

GOVERNMENT OF THE REPUBLIC OF SLOVENIA INSTITUTE OF MACROECONOMIC ARADYSIS AND DEVELOPMENT

# Spring Forecast of Economic Trends 2008

(Forecasts of economic trends for 2008–2010 with an analysis of trends in 2007)

April 2008

Spring Forecast of Economic Trends 2008 Institute of Macroeconomic Analysis and Development Boštjan Vasle, Director Editor: Mateja Peternelj The Spring Forecast of Economic Trends 2008 was prepared by: Marijana Bednaš – summary Jure Brložnik - assumptions of the international environment Barbara Ferk, Jasna Kondža, Janez Kušar, Jože Markič - economic growth, the main demand aggregates Marjan Hafner, Katarina Ivas, Rotija Kmet Zupančič, Mateja Kovač, Janez Kušar, Mojca Koprivnikar Šušteršič, Jure Povšnar, Eva Zver - dynamics of value added Saša Kovačič - wages Tomaž Kraigher - employment, unemployment Slavica Jurančič – price and cost competitiveness Jože Markič - current account of the balance of payments Miha Trošt – inflation Ivanka Zakotnik - national accounts Branka Tavčar – national accounts Marko Glažar, Urška Lušina - dynamic factor model forecasts Maja Ferjančič - Assessing the validity of the IMAD forecast Preparation of graphs, statistical tables: Marjeta Žigman Technical editor: Ema Bertina Kopitar

http://www.gov.si/umar/

Ljubljana, April 2008

 $\ensuremath{\textcircled{O}}$  2008, Institute of Macroeconomic Analysis and Development

## Summary

Strong economic growth in 2007 was favourable in terms of development. In the supportive international environment in 2007, strong economic growth from 2006 (5.7%) accelerated even more rapidly and was the highest since Slovenia's independence (6.1%). In addition to cyclical developments, it was supported by the effects of adopted reforms, particularly the tax measures. The main factors of economic growth were exports of goods and services (13% real growth) and significant domestic investment activity (17.2% real growth of gross fixed capital formation). The expansion of exports was propelled by increased exports of road vehicles, especially in the second half of the year. The contribution of medical and pharmaceutical products rose as well, whereas the growth of exports of other goods eased at the end of the year. Last year, investment activity recorded the most vigorous growth in the past few years and was bolstered by stronger investment in infrastructural construction as well as by a greater volume of other construction. Favourable business expectations continued to boost investment in machinery and equipment and expansion of production capacities. The growth of government and private consumption (1.4% and 3.1%, respectively) eased relative to 2006 and was very low particularly in the first half of the year; in the second half it accelerated somewhat, which was already evidenced by certain short-term indicators for household consumption. On the imports side, strong growth was driven by imports of intermediate goods and machinery and equipment, linked to the increase in exports and investment and imports of road vehicles. With respect to specific economic activities, growth was boosted bv manufacturing and construction. The favourable trend in both sectors also had a positive effect on certain market services.

Economic boom last year had a positive impact on the labour market. Employment growth according to the national accounts methodology was 2.7%. By activity, employment rose particularly in construction (10.8%), transport (6.4%) and business services (6.3%), and for the first time after 2001 also in manufacturing (0.7%). Employment of foreigners increased for the third year in a row, especially in construction. The increase accounted for around two fifths of last year's rise in the average number of formally employed persons. Owing to smaller inflows to unemployment, the number of unemployed decreased significantly last year, which was also reflected in both unemployment rates (the registered unemployment rate fell from 9.4% to 7.7% and the survey unemployment rate from 6% to 4.9%).

Wage growth remained moderate in 2007. Owing to the changes in personal income tax legislation, net wages increased more than gross wages. In 2007, the gross wage per employee increased by 5.9% in nominal and 2.2% in real terms. The gross wage per employee lagged behind nominal labour productivity growth by a good 1 p.p. (7.2%). Due to adjustments in the personal income tax legislation, growth of net wages was 2 p.p. higher than growth of gross wages in 2007.

Consumer price growth accelerated last year. At the end of the year, average inflation stood at 3.6% and year-on-year inflation at 5.6%. The upward pressure on consumer prices began to increase markedly in the middle of the year, mainly as a result of considerable rises in prices of oil, primary commodities and food on world markets, which translated into a remarkable surge in domestic prices of food and liquid fuels. Even though all world economies were exposed to these developments, the effects of external factors were more pronounced in Slovenia, since they were compounded by certain internal structural factors. The acceleration of services prices was slower last year and was partially related to the effects of euro adoption on inflation at the beginning of the year, which were especially reflected in price rises in hotels and restaurants and a number of services in the group of other services. Against the backdrop of actual price developments, the key macroeconomic policies remained focused on the reduction of inflationary pressures.

In 2007, the current account deficit widened significantly, mainly as a result of a higher trade deficit and higher interest payments. The current account deficit increased from 2.8% of GDP in 2006 to 4.8% of GDP in 2007. Against the background of strong investment in machinery and equipment and substantial imports of intermediate goods related to intense activity in the manufacturing sector, imports of goods exceeded exports; the trade deficit widened. Owing to higher external indebtedness and the rise in interest rates, net interest payments increased, which resulted in a higher deficit in the factor incomes account. The deficit in the current transfers account widened as well. The current account deficit decreased somewhat thanks to the surplus in services trade.

The spring forecast projects that economic growth will slow down to 4.4% this year. Real growth of GDP is expected to be much lower than in the past two years (5.7% in 2006 and 6.1% in 2007), but will remain approximately at the five-year average growth level. The slowdown is strongly related to the cooling of economic activity in the international environment

and is largely cyclical in nature, since growth will decelerate mainly in activities that recorded the fastest growth in 2007 and 2006. These activities are exports and gross fixed capital formation on the expenditure side, and construction, manufacturing, trade and financial intermediation on the supply side. Such trends are in line with expectations; given that the conditions in the international environment moderated more than anticipated in autumn, the spring forecast of economic growth for 2008 is somewhat lower compared to the autumn forecast (4.6%).

The structure of economic growth will change somewhat in comparison with last year. Investment activity will contribute less, while the contribution of private and government consumption will rise. Despite a lower rise, exports will remain the main driver of economic growth in 2008. Exports of goods and services will grow by 9.7%, in line with the economic situation in the international environment. Further positive effects of the high growth of vehicle exports, which started in the middle of last year, are expected particularly in the first quarter. The contribution of gross fixed capital formation to economic growth will be much lower than last year (real growth of gross fixed capital formation will ease off from 17.2% to 5.4%), since the high growth rates in construction investment that were recorded last year are projected to slow down, and investment in machinery and equipment will remain roughly at the level of 2007. However, investment in motorway construction will rise further and investment in railway infrastructure and energy facilities will pick up. Residential construction will also increase relative to the year before. Private and government consumption will strengthen. Despite the anticipated lower growth of total disposable income (in real terms), household spending will increase (by a half p.p. to 3.6%), partially because of the different wage growth rates (as a result of the beginning of the phasing out of wage disparities and personal income tax relief introduced at the beginning of the year). Growth of disposable income will thus be higher in groups with a higher propensity to consume, as opposed to last year, when thanks to the lowering of the personal income tax rates - it was higher in groups with a higher propensity to General government consumption save. will strengthen, largely owing to higher employment in the public sector (linked to Slovenia's presidency of the EU) and relatively higher expenditure on goods and services.

Against a background of subdued economic growth, employment growth will also gradually slow down in 2008. Largely owing to the high level at the beginning of the year, employment growth will be relatively high for the year as a whole (1.1%), though appreciably lower than last year. Further growth is expected in business services and in some activities of public services and construction (albeit much lower than last year), whereas in manufacturing and other basic activities the number of employees is projected to decline. Registered and survey unemployment rates (7.7% and 4.8%, respectively) will continue to decline, though at a slower pace than in 2007.

Growth of wages in 2008 will be higher than in 2007, largely as a result of the higher wage increase in the public sector due to the beginning of phasing out of wage disparities. According to the agreed wage increases in the public and private sectors, the real growth of the gross wage per employee will be somewhat higher this year (2.4%) than in 2007 (2.2%). The real growth of wages in the private sector will moderate appreciably as a result of subdued economic activity. After four years of relatively modest growth, the real growth of wages in the public sector will be notably stronger than last year, largely owing to the agreed beginning of phasing out of wage disparities. The nominal wage increase will accelerate at a relatively faster pace (the forecast for 2008 is 7.7% compared to 5.9% last year); nominal growth will be 0.5 p.p. higher than the foreseen nominal labour productivity growth (7.2%).

By the end of 2008, year-on-year inflation is expected to decline. The spring forecast projects a gradual decrease in year-on-year inflation to 4.0% at the end of this year, whereas average inflation will be higher (5.2%), mainly due to the effect of high rates in the second half of 2007. In line with the expectations of the international forecasting institutions, the contribution of food price rises to inflation is expected to be smaller this year. Inflationary pressures will ease due to the anticipated slowdown in economic activity. Economic policy measures will also help to contain price growth. Changes in taxation and excise duties are not expected to exert any upward pressures on inflation. Despite somewhat more lax wage and fiscal policies, the current macroeconomic framework still allows inflation to gradually fall as projected. A high increase in wages, well above productivity growth, or a faster rise in general government expenditure than assumed are key risks to the central inflation forecast due to their direct effects, as well as through consequent high inflation expectations and secondary effects.

A high current account deficit is projected to persist this year. It will be driven by a higher deficit in merchandise trade, largely owing to the deteriorated terms of trade, and a deficit in factor incomes due to the expected higher interest payment on external debt. The services trade surplus in is set to continue, and the current transfers deficit is expected to improve. The current account deficit is thus forecast to total 4.6% of GDP, only 0.2 p.p. less than in 2007. Against the background of somewhat lower real GDP growth and employment, the outlook for 2009 indicates a more stable price growth and a gradual improvement in the current account of the balance of payments. Economic growth is expected to decelerate slightly in 2009 (to 4.1%). Even though the international environment is anticipated to improve somewhat, growth of exports will not pick up yet, and investment growth will continue to decline. Investment in motorway construction is projected to be lower in 2009 compared to this year, but investment in energy infrastructure as well as investment in machinery and equipment are expected to increase. We forecast that investment will grow (2.6 %), albeit more slowly than this year. After the surge in 2008, government consumption will also moderate next year. In line with the projections of disposable income, real private consumption growth will remain at a relatively high

level (3.7%). Employment growth is projected to slow down further; employment in the services sector will continue to increase, whereas the number of employees in industry and construction is expected to decline. Assuming the agreed schedule for the phasing out of wage disparities in the public sector, wage growth will accelerate somewhat in real terms. The gap between total wage growth and productivity growth will widen again in nominal terms; inflationary pressures will therefore decrease. In the absence of external shocks in 2009, consumer price growth is expected to stabilise at around 3% in 2009. The external imbalance should also be much smaller next year, since we do not anticipate any negative effects of the terms of trade. The balance of trade in goods will therefore improve. The surplus in services is also projected to increase gradually.

