

MINISTRY OF FINANCE OF UKRAINE

ORDER

June 16, 2010

461

Kyiv

**On Approving the Regulation on
Public Debt Related Risk Management**

In order to carry out the Top-priority Measures Aimed at Development of the Domestic Market for Government Securities of Ukraine in 2010, as approved by the Order of the Ministry of Finance of Ukraine #84, dated February 22, 2010, pursuant to the Concept for Development of the Domestic Market for Government Securities of Ukraine for 2009-2013, approved by the Cabinet of Ministers Resolution #316-p, dated March 25, 2009,

I HEREBY ORDER:

1. To approve the Regulation on Public Debt Related Risk Management (hereinafter referred to as Regulation) attached.
2. For the Sovereign Debt Department (O. Bashynska), to insure the fulfillment of this Regulation.
3. Control over fulfillment of this Order shall be charged with Deputy Minister of Finance A.M. Kravets.

Minister

F. YAROSHENKO

REGULATION **on Public Debt Related Risk Management**

This Regulation regulates the methodological and organizational issues pertaining to managing risks related to public debt and defines the role of the Sovereign Debt Department of the Ministry of Finance of Ukraine therein.

1. Definition of Terms

Public debt related risk (hereinafter referred to as ‘Risk’) is an exposure to a potential occurrence of an event (a circumstance) of probable nature that may result in:

- an increase in the Government budget expenditures due to an increase in the redemption amounts and in the public debt servicing; or
- a decrease in the possibilities of debt financing of the state budget.

Interest rate risk is a risk of an increase in the floating interest rates specified in the terms of the current obligations under public debt.

Exchange rate risk is a risk of local currency depreciation against those foreign currencies in which public debt obligations are denominated.

Refinancing risk is a risk of reduced capacity of relevant markets making the borrowing in amounts sufficient to roll over the debt at an acceptable price impossible.

Credit risk is a risk of counterparties’ failure to perform their obligations to the Government.

Liquidity risk is a risk of temporary lack of funds in the state budget to fulfill the public debt obligations.

Budget risk is a risk of a significant underfulfillment of the state budget revenues item in a relevant year as compared to the plan which may lead to increased government borrowing and/or failure to fulfill public debt servicing obligations.

Rating risk is a risk of the sovereign rating downgrade.

Operational risk is a risk caused by human and technical factors or acts of God.

Public debt management is a set of measures taken by the government authorities to ensure meeting of the state budget financing requirements by means of borrowing at the lowest possible mid- and long-term costs with acceptable risk level and to promote the development and support the domestic market for the government securities.

Risk management is a component of public debt management aimed at determining target trade-offs between the expected costs and risks and achieving them.

Active operations in public debt management refer to transactions seeking to minimize risks and/or to save money for the state budget.

2. Principles of Risk Management

Risk management is performed pursuant to the following principles:

absolute aversion to risk: avoiding risk altogether or its minimization, taking into account the situation in the financial markets;

cost effectiveness and efficiency: the risk management costs should not exceed the expenses that may be incurred because of the actually occurring risks;

compliance of risk management tasks with public debt management goal and objectives;

independence: risk management decision making is to be objective and unbiased, with no impact from individuals that are not performing risk management functions;

integration: all the structural units of the Sovereign Debt Department should be involved in risk identification and management;

culture: risk management should be an integral part of all public debt management efforts;

continuity: there should be a continual monitoring of risk exposure and control over the results of risk management measures;

periodic review of the risk management policies: analysis should be performed of the expediency of the previously established risk assessment methods, the expediency of further impact on the risk exposure level by the previously established methods, the expediency of achieving the previously defined target indicators and amending them as required;

disclosure and transparency: information about the risk exposure levels; the risk management measures undertaken and the results thereof; information about the methods of assessment and calculations performed; and justification of the expediency of the measures applied and of the causes of the results achieved shall be disclosed and made public;

systematic approach: all risk types should be considered as integral components of a single system;

adequacy and reliability of risk management informational support;

maximization: the broadest possible coverage of all potential risk exposure sources and the review and practical utilization of all possible ways of impacting such sources;

prompt response: development of measures to be used in the event of negative developments in the domestic government securities market and in the global capital markets, and application of said measures, if need be;

diversification: preventing a concentration of the value characteristics of public debt on just one of the risk factors;

applicability of the risk management methods and realistic achievement of target indicators.

3. Organization of Risk Management

3.1. Risk management shall be carried out by the Minister of Finance, and, in his absence, by a Deputy Minister of Finance according to the responsibilities assigned.

