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SUBJECT TO PMG AGREEMENT  
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## **SPI ALBANIA FOREIGN EXCHANGE OPEN POSITION PROJECT INTERNATIONAL EXPERIENCE ON FOREIGN EXCHANGE OPEN POSITIONS**

In 2006 the European Commission issued the Directive 2006/49/EC on the capital adequacy of investment firms and credit institutions. Annex III of the Directive set the provisions for calculating capital requirement for foreign exchange risk and the elements to be considered for net open position for each foreign currency and gold.

The adopted methodology on FX open positions accounts the dynamics of the financial sector and of its instruments such as futures<sup>1</sup>, forward<sup>2</sup>, options<sup>3</sup>, swaps<sup>4</sup>.

According to this Directive, the net open position shall consist of the sum of the following elements:

- the net spot position (i.e. all asset items less all liability items, including accrued interest, in the currency in question or, for gold, the net spot position in gold);
- the net forward position (i.e. all amounts to be received less all amounts to be paid under forward exchange and gold transactions, including currency and gold futures and the principal on currency swaps not included in the spot position);
- irrevocable guarantees (and similar instruments) that are certain to be called and likely to be irrecoverable;
- net future income/expenses not yet accrued but already fully hedged (at the discretion of the reporting institution and with the prior consent of the competent authorities, net future income/expenses not yet entered in accounting records but already fully hedged by forward foreign- exchange transactions may be also included). Such discretion must be exercised on a consistent basis;
- the net delta (or delta- based) equivalent of the total book of foreign - currency and gold options; and
- the market value of other (i.e. non- foreign-currency and non - gold) options.

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<sup>1</sup> An agreement to exchange the underlying asset at a future date

<sup>2</sup> An agreement between two parties to buy or sell an asset at a certain future time for a certain price agreed today

<sup>3</sup> A contract between a buyer and a seller that gives the buyer the right, but not the obligation to buy or sell a particular asset on or before the option's expiration time at an agreed price.

<sup>4</sup> A derivative in which two counterparties exchange certain benefits of one's party's financial instrument for those of the other party's financial instrument.

It is worth mentioning that any position which an institution has deliberately taken in order to hedge against the adverse effect of the exchange rate on its capital ratio may be excluded from the calculation of net open currency positions.

Net short and long positions in each currency other than the reporting currency and the net long or short position in gold shall be converted at spot rates into the reporting currency. They shall then be summed separately to form the total of the net short positions and the total of the net long positions respectively. The higher of these two totals shall be the institution's overall net foreign-exchange position.

If the sum of an institution's overall net foreign exchange position and its net gold position calculated in accordance with the methodology prescribed above, exceeds 2 % of its total own funds, it shall multiply the sum of its net foreign-exchange position and its net gold position by 8% in order to calculate its own-funds requirement against foreign exchange risk.

In 1980 the Committee on Banking Regulations and Supervisory Practices<sup>5</sup> (CBRSP) issued a guidance note on supervision of banks' foreign exchange positions<sup>6</sup>. According to this note, foreign currency business creates exchange rate risk i.e., the risk that a bank may suffer losses as a result of adverse exchange rate movements during a period in which it has an open position, either spot or forward, or a combination of the two, in an individual foreign currency.

Therefore, it is management's responsibility to set appropriate limits to the risks taken by a bank in its foreign exchange business and to ensure that there are proper internal control procedures covering this area of bank's activities.

As far as internal controls are concerned, banks are required to establish well-defined division of responsibility between: a) foreign exchange dealing b) accounting and c) internal supervision. As regards guidelines for limits on banks' foreign exchange exposure, the authorities might apply a system of dual limits: one on a bank's exposure in individual foreign currency and the other on its overall foreign exchange exposures.

The rules set by CBRSP covering prudential aspects of bank's foreign exchange activities are not directly concerned with the restrictions that countries may place on their banks' foreign exchange business for exchange control, monetary or other macro-economic reasons. In exercising prudential control over this area of banks' activities, however, supervisory authorities need to take into account the role of the banks as "market-makers" in foreign exchange.

Whatever may be the exact balance struck between these considerations, supervisory authorities must seek to ensure that the risks assumed by banks in their foreign exchange

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<sup>5</sup> Now called Basel Committee on Banking Supervision.

