RESERVE MANAGEMENT

Reserve management in 2010

The foreign exchange reserves of Eesti Pank backed the Estonian kroon until the end of 2010, ensuring the stability of the kroon. In the currency board system, foreign exchange reserves had to fully cover all the liabilities of Eesti Pank, including the banknotes and coins issued, and the funds of commercial banks held with Eesti Pank.

The central bank proceeds from strict risk constraints in investing the reserves, while taking into account the primary objectives: the preservation and liquidity of assets. Return comes third on the list of objectives.

The structure of foreign exchange reserves

The structure of foreign exchange reserves did not change in 2010. The reserves consisted of the **liquidity buffer** and the investment portfolio. A small part of the reserves was held in gold.

The liquidity buffer accounted for around 10% of the total reserves and the central bank could use it at any time for Eesti kroon and foreign currency transactions with domestic credit institutions.

Assets of the other major component of the foreign exchange reserves – **the investment portfolio** – were invested in international financial markets. The objective of investments has been to achieve the optimum balance of risk and average return above money market interest rates throughout a global economic cycle. Investment portfolio assets were primarily invested in the liquid bond markets of leading industrial countries, while constantly monitoring and managing the interest rate, credit, currency and liquidity risks of the investments.[1]

The 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 it 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 decisions regarding changes in the risk level of the benchmark portfolio are made by the Executive Board of Eesti Pank (until 31/12/2010 in the form of the Monetary Policy Committee). 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. In the case of increasing the risk level, more assets are invested in longer-term instruments; that is, government bonds with the maturity of more than one year.

In addition to earning on 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 concept, expected horizon and efficiency of the investment. The investment philosophy generally lies in diversification: the aim is to spread risks and make better use of market opportunities. Strategies utilise primarily fixed income and interest rate markets and exchanges of the world's developed economies. 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. Two different approaches are used in making investment decisions, the subjective approach and the model based approach. The subjective approach is based on qualitative analysis of economic processes, market psychology and the experience of portfolio managers. The model-based approach draws

[1] For further information on risk management see the website of Eesti Pank.

on quantitative market relationships derived from investment models. The best decisions for investment in money, capital and foreign exchange markets are made by combining these two approaches.

External asset managers also have a role in active investment. In 2010, Eesti Pank used the services of four external asset managers. Informed Portfolio Management started cooperation with the central bank in 2007. BlackRock has been investing Eesti Pank's assets since 2006 and PIMCO since 2005. In 2010, Eesti Pank signed a contract with Nomura Asset Management. The external asset management programme is based on overlay mandates and the managers express the majority of strategies through derivate instruments.

In 2010, active investment resulted in 21.3 basis points of excess return over the benchmark portfolio.

Results and determinants of investment in 2010

The foreign exchange reserves of Eesti Pank totalled 30 billion kroons at the end of 2010, having decreased by 13.1 billion kroons from 2009. The reserves decreased largely because of lowering the minimum reserve requirement for credit institutions from 15% to 2%. The excess reserve accounted for nearly 17%, or 5.1 billion kroons, of the total reserve.

Investment income totalled 369 million kroons in 2010 and exceeded expectations by two times.

The main event in the first half of 2010 was the deepening of the sovereign debt crisis in some euro area countries, first in Greece and then also in some other countries with weak fiscal positions. Consequently, the interest rates on major strong (primarily US and German) government bonds dropped considerably, whereas the interest rates on the bonds of peripheral euro area countries rose, which had a positive impact on the investment yield of Eesti Pank's foreign exchange reserves.

Markets were volatile also in the second half of the year, but the key interest rates remained broadly unchanged at their low levels. Therefore, the structure of foreign exchange reserves did not change considerably over this period.

In total, the return on foreign exchange reserves was 1.03%; that is significantly higher than the return on money market (see Figure 1).[2]

Changes in the benchmark portfolio in 2010

Interest rates dropped somewhat in the first half of 2010 and rose in the second half, but generally fluctuated within a relatively narrow range of very low levels. Therefore in 2010, Eesti Pank did not change the benchmark portfolio that had been established in June 2009 (see Table 1).

Asset management services provided to the public sector

In 2010, Eesti Pank continued to provide the full package of asset management services to the Guarantee Fund, whose investment portfolios totalled 2.3 billion kroons at the end of the year.

Preparations for the euro and changes in reserve management

European Union treaties make depositing and managing foreign exchange reserves a key task of national central banks. All the euro area's national central banks have reserves that can be mobilised for the benefit of the Eurosystem's exchange rate policy, if needed.