3.2. Risk management shall be ensured by the Sovereign Debt Department of the Ministry of Finance of Ukraine.

4. Risk Management Process

4.1. When the state budget law for the relevant year is drafted, the following proposals are prepared to it:

- public debt threshold as of the end of the budget period with appropriate justification (as part of budget and rating risk management);

- amount of the state budget deficit financed through government borrowing or the minimum state budget surplus to be channeled for public debt repayment with appropriate justification

- the amounts of domestic and foreign borrowings in the relevant budget period with appropriate justification (as part of exchange rate risk management);

- the amounts of short-term, middle-term, and long-term borrowings with appropriate justification (as part of refinancing risk management);

4.2. After the state budget law for the relevant year comes into effect, the Sovereign Debt Department shall design a public debt management strategy for such budget period based on figures from this state budget law.

5. Public Debt Management Strategy

5.1. The public debt management strategy shall be drafted by the Sovereign Debt Department and approved by the order of the Ministry of Finance of Ukraine within a period of no more than one month after the state budget law for the relevant year comes into effect, and such strategy shall be made public no later than three days after its approval.

5.2. The public debt management strategy for the relevant budget year shall contain the following information:

- an overview and analysis of figures from the state budget law for the relevant year with respect to the public debt and government borrowings;

- debt instruments to be used for financing the state budget in the relevant year with a breakdown in terms of amounts, maturities, currencies and types of interest rate, as well as acceptable deviations from them, with appropriate justification (as part of interest rate, exchange rate and refinancing risk management);

- benchmark instruments to be placed in the relevant year broken down by maturities, with justification provided;

- target indicators and acceptable deviations as of the end of the relevant budget year with regard to the following:

 - the portion of foreign currency denominated debt in the total public debt (as part of exchange rate risk management);

 - the portion of floating rate public debt in the total public debt (as part of interest rate risk management);

 - the average time to maturity of domestic and foreign debt (as part of refinancing risk management);

 - interest rate re-fixing (formula (9) in the Appendix to this Regulation) (as part of refinancing risk management) with appropriate justification provided;

 - introduction and performing of active public debt management operations with appropriate justification provided;

 - measures to manage credit, rating, operational and liquidity risks with appropriate justification provided;

 - other information as needed.

5.3. The public debt management strategy may be revised if necessary, particularly in the event of substantial changes in the domestic government securities market and global capital markets,

significant changes in the macro economic situation and in the budget, monetary or exchange policy, as well as for other substantial reasons, which preclude the implementation of the approved public debt management strategy.

5.4. During the budget period, the Sovereign Debt Department shall design on a quarterly basis and the Deputy Minister, according to the responsibilities assigned, shall approve the quarterly plans of public debt management which shall be made public no later than within one business day following their approval.

5.5. Quarterly public debt management plans shall contain the following information:

- expected volume of revenues from debt sources in the planned quarter in line with the budget financing targets;
- debt instruments to be used for financing the state budget during the planned quarter with a breakdown by amounts, maturities, currencies and type of interest rate, as well as acceptable deviations from them;
- target indicators and acceptable deviations from them, as specified in the public debt management strategy as of the end of the planned quarter;
- operations of active public debt management in the planned quarter;
- measures to manage credit, rating, operational and liquidity risks in the planned quarter;
- other information as needed.

5.6. Once the state budget law for the relevant period fails to come into effect before the budget period starts, the public debt management shall be performed based on the quarterly debt management plan drawn up according to clauses 5.4 and 5.5 of this Regulation.

6. Public Debt Management Strategy Implementation Report

6.1. No later than within three months following the end of the budget period, the Sovereign Debt Department shall draw up a report on the debt management strategy implementation for the reporting budget period, and the Ministry of Finance shall approve it with its order and make public no later than within three business days following the approval.

6.2. Public debt management strategy implementation report shall contain the following information :

- public debt stock as of the end of the reporting budget period;
- description of the situation and principal trends in the domestic government securities market and global capital markets, substantial changes or phenomena in macro economy that have occurred in the reporting budget period;
- risk exposure (level of risks) as of the end of the reporting budget period;
- implementation of the planned measures and attainment of targets specified in the public debt management strategy, as well as causes and justifications of actual deviations;
- other information as needed.

6.3. On a quarterly basis during the budget period, but no later than within a month following the end of the reporting period, the Sovereign Debt Department shall prepare information statements on fulfillment of quarterly public debt management plans (which shall include, among other things, data on the level of risk exposure as of the end of the reporting quarter). Such statements shall be approved by the Deputy Minister, according to the responsibilities assigned, and made public no later than on the next business day after their approval.

7. Informational Basis of Risk Assessment and Management

Informational basis of risk assessment and management shall include the following:

- public debt accounting and monitoring records;

information on the current macroeconomic situation and situation in the domestic market for government securities and global capital markets;
projections and forecasts of scientific and research institutions, international financial organizations, investment banks and investment companies, other financial institutions;
internal research, forecasts, assumptions and projections of the Ministry of Finance of Ukraine.
other information.

