EQUITY EQUITY DER - METHODOLOGIES FOR DETERMINING INITIAL MARGINS

MANUAL

Version 2.0 as of April 2021

CC&G

A EURONEXT COMPANY

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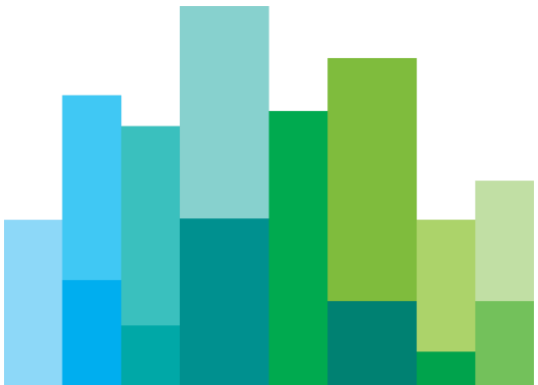
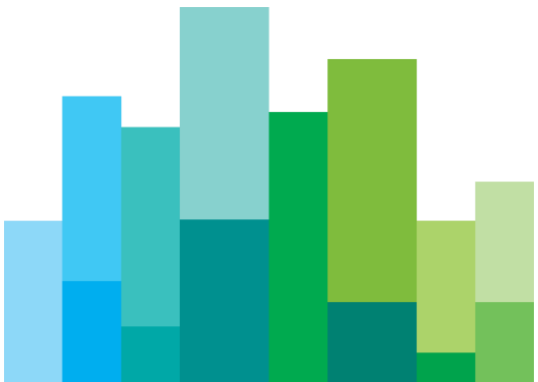
EXECUTIVE SUMMARY



The present document describes the methodology used to calculate Initial Margin for Equity and Equity Derivatives Section. Products: equities, warrants, convertible bonds, rights issues and shares of Closed-End Funds (CEF), Exchange Traded Funds (ETF), Exchange Traded commodities traded on MTA Markets - and derivatives contracts traded on IDEM (equities and index futures and options, futures on dividend).

2. MARGIN CALCULATION



MARS[1] methodology used by CC&G starts organizing all securities contracts - equities, warrants, convertible bonds, rights issues and shares of Closed-End Funds (CEF) and of Exchange Traded Funds (ETF) - and derivatives contracts – futures and options traded on IDEM - relating to the same underlying asset into "class groups". Where the underlying assets for two or more class groups exhibit close price correlation, those class groups can be organized into larger "product groups".

The positions comprising class groups and product groups are margined as integrated portfolios, which are evaluated unitarily and hence subjected to Initial Margins that are also unitarily calculated.

The risk associated with an Integrated Portfolio is assessed by hypothesizing that the shares prices change daily by a maximum percentage amount, defined as the **Margin Interval**, in a way that is adverse to the Clearing Member's position and CC&G – in case the Clearing Member is insolvent – must liquidate the positions in the most unfavourable reasonably conjecturable market conditions within the Margin Interval.

2.1 Types of Initial Margin requirements

The methodology adopted foresees the following types of Initial Margins:

a) ***Mark-To-Market Margin***: calculated for securities positions and for stock futures positions[2] which have been expired[3] and have not yet been settled. It has the purpose of revaluating the theoretical liquidation gains/losses to current market prices (Mark-To-Market). For equity positions it represents a theoretical credit for the clearing member that has bought/sold shares below/above current market prices, assumed equal to the reference price. On the other side, it represents a theoretical debit for the clearing member that has bought (sold) shares above (below) current market prices. For stock Future positions it represents a theoretical credit (debit) for the member who bought the futures if the settlement price is lower (higher) than the current market value, set equal to the reference price of the of the underlying, and vice versa for the member that sold the futures.

b) **Additional Margin**: calculated for all securities positions, option positions and non-spread futures positions. It has the purpose of evaluating the maximum loss reasonably possible in the hypothesis of market price fluctuations of the underlying asset. If the risk margin component of a particular product group is less than a calculated minimum margin for the product group, then the minimum margin will be taken as the additional margin.

c) **Premium Margins**: calculated only for stock-style options. It has the purpose of

[1] Margining System.
[2] The mark-to-market margin is applied to physically delivered Stock Futures.
[3] On the expiration day both Variation Margins (positions re-valued at the settlement price determined at the end of trading at 9.05 a.m.), and Mark-to-Market Margins, (positions re-valued from the settlement price to the reference price of the underlying asset at the end of the day) are calculated.

revaluating the theoretical liquidation costs/revenues at the current market values (market-to-market) and therefore represents a theoretical credit[4] for the options buyer and a theoretical debt for the seller. It is equal to the current market value of the option itself, assumed equal to the closing price that is calculated daily.

d) **Futures Straddle Margin**: calculated only for futures positions having opposite sign on different maturities and relating to the same underlying asset (futures straddle positions). This margin is equivalent to the number of futures straddle positions multiplied by the futures straddle margin set by CC&G.

Moreover, in order to apply a significant Initial Margin even to those portfolios the ordinary Initial Margin of which is close to or equivalent to zero, a **Minimum Margin** is defined as well. Among other things, its purpose is to take into account the bid-offer spread existing on the market in the hypothesis that the positions must be liquidated.

2.2 Netting long and short positions

The first step in calculating margin requirements is to net long and short positions in the same series of options (contracts with the same underlying (symbol), put or call, expiry and strike price) or futures (contracts with the same underlying (symbol) and expiry) for each class group (contracts with the same underlying (symbol)). Only the net long or short position in each series is counted for margin purposes.

Net short call positions and net short futures positions are further reduced where underlying stocks have been deposited to cover the short positions. The number of contracts covered is determined by dividing the number of shares deposited by the contracts size (multiplier).

2.3 Variation Margin calculation

Variation margins are calculated for futures positions in the period comprised between the trading date and the expiration included.

Specifically, to calculate the variation margin, Futures positions are subject to daily marking-to-market through the payment / receipt of the differential between:

- the Daily Settlement Price of the current day and the trade price, for Open Positions

[4]The theoretical credits are not paid out to the adherent but can be used only for covering the Initial Margins.

arising from the trading activity of that same day;

- the Daily Settlement Price of the current day and the Daily Settlement Price of the preceding Open Market day, for Open Positions arising from previous days' activity.

2.4 Initial Margin calculation

2.4.1 Future straddle margin calculation

As mentioned before, these margins are computed to hedge market risk on Futures positions having opposite sign on different maturities and are equal to the number of Futures Spread positions multiplied for the Future Spread[5] Margin fixed by CC&G. The latter is determined by estimating the greatest daily variation, reasonably possible, between the difference of Futures prices F_i and F_j (calendar spread) having different maturities occurred in a day, and the same difference (calendar spread) on the following day.

The calculation of futures spread margin for the net futures positions in the class group foresees the following steps:

A. Calculate the total spread (both long and short) quantity for the class as the lesser of the total net long or total net short contract quantity for the class.

Example:

Contract	Net Long	Net Short
March future	—	15
June future	14	—
September future	19	—
December future	—	13
Total net position	33	28

Total class spread long quantity = 28
Total class spread short quantity = 28

B. Calculate the spot month spread contract quantity for the class.

   a. If the spot month is a net long position, the spot month spread contract quantity equals to the lesser between net long position and class spread long quantity

   b. If the spot month is a net short position, the spot month spread contract

[5] The number of Futures Spread positions for each Class is equal to *Min (Σ long positions; Σ short positions).*

quantity equals to the lesser between net short position and class spread short quantity

Example:

Contract	Net Long	Net Short
March future	—	15
June future	14	—
September future	19	—
December future	—	13
Total net position	**33**	**28**

For the March (spot month) futures position:	
Net short position	15
Class spread short quantity	28
Class spread short > net short position	
Spot month spread quantity for the class	**15**

C. Calculate non spot spread contract quantity for the class.

a. Calculate the total spread contract quantity for the class by adding the class spread long contract quantity to the class spread short quantity.

Total class spread quantity *= Total spread long + total spread short*

b. Calculate the total class non spot spread contract quantity by subtracting the spot month spread contract quantity from the total spread contract quantity for the class.

