NATIONAL BANK OF THE REPUBLIC OF MACEDONIA

Report on the management of the foreign reserves in 2008

March, 2009

Contents

1. Introduction

In 2008 the National Bank of the Republic of Macedonia, within its legal rights and responsibilities, continued to manage the foreign reserves of the Republic of Macedonia in accordance with the safety and liquidity principles, and within those frames, accomplishing profitability of the investments. The management of foreign reserves is adjusted to the monetary strategy for maintenance of de facto fixed nominal exchange rate of the Denar relative to the Euro, with the foreign reserves serving as a support to the stability of the domestic currency.

The focal point in the management of the foreign reserves in 2008 was the further improvement of both credit and liquidity risk management. In that direction, the investment strategy for 2008 envisaged an increase in the level of high quality securities for which deep and liquid secondary markets exist. Hence, the government securities dominated in the spectrum of instruments the foreign reserves are invested in, which proved to be an optimal strategy having in mind the growing turmoil on the financial markets worldwide .

2. Foreign reserves stock in 2008

As of December 31, 2008, the foreign reserves equaled Euro 1,494.9 million, and compared with the level on December 31, 2007 the reserves decreased by Euro 29.4 million[1].

Figure 1
Foreign reserves stock by years
(in millions of euros)

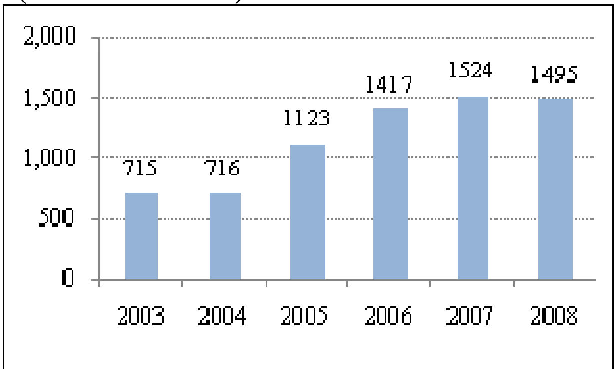
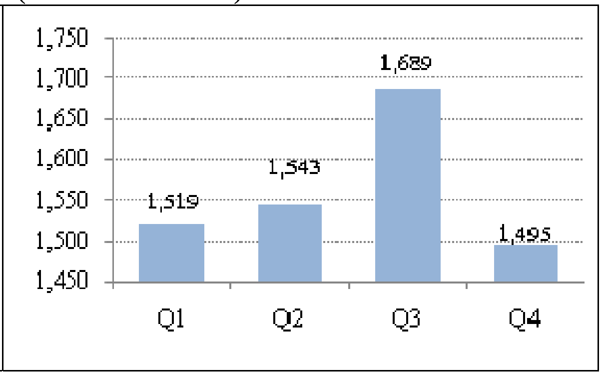


Figure 2
Foreign reserves stock by quarters in 2008
(in millions of euros)



Source: NBRM.

Dominant factors that contributed to the decrease in the level of the foreign reserves were the foreign payments on behalf of the Government and the interventions on the foreign exchange market.

[1] Excluding the effect of the influence of the price changes of gold (the price of gold increased by 5.7%) and the exchange rate differentials (the value of the US Dollar increased by 4.3%), the decrease in the foreign reserves in 2008 equals Euro 44.6 million.

Table 1
Factors of influence on the level of foreign reserves
(in millions of euros)

	2008				**2008**	**2007**
	Q1	Q2	Q3	Q4		
intervnetions on the foreign exchange market	-15,4	11,0	110,8	-162,3	**-55,9**	**354,0**
performing activities on behalf of the Republic of Macedonia and repayment of foreign debt	-38,3	-1,2	-24,7	-57,9	**-122,1**	**-317,6**
reserve requirements of banks in foreign currency	20,8	7,6	12,1	0,2	**40,7**	**14,7**
income of foreign reserve investments	13,8	11,0	12,6	11,5	**48,9**	**46,3**
price changes	3,7	-4,8	10,6	14,2	**23,7**	**5,2**
exchange rate differentials	-3,9	0,4	18,0	0,7	**15,2**	**6,0**
other	14,3	-	6,2	-0,4	**20,1**	**-0,9**
Total	-5,0	24,0	145,6	-194,0	**-29,4**	**107,7**

Source: NBRM.

