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

EURO CHANGEOVER EFFECT ON INFLATION IN SLOVENIA*

Summary

Inflation in Slovenia has declined significantly since 2002. The sustainable lowering of inflation and its stable developments in 2006 were the result of coordinated policy measures of the Bank of Slovenia and the government.

Following stable price developments, Slovenia adopted the euro in January 2007. As a second entrant country, Slovenia took advantage of other euro zone countries' good practices at the time of euro adoption. The government and the Bank of Slovenia took measures to ensure a smooth transition to the euro, notably the dual pricing that was introduced nine months prior to the euro changeover, and an information campaign aimed at informing the broad public about the possible risk in the process of the currency changeover.

As a result, inflation remained stable in the month prior to euro adoption and immediately after it. Average inflation stayed stable at 2.5 % in the last three months, whereas year-on-year inflation amounted to 2.3 % in November 2006 and declined to 2.1 % in February 2007. The euro changeover has not affected long-term inflation dynamics, but has had a significant effect on some groups of the CPI, notably on services in restaurants and cafes.

On the basis of the analysis of time series properties of each individual price included in the CPI we estimate the total effect of the euro changeover on prices to amount to 0.24 percentage points, being among the smallest recorded in the euro area.

Bearing in mind the fact that the final estimation of the euro changeover effect on prices requires an analysis of a longer time series and will thus not be possible before the beginning of the next year, the presented results, based on a limited set of data, must be interpreted as preliminary.

March 2nd, 2007

* The views presented in this paper are preliminary conclusions of the price analysis based on the data available by February 2007. Final estimates on the effects of the euro changeover in Slovenia will be published by the IMAD in its report on macroeconomic trends in June 2007.

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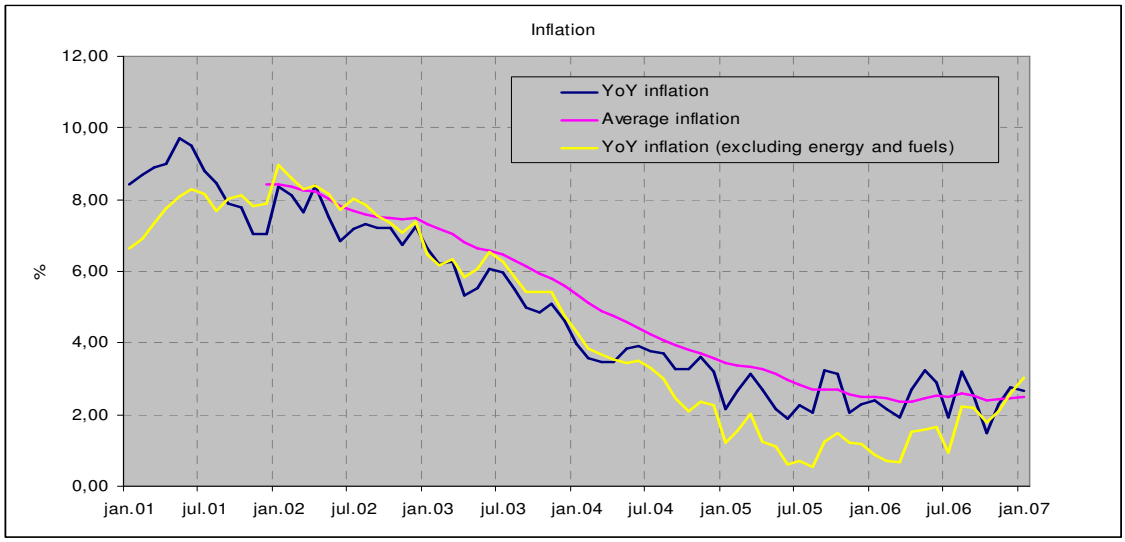
1. Inflation developments in Slovenia in the last five years

Inflation in Slovenia has declined significantly since 2002. CPI inflation totaled 7.2% on the year-on-year basis at the end of 2002, and decreased to 4.6% in December 2003 but still lingered above 4% at the time of entering the ERM II in June 2004. It declined below the Maastricht criterion for the first time in November 2005 and has stayed below it ever since.