<sup>6</sup> It was the first document (<http://www.bis.org/publ/bcbs00e.pdf?noframes=1>) prepared by international regulators under the aegis of the Bank for International Settlements.

operations are never so large as to constitute a significant threat either to the solvency and liquidity of individual banks, or to the health and stability of the banking system as a whole.

In many countries banks' dealings in precious metals markets have increased posing risks for banks' activities. Therefore, to reduce this risk banks have been required to include positions taken in gold or precious metals within any limits imposed on their foreign exchange positions. According to the regulation, when setting guidelines or limits authorities need to find some standard by which to judge what degree of flexibility banks should be given. In several major countries the standard used is the size of the banks' capital base.

This note describes the experiences of other countries in determining the methods for calculating the bank's foreign exchange position exposure to foreign exchange risk, the maximum allowed exposure of banks to foreign exchange risk, terms and conditions of reporting and departments within the bank responsible to currency risk management process.

All the countries chosen in this analysis have adopted regulations or directives on foreign currency exposures of banks and in all these countries it is the Central Bank, which by law is obliged to set rules for foreign currency exposures.

The aim of undertaking international experience analysis is to understand methodologies which take into consideration real exposure of FX risks through a better capture of product development trends in the financial sector and to try to converge it as much as possible in the Albanian case.

The countries analyzed are Croatia, Hong-Kong, Austria, United Kingdom, Former Yugoslav Republic of Macedonia, Georgia, Cyprus and Iceland.

Overall, it may be concluded that all the countries abovementioned have adopted methodologies on FX open positions, which account the dynamics of the financial sector and of its instruments. To a certain degree there is uniformity among regulations adopted by various countries as the following:

**I ) Standard methodology** for calculating the bank's foreign exchange positions to foreign exchange risk. Namely, FX open position in one single currency comprises the following elements:

- a) net spot position, defined as a difference between the foreign exchange assets and foreign exchange liabilities in that particular currency including the accrued interest and spot positions, which are concluded but not yet accounted for;
- b) net forward position, defined as the difference between all amounts to be received and all amounts to be paid under foreign exchange forward contracts

- (or gold forward contracts) including currency futures (or gold futures) and the principal on currency swaps not included in the spot positions;
- c) irrevocable guarantee, uncovered letters of credit and other similar instruments that are certain to be called and likely to be irrecoverable;
  - d) foreign currency option position or gold options.

Open position in one single currency is calculated in that particular currency and translated into local currency by using the midpoint exchange rate of the Country Central Bank on the reporting date.

## **II) Same indicators on bank's exposure to currency risk**

- a) the net open foreign exchange position in each foreign currency to bank regulatory capital;
- b) the net total open foreign exchange position to bank regulatory capital.

## **III) Standard requirements for currency risk management process**

In all countries analyzed banks are required to adopt policy and adequate procedures for indentifying, measuring, monitoring and controlling the currency risk. This implies division of responsibility between management and supervisory board of the banks.

As mentioned above the fact that there is uniformity in countries' regulations on FX open positions does not necessarily mean that there are no differences in the methodology used to calculate FX open position exposure or limits sets on such exposures. The following section presents experiences of individual countries with regulations on FX open positions with focus on differences only.

## SUMMARY TABLE OF INTERNATIONAL EXPERIENCE ON FOREIGN EXCHANGE OPEN POSITIONS

| FX OPEN POSITION COMPONENTS  | UNITED KINGDOM   | HONG KONG | AUSTRIA  | CROATIA   | MACEDONIA | GEORGIA | ICELAND                                    | CYPRUS  |
|--|--|-----------|--|---|-----------|---------|--|---|
| <b>i. METHODOLOGY FOR CALCULATING FX OPEN POSITION</b>                                       |  |           |  |   |           |         |  |   |
| <b>Main indicator:</b> Net Open Foreign Exchange Position consists of the following elements | <b>Excluded are:</b><br>(i) foreign currency assets which have been deducted in full from capital resources<br>(ii) positions hedging<br>(iii) hedging against adverse effect of the exchange rate<br>(iv) hedging of net future foreign currency income or expenses which are known but not yet accrued |           |  |   |           |         |  | FX position taken to hedge against adverse exchange rate movements may be excluded from calculation of main indicator |
| - net spot position  | X  | X         | X<br>including accrued interest and net spot position in gold  | X<br>(net future income/expenses not yet entered in accounting and fully hedged may be included here) | X         | X       | X  | X   |
| - net forward position   | X<br>including gold forwards   | X         | X<br>including gold forwards<br>The net amount of income/expenses not yet realized but fully hedged by forward exchange transactions | X<br>involving exchange (and gold) purchases and sales  | X         | X       | X  | X   |
| -foreign currency option   | X<br>including gold option   | X         | X<br>and gold option   | X or gold option (a special methodology to calculate the value of option has been adopted)            |           | X       | X<br>(net delta value of currency options) | X<br>(net delta value of currency options including gold options)   |
| - foreign currency futures   | X including:   |           |  | X   |           | X       | X  | X   |