During the first quarter, as a result of the relatively high trade deficit and lower inflows from private current transfers, the demand on the interbank foreign exchange market increased. In such conditions, the National Bank intervened on the interbank foreign exchange market and sold Euro 15.4 million. In the second and in the third quarter of the year, increase in the supply on the interbank foreign exchange market was registered, and the National Bank purchased Euro 11 million and Euro 110.8 million, respectively. In the fourth quarter, the deterioration in the trade deficit and the negative balance in the income account, resulted in increased demand for foreign exchange. The National Bank satisfied the foreign exchange shortage on the interbank foreign exchange market by selling Euro 162.3 million.

Besides the interventions on the foreign exchange market, outflows from the foreign reserves in the total amount of Euro 122.1 million were also registered on the basis of foreign payments on behalf of the Government. In that regard, within the envisaged activities of the Government of the Republic of Macedonia, foreign payments in the amount of Euro 92.4 million were made. Additionally, within the regular servicing of the external debt of the Republic of Macedonia, Euro 29.7 million were repaid to the European Commission, the International Development Association, the World Bank and European Investment Bank, as well as for due coupon payments on the issued Eurobond.

On the other hand, several factors had positive contribution to the level of foreign reserves.

Significant factor contributing to the increase in the foreign reserves was the realized income from investment of the foreign reserves in the amount of Euro 48.9 million, coming from interest on deposits and due coupons. Additionally, positive price changes at maturity of the securities were also registered, and with that, total income from foreign reserves investments amounted Euro 51.4 million. In that regard, despite the significant turbulences on the international financial markets, the value of the foreign reserves was optimally preserved and increased. In environment of increasing prices of the government securities, the market value of the foreign reserves increased additionally by Euro 19.7 million due to the unrealized price changes of securities.

Inflows in the foreign reserves on the basis of the banks' allocated reserve requirement in foreign currency were also registered. More significant inflow in the amount of Euro 16.8 million was recorded at the beginning of the year. Namely, the reserve requirement increased as a result of the one-fold effect of the change in the methodology for calculation, which broaden the scope of accounts included in the reserve requirement basis. During the year, the amount of the allocated reserve requirement was constantly increasing, also as a result of the increase in the deposit base, having in mind the trend of faster rise in the foreign currency deposits starting from the beginning of the year.

Some other factors also contributed positively to the level of foreign reserves, in the amount of Euro 20.1 million, the most significant of which were the following:

- Inflow of Euro 7.3 million was registered based on the released collateral for guarantees after the finalization of the bankruptcy procedure of AY Bank Limited - London
- At the beginning of the year, with increasing of the stock of the securities, the accrued interest on securities in the amount of Euro 7 million was included in the foreign

reserves stock , having in mind that the accrued interest is part of the interest earned but not yet paid, during the holding period of the securities.

3. Investment strategy objectives for 2008

The need for smooth implementation of both monetary and Denar exchange rate policy, as well as regular and timely servicing of the foreign debt, are starting point for the determination of the foreign reserves management strategy. In accordance with these requirements, the necessary level of liquidity and currency structure of the foreign reserves within the investment strategy for 2008 was determined.

On the other hand, within the set determinants, the National Bank actively managed the foreign reserves, with the following objectives being set:

- achievement of the basic principles (safety, liquidity, profitability), through management of three portfolios of the foreign reserves: gold, liquidity and investment portfolio.
- increase in the investments in securities within the investment portfolio, as a strategic objective.
  Thus, decrease in the exposure to deposits is enabled, which contributes to lower exposure to credit risk. Additionally, the investments in highly liquid securities create room for achievement optimal income return, having in mind the risks of the international financial markets, on one hand, and the high liquidity of the assets due to deep and developed markets for these instruments, on the other hand.
- safety is the fundamental criterion for investments in securities, and in that regard, the foreign reserves are invested in securities with the credit rating of the countries and the securities issuers equaling at least Aa3 according to Moody's and AA- according to S&P;
- limiting the s spectrum to debt securities only to: government securities, covered bonds[2], Eurobonds, BIS instruments and Agencies[3];
- relatively low target modified duration: nine months for investment portfolio denominated in Euro and twelve months for investment portfolio in US Dollars. The relatively low level of target modified duration was determined in order to limit the risk of negative price changes.

