



HOW THE EURO CHANGEOVER WILL AFFECT SLOVAK HOUSEHOLDS

Vladimir Solanič, National Bank of Slovakia

Slovakia, as a Member State of the European Union, is expected to introduce the single currency. The estimates and analyses of this step have up to now been focused on the macroeconomic level. Although it has been confirmed that the adoption of the euro will benefit Slovakia as a whole, its effects on the inhabitants and individual households have not been sufficiently examined. In a study published in June 2006, the NBS Research Department focused on estimating the effects of the euro changeover on households. The purpose of this article is to provide a summary of our findings and the related methodology. The more demanding reader should look up the full study on the website of the National Bank of Slovakia.¹ It should be borne in mind, however, that these are only estimates and that it is not possible to describe precisely what the actual development will be.

Methodology

The main aim of this analysis is to compare the development of real household income in Slovakia in two situations: first, if Slovakia did not adopt the euro, and, second, where the euro becomes the country's official currency. For these two situations, different assumptions are stipulated for the development of fundamental macroeconomic indicators, which consequently affect the individual components of both income and expenditure.

The basic assumption is that the euro changeover will affect these components in different ways. The euro will support economic growth, and this will be reflected in stronger wage growth and in business income. It cannot be expected, however, that the euro will have an automatically positive effect on, for example, the level of social benefits, which are set by law.² Under this assumption it is clear that the higher a household's income from wages, the more it will benefit from the euro changeover. Conversely, people whose main source of income is state benefits will not necessarily see a notable rise in their living standards following the euro's adoption.

The euro will likewise have a varying effect on different areas of expenditure. Prices of importable goods will rise relatively slowly. By contrast, expenditure on services or housing will increase more sharply since, under the Balassa-Samuelson effect, their prices will rise more quickly than those of marketable goods. In this regard, it can be expected that for households with a higher share of expenditure on services, the euro changeover will have more of an adverse effect. For households that spend heavily on goods, however, it will surely be a benefit.

The first task in calculating expenditure is, on the basis of its final composition, to determine the price deflator that will be used for the calculation of real income. The calculation of expenditure takes into account both the different structure of the consumer basket of different types of household, and the fact that a given type of household will see its consumer basket change as its income increases.³

This information is used to determine the final consumption of each type of household. For the setting of the overall price index, the price deflator is then calculated so that the price indices of the individual expenditure items are weighted by the share of the given item in the total final consumption of each type of household.

The final household nominal income is determined on the basis of the assumptions for the different items of household income during the reviewed period. These are eventually adjusted by the price deflator obtained from the analysis of expenditure development. The real income established in this way is then used to compare the individual scenarios.

Our analysis is based on the family accounts of the Statistical Office of the Slovak Republic for 2004, which include data used to ascertain the basic characteristics of household living standards. The accounts include the structure of household income and expenditure as well as details about household members (marital status, age, economic activity, etc.). For the sake of clarity, the income and expenditure of the individual members were aggregated into larger groups.⁴ In addition, gross income was adjusted by the deduction of income tax and compulsory statutory insurance. For the following calculations, only net household income is used.

¹ At www.nbs.sk – Menu / Publications / Other NBS Documents / Research Publications / Research Publications 2006.

² Two aspects may be noted here. First, it is assumed that the real value of social benefits will not increase, in other words, that this income will be adjusted solely for inflation. If therefore it is expected that inflation will, *mutatis mutandis*, be higher with the euro than without it, then social benefits in nominal terms will be higher in the event that Slovakia adopts the euro. The second aspect is that the euro changeover could lead to a real increase in social income, as stronger economic growth boosts tax receipts and thereby allows for an increase in social benefits for lower-income groups.

³ This fact is taken into account by estimating the so-called linear expenditure system, which shows how households divide additional income among different types of expenditure.

⁴ The number of groups created for income and expenditure are, respectively, seven and five. Further details on both divisions may be found in the study itself.