| FX OPEN POSITION COMPONENTS   | UNITED KINGDOM               | HONG KONG   | AUSTRIA  | CROATIA  | MACEDONIA  | GEORGIA | ICELAND  | CYPRUS  |
|---|------------------------------|---|--|--|--|---------|--|---|
| -gold futures<br>- synthetic future <sup>7</sup>  |                              | X   | X<br>(and gold futures)<br>included in the<br>calculation of the<br>forward position | (or gold futures)<br>included in the<br>calculation of the<br>forward transactions | X<br>included in the<br>calculation of the<br>forward position                     |         | included in the<br>calculation of the<br>forward position      | included in the calculation<br>of the forward position  |
| All contract for differences<br>financial instruments <sup>8</sup><br>- foreign currency swap   | X                            |   |  |  |  |         |  |   |
|   | X                            |   | X<br>(only principal)<br>included in the<br>calculation of the<br>forward position   | X<br>(only principal)<br>included in the<br>calculation of<br>forward transactions | X<br>(only principal)<br>included in the<br>calculation of the<br>forward position | X       | X<br>included in the<br>calculation of the<br>forward position | X<br>(only principal) included<br>in the calculation of the<br>forward position                                     |
| - irrevocable guarantee that are certain<br>to be called and likely to be<br>irrecoverable  | X<br>and similar instruments |   | X and similar<br>instruments   | X  | X  |         | X  | X   |
| - uncovered letters of credit and other<br>similar instruments that are certain to<br>be called and likely to be irrecoverable                |                              |   |  | X  | X  |         |  |   |
| - letters of credit, guarantees that the<br>bank expects to collect for certain   |                              |   |  |  | X  |         |  |   |
| - market value of currency options<br>(non-foreign currency and non-gold)   |                              |   | X  | X  |  |         | X  |   |
| Foreign exchange positions of the<br>investment fund  |                              |   | X  |  |  |         |  |   |
| <b>ii. INDICATORS AND LIMITS ON BANK'S EXPOSURE<sup>9</sup></b>   |                              |   |  |  |  |         |  |   |
| Relation between the net open currency<br>position in different currency and the<br>bank's own funds (sometimes called<br>regulatory capital) |                              | Limits vary<br>among<br>Authorized<br>Institutions<br>considering |  |  |  |         | 20% of equity  | Notwithstanding the<br>provisions given below for<br>the overall net currency<br>position<br>The net open overnight |

- <sup>7</sup> a) a synthetic bought future, that is, a bought call option coupled with a written put option; or  
(b) a synthetic sold future, that is, a bought put option coupled with a written call option; provided that in either case the two options :  
(i) are bought and written, whether simultaneously or not, on a single eligible derivatives market;  
(ii) relate to the same underlying security or other asset;  
(iii) give the purchasers of the options the same rights of exercise (whether at the same price or not); and  
(iv) will expire together, if not exercised.

