

MONETARY POLICY

ENSURING SMOOTH OPERATION OF ESTONIA'S CURRENT MONETARY POLICY FRAMEWORK

Primary features of Estonian economic policy in regard to monetary stability

The mission of Eesti Pank is to ensure **price stability** in Estonia. A stable, low and easily predictable inflation rate ensures most favourable conditions for long-term economic growth. A stable price environment allows corporations and individuals to plan their investment and consumption decisions more effectively and ensure efficient investment of their resources.

Estonia's monetary strategy for achieving price stability is based on the **fixed exchange rate system with the currency board arrangement**. Since 1992, the domestic currency kroon is pegged to the euro (until 1999 equivalently to the Deutsche Mark) at the rate 1 EUR = 15.6466 EEK. As Estonia's monetary policy based on the currency board arrangement has proved its viability, Estonia has unilaterally committed to maintain the current system and the central rate until the adoption of the euro.

Other features of Estonian economic policy throughout re-independence have been relying on the principles of **balanced budget and economic policy that supports open and free competition**.

Since the Estonian monetary system is related to the euro and capital mobility is quite extensive, in a broader perspective **our monetary policy environment is largely shaped by the operations and activities of the European Central Bank** which proceeds from the development of the euro area economy. The impact of monetary policy decisions of the European Central Bank is quickly transmitted into Estonia's economy, our loan and deposit interest rates, and into the Estonian kroon exchange rate vis-à-vis the other currencies. This, in turn, affects the behaviour of the non-financial sector (households and non-financial corporations) and the formation of price stability in Estonia. The range

of additional monetary policy instruments available to Eesti Pank is rather limited as active monetary policy is not efficient under the currency board arrangement. The current regime has successfully anchored inflation expectations confirming the effectiveness of the currency board arrangement. What Eesti Pank can do is to draw the attention of the public and the government to macro-economic environment risks, exercise pressure to the financial sector, and implement strict reserve requirements and supervisory measures.

Monetary policy in 2005

Eesti Pank continued to participate in domestic as well as wider **discussions on monetary policy** in 2005. Major cooperation partners were the Government and ministries, the EU institutions, the International Monetary Fund (IMF) and international rating agencies (Moody's, Fitch, Standard&Poor's).

Eesti Pank continued close cooperation with the Government in order to ensure stronger economic policy support to the monetary policy the central bank exercises. Among other important cooperation fields, central bank employees participated in the regular compilation of the convergence programme led by the Ministry of Finance and submitted to the European Commission.

Representatives of Eesti Pank took part in discussions on monetary policy in the EU Economic and Financial Committee (EFC), the General Council of the European Central Bank and the Monetary Policy Committee (MPC) of the European System of Central Banks (ESCB). As Estonia is a Member State with a derogation in the Economic and Monetary Union, Eesti Pank takes part in the work of those institutions of the ESCB which above all include the non-euro area EU Member States. Eesti Pank will be able to participate in the discussions directly related to the euro area only after the accession to the euro area. Developments of Estonian economy and monetary policy were treated as part of regular reviews of the monetary policy of non-euro area Member States, also covering the functioning of the exchange rate mechanism ERM II.



Along with participation in general discussions on monetary policy the representatives of Eesti Pank gave detailed explanations to foreign partners on Estonian economic development and the sustainability of economic policy (including monetary and fiscal policies) that aims at balanced economic development.

International institutions gave high ratings to Estonia's monetary and fiscal choices also in 2005; rating agencies upgraded Estonia's sovereign rating outlook to positive. Nevertheless, Eesti Pank and international institutions emphasised that in the environment of the current rapid growth, economic developments must be very closely monitored and imbalances prevented when necessary.

In 2005, the average annual inflation rate reached 4.1% in Estonia. Faster price growth mainly stems from a rise in oil and energy prices and the resulting volatility of consumer prices. Domestic price pressures arising from labour costs remained subdued.

Taking into account income level convergence, the 3–4% rise in consumer prices can be considered consistent with price stability in the context of fast and balanced (in terms of increased labour productivity) economic growth. However, **in 2005 Eesti Pank repeatedly drew the attention of the public, the financial sector and the Government to external and domestic risks that pose a threat to balanced development.**

External risks imply to the rise in oil prices on the world market and consequent impact on Estonian consumer prices as well as the impact of oil price dynamics on the prices of other energy carriers.