Assumptions

The greatest benefit that the euro changeover should bring households is higher wage growth. It is expected that, with the euro in place, the pace of real wage growth will be approximately 0.7% faster over a period of up to 20 years. This is in addition to the fact that wage growth would probably be high even if the euro were not introduced. The euro should similarly have a positive effect on business income, for example, among sole traders. The effect on pensions should also be positive, albeit only around half as much, with the increase expected to be around 0.3% higher per year. As regards social benefits, income from assets, and other income, they are not expected to increase as a result of the euro changeover. The assumptions for this basic scenario are shown in Table 1.

Table 1 Assumed development of individual factors for the basic scenario (in%)

Without euro With euro	Years	Wage growth	Rise in pensions	Rise in social benefits	Rise in other income	Total inflation (commercial/non-commercial)	Deposit interest rates
		real	real	nominal	nominal		nominal
Without euro	10	4.0	2.00	3.0	3.0	3.0 (0.5; 5.5)	3.0
With euro	10	4.7	2.35	3.8	3.8	3.8 (1.0; 7.6)	2.5

me situation, for example, through requalification and employment.

For each member of the average household, the net income is around SKK 9,600. More than 60% of this household's income comes from wages. The second largest component is old-age pensions, which account for more than 18%. The smallest components of total household income are income from assets and income from voluntary pension insurance (around 0.5%).

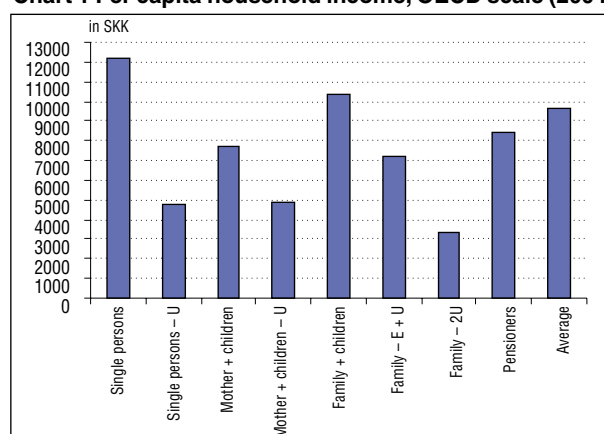
Household income⁵

Chart 1 shows the level of income per household member, adjusted in accordance with the OECD scale. For households, loss of employment translates into a substantial decline in income in comparison with the average income for the respective type of household (e.g. a mother and children compared with an unemployed mother with children). Put another way, the social benefits or other income (e.g. child maintenance for single mothers) cannot compensate for the lack of wage income, since social benefits are relatively low in comparison with wages. This fact is clearly seen in the case of families in which one of the partners is unemployed. The social benefits drawn by an unemployed partner are substantially lower than the income earned by an employed partner (Chart 2). In terms of income per household member, the last place is occupied by families in which both partners are unemployed. The group with the highest per capita monthly income is that of single-person households, followed by families with children. In both groups, wages make up the largest part of income (around 80%). Although pensioners are often referred to as a risk group, our data paints a slightly different picture. While the income of pensioners is lower than that of the average family (in per capita terms), it remains substantially higher than the income of family households which include unemployed members and children. That said, some pensioners do not have the possibility of actively improving their income situation,

Household expenditure

As regards the expenditure structure of individual types of household (Chart 3), certain trends (albeit not very

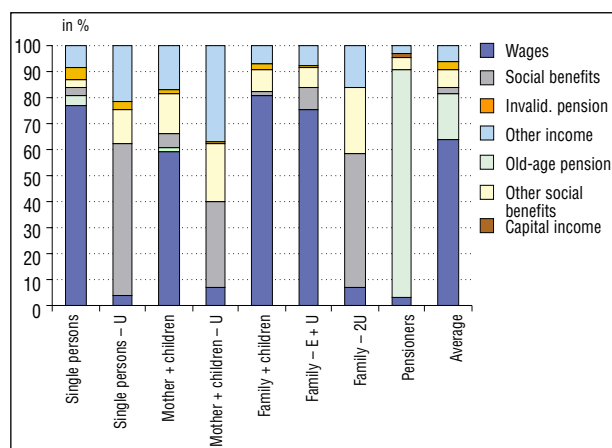
Chart 1 Per capita household income, OECD scale (2004)



Source: Slovak Statistical Office (ŠÚ SR), own calculations.