8. Risk Level Assessment

8.1 Risk level assessment shall be carried out using indicators set forth in the Annex to this Regulation.

8.2 Other indicators may be used to assess the level of risk so as to ensure a comprehensive reflection of risk exposure or, if necessary, to highlight certain aspects thereof.

8.3. The Public Debt Department shall explore the international experience on risk assessment and study the possibilities of practical application of various methods and techniques of such assessment.

9. Active Public Debt Management Operations

9.1. Active public debt management operations shall include the following: buying back public debt obligations; switching government securities for those with longer maturities; early redemption of government securities; depositing temporarily available funds of the single treasury account by purchasing government securities with further withdrawal of such funds before the end of the current budget period; and effecting transactions with derivatives.

9.2. The Sovereign Debt Department, within its competence and taking into account its capabilities, shall take actions to introduce and apply active public debt management operations to practice.

9.3. In performing active public debt management operations, the Sovereign Debt Department shall assess the risks in performing such operations and take actions to mitigate them.

**Director,
Sovereign Debt Department**

O.M. Bashynska

Indicators for Public Debt Related Risk Assessment

1. Indicators applicable to interest risk assessment

1.1. The share of floating interest rate public debt in the aggregate amount of public debt.

1.2. Structure of public debt with floating interest by types of interest.

1.3. The price of one percent p.a. of the floating interest rate (an increase in the public debt servicing costs as a result of floating rate increase by one percent p.a.):

$$\Delta C_D(r_i^f) = D_i^f \cdot 0,01, \quad (1)$$

where $\Delta C_D(r_i^f)$ is an increase in the public debt servicing costs resulting from the growth of the i -th floating rate (r_i^f) by one percent p.a., expressed in MU;

D_i^f is the amount of public debt to which the i -th floating interest rate (r_i^f) is applied, in MU

1.4. Elasticity of public debt servicing costs given the changes in floating interest rate:

$$E_{C_D, r_i^f} = \frac{\Delta C_D}{C_D} \cdot \frac{r_i^f}{\Delta r_i^f}, \quad (2)$$

where E_{C_D, r_i^f} is the elasticity of the cost of servicing the total public debt given the changes in the i -th floating rate, in %;

ΔC_D is an increase in the cost of servicing the total public debt as a result of growth of the i -th floating rate, in MU;

C_D the cost of servicing the total public debt, in MU;

Δr_i^f is an increase of the i -th floating rate, in % p.a.;

r_i^f is the i -th floating rate, in % p.a.

1.5. Increase in the weighted average cost of servicing the total public debt as a result of floating rate growth by one percent p.a.:

$$\Delta \bar{r} = \frac{D_i^f \cdot 0,01}{D} \cdot 100\%, \quad (3)$$

where $\Delta \bar{r}$ is an increase in the weighted average cost of servicing the total public debt as a result of the i -th floating rate growth by one percent p.a., in % p.a.;

D_i^f is the principal amount of public debt to which the i -th floating rate is applied (r_i^f), in MU;

D is the total public debt, in MU.

1.6. The chart showing the dependence of the cost of public debt servicing on the dynamics of the floating interest rates as of the certain date.

2. Indicators applicable to refinance risk assessment

2.1. The portion of public debt subject to refinancing in a given period in the total public debt.

2.2. The public debt structure in terms of maturities.

2.3. The average weighted time to maturity of the public debt.

2.4. Macaulay duration:

- for the i -th public debt amount:

$$DM_{A_i} = \frac{\sum_{t=1}^n (t \cdot CF_{i,t} / (1+r_i)^t)}{\sum_{t=1}^n (CF_{i,t} / (1+r_i)^t)}, \quad (4)$$

where $CF_{i,t}$ is an interest payment or principal amount payment under the D_i debt at the t moment;
 r_i is the discount rate (NBU discount rate);

- for the total public debt:

$$DM_D = \sum_{i=1}^n DM_{A_i} \cdot P_{A_i}, \quad (5)$$

where P_{A_i} is the portion of the i -th public debt amount in the total public debt.

2.5. The price of one percent p.a. of the interest rate on the debt subject to refinancing (increase in public debt servicing costs given the growth of the interest rate on debt subject to refinancing by one percent p.a.):

$$\Delta C_{D_i}(r_i^{ref}) = D_j^{ref} \cdot 0,01, \quad (6)$$

where $\Delta C_{D_i}(r_i^{ref})$ is the increase in public debt servicing costs given the growth of the i -th interest rate on the debt subject to refinancing (r_i^{ref}) by one percent p.a., in MU;

D_j^{ref} is the principal public debt amount with the j -th maturity that is refinanced in a given period, in MU.