The sustainable lowering of inflation was the result of coordinated policy measures of the Bank of Slovenia and the government. Prior to the ERM II entry, the government and the Bank of Slovenia adopted the Programme for ERM II Entry and Adoption of the Euro, which presented key policies aimed at stabilizing inflation below the reference value of the Maastricht criterion. The key element of the programme was stabilization of the tolar's exchange rate. On the other hand, the government continued with strict implementation of the restrictive administered prices increase plan, counter-cyclical adjustment of excise duties on fuels, and wage moderation based on the social agreement. An additional impulse to lowering inflation came from the one-off factors related to Slovenia's accession to the EU, mainly changed foreign trade regimes.

In 2006 the Bank of Slovenia and the government continued with coordinated policy measures aimed at ensuring price stability. Average inflation totalled 2.5% at the end of 2006, having remained at the level achieved at the end of 2005. The average HICP inflation measure used as an indicator of convergence with the Maastricht inflation criterion also stood at 2.5% in December 2006, 0.4 p.p. below the criterion's value for that month. However, year-on-year inflation continued to oscillate around the level of approximately 2.5%, and totalled 2.8% in December 2006.

Graph 1: Inflation in Slovenia

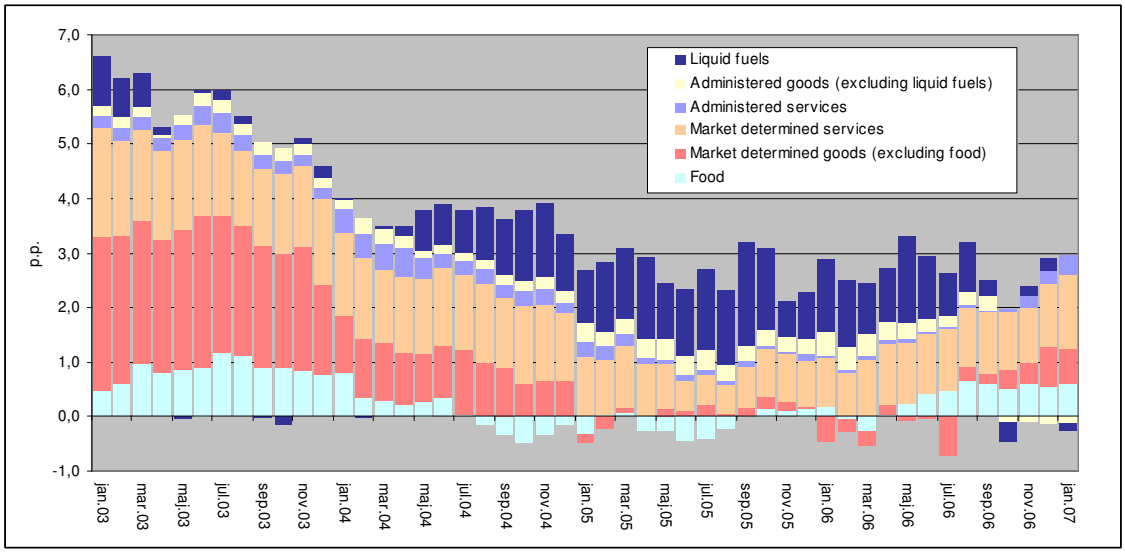


Source: SORS; calculations IMAD.