4. Foreign reserves investment

The international financial markets in 2008 were under the influence of the effects of the financial crisis deepening, that commenced in August 2007 as a mortgage market crisis in the USA. In 2008, the developments on the markets were marked by two events that caused instability of the international financial system as well. Namely, in the first quarter, as a result of the culmination of the liquidity problems of Bear Stearns, the confidence in the stability of the international financial system deteriorated. The measures undertaken by the FED and the ECB, as well as the Bear Stearns takeover by the J.P. Morgan, contributed to stabilization of the market movements. However, at the end of the third quarter, after the bankruptcy of the investment bank Lehman Brothers was announced, new deepening of the financial crisis in both the Euro area and the USA was registered. In conditions of low liquidity, the enhanced lack of confidence and reduced credit activity of the banks, the financial crisis spilled over on the real sector. In such conditions, significant drop in the prices of shares on the most significant stock exchanges was registered.

[2] Debt securities collateralized with claims on government bodies in Germany and other Euro area countries.
[3] Debt securities of the US agencies with implicit guarantee of the US Government (Government Sponsored Enterprises - GSEs).

Figure 3
Movement of the DAX index
(in basis points)

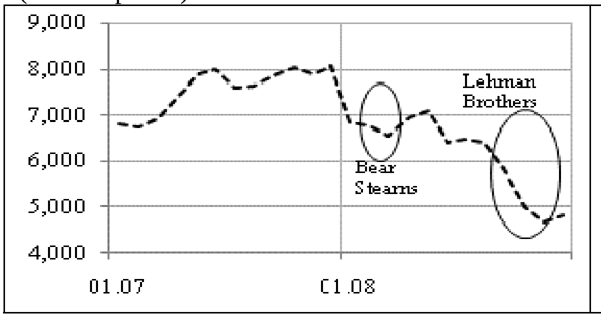
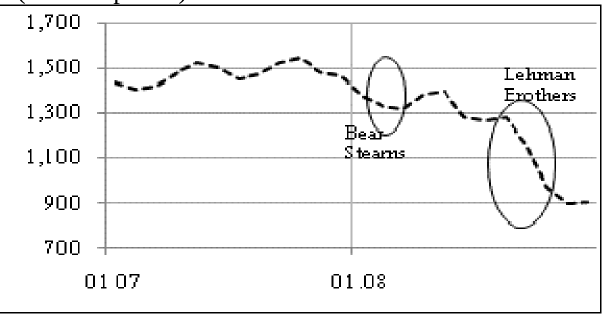


Figure 4
Movement of the S&P index
(in basis points)



Source: Bloomberg.

The decrease in the prices of shares, on one hand, and the higher risk aversion on the other, resulted in higher demand for government securities. In such conditions, rise in the prices i.e. drop in the yields on government securities and increased spread between the yields on government and corporate securities was registered.

Figure 5
Movement of the yields on 10-year bonds in the Euro area
(in %)

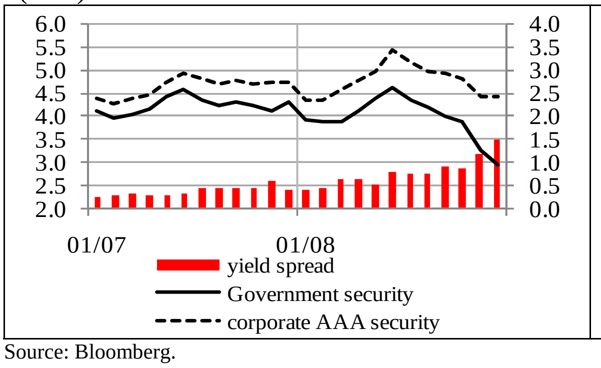
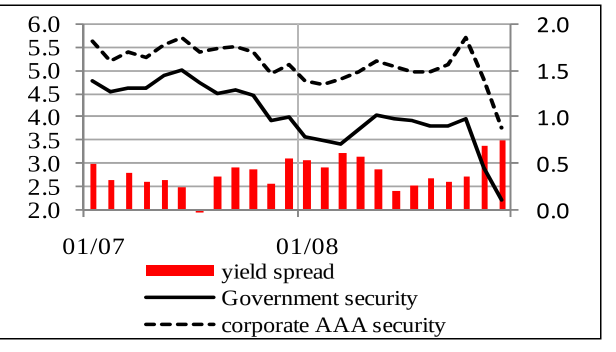


