

MONETARY POLICY

ENSURING THE SMOOTH FUNCTIONING OF ESTONIA'S MONETARY POLICY FRAMEWORK

Key features of the Estonian monetary system

Similarly to the central banks of many other countries, the mission of Eesti Pank is to ensure price stability in Estonia. A **stable**, low and easily predictable inflation level establishes favourable conditions for long-term economic growth. Already since 1992, Estonia's price stability is based on the **fixed exchange rate system under the currency board arrangement**. The current monetary policy framework, which has essentially remained unchanged during its 15 years of operation, continues to support Estonia's economic development. The Estonian kroon has maintained its reliability for domestic users as well as foreign investors (see Figure 1). The Estonian kroon is firmly pegged to the currency of the most powerful economic area in Europe, the euro area, which curbs inflation expectations and fosters economic stability. As Estonia's monetary policy based on the currency board arrangement has proved its viability, the country has taken a unilateral commitment to maintain the cur-

rent system and the central rate until the adoption of the euro.

Considering the strong ties of the Estonian monetary system with the Eurosystem, it is natural that our general monetary environment is largely shaped by the decisions of the European Central Bank. In 2006, the European Central Bank raised monetary policy interest rates and this quickly and fully passed on to the interest rates of the Estonian credit market, thus influencing the price of financial instruments in Estonia.

Eesti Pank ensures the smooth operation of the monetary system **through monetary policy instruments and active participation in economic policy discussions**. The main monetary policy instrument of the central bank is the **standing facility of buying and selling foreign currency (forex window)** provided to credit institutions. Banks can use the forex window to stock up on their Estonian kroon reserves by selling to the central bank an amount of foreign currency equal to the desired sum, and vice versa – buy foreign currencies for Estonian kroons. The **reserve requirement** plays an important role among the monetary

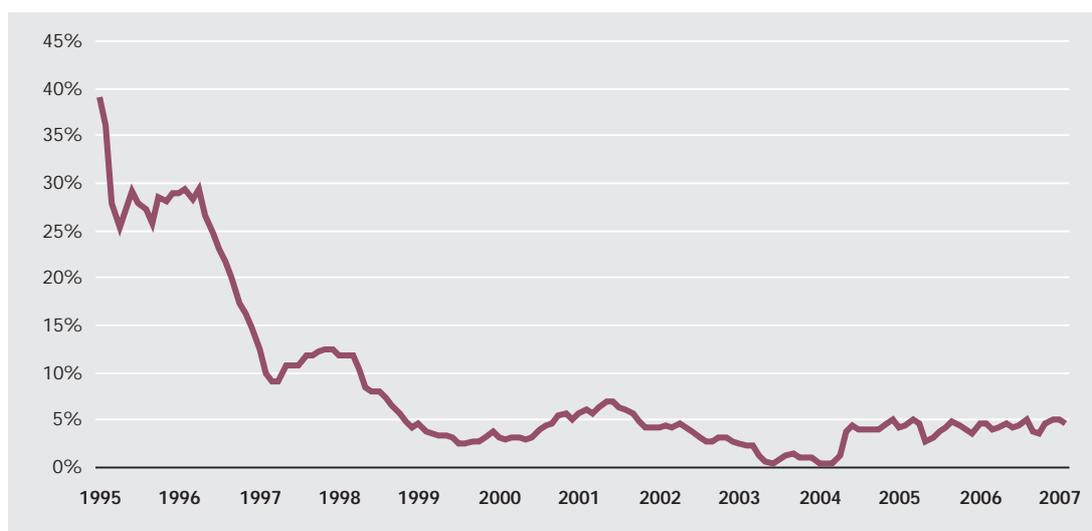


Figure 1. Estonia's inflation

Source: Estonian Statistical Office

policy instruments available for Eesti Pank, obliging banks to keep a part of their assets as buffers in the central bank or in high-quality foreign assets. Central bank applies a conservative reserve policy and supervisory measures, and regularly draws public and the Government's attention to risks associated with the macroeconomic environment. The efficiency of the monetary system based on a strictly fixed exchange rate is supported by balanced **budget policy and flexible markets**.