Non spot spread contract quantity *= Total spread quantity - spot month spread quantity*

Example:

Total class spread long quantity		28
Total class spread short quantity	+	28
Total class spread quantity	**=**	**56**
Spot month spread contract quantity	-	15
Total non spot spread quantity	**=**	**41**

D. Calculate total spread margin for the class, by adding the spot spread margin requirement and the non spot margin requirement for the class.

a. The spot month spread margin requirement for the class is calculated by multiplying the spot spread rate times the spot month spread contract

quantity for the class (calculated in step B above);

b. The non spot spread margin requirement for the class is calculated by multiplying the non spot spread rate times the non spot spread contract quantity for the class (calculated in step C above).

Example:

	Qty		Rate		Tot
Spot month spread margin requirement	15	*	300,00		4.500,00
Non spot spread margin requirement	41	*	200,00		8.200,00
Total class spread margin requirement		=			12.700,00

2.4.2 Mark to Market margin calculation

Mark to Market margins for each class are composed by the following components:

A. **MTM Margin for unsettled stock futures contracts:** it is calculated by multiplying the net delivery position times the contract size times the difference between the current market price of the underlying and the "delivery price" of the expired position (Mark to Market amount).

Mark to Market margin = *MtM amount * Contract quantity * Multiplier*

where Mark to Market amount = Underlying price - Delivery price

Presuming it is positive, mark to market margin is a credit for the holder of long stock future position and a debit for the holder of short stock future position.

B. **MTM Margin for Securities:** it is calculated for each series of securities or rights issues subtracting the Current Market Value Amount (CMV) that is the theoretical countervalue of the positions from the Delivery Versus Payment Amount (DVP) that is the cash amount to be paid/collected in the settlement system.

MTM amount = *CMV amount - DVP amount*

The total class group MTM margin is calculated by summing the MTM margin credit and debits for each series in the class group.

It is worth mentioning that the theoretical gains arising from the Mark-To-Market Margins are never paid out to the Clearing Member; they can only be utilized within the Initial Margin calculation procedure to offset Initial Margin requirements deriving from other Integrated Portfolios.

2.4.3 Premium margin calculation

The next step consists in calculation of premium margin[6] for all options in the class group.

Premium margin for each class group are composed by the following components:

A. **Premium margin for each ordinary position:** it is calculated for each series of options by multiplying the net long or short contract quantity by the contract size by the closing price of the options series.

Premium margin *= Closing price * Contract quantity * Multiplier*

B. **Premium margin for each exercised and assigned position**[7]*:* It is calculated by multiplying the net exercised or assigned contract quantity times the contract size times the difference between the strike price of the exercised position and the current market price of the underlying.

Premium margin *= In-the-money amount * Contract quantity * Multiplier*

where:

In-the-money amount (calls) = Underlying Price - Strike price

In-the-money amount (puts) = Strike Price - Underlying Price

Premium margin for both open positions and exercised and assigned positions is summed algebraically at the class group level to arrive at a total class group premium margin debit or credit.

2.4.4 Additional Margin Calculation

Additional Margin is the incremental cost of liquidating a portfolio in the event of a worst case change in the price of the underlying and is calculated for all options, futures, securities and rights issues in the same class group.

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[6] For these option positions, premium margin is a credit for the holder of the long position as it represents the proceeds from selling the long position if it were liquidated at the current market price. Premium margin is a debit or requirement for the holder of the short position as it represents the cost to buy back the short position if, likewise, it were to be liquidated at the current market price.

[7] It represents a credit for the exercised long position (presuming it is In-The-Money) and a debit for the corresponding assigned short position.

As previously mentioned, the present methodology allows evaluation of unitary risk on a portfolio comprising both cash and derivatives positions.

MARS in fact determines Initial Margins for the Integrated Portfolio by algebraically summing the theoretical liquidation gains/loss of each position under the same hypothesis of underlying price variation within the Margin Interval.

In the case of portfolios also comprising options MARS not only take into consideration extreme price variations within the Margin Interval, but also considers eight intermediate price scenarios[8]. This is in order to properly evaluate the risk for those trading strategies whose maximum losses occur on underlying price values comprised between the extremes of the Margin Interval. The Ordinary Initial Margin is assumed equal to the largest liquidation cost calculated at each price scenario.

2.4.4.1 ADDITIONAL MARGIN CALCULATION FOR THE CLASS GROUP

Below the sub-steps of calculation are summarized:

Step 1. Calculate the total gain or loss for each position[9] for each of the five downside values (D5, D4, D3, D2, D1) and for each of the five upside values (U1, U2, U3, U4, U5).

Step 2. Calculate the total Additional Margin for the class group by adding the additional margin amounts calculated for each position in the class group at their respective upside and downside points.

For example all Downside 5 additional margin amounts are added together, followed by all Downside 4 additional margin amounts and so on until there are 10 total additional margin amounts for the class group.

Total additional margin D5 = Sum (Position^{1} additional margin^{D5} + Position^{2} additional margin^{D5} + Position ^{n} additional margin ^{D5})

[8] Intermediate scenarios are defined as a percentage of Margin Interval (20%, 40%, 60%, 80%)
[9] Options evaluation in the different price scenarios is effected using a binomial price model (Cox-Ross-Rubinstein) for American options and the Black and Scholes model for European options. Furthermore, for a conservative evaluation of short position in deep Out-of-The-Money options (both calls and puts) – whose value is near to zero and have low sensitivity to underlying price variations – CC&G set a minimum theoretical liquidation cost (Short Option Adjustment). For rights issues having as underlying equity shares, the pricing models described for equity options are employed to calculate the theoretical values for each price scenario.

Example:

	D5	D4	D3	D2	D1	U1	U2	U3	U4	U5
Position1:	-2000	-800	-600	-400	-200	200	400	600	800	1000
Position2:	-1000	-700	-600	-500	-400	100	200	300	400	500
Position3:	5000	4000	3000	2000	1000	-1000	-2000	-3000	-4000	-5000
Totals:	**2000**	**2500**	**1800**	**1100**	**400**	**-700**	**-1400**	**-2100**	**-2800**	**-3500**

A negative margin total is a margin credit and a positive margin total is a margin requirement.

Step 3. If the class group is not part of a larger product group, the additional margin requirement for the class group is the *largest debit* of the ten values above or zero in the unlikely event that there are no debits.

2.4.4.2 ADDITIONAL MARGIN CALCULATION FOR THE PRODUCT GROUP

If the class group is part of a larger product group, MARS methodology foresees these further calculation sub-steps:

Step 1. Any additional margin amounts for the class group which are credits (negative) is multiplied by the product group offset[10] to arrive at an array of ten class group additional margin values.

Example:

	D5	D4	D3	D2	D1	U1	U2	U3	U4	U5
Class	2000	2500	1800	1100	400	-700	-1400	-2100	-2800	-3500
Offset factor: 85%										
Total	2000	2500	1800	1100	400	-595	-1190	-1785	-2380	-2975

Step 2. Calculate the total upside and downside additional margin for the product group by summing up the additional margin requirements for each class group in the product group at their respective upside and downside points.

[10] The product group offset represents the percentage of margin credits calculated at the class group level which will be allowed to offset margin requirements for other class groups in the product group. The offset is based on the historical price correlation between the various class groups which comprise a product group

Example:

	D5	D4	D3	D2	D1	U1	U2	U3	U4	U5
CG1	2000	2500	1800	1100	400	-595	-1190	-1785	-2380	-2975
CG2	-1000	-800	-600	-400	-200	200	400	600	800	1000
CG3	-100	-80	-60	-40	-20	20	60	100	150	210
Total	**900**	**1620**	**1140**	**660**	**180**	**-375**	**-730**	**-1085**	**-1430**	**-1765**

Step 3. The total additional margin requirement for the product group is the largest debit from the array of upside and downside product group additional margin values. In the unlikely event that all of the values in the array are credits, the product group additional margin is equal to zero.

Product Group Additional Margin = 1620

Step 4. Compare the minimum margin calculated for the product group to the additional margin requirement calculated for the product group. If the minimum margin is greater than the additional margin requirement, then the minimum margin for the product group (see next paragraph 2.4.4.3) becomes the additional margin requirement for the product group.

2.4.4.3 MINIMUM MARGIN CALCULATION FOR THE PRODUCT GROUP

Step 1. Calculation of the Minimum Margin for the class group

A. Calculate the net long or short contract quantity (as the absolute value) for all calls, puts, futures, securities and rights issues in the class group.

