Eesti Pank
Bank of Estonia

Report on the Adoption of the Euro

May 2007

PREFACE

When Estonia joined the European Union, our goal was to introduce the single European currency – the euro – at the first opportunity.

Our desire to adopt the euro is based on the awareness that it will facilitate the stable and fast development of the Estonian economy. The euro is not a project for the state or rich businessmen: everybody will win from introducing the euro, both entrepreneurs and individuals. Perhaps it is hard to sense to what extent the anticipations of introducing the euro influence the state of our economy at present, but loan takers and a lot of people who have found a job or got a pay rise are enjoying the fruits of the anticipations of the euro already now.

Becoming a member of the euro area presumes the fulfilment of certain economic and legal requirements, the Maastricht criteria. Therefore, upon joining the European Union Eesti Pank reckoned that Estonia would be able to introduce the euro on 1 January, 2007 and technically already in the middle of 2006.

By today the introduction of the euro has been delayed because of the relatively fast increase in prices. The accelerating inflation, which is quite inevitable considering the low level of our prices and rapid economic growth, and also the price developments of raw materials on the world market do not enable us to introduce the euro before 2011. This, however, does not mean that we are forgetting the target of joining the euro area in the meantime or stopping respective preparations.

General public is naturally interested in when the euro will be introduced. Thus, Eesti Pank decided to compile an overview twice a year on Estonia's prospects of adopting the euro.

I hope the present report provides up-to-date information on the euro topic and offers interesting reading for economic experts as well as the public at large.

Andres Lipstok
Governor of Eesti Pank

CONTENTS

INRODUCTORY SUMMARY

With the "Report on the Adoption of the Euro" we wish to share with the public the information at the disposal of Eesti Pank about Estonia's readiness to change over to the single currency of the European Union – the euro – and also introduce the points of view of Eesti Pank.

The introduction of the euro at the first opportunity has been and will still be the priority of the Estonian economic policy in the coming years. The fundamentals of the Estonian economic policy are very similar to the ones of the euro area. Therefore the changeover to the euro must be viewed as a natural development for Estonia. Estonia is a Member State of the European Union with a small open economy and a conservative fiscal policy. The principles of the currency board arrangement and the exchange rate of the Estonian kroon pegged to the euro form the basis for our monetary system. Owing to that, the Estonian enterprises and households are already now enjoying the benefits of the expected transition to the euro: a stable exchange rate with the main foreign trade partners, a sound financial system, low interest rates, low level of unemployment resulting from the fast economic growth, and a rise in income. Estonia has been moving towards close integration into the euro area during the whole independence period. Upon joining the European Union Estonia undertook to introduce the euro. Being excluded from the euro area for a longer time is not a reasonable strategy for Estonia.

In 2006, the technical preparations for adopting the euro, carried out by Eesti Pank in cooperation with government authorities and the private sector, reached the stage where that all the activities not directly related to the date of the adoption of the euro were completed. The assessment of the European Commission concerning respective preparations in Estonia was very positive.

Despite the efforts made by the Estonian Government and Eesti Pank it was impossible for Estonia to fulfil all the economic criteria for the accession to the euro area. In other words, Estonia's inflation rate (4.3%) exceeded the maximum rate allowed (2.8%). In an open economy like Estonia, which is catching up with the standard of living in the euro area, the inflation rate of 3–4% is in conformity with the price stability objective but in the nearest future it is not easy to achieve the low inflation rate as interpreted under the conditions for introducing the euro. Apart from that, in order to integrate into the euro area Estonia has to carry on fulfilling the criteria established for fiscal policy, exchange rate stability and low interest rate.

According to the spring 2007 economic forecast of Eesti Pank, it must be admitted that the introduction of the euro is delayed further than the year 2009, since the inflation is not decreasing much below 4% before that term.[1] The accession to the euro area remains an economic policy priority. Eesti Pank recommends carrying out an additional analysis of the possibilities to decrease the inflation on the basis of available forecasts and the National Budget Strategy. It is necessary to discuss determining the target date for the adoption of the euro. True, according to the present forecasts this could take place not earlier than 2011. In any case the exact date will be announced at least 12 months before the transition to the single currency so that the state and the private sector could complete the preparations.

The delay of the accession to the euro area may entail risks. Nevertheless, Estonia's trustworthy economic policy has confirmed the expectations of the analysts and international institutions that if the delay in the introduction of the euro is limited to a few years, it will not have any significant impact on the economy.

[1] The tax changes planned by the Government might slightly change the inflation dynamics.

1. ESTONIA'S READINESS TO ADOPT THE EURO

The introduction of the single currency of the European Union – the euro – is an obligation of all the Member States of the European Union.[2] At present, 13 Member States of the European Union belong to the euro area.[3] The rest of EU countries are regularly assessed to determine whether they meet the requirements for the introduction of the euro – the Maastricht criteria. The assessment at the end of 2006 showed that Estonia has sound public finances, stable exchange rate and low interest rates but fails to fulfil the inflation criterion. Thus, the relatively high inflation does not allow Estonia to fulfil the requirements for the introduction of the euro in 2008 or 2009 either. In any case, the exact date of changing over to the euro will become clear at least 12 months before the transition to the single currency so that the state and the public sector could complete the preparations.

1.1. Conformity of the non-euro area EU Member States to the Maastricht criteria

The adoption of the single currency euro and the single monetary policy of the European Union require meeting certain economic and legal requirements. The specific prerequisites known as the Maastricht criteria are included in Article 121 of the Treaty on European Union and Protocol No 21 annexed to the Treaty. The objective of the Maastricht criteria is to ensure the smooth functioning of the European Monetary Union and the stable price level by means of single monetary policy. These criteria require price stability and low interest rates, a stable exchange rate, and sound public finances. Moreover, an appropriate legal framework is essential to design and implement the single monetary policy. The fulfilment of the Maastricht criteria is assessed by the European Commission and the European Central Bank, who compile regular Convergence Reports. On the basis of these reports the European Commission submits its recommendations on which Member States are ready to join the euro area to the Council of the European Union in the composition of ministers of economy and finance (ECOFIN) and to the European Council. The reports also include the methods for calculating the criteria and explanations concerning their interpretation.[4]

According to the Convergence Reports published in December 2006, Estonia appeared to be the state corresponding to the criteria the best at that point: all the other requirements were fulfilled except for the inflation criterion (see Table 1.1 where coloured cells denote the fulfilment of the criteria).