Monetary policy in 2006

In 2006, one of the priorities for the central bank was managing the risks deriving from strong domestic demand. In the favourable economic environment, Eesti Pank repeatedly drew public attention to **risks associated with the excessively optimistic consumption and borrowing**. In order to curb these risks Eesti Pank decided to take monetary policy and financial supervision measures.

The first regulatory changes entered into force in March 2006. They focused primarily on decreasing risks related to housing loans (for further information see Chapter „Ensuring Financial Stability“ p 33). At meetings with the representatives of banks and financial supervisors, the central bank also emphasised the general need for a conservative approach to risk assessment, and the participants agreed.

As the regulatory changes that entered into force in March did not decrease risks sufficiently, Eesti Pank decided to **raise the reserve ratio for banks from 13% to 15% as of September 1, 2006**. With this decision the bank sent a clear message concerning the seriousness of the risk of economic overheating. Eesti Pank urged both lenders and borrowers to assess economic risks more conservatively. At the beginning of 2007, the growth of housing loans moderated, but nevertheless remained too high for sustainable economic development.

In 2006, the technical aspects of the banks' reserve requirement calculation were specified.

Pursuant to the decree that entered into force at the beginning of 2007, the daily minimum level of the settlement account was abolished, the penalty interest for failing to comply with the reserve requirement was updated and the procedures for the enforcement of reserve requirement amendments were specified.

One of the preconditions for a successful economic policy is **consistency between monetary policy and fiscal policy**. Thus, the central bank also urged the Government to take measures in order to alleviate the threat of economic overheating and support economic balance through fiscal policy. This is possible mainly by increasing the consolidated budget surplus. The representatives of Eesti Pank discussed it with government agencies and the necessity of keeping the state budget in surplus found mutual support. According to preliminary data, the 2006 government budget surplus amounted to approximately 4% of gross domestic product (GDP); the budget surplus planned for 2007 is 1.9% of GDP.

In 2006, the **price growth in Estonia remained at a level ensuring sustainable economic development**, the total annual inflation rate being 4.4%. Such price growth was expected, considering the joint impact of the peak of the Estonian economic cycle and convergence with wealthier European economies. High economic activity and the resulting increase in demand fostered price growth. (After a moderate slowdown of economic growth, price growth is expected to decelerate.) Meanwhile, the Estonian economic indicators continued approaching the EU average indicators, which brought along a significantly faster income and price growth compared to the EU average (see Figure 2). The Estonian income and price levels are among the lowest in the European Union. In order to reduce these differences, incomes and prices in Estonia have to grow somewhat faster than in the European Union on average. To provide for balanced economic development, rapid income growth should be accompanied by strong produc-

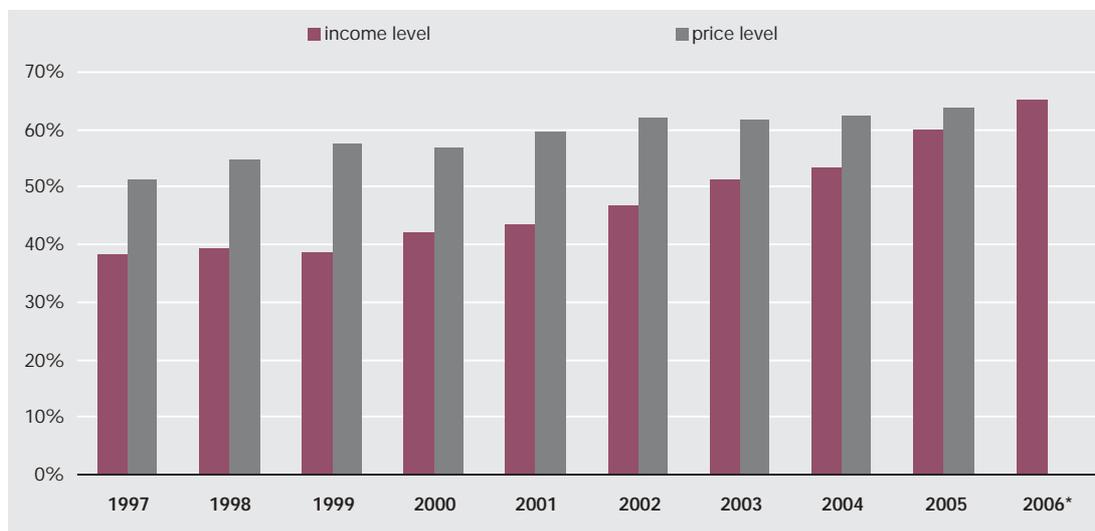


Figure 2. Income and price level in Estonia compared to the EU average

Source: Eurostat

* Preliminary data

tivity growth. If income growth is in line with productivity growth, it will also restrict the excessive price increase, supporting a moderate inflation pace.