B. Calculate the options minimum margin in the class group as follows:

*Net long or short contract quantity for calls * options minimum margin rate +*
*Net long or short contract quantity for puts * options minimum margin rate*
= Class group options minimum margin

C. Calculate the securities minimum margin in the class group as follows.

*Net long or short contract quantity for equity * Equity minimum margin rate +*
*Net long or short contract quantity for warrant * Warrant minimum margin rate +*

*Net long or short contract quantity for rights issues * Rights Issues minimum margin rate*

= Class group securities minimum margin

D. Calculate the futures minimum margin in the class group as follows:

*Net long or short contract quantity for futures * Equity minimum margin rate*
*Net long or short contract quantity for warrant * Warrant minimum margin rate*
= Class group futures minimum margin

E. Calculate the minimum margin *for the class group* by summing up the class group minimum margin calculated for options, futures and securities.

Step 2. Calculation of the Minimum Margin for the product group

Calculate the minimum margin requirement for the product group by summing up the minimum margin calculated for each class group in the product group.

2.5 Calculation of Initial Margin for the product group

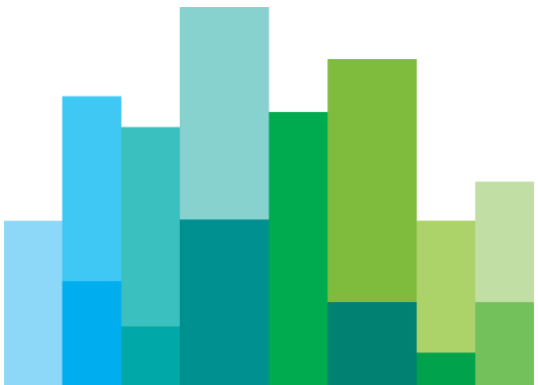
The total Initial margin requirement or credit for the product group is calculated by summing algebraically the total of the product group spread margin, the product group MTM margin, the product group premium margin and the total additional margin (or minimum margin) for the product group.

2.6 Margins on Fail positions

Margins on fail positions are calculated using the same procedure used for ordinary positions. However, fail positions and ordinary positions are maintained segregated for all margining purposes. Therefore margins on fail positions are calculated separately and summed, only if at debit, to the total margin requirement for ordinary positions.

Segregation between ordinary positions and fail position is total. Under no circumstances margin credits on fail (ordinary) positions may compensate debits on ordinary (fail) positions.

3. ATTACHMENTS



ATTACHMENT 1

500 Long Position shares XYZ - 300 Short Positions shares XYZ
2 Short Option Positions XYZ Call June YY

	Mark-to-Market Margin		
Shares	(Reference Price - Trade Price) x No. of Shares		
	(40 - 40,18) x 500	-90,00	€ Debit
	(40 - 39,8) x -300	-60,00	€ Debit
	TOTAL	**-150,00**	**€ Debit**

	Premium Margins		
Options	(Closing Price x No. of Lots x No. of Underlying Shares)		
	2,654 x -2 x 100	-530,80	€ Debit
	TOTAL	**-530,80**	**€ Debit**

		DOWNSIDE					Current Market Value	UPSIDE				
	Margin Interval	-10,00%	-8,00%	-6,00%	-4,00%	-2,00%		2,00%	4,00%	6,00%	8,00%	10,00%
	Theoretical Value	36,000	36,800	37,600	38,400	39,200	40,000	40,800	41,600	42,400	43,200	44,000
Shares	Reference Price	40,000	40,000	40,000	40,000	40,000		40,000	40,000	40,000	40,000	40,000
	Theoretical Liquidation Gain/Loss per Share (€)	-4,000	-3,200	-2,400	-1,600	-0,800		0,800	1,600	2,400	3,200	4,000
	No. of Shares	200	200	200	200	200		200	200	200	200	200
	Total Theoretical Liquidation Gain/Loss (€) for Shares	-800,00	-640,00	-480,00	-320,00	-160,00		160,00	320,00	480,00	640,00	800,00
Options	Theoretical Value of Option Call 39 Jun YY	0,771	1,038	1,359	1,736	2,168	2,654	3,189	3,771	4,393	5,050	5,737
	Closing Price	2,654	2,654	2,654	2,654	2,654		2,654	2,654	2,654	2,654	2,654
	Theoretical Liquidation Gain/Loss (€)	-1,883	-1,616	-1,295	-0,918	-0,486		0,535	1,117	1,739	2,396	3,083
	X -2 Short Positions	3,766	3,232	2,590	1,836	0,972		-1,070	-2,234	-3,478	-4,792	-6,166
	Total Theoretical Liquidation Gain/Loss (€) Call 39 Jun YY	376,60	323,20	259,00	183,60	97,20		-107,00	-223,40	-347,80	-479,20	-616,60
Integrated Portfolio	Total Theoretical Liquidation Gain/Loss (€) for Shares and Derivatives	-423,40	-316,80	-221,00	-136,40	-62,80		53,00	96,60	132,20	160,80	183,40
	Largest Theoretical Loss	-423,40	€ Debit									
	Ordinary Margins	-423,40	€ Debit									
	Mark-To-Market Margins for Shares	-150,00	€ Debit									
	Premium Margins Opzioni	-530,80	€ Debit									
	Total Initial Margins for the Class Group	**-1.104,20**	**€ Debit**									

Ordinary Margin applied to the sole share position without cross-margining

Ordinary Margin applied to the sole option position without cross-margining

Ordinary Margin applied to the Overall Position (*Cross Margining*)

ATTACHMENT 2

500 Long Position shares XYZ - 300 Short Positions shares XYZ
2 PUT Long Option Positions XYZ June YY - 2 CALL Long Option Positions XYZ June YY

	Mark-To-Market Margin		
Shares	(Reference Price - Trade Price) x No. of Shares		
	(40 - 40,18) x 500	-90,00	€ Debit
	(40 - 39,8) x -300	-60,00	€ Debit
	TOTAL	**-150,00**	**€ Debit**

	Premium Margins		
Options	(Closing Price x No. of Lots x No. of Underlying Shares)		
	0,946 x 2 x 100	189,20	€ Credit
	3,511 x 2 x 100	702,20	€ Credit
	TOTAL	**891,40**	**€ Credit**

		DOWNSIDE					Current Market Value	UPSIDE				
	Margin Interval	-10,00%	-8,00%	-6,00%	-4,00%	-2,00%		2,00%	4,00%	6,00%	8,00%	10,00%
	Theoretical Value	36,000	36,800	37,600	38,400	39,200	40,000	40,800	41,600	42,400	43,200	44,000
Shares	Reference Price	40,000	40,000	40,000	40,000	40,000		40,000	40,000	40,000	40,000	40,000
	Theoretical Liquidation Gain/Loss per Share (€)	-4,000	-3,200	-2,400	-1,600	-0,800		0,800	1,600	2,400	3,200	4,000
	No. of Shares	200	200	200	200	200		200	200	200	200	200
	Total Theoretical Liquidation Gain/Loss (€) for Shares	-800,00	-640,00	-480,00	-320,00	-160,00		160,00	320,00	480,00	640,00	800,00
Options	Theoretical Value of Option Call 43 Jun YY	0,171	0,256	0,371	0,521	0,711	0,946	1,229	1,561	1,945	2,379	2,861
	Closing Price	0,9460	0,9460	0,9460	0,9460	0,9460		0,9460	0,9460	0,9460	0,9460	0,9460
	Theoretical Liquidation Gain/Loss (€)	-0,7750	-0,6900	-0,5750	-0,4250	-0,2350		0,2830	0,6150	0,9990	1,4330	1,9150
	X 2 Long Positions	-1,5500	-1,3800	-1,1500	-0,8500	-0,4700		0,5660	1,2300	1,9980	2,8660	3,8300
	Total Theoretical Liquidation Gain/Loss (€) Call 43 Jun YY	-155,00	-138,00	-115,00	-85,00	-47,00		56,60	123,00	199,80	286,60	383,00
	Theoretical Value pf Option Put 43 Jun YY	6,7370	6,0220	5,3360	4,6860	4,0760	3,5110	2,9940	2,5270	2,1100	1,7440	1,4260
	Closing Price	3,5110	3,5110	3,5110	3,5110	3,5110		3,5110	3,5110	3,5110	3,5110	3,5110
	Theoretical Liquidation Gain/Loss (€)	3,2260	2,5110	1,8250	1,1750	0,5650		-0,5170	-0,9840	-1,4010	-1,7670	-2,0850
	X 2 Long Positions	6,4520	5,0220	3,6500	2,3500	1,1300		-1,0340	-1,9680	-2,8020	-3,5340	-4,1700
	Total Theoretical Liquidation Gain/Loss (€) Put 43 Jun YY	645,20	502,20	365,00	235,00	113,00		-103,40	-196,80	-280,20	-353,40	-417,00
	Total Theoretical Liquidation Gain/Loss (€) for Options	490,20	364,20	250,00	150,00	66,00		-46,80	-73,80	-80,40	-66,80	-34,00
Integrated Portfolio	Total Theoretical Liquidation Gain/Loss (€) for Cash and Derivatives	-309,80	-275,80	-230,00	-170,00	-94,00		113,20	246,20	399,60	573,20	766,00