1.2. Price stability

• According to the Treaty on European Union a Member State's inflation rate must not exceed the average of the three best-performing Member States in terms of price stability by more than 1.5 percentage points.

In general, price stability refers to an inflation rate that does not affect people's decisions concerning production, consumption, investment and saving. The European Central Bank interprets the price stability of

[2] The exceptions are Denmark and the United Kingdom who, during the negotiations over the principles of establishing the monetary union (at the beginning of 1990s), were provided with an option of whether and when to change over to the euro. Those who joined later (incl. Finland and Sweden) were not given this option.

[3] The Member States of the European Union are divided into two according to the participation in the Economic and Monetary Union: full-fledged members of the Economic and Monetary Union (the Member States belonging to the Eurosystem) and countries with derogation (Member States not part of the Eurosystem).

[4] Convergence Reports are available on the Internet on the following websites:
The European Commission: http://ec.europa.eu/economy_finance/publications/convergencereports_en.htm
The European Central Bank: http://www.ecb.int/pub/convergence/html/index.en.html

Table 1.1. Readiness of the EU Member States to introduce the single monetary policy and the euro (December 2006)

Country	Inflation (2.8%)	Long-term interest rate (6.2%)	Exchange rate (incl. ERM II)	General government budget (up to -3% of GDP)	General government debt (60% of GDP or declining)	Legislative conformity
Estonia	4.3%	4.1%	yes (28/06/04)	+2.3%	4.5%	yes
Cyprus	2.3%	4.1%	no (02/05/05)	-2.3%	69.2% ↓	no
Lithuania	2.7%*	3.7%**	yes (28/06/04)	-0.5%	18.7%	yes
Latvia	6.7%	3.9%	no (02/05/05)	+0.1%	12.1%	no
Malta	3.1%	4.3%	no (02/05/05)	-3.2%	74.2% ↓	no
Poland	1.2%	5.2%	no	-2.5%	42.0%	no
Sweden	1.5%	3.7%	no	+2.0%	50.4%	no
Slovakia	4.3%	4.3%	no (28/11/05)	-3.1%	34.5%	no
Slovenia	2.3%*	3.8%**	yes (28/06/04)	-1.8%	29.1%	yes
Czech Republic	2.2%	3.8%	no	-3.6%	30.4%	no
Hungary	3.5%	7.1%	no	-7.8%	61.7% ↑	no

* At the time of drafting the reports on Lithuania and Slovenia (spring 2006) the inflation criterion was 2.6%.

** At the time of drafting the reports on Lithuania and Slovenia (spring 2006) the long-term interest rate criterion was 5.9%.

the euro area as the inflation rate close to but below 2% in the medium term. In fast developing economies the balanced inflation rate (i.e. not endangering the price stability) can also be higher – for example in Estonia 3–4%.

Estonia's inflation meets the objective of price stability

Compared with the reference value of the Maastricht criterion (2.5–3.0% in different years) the Estonian inflation has been higher in almost all the years. At the time of assessment for the Convergence Report of 2006, Estonia did not fulfil the inflation criterion either: the average annual inflation rate reached 4.3% in autumn.

The relatively high inflation results from the present development stage of our economy which is characterised by low price level, fast economic growth and structural changes related to the development. The convergence of the Estonian income and price levels towards the average of the European Union is accelerating the price increase in Estonia since in order to diminish the differences, incomes and prices and also productivity must rise in Estonia somewhat faster than in the European Union on average. At the same time, the price structure in Estonia is becoming more similar to that in the wealthier European economies: the so-called Balassa-Samuelson process is taking place causing the convergence of the productivity and wage levels between tradable and non-tradable sectors.[5] Since the productivity of Estonia's non-tradable sector differs less from that of wealthier economies compared to the tradable sector, the growth in productivity in the non-tradable sector is also expected to be lower. At the same time, wages in the non-tradable sector grow at a rate comparable to that in the tradable sector. When wage growth outpaces productivity growth, this brings about a rise in prices in the non-tradable sector, accelerating the general inflation in Estonia. This is one of the most essential reasons why in a state like Estonia the increase in prices comparable to advanced economies is exceptional rather than expectable.

The non-fulfilment of the Maastricht criteria in 2006 does not mean that Estonia has substantial problems

[5] As a rule, the tradable sector refers to exporting sectors, whereas the non-tradable sector comprises retail trade, health care, education etc.

with ensuring price stability. For stable economic growth it is essential that prices rise in line with the growth in productivity. In this sense price stability is not at risk in Estonia in the coming years, but compliance with the inflation criterion still remains unlikely (see Figure 1.1).

Estonia is not fulfilling the inflation criterion in the coming years

The fulfilment of the inflation criterion would only be feasible in case favourable external conditions arise while also domestic upward price pressures cease. For example, in 2003 and 2004 several factors causing a slowdown in inflation occurred simultaneously: the appreciation of the euro, the lack of administrative price rises, the decline in food prices etc. According to the spring 2007 forecast of Eesti Pank, it is unlikely that Estonia would be able to meet the Maastricht inflation criterion in 2007–2009 (provided that the interpretation of the criterion remains unchanged).

Fast economic growth during the last years together with external price pressures has boosted Estonia's inflation. According to the spring forecast of Eesti Pank, consumer price growth will exceed 5% this year and the following years. In the first half of 2007, inflation is mainly influenced by domestic demand factors, whereas in the second half several tax changes will add.

Inflation will achieve its peak in 2008 when the price increase may exceed 5.5% year-on-year owing to administrative price rises. The inflation pressure will weaken in 2009 and the inflation rate will decrease to 4.0–4.5%.[6] According to the forecast, Estonia will still not be able to fulfil the inflation criterion. According to the autumn forecast of the European Commission, the reference value will remain around 3% in the following years. After 2009 Estonia's inflation is expected to decrease to a level compatible with balanced economic development (3–4%).

