### **RESOLUTION NO. 324/2011**

### OF THE POLISH FINANCIAL SUPERVISION AUTHORITY

### of 20 December 2011

amending Resolution 76/2010 of the Polish Financial Supervision Authority on the scope and detailed procedures for determining capital requirements for particular risks and the Resolution on determining liquidity standards binding on banks

Pursuant to Art. 128 (6)(1, 3, 4, 5 and 7) and Art. 141j of the Act of 29 August 1997 — The Banking

Act (Journal of Laws of 2002 No. 72, item 665, as amended<sup>1)</sup>) it is resolved as follows:

- § 1. In Resolution 76/2010 of the Polish Financial Supervision Authority of 10 March 2010 on the scope and detailed procedures for determining capital requirements for particular risks (PFSA Journal of Laws, No. 2, item 11, as amended<sup>2</sup>), the following amendments are made:
- 1) § 6 Section. 1 point 4 shall be worded as follows:
  - "4) the total capital requirement on exceeding the exposure concentration limit calculated in accordance with Appendix No. 12 to the Resolution;";
- 2) in § 8:
  - a) Section 3 shall receive the following meaning:
  - "3. The bank may obtain the consent to use the methods referred to in Sec. 1 Item 2 and 3 provided that, for the selected method, as for the date of submitting the application for consent to use the value at risk method, the number of days determined based on the historical verification referred to in § 14 Appendix No. 19 to the Resolution of 250 working days directly preceding the day of calculation in which the daily market loss on underlying positions included in the value at risk method exceeded the value at risk determined for a given working day does not exceed 10.",

<sup>&</sup>lt;sup>1)</sup> Amendments to the consolidated text were promulgated in Journal of Laws of 2002 No. 126, item 1070, No. 141, item 1178, No. 144, item 1208, No. 153, item 1271, No. 169, item 1385 and item 1387 and No. 241, item 2074, of 2003 No. 50, item 424, No. 60, item 535, No. 65, item 594, No. 228, item 2260 and No. 229, item 2276, of 2004 No. 64, item 594, No. 68, item 623, No. 91, item 870, No. 96, item 959, No. 121, item 1264, No. 146, item 1546 and No. 173, item 1808, of 2005 No. 83, item 719, No. 85, item 727, No. 167, item 1398 and No. 183, item 1538, of 2006 No. 104, item 708, No. 157, item 1119, No. 190, item 1401 and No. 245, item 1775, of 2007 No. 42, item 272 and No. 112, item 769, of 2008 No. 171, item 1056, No. 192, item 1179, No. 209, item 1315 and No. 231, item 1546, of 2009 No. 18, item 97, No. 42, item 341, No. 65, item 545, No. 71, item 609, No. 127, item 1045, No. 131, item 1075, No. 144, item 1176, No. 165, item 1316, No. 166, item 1317, No. 168, item 1323 and No. 201, item 1540, of 2010 No. 40, item 226, No. 81, item 530, No. 126, item 853, No. 182, item 1228 and No. 257, item 1724 and of 2011 No. 72, item 388, No. 126, item 715, No. 131, item 763, No. 134, item 779 and 781, and No. 165, item 984, No. 199, item 1175 and No. 201, item 1181.

<sup>&</sup>lt;sup>2)</sup> Amendments to the resolution were promulgated in Journal of Laws of the PFSA of 2010 No. 8, item 38 and of 2011 No. 8, item 29, No. 9, item 32 and No. 11, item 42.

- b) letter c in Sec. 4, point 1 shall receive the following wording:
  - "c) the structure and assumptions of the internal measurement system, taking into account the quality standards provided for in § 36 to 41 Appendix No. 14 to the Resolution, and the quantity standards provided for in § 42 to 60 Appendix No. 14 to the Resolution, as well as standards concerning the operational risk provided for in Resolution No. 258/2011 of the Polish Financial Supervision Authority dated 4 October 2011 on detailed principles of operation of the risk management system and the internal control system, and detailed conditions for estimation of internal capital by banks and for reviews of the internal capital retention and estimation process and the principles of determining the policy of variable components of the remunerations of persons in managerial positions at banks (Official Journal, PFSA No. 11, item 42),";
- 3) letter c in § 11, Sec. 2, point 3 shall receive the following wording:
  - "c) the consolidated exceeding of the limit of concentration of exposures is understood as exceeding the limit of concentration of exposures calculated based on consolidated financial statements of the bank with the appropriate application of the principles provided for banks subject to consolidated supervision in Resolution No. 208/2011 of the Polish Financial Supervision Authority dated 22 August 2011 on detailed principles and conditions of including exposures upon determination of observing the limit of concentration of exposures and the limit of large exposures (Official Journal of the PFSA No. 9, item 34), hereinafter referred to as the "Resolution on the limit of exposure concentration and the limit for large exposures","

## 4) in § 14:

- a) in Section 1, point 3 shall be replaced by the following:
  - "3) subject to Sec. 4, 80% of the comparative total capital requirement calculated in accordance with Sec. 3 in the period from 1 January 2009 to 31 December 2012",
- b) in Section 2, point 2 shall be replaced by the following:
  - "2) subject to Sec. 4, 80% of the comparative total capital requirement calculated in accordance with Sec. 3 in the period from 1 January 2009 to 31 December 2012",
- b) in Section 3, point 4 shall be replaced by the following:
  - "4) the comparative total capital requirement for exceeding of the limit of concentration of exposures calculated in accordance with Appendix No. 12 to the Resolution;";
- 5) in Appendix No. 1, in the list of appendices, the title of Appendix No. 12 shall be replaced by the following:
  - "Appendix No. 12 CALCULATING THE CAPITAL REQUIREMENT FOR EXCEEDING THE LIMIT OF CONCENTRATION OF EXPOSURES";
- 6) in Appendix No. 2:
  - a) in § 4, Section 2 shall be replaced by the following:

- "2. In the case referred to in Sec. 1 point 3, the bank is required to obtain the approval of the Polish Financial Supervision Authority to calculate delta coefficient on the basis of its own option pricing models. The bank will attach the following to the request for approval:
  - 1) description of the option pricing model, used as the basis for calculating the delta coefficient;
  - 2) specification and verification of the assumptions of the option pricing model;
  - 3) product specification of the scope of application of the option pricing model;
  - 4) description of the sources and methods of updating the data used for the option pricing model;
  - 5) information about the method of estimating the parameters for the option pricing model;
  - 6) description of the internal risk management procedures and recording of option transactions;
  - 7) assessment of the sensitivity of the delta coefficients to changes in the value of the underlying option instrument.",

### b) § 11 shall be worded as follows:

"§ 11. Banks may include underwriting the issue of securities in the statement of underlying positions by subtracting from the amount set forth in § 10 the product of that amount and the relevant correction ratio set forth in table 1; the term "day zero" used in the table means the date on which the bank becomes unconditionally obliged to purchase a known number of securities at an agreed price.

Table 1.