2.6. Elasticity of total public debt servicing costs given the growth of rates on the debt subject to refinancing:

$$E_{C_D/r_i^{ref}} = \frac{\Delta C_D}{C_D} \cdot \frac{\Delta r_i^{ref}}{r_i^{ref}} \cdot 100\%, \quad (7)$$

where $E_{C_D/r_i^{ref}}$ is the elasticity total public debt servicing costs given the changes in the i -th interest rate on the debt subject to refinancing, in %;

ΔC_D is the increase in total public debt servicing costs given the growth of the i -th interest rate on the debt subject to refinancing, in MU;

C_D is the total public debt servicing costs, in MU;

Δr_i^{ref} is the growth of the i -th interest rate on the debt subject to refinancing, in % p.a.;

r_i^{ref} is the i -th interest rate on the debt subject to refinancing, in % p.a.

2.7. Increase in the average weighted cost of entire public debt servicing given the growth of a certain interest rate on the debt subject to refinancing by one percent p.a.:

$$\Delta \bar{r} = \frac{D_i^{ref} \cdot 0,01}{D} \cdot 100\%, \quad (8)$$

where $\Delta \bar{r}$ is an increase in the average weighted cost of entire public debt servicing given the growth of the interest rate on the debt subject to refinancing by one percent p.a., in % p.a.;

D_i^{ref} is the public debt subject to refinancing, in MU;

D is the total public debt amount, in MU.

2.8. Public debt repayment schedule.

3. Indicators applicable to assessment of interest rate risk and refinancing risk

3.1. Interest rate refixing (the ratio of floating rate debt obligations and obligations to be refinanced to the total public debt) (IRR):

$$IRR^t = \frac{D_{FR(t)}^f + D_{FR(t)}^r + D_{FR(t)}^r}{D} \cdot 100\%, \quad (9)$$

where IRR^t is the interest rate refixing, in %;

$D_{FR(t)}^f$ is the fixed rate public debt to be refinanced in the t period, in MU;

$D_{FR(t)}^r$ is the floating rate public debt to be refinanced in the t period, in MU;

$D_{FR(t)}^r$ is the floating rate public debt to be repaid after the t period, in MU;

D is the total public debt, in MU.

3.2. Average time to interest rate refixing (ATR):

$$ATR = \left(\sum_{i=1}^n t_i \cdot D_i^f \right) / \left(\sum_{i=1}^n D_i^f \right), \quad (10)$$

where ATR is the average time to refixing, in days;

D_i^f is the i -th principal debt amount with regard to which the interest rate will be refixed in the t period (includes floating rate debt and obligations to be refinanced), in MU;

t_i is the time to refixing for every i -th principal debt amount subject to refixing, in days

4. Indicators applicable to exchange rate risk assessment

4.1. Portion of FX-denominated public debt in the total public debt amount.

4.2. Structure of the FX-denominated public debt with regard to currencies.

4.3. Increase in public debt repayment costs given the depreciation of the local currency by one unit:

$$\Delta C_D(r_i^f) = D_i^f \cdot \Delta r_i^f \text{ або } \Delta C_D(r_i^f) = D_i^f \cdot 1, \quad (11)$$

where $\Delta C_D(r_i^f)$ is the increase in public debt repayment costs given the growth of the exchange rate of the i -th currency (r_i^f) by one unit, in MU;

D_i^f is the public debt amount denominated in the i -th foreign currency, in MU;

Δr_i^f is the growth of the exchange rate of the i -th currency by one unit, in MU.

4.4. Elasticity of public debt repayment costs given the changes in the exchange rates is expressed as follows:

$$E_{C_D/r_i^f} = \frac{\Delta C_D}{C_D} : \frac{\Delta r_i^f}{r_i^f}, \quad (12)$$

where E_{C_D/r_i^f} is the elasticity of costs to repay the total public debt amount given the changes in the exchange rate of the i -th currency, in %;

ΔC_D is the increase in total public debt repayment costs resulting from the local currency depreciation against the i -th currency, in MU;

C_D is the total public debt repayment costs, in MU;

Δr_i^f is the growth of the exchange rate of the i -th currency, local currency/foreign currency;

r_i^* is the exchange rate of the i -th currency, local currency/foreign currency.

4.5. The chart showing the dependence of total public debt servicing and repayment costs on the exchange rate effective as of a certain date.

5. Indicators applicable to liquidity risk assessment

The ratio of payments to redeem and service domestic and external public debt in the short-term perspective to the balances of single treasury account and government currency accounts.

6. Indicators applicable to budget risk assessment

6.1. The ratio of public debt to GDP and budget revenues, dynamics of this ratio.

6.2. The ratio of public debt redemption and servicing payments in the respective budget year to the state budget revenues in that year.

6.3. Quotes for Ukrainian Eurobonds, their spreads to benchmark securities, quotes for credit default swaps under sovereign debt obligations of Ukraine.

6.5. Other macroeconomic indicators.