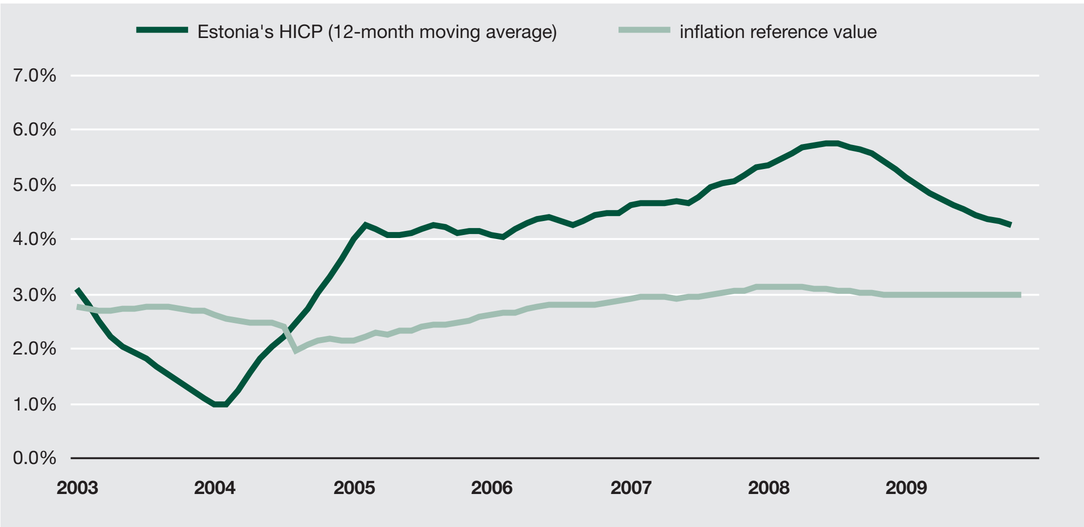

Figure 1.1. Estonia's Harmonised Index of Consumer Prices (HICP) and the reference value for the inflation criterion (%)

Sources: Eesti Pank forecast (spring 2007), European Commission forecast (autumn 2006)

[6] The spring forecast of Eesti Pank was finalised before the Government announced its plan to raise excise duties. If the plan is implemented to the full extent, the dynamics of inflation might turn out somewhat different.

Economic policy options for decreasing the inflation

The economic policy options for Estonia to decrease the equilibrium inflation rate are quite limited. The monetary policy based on the currency board arrangement helps to ensure long-term price stability by means of exchange rate stability and inhibiting price rise expectations but offers fewer possibilities to influence the inflation in the short term. On the one hand, central banks operating on the basis of the currency board arrangement do not actively participate in the formation of domestic interest rates. On the other hand, in small open economies restrictive monetary policy affects the current account deficit rather than price growth, and the opportunities to decrease the inflation rate substantially need not be much greater in any other monetary arrangement.

In case of the fixed exchange rate, when it comes to directing domestic demand fiscal policy might be more efficient than monetary policy, since the state invests from its own budget and contributes also to the growth in consumption. However, in a small open economy the possibilities provided by the fiscal policy for decreasing the short-term volatility of inflation are limited as well. Moreover, the impact of the fiscal policy may bring along a decrease in the current account deficit rather than a decline in inflation.

When inflation rate is at its equilibrium level, inflation may be restrained for a certain time period by decreasing the excise duties or indirect taxes. However, such measures will not be sufficient to reduce the equilibrium inflation rate in the longer run and thus ensure sustainable compliance with the criterion.

The above circumstances do not mean that restrictive economic policy would not be useful for ensuring sustainable economic development in Estonia in the coming years. On the contrary, conservative economic policy helps to decrease the risk of overheating and thereby diminish the pressure for faster price growth arising from domestic factors.

Updating the interpretation of the inflation criterion

The effect of the interpretation of the Maastricht inflation criterion has drifted from the principles elaborated at the beginning of the 1990s, used as a basis for assessing the readiness of EU Member States to participate in the Economic and Monetary Union. The present interpretation is not considering the changes in the economic and political framework of the European Union. The most essential change since the time of signing the Maastricht Treaty is now the 13-member euro area with the European Central Bank (ECB) designing the single monetary policy according to its inflation objective. Moreover, the interpretation of the inflation criterion has become *de facto* relatively stricter for the new entrants. The impact of these factors combined may cause a situation where a country with a successful economic policy is not able to join the euro area in the near term.

First, after the introduction of the euro in 1999 it is difficult to economically justify the interpretation whereby the reference value for the criterion is based on the inflation dynamics of all Member States of the European Union. By introducing the euro an area with the single monetary policy was created with a low level of inflation (up to 2% per annum), which should be the objective for every country wishing to join the euro area. Owing to the current interpretation the reference value for the inflation criterion has always comprised the inflation of some non-euro area Member States (see Table 1.2). At the same time, the non-euro area Member States might achieve the low level of inflation by introducing a monetary policy different from that of the European Central Bank (for example influencing the currency exchange rate in a way that leads to its appreciation against the euro or introducing some other instrument of independent monetary policy), which is not possible after joining the single currency area.

According to the Maastricht Treaty, the reference value for the criterion must be based on the average of the inflation rates of the three best-performing Member States in terms of price stability. In case of the present interpretation the reference value is calculated according to the average of the Member States with the **lowest inflation rates**, which by itself does not ensure that the reference value is based on the inflation rates of the Member States with the **best price stability**. Very low inflation rates usually result from a one-off unfavourable impact of economic or political changes, which is why very low inflation is mostly neither very durable nor the best. The definition of the best inflation level should be close to the objective of price stability pursued by the European Central Bank: the medium-term inflation rate should remain below but close to 2%. The formulation given by the European Central Bank shows clearly that inflation close to zero is not considered the best.

Secondly, the diversity of inflation rates in the European Union has widened, which has made the inflation criterion relatively more difficult to meet for those who want to join the euro area while the interpretation remains unchanged. The gap between the lower inflation rates of the Member States of the European Union and the average inflation rate of the euro area countries has become wider (see Table 1.2), which presumes also higher price convergence before joining the euro area.

The assessment of new EU Member States according to the Maastricht criteria (compiling the so-called Convergence Reports) has also initiated a discussion among the Member States, the European Commission and the European Central Bank about updating the interpretation of the inflation criterion. Eesti Pank and the Estonian Government participated actively in this discussion in 2006, supporting updating the interpretation. Changing the interpretation would help avoid a situation where the inflation

Table 1.2. Reference values of the inflation criterion used to compile the Convergence Reports

Completion date of report	**EU countries with low inflation** (average price growth of the last 12 months)	**Criterion reference value**	**Euro area average inflation**
January 1998	Austria (1.1%); France (1.2%); Ireland (1.2%)	2.7%	1.5%[7]
March 2000	*Sweden* (0.8%); Austria (0.9%); France (0.9%)	2.4%	1.4%
April 2002	*United Kingdom* (1.4%); France (2.0%); Luxembourg (2.1%)	3.3%	2.5%
August 2004	Finland (0.4%); *Denmark* (1.0%); *Sweden* (1.3%)	2.4%	2.1%
March 2006	*Sweden* (0.9%); Finland (1.0%); *Poland* (1.5%)	2.6%	2.3%
December 2006	*Poland* (1.2%), Finland (1.2%), *Sweden* (1.5%)	2.8%	2.2%

Sources: ECB Convergence Reports 1998–2006

[7] The average inflation in the countries forming the euro area on January 1, 1999.

criterion would become a systemic obstacle for new Member States in fulfilling the accession requirement provided for in the Treaty of Accession to the European Union. Different solutions have been proposed at national as well as private sector level. According to the estimates of Eesti Pank, the interpretation of the inflation criterion should be economically more substantial and conform better to the principles of the Maastricht Treaty. By now, the discussions on the topic of the inflation criterion have stopped.