U – unemployed
E – employed

Chart 2 Income structure in 2004



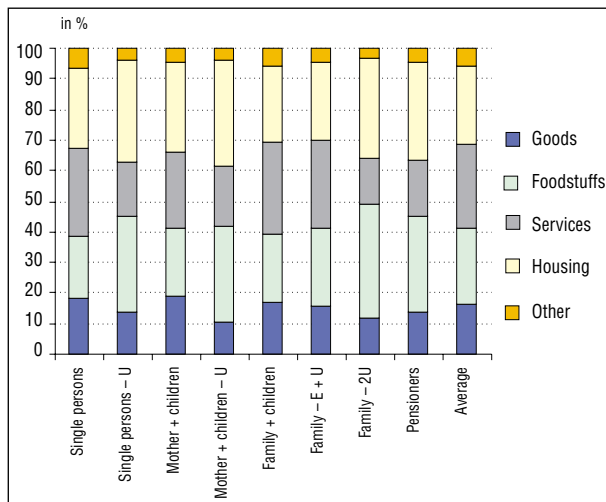
Source: Slovak Statistical Office (ŠÚ SR), own calculations.

U – unemployed
E – employed

⁵ Two segments were created for households. Whereas the first takes account of their composition (breakdown by type), the second covers the level of their income per member (breakdown by decile). Further details on these two segments may be found in the study itself. This article presents results for the first segment only, that is, according to type.



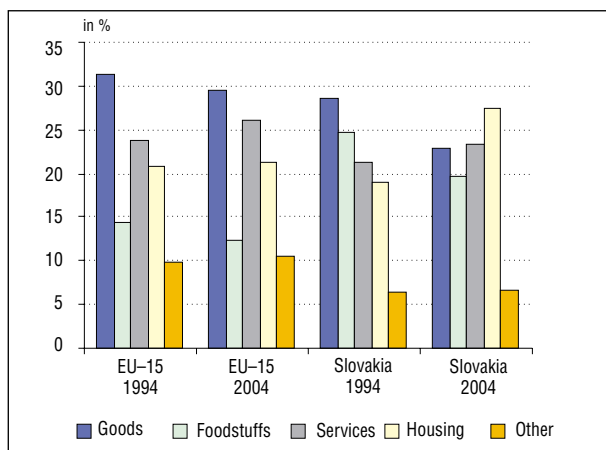
Chart 3 Breakdown of household expenditure (2004)



Source: Slovak Statistical Office (ŠÚ SR), own calculations.

U – unemployed
E – employed

Chart 4 Expenditure in the EU-15 and in Slovakia



Source: Eurostat.

clear) may be seen. In the case of subgroups with unemployed members (except for families with one unemployed member) and pensioners, it is noted that these households in comparison with other households have to spend a greater proportion of their income on basic necessities such as housing and foodstuffs, and consequently they have less money to spend on goods and services.

The expenditure of the average Slovak household is split similarly between foodstuffs (25%), housing (26%) and services (27%), with goods (16%) and other items⁶ (almost 6%) accounting for the rest.

Chart 4 compares the breakdown of expenditure in the EU-15 and in Slovakia for the years 1994 and 2004. The message is clear: Slovakia and the EU-15 have similar trends in regard to consumption, but the increase or decrease in expenditure on different groups of items is far more pronounced in Slovakia. It can be seen, moreover, that Slovak households and EU-15 households have markedly different levels of spending on individual con-

sumption items. In 2004, the average Slovak household had to apportion a much larger share of its income to housing and foodstuffs than did its EU-15 counterpart, while the proportion it spent on goods was substantially lower. Expenditure on services represented the most similar share.