The growth figures of rapidly developing countries catching up on wealthier economies should be viewed in the general context of the economic development of those countries, not limiting the comparison of countries to a few single economic indicators. Generally, in wealthier states the income and price levels are relatively higher and the economic growth and inflation rate lower. In countries with fairly modest economic growth, the inflation rate considered compatible with price stability is significantly lower than in Estonia, for instance. If a developing country experiencing rapid economic expansion has a price growth similar to that of advanced economies, it is an exception rather than a rule. In case of countries rapidly converging towards the average EU level, instead of a mere comparison of inflation figures it would be economically more appropriate to assess the consistency between the inflation rate and other economic indicators, also considering productivity growth.

Recently, risks to the Estonian economy have heightened and may potentially endanger sustainable economic development and cause price growth inhibiting balanced development.

As for external risks, the uncertainty related to oil and other commodity prices persisted. Internal risks were primarily related to the wage growth exceeding productivity growth and to strong domestic demand. Compared to earlier years, the labour market tightened in 2006 and some sectors experienced labour shortage and rapid wage growth. Wage growth surpassed productivity growth, increasing the risk that the rapid wage increase could affect inflation or reduce the competitiveness of Estonian companies in foreign markets. Though according to the latest statistics, competitiveness has been maintained, the risks are present.

Increased incomes and easy access to credit maintained the fast growth rate of the housing loan stock, while also consumer credit picked up. Households' readiness to spend more fostered the price growth of real estate as well as consumer goods. Strong



wage growth resulting from labour shortage enhanced the price pressures, boosting the production costs of several products and services.

The economic developments of Estonia were repeatedly discussed with international organisations, such as the International Monetary Fund, European Central Bank, European Commission and rating agencies (Moody's, Fitch, Standard & Poor's). Foreign partners had high regard for the successful monetary and fiscal policy of Estonia, but stressed the need for managing the risks accompanying the rapid growth of domestic demand. The International Monetary Fund gave the Estonian economy a positive assessment, acknowledging the reliable currency board and conservative fiscal policy. However, the IMF warned us about the risk of economic overheating, indicated by tensions on the labour market, the acceleration of inflation and the growing current account deficit. All international organisations concluded that the short-term postponement of the adoption of the euro does not jeopardise the Estonian economy, but Estonia should definitely continue its conservative economic policy.

Being a member of the European System of Central Banks, Eesti Pank continued participating in the committees and working groups dealing with economic and monetary policy issues in non-euro area EU Member States. The main topic of discussions involved risks surrounding balanced economic development. Debates were held over possible economic overheating on the basis of Estonia and several other new EU Member States, and the need for conservative fiscal policy was emphasised. At the meetings of ESCB committees and working groups the representatives of Eesti Pank explained Estonia's economic developments and the balancing role of the currency board within the general economic framework. Central bank representatives also took part in the discussions of other non-euro area EU economies, drawing attention to the need to consider the overall economic context and not concentrate only on single figures. Special attention was also given to the economic develop-

ment of countries belonging to the European exchange rate mechanism ERM II in order to assess their readiness to join the euro area.

Preparations for harmonising the Estonian monetary system with requirements for joining the euro area

The Estonian monetary policy framework is very similar to that of the euro area, which enables to adjust the existing system easily upon accession to the euro area. Joining the euro area will not entail significant economic policy changes. The monetary policy transition mechanisms of euro area countries are already operational in Estonia, as the Estonian economy has already adjusted to these mechanisms during the past years under the conditions of the currency board. Eesti Pank and the Government have set the goal to adopt the euro as soon as all the necessary requirements are fulfilled.

The final harmonisation of the monetary policy framework with that of the euro area is a relatively small-scale task and will not require a long-term gradual adjustment period. The required changes can also be made immediately before the adoption of the euro, if necessary. During the period of preparing to join the euro area, Eesti Pank will adjust the monetary policy framework according to the needs of economic environment, for instance by avoiding the creation of additional liquidity in the period of strong economic activity.