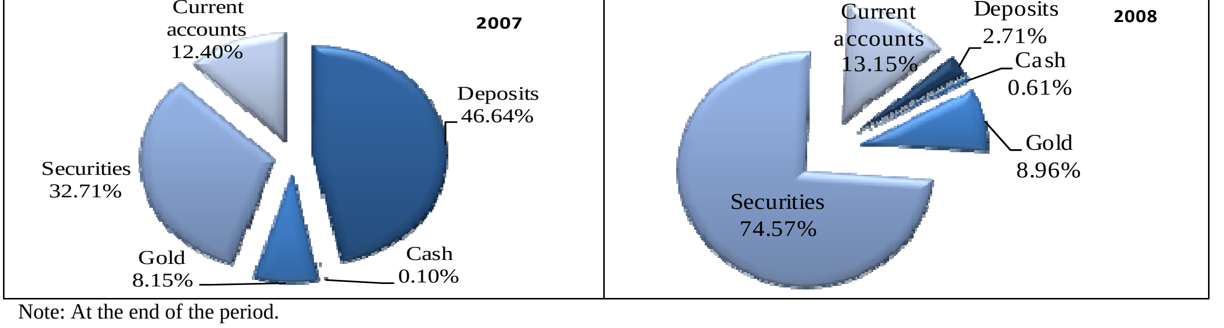
Figure 6
Movement of the yield on 10-year bonds in USA
(in %)



Source: Bloomberg.

In conditions of high credit risk perception for the leading financial institutions, in the USA and in the Euro area, the determination of the NBRM to replace the deposits with government securities shown more than justified. Thus, the share of the deposits in the structure of the financial instruments the foreign reserves are invested in decreased. The deposits that remained in the foreign reserves portfolio, as overnight deposits were placed in central banks. As a result of the reduced share of the deposits, the relative share of the securities in the foreign reserves portfolio enlarged and equaled 74.57%.

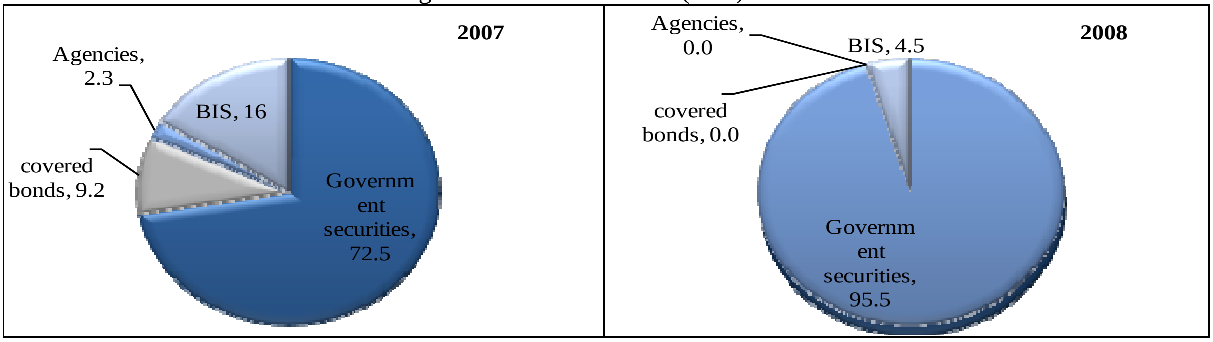
Figure 7
Foreign reserves structure by instruments (in %)



Note: At the end of the period.
Source: NBRM.

The increased demand and the rise in the prices of government securities indicated that the market prefers lower risk, characteristic for this type of securities, in terms of further financial crisis deepening. Adhering to the conservative approach and the necessity for maximization of both safety and liquidity of the investments, the National Bank directed the investments exclusively towards government securities and BIS instruments, as the safest haven in conditions of crisis.