As for **domestic risks**, the central bank denoted risks in some sectors. Although estimates on the domestic balance of Estonian economy as a whole did not point to any deviation from the long-term sustainable course of development, surveys of the real estate market suggested imbalances. Housing loans and residential property prices kept growing, supply-side constraints appeared and labour costs

in the construction sector rose faster than the average of the whole economy. A key issue was the further rapid growth of household debt dominated by housing loans. The European Central Bank kept monetary policy rates unchanged almost throughout the year and raised them by 25 basis points in December. Only then did the interest rates of housing loans issued in Estonia start rising. In December 2005, Eesti Pank decided to take measures to make the legal framework for housing loans more rigid.

Like earlier, Eesti Pank again suggested offering the best possible support to improve economic balance through fiscal policy, mostly through increasing the consolidated balance surplus.

PREPARATIONS FOR BRINGING ESTONIAN MONETARY SYSTEM INTO ACCORDANCE WITH REQUIREMENTS FOR JOINING THE EURO AREA

Eesti Pank and the Government have established the goal to introduce the euro as soon as Estonia meets all necessary requirements. Given that Estonia has successfully implemented the currency board arrangement with the fixed exchange rate against the euro (until 1999 equivalently against the Deutsche Mark) since the summer of 1992, the accession to the euro area will not bring about any essential changes in economic policies. The preparations for joining the Economic and Monetary Union mainly comprise institutional and technical issues, for example harmonisation of legislation, development of the operational framework for monetary policy and payment systems, and preparations for euro cash handling. Eesti Pank's operations and activities in 2005 derived from the strategic task to ensure technical readiness to join the euro area by the second half of 2006 (for the framework for technical preparations see the chapter on the changeover to the euro).

In order to join the euro area Estonia must first fulfil the Maastricht convergence criteria. To this end, Eesti Pank has been working closely with the Government (see also Chapter "Preparations

for full membership in the European Economic and Monetary Union (changeover to the euro)". In 2005, Estonian economy met all general convergence criteria but the inflation rate, though being in line with the price stability objective, exceeded the reference value of the inflation criterion. In the coming years, inflation is expected to decline. Estonia fulfilled the criteria for budget balance and government debt along with the interest rate criterion in 2005. The exchange rate criterion was also met as required. Estonia joined the exchange rate mechanism ERM II on 27 June 2004, maintaining the exchange rate of the Estonian kroon pegged to the euro (1 EUR = 15.6466 EEK) and the currency board arrangement as a unilateral commitment. As expected, functioning in the ERM II framework has not caused any problems for Estonia in terms of the functioning of the monetary system.

ECONOMIC ANALYSIS, FORECAST AND RESEARCH AS THE BASIS FOR GROUNDING MONETARY AND FINANCIAL POLICY DECISIONS

Monitoring of the current economic situation, forecasting economic developments and analysing economic mechanisms form an important and resource-intensive part of the central bank operations and activities. The quality of domestic monetary and financial policy decisions along with successful participation in economic and political discussions at the EU level are dependent on the above.

Along with the **current economic monitoring and analysis** of the Estonian economy Eesti Pank also conducts research on the recent developments in the European Union and our neighbouring countries. Eesti Pank closely follows developments in the acceding countries (Bulgaria and Romania) and the accession countries (Croatia and Turkey). Several developing countries in Asia (incl. China and India) attract attention as they make a considerable impact on global economic developments (especially in the light of demand pressure currently exercised by commodity markets).

The economists of Eesti Pank also draw up analyses of various special issues if required. For instance, in 2005 risks related to fuel price developments had a great impact on the focus of economic analysis. These risks called for more attention to issues such as the transfer of world market prices into Estonian consumer prices and the impact of the schedule for harmonising fuel and energy prices and excise duties on the consumer basket. It was necessary to launch quarterly monitoring of the euro area monetary policy in view of the upcoming introduction of the euro. The analysis of domestic demand mainly focused on the real estate market both in short and long term perspective. The outcomes of the current economic analyses and monitoring by Eesti Pank are available to the public in the **comments and reviews published quarterly** (see page 93 for an overview of the development of Estonian financial and non-financial sectors in 2005).