The Estonian kroon continues to participate in the exchange rate mechanism ERM II, which is one of the preconditions for adopting the euro. In June 2006, Estonia completed the two-year participation period required for joining the euro area, thus meeting the Maastricht exchange rate criterion. Estonia will carry on in the exchange rate mechanism until the adoption of the euro, preserving the existing monetary policy framework and the exchange rate fixed to the euro at 1 euro = 15.6466 kroons. The Estonian kroon has maintained its stability in the exchange rate mechanism, which has increased the credibility of the Estonian economy.

ECONOMIC ANALYSIS, FORECAST AND RESEARCH AS THE BASIS FOR MONETARY AND FINANCIAL POLICY-MAKING

Monitoring

Making monetary policy decisions requires an effective system for monitoring and forecasting economic development, supported by targeted surveys on long-term processes in the Estonian economy. This system involves all departments preparing the central bank's monetary policy decisions.

The monitoring of economic development mostly covers Estonia and the European Union Member States, but also other major countries that play an important role in global economic developments. Understanding the external environment is very important for a small open economy, and thus developments in Estonia are always analysed in the context of trends in foreign economies. The monitoring process of the Estonian economy may be divided into two categories: monitoring the development of the non-financial and financial sector. The outputs of this process are monthly reviews for internal use in the bank, which serve as a basis for press releases and public statements.

Economic reviews

Once a quarter Eesti Pank prepares an economic policy review, which serves as a basis for communicating with the public (see also "Key points of the economic forecasts of Eesti Pank in 2006", p. 107). In addition to assessments of the Estonian current economic situation, twice a year the central bank compiles short-term economic forecasts and once in six months gives an assessment to financial stability.

Under the conditions of fixed exchange rate the flexibility of the labour market plays an especially important role. Income convergence towards more prosperous countries requires flexible wage formation based on productivity growth. Labour market issues have been the topic of targeted research projects already for several years. From these

projects a semi-annual **Labour Market Review** has emerged for internal use in the bank. Since 2006, the Review is also available electronically on Eesti Pank's web site (see also "Publications of Eesti Pank in 2006", p. 114).

Forecasts

Eesti Pank issues economic forecasts twice a year: a spring forecast in May and an autumn forecast in November (see "Key points of the economic forecasts of Eesti Pank in 2006", p. 107). To this end, the current year's economic developments and the projections for the following two years are analysed. The base forecast scenario is usually also supplemented with two risk scenarios. For further information on the key points of Eesti Pank's economic forecasts see the bank's web site.

Rapid changes in the economic structure require constant updating of the base model of the Estonian economy which is one of the main tasks of the central bank's research activities. This task has been divided between the Research Department and the Forecasting Unit of the Economics Department. The Research Department is responsible for developing the quarterly economic model of the Estonian economy that serves as a basis for compiling the semi-annual economic forecasts in the Economics Department. Owing to changes in the statistics of national accounts, the econometric model used for forecasting was re-evaluated in 2006. The second agenda of development activities was related to practical preparations for participating in the forecasting process of the European Central Bank. The representatives of Eesti Pank attended the meetings of the European Central Bank's Working Group on Forecasting, where the global economic outlook was discussed and forecast assumptions were harmonised. The exchange of information between the members of the European System of Central Banks is aimed at enhancing the accuracy of economic forecasts.

Research

Eesti Pank's economic surveys follow the **strategic research plan**, which determines the general

framework for the surveys conducted in the bank. The priorities for 2004–2006 included updating the **central bank's macromodel, creating the monetary policy's simulation model, monetary policy and financial sector research,** and the **sustainability analysis of the Estonian monetary system.** 13 research projects were carried out on these issues in 2006.

The research projects focused on the saving behaviour of Estonian households and the sustainability factors of Estonian companies; the flexibility of pricing behaviour and wage setting in Estonian companies; the credit growth of Estonian banks in the context of joining the euro area; the potential GDP growth, etc. Moreover, the macromodel of the Estonian economy was updated and the monetary policy simulation model elaborated.

Although surveys are mainly conducted in the Research Department, single research projects focusing on more specific topics are carried out also in other departments. In 2006, such research areas included, for instance, aspects related to domestic demand and financial deepening, and the analysis of business cycles.