#### Spring forecasts of the main macroeconomic aggregates and a comparison with autumn forecasts

		s in % (unless other	wise indicated)			
		20	009	2010		
	2007	Autumn Forecast (Sept. 2007)	Spring Forecast (March 2008)	Autumn Forecast (Sept. 2007)	Spring Forecast (March 2008)	Spring Forecast (March 2008)
GROSS DOMESTIC PRODUCT	6.1	4.6	4.4	4.1	4.1	4.4
GDP in EUR m (current prices)	33,542	35,953	36,308	38,482	39,234	42,270
<b>INFLATION</b> (Dec/Dec of the preceding year, %)	5.6	2.9	4.0	2.7	2.9	2.9
INFLATION (Jan-Dec/Jan- Dec annual average, %)	3.6	3.5	5.2	2.8	3.2	2.9
GDP deflator, %	3.9	3.6	3.7	2.9	3.8	3.2
USD/EUR exchange rate	1.371	1.350	1.526	1.350	1.537	1.537
<b>EMPLOYMENT</b> according to the SNA, % growth	2.7	0.9	1.1	0.6	0.6	0.6
REGISTERED UNEMPLOYMENT RATE (%)	7.7	7.4	7.3	7.1	7.1	6.8
ILO UNEMPLOYMENT RATE (%)	4.9	4.9	4.8	4.8	4.8	4.7
<b>PRODUCTIVITY</b> (GDP per employee), % growth	3.3	3.7	3.3	3.5	3.5	3.8
GROSS WAGE PER EMPLOYEE	2.2	3.7	2.4	2.8	3.1	3.2
EXPORTS OF GOODS AND SERVICES	13.0	10.3	9.7	9.7	9.4	9.7
- exports of goods	12.5	10.6	9.4	10.1	9.3	9.5
- exports of services	15.5	9.1	10.9	7.9	10.0	10.5
IMPORTS OF GOODS AND SERVICES	14.1	10.1	8.5	8.2	7.5	8.6
- imports of goods	13.8	10.1	8.3	8.2	7.2	8.3
- imports of services	16.6	10.0	9.8	8.5	9.7	10.6
CURRENT ACCOUNT BALANCE (EUR m)	-1,621	-1,118	-1,686	-770	-1,103	-899
- as % of GDP	-4.8	-3.1	-4.6	-2.0	-2.8	-2.7
GROSS FIXED CAPITAL FORMATION	17.2	6.2	5.4	2.6	2.6	4.5
- as % of GDP	28.7	28.2	28.9	27.6	28.1	28.1
PRIVATE CONSUMPTION	3.1	4.0	3.6	3.4	3.7	3.8
- as % of GDP	52.3	52.5	52.7	52.1	52.2	51.8
GOVERNMENT CONSUMPTION	1.4	3.2	3.9	2.6	2.3	2.4
- as % of GDP %	18.2	18.9	18.6	18.9	18.5	18.6

Real growth rates in % (unless otherwise indicated)

Source of data: SORS, BS, forecasts by IMAD.

Background documents and data for the Spring Forecast of Economic Trends 2007–2009

The Spring Forecast of Economic Trends is based on implemented or adopted economic policy measures. It takes into account already enacted changes in the personal income tax, payroll tax and corporate income tax and social transfers, while it does not factor in any rises in excise duties. The forecasts of general government current and investment consumption in 2008 and 2009 take into account the adopted national budgets for 2008 and 2009.

The Spring Forecast of Economic Trends is based on the IMAD's expert estimates using the following source data: (i) quarterly national accounts data on gross domestic product and employment in 2007 (SORS); (ii) data on GDP growth in the international environment in 2007; (iii) spring forecasts of international institutions on economic trends among Slovenia's main trading partners, published by 15 March 2008; (iv) prevailing expectations of international institutions regarding the price dynamics of oil and other commodities, and the euro/dollar exchange rate; (v) detailed data on the structure of consumer price developments in 2007 and in the first two months of 2008; (vi) results of the dynamic factor model and other econometric models used in forecasting; (vii) consultations with other organisations that prepare forecasts for Slovenia.

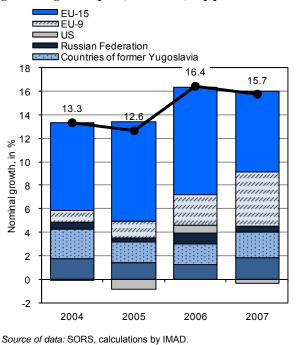
## Economic developments in 2007

#### Economic growth

Against a background of favourable economic trends in the international environment, economic growth in 2007 stood at 6.1%, the highest since Slovenia gained independence. This was largely boosted by the economic cycle of our trading partners, which continued to stimulate export activity. Investment was also one of the main engines of last year's economic growth. In addition to the favourable economic situation, economic growth was also supported by the effects of adopted reforms, particularly in the area of taxation. Vigorous and stable GDP growth (6-7%) was maintained up to the third guarter of 2007, whereas it dropped to 4.7% in the final quarter. The end of the year also saw a slowdown in international trade and investment activity. The growth of general government and private consumption accelerated somewhat in the second half of the year, but remained moderate and weaker than the year before.

Amid favourable economic trends, exports of goods and services remained the main driver of economic growth. In 2007, exports of goods and services increased by 13.0% in real terms (goods by 12.5%, services by 15.5%). Exports to EU countries continued to rise at a faster pace than exports to non-members. Again exports to new Member States made the largest contribution to the growth of exports to the EU. In the structure by product, the main contributors to the total growth of goods exports were exports of general industrial machinery, road vehicles, medical and pharmaceutical products, electrical appliances and machinery, metal products and iron and steel.<sup>1</sup> These groups of industrial products contributed as much as two thirds to the total growth of goods exports in 2007. The increase in services exports also picked up over the year before, mainly due to the high growth of exports of other services.<sup>2</sup> Exports of financial services and merchanting recorded the highest rise. The growth of revenues from exports of travel and transport services was stronger as well.

*Figure 1:* Contributions of countries/regional groups to the growth of goods exports, 2004–2007, in p.p.



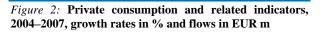
Investment activity in 2007 was the most vigorous in the past few years. Relative to the year before, it was bolstered mainly by accelerated investment in construction, especially by the increased volume of infrastructural construction. High growth was also recorded in investment in residential and other buildings. High capacity utilisation in manufacturing, particularly owing to vigorous export activity, contributed to a substantial increase in investment in machinery and equipment. Investment activity was especially robust in the first half of the year, whereas it began to slacken towards the end of the year owing to the slowdown in international economic activity and a gradual decline of growth in construction investment, mainly as a result of the high level recorded in the second half of 2006.

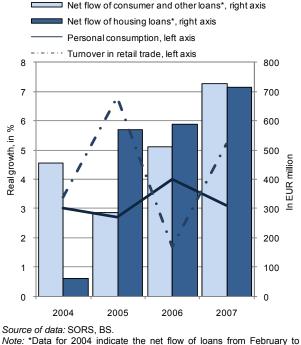
The growth of private consumption moderated last year. With 3.1% real growth, the figure lagged slightly behind estimated real growth of disposable income (4.8%). By our estimate, it was partly due to the relatively higher reduction of tax rates in higher income brackets, which have on average a higher propensity to save. In the first three quarters of 2007, households allocated as much as a third more for financial assets<sup>3</sup> than the year before. Expenditure on durable goods also recorded the highest rise last year, which was evidenced by a significant increase in new car registrations and turnover in the retail sale of furniture, household equipment and construction material. The latter is linked to increased investment in residential buildings.

<sup>&</sup>lt;sup>1</sup> The contributions were calculated on the basis of data on nominal growth.

<sup>&</sup>lt;sup>2</sup> The group of other services comprises: communication, construction, insurance, financial, computer and information, personal, cultural and recreational services, other business services (merchanting), licences, patents and copyrights and government services.

<sup>&</sup>lt;sup>3</sup> Data from the financial accounts of the Bank of Slovenia, where financial assets (transactions) comprise cash and deposits, securities, shares, extended loans, insurance technical provisions and other claims.





December.

The growth of general government consumption was also modest last year. The drop from 4.4% in 2006 to 1.4% was largely linked to a lower rise in the number of employees in the general government sector (0.3%) and to a low growth of wages per employee in public services (0.5%). The growth of expenditure on goods and services remained moderate despite the costs related to Slovenia's presidency of the EU and setting up the external border of the EU. The health budget also recorded a decline in the growth of expenditure on goods and services, as expenditure on medicines dropped by around a tenth.

The growth of imports, particularly of goods, was propelled by vigorous investment activity and the high growth of exports last year. Import of goods and services increased by 14.1% in real terms; imports of goods were 13.8% higher, while imports of services recorded a 16.6% increase. Given the high import component in exports<sup>4</sup> and the notable increase in domestic consumption (investment consumption, in particular), the real growth of goods imports accelerated last year. Investment in machinery and equipment, especially in transport equipment, accounted for a large share of imported goods; imports of road vehicles<sup>5</sup> (vehicles and spare parts for the automotive industry) also posted a significant increase. Their contribution to the total growth of goods imports was similar to exports. Looking at services imports, the highest growth was observed in the group of other services (financial, merchanting and construction

<sup>4</sup> Intermediate goods entering production for subsequent export.

services), which are stimulated by economic development.

#### Dynamics of value added by activity

The growth of value added in 2007 was the strongest in the past twelve years. After the robust increase in 2006 (6.0%), this figure rose somewhat more in 2007 to 6.2%. The structure of growth remained almost unchanged. As in 2006, growth was mainly driven by manufacturing, construction and market services.

2007, manufacturing and construction again In recorded high growth rates of value added. Despite the slowdown in the second half of the year, these rates remained well above the long-term average. The real growth of value added in construction was the strongest to date (18.7%). After still gaining strength in the first half of the year, construction activity began to slow down in the final two quarters,<sup>6</sup> most notably in civil engineering construction, whereas strong growth in residential construction continued. Reaching 8.3%, the growth of value added in manufacturing, which was the main contributor to overall value added growth, remained at the high level of the year before. Y-o-v growth rates by quarter as well as q-o-q seasonally adjusted growth rates both indicate a gradual decline towards the end of the year. Owing to strong construction activity, activities linked to construction (manufacture of non-metal mineral products, woodprocessing industry and metal industry) recorded the strongest growth in the first half of the year. Furthermore, as a result of favourable economic trends in the international environment, almost all mainly exportoriented industries gained strength as well. The second half of the year saw a gradual decline in international demand and construction activity, which was reflected in a decline in all industries, apart from the chemical industry and manufacture of transport equipment, where it even increased.

The growth of value added in market services remained at the high 2006 level throughout 2007 and reached 6.1%, on average. Even better results than in 2006<sup>8</sup> were recorded in wholesale trade, in the sale of motor vehicles and non-food products, in business services in the fields of consultancy, engineering, information, in real estate and financial intermediation. High value added growth in financial intermediation was again bolstered by high lending activity of banks, which showed no visible signs

<sup>&</sup>lt;sup>5</sup> The latter evidences a high rate of intra-industry trade.

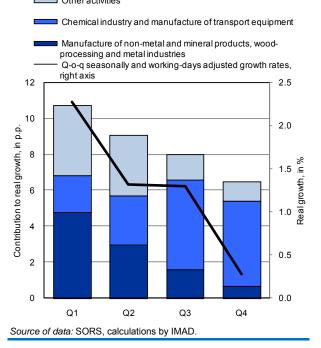
<sup>&</sup>lt;sup>6</sup> Y-o-y value added growth rates by quarter indicate a considerable deceleration in the second half of the year, also as a consequence of higher activity in the same period of the year before, whereas the q-o-q seasonally adjusted growth rates indicate a slight deceleration of growth (at a very high level) in the second half of the year.

<sup>&</sup>lt;sup>7</sup> As a result of production programme changes in the automotive industry.