Together with the declining trend, the structure of inflation changed considerably in the last few years. Graph 2 shows the decomposition of CPI year-on-year inflation into six groups. Throughout the period, the contributions of both market-determined and administered prices declined, and the inflation dynamic (especially between March 2004 and September 2006) was significantly influenced by external factors, namely prices of oil. Furthermore, the contribution of food prices was bigger in 2006 than in 2004 and 2005, which is attributable to two factors. First, the

one-off factor related to Slovenia's accession to the EU (mainly changed foreign trade regimes) that pushed prices of food down in 2004 and 2005 lost its impulse in 2006, which resulted in an increase of non-seasonal food prices last year. This group of food prices rose by 2.5% in 2006. Second, the seasonal pattern of food prices changed in 2006 compared to previous years, resulted in different contribution of food prices to year-on-year inflation. As a result growth in seasonal food prices was higher (7.8%) last year, and food prices in total increased by 3.6%.

Graph 2: Decomposition of the year-on-year inflation



Source: SORS; calculations IMAD.

2. Inflation in the period December 2006 – February 2007

CPI inflation remained stable in the month prior to euro adoption and in months immediately after it. In December 2006, monthly CPI inflation was 0.4%, leading to an increase in year-on-year inflation to 2.8%, whereas average inflation remained stable at 2.5%. In January 2007 prices fell by 0.7% and in February by 0.2%, causing year-on-year inflation to decline to 2.1% at the end of February, whereas average inflation remained stable at 2.5%.

The ratio of the prices that decreased to those that increased remained stable in December but changed significantly in January. In December 2006, the share of prices which increased did not differ from the average number of price increases in the previous months, but was higher than in the December of the previous two years. In January 2007 the share of the prices included in the CPI that increased was among the highest in the analyzed period. On the other hand, however, the share of the prices in CPI that fell in January 2007 was also the highest in this period.

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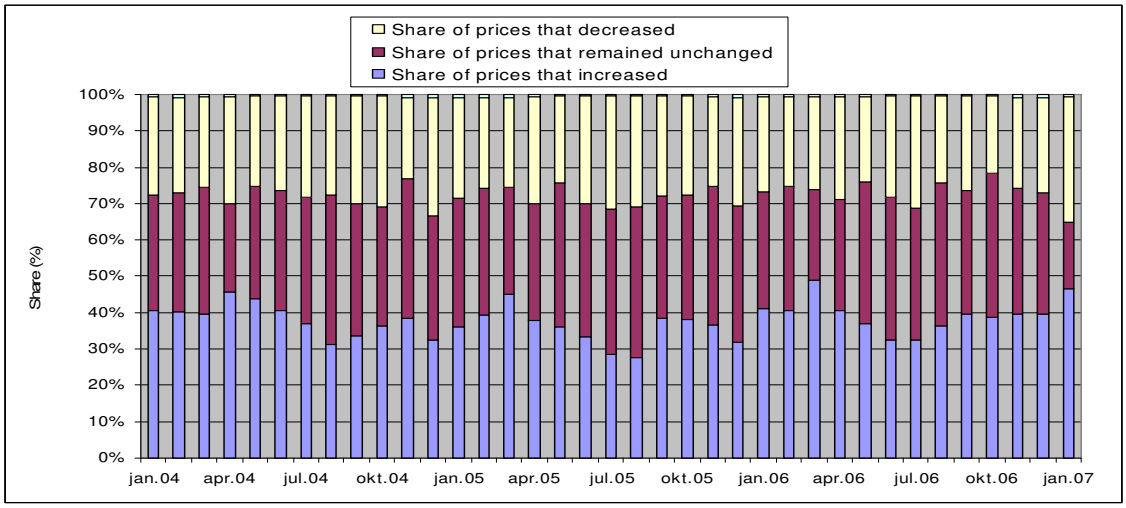
Graph 3: Decomposition of price changes



Source: SORS; calculations IMAD.

3. One-off effect of the euro changeover on inflation in Slovenia

As a second entrant country, Slovenia took advantage of other euro zone countries good practices' at the time of euro adoption. Based on the experience of other countries, the government and the Bank of Slovenia took measures to ensure a smooth transition to the euro. Notably, Slovenia adopted dual pricing nine months prior to the euro changeover, and lead an information campaign aimed at informing the broad public about the possible risk in the process of the currency changeover.