In addition to being published in the Eesti Pank Working Paper Series, economic researches conducted by the central bank have found also international recognition. In 2006, ten research papers and articles were published in internationally recognised academic journals and publications.

The **cooperation on research at international and domestic level** continued in 2006. The economists of Eesti Pank attended the Working Group on Econometric Modelling and the network for analysing wage dynamics composed of the members of the European System of Central Banks. In cooperation with the National Bureau of Economic Research (NBER), Eesti Pank arranged a high-level economic conference "International Seminar on Macroeconomics" in the summer of 2006 in

Tallinn with renowned economists from Europe and the United States participating.

The surveys conducted by Eesti Pank were introduced at several international conferences: the annual conferences of IAES (International Atlantic Economic Society) and EACES (European Association for Comparative Economic Studies), COPE (Congress of Political Economists), seminars organised by the national central banks of the European System of Central Banks (e.g. ESCB Workshop on Emerging Markets, Research seminar of De Nederlandsche Bank). Furthermore, the central bank's experts also took part in local conferences (the first annual conference of the Estonian Economic Association, a seminar for young economists, etc.).

Along with introducing Eesti Pank's own surveys, also acknowledged **foreign experts** were invited to Estonia to present the results of their research. One of the most renowned European economists, Professor Charles Wyplosz, gave a presentation on the historic challenges of the European Economic and Monetary Union; Carlos Martinez-Mongay, head of the unit dealing with Southern European economies of the European Commission's Directorate-General for Economic and Financial Affairs, held a seminar on tax policy; Pekka Sutela, Head of the Bank of Finland's Institute for Economies in Transition, held a seminar on the current economic situation and development perspectives of Russia, etc.

In total, Eesti Pank conducted 14 open seminars during 2006. Nine of them had guest lecturers from abroad and four included presentations on the bank's own surveys.

The **visiting researcher programme** of Eesti Pank plays a significant role in research contacts. In 2006, three foreign experts participated in conducting economic surveys.

The tradition of awarding annually a **research award** to young Estonian economists was contin-

ued also in 2006. The award was granted for the fourth time and this time to Katrin Männik, a Ph.D. student at the University of Tartu for the research “The Impact of the Autonomy on the Performance in a Multinational Corporation’s Subsidiary in Transition Countries”.

RESERVE MANAGEMENT

The foreign exchange reserves of Eesti Pank back the Estonian kroon and are used to ensure the stability of the kroon. Following the principles of the currency board, the foreign exchange reserves should completely cover all the kroon liabilities of Eesti Pank, including the banknotes and coins issued, and the accounts of commercial banks with Eesti Pank. The central bank proceeds from strict risk constraints in investing the reserves, taking into account the primary objectives, namely the **preservation and liquidity of assets**. **Return** comes third on the list of objectives.

Structure of foreign exchange reserves

No major changes in the structure of foreign exchange reserves took place in 2006. The reserve is still divided into two: the **liquidity buffer** and the **investment portfolio**. A small part of the reserves is held in **gold**.

The **liquidity buffer** accounts for approximately 10% of the total reserves and the central bank can use it at any time for Estonian kroon and foreign currency transactions with domestic credit institutions.

Assets of the other major component of the foreign exchange reserves – the **investment portfolio** – are invested in international financial markets. The objective of the investments is to achieve the optimum balance of risk and average return above money market interest rates throughout a global economic cycle. Investment portfolio assets are mainly invested in the liquid bond markets of leading industrial countries, whereas investments’ interest rate, credit, currency and liquidity risks are constantly monitored and managed.

Investment process

Eesti Pank manages interest rate risk through the benchmark portfolio. This determines the average risk level the bank is ready to accept and is also used for performance measurement purposes in reserve management. The benchmark portfolio does not include currency risk. Limits have been set within which the actual investment portfolio may deviate from the benchmark portfolio.

The Monetary Policy Committee of Eesti Pank considers changing the benchmark portfolio when the average duration of the theoretical and actual benchmark portfolios differs by more than 10%. Lowering the risk level of the benchmark portfolio essentially means reducing the average duration of the portfolio: more assets are invested in low-volatility financial instruments providing more stable yields. As a result, the accrued interests offset potential price fluctuations caused by market volatility. In case of increasing the risk level more assets are invested in longer-term instruments, i.e. government bonds with the maturity of more than one year.