<sup>&</sup>lt;sup>8</sup> Evidenced by the figures on the growth of turnover in these industries.

of moderation at the end of the year despite the gradual slowdown in the economic cycle.<sup>9</sup> High growth rates of value added, albeit lower than in the record year 2006, were also posted in transport, storage and communications, where road freight transport is still one of the activities growing at the fastest pace. In contrast, labour brokering<sup>10</sup> witnessed a visible slowdown in the second half of the year following the strong growth in 2006 and in the first half of 2007. The decline is attributable to decreased demand for labour, mainly as a result of the slowdown in the business cycle in manufacturing and construction.

Figure 3: Growth of value added in manufacturing in 2007 by quarter, in %, and contributions of individual activities to year-on-year quarterly growth, in p.p.

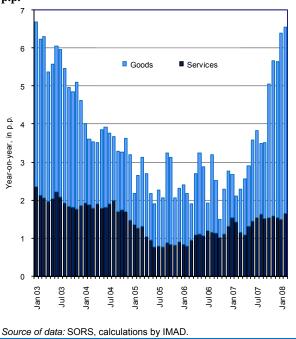


In 2007, the real growth of value added in public services decelerated for the third year in a row and achieved 1.6%. Developments in public services were accompanied by a drop in the number of employees in the armed forces and in secondary education, and a modest growth in employment rates in education, health care and social care. Similarly to 2006, only the number of employees in tertiary education recorded a somewhat faster rise.

#### **Inflation**

The growth of consumer prices accelerated strongly last year. Average inflation totalled 3.6% at the end of the year, while year-on-year inflation stood at 5.6%. The growth of prices of goods contributed 4.1 p.p. to year-onyear inflation (compared to 1.5 p.p. in 2006), and the growth of prices of services 1.5 p.p. (compared to 1.3) p.p. in 2006). The increase in year-on-year inflation over 2.8% recorded at the end of 2006 is thus almost entirely attributable to the accelerated increase in prices of goods (food and liquid fuels, mainly). The acceleration of the growth of services prices was relatively mild last year. After having increased gradually last year, this growth surged above 4% recorded at the end of 2006, which was partially linked to adoption of the euro, when prices, particularly the prices of services provided by hotels and restaurants and a number of other services, recorded a greater increase than usual (see Box 1).

*Figure 4:* Contributions of the growth of goods and services prices to year-on-year inflation in the period 2003–2007, in p.p.



Increases in prices of food and liquid fuels for transport and heating were the main factors in the accelerated growth of prices. Domestic food prices rose by 13.7% last year (compared to 3.6% in 2006) and contributed almost two fifths (2.1 p.p.) to inflation. Faster growth of these prices relative to the year before is mainly linked to developments in the international environment. Global price dynamics in 2007 induced high price rises of various agricultural products and oil, as well as metals and other primary raw materials. By our estimate, the pass-through of food price increases from global markets was faster and stronger than in other countries in the euro area, mainly due to the more rigid market structure in Slovenia and the lack of competition in certain markets. Moreover, following the dynamics of

<sup>&</sup>lt;sup>9</sup> Lending activity of banks in December was otherwise markedly lower than in the previous months, largely as a result of net repayment of household loans following extensive borrowing in November and linked to the privatisation of NKBM. Net flows of loans to enterprises in December were also lower than in the previous months, whereas in January 2008, the volume of loans to households as well as to enterprises increased again.

<sup>&</sup>lt;sup>10</sup> Labour brokering constitutes a relatively small segment of market services and does not have a significant impact on their overall growth.

oil prices in the world market and the exchange rate of the American dollar, prices of liquid fuels for transport and heating increased as well and contributed 0.9 p.p. to inflation. This contribution was mitigated slightly by the reduction of excise duties on liquid fuels to the minimum permitted level according to EU legislation in September 2007. The process of harmonisation of excise duties on tobacco and tobacco products with EU rates was also completed last year, which contributed 0.3 p.p. to inflation.

*Box 1:* Estimate of the impact of the adoption of the euro on inflation

The process of adoption of the euro had a moderate and transitory effect on inflation. The overall contribution of price rises that could be attributable to adoption of the euro is estimated at not more than 0.3 p.p. Similarly to the countries that adopted the euro in 2002, the highest price rises, which could not be explained by the usual factors of inflation, were recorded in the month prior to and in the month of the currency changeover. This was the period when – despite the numerous well-planned measures for the prevention of unjustified price rises carried out by the government, the Bank of Slovenia and non-governmental organisations – the largest number of price rises, which deviated from the dynamics of prices recorded in the past, was observed, especially in certain types of services.

**Prices under various regimes of regulation largely increased in line with the administered prices adjustment plan.** They rose by a total 7.2%, and by 1.4% without the impact of prices of liquid fuels for transport and heating, including the electricity price rise by 4.9% last April that was not anticipated in the plan.<sup>11</sup> The growth of administered prices without liquid fuel prices thus fell behind the projected growth of marketdetermined prices.

The increase in inflationary pressures is indicated by the increase in core inflation. Besides food and energy prices, which were the key engine of accelerated inflation last year, prices in other consumer price index groups also rose faster at the end of the year than in previous years.

#### Wages

*The growth of wages remained moderate in 2007.* The gross wage per employee increased by 5.9% in nominal and by 2.2% in real terms and fell by a solid percentage point behind nominal labour productivity growth

(7.3%). The average nominal growth of gross wages did not diverge significantly from that projected in the autumn forecast; in the private sector, it was somewhat higher than projected (by 0.3 p.p.), whereas in the public sector it was slightly lower (by 0.6 p.p.).

In the private sector, the growth of wages was higher than in 2006. The average gross wage per employee increased by 6.9% in nominal and by 3.2% in real terms. Wage adjustment to inflation was carried out in August in compliance with the agreed adjustment mechanism.<sup>12</sup> Wages thus increased by at least 2%, and by an additional 0.5% to cover the difference between the actual inflation rate and that anticipated in the adjustment mechanism for 2006. A slightly higher adjustment percentage, but not more than 0.5 p.p., was determined in the graphic, newspaper, publishing and book-trade industries, municipal utility services and construction, in accordance with their collective agreements. Due to favourable economic trends, earnings increased substantially in November and December on account of a larger amount of 13th-month payments, Christmas bonuses and performance-related payments. The share of employees who received these types of payments increased considerably relative to the previous years and included 30% of all employees, or as much as 33% if October payments are also taken into account (in comparison with 24.7% in 2006). The average amount of extraordinary payments preserved the past years' levels of around 50% (with minor deviations) of the average gross wage of the recipient.

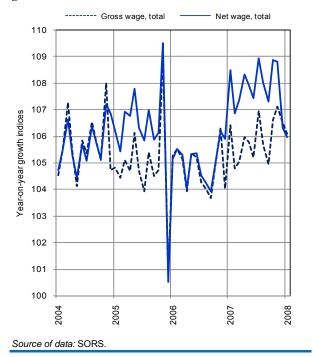
In the public sector, the growth of gross wages fell well below the growth of wages in the private sector for the sixth year in a row. Gross wages increased by 4.1% in nominal and by 0.5% in real terms. Wages were again only partially adjusted to inflation, as a proportion of the adjustment percentage was set aside for the phasing out of wage disparities in this sector. In July, wages were raised by 1.3% as laid down in the adjustment mechanism,<sup>13</sup> and by an additional 0.45% to compensate for the difference between actual inflation and that anticipated in the adjustment mechanism for 2006. Payments from this difference accrued from January to June were also paid in July. Gross wages by activity could rise somewhat more due to promotions and regular performance bonuses. The gross wage in public administration recorded the highest increase (5.1%), due to the increased workload in preparation for Slovenia's EU presidency and the increased workload of judges and prosecutors.

<sup>&</sup>lt;sup>11</sup> Since July 2007, prices of electricity have been determined by the market.

<sup>&</sup>lt;sup>12</sup> Collective Agreement on the Wage Adjustment Mechanism, Reimbursement of Work-related Costs, and Holiday Allowances.

<sup>&</sup>lt;sup>13</sup> Agreement on the Base Wage Adjustment Mechanism and the Level of Expenditure Earmarked for the Phasing out of Wage Disparities 2007–2009.

*Figure 5:* Nominal gross and net wages in 2004–2007, growth index



The net wage increased by a nominal 7.9% and by a real 4.2% last year, 2 p.p. more than the gross wage, which is attributable to changes in the personal income tax.<sup>14</sup> The difference between the growth of net and the growth of gross wages was more pronounced in the public sector with a higher percentage of employees with higher education and, consequently, higher wages: it was 2.6 p.p. higher in nominal terms. In the private sector, with a worse education structure, the gap between nominal net and gross wage increases totalled 1.7 p.p.

#### **Employment and unemployment**

Last year, employment growth was at its highest level since Slovenia gained independence. The figure began to pick up in the second half of 2006 and gained momentum in 2007. Against a background of strong economic growth and a faster increase in employment, labour productivity growth moderated as expected, from 4.5% in 2006 to 3.3% last year.

*Figure 1:* Number and growth percentage of persons in formal employment in 2006-2007, various methodologies

	2006	2007	2007/2006
National Accounts Statistics	934,534	959,551	2.7%
Labour Force Survey*	961,000	985,300	2.5%
Statistics on Formal Employment	824,839	853,999	3.5%

Source of data: SORS, \*calculations by IMAD.

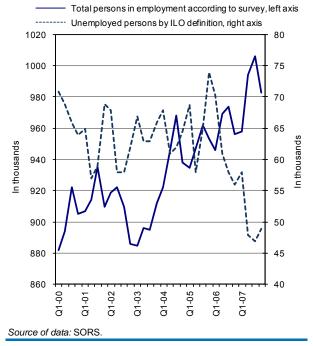
<sup>14</sup> The new Personal Income Tax Act reduced the progressivity of the personal income tax scale and thus lowered the tax burden on wages of employees in higher income brackets.

Strong employment growth in 2007 is indicated by all three statistics which measure employment. The number of people in formal employment<sup>15</sup> increased by 3.5%. Employment of foreigners increased yet for the third consecutive year. It was the highest in construction where around half of the new work permits for foreigners were issued. The number of work permits increased by  $31.7\%^{16}$  and accounted for around two fifths of the rise in the number of persons in formal employment last year. Employment of foreigners helped to mitigate a labour shortage that was especially notable in elementary occupations and construction.<sup>17</sup> The number of registered vacancies for lower and secondary education was rising faster than the number of vacancies for higher-educated people. This also applied to new jobs - the number of persons hired for jobs requiring lower and secondary education also increased at a faster pace.

*In 2007, employment increased in almost all activities.* For the third consecutive year, the high employment rates in construction and real estate, renting and business services accounted for around half of the overall increase in employment. For the first time after 2001, employment growth was posted in manufacturing. The highest rise was recorded in the manufacture of transport equipment and in metal and wood-processing industries, whereas the number of employees in the leather, textile and food-processing industries dropped again. The number of persons employed in agriculture, fishing, mining, electricity, gas and water supply, as well as in public administration and in the armed forces was smaller than in 2006.

<sup>&</sup>lt;sup>15</sup> People considered as persons in formal employment are those who are formally employed or self-employed and are registered in the SORS' employment statistical register and the monthly estimate of the number of farmers. Informally employed people are people who work either as unpaid family workers, on contractual basis or in the shadow economy. In simplified terms they are estimated as the difference between the number of employed people according to the labour force survey and the number of formally employed people according to the statistical register.
<sup>16</sup> The number of valid permits rose to 66,065 by the end of 2007.

