

# INFLATION RISKS OF CURRENCY CHANGEOVER AND HOW TO ADDRESS THEM

## PART 2

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*Official statistics for price growth in the euro area for the three years since the euro's introduction into cash circulation confirm the fact that the cash changeover, even on the basis of a long-term comparison, has not been a source of inflationary effects and that it has not threatened price stability in the euro area, as the defining aim of the ECB's monetary policy. Indeed, through the fact that the ECB's monetary policy has proved credibility in its aim, it has significantly contributed to the general decline in inflationary expectations.*

### Price relations in the euro area after three years of the euro's existence in cash circulation

An analysis of price development from 2002 has shown that

the introduction of the euro did have an influence on prices in certain expenditure groups, where this was seen most clearly at the start of 2002. The increased attention paid to price development in these groups continued also in 2003. It was shown however that the direct price effects of the cash changeover drew to an end in 2002. In 2003 no unusual price movements were found that could be directly connected with the introduction of the euro.

A comparison of the whole six-year time period of the euro area's existence (1999 – 2004) (Table 2), which the date of the cash changeover divides into two equal 3-year periods (1999 – 2001, 2002 – 2004), would at first appear unfavourable for the period following the changeover, with average HICP inflation being 2.17%, against 1.83% prior to the introduction of the euro into cash circulation. However, this result is influenced by the very low HICP value for 1999<sup>1</sup>. After excluding the extreme value for this year it is clear that the euro's introduction into cash circulation did not have an influence increasing average inflation values in the euro area. Over the three-year period of its existence the average HICP value was in fact lower (2.17%) than the average for the last two years before its introduction (2.2%).

A comparison of the average HICP for the period prior to and following the introduction of the euro broken down by individual euro area countries (Table 3), gives a mixed

Table 2 Euro area HICP 1999 – 2004, annual average, %

Transition period without cash euro			Euro in cash circulation		
1999	2000	2001	2002	2003	2004
1.1	2.1	2.3	2.3	2.1	2.1
Average for the period 1999 – 2001: 1.83 %			Average for the period 2002 – 2004: 2.17 %		
2000 – 2001: 2.2 %			2002 – 2003: 2.2 %		

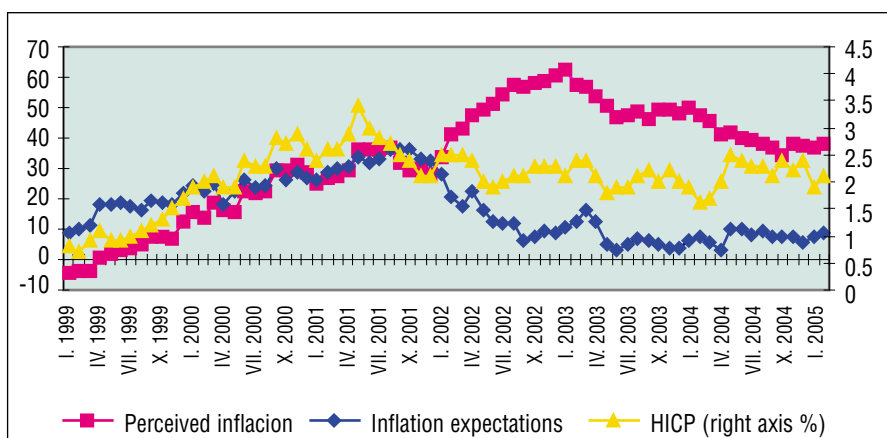
Table 3 Average HICP values in euro area member states 1999 – 2004

Country	Average for the years 1999 – 2001	Average for the years 2002 – 2004
Belgium	2.1	1.6
Germany	1.7	1.4
Greece*	2.9	3.5
Spain	3.0	3.2
France	1.4	2.1
Ireland	3.9	3.7
Italy	2.2	2.6
Luxembourg	2.4	2.6
Netherlands	3.2	2.6
Austria	1.6	1.7
Portugal	3.1	3.1
Finland	2.3	1.2

\*Greece became a member of the euro area only in 2001. The average HICP value for the period 1991 - 2001 is therefore somewhat compressed here, given the intensive disinflationary process connected with fulfilling the Maastricht inflation criterion for entering the euro area.

picture: in six countries the average following the euro's introduction is higher, in five countries lower, in one country unchanged. Against this ambiguity of results it may however be said that the average national aggregate HICP values for these two 3-year periods do not suggest that the euro's introduction into cash circulation was the cause of the acceleration in inflation. Even in countries with the potential for a faster surge in price levels (Portugal, Italy, Spain) the average HICP value remained unchanged or increased only slightly, where the cash

<sup>1</sup> Particularly in consequence of the very low HICP values in the largest euro area economies (Germany, France) and overall with regard to the cyclical slowdown in the rate of economic growth in the euro area.