Period	Correction ratios
From signing the agreement until day zero	100%
On the first business day after day zero	90%
On the second and third business day after day zero	75%
On the fourth business day after day zero	50%
On the fifth business day after day zero	25%
On the sixth and further business days after day zero	0%

ll be worded as follows:

"§ 17. A bank that, as a result of concluding an agreement concerning credit derivatives assumes credit risk (collateral seller), in calculating the capital requirement under market risk, unless the provisions of the Resolution state otherwise, the nominal value set forth in that agreement. However, the bank may decide to replace the nominal value set forth in the agreement with the nominal value obtained as a result of deducting any

changes of the market value of the credit derivative since the time the cash flow exchange is triggered.",

### d) in § 18, point 7 shall be worded as follows:

"7) if an nth-to-default credit derivative has an external credit rating, the seller of the collateral calculates the capital charge on specific risk using the external credit rating of the derivative and applies, in appropriate cases, the appropriate risk weights for securitisation positions.",

### e) § 25 shall be worded as follows:

- "§ 25. In calculating the capital requirement on specific risk of the prices of debt instruments, it is necessary to take into account the balancing in the amount of 80% of the value of the underlying position resulting from a basis exposure hedged with a credit derivative or resulting from a hedge, depending on which category generates a higher capital requirement if these positions are subject to opposite change and primarily to the same extent and if all of the following prerequisites are met jointly:
  - 1) there is a perfect match of the reference liability, the maturity date of the reference liability and the credit derivative, as well as the currency of the basis exposure;
  - 2) the fundamental elements of the credit derivative agreement do not materially affect the difference between the change in the price of the credit derivative and changes in the price of the reference liability.";

# 7) in Appendix No. 3:

# a) in § 8, point 1 shall be worded as follows:

"1) documented principles and procedures of the pricing process, which set forth the scope of responsibility for different areas covered by the pricing process, market information sources and the assessment of their adequacy, guidelines regarding the application of unobservable input parameters reflecting the bank's assumptions regarding the parameters applied by market participants for the purpose of pricing positions, the frequency of conducting independent pricing, the times of recording daily closing prices, the procedure of valuation adjustment, the procedure of verification at the end of the month and as necessary;",

## b) § 10 shall be worded as follows:

- "§ 10. 1. To the extent possible, banks price their positions at market value. Pricing at market value is conducted no less than once a day in accordance with easily accessible closing prices, obtained from independent sources, such as: market quotations, electronic listings or listings from several independent brokers with extensive experience on a given market.
- 2. In using the mark-to-market method, the more prudent sell or buy rate is applied, unless the bank is an active market maker in the area of a specific type of financial instrument or commodity, and is able to close at the average market rate.
- 3. If the mark-to-market valuation is not possible, before calculating the capital requirement for a trading portfolio, banks must make a conservative valuation of their position or portfolio in accordance with the model. Valuation in accordance with the

model means any valuation created by way of representation, extrapolation or calculated otherwise on the basis of market data, which valuation meets the requirements set forth in Sec. 4.

- 4. In making valuations in accordance with the model, the bank should meet the following criteria:
  - senior-level management is notified about which components of the trading portfolio or banking portfolio positions at fair value are subject to valuation in accordance with the model, together with a description explaining the potential effect of such approach on risk measurement and the results of the relevant operations;
  - 2) market data used correspond, to the extent possible, to market prices, and the adequacy of the market data for the position subject to valuation and the parameters of the model are assessed with appropriate frequency;
  - 3) to the extent available, valuation methods that constitute the accepted market practice for the relevant financial or commodity transactions are used;
  - 4) the model is developed or approved independently of the organisational unit concluding the transactions and it undergoes independent testing including verification of the calculation formulae and assumptions and the software used, and if the model was developed by the bank, it is based on assumptions that were assessed and evaluated by duly qualified persons, who were not involved in the model development process;
  - 5) procedures of evaluating model changes were introduced;
  - 6) a secure copy of the model is stored and used for periodic checks of valuations obtained using the model;
  - 7) the organisational unit or persons managing risk have knowledge of the weak points of the model used and the methods of taking them into account through depreciation adjustments;
  - 8) the model undergoes regular reviews for accuracy, in particular through assessment of the accuracy of the assumptions, risk and loss analysis in comparison to the changes in risk factors, comparison of actual closing values and the model results.
- 5. In addition to daily mark-to-market valuation or valuation in accordance with the model, which may be conducted by the employees of a bank's organisational unit that concludes transactions, the bank conducts an independent verification of prices, which involves checking, no less than once a month or more often, if necessary due to the nature of the market or business activity, market prices or input data for the model in terms of their accuracy and impartiality. Market prices and input data to the model are verified by an organisational unit independent of the organisational unit of the bank that concludes transactions. If pricing sources are unavailable or subjective, the bank will use valuation adjustment mechanisms.",
- c) after § 10, the title shall be worded as follows:

"GENERAL PRINCIPLES GOVERNING VALUATION ADJUSTMENTS",

d) § 11-13 shall be worded as follows:

- "§ 11. The bank is required to establish and apply procedures concerning the need to include valuation adjustments.
- § 12. Valuation adjustments are carried out with respect to: unrealised credit margins, costs of closing positions, operational risk, early terminations of agreements, costs of investments and financing, future administrative costs and, in the case of using model valuation, model risk.
- § 13. 1. Limited liquidity positions may occur as a result of specific market events or events resulting from the bank's activity (e.g. high concentration positions or past due positions). Banks establish and apply procedures for calculating adjustments of the current valuations of limited liquidity positions. If necessary, such adjustments will be carried out in addition to changes in the value of positions that are required for financial reporting purposes and their purpose is to reflect the lack of liquidity of a position.
- 2. On the basis of the procedures referred to in Sec. 1, in order to determine the need to make valuation adjustments for limited liquidity positions, the bank takes into account in particular:
  - 1) the time that would be needed to hedge the risk on underlying positions;
  - 2) the volatility and average spread of sale and purchase prices;
  - 3) availability of market quotations (number and details of active market makers);
  - 4) volatility and average volume of contracts, including turnover volume during market pressures;
  - 5) market concentration;
  - 6) the distribution of positions by settlement dates;
  - 7) the degree to which the valuation is based on the model;
  - 8) the effect of model-related risk components other than those set forth above.
- 3. In the event of using third-party valuations or model-based valuations, the bank determines whether valuation adjustments should be applied. The bank analyses the need to introduce valuation adjustments for limited liquidity positions and conducts ongoing reviews of their adequacy.
- 4. As regards complex products, including in particular nth-to-default securitisation and credit derivative exposures, institutions assess directly whether there is a need to apply valuation adjustments to render the model of risk involved in potential application of the incorrect valuation model and the model of risk involved in the use of unobservable, and in relevant cases, also incorrect calibration parameters in the valuation model.";
- 8) in Appendix No. 4 in § 31 Sec. 2 shall read as follows:
  - "2. With respect to exposures to regional and local authorities in member states, denominated and financed in the local currency of these regional and local authorities, the bank may assign a credit risk weight of 20%.
  - If exposures to regional and local authorities in member states are denominated and financed in a currency other than the local currency, the bank may assign to such exposures a credit risk weight in the amount assigned to regional and local authorities by the competent authorities of the obligor state.