<sup>&</sup>lt;sup>16</sup> The number of valid permits rose to 66,065 by the end of 2007. Almost half of foreigners worked in construction, the others in manufacturing, transport, distributive trades and hotels and restaurants.
<sup>17</sup> This is reflected in the rate of job vacancies, which is the ratio of job vacancies to total jobs.



The number of unemployed as well as the unemployment rates declined in 2007, largely due to smaller inflows to unemployment. According to the labour force survey, the third quarter of 2007 even saw the lowest unemployment rate since it began to be measured, though in the final quarter it increased somewhat again. The number of unemployed people registered at the Employment Service of Slovenia at the end of the year was a good 10,000 lower than at the end of 2006.

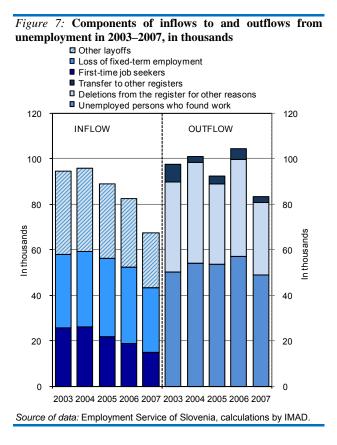
*Table 2:* Average numbers of unemployed persons (and rates of decline) and unemployment rates in 2006–2007, different methodologies

	2006	2007	2007/2006
Number of registered unemployed	85,836	71,336	-16.9%
Number of survey unemployed (ILO)	61,000	50,500	-17.2%
Registered unemployment rate	9.4%	7.7%	-
Survey unemployment rate (ILO)	6.0%	4.9%	-

Source of data: SORS.

In comparison with 2006, 14.5% fewer unemployed persons found work, and fewer persons were struck off the unemployment register for various reasons other than employment or as a result of being transferred to other records.<sup>18</sup> The unemployment rate thus declined due to a decreased inflow to unemployment: the number of first-time job seekers and the number of persons who lost employment dropped. The number of long-term unemployed persons decreased, albeit at a relatively slower pace than that of the other

unemployed; the structural share of long-term unemployed persons therefore increased and again exceeded 50%. Given the increased demand for a less skilled labour force, the number of unemployed persons with lower or secondary education decreased again last year. The slowest decrease was recorded in the number of unemployed with tertiary education. Only the number of unemployed aged over 50 did not drop. The share of unemployed women increased slightly (up to 54.9%).



#### Price and cost competitiveness

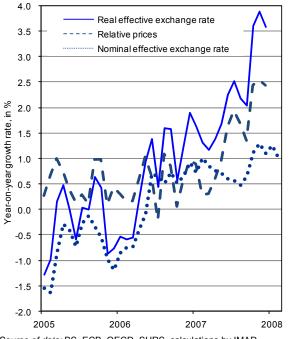
Due to higher inflation, the price competitiveness of the Slovenian economy relative to its trading partners *deteriorated last year.* Following three years of relatively stable dynamics, the real appreciation of the effective exchange rate deflated by relative consumer prices increased to 2.3% on average in 2007 (from 0.7% in Two thirds of the decrease in price 2006). competitiveness is attributable to the influence of faster growth of relative prices.<sup>19</sup> The real appreciation of the effective exchange rate was the highest at the end of the year (3.5% y-o-y in December), when amid the accelerated growth of relative prices the euro strengthened considerably as well.

<sup>&</sup>lt;sup>18</sup> Numerous deletions in 2006 were due to stricter criteria enforced by the amended Employment and Insurance against Unemployment Act from 2002.

<sup>&</sup>lt;sup>19</sup> The euro appreciated strongly in foreign exchange markets last year; however, this influence on the increase in appreciation was much smaller, by around a third. The real appreciation of the effective exchange rate against the trading partners from the euro area totalled 1.5% on average and 4.1% against the extra-euro area partners.

The deterioration of cost competitiveness of the whole economy was less notable. Costs in the manufacturing sector decreased in relative terms. Slovenia's divergence from its trading partners regarding the rise in unit labour costs was smaller than that regarding prices. The real effective exchange rate deflated by relative unit labour costs in the economy appreciated by 1.6% (compared to 0.1% in 2006), while the real effective exchange rate deflated by unit labour costs in manufacturing appreciated by 0.4% (after a 2.6% depreciation in 2006). In addition to the increasingly stronger euro, the deterioration of cost competitiveness in both the economy and manufacturing was largely attributable to decreased labour productivity growth.<sup>20</sup>

Figure 8: Real effective exchange rate deflated by the consumer price index and its components in 2005-2007, %



Source of data: BS, ECB, OECD, SURS, calculations by IMAD. Note: The effective exchange rate against the 17 trading partners includes 7 countries from the euro area (Austria, Belgium, Germany, Italy, France, Netherlands, Spain) and 10 extra-euro area trading partners (UK, Denmark, Sweden, Czech Republic, Hungary, Poland, Slovakia, USA, Switzerland, Japan).

#### Current account of the balance of payments

Due to strong economic activity, the current account deficit increased substantially last year. It totalled EUR 1,621.5 m, which accounted for 4.8% of GDP – 2 p.p. more than the year before. Its rise is due to a higher trade balance deficit as a result of high imports of investment and intermediate goods, and at the regional level to the decreased surplus in trade with non-EU countries. To a lesser extent the deterioration is also attributable to worsened terms of trade (index 99.6). The deficit in the factor incomes balance increased substantially as well, particularly owing to higher net payments of interest on external debt and interest on loans between affiliated entities. The current transfers balance also recorded a higher deficit. Last year, Slovenia was a net contributor to the EU budget for the first time since its accession to the EU. The volume of payments, especially from customs duties, was higher than anticipated (112% of planned payments). At the same time, drawing of funds from structural funds and the cohesion fund achieved only 60% of the foreseen funds, which signifies a smaller absorption capacity than in the year before (78%). The current account deficit was somewhat mitigated by the increased surplus in the services balance, largely owing to the net current exchange inflow from tourism, which was higher than in 2006.

<sup>&</sup>lt;sup>20</sup> Labour productivity growth slowed down in manufacturing, but remained high (7.6% relative to 10.4% in 2006).

## Forecasts of economic trends in 2008–2010

#### Assumptions of the spring forecast

After last year's continuation of vigorous global economic growth, a greater slowdown is expected this year than projected last autumn. On average, global economic growth stood at 4.6% over the last five years, in 2007 even at 4.9%, which is the highest figure in the post-war period. The acceleration in this period is attributable to rising economic strength in developing countries, which will remain the main driver of global growth despite the slowdown expected this year. In January 2008, the IMF reduced its autumn forecast of global economic growth for the current year to 4.1% (by 0.3 p.p.), mainly due to the expected decline in the United States and other developed countries likely to be exposed to the effects of the financial turmoil.

The latest economic growth forecasts for 2008 and 2009 for our main trading partners from the euro area also project a more notable slowdown than anticipated in autumn (see Table 3). After the favourable situation in 2007, economic growth in all main trading partners (excluding Austria) will ease off more than projected last autumn. Growth in the euro area will be largely underpinned by domestic demand. In most countries the growth of private consumption is expected to be solid. Despite higher energy and food price rises, it will remain at a relatively high level due to the impacts of last year's significant improvement on the labour market – in several countries unemployment rates dropped to record lows last year. Even though the utilisation rates of production capacities remain high, gross fixed capital formation is expected to ease off after two years of strong growth. Due to the appreciation of the euro and a general decline in world trade growth, weaker growth of exports is expected this year as well; after two years, imports will grow faster than exports again. In 2009, economic growth in our main trading partners from the euro area is expected to be slightly higher and will remain that way in 2010.

Looking at our main trading partners from the group of new EU Member States, economic growth will slow down markedly in the Czech Republic and Poland, whereas in Hungary it is expected to accelerate. Last year, real GDP growth in the Czech Republic was somewhat higher than the year before as a result of higher growth in private consumption. Economic growth in Poland was also slightly stronger, largely owing to robust investment activity. In both countries the growth rates will decrease in 2008, especially in the Czech Republic, where private consumption growth will slow down as a result of fiscal reform. In Poland, the decrease will be largely due to the slowdown in the growth of investment. The dynamics of economic growth are slightly different in Hungary, where GDP growth dropped significantly last year as a consequence of the fiscal stabilisation programme and a consequent decline in private and public consumption. Economic growth is expected to strengthen this year and even speed up in 2009. A slight acceleration is also expected in the Czech Republic, but not in Poland. In 2010, economic growth rates are estimated to remain at the levels of 2009.

Table 3: IMAD's assumptions of economic growth in Slovenia's main trading partners in 2008–2010 and a comparison with the autumn forecast

			200	8	20	09	2010
	2006	2007	Autumn Forecast (Sept. 2007)	Spring Forecast (March 2008)	Autumn Forecast (Sept. 2007)	Spring Forecast (March 2008)	Spring Forecast (March 2008)
EU	3.0	2.9	2.5	1.9	2.2	2.1	2.2
Euro area	2.7	2.6	2.3	1.6	2.0	1.9	2.0
Germany	2.9	2.5	2.3	1.6	1.9	1.9	1.9
Italy	1.8	1.5	1.5	0.7	1.6	1.4	1.2
Austria	3.3	3.4	2.4	2.4	2.1	2.3	2.3
France	2.0	1.9	2.0	1.6	2.2	1.9	2.2
UK	2.9	3.1	2.1	1.7	2.3	2.0	2.0
Czech Republic	6.4	6.6	5.0	4.6	5.0	5.0	5.0
Hungary	3.9	1.3	2.8	2.5	3.5	3.8	4.3
Poland	6.2	6.5	5.5	5.5	5.0	5.0	5.0
Croatia	4.8	6.0	5.0	4.8	4.8	4.5	5.0
Bosnia and Herzegovina	6.2	5.0	6.0	5.0	5.5	5.0	6.0
Serbia	5.7	7.5	5.8	5.5	5.5	5.5	5.0
Macedonia	3.8	5.0	4.2	5.0	4.2	6.0	6.0
USA	2.9	2.2	2.3	1.2	3.0	2.4	2.8
Russia	7.4	8.1	6.5	6.5	6.0	6.2	5.5

Source of data: Eurostat; Consensus Forecasts, December 2007, January 2008, February 2008; European Commission, DG Ecfin – Interim Forecast, February 2008; European Commission, DG Ecfin – Economic Forecasts, Autumn 2007, Economist Intelligence Unit Country Reports (for Bosnia, Serbia and Macedonia), December 2007, January 2008, February 2008; OECD Economic Outlook, December 2006; WIIW Current Analysis and Forecasts, February 2008; IMAD estimates.

In the countries of the former Yugoslavia, a decrease in economic growth is expected (larger than projected in autumn) in 2008 after the considerable acceleration in 2007. Economic growth in Croatia, Serbia and Macedonia accelerated last year, whereas in Bosnia and Herzegovina it was weaker than in 2006. Economic growth in Croatia and Serbia is expected to slow down, mainly owing to a lower rise in private consumption, which was the main engine of growth last year. Real GDP growth rates in Bosnia and Herzegovina and Macedonia will rise at similar paces as in 2007 and will still be propelled by domestic consumption growth. Economic growth in the countries of the former Yugoslavia in 2009 and in 2010 will be similar to this year. In Macedonia, which has recorded relatively low growth rates so far, a gradual pick up is expected as a result of favourable effects of structural reforms.