<sup>8</sup> CRD financial instruments means any contract that gives rise to both a financial asset of one party and a financial liability or equity instrument of another party

<sup>9</sup> Besides these indicators only in the case of Hong Kong the range of indicators is more comprehensive by including open position limits on by each centre where Authorized Institutions operate, limits for option and limits for settlement risk for all counterparties. Settlement risk can arise from counterparty default, operational problems, market liquidity constraints and other factors.

| FX OPEN POSITION COMPONENTS   | UNITED KINGDOM | HONG KONG   | AUSTRIA   | CROATIA                          | MACEDONIA   | GEORGIA   | ICELAND   | CYPRUS   |
|---|----------------|---|---|----------------------------------|---|---|---|--|
|   |                | (i) scale of business,<br>(ii) risk tolerance policy and<br>(iii) degree of market proficiency  |   |                                  |   |   |   | position in any one currency with the exception of the Euro, may not exceed 3% of the reporting bank's capital base, while the net open intra-day position in any one currency with the exception of the Euro may not exceed 5% of the reporting bank's capital base |
| Relation between the overall net currency position and the bank's own funds (sometimes called regulatory capital or capital base)                     |                | Limits vary among Authorized Institutions considering (i) scale of business, (ii) risk tolerance policy and (iii) degree of market proficiency  | In case FX open position exceeds 2% of eligible funds, the minimum capital requirement will amount to 8% of the overall foreign exchange position | 20%                              | 30%   | 20%   | 30% of equity   | 6% <sup>10</sup> at the close of a business day<br>8% <sup>11</sup> at any time during a business day  |
| <b>iii. CURRENCY RISK MANAGEMENT PROCESS</b>  |                |   |   |                                  |   |   |   |  |
| System for identifying, measuring, monitoring and controlling the currency risk (policies, procedures, regulations, foreign currency limitations etc) |                | Division of responsibility between :<br>- Monetary Authority<br>- Authorized Institution's board and senior management<br>- Asset and liability management committee<br>- independent risk management | Credit Institutions through their respective unit/units   | Not stipulated in the regulation | Division of responsibility between:<br>- bank<br>- supervisory board<br>- board of directors<br>- risk management board | Division of responsibility between :<br>- management of banks<br>- commercial banks | Financial Institution may be authorized by the Central Bank to maintain the foreign exchange balance and report accordingly | Reporting banks  |

<sup>10</sup> Notwithstanding this provision, the net open overnight position in any one currency with the exception of the Euro, may not exceed 3% of the reporting bank's capital base as calculated for the purposes of the capital adequacy return. In Euro the net open overnight position may not exceed 6% of the reporting bank's capital base.

<sup>11</sup> Notwithstanding this provision, the net open intra-day position in any one currency with the exception of the Euro, may not exceed 5% of the reporting bank's capital base. In Euro the net open intra-day position may not exceed 6% of the reporting bank's capital base.

## Country-by-Country Discussion

### Croatia

Compared with countries chosen in this analysis Croatia is among countries to have adopted an advanced methodology to calculate FX open positions not only that they include financial instruments in the calculation, but also they have adopted special methodology to calculate the value of the book of foreign currency option in each currency. Last decision on the limitations of banks' exposure to foreign exchange risk was adopted in January 2003. The foreign exchange risk definition given in this regulation is the following: *“Foreign exchange risk shall be a risk to which a bank is exposed when it has an open foreign exchange position (or open position in gold) which may result in losses due to cross currency changes, changes in the value of the kuna against other foreign currencies and changes in the value of gold”*.

The regulation sets detailed calculation for each element of FX open positions in one currency. Concretely, calculation of spot positions in individual currencies shall comprise:

- all foreign exchange assets and liabilities;
- assets and liabilities with a foreign currency clause;
- spot transactions involving foreign exchange purchases and sales which have been agreed but have not been entered in the bank's general ledger;
- spot position arising from currency swaps.

Likewise, the calculation of the forward position and irrevocable guarantees position and other similar instruments shall comprise:

- forward transactions involving exchange (and gold) purchases and sales, including foreign currency or gold futures and the principal of currency swaps not included in the spot position;
- irrevocable guarantees, uncovered letters of credit or similar instruments that are expected to be called in the future and are most likely to be irrecoverable (denominated in foreign currency or with a foreign currency clause);
- foreign currency option position (or gold options);
- market value of any other (non-foreign currency and non gold) options, whose price of the underlying is expressed in foreign currency.

The total open foreign exchange position at the end of each workday should not exceed 20% of the regulatory capital of a bank.

It is worth mentioning that reserves for identified losses arising from neither off-balance sheet placements nor any other on-balance sheet items, which do not constitute assets or liabilities of a bank shall not be included in the net spot positions. While, net future income/expenses not yet entered in accounting records but already fully hedged by forward foreign exchange may be included in the spot position in a particular currency.