Integrated Portfolio	Largest Theoretical Loss	-309,80	€ Debit
	Ordinary Margins	-309,80	€ Debit
	Mark-To-Market Margins for Shares	-150,00	€ Debit
	Premium Margins for Options	891,40	€ Credit
	Total Initial Margins for the Class Group	**0,00**	
	Outstanding Theoretical Credit	**431,60**	**€ Credit**

Ordinary Margin applied to the sole share position without cross-margining

Ordinary Margin applied to the sole option position without cross-margining

Ordinary Margin applied to the Overall Position (*Cross Margining*)

ATTACHMENT 3

TWO LONGPOSITIONS INDEX ABC MARCH 20YY

	DOWNSIDE						UPSIDE				
Margin Interval	-7,50%	-6,00%	-4,50%	-3,00%	-1,50%		1,50%	3,00%	4,50%	6,00%	7,50%
Futures Theoretical Value	40.700	41.360	42.020	42.680	43.340	44.000	44.660	45.320	45.980	46.640	47.300
Closing Price	44.000	44.000	44.000	44.000	44.000		44.000	44.000	44.000	44.000	44.000
Theoretical Liquidation Gain/Loss (Index Points)	-3.300	-2.640	-1.980	-1.320	-660		660	1.320	1.980	2.640	3.300
X 2 Long Positions	-6.600	-5.280	-3.960	-2.640	-1.320		1.320	2.640	3.960	5.280	6.600
Theoretical Liquidation Total Gains/Losses (€)	-33.000	-26.400	-19.800	-13.200	-6.600		6.600	13.200	19.800	26.400	33.000
Largest Theoretical Loss	-33.000	€									
Ordinary Initial Margins	-33.000	€ Debit									
Class Group Total Initial Margins	**-33.000**	**€ Debit**									

ATTACHMENT 4

TEN SHORT OPTION POSITIONS ABC CALL 4,10 MAR 20YY

Premium Margins		
(Closing Price x Number of Lots x No. Underlying Shares)		
0,17 x 10 x 1.000	- 1.700	€ Debit
TOTAL	- 1.700	€ Debit

	DOWNSIDE						**UPSIDE**				
Margin Interval	-10,00%	-8,00%	-6,00%	-4,00%	-2,00%		2,00%	4,00%	6,00%	8,00%	10,00%
ABC Theoretical Value (€)	3,60	3,68	3,76	3,84	3,92	4,00	4,08	4,16	4,24	4,32	4,40
ABC Call 4,10 MAR YY Option Theoretical Value	0,040	0,059	0,079	0,103	0,133	0,17	0,206	0,250	0,299	0,352	0,409
Closing Price	0,170	0,170	0,170	0,170	0,170		0,170	0,170	0,170	0,170	0,170
Theoretical Liquidation Gain/Loss (€)	-0,130	-0,111	-0,091	-0,067	-0,037		0,04	0,08	0,13	0,18	0,24
X 10 Short Positions	1,30	1,11	0,91	0,67	0,37		-0,36	-0,80	-1,29	-1,82	-2,39
Theoretical Liquidation Total Gains/Losses (€)	1.300,00	1.110,00	910,00	670,00	370,00		-360,00	-800,00	-1.290,00	-1.820,00	-2.390,00

Largest Theoretical Loss	-2.390,00	€
Ordinary Initial Margins	-2.390,00	€ Debit
Premium Margins	-1.700,00	€ Debit
Class Total Initial Margins	**-4.090,00**	**€ Debit**

ATTACHMENT 5

10 LONG STRADDLE ABC 4,10 MAR YY: {
TEN LONG OPTION POSITIONS ABC CALL 4,10 MAR 20YY
TEN LONG OPTION POSITIONS ABC PUT 4,10 MAR 20YY

Premium Margins		
(Closing Price x Number of Lots x No. Underlying Shares)		
0,17 x 10 x 1.000	1.700	€ Credit
0,25 x 10 x 1.000	2.500	€ Credit
TOTAL	4.200	€ Credit

	DOWNSIDE						**UPSIDE**				
Margin Interval	**-10,00%**	**-8,00%**	**-6,00%**	**-4,00%**	**-2,00%**		**2,00%**	**4,00%**	**6,00%**	**8,00%**	**10,00%**
ABC Theoretical Value (€)	**3,60**	**3,68**	**3,76**	**3,84**	**3,92**	**4,00**	**4,08**	**4,16**	**4,24**	**4,32**	**4,40**
ABC Call 4,10 MAR YY Option Theoretical Value	**0,040**	**0,059**	**0,079**	**0,103**	**0,133**	**0,17**	**0,206**	**0,250**	**0,299**	**0,352**	**0,409**
Closing Price	0,170	0,170	0,170	0,170	0,170		0,170	0,170	0,170	0,170	0,170
Theoretical Liquidation Gains/Losses (€)	-0,130	-0,111	-0,091	-0,067	-0,037		0,04	0,08	0,13	0,18	0,24
X 10 Long Positions	-1,30	-1,11	-0,91	-0,67	-0,37		0,36	0,80	1,29	1,82	2,39
Theoretical Liquidation Total Gains/Losses (€)	-1.300,00	-1.110,00	-910,00	-670,00	-370,00		360,00	800,00	1.290,00	1.820,00	2.390,00
ABC Put 4,10 MAR YY Option Theoretical Value	**0,500**	**0,47**	**0,406**	**0,351**	**0,300**	**0,25**	**0,211**	**0,177**	**0,146**	**0,119**	**0,100**
Closing Price	0,250	0,250	0,250	0,250	0,250		0,250	0,250	0,250	0,250	0,250
Theoretical Liquidation Gains/Losses (€)	0,250	0,216	0,156	0,101	0,050		-0,04	-0,07	-0,10	-0,13	-0,15
X 10 Long Positions	2,50	2,16	1,56	1,01	0,50		-0,39	-0,73	-1,04	-1,31	-1,50
Theoretical Liquidation Total Gains/Losses (€)	2.500,00	2.160,00	1.560,00	1.010,00	500,00		-390,00	-730,00	-1.040,00	-1.310,00	-1.500,00
Theoretical Liquidation Gains/Losses Totali (€)	1.200,00	1.050,00	650,00	340,00	130,00		-30,00	70,00	250,00	510,00	890,00
Largest Theoretical Loss	-30,00	€									
Ordinary Initial Margins	-30,00	€ Debit									
Premium Margins	4.200,00	€ Credit									
Class Total Initial Margins	**4.170,00**	**€ Credit**									

ATTACHMENT 6

TWO LONG POSITIONS INDEX ABC MARCH 20YY (PRODUCT GROUP: ZZZ)
FOUR SHORT POSITIONS XYZ FUTURES MARCH 20YY (PRODUCT GROUP: ZZZ)

	DOWNSIDE						UPSIDE				
Margin Interval	-7,50%	-6,00%	-4,50%	-3,00%	-1,50%		1,50%	3,00%	4,50%	6,00%	7,50%
ABC Theoretical Value	40.700	41.360	42.020	42.680	43.340	44.000	44.660	45.320	45.980	46.640	47.300
Closing Price	44.000	44.000	44.000	44.000	44.000		44.000	44.000	44.000	44.000	44.000
Theoretical Liquidation Gains/Losses (Index Points)	-3.300	-2.640	-1.980	-1.320	-660		660	1.320	1.980	2.640	3.300
X 2 Long Positions	-6.600	-5.280	-3.960	-2.640	-1.320		1.320	2.640	3.960	5.280	6.600
Theoretical Liquidation Total Gains/Losses (€)	-33.000	-26.400	-19.800	-13.200	-6.600		6.600	13.200	19.800	26.400	33.000
(60% Credit Reduction)	-33.000	-26.400	-19.800	-13.200	-6.600		3.960	7.920	11.880	15.840	19.800