The spring forecasts assume significantly higher oil prices than the autumn forecasts. In the period from September 2007 to February 2008, the price of Brent crude increased by around a quarter. By the beginning of preparation of the spring forecast, the average price rose to USD 95/barrel. The assumption of the average

price of Brent crude per barrel anticipates its stabilisation around the current high level this year at USD 98.3/barrel (see Table 4). According to the latest forecasts of international institutions, continued high oil demand due to the continued high economic growth in developing countries, particularly in Asia, will compensate for lower demand by the United States. On the supply side, the policy of the cartel is expected to be the key determinant this year, since OPEC countries decided to leave their output quotas unchanged in spite of pressures at the beginning of March, whereas in the non-OPEC countries the increase in supply is expected to be even lower.

The spring forecasts are based on a slightly higher technical assumption of the euro/dollar exchange rate than last year. The average dollar/euro exchange rate was USD 1.371 to EUR 1 last year, which was 9.3% higher than in 2006. The technical assumption is based on the average exchange rate between 3 and 14 March 2008 of USD 1.526 to EUR 1 for 2008 and USD 1.537 to EUR 1 for the following two years (the autumn assumption was USD 1.350 to EUR 1).

Table 4: Spring forecast assumptions of Brent crude prices in 2008–2010 and a comparison with autumn forecasts, USD/barrel

			20	08	20	09	2010
20		2007	Autumn Forecast (Sept. 2007)	Spring Forecast (March 2008)	Autumn Forecast (Sept. 2007)	Spring forecast (March 2008)	Spring Forecast (March 2008)
Average oil price	65.4	72.7	68.5	98.3	68.5	92.5	90.0

Source of data: World Bank, assumptions for 2008–2010 by IMAD.

#### **Economic growth**

GDP growth will moderate at around 4% over the next three years. Last year's high economic activity will ease off under the impact of the cooling of economies in the international environment and due to decreased domestic investment activity. After slowing to 4.4%, economic growth will also decelerate slightly next year. Against a background of modest domestic consumption as a result of a decline in investment activity, real GDP growth is estimated at 4.1% in 2009. In 2010, economic growth is projected to pick up again to 4.4% as a result of a gradual increase in exports and rebound in investment activity.

Risks that economic growth in 2008 might be lower than projected are related to the uncertainty in the international environment and are higher than in the past years. The key assumptions of the level and duration of the slowdown in the global economic environment are subject to uncertainties related to the threat of recession in the American economy due to the real estate crisis and a possible spillover of its effects to the economies of our main trading partners. Greater turbulence on global financial markets and hiking prices of primary commodities may even aggravate conditions in the international environment.

*Economic growth will slow down to 4.4% this year, as foreign demand and investment activity are expected to rise at a slower pace.* As economic trends in our main trading partners ease off, the growth of exports will be lower than last year (9.7%). The decrease in the growth of goods exports (9.4%) will be partially due to significantly lower growth in vehicle exports, which will fall well behind the high level of 2007. The growth of services exports (10.9%) will decelerate, largely as a result of a weaker growth of exports in the groups of other services and transport.

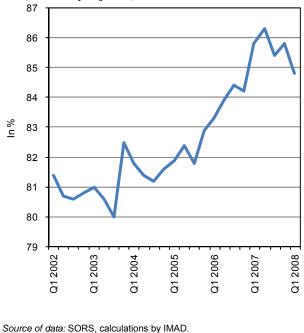
The growth of fixed capital formation is also projected to decrease this year; it is expected to total 5.4%. Following the significant rises in 2007, growth will ease off in construction investment and investment in machinery and equipment. Continued growth is expected in infrastructural investment; 2008 will see the most vigorous activity in motorway construction. Investment in railway infrastructure and energy capacities will increase as well. On the basis of the number of building permits issued, the growth of residential investment is anticipated to continue, though it will be lower than last year. Weaker growth is also expected in investment in non-residential buildings.<sup>21</sup> Growth of business investment will slow amid the deterioration of the situation in the international environment, partly also as a result of the tightening of credit conditions on financial markets. Given the signs of moderated growth in the final quarter of 2007 and a gradual decline of high capacity utilisation in manufacturing, investment in machinery and equipment is anticipated to remain at approximately the same level as last year.<sup>22</sup> Inventories will continue to rise in 2008, but their increase will be smaller than last year such that they will make a negative contribution to GDP growth (0.5 p.p. of GDP).

General government consumption will increase somewhat again this year (to 3.9%) and will follow the rise in the number of employees in public administration. Expenditure on goods and services will increase, especially owing to obligations related to Slovenia's membership in the EU, the establishing of the border and the presidency of the EU.

*Private consumption growth will be also somewhat stronger than last year.* It is projected to increase according to the estimated growth of disposable income, i.e. by 3.7%. Taking into account weaker employment growth than last year, wage bill growth will be lower (3.6% compared to 5.6% last year); nevertheless, private consumption is expected to rise owing to the changed income growth structure. Due to recently adopted measures,<sup>23</sup> the earnings of those who have a higher propensity to consume and on average spend a large part of funds on the purchase of basic consumer goods are increasing. Given robust housing construction and purchases of dwellings, households are expected to continue to spend a considerable part of their earnings on durable and semi-durable goods.<sup>24</sup>

Against a background of lower growth of exports and investment activity this year, growth of imports is also expected to slow down. The real growth of goods imports will amount to 8.3% this year. According to the foreseen slowdown in manufacturing due to cyclical cooling in the international environment, imports of intermediate goods are projected to record weaker growth. Due to the expected slowdown in domestic investment, imports of investment goods will see much slower growth than last year and will be the main contributor to the decrease in the imports of goods. In contrast, the pick-up in private consumption growth will be accompanied by stronger growth in consumer goods imports. The deceleration in the growth of services imports (to 9.8%) will be mainly due to the lower growth of imports of transport and other services. With the 8.5% rise in imports, the international trade balance will make a positive contribution to economic growth.

*Figure 9:* Capacity utilisation in manufacturing, 2003–2007, seasonally adjusted, %



#### Given low investment growth and slightly weaker growth of exports, economic growth in 2009 is projected to be somewhat lower than this year (4.1%).

The growth of exports will moderate slightly (9.4%), but will remain above its long-term average. The growth of goods exports will maintain this year's level (9.3%), since exports to EU countries will increase somewhat and vehicle exports are expected to decline in real terms. The growth of services exports will be weaker (10.0%) than in the previous year. It will be still propelled by exports of the group of other services, which will remain buoyant, whereas activity related to travel exports is expected to decline.

Next year, the real growth of investment will decrease somewhat more than this year, largely owing to the smaller volume of investment in motorway construction. The growth of infrastructural investment is expected to moderate notably in 2009, which will be reflected in the slowdown in the real growth of gross fixed capital formation to 2.6%. Taking into account the plans for the realisation of infrastructural construction in 2009, expenditure on motorway construction will be more than 10% down in nominal terms (construction of energy capacities is anticipated to accelerate somewhat).

<sup>&</sup>lt;sup>21</sup>Including the building permits issued last year, the estimated total floor area of non-residential buildings was 13.5% less than the year before.

<sup>&</sup>lt;sup>22</sup> Real growth of investment in machinery and equipment was 5.8% in the final quarter last year, the lowest in the past two years.

<sup>&</sup>lt;sup>23</sup> Changes in legislation, adopted in January 2008 as part of measures for the reduction of the effects of higher inflation on the population's welfare, introduce, for example, additional general personal income tax relief for taxable persons with incomes up to EUR 9,000 and increase social transfers.

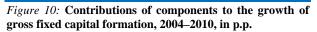
<sup>&</sup>lt;sup>24</sup> On the other hand, household budgets may contract due to the repayment of loans (housing loans, in particular).

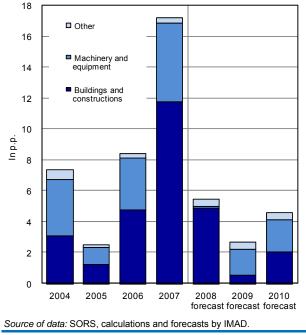
On the other hand, a slight improvement in the economic situation in the international environment will have a positive impact on corporate investment, with the result that the growth of investment in machinery and equipment will pick up slightly next year.

The growth of private consumption will pick up gradually (3.7%) and will follow the growth of the wage bill (3.8%) at the given income structure. Purchases of durable goods, which will follow housing investment during the time when the reduced VAT rate on housing will still apply,<sup>25</sup> are expected to increase.

The growth of government consumption is expected to be slightly weaker again next year (2.3%). Wages per employee will rise at a faster pace due to the phasing out of wage disparities in the public sector, but growth in the number of employees will decelerate. Expenditure on goods and services is anticipated to see a slower rise as well (except in health care).

Given the slow growth of domestic consumption, the growth of imports will continue to slow down in 2009 (7.5%). Imports of goods will contract (7.2%) due to the decelerated growth of investment goods imports, whereas the growth of services imports will maintain the same level as the year before (9.7%).





#### Under the influence of a gradual cyclical revival, economic growth is projected to increase to 4.4% in 2010.

Further strengthening of economic trends in the international environment will be reflected in a gradual increase in the growth of exports. Investment activity growth is projected to rebound in 2010, particularly as a result of the anticipated rise in investment in construction. By our estimates, housing construction will accelerate in the year prior to the increase in the VAT rate on housing. Infrastructural construction growth, on the other hand, will remain low with regard to the foreseen decline in investment in motorways and energy capacities, while railway investment is expected to increase somewhat this year. Cyclical improvement of the economic situation is also expected to have a positive impact on investment in machinery and equipment. 2010 will see further gradual strengthening of private consumption (3.8%), since the net wage bill will increase slightly (4.1%) owing to somewhat higher rises in employment and wages. General government *consumption*, by contrast, will remain moderate (2.4%), given a slight increase in the number of employees and somewhat faster growth of wages per employee in the public sector. The stronger growth of imports in 2010 will be thus mainly driven by the stronger growth of domestic investment. Due to the higher growth rates of exports and private, and especially investment consumption, the growth of imports will pick up again (8.6%).

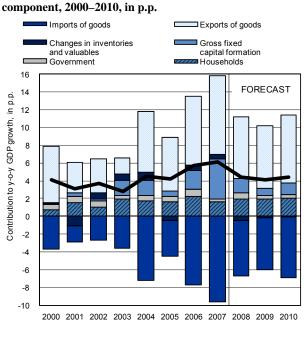


Figure 11: Contributions to economic growth bv

Source of data: SORS, calculations by IMAD.

 $<sup>^{\</sup>rm 25}$  The transitional period of a reduced VAT rate on housing will end in 2010.

## *Box 2:* Model-based forecast of economic trends for 2008

Besides the established procedure for forecasting economic growth based on a combination of expert and econometric methods, the dynamic factor model has been used as an additional technique. The model, which is explained in the Autumn Report 2006 (Box 1, page 25), is not a structural econometric model by nature. It is actually composed of a set of models used to test the appropriateness of forecasting using more than one hundred forecasting equations for each forecast variable. The most recent model forecasts are based on 82 series of quarterly data for 1994–2007. On the basis of pseudo out-of-sample forecasts for 2004–2007, four equations with forecast horizons from one to four quarters were selected for each variable. The best four forecast models project that GDP growth will decelerate to  $4.2\% \pm 0.3\%$  in 2008. Taking into account the error, this value is in line with the forecast of 4.4%.