Eesti Pank **publishes economic** forecasts twice a year. Along with the quarterly model of the Estonian economy the indicator models were implemented for forecasting consumer price inflation and economic growth. The latter are also used in current monitoring.

The primary process of forecasting was founded on a new base model, which increases the theoretical substantiation of forecasts and ensures better consistency between short and long term projections (see Annex on page 108 for an overview of the basic points in the 2005 economic forecasts).

Economic surveys contribute to current analysis and forecasting, and provide opportunities to participate in domestic as well as international discussions on economic and political issues. The general framework for Eesti Pank's economic research is determined by the strategic research plan. The priorities for 2004–2006 include **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**. 11 research projects on these issues were carried



out in 2005, focusing on the principles of price and wage setting behaviour in Estonian enterprises, indicators of banking sector vulnerability in Estonia and Central and Eastern European countries, productivity in Estonian enterprises, and issues related to the Economic and Monetary Union. The results of economic research have been published in the working paper series (see Annex on page 113 for the full list) and presented at the open seminars of Eesti Pank (see "Open seminars of Eesti Pank" under "Research" on the bank's web site).

Open seminars included presentations on the research conducted by Eesti Pank as well as by distinguished foreign experts. In 2005, Prof. David Laidler from the University of Western Ontario delivered a presentation on the theoretical foundations of monetary policy; Prof. Lars Ljungqvist from the Stockholm School of Economics analysed European unemployment issues, and Carsten Olsson from the Eurostat made a presentation on the experiences of various EU countries in relation to the adoption of the euro. Moreover, a research seminar on productivity and foreign direct investment was held in cooperation with the University of Tartu, attracting a large number of participants.

The results of the research projects conducted at Eesti Pank have been presented at various **international and domestic academic conferences**, for instance at the annual conference of IAES (International Atlantic Economic Society) and GEP (The Leverhulme Centre for Research on Globalisation and Economic Policy), as well as the 13th international academic conference on economic policy in Tartu and Värskä (Estonia), the Vello Vensel Memorial Conference organised by the Tallinn University of Technology, and the annual international conference of the Estonian Economic Association.

Central bank economists took part in various **international projects**, such as the joint research seminar organised by the University of Helsinki and the University of Tartu, and the EACES (The European Association for Comparative Economic Studies) research seminar in Halle.

The **visiting researcher programme** and the **research award** of Eesti Pank play a significant role in research contacts. Two economists from abroad were employed in Eesti Pank as visiting researchers in 2005. Eesti Pank's annual **research award** for 2005 was granted to the research "Does an Increase in Unemployment Income Lead to Longer Unemployment Spells? Evidence using Danish unemployment assistance data" by Ott-Siim Toomet, a Ph.D. student at the University of Tartu.

RESERVE MANAGEMENT

The foreign exchange reserves of Eesti Pank serve to 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 Eesti Pank's kroon liabilities, 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 2005. 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 that the central bank can use at any time for Eesti kroon and foreign currency transactions with domestic credit institutions.

Assets of the other larger component of the foreign exchange reserves – the **investment portfolio** – are invested in international financial markets. The objective of investments is to achieve the optimum balance of risk and average return above money market interest rates throughout a global economic cycle. The assets of the investment portfolio are mainly invested in the liquid bond markets of lead-

ing industrial countries, whereas investments' interest rate, credit, foreign exchange and liquidity risks are constantly monitored and managed.

Investment process

Eesti Pank actively manages the 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 interest compensates for 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 *actively investing*, 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 in several markets and various instruments are used, as well as positions with different duration. Portfolio managers make in-

vestment 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 attempts to discover its niche in today's rather efficient markets. In investment decisions two different approaches 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 Working Paper of Eesti Pank No 6/2005 "Application of Investment Models in Foreign Exchange Reserve Management in Eesti Pank"). 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 7 basis points of excess return over the benchmark portfolio. External asset managers also have a role in active investments. In mid-2005, a contract was signed with a new manager PIMCO who is well known for successful bond investments. State Street Global Advisors have been investing Eesti Pank's assets since 2002 and ABN Amro Asset Management since 2003. One of Eesti Pank's strategic objectives lies in developing and expanding the system of external asset managers. The external asset managers use a portion of the risk limit, which is primarily invested in financial derivatives.