	DOWNSIDE						UPSIDE				
Margin Interval	-6,50%	-5,20%	-3,90%	-2,60%	-1,30%		1,30%	2,60%	3,90%	5,20%	6,50%
XYZ Theoretical Value	31.323	31.758	32.194	32.629	33.065	33.500	33.936	34.371	34.807	35.242	35.678
Closing Price	33.500	33.500	33.500	33.500	33.500		33.500	33.500	33.500	33.500	33.500
Theoretical Liquidation Gains/Losses (Index Points)	-2.178	-1.742	-1.307	-871	-436		436	871	1.307	1.742	2.178
X 4 Short Positions	8.710	6.968	5.226	3.484	1.742		-1.742	-3.484	-5.226	-6.968	-8.710
Theoretical Liquidation Total Gains/Losses (€)	22.211	17.768	13.326	8.884	4.442		-4.442	-8.884	-13.326	-17.768	-22.211
(60% Credit Reduction)	13.326	10.661	7.996	5.331	2.665		-4.442	-8.884	-13.326	-17.768	-22.211

	DOWNSIDE						UPSIDE				
Theoretical Liquidation Total Gains/Losses (€) ABC	-33.000	-26.400	-19.800	-13.200	-6.600		6.600	13.200	19.800	26.400	33.000
(60% Credit Reduction)	-33.000	-26.400	-19.800	-13.200	-6.600		3.960	7.920	11.880	15.840	19.800
Theoretical Liquidation Total Gains/Losses (€) XYZ Futures	22.211	17.768	13.326	8.884	4.442		-4.442	-8.884	-13.326	-17.768	-22.211
(60% Credit Reduction)	13.326	10.661	7.996	5.331	2.665		-4.442	-8.884	-13.326	-17.768	-22.211
Theoretical Liquidation Total Gains/Losses (€) AAA Product Group	-19.674	-15.739	-11.804	-7.869	-3.935		-482	-964	-1.446	-1.928	-2.411
Largest Theoretical Loss	-19.674	€									
Ordinary Initial Margins	-19.674	€ Debit									
Product Group Total Initial Margins	**-19.674**	**€ Debit**									

ATTACHMENT 7

TWO SHORT POSITIONS FUTURE INDEX ABC MAR YY

TWO "SYNTHETIC" LONG POS. FUTURE INDEX ABC MAR YY {

FOUR LONG POSITIONS CALL 44.000 ABC MAR YY
FOUR SHORT POSITIONS PUT 44.000 ABC MAR YY

Premium Margins		
(Closing Price x Number of Lots x Index Point Value)		
2273 x 4 x 2.5	22.730	€ Credit
2236 x -4 x 2,5	-22.360	€ Debit
TOTAL	370	€ Credit

	DOWNSIDE						UPSIDE				
Margin Interval	-7,50%	-6,00%	-4,50%	-3,00%	-1,50%		1,50%	3,00%	4,50%	6,00%	7,50%
ABC Theoretical Value	40.700	41.360	42.020	42.680	43.340	44.000	44.660	45.320	45.980	46.640	47.300
Closing Price	44.000	44.000	44.000	44.000	44.000		44.000	44.000	44.000	44.000	44.000
Theoretical Liquidation Gains/Losses (Index Points)	-3.300	-2.640	-1.980	-1.320	-660		660	1.320	1.980	2.640	3.300
X 2 Short Positions	6.600	5.280	3.960	2.640	1.320		-1.320	-2.640	-3.960	-5.280	-6.600
Theoretical Liquidation Total Gains/Losses (€)	33.000	26.400	19.800	13.200	6.600		-6.600	-13.200	-19.800	-26.400	-33.000
ABC Futures Theoretical Value	40.600	41.260	41.920	42.580	43.240	43.900	44.560	45.220	45.880	46.540	47.200
ABC Variation	-3.300	-2.640	-1.980	-1.320	-660		660	1.320	1.980	2.640	3.300
Call 44.000 MAR YY Option Theoretical Value	916	1.127	1.367	1.638	1.940	2.273	2.637	3.030	3.452	3.901	4.376
Closing Price	2.273	2.273	2.273	2.273	2.273		2.273	2.273	2.273	2.273	2.273
Theoretical Liquidation Gains/Losses (Index Points)	-1.357	-1.146	-906	-635	-333		364	757	1.179	1.628	2.103
X 4 Long Positions	-5.426	-4.586	-3.625	-2.542	-1.333		1.455	3.030	4.718	6.514	8.411
Theoretical Liquidation Gains/Losses (€)	-13.565	-11.464	-9.063	-6.354	-3.333		3.638	7.574	11.794	16.284	21.027
Put 44.000 MAR YY Option Theoretical Value	4.179	3.730	3.310	2.921	2.563	2.236	1.940	1.673	1.435	1.224	1.039
Closing Price	2.236	2.236	2.236	2.236	2.236		2.236	2.236	2.236	2.236	2.236
Theoretical Liquidation Gains/Losses (Index Points)	1.943	1.494	1.074	685	327		-296	-563	-801	-1.012	-1.197
X -4 Short Positions	-7.774	-5.974	-4.295	-2.738	-1.307		1.185	2.250	3.202	4.046	4.789
Theoretical Liquidation Gains/Losses (€)	-19.435	-14.936	-10.737	-6.846	-3.267		2.962	5.626	8.006	10.116	11.973
Theoretical Liquidation Total Gains/Losses (€)	0,00	0,00	0,00	0,00	0,00		0,00	0,00	0,00	0,00	0,00
Largest Theoretical Loss	0	€									
Minimum Margins	-780	€ Debit									
Ordinary Initial Margins	-780	€ Debit									
Premium Margins	370	€ Credit									
Class Group Total Initial Margins	**-410**	**€ Debit**									

ATTACHMENT 8

TWO ASSIGNED XYZ OPTIONS CALL 29,00 MAR YY

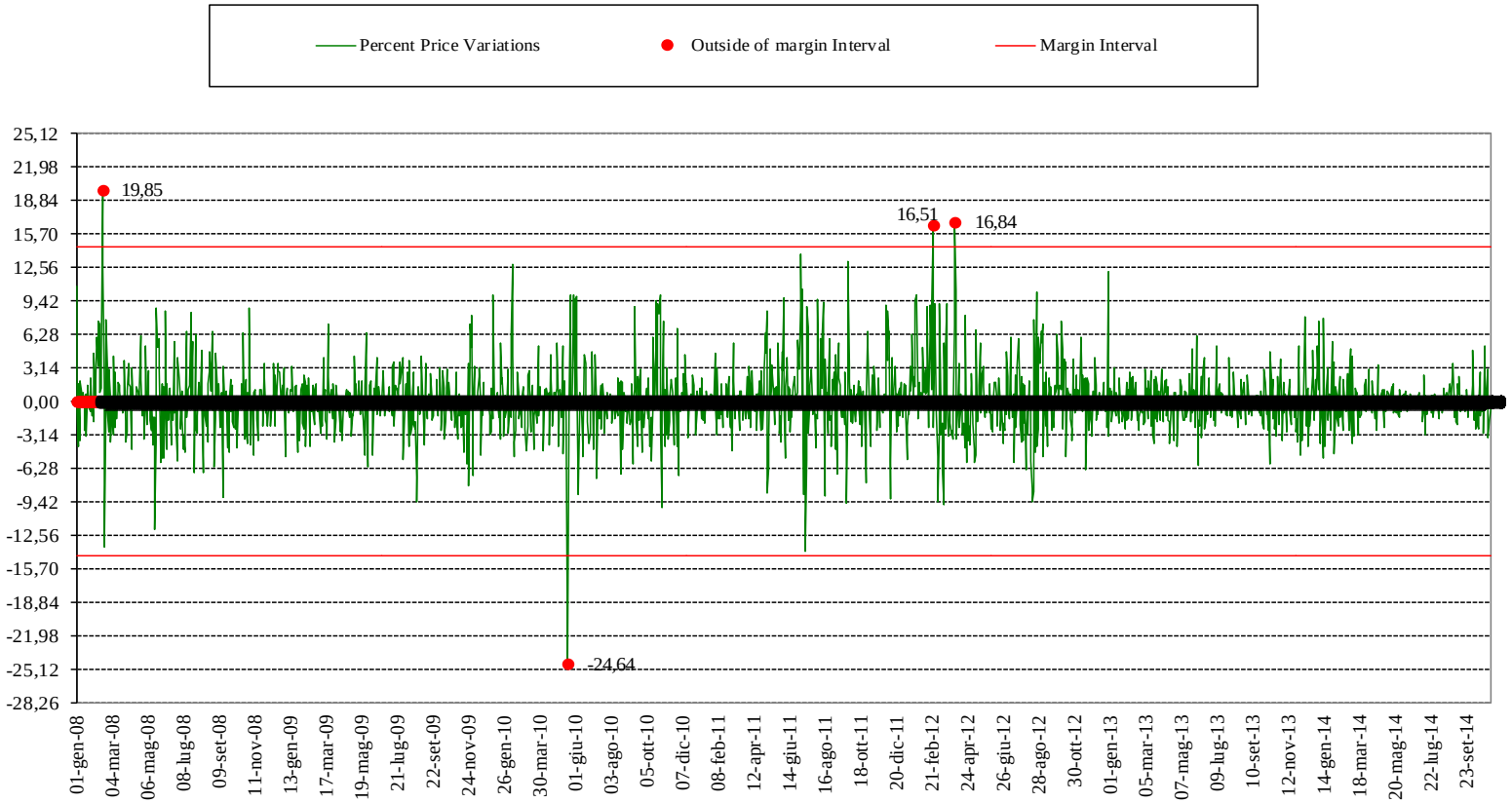
Premium Margins		
(In-The-Money Amount x No. Of Lots x No. Underlying Shares)		
(30-29) x -2 x 500	-1.000	€ Debit
TOTAL	-1.000	€ Debit