1.3. Long-term interest rate

• The long-term interest rate of a Member State must not exceed the average interest rate of the three best performing Member States in terms of price stability by more than 2 percentage points.

The long-term interest rate shows the expectations of market participants and the level of integration of the financial market. Low interest rates (which comprise expectations of low inflation as well as low risk premiums) reflect market participants' understanding that the development of the economy will remain stable in the future.

The long-term interest rate has been relatively low in Estonia but the indicator is not directly comparable with the indicators of other Member States because instead of the long-term government bonds denominated in kroons it is calculated on the basis of long-term kroon loans issued to the private sector. This difference refers to the fact that there is no market for long-term bonds denominated in kroons for two reasons. First, the Estonian Government does not have a need to issue bonds in kroons because of the conservative fiscal policy and the fast economic growth. Secondly, the Estonian financial market is very closely integrated with the Nordic market where Estonian enterprises can acquire resources without issuing kroon-denominated bonds.

The long-term interest rate indicator for Estonia was elaborated in cooperation between Eesti Pank, the European Commission and the European Central Bank in 2004. (It is based on the interest rates of the kroon loans with the maturity of up to five years). Eesti Pank submits these statistics to the European Commission and the European Central Bank, based on the principle that it will be used while it is the best possible indicator of the long-term interest rate in Estonia. At the same time, changing the interest indicator would call for significant changes in Estonia's financial environment, but this is not something Eesti Pank expects to happen. One of such changes could be the Government abandoning the principle of a balanced budget. Another reason could be the banks' wish to issue long-term bonds denominated in kroons despite the anticipations of introducing the euro.

According to the Convergence Report of the European Commission, the interest indicator used at present and the general analysis of the financial sector allows to believe that Estonia will fulfil the interest criterion (see Figure 1.2). So far, the European Central Bank has not used this interest indicator in its Convergence Reports, basing its assessment on a general analysis of the financial environment. At the same time, both evaluators note that the stability of Estonia's economic development (captured by the long-term interest rate) depends on the continuation of strong economic policy, primarily a sound fiscal policy which is taking into account the economic cycle.

1.4. Stable exchange rate

• The country must, at least for two years, participate in the currency exchange rate mechanism ERM II

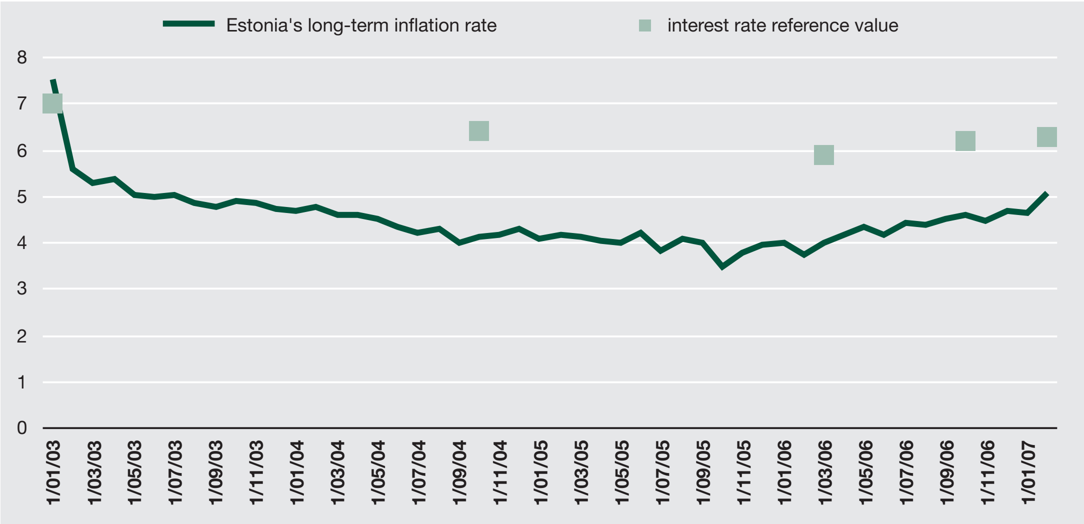

Figure 1.2. Estonia's long-term inflation rate and the reference value for the interest rate criterion (%)

Sources: Eesti Pank, European Commission convergence reports

and keep the exchange rate of its currency stable against the euro (in particular without devaluation on its own initiative).[8]

The smooth operation of the currency board since 1992 is a sign of the competitiveness and stability of our economy. Therefore, Estonia was one of the first Member States to join the exchange rate mechanism ERM II soon after joining the European Union in 2004. Both the European Commission and the European Central Bank have noted that the exchange rate of the Estonian kroon has not experienced any tensions within the framework of the ERM II. In addition, Estonia has fulfilled its (unilateral) commitment to maintain the rate of the kroon against the euro within the zero per cent fluctuation band (see Figure 1.3).

1.5. Public finances

• The general government deficit must be lower than 3% of GDP. The government debt must be smaller than 60% of GDP or approaching the required level at a satisfactory speed.

Owing to a relatively conservative fiscal policy, the state budget has been in balance or surplus in the years of rapid economic expansion (see Figure 1.4). The government debt (as a ratio to GDP) has been steadily decreasing as a result of repayments and fast economic growth, being the smallest among the states assessed (see Figure 1.5). It must be admitted that Estonia has been successful in fulfilling the criteria for public finances.

However, fiscal policy making should not be based only on the 3% budget deficit target. Both the European Commission and the European Central Bank highlighted in the Convergence Reports that although Estonia is by far complying with the public finance criteria, it is of utmost importance to follow the present fiscal policy principles also in the future in order to maintain stable economy and sustainable public finances.