## 9) in Appendix No. 8:

- a) § 8 shall be worded as follows:
  - "§ 8. The capital requirement for specific risk of the prices of equity instruments is calculated for underlying positions in equity instruments resulting from operations in the trading portfolio using the simplified method set forth in § 10.",
- b) the heading after § 8 is repealed,
- c) § 9-10 shall be worded as follows:

"§ 9.1. The following indices may be treated as stock market indices of recognised stock exchanges:

No.	Index	Country
1.	S&P All Ords	Australia
2.	ATX	Austria
3.	BEL20	Belgium
4.	SaoPaulo - Bovespa	Brazil
5.	PX 50	Czech Republic
6.	CSE M&P Gen	Cyprus
7.	OMX Copenhagen 20	Denmark
8.	DJ Euro STOXX 50	International index
9.	Euronext 100	International index
10.	OMX Tallin	Estonia
11.	OMX Helsinki General	Finland
12.	CAC40	France
13.	Athens Gen	Greece
14.	IBEX35	Spain
15.	EOE25	Netherlands
16.	Hang Seng	Hong Kong
17.	ISEQ Overall	Ireland
18.	ICEX-15	Iceland

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19.	Nikkei225	Japan
20.	TSE35	Canada
21.	OMX Vilnius	Lithuania
22.	Lux General	Luxembourg
23.	OMX Riga	Latvia
24.	MSE Share Index	Malta
25.	IPC Index	Mexico
26.	DAX	Germany
27.	Oslo All-Share	Norway
28.	WIG20	Poland
29.	PSI General	Portugal
30.	SAX	Slovakia
31.	SBI 20	Slovenia
32.	SMI	Switzerland
33.	OMX Stockholm 30	Sweden
34.	S&P 500	USA
35.	Dow Jones Ind. Av.	USA
36.	NASDAQ	USA
37.	BUX	Hungary
38.	FTSE 100	United Kingdom
39.	FTSE mid-250	United Kingdom
40.	MIB 30	Italy

- 2. The term "liquid and diversified equities" is understood to mean equities that jointly meet the following criteria:
  - 1) an equity is included in an index of a recognised stock exchange;

- 2) the net position held by the bank in a given equity does not exceed 10 per cent of the global gross position in equities;
- 3) the total value of the net positions held by the bank in specific equities in excess of 5 per cent of the global gross position does not exceed 50 per cent of the global gross position.
- § 10. The capital requirement on specific risk of the prices of equities is calculated as 8 per cent of the global gross position in equities, with the stipulation that this calculation does not include positions in equities, resulting from term stock exchange transactions in baskets (indices) of recognised stock exchanges.";

# 10) in Appendix No. 9:

- a) the following § 13a shall be added after and below § 13, in the following wording:
- "§ 13a. 1. In the case of those instruments in a trading portfolio that constitute securitisation positions, the bank ascribes the following risk weight to net positions calculated in accordance with § 27 of Appendix No. 2 to the Resolution:
- 1) for securitisation positions that, in the banking portfolio of the same bank, would be subject to the standard method concerning credit risk 8 per cent of the risk weight calculated in accordance with the standard method set forth in Appendix No. 18 to the Resolution;
- 2) for securitisation positions that, in the banking portfolio of the same bank, would be subject to the internal ratings method concerning 8 per cent of the risk weight calculated in accordance with the internal ratings method set forth in Appendix No. 18 to the Resolution;
- 2. For the purposes of Sec. 1 point 1 and 2, the supervisory formula method may be applied solely upon obtaining the approval of the Financial Supervision Authority and it may be used solely by banks other than the originator bank, which bank may apply this method with respect to the same securitisation positions in its own banking portfolio. In relevant cases, the estimates concerning PD and LGD as input parameters for the purpose of the supervisory formula method are set forth in accordance with the provisions of Appendix No. 5 to the Resolution or, subject to obtaining a separate approval of the Polish Financial Supervision Authority, rely on estimates based on the method set forth in § 4 of Appendix No. 19 to the Resolution and consistent with the quantitative standards for the internal ratings method.
- 3. Irrespective of the provisions of Sec. 1 point 1 and 2, for securitisation positions to which, according to § 18a of Appendix No. 18 to the Resolution, a risk weight would be assigned if they were in the banking portfolio of the same bank 8 per cent of the amount of risk weight applies in accordance with this paragraph.
- 4. Subject to Sec. 5, the bank adds up weighted positions resulting from the application of this paragraph (both long and short positions) to calculate the capital requirement to cover specific risk.
- 5. Until 31 December 2013, the bank adds up its weighted long net positions and weighted short net positions individually. The higher of the two constitutes the capital requirement to cover specific risk. However, the bank notifies the Polish Financial Supervision Authority of the total amount of long and short net weighted positions, by type of underlying asset.",

- b) § 14 shall be worded as follows:
  - "§ 14. 1. The capital requirement on specific risk involved in the prices of debt securities is calculated in accordance with the following rules:
    - 1) the capital requirement on specific risk involved in the prices of debt securities is calculated for underlying positions on instruments that do not constitute securitisation positions and resulting from operations in the trading portfolio;
    - 2) net positions in each debt security, denominated in appropriate currencies, are added to appropriate groups listed in column 1 in the table below:

Groups of positions	Residual maturity date	Capital charge rate (%)
(1)	(2)	(3)
Low s	0.00	
	up to 6 months	0.25
Reduced specific risk positions	6-24 months	1.00
	more than 24 months	1.60
High s	8.00	
	12.00	

- 3) the capital requirement on specific risk involved in the prices of debt securities denominated in a given currency is calculated as the sum of the products of net positions in these securities, calculated in accordance with § 1-13, and the capital charge rates for the groups of positions to which they were added, as set out in the third column in the table referred to in point 2;
- 4) the total capital requirement on specific risk involved in the prices of debt securities for all currencies is calculated as the sum of capital requirements calculated for each currency, in accordance with point 3;
- 5) the capital requirement on specific risk for positions that constitute securitisation positions is calculated in accordance with § 13a.
- 2. For the purpose of this paragraph and \$13a and \$14a, the bank may limit the result of the application of the product of risk weight and net position to the highest possible loss on the risk of default. However, for short positions, the limitation may be calculated as a change in value in a situation where entities to which the underlying instrument applies become immediately free of risk of default.",
- a) the following § 14a-14c shall be added after and below § 14, in the following wording:
  - "§ 14a. 1. By way of departure from § 14, the bank may establish the higher of the following amounts as the capital requirement on specific risk involved in the prices of debt securities for the correlation trading portfolio:

- 1) sum of capital requirements on specific risk involved in the prices of debt securities, calculated solely for long net positions of the correlation trading portfolio;
- sum of capital requirements on specific risk involved in the prices of debt securities, calculated solely for short net positions of the correlation trading portfolio.
- **§ 14b.** The correlation trading portfolio is composed of securitisation positions and nth-to-default credit derivatives, which meet the following criteria:
  - 1) the positions are not resecuritisation positions, as defined in § 5a of Appendix No. 18 to the Resolution or securitisation tranche options or any other securitisation exposure derivatives that do not provide a proportional share in the proceeds from the securitisation tranche;
- 2) any reference instruments are either simple instruments, including simple credit derivatives for which there is a liquid bilateral market, or indices subject to customary trading and based on these reference units. It is agreed that a bilateral market exists when there are bona fide sale or purchase offers made on that market so that it is possible to determine, in a day, the price reasonably linked to the most recent sale price or current bona fide offers made on arm's length terms and to make a sale or purchase at that price in a relatively short time which corresponds to prevailing commercial practices.
- § 14c. 1. Positions that refer to any of the following elements are not included in the correlation trading portfolio:
  - 1) underlying instrument that may be assigned to the exposure classes referred to in § 20 Sec. 1 point 8 and 9 of Appendix No. 4 to the Resolution in the bank's banking portfolio;
- 2) claim against a special purpose entity.
- 2. A bank may include in the correlation trading portfolio positions which are neither securitisation positions nor nth-to-default credit derivatives, but which hedge other positions in the portfolio, provided that there is a liquid bilateral market set forth in § 14b point 2 for each instrument or its underlying instruments.";
- 11) in Appendix No. 10 in § 6, Sec. 2 shall read as follows:
  - "2) net positions in underlying instruments, both long and short, denominated in a given currency, calculated in accordance with § 1-4, are included in one of the maturity date brackets (bracket), divided into three maturity bracket zones (zone), taking into account the coupon amount, in accordance with the table below:

		Maturity date brack	Multiplie r (%)	Assumed interest rate change (%)	
		Group A			
(1)	(2)	(3)	(4)	(5)	(6)
	1	up to 1 month	up to 1 month	0.00	-
First	2	1-3 months	1-3 months	0.20	1.00
	3	3-6 months	3-6 months	0.40	1.00

	4	6-12 months	6-12 months	0.70	1.00
	-				
	5	1-2 years	1-1.9 years	1.25	0.90
Second	6	2-3 years	1.9-2.8 years	1.75	0.80
	7	3-4 years	2.8-3.6 years	2.25	0.7,5
	8	4-5 years	3.6-4.3 years	2.75	0.75
	9	5-7 years	4.3-5.7 years	3.25	0.70
Third	10	7-10 years	5.7-7.3 years	3.75	0.65
	11	10-15 years	7.3-9.3 years	4.50	0.60
	12	15-20 years	9.3-10.6 years	5.25	0.60
	13	more than 20 years	10.6-12 years	6.00	0.60
	14		12-20 years	8.00	0.60
	15		more than 20 years	12.50	0.60

## 12) in Appendix No. 11:

### a) § 2 shall be worded as follows:

"§ 2. The capital requirement on settlement risk and delivery risk is calculated as the sum of capital requirements calculated in accordance with § 3 and § 4 for operations whose contractual settlement date has elapsed, save for transactions with a granted or received repurchase warranty and the transaction of extending or accepting security or commodity loans.",

# b) § 4 shall be worded as follows:

- "§ 4. The capital requirement on the risk of delivery of instruments for settlement at a later date is calculated for operations in which the underlying instruments are foreign currencies, commodities and securities, including debt securities, in accordance with the following rules:
  - 1) the capital requirement is calculated in the following cases:
    - a) if the bank paid for the securities, foreign currency or commodities before their receipt or delivered the securities, foreign currency or commodities before receiving payment for them,
    - b) for cross-border transactions, if one or more days have elapsed since that payment or delivery was made;
  - 2) the capital requirement is calculated for each operation, with the stipulation that:
    - a) until the date of the first payment or delivery stipulated in the agreement the capital requirement is zero,
    - b) from the date of the first payment or delivery stipulated in the agreement until the lapse of four days following the second payment or delivery the capital requirement is calculated in accordance with the principles set forth in Appendix No. 4 to the Resolution,
    - c) from five days following the second payment or delivery stipulated in the agreement until the expiry of the transaction own funds are decreased by

- the amount paid or value of the instruments delivered, increased by the value of the current positive exposure;
- 3) in the case referred to in point 2 letter b, banks using the internal ratings method to calculate the capital requirement on credit risk may:
  - a) assign PD ratios on the basis of an external creditworthiness evaluation, for counterparties for whom there are no other exposures in the banking portfolio,
  - b) if the bank uses its own LGD ratios, subject to point 4, it may assign the LGD ratios set forth in § 89 of Appendix No. 5 to the Resolution, as long as this approach is used consistently with respect to all exposures on the delivery of instruments for settlement at a later time;
- 4) in the case referred to in point 2 letter b, a bank using the internal ratings method to calculate the capital requirement on credit risk may use the risk weights used for calculating the capital requirement on credit risk using the standard method or apply the 100 per cent risk weight, as long as this approach is applied consistently with respect to all exposures on deliveries of securities for settlement at a later time;
- 5) if the amount of the positive exposure resulting from a delivery transaction with a later settlement date is irrelevant/negligible, the bank may apply the 100 per cent risk weight to such an exposure.",
- c) in § 7, in point 1, letter c shall receive the following wording:
  - "c) in the case of credit risk swap transactions, a bank whose exposure on the swap is a long position on the underlying instrument, may apply the 0 per cent value to the potential future credit exposure, unless the transaction is subject to dissolution procedure as of the time of declaring the insolvency of an entity whose exposure under the swap is a short position in the underlying instrument, even if there was no default under the underlying instrument, in which case the maximum amount of the potential future credit exposure of the bank does not exceed the amount of the bonuses that were not yet paid to the bank by the entity,";

# 13) in Appendix No. 12:

a) the title shall be worded as follows:

"CALCULATING THE CAPITAL REQUIREMENT FOR EXCEEDING THE LIMIT OF CONCENTRATION OF EXPOSURES",

- c) § 3-5 shall be worded as follows:
  - "§ 3. The total capital requirement for exceeding the limit of concentration of exposure is calculated in accordance with § 4-8 or § 9, depending on the scale of the bank's activity.
  - § 4. A bank's exposure to a given entity in a trading portfolio includes:
    - 1) the excess of long net positions over short net positions in all underlying instruments issued by that entity, resulting from operations in the trading

- portfolio, calculated in accordance with the principles set forth in Appendix No. 3 to the Resolution;
- 2) net position in guaranteed issues of that entity's securities, calculated in accordance with the principles set forth in § 10 and 11 of Appendix No. 2 to the Resolution;
- 3) exposure to that entity resulting from the operations referred to in Appendix No. 11 to the Resolution, understood to mean the sum of:
  - a) the product of the sum of the capital requirements set forth in § 1-3 of Appendix No. 11 to the Resolution and the number 12.5,
  - b) the sum of the balance sheet equivalents of the operations referred to in § 4 and 5 of Appendix No. 11 to the Resolution.
- § 5. The capital requirement for exceeding the limit of concentration of exposures to a given entity is calculated:
  - 1) in accordance with § 6 if all the requirements set forth in § 6 point 19 of the Resolution on the limit of concentration of exposures and the limit of large exposures are met;
  - 2) in accordance with § 7 if any of the requirements set forth in § 6 point 19 of the Resolution of the Polish Financial Supervision Authority on the limit of concentration of exposures and the limit of large exposures is not met.",
- c) in § 6, in point 1, the first sentence shall receive the following wording:
  - "1) from a bank's exposure to a given entity in a trading portfolio, components are separated with a total value equal to the excess of exposure beyond the limits set forth in Article 71 Sec. 1, 1a and 1b of the Banking Law (concentration excess), which were assigned the highest:",
- d) § 8 and § 9 shall be worded as follows:
  - "§ 8. The total capital requirement for exceeding the limit of concentration of exposures is calculated as the sum of capital requirements for exceeding the limit of concentration of exposures to individual entities, calculated:
    - 1) in accordance with § 6, for exposures referred to in § 5 point 1,
    - 2) in accordance with § 7, for exposures referred to in § 5 point 2.
  - § 9. The total capital requirement for exceeding the limit of concentration of exposures is the sum of excesses of the bank's exposures to individual entities in the trading portfolio beyond the limits set forth in Article 71 Sec. 1, 1a and 1b of the Banking Law.";
- 14) § 11 of Appendix No. 16 shall be worded as follows:
  - "§ 11. The balance sheet equivalent of an off-balance sheet transaction is calculated as the product of the nominal amount of the off-balance sheet transaction or, in the case of options, the value of its delta equivalent, and the credit conversion ratio assigned to that transaction in accordance with table 3.

