Box 1. Effects of the euro introduction on the Lithuanian economy in the short and medium term

With Latvia’s accession to the euro area, the euro becomes the common currency of the 18 EU member states from the beginning of the next year. Lithuania is currently preparing to adopt the euro in 2015. After replacing the base currency (US dollar) of the currency board with the euro in February 2002, the obvious step was taken in integrating the Lithuanian monetary system to the euro area, but only upon becoming a full-fledged member of the euro area could Lithuania directly participate in making euro area monetary policy decisions and enjoy other benefits of the European economic and monetary union.

Although there is a close link between the monetary policy of the currency board applied in Lithuania and the monetary policy of the euro area, accession to the euro area might have significant impact on Lithuania’s macroeconomic indicators and their developments. For example, the introduction of the euro would reduce the risk premium applied to the interest rates in Lithuania, and the elimination of currency exchange costs, reduction in the rates of cross-border payments in euro and general reduction of the costs of entrance into the euro area market should increase exports. On the other hand, changing prices in litas to prices in euro may lead to one-time change in inflation.

The purpose of this box is to analyse the impact of the euro introduction on the Lithuanian macroeconomic variables in the short and medium term. After discussing the channels of the euro introduction impact on the Lithuanian economy, the box provides likely quantitative estimates of the impact.

Channels of the euro introduction effects

Lithuania’s accession to the euro area should reduce the interest rates for domestic entities. This reduction might be determined by two reasons. First, the introduction of the euro would eliminate the risk of the exchange rate of litas against the euro, leading to a significant reduction of the currency risk premium included in the interest rates. Second, with Lithuania’s accession to the euro area, the credit risk premium applied to the country’s businesses and households, and thus to the whole country, should significantly decrease. This decrease is mainly the result of a better balanced currency structure of balance sheets of many Lithuanian economic entities (enterprises, banks, government institutions, etc.). Joining the euro area would also mean the greater attention of the euro area countries to our country’s economic policy; therefore it is likely that it becomes more predictable. Meanwhile, participation in the European Stability Mechanism would mean more favourable state borrowing in hard times. This, altogether, should reduce the credit risk and improve the country’s access to the financial markets. In other words, if Lithuania adopts the euro, the risk premium included in the interest rates should be below the risk premium which is included with the same macro-economic indicators, but without adopting the euro.

The introduction of the euro is likely to boost Lithuania’s foreign trade volume by reducing the foreign trade costs; both variable and fixed (see Baldwin et al. 2008). Adoption of the euro in the country would eliminate the need for exchanging litas to euro and vice versa, and would simplify the accounting of international transactions. According to the information of 2012, 59 per cent of total export transactions and 55 per cent of total import transactions in Lithuania are carried out in euro, and in the country’s non-banking sector annual currency exchange costs comprise about 0.14 per cent of GDP. Trade costs should be further reduced by lower settlement rates in euro with entities situated in other EEA countries. According to Regulation (EC) No. 924/2009 of the European Parliament and the Council of 16 September 2009 on cross-border payments in the community, EEA payment service providers must charge the same fee for international transfers in euro to other EEA countries as for the payments in euro within the country. Reduction in the rates of international settlements in euro to the level of local payment rates applicable in the country’s banks would allow annual savings of 0.06 per cent of GDP for the non-banking sector in Lithuania. Such fixed and variable cost savings should positively impact the price competitiveness of Lithuanian companies and boost exports.

The experience of some countries that have adopted the euro has shown that the channel of lower trade costs is driving not only the intensive, but also the extensive development of trade, i.e. it not only activates the trade in goods which have been traded before but also expands the variety of goods. The background of the another euro effect channel, distinguished in economic literature (Baldwin, Taglioni 2004; Baldwin 2005, 2006; Baldwin et al. 2008) is as follows: the reduction of fixed and variable trade costs in the trade with the euro area countries reduces the cost of entry to the euro area market, which encourages the companies, which were oriented to the local markets before the introduction of the euro, to engage in international trade. This extensive trade development channel should have a positive impact on exports of Lithuanian companies.

Another impact channel of the euro introduction mentioned in the literature is the increased competition between companies in the countries with a common currency (see Baldwin et al. 2008). The use of a single currency improves the comparability of prices between countries and increases market transparency. This encourages competition among exporters, limits production mark-ups and thereby increases the demand for products. In foreign literature this channel is seen as an important factor in promoting trade among euro area countries.