## **Hong Kong**

Under the Supervisory Policy Manual the Hong Kong Monetary Authority (HKMA) adopted in 2009 the regulation on Foreign Exchange Risk Management. This case is very comprehensive not only on the methodology used for FX open position, but also on the oversight part of the foreign currency risk.

In reporting the open position in individual currencies banks take into account assets and liabilities in that currency, un-matured spot and forward deals, futures contracts and options. that the Authorized Institutions have the responsibility to set their own internal limits on open positions in each individual currency and on the aggregate overnight open position for all currencies and to notify HKMA.

Compared to other countries' experiences internal limits in the Hong Kong case are more comprehensive and include the following:

- open position limits for individual currencies both intraday and overnight;
- open position limits on the aggregate of all currencies;
- open position limits by each centre where the Authorized Institutions operates;
- option limits;
- limits for settlement risk of all counterparties.

The limits set by the Authorized Institutions should not be set at a level that is out of line with: (i) their scale of business, (ii) risk tolerance policy and (iii) degree of market proficiency. The limits should be reviewed at least annually or whenever the volatility of some currencies increases suddenly and in an extraordinary manner. The size of limits varies among Authorized Institutions given their individual circumstances, which include Authorized Institution's expertise and the integrity of its risk management. Given that such limits are a means of containing the risk of loss, the key limits for a locally incorporated Authorized Institution should capture exposures on a consolidated basis, i.e. including the Authorized Institution's overseas branches and banking subsidiaries inside the country and abroad.

In the case of locally incorporated Authorized Institutions the HKMA will pay particular attention to those with relatively large aggregate open position limits say higher than 25% of their capital base, which may reflect a concentration of foreign exchange risk. In this case they will be required to provide adequate justification for setting such limits. Depending on the circumstances of each case, the Authorized Institutions may be asked to reduce its limit, strengthen its capital position and may be subject to greater scrutiny and review, including additional reporting requirements for its foreign exchange risk exposures. This does not, however, mean that HKMA will not allow Authorized Institutions to maintain higher limits due to business needs or other justifications.

Regarding the branches of Authorized Institutions incorporated outside Hong Kong, it is the responsibility of their overseas head offices to monitor their foreign exchange position limits centrally. The HKMA will assess the expertise of any branch, which has

an aggregate overnight limit that appears large, say, in excess of 5% in relation to the capital base of the Authorized Institutions as a whole.

As part of sound management, Authorized Institutions should incorporate the level of foreign exchange risk they undertake into their overall evaluation of capital adequacy. Where, Authorized Institution business involves taking significant foreign exchange risk, they should also place emphasis on the use of stress-testing techniques to evaluate the adequacy of capital to support the risk.

What's different in this case is the oversight system which is very strong. There is a clear division of responsibilities between Board and Senior Management which are supposed to undertake effective oversight of foreign exchange risk management practices. Larger or more complex Authorized Institutions should have Asset and Liability Management Committee responsible for the design and administration of foreign exchange risk management. Meanwhile, the Board or senior management should assign responsibility for managing foreign exchange risk to individuals or units with appropriate experience and expertise. There should be adequate segregation of duties in key elements of the risk management process to avoid potential conflicts of interest. This is to ensure independent assessment of an Authorized Institution's foreign exchange operations.

Authorized Institutions should conduct periodic reviews of their internal control and risk management process for foreign exchange risk. These reviews should be conducted by independent parties, e.g. internal or external auditors.

## **Austria**

Regulation of the Financial Market Authority on the Solvency of Credit Institutions was adopted in 2007.

Austria in a different way from other countries does not set limits on foreign exchange position to capital adequacy, but on the contrary sets the minimum capital required to cover risks arising from open foreign exchange positions.

In cases where a credit institution's overall foreign exchange position exceeds 2% of its eligible own funds, the minimum capital requirement for foreign exchange risk will amount to 8% of the overall foreign exchange position. By way of derogation from this provision, credit institutions may use the following procedure to calculate their minimum capital requirements, provided that this is done in a uniform and sustainable manner:

1. The minimum capital requirement after the deduction of matched positions in closely correlated currencies amounts to 8%;
2. The minimum capital requirement for the matched position in closely correlated currencies amounts to 4%.