Table 5: Spring forecasts of GDP growth and consumption aggregates for 2008–2010 and a comparison with autumn forecasts

Spring precast rch 2008)	20 Autumn Forecast (Sept. 2007)	09 Spring Forecast (March 2008)	2010 Spring Forecast (March 2008)
orecast rch 2008)	Forecast	Forecast	Forecast
4.4			(March 2008)
4.4	4.1	4.1	4.4
9.7	9.7	9.4	9.7
8.5	8.2	7.5	8.6
0.7	0.9	1.3	0.9
3.6	3.4	3.7	3.8
3.9	2.6	2.3	2.4
5.4	2.6	2.6	4.5
-0.5	0.1	-0.3	-0.1
	8.5 0.7 3.6 3.9 5.4	9.7         9.7           8.5         8.2           0.7         0.9           3.6         3.4           3.9         2.6           5.4         2.6	9.7         9.7         9.4           8.5         8.2         7.5           0.7         0.9         1.3           3.6         3.4         3.7           3.9         2.6         2.3           5.4         2.6         2.6

Source of data: SORS, forecasts by IMAD.

#### Dynamics of value added by activity

In 2008, the growth of value added is projected to decline approximately to the level recorded before the acceleration of the last two years. Value added will increase by 4.4% in real terms this year. The slowdown will be most notable in the two sectors which were the main contributors to the growth of value added of Slovenia's economy in the previous two years, i.e. construction and manufacturing. The growth of value added of market services will post a slight decrease, whereas in public services the growth of value added is projected to pick up after three years of moderation.

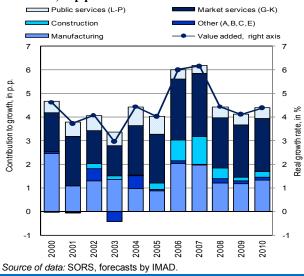
The slowdown in construction and manufacturing activities observed in the second half of 2007 will continue in 2008. The growth of value added will post the largest drop in *construction*, though it will still top the average of the economy as a whole (6.5%). After achieving record highs in the past two-year period, the growth of infrastructural investment will fall, though as in railway construction - it will remain positive. Construction of buildings will rise at a slower pace than last year. The growth of manufacturing's value added will continue to slow down as a result of the gradual cooling of our trading partners' economies. Relatively favourable trends are nevertheless expected to continue at least in the beginning of the year in some exportoriented activities (manufacture of transport equipment and pharmaceutical industry), given their current high activity and lesser dependence on the business cycle in

the EU. Owing to decreased construction activity, growth will decline in industries related to construction. The overall growth of manufacturing's value added will thus be 5% this year.

The real growth of market services' value added in 2008 will be somewhat lower than last year (4.8%). In distributive trades and financial intermediation it will decrease, whereas it will strengthen somewhat in all other activities. In wholesale and retail trade and repair of motor vehicles, lower growth rates are expected in wholesale trade and in the sale of non-food products, which have been boosted by the favourable economic developments in industry and construction over the last two years. After recording high rises in the last period, motor vehicle sales are expected to decelerate gradually as well. An even more pronounced slowdown in value added growth is expected in financial intermediation. It will largely be attributable to the decrease in the lending activity of banks, which will be affected by the slowdown in domestic economic trends and restricted access to foreign funds as a consequence of impaired confidence between banks due to the international financial crisis. In transport, storage and communications, road freight transport will remain the most important engine of growth. Even though the growth of goods exports decelerated, it is expected to pick up again thanks to Slovenia's favourable position at the crossing of European corridors V and X, where transport is increasing due to the recent EU expansion towards the east. Furthermore, Slovenia will be the only<sup>26</sup> new member of the EU to be able to perform cabotage in the fifteen old EU Member States this year. During Slovenia's presidency of the EU in the first half of 2008, the number of congress tourists is expected to increase and, consequently, so is the growth of value added in *hotels and restaurants*. Further growth is also projected in *real estate, renting and business services,* especially as a result of strengthened real estate activities as well as consultancy and computer services.

Real growth of value added in public services will increase to 2.5% this year; all public services will record somewhat higher rises than last year. The projected faster rise in value added in public administration will be underpinned by increased activity during the time of Slovenia's presidency of the EU and a smaller decline in the number of employees in the armed forces. In education, employment growth in kindergartens is expected to increase somewhat. The number of employees in secondary education will decline at a slower pace, while growth in primary education is set to remain relatively low. After rapid growth in the past two years, which is attributable to the rise in the number of universities and implementation of new university programmes, employment in tertiary education will slow down. Within health and social care, stronger growth will be linked to higher wage increases<sup>27</sup> and accelerated employment growth, which was extremely low in the last two years. Capacities of private health care providers are projected to expand, given the latest wave of concessions granted in the public health service network; moreover, the granting of concessions for the provision of services for the elderly and expansion of institutional care capacities are also projected to accelerate.

### *Figure 12:* Contributions to value added by activity, for 2000–2010, in p.p.



<sup>&</sup>lt;sup>26</sup> In addition to Malta and Cyprus, which due to their positions probably perform this type of transport in a very small scope.

The growth of value added in the economy will continue to decrease in 2009 (to 4.1%), whereas a slight rebound is expected in 2010 (to 4.4%). The contributions of construction and manufacturing will contract further next year, but are expected to rise somewhat in 2010. Within construction, infrastructural construction is expected to decrease significantly in both years, whereas building construction will see a moderate expansion. Real value added growth will be at 2% in 2009 and 3.5% in 2010. Developments in manufacturing will benefit from the projected gradual improvement of the situation in the international environment. Nevertheless, the rate of intra-industry trade with our largest trading partner, Germany, is expected to decrease<sup>28</sup> somewhat more in 2009; a considerable cyclical decline will also be recorded in the manufacture of transport equipment. The growth of manufacturing's value added will therefore post a further decrease in 2009 (to 4.8%), but will return to its long-term average (5.4%) in 2010, when industrial production in Germany is expected to rebound. In the following two years, the growth of value added in *market services* will rise slightly above this year's level (to 5.0% and 5.1%). In distributive trades, value added will continue to vary under the influence of trends in industry and construction. Growth rates in transport, storage and communications, as well as in hotels and restaurants are expected to moderate gradually at relatively high levels, whereas a gradual increase is anticipated in financial intermediation and business services. The main engine of growth will be knowledgebased services, such as information and communication activities, and development and expansion of new financial and business services. Growth rates of value added in public services in 2009-2010 will remain low (at 2.3% and 2.4%), yet above the average of the last two years (2006 and 2007), when they slowed down appreciably. They will be marked mainly by a gradual extension of the social and health care network and expansion of higher education and education of adults. On the other hand, low growth rates are again projected in primary and secondary education, largely due to the shrinking of generation size.

<sup>&</sup>lt;sup>27</sup> Higher wage increases are expected in the entire public sector as a result of the phasing out of wage disparities, which are the largest in health care and social care.

<sup>&</sup>lt;sup>28</sup> The expectations are based on the projected slowdown of manufacturing's industrial production growth in Germany in 2009.

			Forecast				
	2007	2008	2009	2010			
A Agriculture, forestry, hunting	-3.7	2.0	2.0	1.5			
B Fishing	-4.6	1.0	1.0	1.5			
C Mining	-0.2	0.5	-0.5	-3.0			
D Manufacturing	8.3	5.0	4.8	5.4			
E Electricity, gas and water supply	3.5	5.0	3.0	3.0			
F Construction	18.7	6.5	2.0	3.5			
G Distributive trades	7.6	4.3	3.8	4.5			
H Hotels and restaurants	2.4	5.0	4.5	4.0			
I Transport, storage and communications	6.2	6.5	6.0	5.5			
J Financial intermediation	12.1	5.5	8.0	7.5			
K Real estate, renting and business activities	3.7	4.3	4.5	4.5			
L Public administration, defence and social security	2.1	3.2	2.8	2.0			
M Education	1.3	1.8	1.8	2.0			
N Health and social work	1.3	2.5	2.2	3.5			
O Other community, social and personal services	1.9	2.2	2.0	2.0			
P Private households with employed persons	0.6	1.0	1.0	1.0			
VALUE ADDED	6.2	4.4	4.1	4.4			
a) Taxes on products and services	5.1	4.0	3.8	4.5			
b) Subsidies on products and services	1.4	2.5	2.5	2.0			
GROSS DOMESTIC PRODUCT	6.1	4.4	4.1	4.4			

Table 6: Spring forecast of value added by activity, 2008-2010, real growth rates in %

Source of data: SORS, forecasts by IMAD.

#### Inflation

In the first three months of 2008, year-on-year inflation maintained its high level and was driven by similar factors as in 2007. Year-on-year inflation continued to increase in the first three months of 2008 and stood at 6.9% in March. In addition to the effects of the process of real convergence, high price rises are still mainly attributable to the high growth rates of commodity prices. As in 2007, prices in the food, transport and housing sectors, which are crucially determined by dynamics on global markets, recorded the greatest deviations among all price index groups with the highest year-on-year growth rates. Slight upside deviations were also recorded in the growth rates of prices in catering and accommodation services and in recreation and culture. Year-on-year inflation also increased as a result of the so-called base effect of the low rates of price rises in the first two months of last year.

The spring forecast of inflation for 2008 projects that year-on-year inflation will gradually decline to 4.0% at the end of the year, whereas average inflation will be higher than last year (5.2%), largely due to the high rates recorded in the second half of 2007. According to the latest forecasts of international institutions regarding food price trends on the global market, the contribution of food prices to inflation is expected to be smaller than last year, but larger than in the year before. Oil prices are also expected to post a lower rise than last year. In addition, inflationary pressures will abate under the influence of the expected slowdown in economic activity. The slowdown in price rises will be underpinned by the measures of the policy of administered prices as well; according to the adopted plan, their contribution to inflation will total only 0.1 p.p.. Changes in taxation and excise duties are also not expected to exert any upward pressures on inflation. On the other hand, the adopted framework of wage and fiscal policy will have a less inhibiting effect on inflation this year. Owing to the already adopted agreements, the growth of wages will be faster than last year and its lag behind productivity growth smaller. Slovenia's fiscal position will deteriorate somewhat due to the higher rises of wages in the public sector as a result of the beginning of the gradual phasing out of wage disparities (see section on wages) and cyclical effects of decelerated economic growth on the dynamics of general government revenue and expenditure. As a result of less restrictively oriented macroeconomic policies in comparison with last year and food prices, which are still expected to rise at a faster pace than the average prices in other groups, year-on-year inflation at the end of the year (4.0%) will still exceed the equilibrium level, estimated at around 3%. The dynamics of year-on-year inflation rates, which are expected to moderate gradually during the year, will be highly influenced by the base effect from 2007 (high rates, particularly in the second half of 2007) because of which average inflation will maintain its relatively high level at the end of the year (5.2%) and will be higher than last year (3.6%), even though its year-on-year rates are anticipated to decline.

Also in 2008, the realisation of our central forecast of inflation may be jeopardised by several risks. Despite somewhat less restrictive wage and fiscal policies, the current macroeconomic framework still enables the projected gradual reduction of inflation. The key risk to the realisation of the central inflation forecast is that wages will grow faster than projected now (see Box 3), which will result in a more significant increase in general government expenditure on wages than anticipated. The risks may increase owing to direct effects of such a scenario on inflation as well as due to consequent higher inflation expectations and secondary effects of these developments. Prices of energy and other commodities on global markets constitute an additional risk factor which cannot be controlled with economic policy measures. By our estimate, the risks for realisation of the central forecast are therefore distributed unevenly this year, and the probability that inflation will exceed our central forecast by 0.5 p.p. is higher than the probability that it will be 0.5 p.p. lower (see Figure 13).