	DOWNSIDE					Reference Price	UPSIDE				
Margin Interval	-7,50%	-6,00%	-4,50%	-3,00%	-1,50%	30,00	1,50%	3,00%	4,50%	6,00%	7,50%
XYZ Theoretical Value (€)	27,75	28,20	28,65	29,10	29,55		30,45	30,90	31,35	31,80	32,25
Strike Price XYZ Call 29,00 MAR YY	29,00	29,00	29,00	29,00	29,00		29,00	29,00	29,00	29,00	29,00
"Exercised Option Theoretical Value" ("Theoretical *In-The-Money Amount*")	-1,25	-0,80	-0,35	0,10	0,55		1,45	1,90	2,35	2,80	3,25
In-The Money Amount	1,00	1,00	1,00	1,00	1,00		1,00	1,00	1,00	1,00	1,00
Theoretical Liquidation Gains/Losses (€)	-2,25	-1,80	-1,35	-0,90	-0,45		0,45	0,90	1,35	1,80	2,25
X 2 Assigned Positions	4,50	3,60	2,70	1,80	0,90		-0,90	-1,80	-2,70	-3,60	-4,50
Theoretical Liquidation Total Gains/Losses (€)	2.250	1.800	1.350	900	450		-450	-900	-1.350	-1.800	-2.250

Largest Theoretical Loss	-2.250	€
Ordinary Initial Margins	-2.250	€ Debit
Premium Margins	-1.000	€ Debit
Class Total Initial Margins	**-3.250**	**€ Debit**

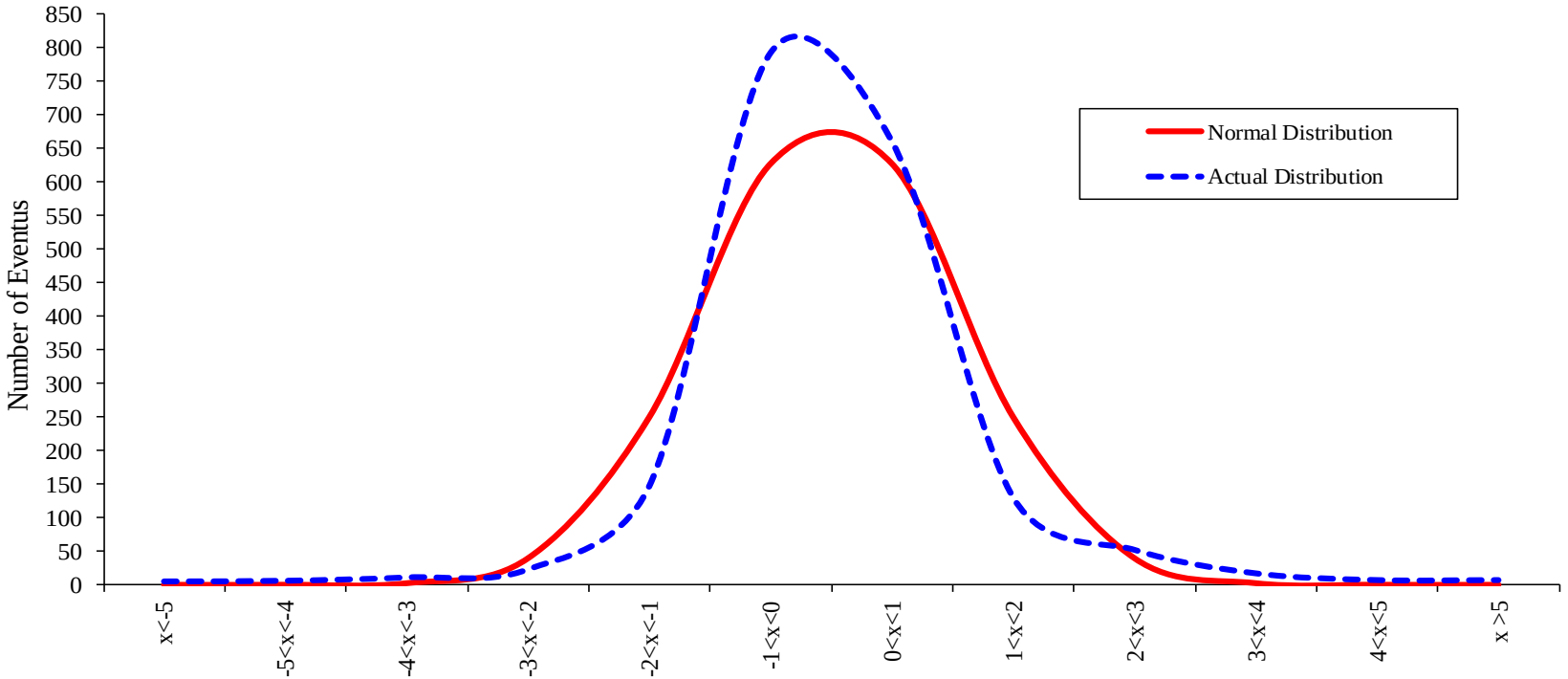
ATTACHMENT 9

Options on XYZ SpA ord. Shares
Underlying Daily Price Variation Distribution



ATTACHMENT 10

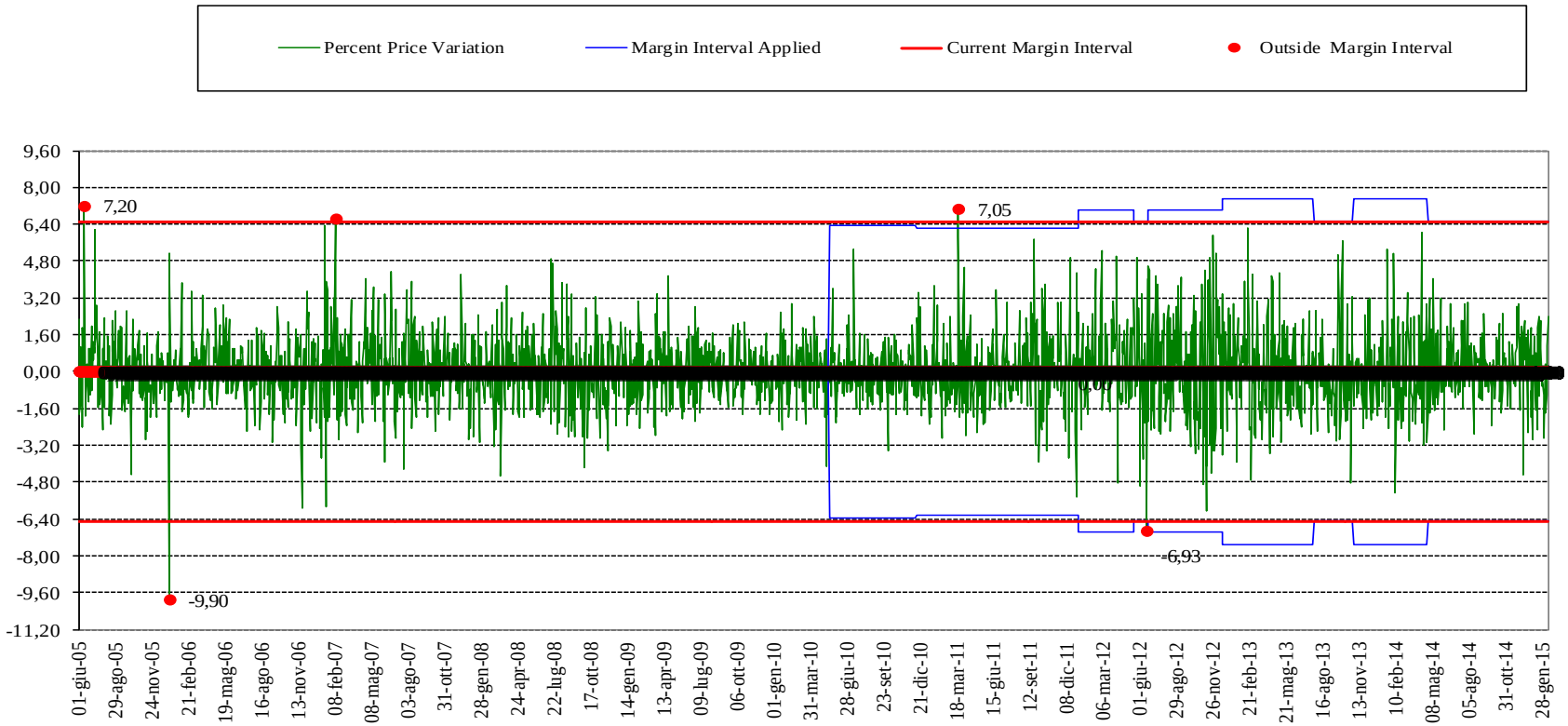
Options on XYZ SpA ord. Shares
Underlying Daily Price Variation Distribution