**Graph 2 HICP, perceived inflation and inflation expectations in the euro area 1999 – 2004**

Source: European Commission Business and Consumer Surveys, February 2005.

Note: The indicator "perceived inflation" is the result of an evaluation of consumers' responses to the question "What do you think about price growth over the past 12 months?". Inflation expectations show their opinion on price growth over the coming 12 months in comparison with the preceding 12 months.

changeover itself had only a very small influence on this increase. Moreover, in Germany, where public opinion on the inflationary consequences of introducing the euro was significantly influenced by the aggressive slogan "Euro's a cost" ("Euro gleich Teuro") (its influence was seen also in countries not belonging to the euro area), the average HICP value for 2002 – 2004 was actually quite substantially lower.

The initial scepticism has also evaporated from consumer organisation assessments and public opinion surveys over the three years of the euro's existence in cash circulation and inflation expectations have fallen quickly. The intensity of perceived inflation against the preceding year had moderated substantially already in 2003, though the gap between perceived inflation and official HICP remained significant. This gap closed significantly in 2004, when despite an acceleration in inflation measured by the official HICP, the rate of inflation perceived by consumers fell over the course of the whole year.

Despite this, the feeling of expensiveness and careful consumer behaviour in purchases continued in several countries. A significant turning point came only in 2004. Interesting results in this regard brings the study "The Euro, 3 Years Later"<sup>2</sup>, which was published in November 2004 by the European Commission. As regards relations directly or indirectly with consumer's price perception, we can say that:

- more than half of citizens in the euro area (52%) no longer have any problems using the euro; only France (48%) and Italy (35%) are below the average for the euro area;

<sup>2</sup> This study was prepared on the basis of an opinion survey poll by the European network of the Gallup Institute, questioning 12,006 citizens over 15 years of age in the 12 member states of the euro area (roughly 1000 respondents in each state) over the period 27 October – 8 November 2004.

- almost half of respondents (49%) in the case of extra-ordinary (large-ticket) purchases most frequently still used the reference price in the national currency; consumers in Netherlands (67%) had adapted least to calculating in euro in the case of large-ticket purchases, whereas in Italy and Greece only 10% and 27% of respondents respectively said the reference currency for them was still the national currency;

- in the case of ordinary purchases the majority (52%) of consumers in the euro area counts in euro: the highest percentage being in Ireland

(91%), the lowest in Italy (42%) and Germany (44%);

- the tendency in consumer behaviour to limit purchases, observed in 2002 – 2003 and connected with fears of future price growth, is ceasing; as seen from Table 4, the overall result for the euro area is caused primarily by the significant change in consumer behaviour in Germany. Nevertheless, one third of respondents (30%) across the whole euro area in 2003 – 2004 said that they were spending more than before the introduction of the euro because they have problems with calculating expenses correctly, 32% of respondents had not changed their behaviour since the introduction of the euro;

- two-thirds of respondents in the euro area expressed a desire for the 1-cent and 2-cent coins to be withdrawn from circulation; only in Germany was this wish expressed by less than half of respondents (in Finland the coins of these two values were not introduced into circulation);

- the withdrawal of these coins would be supported by citizens in the euro area, even if 65% of respondents believe that this would lead to an increase in prices; this fear was expressed most by respondents in France (81%) and Belgium (77%), and least in Netherlands, Italy and Greece (53 – 56%).

### Why consumers may perceive the rate of inflation incorrectly

Consumers form their own opinion of inflation by comparing prices they pay for certain products over the course of time. Their view is as a rule short-term; they focus on their most frequent and important purchases. Experience with introducing the euro has indicated that consumers perceived its influence on prices primarily via the prices of small-ticket goods and services which they buy regularly and most frequently (daily, weekly).