Inflation pressures are projected to ease off in 2009. Inflation will contract to 2.9% and is expected to maintain this level in 2010. According to the analyses of international institutions, prices of food and other primary commodities on world markets are anticipated to moderate, which will be reflected in a slowdown in domestic food and energy prices. In line with the adopted budget, a rise in planned administered prices and wage policy guidelines for 2009, the factors associated with domestic macroeconomic policies are again expected to have an inhibiting effect on inflation. Inflation is thus estimated to drop to a level around 3%, which still ensures medium-term macroeconomic balance.

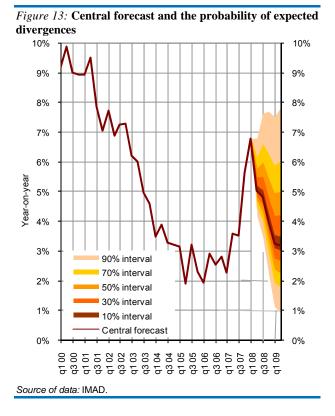


Table 7: Spring forecasts of inflation for 2008–2010 and a comparison with the autumn	forecast

		20	08	20	009	2010
2007		Autumn Forecast (Sept. 2007)	Spring forecast (March 2008)	Autumn Forecast (Sept. 2007)	Spring Forecast (March 2008)	Spring Forecast (March 2008)
Inflation (annual average, %)	3.6	3.5	5.2	2.8	3.2	2.9
Inflation (Dec/Dec, %)	5.6	2.9	4.0	2.7	2.9	2.9

Source of data: SORS, forecasts by IMAD.

#### Wages

In 2008, nominal growth of wages will increase pursuant to the agreements on the wage adjustment to cover the difference between actual inflation and inflation projected in 2007. This year, wages in the private and public sectors will be adjusted according to the agreement reached between the social partners that the difference between actual inflation and inflation projected in the collective agreements for 2007 should be paid in 2008. The nominal gross wage per employee will increase by 7.7% and thus exceed nominal labour productivity growth by a good half p.p. (7.1%). With its 2.4% growth, the real gross wage will fall 0.9 p.p.<sup>29</sup> behind real labour productivity growth.

Real growth of wages in the private sector is expected to remain moderate. In 2008, the gross wage per employee will increase by 7.3% in nominal and by 2% in real terms. Besides the effect of the slowdown in economic activity, wage dynamics will also be influenced by the three additional work days in 2008. As the outcome of negotiations between the social partners is still uncertain, the forecast is based on agreements on extraordinary payments (additional rises due to last year's inflation) reached by the time of its completion. The nominal growth of wages is expected to be somewhat faster in the first half of the year as a result of additional rises due to last year's inflation, which was higher than that taken into account in the adjustment mechanism for 2007. The forecast also assumes that wages will be adjusted to inflation in August, even though the adjustment mechanism for 2008 has yet to be negotiated. The forecast for 2008 also takes into account the minimum

<sup>&</sup>lt;sup>29</sup> The difference results from the forecast for 2008 that the GDP deflator will be lower than the consumer price growth due to deteriorated terms of trade.

wage increase of 5.2%.<sup>30</sup> The minimum wage adjustment with inflation in August is expected to agree with the general adjustment mechanism that will apply to wages. At the same time we expect that, given less favourable economic developments, the volume of extraordinary payments at the end of this year (13<sup>th</sup>-month payments, Christmas bonuses and performance-related payments) will be somewhat smaller than in 2007.

Wages in the public sector will grow faster than in the private sector due to the beginning of phasing out of wage disparities pursuant to the new wage system. The gross wage per employee will increase by 8.4% in nominal and by 3.0% in real terms. The assumptions regarding the mechanism for wage adjustment to inflation and the time frame for phasing out of wage disparities are different than in the autumn forecast. In January 2008, the social partners concluded an agreement<sup>31</sup> on February's gross wage increase by 3.4% due to higher inflation than projected in 2007, with a supplement for January. Wage dynamics in 2008 slowed down somewhat, owing to the new time frame for wage adjustment for phasing out of wage disparities. The first quarter of funds will be thus paid in May instead of January 2008 and the second quarter in January 2009 instead of September 2008. The agreement also includes a safeguard regarding the last two quarters of funds.<sup>32</sup> Furthermore, the forecast also takes into account the higher workload in public administration due to Slovenia's holding the EU presidency in the first half of the year and increased workload of judges and prosecutors, as well as funds for regular promotions and worker performance.

Wages in the public sector are expected to rise faster than wages in the private sector in 2009. The nominal gross wage per employee will record 6.4% growth and fall a good 1 p.p. behind labour productivity growth. Given decelerated economic activity and three additional working days this year, the gross wage per employee in the private sector will increase by 5.8% in nominal and by 2.5% in real terms. Due to the phasing out of wage disparities, the gross wage in the *public sector* will rise faster than in the private sector next year as well. Along with the regular funds for promotion and performance, the forecast also takes into account the adjustment mechanism and pay raises financed from the second and third quarters of funds earmarked for the phasing out of wage disparities.<sup>33</sup> The gross wage will thus increase by 8.0% in nominal and by 4.6% in real terms. The new

forecast of the expected wage movements in the public sector is 1.7 p.p. higher than the autumn forecast. The key reason for this gap is that the payment of the second quarter of funds for the phasing out of wage disparities was postponed from September 2008 to January 2009, though the difference is also due to the somewhat higher inflation forecast.

Wages in the public sector will grow faster on average than in the private sector in 2010, when the process of phasing out wage disparities comes to an end. The overall nominal growth of the gross wage per employee (6.2%) will lag almost 1 p.p. behind nominal labour productivity growth (7.1%); real growth rates will run slightly less behind (3.2% growth of the gross wage per employee and 3.8% labour productivity growth). The forecast of wage increases in the private sector (by a nominal 5.5% and a real 2.5%) is based on the assumption that the economic environment will improve and that the year is one working day shorter. Besides the regular funds for promotions and performance, the forecast of wage increases in the public sector (by 8% in nominal and 5.0% in real terms) also includes the assumption that the final quarter of the funds for the phasing out of wage disparities will be paid in March 2010. Considering higher inflation, the nominal growth of wages is slightly higher than we projected in autumn.34

Realisation of the wage dynamics forecast depends on the outcome of the misunderstanding between the social partners in the private sector regarding the already reached agreement on the adjustment of wages and on the fulfilment of the in-principle commitment to moderate wage policy in the public sector (see Box 3).

#### Box 3: Wage negotiations

The outcome of negotiations on wages represents a key risk to the macroeconomic stability.

After the trade unions and employers in the *private* sector had already agreed upon a major adjustment of wages to be performed at the beginning of the year to compensate for higher-than-projected inflation last year, the actual agreement was not signed. The social partners transferred the negotiations on the extraordinary adjustment within the business possibilities to the activities level. In some activities negotiations are still underway. The growth of wages in the private sector is also influenced by the minimum wage increases – the act regulating the minimum wage determines a 5.2% minimum wage increase in March and an adjustment in August in line with the existing mechanism. The upward pressure on the growth of the gross wage in the

<sup>&</sup>lt;sup>30</sup> The draft act regulating the minimum wage, which is one of the measures to reduce the effects of higher inflation on the population's welfare, anticipates the minimum wage increase to EUR 566.53.

 <sup>&</sup>lt;sup>31</sup> Agreement related to strike requirements of the strike committee of the representative trade unions of the public sector.
 <sup>32</sup> The agreement stipulates that the phasing out of wage disparities

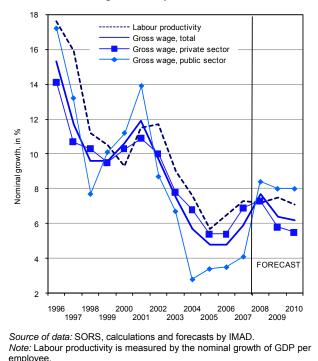
<sup>&</sup>lt;sup>32</sup> The agreement stipulates that the phasing out of wage disparities should be completed by the end of 2010, but allows for postponement if necessary to ensure macroeconomic equilibrium for 2009 and 2010.
<sup>33</sup> The third quarter is expected to be paid by the original plan – in September 2009.

<sup>&</sup>lt;sup>34</sup> By the time when the forecast was made, the adjustment mechanism for this year had not yet been negotiated.

private sector due to the increased minimum wage is limited, by our estimates.

In the *public sector*, the social partners reached an agreement according to which the difference between projected and actual inflation in 2007 should be covered by a wage adjustment in January. The effect of this extraordinary wage increase will be mitigated by the postponement of the phasing out of wage disparities. The negotiated level of funds for the phasing out of wage disparities is somewhat uncertain. Trade unions of certain public sector occupational groups are setting high partial requirements for additional wage increases. Every disproportionate wage increase in favour of one of the occupational groups will have a demonstrative effect and will translate into additional pressure on the overall growth of wages.

*Figure 14:* Nominal growth of the gross wage per employee and overall labour productivity, **1996–2010**, %



#### **Employment and unemployment**

Amid the cooling of the economic cycle, employment growth will start to slow down this year; the unemployment rate will also decline at a slower pace. Employment growth will be relatively high (1.1%) due to the high level of employment at the beginning of the year. Employment will continue to increase largely in market services, particularly in business services. High employment growth will be also recorded in construction, though it will be lower than in 2007. In health care and social care, employment growth rates will be somewhat higher than last year, as well as in public administration, where the increase will be a result of additional hiring in the first half of the year due to Slovenia's holding the EU presidency. On the other hand, employment will continue to decrease in agriculture, fishing and mining. In manufacturing it will also decline again, especially in the traditional industrial branches. The number of unemployed is also expected to decline this year, though the unemployment rate will decrease at a somewhat slower pace than in 2007. The slower decline will be partially attributable to the somewhat higher activity rate, especially among the elderly, while the migration increase is projected to be lower than in the past three years. In line with these assumptions,<sup>35</sup> the survey and registered unemployment rates are expected to fall to 4.8% and 7.3%, respectively.

Continued deceleration of economic growth will translate into a decline in employment growth to around 0.6% in 2009 as a result of a further decrease in the number of people employed in agriculture and industry, and this year also in construction, as major investment projects will come to an end. Employment in the services sector will continue to rise, albeit at a somewhat slower pace than in 2008. The survey unemployment rate is expected to remain at the level of the previous year, while the registered unemployment rate will fall to 7.1%, mainly due to the further decrease anticipated in the number of registered unemployed who are not seeking employment or are unwilling to accept it.

While economic growth will accelerate somewhat in 2010, employment growth will remain at the same level as the year before. Unemployment rates will therefore decrease at slower paces (the survey unemployment rate to 4.7% and the registered unemployment rate to 6.8%).

#### Price and cost competitiveness

Deterioration of the price competitiveness of Slovenia's economy will continue this year, mainly due to a higher rise in consumer prices in Slovenia relative to its trading partners. Under the technical assumption of an exchange rate of USD 1.526 to EUR 1, nominal effective exchange rate growth will be similar to last year (0.8%), whereas real growth will increase from 2.3% to 3.4%, much above the autumn projections (1.7%).