Standard Deviation: 3,14

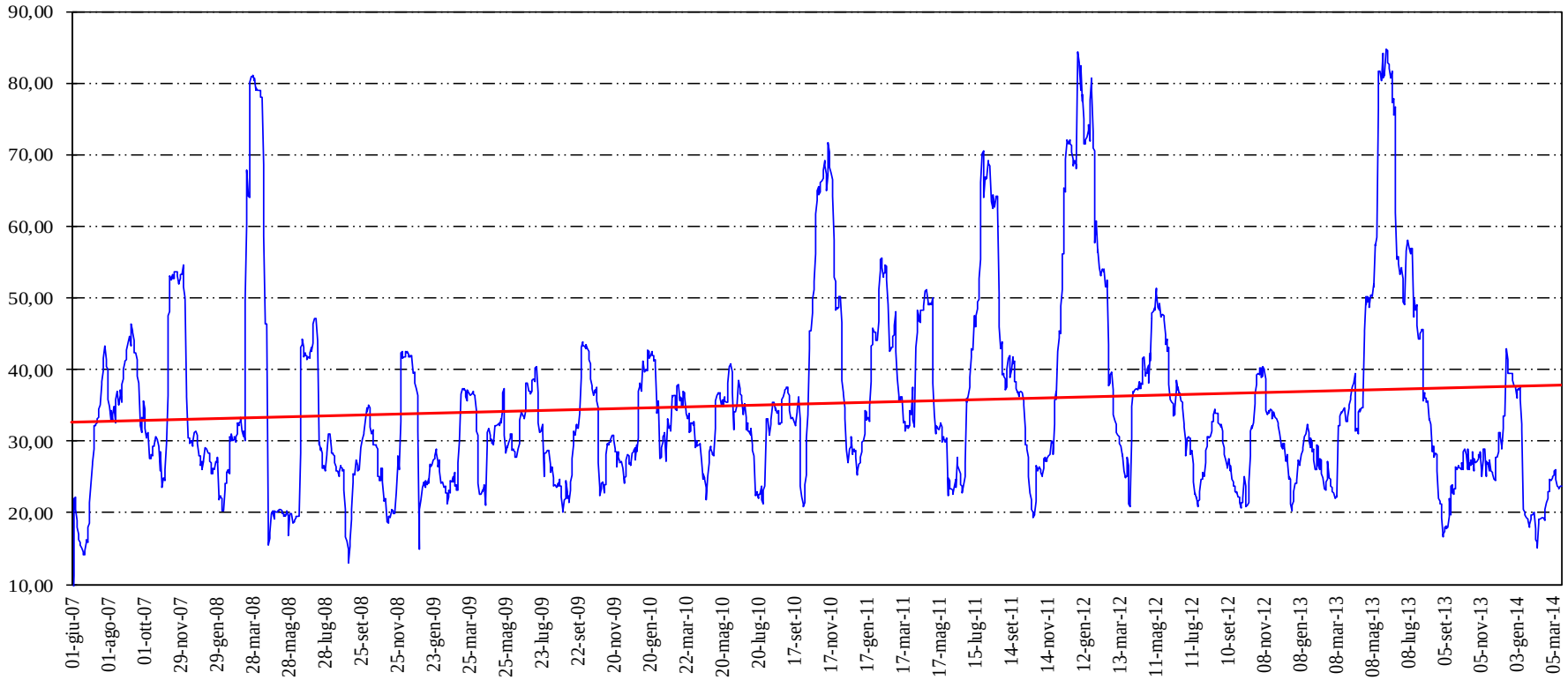
ATTACHMENT 11

Options on XYZ SpA ord. Shares
Underlying Daily Price Variation Distribution



ATTACHMENT 12

Options on XXX SpA ord. Shares
Daily Annualized Volatily calculated on a monthly basis



ATTACHMENT 13

XYZ	
Current Margin Interval:	12,50%
Current Minimum Margin (€):	48,00
CurrentShort Options Adjustment (€) Approx:	233,79
Multiplier (n. shares):	500