[8] See also Article 3 of the Protocol No 21 annexed to the Treaty establishing the European Community.

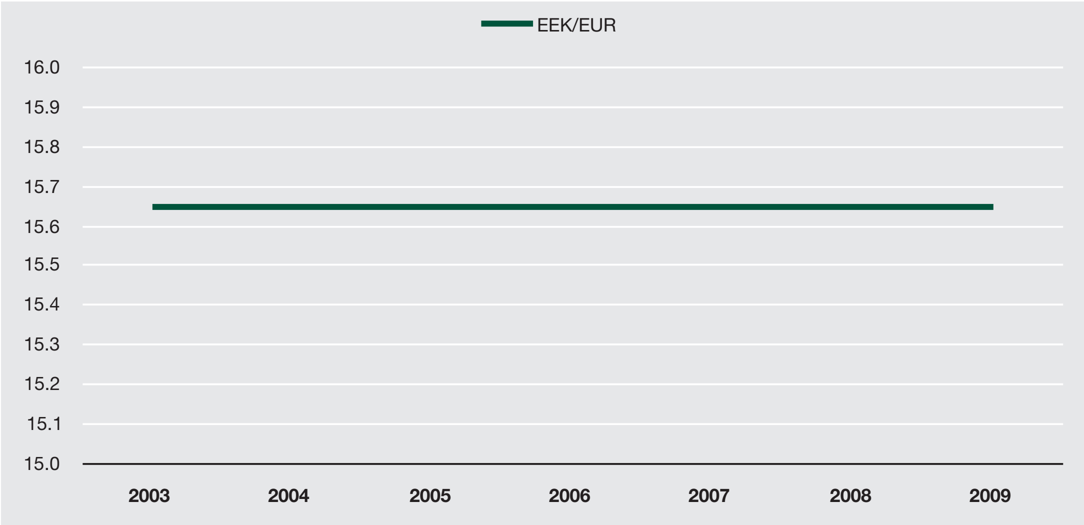

Figure 1.3. Exchange rate of the Estonian kroon and the euro

Source: Eesti Pank

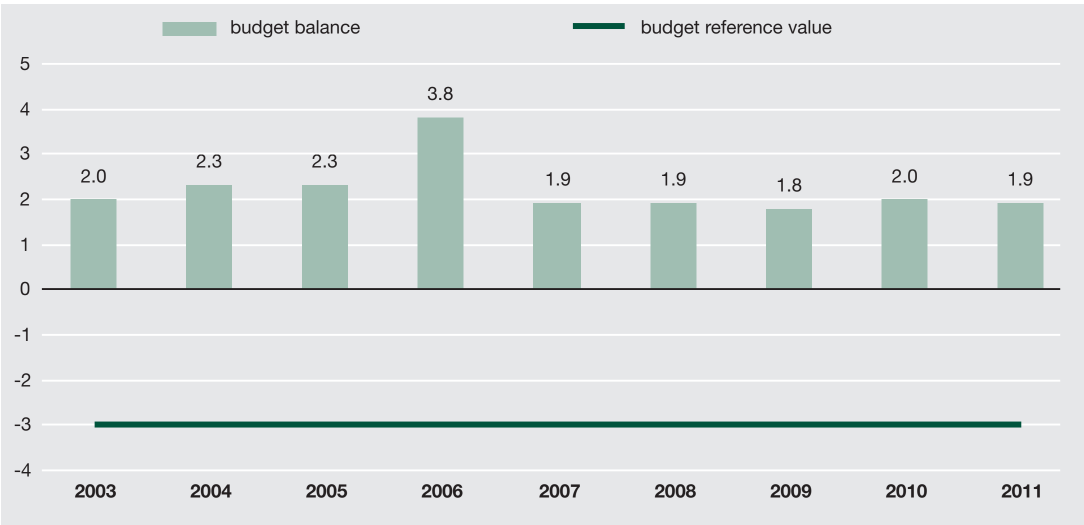

Figure 1.4. Estonia's budget balance (% of GDP) and the reference value for the budget balance criterion

Sources: Ministry of Finance forecast (spring 2007), European Commission forecast (autumn 2006)

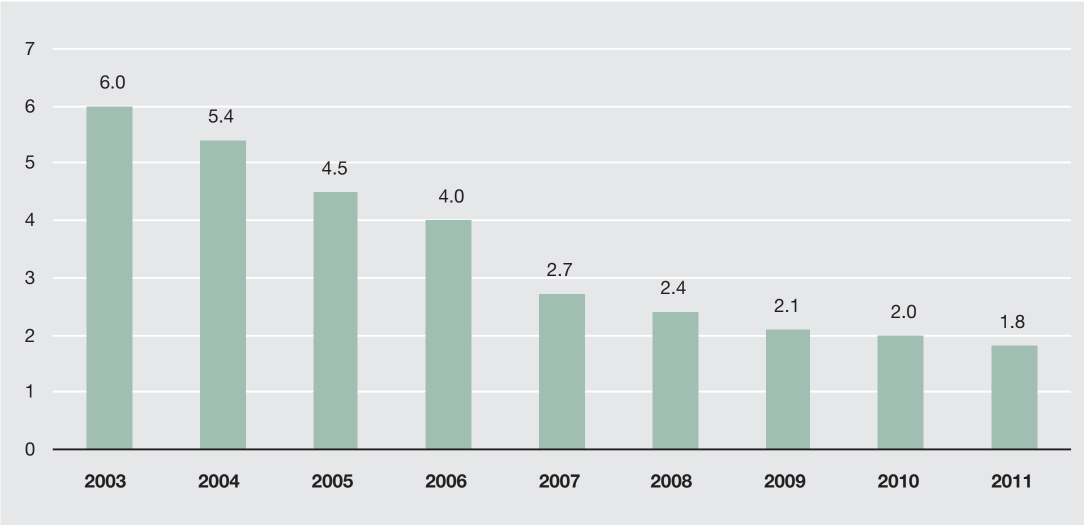

Figure 1.5. Estonia's general government debt (% of GDP)

Source: Ministry of Finance forecast (spring 2007)

1.6. Legal requirements to the adoption of the euro

• First and foremost, an assessment is given to the compliance of the objectives of the central bank with those of the European Central Bank and to the independence of the central bank.