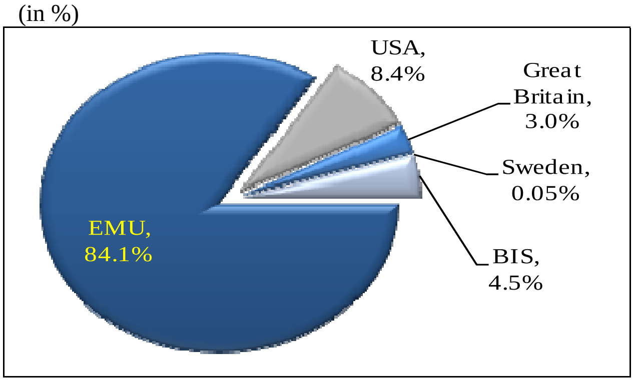
Figure 8
Securities structure in which the foreign reserves are invested (in %)



Note: At the end of the period.
Source: NBRM.

From the aspect of the geographic allocation of the foreign reserves placements, the most significant investments were those in government securities issued by the member states of the European Monetary Union. Within those frames, the largest portion (84.1%) of the investments accounted for the government securities issued by Germany, France and the Netherlands. The markets for these securities are characterized with high turnover and narrow bid-ask spread, thus contributing to increased liquidity.

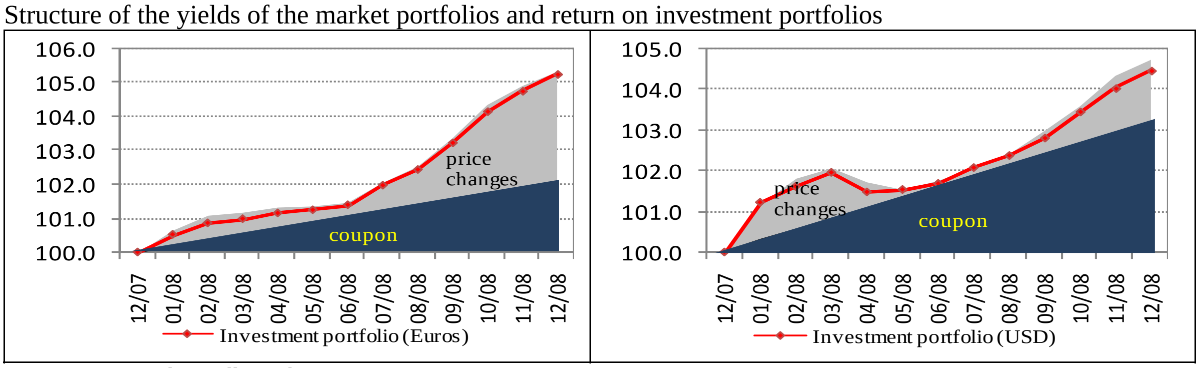
Figure 9
Securities structure by countries on December 31, 2008 (in %)



Source: NBRM

The applied investment strategy enabled also accomplishment of appropriate profitability of the invested foreign reserves. The realized income from the investments in securities in 2008 resulted from the coupon payments and capital gains, generated from the positive price changes of the government securities. Therefore, the results of the foreign reserves management in 2008 are at the level of the registered results of the market portfolios with similar structure of instruments, indicating that the investment strategy of the National Bank was successfully adjusted and it is in conformity with the market movements.

Figure 10
Structure of the yields of the market portfolios and return on investment portfolios



Source: NBRM and Merrill Lynch.

5. Risk management in the process of foreign reserves investment

Integral part of the foreign reserves management process is the risk management of the investments in different financial instruments. The National Bank manages the risks of the foreign reserves investments in accordance with the previously set policies and rules. The basic framework for the risk management of foreign reserves investments is determined in the Foreign reserves management policy of the Republic of Macedonia, adopted by the National Bank Council. Furthermore, the basic guidelines for monitoring and control of the credit and other market risks are defined in the Rules for foreign reserves management, adopted by the Governor and in accordance with the foreign reserves investment strategy, this guidelines are revised and amended yearly.

The control of the exposure of the foreign reserves to the financial risks is carried out on a daily basis, and during 2008 the quantitative limits used for management of different types of financial risks were respected.

Credit risk

In the foreign reserves management, the imposed guidelines for credit risk management are adhered to, in line with the Foreign reserves management policy of the Republic of Macedonia. Hence, the foreign reserves were invetsed in instruments issued by governments and central banks of the OECD member countries , the international financial institutions and commercial banks residents of the OECD member states, which were rated with one of the two highest short-term credit rating by minimum two internationally acknowledged rating agencies.

