, EIPF, European Commission (EC), IMF, OECD, SKEP, IMAD.



Table 6: Basic accuracy measures of inflation projections, based on first available data 2001-2016 2001-2008 2009-2016 ex cl. 2008-2009 2004-2016 2008 and 2009 HICP/CPI ME MAE STDEV spring projections current year BS 0.1 0.4 0.6 0.3 0.5 0.6 0.0 0.4 0.5 0.2 0.3 0.4 0.1 0.5 0.6 0.1 0.4 0.5 Consensus -0.20.7 0.7 0.0 0.6 0.8 -0.4 0.7 0.7 -0.1 0.7 1.0 -0.2 0.7 0.8 -0.1 0.6 0.8 **EIPF** 0.1 0.7 0.9 0.4 0.5 0.6 -0.1 0.9 1.0 0.7 0.7 0.4 0.0 0.7 0.9 0.1 0.7 0.9 EC -0.1 0.4 0.6 0.0 0.4 0.7 -0.1 0.40.5 0.2 0.2 0.1 -0.1 0.5 0.6 0.0 0.4 0.5 **IMF** 0.2 0.6 0.7 0.4 0.7 0.9 0.0 0.4 0.5 1.0 1.0 0.8 0.1 0.5 0.7 0.3 0.8 0.6 OECD 0.0 0.3 0.3 **SKEP** 0.0 0.5 0.6 0.2 0.5 0.6 -0.2 0.5 0.5 0.1 0.2 0.3 -0.1 0.5 0.6 0.0 0.5 0.6 **IMAD** 0.1 0.5 0.6 0.1 0.6 0.8 0.2 0.4 0.5 0.4 0.4 0.1 0.1 0.5 0.7 0.3 0.4 0.5 next year BS 0.1 1.1 0.5 -0.40.8 1.5 2.1 0.3 -0.1 1.5 1.4 1.8 1.0 -1.21.1 1.4 1.1 1.5 2.0 Consensus -0.5 1.3 1.6 0.0 1.5 -0.91.0 1.1 -1.61.6 1.3 -0.3 1.2 1.6 -0.5 1.3 1.6 **EIPF** -0.1 1.7 2.2 0.9 2.2 2.7 -0.8 1.4 1.4 -2.1 2.1 0.0 0.3 1.6 2.2 -0.1 1.7 2.2 EC -0.5 1.2 1.5 -0.41.5 1.9 -0.5 0.9 1.1 -1.2 1.3 1.8 -0.4 1.2 1.5 -0.2 1.1 1.5 1.5 1.2 **IMF** -0.1 1.2 1.5 0.3 1.5 1.8 -0.7 0.9 1.0 -0.5 1.1 -0.1 1.6 -0.2 1.1 1.5 **OECD** -0.1 0.8 1.0 **SKEP** 0.2 1.5 2.0 -0.6 1.5 2.1 -0.3 -0.3 1.1 1.5 0.9 1.1 -1.2 -0.1 1.1 1.5 1.1 1.5 **IMAD** -0.1 1.0 1.3 0.2 1.2 1.6 -0.5 0.8 0.9 -0.9 1.4 2.0 0.0 0.9 1.3 -0.1 1.1 1.5 autumn projections current year BS -0.2 0.3 0.3 -0.2 0.3 0.4 -0.1 0.2 0.1 -0.4 0.4 0.3 -0.2 0.2 0.3 -0.1 0.2 0.2 Consensus -0.1 0.3 0.4 -0.2 0.4 0.5 0.0 0.2 0.3 -0.40.4 0.2 -0.1 0.3 0.4 0.0 0.3 0.3 **EIPF** -0.1 0.3 0.4 -0.1 0.3 0.5 -0.1 0.3 0.3 -0.3 0.4 0.5 -0.1 0.3 0.4 -0.1 0.3 0.4 EC -0.3 0.3 0.4 -0.5 0.5 0.6 -0.1 0.1 0.2 -0.4 0.4 0.5 -0.2 0.3 0.4 -0.1 0.2 0.3 **IMF** 0.0 0.4 0.5 -0.1 0.5 0.6 0.1 0.4 0.0 0.4 0.6 0.0 0.40.4 0.5 0.1 0.3 0.4 **OECD** 0.0 0.1 0.2 **SKEP** -0.1 0.3 0.4 -0.2 0.3 0.4 0.0 0.3 0.3 -0.2 0.3 0.4 -0.1 0.3 0.4 0.0 0.2 0.3 **IMAD** -0.2 0.4 0.4 -0.4 0.5 0.5 0.0 0.2 0.3 -0.4 0.4 0.4 -0.2 0.4 0.5 -0.1 0.2 0.3 next year BS -0.2 1.0 1.3 0.0 1.1 1.5 -0.4 0.9 1.0 -1.0 1.6 2.3 0.0 0.9 1.1 -0.2 1.0 1.3 Consensus -0.4 1.1 1.5 -0.21.5 2.0 -0.6 0.8 1.0 -1.6 1.6 2.2 -0.2 1.1 1.4 -0.3 1.1 1.5 **EIPF** 0.1 1.4 1.7 0.3 1.7 2.4 -0.11.1 1.3 -1.2 2.0 2.8 0.4 1.2 1.5 0.1 1.4 1.7 EC -0.4 -0.4 1.2 1.4 -0.4 1.4 1.8 0.9 1.2 -1.2 1.6 2.3 -0.2 1.1 1.3 -0.3 1.1 1.4 **IMF** -0.2 1.1 1.3 -0.1 1.3 1.6 -0.4 0.9 1.0 -0.9 1.5 2.1 -0.1 1.0 1.3 -0.2 1.1 1.4 **OECD** -02 0.9 1.1 **SKEP** -0.4 1.2 1.3 -0.6 1.2 1.3 1.8 2.5 -0.3 -0.3 1.2 1.5 -0.11.7 -1.0 1.1 1.4 1.5 **IMAD** -0.3 1.0 1.3 -0.21.2 1.6 -0.5 0.9 1.0 -1.21.8 2.5 -0.2 0.9 1.1 -0.3 1.1 1.4