Estonia was close to fulfilling legal criteria for the first time in 2006. For that purpose, it was necessary to amend the Eesti Pank Act and the interpretation of the Constitution of the Estonian Republic. When the time for the changeover to the euro is clearer, the Act on the Introduction of the Euro needs to be adopted.

The Riigikogu approved of the Eesti Pank Act Amendment Act on June 7, 2006 with 66 votes in favour. The Act became effective on July 8 (except for the provisions which will come into force when Estonia joins the euro area, i.e. on the date provided in the decision of the Council of the European Union for the abrogation of the derogation established for Estonia pursuant to the procedure provided for in Article 122(2) of the Treaty establishing the European Community.

According to the Convergence Report of the European Commission, the Eesti Pank Act is in conformity with the Treaty and the Statutes of the European System of Central Banks (ESCB), whereas the European Central Bank's Convergence Report suggests some adjustments in the Act. These adjustments concern additional supervision over the activities of Eesti Pank, open market and loan operations and the minimum reserves.

During the legislative proceeding of the Eesti Pank Act the Riigikogu asked for an opinion from the Supreme Court on the interpretation of Article 111 of the Constitution of the Estonian Republic in conjunction with the Constitution of the Republic of Estonia Amendment Act and the European Union law. On May 11, 2006 the Constitutional Review Chamber of the Supreme Court delivered the opinion that under the conditions of full membership of the Economic and Monetary Union, Eesti Pank does not have the exclusive right to issue Estonia's currency or the right to issue the Estonian kroon. Therefore, the corresponding section of the Act need not be amended.

This step eliminated the need for changing the Constitution but the European Central Bank recommended harmonising the respective section with the Treaty for the sake of legal clarity if the Constitution were amended some day.

In addition to the legislation mentioned above it is necessary to change the Currency Law of the Republic of Estonia and the Law on Security of the Estonian Kroon. These acts will be repealed with the Act on the Introduction of the Euro. The Act on the Introduction to the Euro has been approved by ministries but due to postponing the date for the changeover it was decided to suspend the proceedings on the draft act temporarily.

1.7. Timing of the adoption of the euro

Estonia's liberal and open economic policy has laid a good foundation to fast economic growth and also to the fulfilment of the Maastricht criteria. The openness of the Estonian economy and the fixed exchange rate of the kroon (initially pegged to the German mark and later on to the euro based on the exchange rate of the German mark and the euro) force our enterprises to be competitive under economic and political conditions very similar to the present Member States of the euro area. This in turn supports the stability of the exchange rate of the Estonian kroon and compliance with the respective criterion without any problems. At the same time, the Estonian Government has pursued the balanced budget principle; therefore Estonia meets the public finance criterion. The low long-term interest rate indicates that financial markets are internationally integrated and investors believe in the sustainability of the competitiveness of Estonia's economy and economic policy. If our economic policy makers and enterprises justify that belief, Estonia will not have any fundamental problems with fulfilling these criteria in the future either.

At the same time, the inflation criterion with its present interpretation remains a problem for a fast developing economy (which is converging towards the average level of the wealthier countries of the euro area). In the present economic environment the fulfilment of the inflation criterion is only possible in an exceptional case when favourable external conditions arise (an appreciation of the euro, a decrease in the international prices of certain goods etc.) while also the domestic price pressures cease.

According to the spring 2007 forecast of Eesti Pank, it is unlikely that Estonia would be able to fulfil the Maastricht inflation criterion in 2007–2009 (provided that the interpretation of the criterion remains the same).[9] The forecast expects the acceleration of the annual average inflation to continue until mid-2008 because of economic convergence, fast wage growth, various administrative price rises as well as external price pressures. The Estonian inflation will still exceed 4% at the end of 2009, whereas the reference value calculated on the basis of the autumn 2006 forecast of the European Commission would most probably be 3%. Hence, it would be possible to meet the inflation criterion in the coming years only if a risk scenario would materialise (i.e. when the economic downturn turns out more robust than anticipated).

Estonia has quite limited economic policy options to rapidly decrease the equilibrium inflation rate, which stands at 3–4% in Estonia. This lack of options does not mean that the Estonian economic policy framework is inappropriate or weak; rather it is a particular

[9] The spring forecast of Eesti Pank was finalised before the Government announced its plan to raise excise duties. If the plan is implemented to the full extent, the dynamics of inflation might turn out somewhat different.

feature of a small and open economy. On the one hand, economic openness enhances the growth opportunities of the Estonian economy, whereas on the other hand, the monetary and fiscal policy decreases the possibilities for influencing the inflation in the short term. For an open economy such as Estonia, the fixed exchange rate based on the currency board arrangement is optimal for anchoring inflation expectations and ensuring price stability.

With the fixed exchange rate conservative fiscal policy is a bit more effective tool than monetary policy in directing domestic demand in the short term. Cutting excise duties or indirect taxes may also lower the inflation rate from its equilibrium level for a certain time period.

Conservative economic policy, particularly fiscal policy, is essential to ensure the stability of Estonian economic development and the fulfilment of the Maastricht criteria. Conservative economic policy helps to decrease the risk of overheating and thereby diminish the pressure for faster price growth arising from domestic factors.

In conclusion, it must be admitted that the introduction of the euro will be delayed for longer than 2009 because forecasts indicate that Estonian inflation will not fall much below 4%. Therefore, Eesti Pank and the Government have not set a new target date for the changeover to the euro. Estonia's accession to the euro area remains an essential economic policy objective. Eesti Pank recommends carrying out an additional analysis of the possibilities to decrease the inflation on the basis of available forecasts and the National Budget Strategy. It is also necessary to discuss setting the target date for the adoption of the euro to January 2011 at the earliest. In any case, the exact date for changing over to the euro will be announced at least 12 months before the adoption of the single currency so that the state and the private sector could complete the preparations.

2. INTER-AGENCY COOPERATION FOR THE ADOPTION OF THE EURO

Upon joining the European Union and the Exchange Rate Mechanism II (ERM II) the Estonian authorities set the goal to be technically ready for the adoption of the euro by mid-2006 to introduce the euro on January 1, 2007. The assessment of the European Commission published in November 2006 on the technical readiness of the non-euro area EU Member States was very positive for Estonia. Estonia had completed all the preparations not directly dependent on the date for the changeover to the euro.

The following gives an overview of the coordinated preparations of Estonian authorities to introduce the euro and the measures taken by Eesti Pank. In addition, we draw a few conclusions of the arrangements for taking the euro into use in Estonia – this will have an influence on all of us once the date for the changeover becomes clear.