In accordance with the primary importance of the safety in foreign reserves management, the credit risk management was additionally developed into two control levels:

- The foreign reserves were placed in the financial institutions and countries with long-term credit rating of at least Aa3/AA-, according to the international rating agencies Moody's and Standard&Poor's. Having in mind the current movements on the financial markets, the ratings of all financial institutions and governments where the foreign reserves are invested in, were reviewed on a quarterly basis;
- Diversification of investments. In that regard, quantitative limits for investments by individual countries and financial institutions were determined. Additionally, maximal amount of placed funds by securities' type and the size of the series issued was determined. The monitoring of the exposure to credit risk on the basis of the set limits was performed on a daily basis.

Currency risk

The currency risk management is conducted in accordance with the implementation of the strategy of de facto fixed foreign exchange rate of the Denar relative to the Euro, with the Euro having dominant share in the foreign reserves' currency structure. Accordingly, the Euro dominated in the currency structure of the foreign reserves in 2008 as well. This part of the foreign reserves was not exposed to currency risk.

Table 2
Foreign reserves currency structure (in %)

	2007	2008
Euro	83,7	82,7
US Dollar	7,9	8,2
gold	8,2	8,9
other	0,2	0,2
	100,0	100,0

Note: At the end of the period.
Source: NBRM.

Exposure of the foreign reserves to currency risk exists in the part of the foreign reserves in US Dollar, other currencies and gold. The currency risk is restricted by determining limits on the share of the US Dollars and the other currencies in the foreign reserves portfolio, in conformity with the currency structure of the Government foreign debt and for maintaining current liquidity in payments abroad. In 2008, the relative share of the US Dollar in the total currency structure of the foreign reserves retained on the same level as in the previous year.

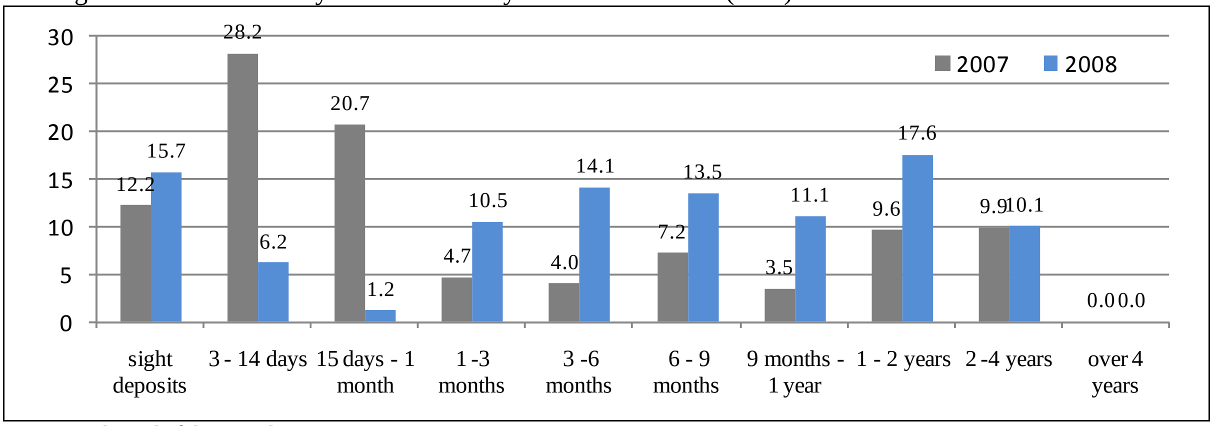
The exposure to the currency risk with the gold is limited through the maintenance of unchanged level of gold in the foreign reserves structure. However, the relative share of gold in 2008 increased minimally, mainly due to the increase in the price. Namely, the price of gold from US Dollar 833.9 per fine ounce at the end of 2007,went up by US Dollars 48.2 and on December 31, 2008 fine ounce of gold on the international markets equaled US Dollar 882.1.

Besides the quantitative limitation of the currency risk, the National Bank additionally measured the exposure to the currency risk monthly, by using the Value at Risk concept[4]. According to this concept, on December 31, 2008, the exposure of the foreign reserves to currency risk equals Euro 16.7 million. The most significant share of that, Euro 14.1 million (85%) originates from the significant fluctuations in the price of gold in 2008. As a result of the fluctuations in the value of the US Dollar against the Euro, the exposure of the foreign reserves equaled Euro 2.4 million.