Table 3

		Original maturity <sup>2</sup>			
	Underlying instrument <sup>1</sup>	Up to 1 year	1-2 years	additionally – for each commenced year beyond 2 years <sup>3</sup>	
		(%) <sup>4</sup>			
	(1)	(2)	(3)	(4)	
1.	Interest rates (debt securities)	0.50	1.00	1.00	
2.	Foreign currency and gold	2.00	5.00	3.00	

<sup>&</sup>lt;sup>1</sup> Underlying instruments denominated in a foreign currency are treated as foreign currency.

## 15) in Appendix No. 17, in § 17, in Sec. 4, point 1 shall read as follows:

"1) are admitted to trading on one of the recognised stock exchanges listed in § 9 Sec. 1 of Appendix No. 8 to the Resolution;";

### 16) in Appendix No. 18:

- a) the following § 5a shall be added after and below § 5, in the following wording:
  - "§ 5a. 1. As defined in this Appendix:
    - 1) resecuritisation means securitisation for which the risk involved in the underlying exposure pool is divided into tranches and at least one of the underlying exposures is a securitisation position;
    - 2) resecuritisation position means exposure on resecuritisation.
  - 2. The terms referred to in Sec. 1 have the meaning set forth herein also in other appendices to this Resolution.",

### b) § 30 shall be worded as follows:

"§ 30. A sponsor or originator bank, which, for the purpose of securitisation, took advantage of the provisions of § 20-21 in order to calculate the amount of risk-weighted exposures or sold instruments from its trading portfolio an SSPE, so that it is no longer required to calculate the capital requirements for these instruments, cannot, taking into account mitigation of potential or actual losses for investors, provide credit enhancement for the securitisation that goes beyond its contractual obligations.",

<sup>&</sup>lt;sup>2</sup> From the date of concluding a transaction until its agreed maturity date, but in the case of interest rate transactions, the bank may also make classifications on the basis of the residual maturity date.

<sup>&</sup>lt;sup>3</sup> Up to 100% total for the entire duration of the transaction.

<sup>&</sup>lt;sup>4</sup> For transactions with multiple exchanges of their underlying instruments (or their fair values), the product risk weights are multiplied by the number of such exchanges remaining to be effected in accordance with the terms of the transactions.";

- c) § 50 and § 51 shall be worded as follows:
  - "§ 50. 1. Where a bank has two or more overlapping positions in a securitisation, it will be required, to the extent that they overlap, to include in its calculation of risk-weighted exposure amounts only the position or portion of a position producing the higher risk-weighted exposure amounts. The bank may also recognise such overlap of capital charges on specific risk for positions in a trading portfolio and capital charges for positions in a banking portfolio, provided that the bank is able to calculate and compare the capital charges for these positions. Overlapping of positions means that the positions, wholly or partially, represent an exposure to the same risk, such that to the extent of the overlap there is a single exposure.
  - 2. If § 6 point 4 of Appendix No. 15 to the Resolution applies to the position in ABCPs, the bank may, with the approval of the Polish Financial Supervision Authority, apply the risk weight assigned to the liquidity facility for the purpose of calculating the amount of risk-weighted exposure for a commercial paper, if the liquidity facility is pari passu with the ABCP, so that they create overlapping positions and 100% ABCPs issued under the programme are covered by the liquidity facility.
  - § 51. The amount of risk-weighted exposure resulting from the securitisation or resecuritisation with an external credit rating is calculated, subject to § 53, by applying to the exposure value the risk weight associated with the credit quality step assigned by the Polish Financial Supervision Authority pursuant to Article 128 Sec. 4 of the Banking Law to the specific credit rating assessment, as set out in table 1.

Table 1

Credit quality step	1	2	3	4 (applies solely to creditworthiness assessments other than short-term ratings)	All other credit quality steps
Securitisation positions	20%	50%	100%	350%	1250%
Resecuritisation positions	40%	100%	225%	650%	1250%

### d) § 77 and § 78 shall be worded as follows:

"§ 77. The appropriate conversion figure is determined in accordance with the level of actual three month average excess spread, in accordance with table 2.

Table 2

Securitisations subject to a	Securitisations subject to a
controlled early	non-controlled early
amortisation provision	amortisation provision

Three month average excess spread	Conversion figure	Conversion figure
Above level A	0%	0%
Level A	1%	5%
Level B	2%	15%
Level C	10%	50%
Level D	20%	100%
Level E	40%	100%

§ 78. In Table 2, Level A means levels of excess spread less than 133,33% of the trapping level of excess spread but not less than 100% of that trapping level, Level B means levels of excess spread less than 100% of the trapping level of excess spread but not less than 75% of that trapping level, Level C means levels of excess spread less than 75% of the trapping level of excess spread but not less than 50% of that trapping level, Level D means levels of excess spread less than 50% of the trapping level of excess spread but not less than 25% of that trapping level and Level E means levels of excess spread less than 25% of the trapping level of excess spread.",

## e) § 94 and § 95 shall be worded as follows:

"§ 94. According to the ratings based method, the amount of risk-weighted exposure for a securitisation or resecuritisation position with an external credit rating is calculated by applying to the value of the exposure the risk weight associated with the credit quality step assigned to a specific external credit rating in the Resolution of the Polish Financial Supervision Authority referred to in Article 128 Sec. 4 of the Banking Law and multiplied by 1.06. The risk weights set out in Table 3 are applied to securitisation and resecuritisation positions other than ones with external short-term credit assessments. The risk weights set out in Table 4 are applied to securitisation and resecuritisation positions with external short-term credit assessments.

Table 3

Credit	Secu	ritisation posi	Resecuritisat	tion positions	
quality	A	В	C	D	E
step					
1	7%	12%	20%	20%	30%
2	8%	15%	25%	25%	40%
3	10%	18%	35%	35%	50%
4	12%	20%	35%	40%	65%
5	20%	35%	35%	60%	100%
6	35%	50%	50%	100%	150%
7	60%	75%	75%	150%	225%

8	100%	100%	100%	200%	350%
9	250%	250%	250%	300%	500%
10	425%	425%	425%	500%	650%
11	650%	650%	650%	750%	850%
All other					
credit					
assessments			1250%		
and no					
external					
credit					
assessment					

Table 4

Credit quality step	Securitisation positions			<b>Resecuritisation positions</b>	
	A	В	C	D	E
1	7%	12%	20%	20%	30%
2	12%	20%	35%	40%	65%
3	60%	75%	75%	150%	225%
other external					
credit					
assessments			1250%		

§ 95. The risk weights in column C of Table 3 and Table 4 are applied where the securitisation position is not a resecuritisation position where the effective number of exposures securitised is less than six. As regards the other securitisation positions that are not resecuritisation positions, the risk weights set out in column B are applied unless a given position is the most senior tranche of a securitisation, in which case the risk weights set out in column A apply. As regards resecuritisation positions, the risk weights set out in column E are applied, unless a given resecuritisation position is the most senior tranche of a resecuritisation and none of the underlying exposures constituted in itself a resecuritisation exposure, in which case the risk weights set out in column D apply. In determining whether a given tranche is the most senior, it is not required to include the amounts due on interest rate-based foreign currency derivative transactions, due payments or other similar payments.",

# f) § 96 shall be repealed,

### g) § 97 shall be worded as follows:

"§ 97. 1. In calculating the effective number of exposures securitised, multiple exposures to a one obligor must be treated as one exposure.