Table 4 Changes in consumer purchasing behaviour

Country	Share of consumers limiting their purchases following the euro introduction		Difference
	2004	2003	
Euro area	36 %	38 %	-2
Germany	49 %	61 %	-12

The role of regular and frequent purchases of items such as groceries, newspapers and magazines, fuel, bus and train fares, restaurants and cafés or hairdressers had a determining influence on the development of perceived inflation. Prices of these items grew faster than aggregate HICP from mid-1999. The higher-than-average growth in the prices of these items may, according to a Eurostat analysis [4], explain up to half the difference between aggregate HICP and inflation as perceived by consumers. Besides the price consequences of introducing the euro, substantial price increases (of a non-euro nature) of other frequently purchased goods, particularly alcohol and tobacco also contributed to the sudden increase in perceived inflation in certain items at the start of 2002.

When prices of some items in cafés and restaurants rose in January 2002 more than usual, consumers realised this. It is difficult for the individual consumer to realise that prices of other goods changed in both directions – up as well as down. For example, every increase in the price of a cup of coffee that could be ascribed to the euro's introduction would need to be countered by only a very slight percentage decrease in the price of a computer or fridge in order to balance out the change in aggregate HICP.

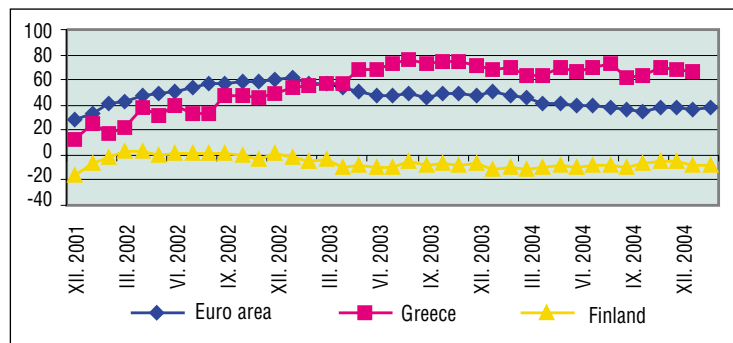
Besides the fact itself of the (non-)recognition of the parallel concurrent 2-way movement in prices, consumer behaviour displays significant asymmetry in valuing gains and losses brought by price changes on individuals' satisfaction (the degree of well-being felt). Much less utility is ascribed to a "gain", which a price decrease brings, than to the impoverishment from a "loss" caused by a price increase of the same sum. This is connected naturally with the fact that a price increase directly worsens the income situation of a consumer, who is then forced to compensate it by reducing consumption in other items of his/her consumer basket or to draw on savings, whereas a price decrease<sup>3</sup> is not accompanied by a need to transfer this money "saved" to increased consumption in other items or to save this money.

The ordinary consumer does not, it is true, have comprehensible statistics available and instead assesses the

<sup>3</sup> In connection with the widespread practice of special offer prices the perception of reduced prices is shifted further – into the point position of "bargain".

situation based on his/her individual current and past experience. Furthermore, besides the fact that the consumer monitors price growth and assesses inflation based on a narrow sample of its most frequent consumer basket, the consumer is not able to directly identify which factors are the cause of a growth in the prices of its individual items. Consumers therefore ascribed also the high

Graph 3 Perceived inflation in Finland and Greece



prices of foodstuffs at the start of 2002 to the introduction of the euro (even though the cause was adverse weather), likewise they would have attributed to the introduction of the euro, for example, petrol price increases were world oil prices to have increased at that time, or the price of meat were the BSE disease to have broken out several months later than it did, though actually its price effects were manifested in 2001.

At the time of introducing the euro consumers monitored price development with extraordinary attention and reacted very sensitively to all official and informal information on price growth published in the media or spread via acquaintances' experiences. Cumulative information upon several cases of price growth could have induced in consumers perception also the emergence of a snowball effect which increased the intensity of their own experience with price increases and strengthened the overall impression on inflationary effects of the introduction of the euro into circulation.

The public's knowledge on the main aspects of the euro's introduction had a very significant effect on the advance of the snowball effect and the overall intensity of perceived inflation. Sufficient information towards the public worked also as a factor strengthening credibility as to the reliable preparation of the whole cash changeover operation. The correlation between insufficient information and high perceived inflation, or respectively a good level of informedness and low perceived inflation proved convincing (Graph 2). While Finland, according to opinion polls, was the country with the highest number of well-informed respondents, Greece had the lowest number. In this regard, it was these two countries which reported the lowest (Finland) and the highest (Greece) perceived inflation<sup>4</sup>.