Two currencies are considered to be demonstrably closely correlated if the probability of a loss – calculated on the basis of daily exchange-rate data for the preceding three years – occurring on equal and opposite positions in those currencies over the following ten working days is at least 99%, where such a loss is 4% or less of the value of the matched position in question; the immateriality threshold of 2% of eligible own funds is not applied in the alternative procedure. The minimum capital requirement for matched positions in currencies of Member States participating in the second stage of the Economic and Monetary Union may be set to 1.6% of the value of such matched positions.

The net amount of open foreign exchange positions in each currency and in gold is calculated by adding the positions pursuant to the following (with due attention to plus/minus signs):

1. Net spot position: all asset items less all liability items, including accrued interest, in the currency in question, as well as the net spot position in gold; in this context, asset items which are deducted from own funds (in accordance with Article 23 para. 13 nos. 3, 4 and 4a Banking Act), as well as participations and shares in affiliated undertakings in foreign currencies may be disregarded where these are held as fixed assets and account for no more than 2% of the credit institution's eligible own funds;
2. Net forward position: all amounts to be received less all amounts to be paid under forward exchange transactions and forward gold transactions, including currency and gold futures and the principal in currency swaps not included in the spot position.
3. Guarantees, irrevocable commitments and similar instruments which are certain to be called and likely to be irrecoverable; if denominated in the same currency, the actual value of the recourse claim on the initial obligor may be applied as an opposing position.
4. At the discretion of the credit institution, the net amount of income/expenses not yet realized but already fully hedged by forward exchange transactions or similar transactions; if exercised, this discretion must be applied consistently and uniformly in each currency.
5. The net delta equivalent of the total book of foreign-currency and gold options; for the purpose of hedging the other risks associated with options (gamma and vega risk), credit institutions may apply recognized methods and use them in the calculation of foreign exchange risk.
6. The market value of options not covered under the previous paragraph.
7. In the case of investment fund shares, the actual foreign exchange positions of the investment fund are to be taken into account for the purpose of calculating the net

amount; in determining the currency composition of the investment fund, credit institutions may rely on information from third parties provided that the correctness of such information is ensured; in cases where the credit institution is not aware of the actual currency composition, it must be assumed that the investment fund has invested in foreign currency positions up to the maximum extent allowed according to the fund's prospectus or an equivalent document; where leverage is permitted in investment fund shares assigned to the trading book, it must be assumed that the investment fund is leveraged to the maximum extent allowed according to the fund's prospectus or an equivalent document; the position thus assumed is to be treated as a separate currency according to the treatment of positions in gold; in cases where the direction of the fund's investment is known, the long position may be added to the net total amount of long positions and the short position may be added to the net total amount of short positions; netting such positions prior to the calculation is not permitted.

The calculations pursuant to points 1 to 7 are not to include those foreign exchange positions for which a certain exchange ratio between the euro and another currency (exchange rate risk) is guaranteed by the federal government. The net present value may also be used in the calculation of net open positions in each currency and in gold.

The net amounts in each currency and in gold, expressed as long and short positions, are to be translated into EUR at the middle spot FX rate. Subsequently, the long and short positions, except for the position in EUR, must be added up separately to determine the total of the net short positions and the total of the net long positions. The higher of these two totals is the credit institution's net total of foreign-exchange and gold positions (overall foreign-exchange position).

## **United Kingdom**

Last Regulation on Foreign Currency Open Position was adopted in 2007. When calculating the open position in foreign currency the followings are taken into consideration:

- All gold positions;
- All spot positions;
- All forward positions;
- All contract for differences (CRD) financial instruments<sup>12</sup> and other items which are denominated in a foreign currency.;
- Irrevocable guarantee guarantees and similar instruments that are certain to be called and likely to be irrecoverable to the extent they give rise to a position in gold or foreign currency;

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<sup>12</sup> CRD financial instrument means any contract that gives rise to both a financial asset of one party and a financial liability or equity instrument of another party.

- Notional positions arising from the following instruments such as foreign currency futures, forward, foreign currency swaps, foreign currency options, gold futures, gold forward, gold options etc.

CRD financial instruments include both primary CRD financial instruments or cash instruments, and derivative, CRD financial instruments the value of which is derived from the price of an underlying CRD financial instrument, a rate, an index or the price of another underlying item.