Against this background we estimated the effect of the euro adoption on prices by analyzing time series properties of individual CPI items. Monthly CPI data for the period from January 2004 – January 2007 was analyzed at the individual items level. For all the prices of products and services that are included in the CPI the average value and standard deviation for the period from January 2004 – November 2006 were computed. The price indexes for December 2006 and January 2007 were then compared to the averages. Price indexes that were regarded as unusual (i.e. did not follow expected inflation patterns) were those that were more than 3 standard deviations away from the computed average.

Not all detected divergences of prices from their expected patterns in December 2006 and January 2007 can be attributed to the euro changeover. Namely, the divergence of some prices may be the result of seasonal effects and/or external factors. Therefore, we have not counted these price changes which were identified in the groups of fresh fruit, fresh vegetables, clothing, and package holidays as related to the euro adoption. The share of these goods and services in the CPI amounts to 13.8%. It has to be stressed that these prices were not excluded from the analysis but were only not assumed to be the result of the changeover effect.

The prices of services, especially in restaurants and cafes, were most affected by the euro changeover. The majority of the price increases in December 2006 that are linked to the euro changeover were found in the group of services in restaurants and cafes. These services contributed 0.1 percentage points to inflation in December. Identified as unusual were also some price rises of personal services, certain types of repair services, repair services of household appliances, some

health services, and some footwear services. Taken together, these services contributed an additional 0.03 percentage points to inflation in December 2006. Similarly, most of the price rises in January that can be linked to the euro changeover effect were found in the group of services in restaurants and cafes. These services contributed 0.05 percentage points to inflation in January. Again, the prices of some types of personal services, some types of repair services and some other services were identified as being affected by the euro changeover. These services combined contributed 0.05 percentage points to inflation in January.

Table 1: Contributions to inflation of price rises related to the euro changeover in Slovenia by sub groups of the CPI

	dec.06	jan.07	total
Services for footwear and clothing	0.001	0.001	0.000
Personal services	0.011	0.015	0.030
Repair of household appliances	0.002	0.000	0.000
Maintenance and repairs	0.001	0.007	0.010
Cultural services	0.000	0.002	0.000
Other transport services	0.000	0.014	0.010
Financial services	0.000	0.003	0.000
Health services	0.016	0.000	0.020
Other services	0.000	0.002	0.000
Restaurants and cafes	0.098	0.055	0.150
total	**0.130**	**0.100**	**0.230**

Source: SORS; calculations IMAD.

According to the first release of February CPI data, the effect of the euro changeover faded out quickly. In February, consumer prices declined for the second month in a row (-0.2%) as a result of seasonal and external factors. On the basis of the first release of the CPI data, which is disaggregated only on the main groups of prices, we observed that prices of services in restaurants and cafes increased again, this time by 0.4%. Until detailed data is published, one cannot make any conclusions about the reasons for such an increase. Nevertheless, if we assume that the same proportion of the increase in the prices of these services as in previous months must be attributed to the euro changeover, this adds 0.01 percentage points to the overall effect of the euro changeover.

Around 0.24 percentage points of the total price increase in the last three months can be attributed to the euro changeover. According to the disaggregated data for December 2006 and January 2007, and the data on the main groups for February 2007 we conclude that the effect of the euro changeover on prices in Slovenia was moderate. The euro changeover did not affect long term inflation indicators, but had a significant effect on some groups of the CPI, notably services. Nevertheless, the total effect, estimated to have amounted to 0.24 percentage points, is among smallest recorded in the euro area.

Table 2: Contributions to inflation of price rises related to the euro changeover in Slovenia

	dec.06	jan.07	feb.07*	total*
Other services	0.03	0.04		0.07
Services in restaurants and cafes	0.10	0.05	0.01	0.16
total	**0.13**	**0.10**	**0.01**	**0.24**

Note: *Estimated value.
Source: SORS; calculations IMAD.