An additional factor that contributed to the increase in perceived inflation during the euro's introduction was the population's inexperience in operating in the new price environment that in consequence of complicated conversion rates was mostly difficult to comprehend for the consumer. Memory of prices from the past, or stored shopping receipts from the original currencies, could cause, sometimes quite considerable, distortion of the information on the price in euro when, after cancellation dual pricing, recalculating prices with the help of rounded conversion rates, and this increased the size of the price change<sup>5</sup>.

To summarise: main factors contributing to the high perceived inflation in the euro's introduction were as follows:

- subjective evaluation of price development in the items of an individual (narrowed) consumer basket,
- increase in prices in items of goods and services with lower unit prices, repeatedly and frequently purchased by consumers,
- asymmetrical perception of price increases and decreases,
- inclusion of non-euro-related causes of price increases,
- a snowball effect, which magnified personal experience with price growth,
- insufficient informedness of the population on general facts of the cash changeover,
- long-term memory of prices from the more distant past,
- imprecise recalculation of prices according to the rounded conversion rate;

Therefore it is desirable that a phenomenon of perceived inflation be systematically monitored, analysed and that the whole issue is clearly communicated to the public – with specific regard to selected groups of consumers (e.g. pensioners).

### **Outline of measures and procedures for limiting inflation acceleration upon the euro's introduction in the SR**

Inflation, or price growth is one of the most sensitive indicators by which the population measures the development of the standard of living and by which it shall assess its relation to the new currency and subsequently to the SR's membership in the euro area and EU as a whole. A smooth and nationwide problem-free acceptance of the euro introduction in the SR therefore requi-

res that the preparation for its introduction contains proper information on the expected potential price consequences from the changeover to the new currency and on the activities for eliminating them and protecting the final consumer.

To get familiarised with the value of the euro and to get used to payments in euro, Slovak citizens – contrary to the current euro area countries – shall not have any transitional period for its voluntary use (only) in non-cash transactions, which represents a certain disadvantage. On the other hand, an advantage for all future members of the euro area, including Slovakia, is the existence of the euro, which enables ongoing familiarisation with its value as well as visual features of individual banknotes and coins, and in the end also its (ordinary) use in cash payments.

### **What to expect in price development upon the cash changeover**

In Slovakia, in contrast to the current euro area countries, there will thus exist a certain experience in introducing the euro and therefore it may be presumed that the "value chaos" in the new price environment will be lower. Consumers will probably be less prone to make their payments in euro more expensive, at the expense of "their own mistakes", by for example using coins with the lowest nominal values.

For an illustration of current knowledge and experience of the Slovak public with the cash euro we state some results of a poll<sup>6</sup> from October 2004:

- 45% respondents had already held in their hand euro banknotes as well as coins; 39% had not yet held them at all,
- most respondents considered the greatest benefits of the euro's introduction as making travel abroad simpler and making payments in shops simpler,
- most respondents marked price growth, making things more expensive, as the greatest disadvantage in the euro's introduction,
- price increases following the introduction of the euro were expected by more than four fifths of respondents (46% expect significant price growth, 37% a slight price increase),
- of the specific requirements of citizens for information on the euro, the most requested was that on the impact of the euro's introduction on prices (17% of those asked),

and the current price in euro generated a higher price growth than that (if any) actually occurred. A lesser error, though in the opposite price reducing direction, was naturally provided by the recalculation according to the 1x14 formula.

<sup>6</sup> The research was conducted by the Institute for Public Opinion Survey at the Statistics Office of the SR by means of its poll inquirers in the period from 1 – 8 October 2004, on a representative sample of 1111 respondents aged 18 and above.

<sup>4</sup> Eurobarometer, November 2001.

<sup>5</sup> For example in Austria, people often used in fast calculations the 10/1 ATS/EUR exchange rate, while the precise conversion rate was 13.7603/1. In consequence of this, the amount on the stored (reference) receipt in schillings, e.g. from 1999, was substantially lower than that indicated in 2003 by the recalculation of the price of the same good in euro to schillings according to the 1x10 formula. Retrospective comparison of the reference price in schillings



where it is necessary to add to this group also the requesters for all information (15%).