2. The effective number of exposures is calculated as:

$$N = \frac{\left(\sum_{i} EAD_{i}\right)^{2}}{\sum_{i} EAD_{i}^{2}}$$

where EAD<sub>i</sub> represents the sum of the exposure values of all exposures to the ith obligor, where i stands for the ordinal number of obligor.

If portfolio share associated with the largest exposure  $C_1$  is available, the bank may compute N as  $1/C_1$ .",

- h) § 98 shall be repealed,
- i) § 100 shall be worded as follows:

"§ 100. Subject to the provisions of § 106-108, the risk weight for securitisation positions in accordance with the supervisory formula method is applied in accordance with § 101. However, the risk weight cannot be lower than 20 per cent for resecuritisation positions and 7 per cent for all other securitisation positions.",

- j) in § 101, Section 1 shall be worded as follows:
- "1. Subject to the provisions of § 106-108, the risk weight to be applied to the exposure amount shall be

$$S[x] = \begin{cases} x & \text{if } x \leq \text{Kirbr} \\ \text{Kirbr} + \text{K[x]} - \text{K[Kirbr]} + (d \cdot \text{Kirbr/} \omega)(1 - e^{\omega(\text{Kirbr} - x)/\text{Kirbr}}) & \text{if } \text{Kirbr} < x \end{cases}$$

where:

$$h = (1 - Kirbr / ELGD)^{N}$$

$$c = Kirbr / (1 - h)$$

$$v = \frac{(ELGD - Kirbr) Kirbr + 0,25 (1 - ELGD) Kirbr}{N}$$

$$f = \left(\frac{v + Kirbr^{2}}{1 - h} - c^{2}\right) + \frac{(1 - Kirbr) Kirbr - v}{(1 - h) \tau}$$

$$g = \frac{(1 - c)c}{f} - 1$$

$$a = g \cdot c$$

$$b = g \cdot (1 - c)$$

$$d = 1 - (1 - h) \cdot (1 - Beta [Kirbr; a, b])$$

$$K[x] = (1 - h) \cdot ((1 - Beta [x; a, b]) x + Beta [x; a + 1, b] c)$$

$$\tau = 1000$$

$$\omega = 20$$

Beta [x; a, b] refers to the cumulative beta distribution with parameters a and b evaluated at x. T (the thickness of the tranche in which the position is held) is measured as the ratio of (a) the nominal amount of the tranche to (b) the sum of the exposure values of the exposures that have been securitised. For the purposes of calculating T the exposure value of a derivative instrument listed in § 31 of Appendix No. 2 to the Resolution, shall, where the current replacement cost is not a positive value, be the potential future credit exposure calculated in accordance with Appendix No. 16 to the Resolution.

Kirbr is the ratio of (a) Kirb to (b) the sum of the exposure values of the exposures that have been securitised. Kirbr is expressed in decimal form (e.g. Kirb equal to 15% of the pool would be expressed as Kirbr of 0.15).

L (the credit enhancement level) is measured as the ratio of the nominal amount of all tranches subordinate to the tranche in which the position is held to the sum of the exposure values of the exposures that have been securitised. Capitalised future income shall not be included in the measured L. Amounts due by counterparties to derivative instruments listed in § 31 of Appendix No. 2 to the Resolution that represent tranches more junior than the tranche in question may be measured at their current replacement cost (without the potential future credit exposures) in calculating the enhancement level.

N is the effective number of exposures calculated in accordance with § 97. In the case of a resecuritisation the bank takes into account the number of securitisation exposures in a resecuritised pool, rather than the number of underlying exposures in underlying pools from which the underlying securitisation exposures are derived.

ELGD, the exposure-weighted average loss-given-default, is calculated as follows

$$ELGD = \frac{\sum_{i} LGD_{i} \cdot EAD_{i}}{\sum_{i} EAD_{i}}$$

where LGDi represents the average LGD associated with all exposures to the ith obligor (where i is the ordinal number of obligor), and LGD is determined in accordance with the internal ratings method for calculating the capital requirement on credit risk, as set out in Appendix No. 5 to the Resolution.

In the case of resecuritisation, an LGD of 100% shall be applied to the securitised positions.

When default and dilution risk for purchased receivables are treated in an aggregate manner within a securitisation (e.g. a single reserve or over-collateralisation is available to cover losses from either source), the LGD<sub>i</sub> input shall be constructed as a weighted average of the LGD for credit risk and the 75% LGD for dilution risk. The weights shall be the stand-alone capital charges for credit risk and dilution risk respectively.",

## k) § 121 shall be worded as follows:

"§ 121. A bank may not include the amount of risk-weighted exposure of a securitisation position, to which the risk weight of 1250% is assigned, in the calculations, provided it deduced the value of exposure of such position from own funds according to § 3 Sec. 1 point 5 of the Resolution on own funds.";

# 17) in Appendix No. 19:

- a) § 4 shall be worded as follows:
  - "§ 4.1. The value at risk model may be applied by banks for the purpose of calculating capital requirements on specific risk associated with commercial positions in debt and equity securities if, in addition to the requirements referred to in § 3, the following requirements are met:
    - 1) concerning the model:
      - a) the model explains past price fluctuations within the portfolio,
      - b) the model includes concentration in terms of portfolio size and structure changes,
      - c) the model is resistant to unfavourable market conditions,
      - d) the model is tested as part of a verification taking into account an assessment of whether specific risk was thoroughly included,
      - the model accounts for the risk associated with the type of instrument, i.e. the bank should demonstrate that the internal model is sensitive to idiosyncratic differences between similar but not identical positions,
      - f) the model accounts for the risk of unfavourable developments;
    - 2) regarding the bank:
      - a) using the model, the bank makes a conservative assessment of the risk associated with a lower liquidity position or a limited pricing transparency position, adopting feasible market growth scenarios,
      - b) the model makes use of accurate and complete data,