The experience of euro area countries shows that, in addition to the discussed effect of the euro introduction on interest rates and foreign trade, a one-time increase in the price level can be expected upon the introduction of the euro. The literature indicates that a one-time increase in prices in the countries joining the euro area is attributed to four main reasons. First, vendors tend to make converted prices convenient for payment or psychologically attractive. Exactly converted prices do not have these properties, so most vendors are adjusting by increasing prices. Second, in reforming accounting systems and pricing, companies experience one-off costs related to currency exchange, which, as shown by the experience in the Netherlands (2002), are passed on to consumers. Third, the change in currency makes it more difficult for some time for
consumers to compare prices of products with former ones, to assess the relative prices, and they can put not enough effort to deal with temporary difficulties related to the comparability, especially when purchasing a lower nominal value, frequently purchased goods. Such consumers’ rational inattention can in turn create conditions for the price increases (Ehrenmann, 2006). Finally, currency change prompts sellers to review all prices at the same time, although prices are generally reviewed on demand, not necessarily altogether. In other words, most of the prices are not fully flexible, they are set for a shorter or longer period of time and do not change within this period. Thus, the simultaneous revision of prices upon introduction of the euro may temporarily affect inflation, but it does not mean that prices are increased or reduced only due to currency change.

**Effects of the euro introduction on the main macroeconomic indicators of Lithuania in the short and medium term**

So far discussed euro introduction channels can be grouped in two groups according to their primary effect: effects on the economy, manifested through a decline in interest rates, and effects on the economy, manifested through increased exports. In addition to such an effect there may be a one-time increase in the price level.

**Impact related to the reduction of the interest rate risk premium**

The Bank of Lithuania (2013) estimates that after the introduction of the euro weighted interest rate to Lithuanian entities could decrease by 0.29–0.56 p.p. The lower boundary defines the decrease of interest rate when the interest rates of loans in litas are reduced to the interest rates of the corresponding term loans in euro but the latter rates do not change because of the euro introduction. The upper limit includes credit risk reduction because of the expected increase of the Lithuanian rating from BBB to A.2

About Lithuania’s accession to the euro area will be known about half a year before the actual introduction of the euro. If it is introduced in 2015, Lithuanian economic agents should have built their expectations about the introduction of the euro in the middle of 2014, thus the effects on the interest rate risk premium occur already since the middle of 2014. The reduction in the interest rate in domestic and foreign markets would make borrowing more attractive for Lithuanian economic agents: companies might finance business expansion and households might finance consumption decisions at a lower cost, while the government would service the debt cheaper. All this would encourage private consumption and investment, which are likely to increase in the short and medium term. Increased demand for consumer and capital goods would put pressure on the prices of those goods, and the latter — on export prices. Thus, exports become less competitive in foreign markets, and the demand for exports declines. On the contrary, the demand for imported goods would increase. This would be caused by two reasons. First, imports would increase as a result of both increased investment and higher private consumption. In Lithuania, not all consumer and capital goods are produced using domestic resources; many of them are imported or manufactured using imported goods. Second, imported goods would become more competitive compared to the domestic. Lithuania is too small to make a significant pressure on the prices of foreign goods, and therefore the latter, unlike the domestic product prices, should not change. The interest rate should eventually increase and suppress the excessive growth in consumption, investment, and foreign liabilities.

**Table A. Effect of the euro introduction on the average annual growth rates of various indicators and on unemployment rate in 2014-2020**

<table>
<thead>
<tr>
<th>Percentage points</th>
<th>Reduction of risk premium</th>
<th>Increase in exports</th>
<th>Accumulated effect</th>
</tr>
</thead>
<tbody>
<tr>
<td>Real GDP</td>
<td>0.02–0.05</td>
<td>0.3</td>
<td>0.3–0.4</td>
</tr>
<tr>
<td>Private consumption</td>
<td>0.05–0.11</td>
<td>0.5</td>
<td>0.6–0.7</td>
</tr>
<tr>
<td>Investment</td>
<td>0.00</td>
<td>0.9</td>
<td>0.9</td>
</tr>
<tr>
<td>Exports</td>
<td>0.01</td>
<td>0.6</td>
<td>0.6</td>
</tr>
<tr>
<td>Imports</td>
<td>0.02–0.05</td>
<td>0.9</td>
<td>0.9–1.0</td>
</tr>
<tr>
<td>Unemployment rate</td>
<td>0.0</td>
<td>−0.1</td>
<td>−0.1</td>
</tr>
</tbody>
</table>

Source: Bank of Lithuania calculations.

