DECISION 33

"Method for determining the Warrant Issue Price"

(as approved by the Athens Stock Exchange (ATHEX) Board of Directors decision of 23-5-2013)

ATHENS STOCK EXCHANGE

BOARD OF DIRECTORS

(Meeting held on 23-5-2013)

Having regard to the following

1) Paragraph 2.1.5 of the ATHEX Regulation.
2) The need to determine the manner and method of determining the Warrant Issue Price, particularly for Bermudan Style covered Warrants

IT DECIDES THE FOLLOWING

1. With respect to Warrants arising from the financial institutions' share capital increase procedure due to recapitalization, which are governed by the specific provisions of law 3864/10 and Council of Ministers Act 38/9.11.2012, ATHEX will take into account the previous business day (following the adjournment of the meeting) that the warrants were listed for trading by using the *Cox-Ross-Rubinstein (CRR) pricing model* (the n-step binomial tree model) with the following differentiations and parameters:

   i. In the standard binomial model, the calculation begins from an N period and the call value is calculated for each node at the specific period as follows:

$$C = \max(O, S_{i,j} - X)$$

   Next, the option prices at each step are calculated working back for the periods N-1, N-2 etc and for all the nodes, with the option value arising from the current value of the expected option price at each node. In the case of the Bermudan call warrant, each node needs to be checked again, and the periods N, N-1, N-2 etc that correspond to specific exercise dates, comparing whether this option was exercised at its value, or not and placing the option value on the greater of the two nodes.

ii. The expected **volatility** parameter uses the 1st Quartile price of the rolling annualized volatility over 90-business days with returns calculated for the period 1/1/2007 until the eve of the warrant being listed for trading.

iii. For the risk-free **interest rate** parameter, the main refinancing operations rate of the ECB plus 50 basis points is selected as set on issue price calculation day.

iv. The **dividends** parameter calculates the expected return based on announcements by the issuer in relation to monetary distributions in relation to ordinary shares for the current year (i.e. dividend payments, capital returns, etc). It should be noted that monetary distributions are not expected for the specific Financial Institutions for the year 2013, thus the parameter price will be set at zero (0).

2. Detailed information in relation to the specific valuation method as well as simulation calculation material will be forwarded to the Members and will be available on the ATHEX website www.athex.gr.

3. This decision shall be effective as at 1/6/2013.

This decision will be posted on the ATHEX website www.athex.gr.