As has been mentioned, the euro changeover will have varying effects on different goods and services. Prices of services and non-marketable goods are expected to rise more steeply in relative terms. The euro will probably increase overall price growth, though household income should rise faster still. Households that spend relatively more on those goods and foodstuffs whose prices increase more slowly will gain more from the euro. By contrast, those who spend more on services and housing may notice a stronger rise in prices.

As regards the conversion of prices from koruny to euros, people are concerned that there will be rounding up. Although it will not be possible to completely prevent this practice, its effect is expected to be very small, up to 0.2%. Not only will strong competition between businesses prevent systematic higher marking-up, so will the thorough system of dual pricing in euros and koruny.

Besides making ordinary consumption cheaper, the adoption of the euro should reduce the price of most lending. Moreover, all fees and risks related to the conversion of koruny into euro will be removed.

Effect of the euro on living standards

The development of real income in simulations with and without the euro is shown in Chart 5. According to our estimates, the increase in real income over the 10 years following the euro changeover will be on average 4.6% higher than it would be if the euro were not introduced. In the course of 20 years, the overall effect should rise to 9.8%. The households that will benefit the most are families with employed members / families with children, and single persons. The real income of both groups should over the course of 10 years rise by around 5%. The living standards of pensioners are expected to increase by an additional 2.5%. For families whose members are all able to work but are unemployed, the introduction of the euro is not necessarily a positive prospect. It is, however, relatively simple for the state to address this fact by raising social benefits.

At the other end of the spectrum, the situation is more complicated. The chart makes clear that two types of household will probably report a decline in real income, whether the euro is introduced or not. The effect of the euro on

⁶ Other items includes spending on books and newspapers, monetary gifts, loan repayments, purchases of bonds or shares, spending related to private business conducted in the household, and other expenditures not classified elsewhere.



these groups could prove slightly adverse. In comparison with the scenario in which the euro is not adopted, unemployed single persons, who are the most dependent on the state, are expected to be worst off. The presence of the single currency could result in their income going down by a further 0.2%. That result is, though, based on the relatively conservative assumption that the increase in social payments will correspond to inflation. In fact, some social benefits will be indexed in other ways, or they will be increased at the government's discretion. The next part of the analysis will, among other matters, look at the alternative scenario in which the government puts up the real value of social benefits. Doing so would provide scope to prevent the euro changeover from adversely affecting certain household groups.

This conclusion should be treated with caution, since it is based on the assumption that the given type of household does not change throughout the period under review. Such an assumption is to some extent realistic for certain types of groups, such as some families with children (specifically, families which are no longer growing) and pensi-

oners. On the other hand, however, it is less likely, for example, that unemployed members of a household will remain unemployed for the duration of 10 years. Indeed, the euro's adoption is expected to increase employment, and so at least some unemployed will obtain work and increase their income. Therefore the situation posited by us represents an extreme.