- c) in situations where data are insufficient or fail to reflect the actual volatility of a position or portfolio, estimates of market indices may be used, provided that they are appropriately conservative;
- 3) the bank uses new technologies and market practices as they develop.
- 2. In calculating the capital requirement on specific risk using a model, a bank may determine to exclude from these calculations positions concerning securitisation or nth-to-default credit derivatives, for which capital requirements are met with respect to the types of risk associated with positions as set out in appendices nos. 2, 8 and 9 to the Resolution, save for those positions that are subject to the method set out in § 4i.
- 3. Banks are not expected to account for the risk of default and migration with respect to market debt securities in their model if it accounts for the risk by meeting the requirements set out in § 4 Sec. 4-9 and § 4a-4h.
- 4. A bank that is subject to the provisions of § 4 Sec. 1-3 with respect to market debt securities should have a method that allows it to include in calculating capital requirements the risk of default and the risk of migration with respect to positions of its trading portfolio which constitute incremental risk in the case of the types of risk included in the measurement of value at risk referred to in § 4 Sec. 1-3.
- 5. The bank demonstrates that its method meets the prudential standards comparable to the standards applicable to the method set out in Appendix No. 5 to the Resolution, assuming that the risk level is constant and adjustments are made as necessary to account for the effect of liquidity, concentration, hedging and optionality.
- 6. The incremental risk incorporation method in the case of risk of default and risk of migration includes all positions subject to the calculation of the capital requirement on specific interest rate risk but does not include positions associated with securitisation or nth-to-default credit derivatives.
- 7. Subject to the approval of the Polish Financial Supervision Authority, the bank may consistently account for all the positions in the equities listed on regulated markets and positions in derivatives, accounting for which is consistent with the method of internal risk measurement and management by the bank.
- 8. The method accounts for the effect of the correlation between instances of default and migration.
- 9. The effect of the differentiation between instances of default and migration, on the one hand, and other market risk factors, on the other hand, is not taken into account.
- a) the following § 4a-4i shall be added after and below § 4, in the following wording:
  - "§ 4a.1. The method of accounting for incremental risk in the case of risk of default and migration measures the loss resulting from default and internal or external rating changes in accordance with the confidence bracket of 99.9% within an equity horizon of 1 year.
  - 2. Correlation assumptions are based on a thorough analysis of objective data.
  - 3. The method referred to in Sec. 1 should duly incorporate the concentrations of an issuer or issuers.
  - 4. Concentrations that may arise under stress conditions within a single product class or a greater number of product classes.

- 5. The method should be based on the assumption of a consistent risk level over a oneyear equity horizon, which implies that each position or group of positions in a trading portfolio for which there was a default or migration during their liquidity horizon maintains the original risk level at the end of the liquidity horizon.
- 6. Alternatively, the bank may decide to apply systematically the assumption with respect to maintaining a consistent position for a period of one year.
- 7. Liquidity horizons are determined on the basis of the period prescribed for the sale of a position or hedging against all material types of pricing risks that apply under stress market conditions, with particular emphasis on the size of a position.
- 8. Liquidity horizons reflect actually applied practices and experiences, of both systematic and idiosyncratic type, for the periods of the occurrence of stress conditions.
- 9. A liquidity horizon is measured in accordance with conservative assumptions and should be long enough for the sale or hedging transaction not to materially affect the sale or hedging price.
- 10. In determining the appropriate liquidity horizon for a single position or group of positions, the lower, three-month threshold applies.
- 11. In determining the relevant liquidity horizon for a single position or group of positions, internal policies of the bank regarding valuation adjustments and past due position management are taken into consideration.
- 12. If the bank determines liquidity horizons not for individual positions, but for groups of positions, the criteria used to define groups of positions should be determined in a manner that specifically reflects liquidity differences.
- 13. Liquidity horizons should be longer for positions characterised by concentration, reflecting the longer period of time necessary to liquidate these positions.
- 14. The liquidity horizon for the securitisation warehouse should reflect the period of time required under stress market conditions to establish, sell and securitise assets or to hedge important risk factors.
- § 4b.1. In order to account for incremental risk, in the case of the risk of default and the risk of migration, the method used by the bank may include hedging.
- 2. Balancing of positions is permitted if long and short positions concern the same financial instrument.
- 3. The effects of hedging or diversification associated with long and short positions concerning different instruments or securities of the same obligor and with long and short positions concerning various issuers may be accounted for solely using specific modelling of long and short gross positions with regard to various instruments.
- 4. The bank accounts for the effect of the risk that may arise during the time between the date of maturity of the collateral and the liquidity horizon, and the possibility of the occurrence of a material underlying risk in position hedging strategies, by products, senior standing in the capital structure, internal or external rating, maturity date and other differences before instruments.
- 5. The bank takes into account collateral only to the extent that the collateral may be maintained even if there is a likelihood of occurrence of a credit event or another similar event.
- 6. For trading portfolio positions hedged using dynamic position hedging strategies (hedging strategies), changes in the hedging structure may be recognised in the liquidity horizon of the hedged position, provided that the bank:

- 1) decides to model the changes in the hedging structure consistently throughout the group of trading portfolio positions;
- 2) has demonstrated that including the structural changes results in improved risk measurement; and
- 3) has demonstrated that markets for instruments constituting collateral have sufficient liquidity to enable such changes in collateral structure even during times of stress conditions. Possible residual risk resulting from dynamic position hedging strategies (hedging strategies) must be accounted for in the capital charge.
- § 4c.1. This method of accounting for incremental risk, in the case of risk of default and risk of migration, reflects the non-linear effects of options, structured credit derivatives and other positions characterised by material non-linearity in the area of pricing changes.
- 2. The bank also duly takes into account the amount of risk of the model inherently associated with pricing risk valuation and estimation with respect to such products.
- **§ 4d.** The method of accounting for incremental risk in the case of risk of default and risk of migration relies on objective and current data.
- § 4e.1. As part of an independent review of the risk measurement system and model validation, in accordance with the requirements set forth herein, the bank conducts the following activities in connection with the method of accounting for incremental risk in the case of risk of default and risk of migration:
  - 1) verifies whether their method of modelling correlation and pricing changes is appropriate for the bank's portfolio, with particular emphasis on systematic risk choice and weight;
  - 2) carries out a variety of stress tests, including a sensitivity analysis and a what-if analysis to evaluate the justifiability of the approach in terms of quality and quantity, in particular with respect to the method of accounting for concentration. The tests are not limited to the scope of events that occurred in the past;
  - 3) applies appropriate quantitative validation, including appropriate internal reference values for the purposes of modelling.
- 2. The method of accounting for incremental risk in the case of risk of default and risk of migration is consistent with the internal risk management methods applied by the bank for the purpose of identifying and measuring types of commercial risk and managing that risk.
- **§ 4f.** The bank documents its method of accounting for incremental risk for the risk of default and risk of migration so that its correlation assumptions and other assumptions for the purposes of modelling are transparent for the relevant authorities.
- § 4g.1. If the bank applies the method of accounting for incremental risk in the case of risk of default and risk of migration, which is not consistent with all the requirements set out in § 4 Sec. 4-9 and § 4a-4i, but complies with the internal methods applied by the bank for the purpose of identifying and measuring risk and managing the risk, the capital requirement calculated in accordance with the method used by the bank cannot be lower than if it were calculated using a method that fully complies with the requirements set out in § 4 Sec. 4-9 and § 4a-4i.