Liquidity risk

The liquidity risk of foreign reserves investments is controlled through maintenance of liquidity portfolio, determined in line with the liquidity needs for interventions on the foreign exchange market and liabilities servicing to abroad. Investment of funds from the liquidity portfolio in short-term instruments has been determined additionally, which together with the equal distribution of the maturity of the instruments, provides high availability and liquidity of the assets. In accordance with the need for maintenance of the placements' liquidity, over 20% of the foreign reserves have residual maturity of up to two weeks.

Figure 11
Foreign reserves structure by residual maturity of the investments (in %)



Note: At the end of the period.
Source: NBRM.

The higher presence of the longer term investments is due to the increased investments in securities, primarily in government securities. However, these investments are treated as highly liquid as well, having in mind that there are deep and liquid secondary markets for the government securities and in case of need, liquidity can easily be gained without incurring costs from selling of the securities.

[4] Value at risk shows the possible maximal change in the foreign reserves (with 99% probability), which may occur as a result of the fluctuations in both prices and foreign exchange rates, for a time period of 10 days. When calculating the value at risk for certain date, historical data on the movements of the prices and the foreign exchange rates within a one-year period, backwards, relative to the calculation date, are used.

Interest rate risk

The interest rate risk in the foreign reserves management is controlled through the maintenance of the target modified duration, determined with the investments strategy for 2008. By determining the target modified duration, the frameworks of the acceptable interest rate risk level are also determined, i.e. the change in the market value of the foreign reserves is determined, in case of increase in the interest rates.

In the first quarter, the target modified duration with both, investment portfolio in Euro and the investment portfolio in US Dollars, gradually increased in line with the transferring of the investments from deposits into securities.

In the second and in the third quarter, the target modified duration of the investment portfolio in Euro was close to the target value, having in mind that the monetary policy in the Euro area was restrictive in the first three quarters[5]. In that regard, the effects of the negative price changes in conditions of increase in the ECB interest rates, decreased.

At the beginning of the fourth quarter, the financial crisis unexpectedly deepened, which urged ECB to start decreasing the interest rates in order to mitigate the consequences from the deepening of the financial crisis. Because of the intensified demand for government securities, their prices increased, i.e. yields decrease and parallel downward movement of the yield curve of the government securities was registered. However, the upward trend of the long-term segment of the yield curve pointed to uncertainty in the Euro area in regard to the future decrease of the interest rates because of the danger of future inflation rate increase.

In environment of uncertain market expectations for the future interest rate movement, in order to avoid negative price effects, in the last quarter of 2008 the target modified duration of the investment portfolio in Euro remained close to the targeted value.

Figure 12
Modified duration of the investment portfolio in Euros
(in months)

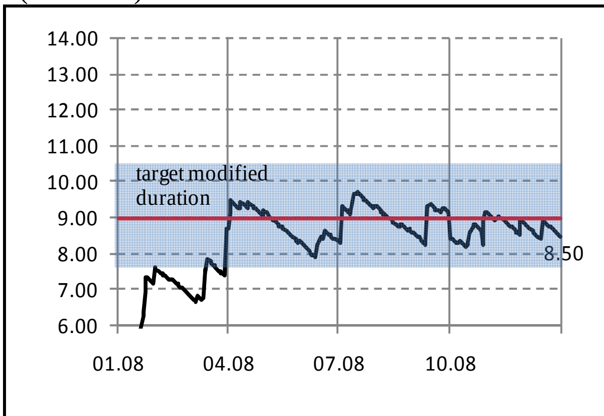
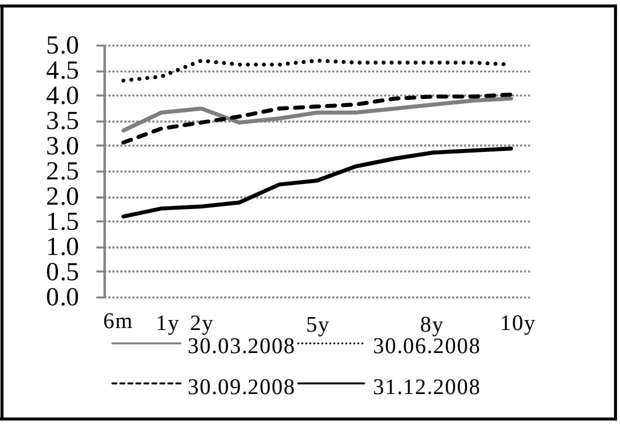


Figure 13
Yield curve of the German government securities
(in %)



Source: NBRM.