In addition to earnings from a relatively stable benchmark portfolio, or *passive investment*, Eesti Pank is also engaged in *active investment*, taking positions in global financial markets. Such investment decisions are taken based on economic analysis, market relationships and other factors. Markets and securities are chosen on the basis of the investment idea, presumed horizon and expected efficiency. The main investment philosophy lies in diversification: the aim is to spread risks and make better use of market opportunities. Investments are made in various markets, using different instruments, and positions are taken with different duration. Portfolio managers make investment decisions independent of each other. This is possible because the overall risk limit is divided into portions and the use of each portion is up to its portfolio manager.

Eesti Pank tries to keep up with the times and find its niche in today’s relatively efficient markets. Upon making investment decisions two different ap-



proaches are applied: subjective and model based. The former is mainly based on the qualitative analysis of economic processes, market psychology and the experience of portfolio managers. The latter is based on quantitative market relationships derived from investment models (for more information on the investment models applied see the Eesti Pank Working Papers No 6/2005 and 4/2006). Best decisions for investing in money, capital and foreign exchange markets are striven by a combination of these two approaches.

The outcome of the active investment policy was 15 basis points of excess return over the benchmark portfolio. External asset managers also have a role in active investment. In 2006, a new contract was signed with BlackRock. Pimco has been investing Eesti Pank's assets since 2005 and ABN Amro Asset Management since 2003. Developing and expanding the system of external managers is one of Eesti Pank's strategic objectives. The external asset managers use a portion of the risk limit, which is primarily invested in financial derivatives.

Investment results in 2006 and related factors

By end-2006, the foreign exchange reserves of Eesti Pank reached 33.17 billion kroons. The annual growth stood at approximately 29%. The excess reserve¹ accounted for nearly 11%, i.e. 3.7 billion kroons, of the total reserve.

Return on investment was higher than expected. It was affected by the faster than expected growth of foreign exchange reserves as well as changes in the interest rates of the euro area and the US. The US Federal Reserve raised the key interest rate altogether on four occasions (by 1 percentage point in total), whereas the European Central Bank raised the rates on five occasions (by 1.25 percentage points in total). Interest rates increased in both regions by 0.3–1.2% across the yield curve, which is why the return on foreign exchange reserves remained below return on the money market (see Figure 1) in 2006.



Figure 1. Return on foreign exchange reserves compared to return on money market

¹ The components and calculation of the excess reserve above the currency board can be followed in the table "Foreign exchange reserves backing the kroon" (see Row IX – Foreign reserves net) published on the 5th working day of each month.

Changes in the benchmark portfolio in 2006

In 2006, interest rates mostly increased in both Europe and the United States, particularly at the shorter end of the yield curve. Therefore, the Monetary Policy Committee of Eesti Pank considered it necessary to extend the duration of the benchmark portfolio on two occasions: at the beginning of April and September. As a result, the duration of both benchmark portfolios extended by 27% compared to the beginning of the year: from 1.22 to 1.56 years in case of the benchmark portfolio of the euro area and from 0.84 to 1.07 years in case of the US portfolio. All in all, the duration of the benchmark portfolio extended from 1.07 to 1.36 years. The structure of the benchmark portfolio, which the Monetary Policy Committee endorsed on 1 December 2006 and which applied until the end of 2006, is given in Table 1.

Asset management services provided to the public sector

Eesti Pank has cooperated with several public sector institutions for years already. In 2006, it started to provide the risk management service to the Estonian Unemployment Insurance Fund. The service includes daily monitoring of the investment activities of asset managers, drawing the reports required and, if necessary, advising the Fund in investment related matters. By end-2006, the Fund's portfolios stood at 1.6 billion kroons.

Eesti Pank continued to provide the full package of asset management services to the Guarantee Fund, whose investment portfolios totalled 1.3 billion kroons at the end of 2006.

Table 1. Structure of the benchmark portfolio

	3 months	1 to 3 y	3 to 5 y	5 to 7 y	7 to 10 y	10+ y	Duration
Euro area	65.67%	15.05%	7.67%	5.44%	3.98%	2.19%	1.56
USA	73.88%	12.38%	6.28%	4.18%	3.28%		1.07