The following are excluded from foreign currency calculation:

- foreign currency assets which have been deducted in full from capital resources;
- positions hedging;
- positions taken in order to hedge against the adverse effect of the exchange rate on the ratio of its capital resources to its capital resources requirement; and
- transactions to the extent that they fully hedge net future foreign currency income or expenses, which are known but not yet accrued.

### **Macedonia**

Last Decision on FX open positions was adopted in 2008. When calculating the FX open positions in one currency Macedonia like any other country in our analysis does consider the abovementioned elements with the exception of currency option and gold. Also, as regards the off-balance positions it uses a different methodology than other countries which consists on dividing it into two categories as the following paragraph shows.

The open currency position in one currency shall represent the sum of:

- net spot position;
- net forward position including the currency futures agreement and the principal on currency swap agreements, which is not included in the spot position;
- off-balance positions (un-revocable guarantees, uncovered letters of credit and other instruments are classified in the risk categories D and E and/or for which the bank is certain that will perform the payment and there is a possibility that they could not be collected;
- off-balance items (letters of credit, guarantees etc.) in behalf of the bank that it expects to collect for certain.

The aggregate currency position shall amount no more than 30% of the bank's own funds.

As for the risk management process, according to the regulation the bank is the one that establishes system for managing the currency risk, policy and adequate procedures for identifying, measuring, monitoring and controlling the currency risk. The bank shall measure and monitor daily the currency risk and also perform FX evaluation.

Supervisory Board and the Board of Directors shall among others ensure internal control system, and they shall ensure regular monitoring and controlling of activities in foreign currencies and in local currency with FX clause.

The Risk Management Board shall determine internal limitations on the relation between the open currency position (long and short) by different currencies and own funds and regularly revise these limitations. It should also, determine internal limitations on the relation between the aggregate currency position and the own funds and regularly revise this limitation.

Board of Directors should also establish and apply procedures for identifying, measuring, monitoring and controlling the banks' currency risk in accordance with the policy, establish and apply adequate system for measuring the bank's exposure to currency risk, establish and apply adequate systems for monitoring and measuring of the gains and the losses from the foreign currency denominated activities, establish procedures on assessment of the influence of new products on the currency risk exposure etc.

## **Georgia**

Regulation on setting, calculating and maintaining overall open foreign exchange position limit of Commercial Banks has been approved under decree no. 201 of July 20,2006 and later amended by decree no. 290 of October 20,2006. The regulation stipulates detailed information regarding the accounting of foreign exchange trade transactions.

Concretely, the accounting of foreign exchange transactions shall be carried out according to the official rate of exchange, fixed by the National Bank of Georgia.

Following movements in the official rate of exchange, Foreign Exchange Position Accounts shall be subject to conversion. The results of such conversion of Foreign Exchange Position Accounts shall be recorded on the Foreign Exchange Position Counter-value accounts and respectively, in the profit and loss accounts.

Balances recorded on all Foreign Exchange Position Counter-value accounts on the bank's balance sheet, as well as balances in each foreign currency on all Foreign Exchange Position Accounts, shall be subject to netting. As a result of such netting the amount sitting in the Foreign Exchange Position Counter-value account shall be equal to the amount sitting in the Foreign Exchange Position account.

When calculating the bank's open foreign exchange position of the balance sheet accounting the largest amount between the sums of the balance sheet long and short open foreign exchange positions in all currency types shall be taken, which shall not exceed 20% of the bank's regulatory capital. When calculating the bank's consolidated overall open foreign exchange position, the largest amount between the sums of the consolidated

(reported and off-balance sheet) long and short open foreign exchange positions in all currency types shall be taken, which shall not exceed 20% of a bank's regulatory capital.

In the calculation of the FX open positions the following elements are taken into consideration:

- currency spot transactions;
- currency futures transactions;
- currency forward transactions;
- currency swap transactions;
- currency option transactions.

The regulation does stipulate a number of responsibilities of Management of Commercial Bank. Concretely, Management of Commercial Banks when developing foreign exchange risk management policy has to include among others:

- a. bank's participation in the foreign exchange market and the flexibility of the bank management to changes in the foreign exchange market;
- b. hedging strategy;
- c. ability to adjust the management system for foreign exchange transactions and foreign exchange risk on the basis of the analysis of the economic environment of foreign exchange activities.