- 2. No less than once a year, the Polish Financial Supervision Authority checks whether the bank applying the method referred to in Sec. 1 complies with the requirements referred to in this provision.
- **§ 4h.** No less than once a week, the bank makes the calculations required under the method selected in order to account for incremental risk in the case of risk of default and risk of migration.
- § 4i. 1. The Polish Financial Supervision Authority approves the application of an internal method of calculating the additional capital requirement, instead of the capital requirement for a correlation trading portfolio in accordance with § 14a of Appendix No. 9 to the Resolution, provided that all the requirements set out herein have been met.
- 2. The method set forth in Sec. 1 duly accounts for all types of pricing risk with respect to the confidence bracket of 99.9% within a one-year capital horizon, assuming a constant risk level, and in relevant cases adjustments are made to account for the effect of liquidity, concentration, hedging and optionality.
- 3. The bank may apply the method referred to herein to any positions managed together with the positions in a correlation trading portfolio, and may then exclude these positions from the method required under § 4 Sec. 4 and 5.
- 4. The capital requirement amount set out in Sec. 1 for all types of pricing risk is not lower than 8% of the capital requirement that would be calculated in accordance with § 14a of Appendix No. 9 to the Resolution for all positions included in the capital requirement for pricing risk.
- 5. In particular, the following types of risk should be duly accounted for:
  - 1) cumulative risk resulting from numerous instances of default, including arrangement by significance of the instances of default, in the tranche products;
  - 2) credit spread risk, including the gamma and cross-gamma risk;
  - 3) volatility of (implied) market correlations, including cross-correlation effects between spreads and correlations;
  - 4) basis risk, including both:
    - a) the basis between index spread and spread of the underlying simple instruments, and
    - b) the basis between the (implied) market correlation of the index and the correlation of bespoke portfolios;
  - 5) volatility of the rate of recovery as it is related to the fact that rates of recovery tend to affect tranche prices; and
  - 6) to the extent that extensive risk measurement takes into account the benefits of dynamic hedging, hedge slippage and the potential cost of changing the structure of the hedges.
- 6. For the purpose of this paragraph, the bank gathers sufficient market data to guarantee that it will fully account for material risk of exposure in its internal method in accordance with the standards set forth herein, that, through past result verification or other methods, it demonstrates that its risk measurements can duly account for past product price fluctuations, and that it ensures that it is possible to separate the positions which it is authorised to include in the capital requirement in accordance with this paragraph, from the positions for which it does not have such authorisation.

- 7. As regards the portfolios referred to herein, the bank regularly applies the agreed stress test simulations.
- 8. Such stress test scenarios assess the effect of stress conditions on the ratio of default, rate of recovery, credit spreads and correlations concerning the appropriate profit centres (desks) of the financial result of a correlation trading portfolio.
- 9. The bank applies such stress test simulations no less than once a week and provides the Polish Financial Supervision Authority, no less than once a quarter, with a report on the results of such simulations, which also include comparisons with the bank's capital requirement, as stated herein.
- 10. Any instances of material shortages in the capital charge recorded in a stress test are duly reported to the Polish Financial Supervision Authority.
- 11. On the basis of the stress test results, the Polish Financial Supervision Authority may, pursuant to Article 138a of the Banking Law, determine to impose on the bank an additional capital requirement with respect to the correlation trading portfolio.
- 12. No less than once a week, the bank calculates the capital requirement to account for all types of pricing risk.",

### c) in § 5:

- in point 2, letter a shall be worded as follows:
  - "a) the equivalent of a ten-day period of maintaining a position, with the stipulation that the bank may use VaR measurements calculated in accordance with shorter periods of maintaining a position, scaled up to 10 days, for instance through the square root of time; banks using this method provide periodical justifications of its accuracy to the Polish Financial Supervision Authority,",
- point 4 shall be worded as follows:
  - "4) monthly update of the data collection.",
- a) the following § 5a-5c shall be added after and below § 5, in the following wording:
  - "§ 5a. 1. The bank calculates "value at risk under stress conditions" on the basis of the measurement of the value at risk of the current portfolio for a ten-day period of maintaining the position, with a materiality threshold of 0.01, and the input parameters for the value at risk model are scaled up or down in accordance with past data from a continuous twelve-month period of stress conditions, appropriate for the institution's portfolio risk profile.
  - 2. The choice of the past data must be approved by the Polish Financial Supervision Authority and is subject to annual review by the bank.
  - 3. The bank calculates the value at risk under stress conditions at least once a week.
  - § **5b.** The bank meets daily the capital requirement expressed as the sum of the values in point 1 and 2, and the bank that uses a model to calculate the capital requirement for specific position risk meets the capital requirement expressed as the sum of the values in point 3 and 4;
    - 1) the higher of:

- a) value at risk on the preceding day, calculated in accordance with  $\S$  5 (VaR<sub>t-1</sub>), and
- b) average of the daily measurements of value at risk, calculated in accordance with  $\S$  5 every day over the past 60 business days (VaR<sub>avg</sub>), multiplied by multiplier (m<sub>c</sub>);
- 2) the higher of:
  - a) last available value at risk under stress conditions, calculated in accordance with § 5a (sVaR<sub>t-1</sub>), and
  - b) average of the measurements of value at risk under stress conditions, calculated in the manner and frequency set out in  $\S$  5a over the past 60 business days (sVaR<sub>avg</sub>), multiplied by multiplier (m<sub>s</sub>);
- 3) capital requirement calculated in accordance with appendices No. 2, 8 and 9 to the Resolution for the position risk with respect to securitisation positions and nth-to-default credit derivatives in the trading portfolio, save for those included in the capital requirement in accordance with § 4i;
- 4) the higher of the most recent additional default and migration risk measurement, calculated in accordance with § 4 Sec. 4 and 5 or the average measurement of that risk from the last twelve weeks, and, in appropriate cases, the higher of the most recent measurement of all types of pricing risk, calculated in accordance with § 4i or the average measurement of these types of risk from the last twelve weeks.
- § 5c. Banks also carry out reverse stress tests, which consist in determining a materially negative result, and then determining the reasons and consequences that might lead to it, in particular, a scenario or set of scenarios.",
- e) § 9 shall be worded as follows:
  - "§ 9.1. The risk measurement model accounts for a sufficient number of risk factors that should depend on the scope of the bank's activity in relevant markets. If a risk factor is included in the bank's valuation model, but is not included in the risk measurement model, the bank should have a valid justification of such omission.
  - 2. The risk measurement model should also include the non-linearity aspect in the case of options and other products, as well as the risk of correlation and basis risk.
  - 3. In the case of applying substitute market figures for risk factors, such figures should be tested and proven effective with respect to the position maintained.
  - 4. Furthermore, with respect to each type of risk, the requirements set out in § 10-13 also apply.",
- f) § 19 shall be repealed,
- g) § 20 and § 21 shall be worded as follows:
  - "§ 20. Correction ratios (m<sub>c</sub>) and (m<sub>s</sub>) are determined in accordance with the table below on the basis of the verification of past results referred to in § 14, depending on number n which constitutes the number of days in the verification period on which the actual loss on underlying positions covered by the value at risk model exceeded the value at risk assigned for a given business day:

Number of times exceeded n	Correction ratios (m <sub>c</sub> ) and (m <sub>s</sub> )	
No more than 4	3.00	
5	3.40	
6	3.50	
7	3.65	
8	3.75	
9	3.85	
10 or more	4.00	

- § 21. For each instance of exceeding the above value, which results in an increase in the correction ratios  $(m_c)$  and  $(m_s)$ , identified by the bank in the verification process, the bank will immediately, but no later than five business days after the completion of the verification, notify the Polish Financial Supervision Authority of the exceeded values identified.";
- 18) in Appendix No. 21, in § 32, point 2 is worded as follows:
  - "2) admitted to trading on regulated stock exchanges in the countries of the indices listed in § 9 Sec. 1 of Appendix No. 8 to the Resolution;".
- § 2. In Resolution 386/2010 of the Polish Financial Supervision Authority of 17 December 2008 on determining liquidity standards binding on banks (Official Journal of the PFSA No. 8, item 40) in § 1 in Sec. 2, point 23 shall be worded as follows:
  - "23) liquid and diversified equities securities referred to in § 9 Sec. 2 of Appendix No. 8 of the Resolution on the scope and detailed principles of determining capital requirements for each type of risk;".
- § 3. This Resolution enters into force on 31 December 2011.