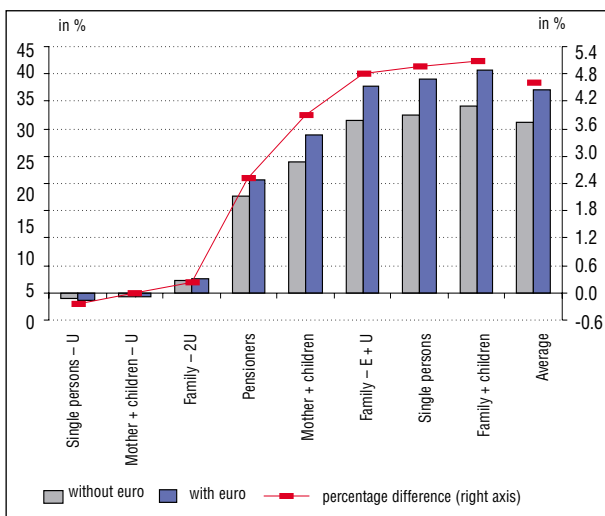
Estimates under other conditions

If the future situation were to develop differently than assumed, the euro's contribution to the increase in living standards would change. One difference could be in government policy on social benefits, whereby they are raised by more than the rate of inflation. Were the real growth in this income to go up by at least 1% per year, those groups which are most dependent on it would see their living standards over 10 years increase by between 5% and 9%. The state will be able to afford a slight rise in social expenditure, since the stronger economic growth that follows the euro changeover will provide for an increase in tax receipts.

A comparatively less favourable scenario for the euro would be if it were not introduced and the inflation in Slovakia remained lower. In this case, it is assumed that the NBS would leave its inflation target at the level of 2% even after 2009 (the NBS Monetary Programme has up to now set the inflation target only up to the end of 2008). If, with the euro not adopted, the inflation rate fluctuated at around this level, the benefits of the euro would be reduced. But if, with the euro adopted, inflation were lower than expected, the euro would represent a greater benefit. Therefore if the original inflation assumption for the situation with the euro is changed to 3.3%, every type of household will gain (this would be appreciated mainly by higher risk groups).

It is all but clear that the euro's contribution to raising income will be smaller if the contribution of the euro changeover to the growth of the overall economy, and therefore to the increase in wages and pensions, is reckoned to be half as much. The amount of lost euro-related gains varies across groups according to what share of income comes from wages or pensions.

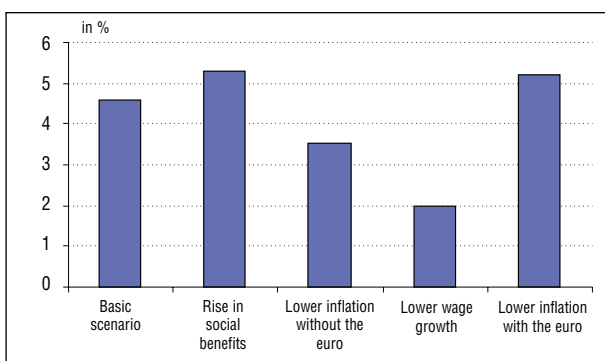
Chart 5 Estimated increase in real household income



Source: own calculations.

U – unemployed, E – employed

Chart 6 The euro's contribution to the increase in living standards



Source: own calculations.

Conclusion

Our study takes a closer look at the potential effects of the single currency on the real income of Slovak households, based on the structure of household income and expenditure in 2004. On the income side, the analysis indicates the significant role that wages play in its generation; as regards expenditure, it is telling that the poorer or higher risk types of household have to spend a greater share of their income on basic necessities such as housing and foodstuffs.¹



In simulating the benefits of the euro, we used a basic scenario whose assumptions were based on published estimates for the effect of the single currency on different macroeconomic indicators (e.g. economic growth, inflation, interest rates etc.). This basic scenario shows that the euro will result in the real net income of the average household being around 4.6% higher over the 10 years following its introduction. The evident winners will be those households whose entire income is from wages. By contrast, lower-income groups could even be adversely affected by the euro, depending on how their social benefits are indexed.

In the alternative scenarios, both risks and opportunities were identified in relation to the euro. The main risk concerned the lower growth in real wages in comparison

with the basic scenario. Another risk was the higher rate of inflation. The loss caused by not adopting the euro would be kept to a minimum if inflation were held at a low level. The principal opportunity is for a real increase in social benefits. If the real increase in this income is raised by one percent, it may substantially improve the total income of lower-income families, especially those lacking income from employment. As economic growth is boosted by the single currency, so it should provide sufficient scope to raise the income of the risk groups. The euro's potential to increase the state's tax receipts, combined with a policy of moderately raising the real increase in social benefits, will ensure that all household groups benefit from the adoption of the euro.