Investment results in 2005 and related factors

By end-2005, the foreign exchange reserves of Eesti Pank reached 25.7 billion kroons. The annual increase was around 28%. The excess reserve¹ accounted for approximately 14% of the total reserve, i.e. 3.6 billion kroons. The development of return on

¹ For the components of the excess reserve and their calculation see the table on the reserves backing the kroon (row IX – foreign reserves net) published on the web site of Eesti Pank on the fifth working day of each month.



foreign exchange reserves (compared to forecasts) are shown in Figure 1. These dynamics were affected by changes in the foreign exchange reserves across months along with changes in the interest rates of the euro area and the US. The US Federal Reserve raised the key interest rate altogether on eight occasions (by 2 percentage points in total) causing a rise in interest rates nearly along the entire extent of the yield curve. The European Central Bank raised the key interest rate by only 0.25 percentage points and movements occurred in both directions: the interest rates on bonds with the maturity of up to 5 years rose, while longer-term rates fell.

In recent years, the return on foreign exchange reserves has exceeded that of the money market (see Figure 2).

Changes in the benchmark portfolio in 2005

The euro area interest rates were rather stable early in the year, in the second quarter longer-term rates even dropped slightly. The last quarter of 2005, however, saw a rapid rise in the short-term interest rates of the euro area. In the US, 10-year interest rates kept increasing throughout the year. This resulted in the average duration of the benchmark portfolio at the beginning of December being over 10% shorter than the duration of the optimum portfolio. Therefore the risk level of the benchmark portfolio needed to be increased. The duration of the new benchmark portfolio of the euro area extended by 15% (from 1.06 to 1.22 years) and the US portfolio by 9% (from 0.77 to 0.84). The average duration of the new benchmark portfolio was 1.07 years. The structure of the new benchmark portfolio, which the Monetary Policy Committee of Eesti Pank endorsed on 1 December 2005, is given in Table 1.

Asset management services to the public sector

Eesti Pank has cooperated with several public sector institutions for years already. The central bank provides its services to the Ministry of Finance in risk management and trade execution for the Stabilisation Reserve. Investment decisions on the

placement of these funds are still made by the State Treasury. Eesti Pank provides full package of asset management services to the Guarantee Fund.

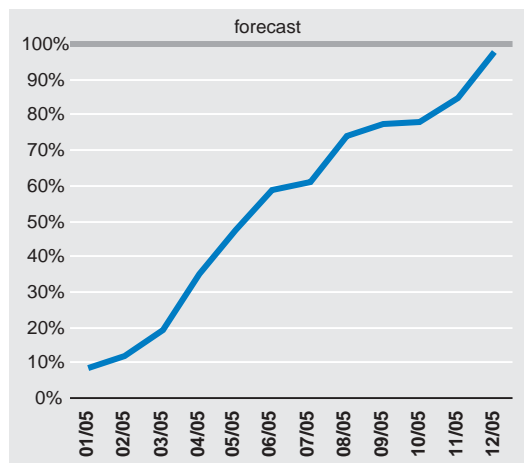


Figure 1. Development of return on foreign exchange reserves

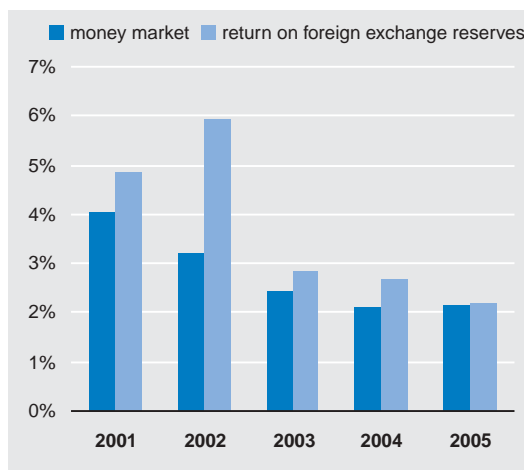


Figure 2. Return on foreign exchange reserves compared to return on money market

Table 1. Structure of the benchmark portfolio

	3 months	1-3 y	3-5 y	5-7 y
Euro area	74.40%	11.26%	5.76%	4.03%
USA	80.98%	9.03%	4.44%	3.19%
	7-10 y	10+ y	Duration	
Euro area	2.95%	1.60%	1.22	
USA	2.35%		0.84	