The strict principles of the currency board arrangement set out that all the kroon liabilities of Eesti

[2] Until 2007 the Citigroup's indices of three-month return on euro money market were used as the return on money market, calculated based on three-month interbank euro deposit rates. However, as this instrument includes considerable credit risk, which has been significantly minimised by Eesti Pank in recent years as regards foreign exchange reserves investment, since 2008 the return on money market is calculated as the return on three-month repos.

Table 1. Structure of the benchmark portfolio

	3 month	1–3 y	3–5 y	5–7 y	7–10 y	10+ y
Euro area	88.05%	5.26%	2.71%	1.86%	1.37%	0.76%
USA	92.79%	3.50%	1.65%	1.18%	0.89%	

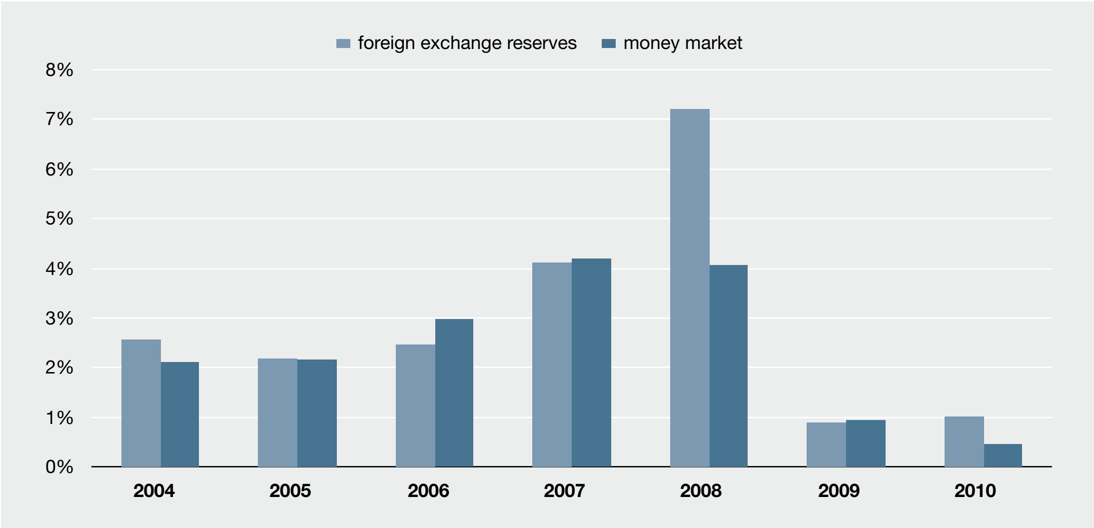

Figure 1. Return on foreign exchange reserves compared to return on money market

Pank had to be fully covered by liquid foreign assets in order to ensure the fixed exchange rate of the kroon. Since 1 January 2011, when Estonia became a member of the euro area, foreign assets[3] only have to cover a part of the central bank's liabilities and some of the money may be issued to credit institutions as monetary policy loans. So while Estonian kroons were only issued against foreign currencies, euros may be also issued against euro-denominated assets.

At the time of adopting the decision on Estonia's accession to the euro area, the foreign exchange reserves of Eesti Pank totalled almost 40 billion kroons, most of it being the assets backing the currency board. The stock of foreign exchange reserves decreased before accession to the euro area owing to a change in the monetary policy framework, the lowering of the reserve requirement ratio for commercial banks.

With the adoption of the euro on 1 January 2011, Eesti Pank carried out its obligation to transfer some of its reserves to the European Central Bank. European Union treaties state that all the central banks of the Member States who have adopted the single currency must make a contribution out of their foreign exchange reserves to the European Central Bank. The level of reserves is usually calculated in proportion to their share of the subscribed capital of the European Central Bank. Eesti Pank transferred 145,853,596.60 euros of its foreign exchange reserves to the European Central Bank, and the equivalent sum is now reflected in the balance sheet of Eesti Pank as a claim against the European Central Bank. The European Central Bank pays interest to Eesti Pank on the sum that was transferred.

Besides the foreign exchange and gold reserves, Eesti Pank's financial assets still include a portfolio of securities in euros, which has now become our domestic currency since we joined the euro area. The aim of the euro portfolio is to cover the operating costs of Eesti Pank and to make sure there is sufficient capital to cover potential losses.

[3] With the adoption of the euro, the definition of Eesti Pank's foreign assets changed considerably.