2.1. National preparations for the introduction of the euro in Estonia

Arrangements at the national level

To ensure a smooth changeover to the euro and coordinate necessary activities the Government decided at its cabinet meeting on December 9, 2004 to form the National Changeover Committee chaired by the Secretary General of the Ministry of Finance. The Committee also involves a Deputy Governor of Eesti Pank, the Secretary General of the Ministry of Justice, the Secretary General of the Ministry of Economic Affairs and Communications, the Secretary General of the Ministry of Internal Affairs, the Director for European Union Affairs at the State Chancellery, and an adviser from the Ministry of Finance. In addition to public sector experts the private sector was also involved through the working groups of the Committee.

In order to prepare for the changeover to the euro the Estonia's National Changeover Plan was compiled, which includes guidelines for government authorities and information for the general public. The latest version of the euro plan is available on the websites of the Ministry of Finance and Eesti Pank and on the euro web at www.euro.eesti.ee.

Preparations of Eesti Pank

The central bank started preparations for ensuring a smooth changeover to the euro already in autumn 2003, since upon joining the European Union in May 2004 Eesti Pank became member of the European System of Central Banks (ESCB). This called for changes in the work arrangement of Eesti Pank. Preparations for joining the ERM II in June 2004 were equally important. For that purpose continuous cooperation was carried out with the European Commission, the European Central Bank and the Member States of the European Union.

In 2004, Eesti Pank started to draft the framework for changing over to the euro, taking into account the experience of other states and the specifics of Estonia. The impetus for drawing up the framework was the growing interest of the public in the issues dealt with by Eesti Pank, such as the exchange of account money and cash. The principles elaborated at the bank formed the basis for the official plan for the changeover to the euro in the spring-summer of 2005. All more essential matters concerning the currency exchange were agreed upon with market participants by autumn 2006.

The objective of Eesti Pank was to be ready by the middle of 2006 in terms of everyday operations of the organisation and the introduction of the single monetary policy of the euro area. The central bank had completed all preparations not directly dependent on the date for the adoption of the euro. The activities which can be started only after the European Commission has made its final decision on the accession to the euro area, such as minting the Estonian euro coins, were suspended.

2.2. Euro information campaigns

Eesti Pank together with other public authorities and private sector representatives has been involved in the preparations for the transition to the euro also in the field of euro communication. Cooperation in that field takes place within the communications working group under the expert committee for the euro changeover. At the beginning of 2006 the technical preparations were still being carried out for starting the euro campaign but soon the postponement of the deadline for the introduction of the euro became more topical in the official communication.

Altogether 51 seminars and presentations on the topic of the euro were held by central bank and Government representatives in different places of Estonia during 2006. These events were very popular with all age groups and dealt with the advantages and disadvantages of the transition to the euro, trying to relieve the fears associated with the single currency. The main fear was related to price rises.

In February 2006, the euro web compiled and administered by Eesti Pank was launched at www.euro.eesti.ee. At the same time, the slogan of the euro campaign "Hello, euro!" ordered by the Ministry of Finance was also introduced. The first months of the euro web gave a lot of feedback and many inquiries had to be answered.

Different publications have a central role to play in euro communication. Thus, in cooperation with the European Central Bank and the European Commission, the Estonian government authorities disseminated publications introducing the euro in 2006. For example, the booklet "Tere, euro!" (Hello, euro!) reached newspaper subscribers. These publications introduced the origins of the euro and the design of the bank notes and coins; explained how the transition to the euro will be taking place in Estonia, and analysed the pros and cons of the introduction of the euro.

A special edition dealing with the topic of the euro, *The Ajaleheleht*, was published as a joint project of Eesti Pank and the Estonian Newspaper Association at the beginning of 2006. This project, initiated by the Estonian Newspaper Association, aimed to promote reading newspapers and develop critical reading among the young. Each issue dealt with a certain topic. The newspaper was published in Estonian and Russian and included serious as well as entertaining stories on the euro topic, featuring also various well-known public figures. The Estonian Newspaper Association and Eesti Pank introduced the project to teachers at the seminars held all over Estonia.

Both the foreign and local media has been taking keen interest in the transition to the euro. Numerous press releases, articles and interviews have been published dealing with the prospects for the transition to the euro, Estonia's readiness to introduce the single currency, and other topics related to the euro.

2.3. How does the changeover to the euro take place in Estonia?

• The euro will be introduced as account money / electronic money (e.g. accounts and deposits in commercial banks), and in accounting and contractual relations according to the "big bang" scenario on the so-called €-day[10], i.e. there will be no transitional period.

• A two-week period of dual circulation will start from the €-day, during which both kroon cash and euro cash are considered equal payment means. Both the euro and the kroon will be accepted at shops, although change will usually be given in euro. After

[10] The date for the transition to the euro.

the period of dual circulation the euro will become the sole legal tender in Estonia.

• In order to simplify the launch of the euro cash into circulation, the credit institutions will exchange kroons to euros at the central exchange rate established on the transition to the euro and without a service fee for a month before and six months after the €-day. Later on, they will continue providing the same service within a limited branch network for at least another six months. After the exchange of kroons to euros in credit institutions has ended, Eesti Pank will continue to exchange kroons to euros at the central exchange rate and without a service fee for an unlimited period of time.

• Six months before and after the €-day retailers will be required to display handwritten or printed prices at points of sale in both kroons and euros, converting the prices at the exchange rate established by the Council of the European Union, or in the event of non-availability of such rate at the official exchange rate of Eesti Pank. Merchants who are already displaying prices in both kroons and euros must since September 1, 2006 calculate prices from one currency to another on the basis of the official exchange rate of Eesti Pank.

• The Government will serve as an example to the private sector by rounding taxes and state fees down, i.e. for the benefit of the taxpayers, when calculating them from kroons into euros.

• The expenditure related to the changeover will be covered, in general, by the market participants themselves.

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APPENDIX: MAIN REASONS FOR THE ADOPTION OF THE EURO IN ESTONIA

The accession to the euro area will increase the stability and growth prospects of the Estonian economy. Therefore, both entrepreneurs and private individuals would benefit from the introduction of the euro. Our favourable economic environment is already now relying on the anticipations of the upcoming euro adoption. The failure to fulfil these expectations may worsen the outlook of our economic agents – entrepreneurs, employees and families with loans.