Cost competitiveness will deteriorate less notably than price competitiveness this year. Real growth of the

<sup>&</sup>lt;sup>35</sup> Projections of the population and migrations included in the forecast are based on the provisional Eurostat projection according to the 2008 convergence scenario until the final projection is published, probably this April. Due to a larger number of inhabitants than we expected in autumn, the projected employment rate is somewhat lower now.

effective exchange rate deflated by relative unit labour costs will increase from 1.6% to 2.6%. While labour productivity growth will remain at its 2007 level, growth of the compensation of employees per employee will increase due to the foreseen growth of wages. In manufacturing, where the slowdown in labour productivity growth will be followed by slower real growth of wages, the fall in cost competitiveness will be less pronounced. The real effective exchange rate, deflated by relative unit labour costs in manufacturing will be 0.7% higher (compared to 0.4% last year).

		200	8	20	2009		
	2007	Autumn Forecast (Sept. 2007)	Spring Forecast (March 2008)	Autumn Forecast (Sept. 2007)	Spring Forecast (March 2008)	Spring Forecast (March 2008)	
Employment according to national accounts (increase in %)	2.7	0.9	1.1	0.6	0.6	0.6	
Registered unemployment rate (%)	7.7	7.4	7.3	7.1	7.1	6.8	
Survey unemployment rate (%)	4.9	4.9	4.8	4.8	4.8	4.7	
Survey employment rate (%)	67.8	68.2	68.3	68.3	68.3	68.5	
Gross wage per employee, nominal growth (%)	5.9	7.3	7.7	5.7	6.4	6.2	
- private sector	6.9	6.4	7.3	5.6	5.8	5.5	
- public sector	4.1	9.0	8.4	5.8	8.0	8.0	
Gross wage per employee, real growth (%)	2.2	3.7	2.4	2.8	3.1	3.2	
Nominal labour productivity growth (%)	7.3	7.4	7.1	6.4	7.5	7.1	

Source of data: SORS, forecasts by IMAD.

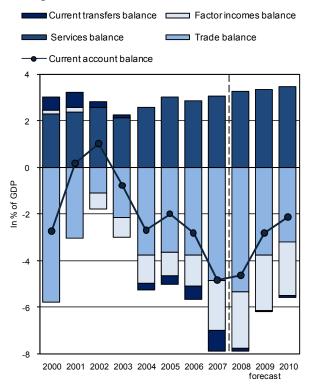
#### Current account of the balance of payments

As the terms of trade are projected to worsen, the current account deficit will widen to 4.6% of GDP. The trade balance deficit will increase slightly relative to last year, since the growth of imports will exceed the growth of exports in real terms; in addition, the terms of trade will deteriorate as well (see section on economic growth and international environment). The expected deterioration in the terms of trade by 1.5 p.p. will translate into a deficit of around EUR 400 m. The current account deficit will also increase due to the growing deficit in factor incomes, which will widen primarily as a result of higher net payments of interest. The increase in receipts from higher interest obtained by the banking sector's strong lending to the rest of the world and investment in debt securities will not be able to match the increasing liabilities due to higher payments of interest on external debt (which is to a large extent due to the high level of borrowing of banks abroad and last year's oneoff increase in BS liabilities to the Eurosystem). The current account deficit will narrow somewhat, owing to the reduction in the current transfers deficit expected as a result of a higher surplus in the national budget against the EU budget, following the deficit recorded last year. The surplus in services trade will continue to increase due to the higher surplus in tourism and partially in trade in transport services this year, whereas a widening of the deficit is expected in other services.

The current account deficit in 2009 and 2010 will decline, mainly due to a gradual improvement in international trade in goods and services. Since exports of goods are expected to grow faster than imports in real terms, and given the improved terms of trade, the deficit in the trade balance will gradually decline. The surplus in the services balance will continue to increase, largely

on the back of the expected faster growth of exports of knowledge-based services. Up to 2010, the foreign trade balance deficit will turn into a surplus, while the deficit in current transfers is also expected to record a slight decline. The deficit in the factor incomes balance, on the other hand, is projected to widen somewhat more in both years, since the surplus in labour income will not suffice to cover the widening deficit in investment income.

## *Figure 15:* Current account of the balance of payments and its components in 2000–2010, as a share of GDP



Source of data: Bank of Slovenia, calculations and forecasts by IMAD.

Table 9: Spring forecasts of the current account of the balance of payments for 2008–2010 and a comparison with autumn forecasts

		2	008	20	2010	
	2007	Autumn Forecast (Sept. 2007)	Spring Forecast (March 2008)	Autumn Forecast (Sept. 2007)	Spring Forecast (March 2008)	Spring Forecast (March 2008)
Current account of the balance of payments, EUR m	-1,621	-1,118	-1,686	-770	-1,103	-899
Current account of the balance of payments, % GDP	-4.8	-3.1	-4.6	-2.0	-2.8	-2.1

Source of data: SORS, forecasts by IMAD.

# Assessing the validity of the IMAD forecast

Regular analysis of the accuracy of forecasts has shown slightly higher values of errors in the forecasts for 2007, which affected the statement of accuracy in the entire period 1997-2007. In view of the uncertainty of future economic trends, individual forecasts can never by entirely accurate; it is important, however, that their mean error be as small as possible over a longer time period. A mean error deviating from the value "zero" may indicate a systematic underestimation or overestimation of future economic trends, though caution is necessary when making conclusions, for in a short analysed period the conclusion may be affected by every error, whether in a positive or negative direction. It also applies in this specific case when somewhat higher values of errors in the forecasts for 2007 have significantly influenced the calculation of mean errors in the whole period.

All institutions, including the IMAD, underestimated real GDP growth for 2007 in their forecasts (see Table 10). The greatest underestimations in forecasts for 2007 were made in autumn 2006, when they totalled between 1.8 and 2.1 p.p. The errors in subsequent forecasts were smaller, ranging between 1.4 and 1.8 p.p. in spring 2007 and between 0.1 and 1.1 p.p. in autumn 2007. This shows that all forecasting institutions had underestimated the strength of the expanding business cycle. The IMAD made the smallest error in the autumn forecast for next year and in the spring forecast of GDP growth for the current year. Its error in the nominal GDP growth forecast for 2007, which is issued only by the IMAD, was larger than in the real GDP growth forecast (which reflects the complexity of estimating implicit deflators).

The most accurate forecasts of average inflation for 2007 were made last autumn. The institutions underrated average inflation for 2007 in all three forecasts. Errors made in the latest IMAD forecast of average and year-on-year inflation totalled 0.2 and 1.3 p.p., respectively.

Under the influence of errors in the forecasts for 2007, the analysis of the accuracy of the IMAD forecasts shows a slight tendency in the direction of underestimation of economic growth and inflation in the ten-year period. The mean error in the forecasts of real GDP growth for the period 1997–2007 totals 0.32 p.p. in the autumn forecasts for the year ahead and 0.20 p.p. in the spring forecasts for the current year. The corresponding mean errors in the forecasts of nominal *GDP growth* total 0.32 p.p. and 0.22 p.p., respectively.<sup>36</sup> The mean errors in the *forecasts of average inflation* amount to a respective 0.28 p.p. and 0.25 p.p. The mean error in the *forecast of year-on-year inflation* is 0.45 p.p. for the current year but somewhat higher, 0.76 p.p., in the autumn forecasts for the year ahead.

IMAD

The most accurate forecasts of GDP growth were made by the IMAD, whereas the Bank of Slovenia was more accurate regarding inflation forecasts. The mean absolute errors (MAE)<sup>37</sup> in the forecasts of real and nominal economic growth ranged between 0.41 and 1.48 p.p. in 1997(8)-2007. The root mean square errors (RMSE), which assign greater weight to larger errors, were only slightly higher (between 0.53 and 1.88 p.p.). In forecasts of average inflation for the current year, the mean absolute errors totalled 0.16 in the autumn forecasts and 0.51 p.p. in the spring forecasts, whereas in the forecasts for the year ahead they totalled 0.80 in the autumn forecasts and 1.15 p.p. in the spring forecasts. The errors in year-on-year inflation are somewhat higher.<sup>38</sup> A comparison of absolute accuracy measures shows that the IMAD forecasts of GDP growth exhibit the lowest absolute accuracy measures among Slovenian forecasters, whereas only the BS achieves slightly better results in inflation forecasts. We find the same if we compare the standardised values of accuracy measures (stdMAE and stdRMSE) which take the variability of the forecast into account phenomenon.39

<sup>&</sup>lt;sup>36</sup> The spring forecasts of nominal GDP growth for the year ahead are especially important from the aspect of budget planning, since they provide the macroeconomic basis for budget preparation for the coming year. The mean error of these forecasts for the period after 2002 totals 0.06 p.p.

<sup>&</sup>lt;sup>37</sup> For methodological explanations, see Ferjančič, M. (2005): "Analysis of the accuracy of IMAD forecasts", Working Paper 2005/13, Ljubljana.

<sup>&</sup>lt;sup>38</sup> Accuracy measures are presented in detail in the Statistical Appendix, Table 14.
<sup>39</sup> Command to the European Commission's forecasts for the old EU.

<sup>&</sup>lt;sup>39</sup>Compared to the European Commission's forecasts for the old EU members, the absolute accuracy measures are slightly worse, whereas in the relative accuracy measures no significant differences were found. These findings generally apply to all new EU Member States (see e.g. Keereman, F. (2005): "Economic forecasts and fiscal policy in the recently acceded Member States", European Commission, Economic Paper, No. 234, November 2005.)

### *Table 10:* Errors made by forecasting institutions in their forecasts of real GDP growth and average inflation, by individual institution for 2007

	GDP growth						Inflation					
	Autumn forecast for the year ahead		Spring forecast for the current year		Autumn forecast for the current year		Autumn forecast for the year ahead		Spring forecast for the current year		Autumn forecast for the current year	
	Forecast	Error in p.p.	Forecast	Error in p.p.	Forecast	Error in p.p.	Forecast	Error in p.p.	Forecast	Error in p.p.	Forecast	Error in p.p.
Realised	6.1	-	6.1	-	6.1	-	3.6	-	3.6	-	3.6	-
IMAD <sup>1</sup>	4.3	1.8	4.7	1.4	5.8	0.3	2.7	0.9	2.2	1.4	3.4	0.2
SKEP <sup>2</sup>	4.3	1.8	4.5	1.6	5.9	0.2	2.5	1.1	2.5	1.1	3.5	0.1
BS <sup>3</sup>	4.2	1.9	4.6	1.5	5.7	0.4	2.6	1.2	2.7	1.1	3.3	0.5
IMF⁴	4.0	2.1	4.5	1.6	5.4	0.7	2.3	1.3	2.7	0.9	3.2	0.4
EC⁵	4.2	1.9	4.3	1.8	6.0	0.1	2.5	1.3	2.6	1.2	3.5	0.3
WIIW <sup>6</sup>	4.0	2.1	4.5	1.6	5.0	1.1	2.4	1.2	2.6	1.0	2.6	1.0

Sources: <sup>1</sup>Spring Report, 2007; Autumn Report, 2006–2007. IMAD; <sup>2</sup>Economic Trends, 2006–2007. CCIS, SKEP. <sup>3</sup>Monetary Policy Report, 2006, Price Stability Report, 2007. BS (<sup>4</sup>World Economic Outlook, 2006–2007. IMF. <sup>5</sup>Economic Forecast, 2006–2007. EC. <sup>6</sup>Research Reports, 2006–2007. WIW. *Notes:* 

Negative values indicate overestimation, while positive values indicate underestimation.

Until 2007 the BS forecast inflation as a % of the change in the current year's final quarter over the previous year's final quarter; the comparable realisation used in all comparisons totals 3.8. From 2007 it started to forecast average annual growth rates in %. The European Commission forecasts inflation based on the harmonised index of consumer prices. The comparable realisation used in comparisons totals 3.8%.