Regarding the investment portfolio in US Dollars in the first half of the year, the target modified duration was maintained on the targeted value. This strategy was in accordance with the movements on the financial markets, which were influenced by the policy of the FED, that continued to decrease the interest rates as a measure for overcoming the current financial crisis and prevention from a decrease in the economic activity.

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[5] At the beginning of the third quarter, under the influence of the growing inflation rate (3.4% in the first quarter, 3.6% in the second quarter and 3.8% in the third quarter) and the growing prices of oil (in July, the price of oil reached its peak value of US Dollar 147 per barrel), the ECB increased the key interest rate to 4.25%.

Figure 14
Modified duration of the investment portfolio in US Dollars
(in months)

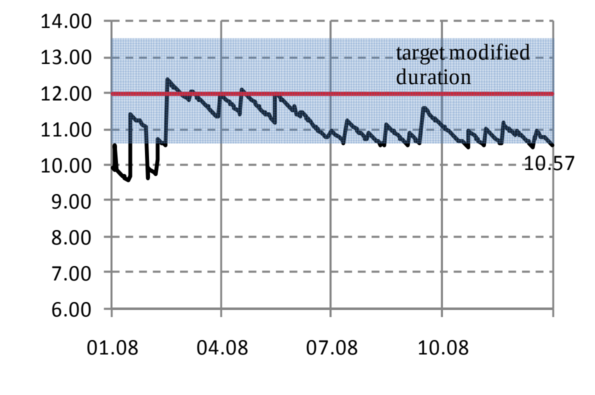
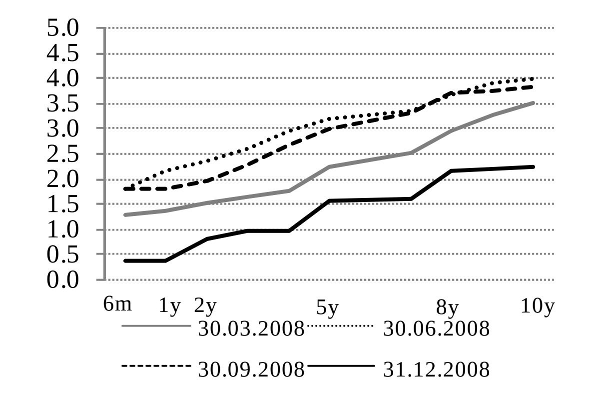


Figure 15
Yield curve of the government securities in US Dollars
(in %)



In the second half of the year, the rise in the rate of inflation in USA, enhanced the uncertainty for the future measures of FED, and in that respect more conservative investment strategy was applied, in order to avoid negative price effects in case of the interest rates increase. Given the circumstances, the target modified duration of the investment portfolio in the US Dollars was maintained on a lower limit, i.e. close to the equilibrium level between the reinvestment risk (risk of decrease in the interest rates) and the interest rate risk (risk of increase in the interest rates).

Having in mind the turbulences on the financial markets, besides the maintenance of the target modified duration of individual portfolios, the National Bank additionally, on a monthly basis, was measuring the "value at risk" from the fluctuations of the prices of the instruments. Hence, as of December 31, 2008, the exposure of the foreign reserves to price changes equaled Euro 5.11 million.

6. Summary

In 2008, the foreign reserves registered a decrease of 1.9% compared to the level at the end of 2007.

The positive results from the investment in the test-portfolio in 2007 and the strengthening of the analytical capacity, enabled the National Bank to continue with the increase in the investments in securities within the investment portfolio, as a strategic objective for the foreign reserves management in 2008. Hence, in circumstances of financial markets worldwide facing growing turmoil, the movement of investments from deposit to securities was successful. Taking care primarily for the safety of the foreign reserves, the investments were directed towards government securities, mainly of the member states of the European Monetary Union. In 2008, the set framework for interest rate management was adhered to.

The movements on the international markets, as well as the applied investment strategy in 2008, enabled to generate income from the foreign reserves management in amount of Euro 51.4 million.