Commercial Banks are obliged to keep the foreign exchange management information system through which the bank will carry out both the monitoring over daily changes in foreign exchange rates and on periodic basis, stress-testing of the banks financial data with regard to its profit and loss to define the impact of the foreign exchange rate movements on the bank's capital and liquidity.

## **Cyprus**

First regulation on FX Open Position was adopted in 1986 amended through the Directive on Monitoring of Foreign Currency Exposures in 2001. Last Directive was approved in 2005. First of all when setting limitations on FX Open Positions, it is worth mentioning that Banks' foreign currency placements with foreign banks, whether constituting working balances or hedging for foreign currency liabilities, should only be made with reputable banking institutions.

The net open position in each currency includes the following elements:

- net spot position;
- net forward position including currency futures and the principal on currency swaps not included in the spot position;
- irrevocable guarantees that are certain to be called in.

According to this Directive there are different limits for overnight positions, intro-day position.

Concretely, except with the prior approval of the Central Bank of Cyprus:

- (i) the overall net foreign exchange position at the close of any business day shall not exceed 6% of the reporting bank's capital base, whereas, the overall net foreign exchange position at any time during a business day shall not exceed 8% of the reporting bank's capital base.
- (ii) notwithstanding the provisions of (i) above, the net open overnight position in any one currency, with the exception of the Euro, may not exceed 3% of the reporting bank's capital base, as calculated for the purposes of the capital adequacy return, while the net open intra-day position in any one currency, with the exception of the Euro, may not exceed 5% of the reporting bank's capital base. In Euro both the net open overnight position and the net open intra-day position may not exceed 6% of the reporting bank's capital base.

The limits set above are only applicable to the reporting bank's trading positions. Any foreign currency investments in subsidiary/associate/affiliate companies and in overseas branches, as well as foreign currency long-term assets and liabilities shall not be included in the computation of the bank's position vis-à-vis the limits set above, provided that the prior consent of the Central Bank of Cyprus has, to this effect been obtained.

Also, any foreign exchange positions which a reporting bank has deliberately taken in order to hedge against an adverse effect of the exchange rates on its capital base may be excluded from the calculation of net open currency positions provided that the prior approval of the Central Bank of Cyprus has been granted. Such positions should be of a structural nature.

The regulation does make clear stipulations as to the management information system. Concretely, reporting banks are obliged to establish and maintain adequate management information systems and appropriate internal control procedures and systems for the prompt identification, measurement and effective control of risks arising from the foreign exchange exposures undertaken. Such systems should also define the stop losses limits both on a daily and cumulative basis, which must be approved by the Central Bank of Cyprus.

## **Iceland**

The rule No. 707 of August 2009 stipulates the foreign balances of credit institutions and financial intermediaries. The foreign balance is defined as the difference between its foreign currency denominated assets and liabilities, on and off the balance sheet. Foreign balance is therefore a measurement of an institution's foreign exchange risk. Exposures

in individual currencies may neither be long nor short by more than 20% of equity, nor the total foreign exchange position by more than 30%.

The following exposures shall be included in calculations of FX open position:

- net current position;
- net forward position including future and currency swap agreements not included in its net current position;
- irrecoverable guarantees and similar instruments that are certain to be called and unlikely to be reclaimable;
- total net delta value of currency options. Institutions trading in options shall calculate the delta value in accordance with the provisions of the Financial Supervisory Authority's Rules on the Capital Requirement and Risk-Weighted Assets of Financial Undertakings no.215/2007;
- the market value of other derivative contracts in foreign currency.

The Central Bank may authorize a financial institution to maintain a special positive foreign exchange balance apart from the general foreign exchange balance provided for in the first paragraph for the purpose of hedging against the impact of changes in the exchange rate of the krona on its capital adequacy ratio, provided that the undertaking submits a report stating the premises and calculations used to determine the size of the foreign exchange balance and that it make particular mention of it in its reports to the Central Bank.

Furthermore, under extraordinary circumstances, the Central Bank may grant a financial undertaking a temporary authorization to maintain a special positive foreign exchange balance. A financial undertaking's application for such a positive foreign exchange balance shall include a timetable illustrating how the undertaking intends to restore the foreign exchange balance limits set forth in the rules.

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