Sources: Bank of Slovenia, Consensus Economics, EIPF, European Commission (EC), IMF, OECD, SKEP, IMAD.

BANKA SLOVENIJE EVROSISTEM

Table 7: RMSE and SRMSE of inflation projections, based on first available data

LIIOD/ODI			RI	MSE			SRMSE							
HICP/CPI	01-16	01-08	09-16	08 and 09	ex cl. 08-09	04-16	01-16	01-08	09-16	08 and 09	excl. 08-09	04-16		
						spring pro	ojections							
current year														
BS	0.6	0.6	0.5	0.4	0.6	0.5	0.2	0.3	0.4	0.1	0.2	0.3		
Consensus	0.7	0.7	0.8	0.7	0.8	0.7	0.3	0.4	0.6	0.2	0.3	0.4		
EIPF	0.9	0.7	1.0	0.8	0.9	0.9	0.4	0.4	0.8	0.2	0.4	0.5		
EC	0.5	0.6	0.5	0.2	0.6	0.5	0.2	0.3	0.4	0.0	0.2	0.3		
IMF	0.8	1.0	0.5	1.1	0.7	0.8	0.3	0.5	0.4	0.3	0.3	0.5		
OECD			0.3						0.2					
SKEP	0.5	0.6	0.5	0.2	0.6	0.5	0.2	0.3	0.4	0.1	0.2	0.3		
IMAD	0.6	0.7	0.5	0.4	0.7	0.6	0.3	0.4	0.4	0.1	0.3	0.3		
next year														
BS	1.5	1.8	1.0	1.9	1.4	1.4	0.6	0.9	0.8	0.6	0.6	0.8		
Consensus	1.6	1.8	1.4	1.8	1.6	1.6	0.7	1.0	1.1	0.6	0.7	1.0		
EIPF	2.1	2.6	1.6	2.1	2.1	2.1	0.9	1.4	1.2	0.6	0.9	1.2		
EC	1.5	1.8	1.1	1.7	1.5	1.4	0.6	0.9	0.9	0.5	0.6	8.0		
IMF	1.5	1.7	1.2	1.1	1.5	1.4	0.6	0.9	0.9	0.4	0.6	0.8		
OECD			0.9						0.7					
SKEP	1.5	1.8	1.2	1.9	1.4	1.5	0.6	1.0	0.9	0.6	0.6	0.9		
IMAD	1.3	1.5	1.0	1.7	1.2	1.4	0.5	0.8	0.8	0.5	0.5	0.8		
					á	autumn pi	rojections							
current year														
BS	0.3	0.4	0.2	0.4	0.3	0.3	0.1	0.2	0.1	0.1	0.1	0.1		
Consensus	0.4	0.5	0.3	0.4	0.4	0.3	0.2	0.3	0.2	0.1	0.2	0.2		
EIPF	0.4	0.4	0.3	0.4	0.4	0.4	0.2	0.2	0.3	0.1	0.2	0.2		
EC	0.5	0.7	0.2	0.5	0.5	0.3	0.2	0.4	0.1	0.2	0.2	0.2		
IMF	0.5	0.6	0.4	0.4	0.5	0.4	0.2	0.3	0.3	0.1	0.2	0.2		
OECD			0.2						0.1					
SKEP	0.4	0.4	0.3	0.3	0.4	0.3	0.2	0.2	0.3	0.1	0.2	0.2		
IMAD	0.5	0.6	0.3	0.5	0.5	0.3	0.2	0.3	0.2	0.2	0.2	0.2		
next year														
BS	1.2	1.4	1.0	1.9	1.1	1.3	0.5	0.7	0.8	0.6	0.5	0.8		
Consensus	1.5	1.8	1.1	2.2	1.3	1.5	0.6	1.0	0.9	0.7	0.6	0.9		
EIPF	1.7	2.1	1.2	2.3	1.5	1.7	0.7	1.1	1.0	0.7	0.6	1.0		
EC	1.4	1.7	1.1	2.0	1.3	1.4	0.6	0.9	0.9	0.6	0.5	0.8		
IMF	1.3	1.5	1.0	1.7	1.2	1.3	0.5	0.8	0.8	0.5	0.5	0.8		
OECD			1.0						0.8					
SKEP	1.5	1.6	1.3	2.0	1.3	1.5	0.6	0.8	1.1	0.6	0.6	0.9		
IMAD	1.3	1.5	1.0	2.2	1.1	1.3	0.5	0.8	0.8	0.7	0.5	8.0		

Sources: Bank of Slovenia, Consensus Economics, EIPF, European Commission (EC), IMF, OECD, SKEP, IMAD.