According to the estimates of the Bank of Lithuania (2013), by 2020 the reduction of the interest rate risk premium should raise the level of GDP by 0.1–0.3 per cent. This would have a positive impact on the average annual GDP growth rate — in the period 2014–2020 it is expected to increase by 0.02–0.05 p.p. (see Table A). In terms of individual components of real GDP, it was found that the reduction of interest rate risk premium would affect private consumption and imports the most, their level in 2020 could be respectively 0.4–0.7 and 0.2–0.3 per cent higher than the level without adopting the euro. This would boost average annual growth rates of private consumption and imports in 2014–2020 by 0.05–0.1 and 0.02–0.05 p.p. respectively. Nevertheless, investment and export levels in 2020 should not differ significantly from the level without adopting the euro, thus the change of the average annual growth rates of these macroeconomic indicators in the period 2014–2020 would be imperceptible. However, investment in the first three years is expected to grow annually by an average 0.2–0.3 p.p. more, and later the positive effect of euro on investment would gradually diminish, as companies would manufacture using the capital accumulated during the first years.

**Effect due to export increase**

Based on the research of the euro introduction effect on foreign trade of the countries, it is expected that the Lithuanian real exports, excluding mineral products (the exports of the latter is determined by other factors); within 7 years after the introduction of the euro will be 5 per cent higher than the exports without adopting the euro. This value is only a conservative estimate of the increase in exports presented in foreign studies. In the article, which provoked considerable discussion
in the last decade (Rose 2000), the conclusion was made that the foreign trade among countries using the single currency increases several times. However, subsequent research suggests much lower estimates. For example, Sergio De Nardis and Claudio Vicarelli (2003) point out that the introduction of the single currency increased foreign trade in the euro area countries by 6 per cent. Similar estimates are presented in the work of Richard E. Baldwin (2006). It shows that the introduction of the euro from 1999 to 2005 increased the foreign trade between the euro area countries by 5-10 per cent.

More rapid development of exports would increase the scale of production. In order to increase it, the country’s companies would invest more into capital and hire more employees. In order to accumulate the required amount of capital, for the first five years after the introduction of the euro they would engage in more active investment. In subsequent years, the investment level is expected to decline as production would be continued using previously accumulated capital. At higher production volumes, companies would earn more profit, and some of it would be paid to households as dividends. In addition, higher demand for labour would put pressure on wages, and they would start to rise. These two factors would increase households’ disposable income. It would encourage households to consume, thereby increasing private consumption. Imported goods are used to produce goods for exports, as well as capital and consumer goods, thus consequently an increase in exports, investment and private consumption would increase imports.

According to the Bank of Lithuania’s (2013) estimates, due to the increase in exports, in 2020 the level of GDP should be 2.2 per cent higher than without introducing the euro. The euro would have a positive impact on the GDP annual growth rate — by an average of 0.3 p.p. for the period of 2014–2020 (see Table A). Exports would grow 0.6 p.p. more every year, and could be 4.5 per cent higher in 2020.3 Examining the components of real GDP, it was determined that the growing exports would mainly affect investment and imports, and their levels would be respectively higher by 6.1 and 6.4 per cent in 2020 compared to the levels without introducing the euro. This would increase the average annual growth of investment and imports for the period 2014–2020 by about 0.9 p.p. Private consumption could be also significantly affected. Its level would be 3.8 per cent higher than the level without introducing the euro. This would increase the average annual growth rate of private consumption by 0.5 p.p. for the period of 2014–2020.

One-off increase in the price level

The one-off impact of the euro introduction on the price level of the euro area countries was systematically assessed by Eurostat (2003). According to its estimates, the price level in the euro area in January 2002 when the money was exchanged, compared to December of the last year, increased from 0.1 to 0.3 per cent. Eurostat (2013) indicated the similar increase in the member states that joined the euro area later — Slovenia (2007), Cyprus and Malta (2008), Slovakia (2009), Estonia (2011). Based on these estimates, it is envisaged that in Lithuania, upon accessing the euro area, one-time effect on the price level should be 0.2–0.3 per cent.

References


1 A country attempting to access the euro area has to achieve a high level of economic convergence, as measured by a number of the Maastricht criteria, and their compliance is related with a certain level of uncertainty. Probability for Lithuania to meet the convergence criteria in the beginning of 2014 is considered in this box.

2 Two rating agencies should raise Lithuania’s long term credit rating in foreign currency by 1 grade, one agency — by 2 grades: Moody’s should upgrade by at least 1 grade (from the current Baa1 to A3); Fitch — by at least 1 grade (from BBB+ to A–); S&P — by at least 2 grades (from BBB to A–).

3 Exports excluding mineral products would grow by 0.7 p.p. more and would be 5 per cent higher in 2020.