The transitional higher perceived inflation in consequence of price rounding in the cash changeover must be counted on also in Slovakia. It will however not be any price shock or across-the-board phenomenon. Though it will be concentrated in those items of goods and services most perceived by the consumer, it will nevertheless be a very short-term phenomenon. In the case of goods and services of long-term consumption, which also in Slovakia are purchased with ever greater frequency in the form of non-cash payments, we can from the operation of the "single price law" expect rather the opposite downward price effect. As for tradable goods, price growth will be offset by competition.

A slight price growth will naturally happen also following the euro's introduction. However, this price increase will be connected with faster economic growth and the process of prices catching up in Slovakia (by way of real convergence to the European average) and will be accompanied by corresponding wage growth. Slovakia will be not able to avoid either the short-term price shocks, which will be caused by the development in world oil prices and other energy raw materials, conditions for agricultural production, or, for example, the price policy of network industry regulators.

### How to address unjustified price increases

In order to eliminate impulses which could, in connection with the cash changeover, cause inflation acceleration, it is first and foremost necessary to achieve an atmosphere of general consensus among general government bodies and private business sector and to ensure via consumer organisations also cooperation from the side of the public. A key condition and at the same time the main instrument for achieving this nationwide consensus is sufficient relevant information as such, however, crucial is to find suitable ways for its diffusion among the public so that each citizen has not only the possibility to access this information, but is also actually informed on the main aspects concerning the euro's introduction in the SR.

Procedures and measures that can be applied by State bodies and general government institutions:

- declaration by the State that the introduction of the euro will have a neutral price and income impact on citizens, i.e.:
  - regulated prices shall be recalculated precisely according to the conversion rate,
  - prices, fees, wages and salaries in the public sector as well as all types of pensions, allowances and taxes shall be recalculated according to the conversion rate, or be rounded in favour of the citizen,
- to initiate the achievement of agreements on non-incre-

asing of prices (on price stability) with business associations,

- to draw attention in the public media to companies refusing the price stability agreement or breaching them,
  - for a period of several months prior to the introduction of the euro, when the conversion rate is already known, to issue for all retail sector businesses a recommendation, or to set the obligation to apply dual display of prices in koruna and euro,
  - for a period of several months following the introduction of the euro to order compulsory dual pricing in euro and koruna, including the suitable provision of information on the conversion rate,
  - monitoring of prices at very short intervals should be performed by the Statistics Office of the SR throughout the period of dual pricing (prior to and following the conversion date), but also for a certain time following its cancellation (danger of a new price jump),
  - special attention, in particular in the first weeks following the euro's introduction, should be paid, in the form of monitoring the narrowed consumer basket, to prices for daily consumption goods and services,
  - to ensure for citizens permanent access to information on the:
    - conversion rate,
    - conversion rules from koruna to euro,
    - appearance, value and security features of euro banknotes and coins,
  - to set up a telephone line for the public to report identified cases of breaching the set, or agreed rules of the cash changeover and of abusing the euro's introduction for unjustified price increases,
  - for suppressing unjustifiedly high perceived inflation from the side of consumers to ensure, by means of public media, clear communication of the current price development with the emphasis on the potential extraordinary causes for price growth, not connected with the cash changeover operation.
- Procedures which can be adopted by the private business sector:
- declarations (commitments) of retail chains and retail associations that in the period of dual pricing they will not increase prices and to comply with these commitments,
  - in each shop or other retail facility to put on a visible place a table with the conversion rate in order to facilitate the conversion of prices from koruna to euro and vice versa,
  - retail chains may, in the interest of promoting competition, adopt strategies of consumer-advantageous rounding to psychologically attractive prices, the result of which should, prevailingly, be a price reduction.
- What consumers can do:
- pay increased attention to information on price develop-



ment and learn to distinguish which price increases are a result of the euro's introduction and which are a result of other causes,

- in order to create (relatively reliable) reference prices, to store at a sufficient time before (approx. 1 year) the euro's introduction receipts and till slips for their typical payments, which they will be able to compare to the payments in euro,
- carefully monitor price development in the period of dual pricing and learn to use information on dual pricing,
- in the first payments in euro (in particular in the case of large purchases) to give preference, in making check recalculations, to calculators rather than rough recalculations from memory according to a simplified conversion rate,
- not pay extra for purchases and tips for services provided: from the start of using euro to bear in mind that also the coins with the lowest nominal values have a real value ("every cent pays"),
- to draw attention to vendors and firms abusing the euro's introduction for price increases.

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