Advantages of introducing the euro

Accession to the euro area will bring along membership in a large monetary system, which would protect our economy against external risks. Being a member of the euro area will make our financial environment more secure, increase Estonia's reliability for external investors, and facilitate economic relations with a lot of EU countries. As a result, Estonia's economic stability and expected economic growth will increase further.

Accession to the euro area will not entail any economic policy adjustment expenditure. We are already now very closely involved in the monetary policy of the euro area through the currency board arrangement and therefore giving up independent currency rate and interest rate policies does not pose an issue for us.[11] On the contrary – accession to the euro area is a logical continuation of our present monetary policy. On the one hand, the exchange rate risk will disappear upon Estonia's accession to the euro area. On the other hand, Estonia will gain more opportunities to participate in shaping the Estonian monetary policy environment, as Eesti Pank will be taking part in establishing the monetary policy rates of the euro area. Furthermore, the Estonian fiscal policy will not have to be adjusted since it is among the strongest in the European Union and fully corresponds to the requirements of the Monetary Union.

Moreover, countries economically more closely related to the euro area are the ones to benefit the most from the accession to the euro area.[12] Closer integration of the Estonian economy with that of the European Union is shown by the fact that approximately 80% of foreign trade with the Member States and two thirds of commercial transactions are carried out in euro. Euro area membership will facilitate the increase in trade within the euro area even more[13], not to mention foreign investment growth[14]. Over 85% of the foreign investment in Estonia originates from the present and future states of the euro area. Moreover, our enterprises are used to operating under the conditions of the Monetary Union, maintaining and increasing competitiveness on the external market without the help of the depreciating exchange rate. Thus, there is no reason to fear economic setbacks from the accession to the euro area. In the everyday use of the single currency both in domestic and international transactions the transaction costs of the currency exchange and the currency exchange rate will decrease, as there would be no need to change kroons to euros and vice versa, and economic efficiency will increase. The joint impact of all these factors will boost economic growth. According to a study of the International Monetary Fund, accession to the euro area may increase GDP growth by 3–20% in 20 years.[15]

Risks related to postponing the euro

Postponing the introduction of the euro entails several risks. First, the Estonian economy is more vulnerable than it would be in the euro area. Greater vulnerability means that unexpected economic setbacks might be

[11] For example De Grauwe and Shnabl (2005) find that if up to now the fixed exchange rate has been stabilising economic development, the disappearance of monetary policy independence does not only entail any costs but is also profitable.

[12] This is confirmed by various studies, e.g. Frankel (2005) and Cotis (2005).

[13] For example Baldwin (2006) has found that the introduction of the euro increased the trade between euro area countries by 5–10%, whereas it did not decrease trade with other countries. The International Monetary Fund estimates in its study (2003) the increase in trade to be even 10–70%.

[14] See e.g. Brzozowski (2003) and Cotis (2005).

[15] IMF staff study (2003).

more adverse in case of the absence of the euro. The majority of economists and international institutions say that if the delay in the introduction of the euro is limited to some years, it will not have any significant impact on the economy.

Being excluded from the euro area for a longer time period, however, may have considerable effect on investors' attitudes towards the sustainability of the Estonian economy. Therefore, the delay may become an independent risk factor. So, being excluded from the euro area may increase demur, particularly among foreign investors but also among domestic investors, to invest in Estonia, especially when current investments have been made in the anticipation of lower risks arising from fast accession to the euro area. In worse cases reliability might diminish so fast that it might lead to an abrupt slowdown or even sudden reversal of capital inflow. Since the dependence of the Estonian economy on foreign capital has considerably risen in recent years, changes in capital flows may cause quite painful adjustments in the economy: an increase in loan interests, a decrease in the number of jobs etc.

Economic policy challenges related to postponing the euro

For economic policy makers – primarily for the Government and the central bank – the postponement of the introduction of the euro is posing big challenges. On the one hand, it is necessary to continue with the present economic policy strategy and maintain accession to the euro area as the priority. On the other hand, the delay makes it even more important to lead the economy onto a more sustainable growth path: reduce the reliance of the economy on the inflow of foreign loan capital and find an investment structure that would ensure Estonia's economic competitiveness and make the living standard comparable to that of wealthier European economies in the longer time period. Further accumulation of risks and greater vulnerability of the economy simultaneously will increase the likelihood of a sudden change in reliability and enhance the risk of abrupt adjustment.

Balanced economic policy and responsible behaviour of economic agents (enterprises and employees) enable to decrease the likelihood of the materialisation of these risks. Against the background of greater vulnerability, it is essential that the economic policy would not increase these risks even more. It means that the strong economic policy should be retained, serving as a monetary policy buffer and prudent fiscal discipline. This would give foreign investors a clear signal that Estonia is planning to continue with its present conservative policy.

From economic agents' point of view it is important that future expectations and respective economic decisions were in line with our actual possibilities and prospects. Investments supporting the growth in productivity and competitiveness, and the increase in household savings certainly help maintain economic reliability even when postponing the euro should jeopardise this reliability.

Reasons for the transition to the euro from entrepreneurs' point of view

Based on the general economic impacts arising from the introduction of the euro given above, the following outlines four aspects directly influencing the entrepreneurs:

1. The investment environment will improve further: the economy will be more stable; the growing confidence of foreign investors and lenders will inhibit the rise in interest rates; financial markets will become more enterprise-friendly;[16] the single monetary policy will decrease the possibility of a potential surge in the interest rate.

[16] The introduction of the single currency facilitates the integration and penetration of financial markets in the euro area, improving the accessibility of entrepreneurs to new financing options. Among others it is confirmed by e.g. Bottazzi and Gavazzi (2005), and also Cappiello, Hördahl, Kadareja and Manganelli (2006).

2. The decrease in the need for currency exchange will decrease transaction costs.[17]
3. Prices will be comprehensible and more easily comparable (without additional calculations) for everybody using the euro.
4. International companies will no longer need accounting and reporting in two currencies (in euros and kroons).

Reasons for the transition to the euro from households' point of view

The advantages of the introduction of the euro are also worth reviewing from the point of view of households:

1. Using the euro will considerably decrease the risk that the value of our money might decline abruptly and savings might diminish.
2. The opportunities of finding a good job and increase earnings will improve as a result of more stable economic development.
3. Owing to the confidence of investors and the implementation of the single monetary policy of the euro area, loan interest rates will remain at a lower level compared to those non-euro area countries where the living standard or the current account deficit is at the level comparable to Estonia.
4. Travelling will be more convenient and less expensive due to the decrease in currency exchange costs.

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