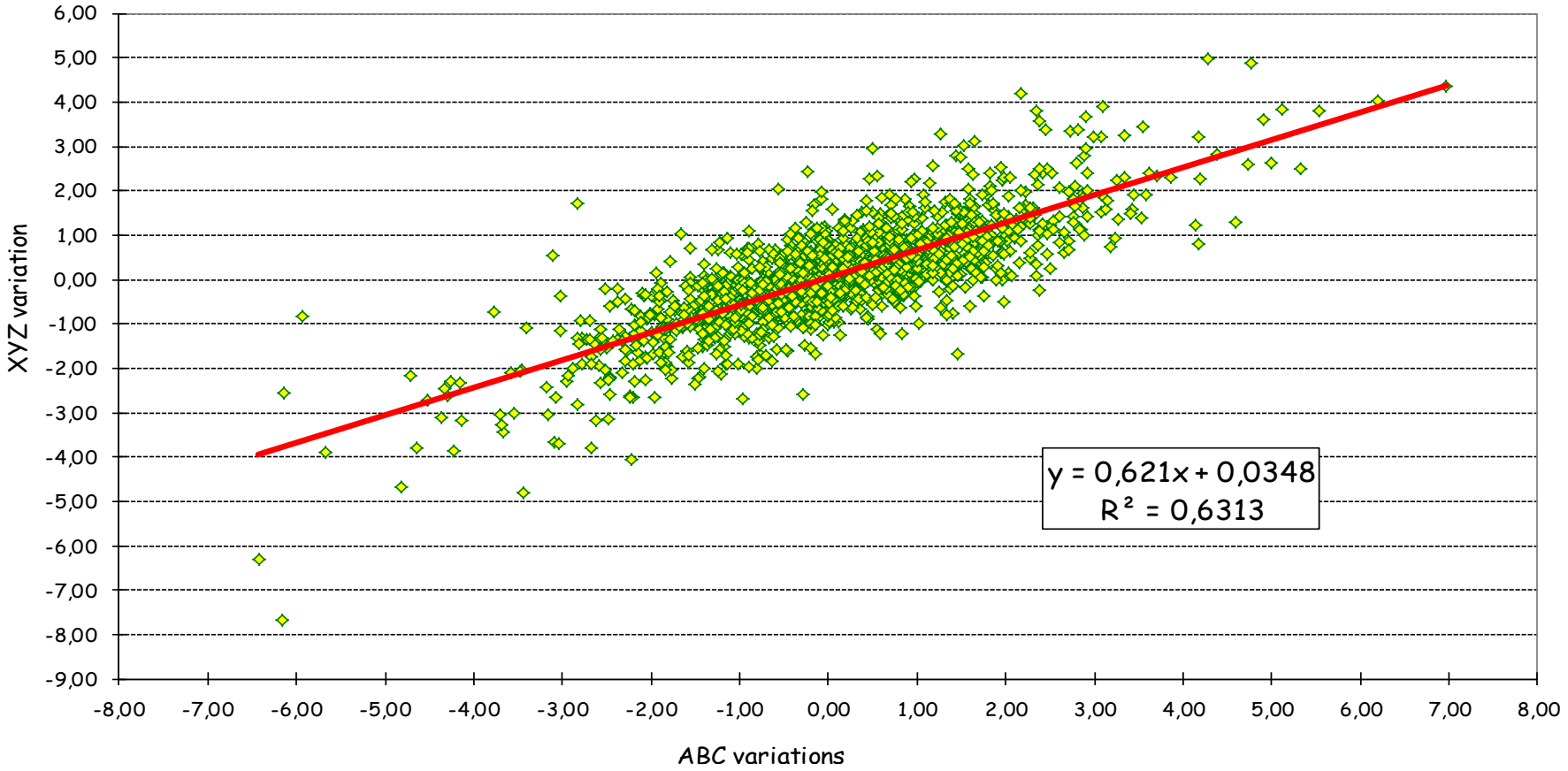
MARGIN INTERVAL	TOTAL	10 Years	9 Years	8 Years	7 Years	6 Years	5 Years	4 Years	3 Years	2 Years	1 Year	6 Months	3 Months	1 Month	1 Week
Standard Deviation of daily variation:	2,46	2,40	2,35	2,39	2,49	2,61	2,80	3,02	2,57	2,39	2,73	3,41	3,51	2,62	1,32
Absolute performance:	192,28%	12,80%	6,84%	5,15%	-13,03%	-32,38%	-37,60%	-34,99%	-10,91%	-6,98%	-2,16%	-2,52%	21,74%	1,93%	4,14%
Annualized performance:	3,92%	1,35%	0,74%	0,63%	-1,98%	-6,33%	-9,01%	-10,22%	-3,78%	-3,56%	-2,16%	-4,96%	117,61%	25,89%	678,57%
Standard Deviation	2,58	2,59	2,61	2,63	2,65	2,67	2,70	2,71	2,72	2,73	2,75	2,97	2,97	2,97	2,97
Number of days:	7.063	2.525	2.273	2.020	1.768	1.515	1.263	1.010	758	505	253	127	64	21	5
Annualized Daily Volatility:	39,13%	38,16%	37,32%	37,97%	39,62%	41,53%	44,55%	47,99%	40,95%	37,99%	43,41%	54,30%	55,82%	41,63%	21,00%
Coverage Level Desired:	99,000%	99,050%	99,100%	99,150%	99,200%	99,250%	99,300%	99,325%	99,350%	99,375%	99,400%	99,700%	99,700%	99,700%	99,700%
Events to Include:	6992,37	2501,01	2252,54	2002,83	1753,86	1503,64	1254,16	1003,18	753,07	501,84	251,48	126,62	63,36	20,79	4,95
Events to Exclude:	71	23,99	20,46	17,17	14,14	11,36	8,84	6,82	4,93	3,16	1,52	0,38	0,19	0,06	0,02
20-Oct-08	18,07%	18,07%	18,07%	18,07%	18,07%	18,07%	18,07%	18,07%	10,65%	8,49%	8,49%	8,49%	8,49%	4,60%	4,60%
29-Oct-08	17,15%	17,15%	17,15%	17,15%	17,15%	17,15%	17,15%	17,15%	8,49%	8,16%	7,72%	7,72%	6,55%	3,90%	3,90%
14-Oct-08	16,59%	16,59%	16,59%	16,59%	16,59%	16,59%	16,59%	16,59%	8,16%	7,72%	7,29%	7,29%	6,30%	3,07%	3,07%
30-Oct-08	16,03%	16,03%	16,03%	16,03%	16,03%	16,03%	16,03%	16,03%	7,72%	7,29%	6,55%	6,55%	6,13%	3,02%	3,02%
9-Dec-08	15,33%	15,33%	15,33%	15,33%	15,33%	15,33%	15,33%	15,33%	7,29%	6,55%	6,30%	6,30%	5,77%	2,77%	1,08%
25-Nov-08	14,74%	14,74%	14,74%	14,74%	14,74%	14,74%	14,74%	14,74%	7,06%	6,30%	6,13%	6,13%	5,22%	1,92%	---
7-Sep-98	13,74%	10,65%	10,65%	10,65%	10,65%	10,65%	10,65%	10,65%	6,55%	6,13%	5,77%	5,77%	4,65%	1,08%	---
8-Feb-00	13,04%	9,12%	9,12%	9,12%	9,12%	9,12%	9,12%	9,12%	6,30%	5,82%	5,22%	5,22%	4,60%	0,71%	---
10-Mar-09	10,65%	8,49%	8,49%	8,49%	8,49%	8,49%	8,49%	8,49%	6,21%	5,77%	4,97%	4,97%	4,26%	0,51%	---
27-Sep-01	10,13%	8,16%	8,16%	8,16%	8,16%	8,16%	8,16%	8,16%	6,13%	5,22%	4,65%	4,65%	4,23%	0,38%	---
16-Oct-08	13,16%	13,16%	13,16%	13,16%	13,16%	13,16%	13,16%	13,16%	12,83%	7,21%	7,21%	7,21%	6,72%	5,36%	0,00%
6-Mar-09	12,83%	12,83%	12,83%	12,83%	12,83%	12,83%	12,83%	12,83%	11,66%	6,99%	6,93%	6,93%	6,64%	3,53%	0,00%
9-Oct-08	12,07%	12,07%	12,07%	12,07%	12,07%	12,07%	12,07%	12,07%	8,89%	6,93%	6,81%	6,81%	5,94%	3,07%	0,00%
3-Mar-09	11,66%	11,66%	11,66%	11,66%	11,66%	11,665%	11,66%	11,66%	8,16%	6,81%	6,72%	6,72%	5,78%	3,00%	0,00%
6-Nov-08	11,01%	11,01%	11,01%	11,01%	11,01%	11,01%	11,01%	11,01%	8,03%	6,72%	6,64%	6,64%	5,45%	2,86%	0,00%
23-Sep-02	10,59%	10,59%	9,81%	9,81%	9,81%	9,81%	9,81%	9,81%	7,21%	6,64%	5,94%	5,94%	5,36%	0,82%	---
22-Jul-02	10,25%	10,25%	9,64%	9,64%	9,64%	9,64%	9,64%	9,64%	7,15%	6,05%	5,93%	5,85%	4,42%	0,54%	---
28-Oct-97	9,87%	9,81%	9,05%	9,05%	9,05%	9,05%	9,05%	9,05%	6,99%	5,94%	5,85%	5,78%	4,08%	0,31%	---
1-Dec-08	9,81%	9,64%	8,89%	8,89%	8,89%	8,89%	8,89%	8,89%	6,93%	5,93%	5,78%	5,71%	3,96%	0,13%	---
27-Apr-98	9,71%	9,05%	8,57%	8,57%	8,57%	8,57%	8,57%	8,57%	6,85%	5,85%	5,71%	5,70%	3,53%	0,00%	---
Supposed Margin Interval (MAX):	6,75%	8,15%	8,45%	8,85%	9,60%	11,00%	12,05%	13,15%	8,45%	7,70%	7,70%	10,15%	10,40%	7,75%	4,60%
Supposed Margin Interval (MIN):	6,75%	8,15%	8,20%	8,60%	9,15%	10,70%	11,70%	12,85%	8,20%	7,30%	7,50%	10,15%	10,40%	7,75%	4,65%
No. of Standard Deviation (MAX):	2,74	3,40	3,60	3,71	3,85	4,21	4,30	4,36	3,28	3,22	2,82	2,97	2,96	2,96	3,48
No. of Standard Deviation (MIN):	3	3,40	3,50	3,60	3,67	4,10	4,18	4,26	3,19	3,06	2,75	2,97	2,96	2,96	3,52
Obtained Coverage Level:	98,66%	99,08%	99,15%	99,20%	99,25%	99,33%	99,36%	99,40%	99,45%	99,59%	99,58%	100,00%	100,00%	100,00%	99,82%
Supposed Minimum Margin (€) MAX:	21,00	26,00	27,00	28,00	30,00	35,00	38,00	42,00	27,00	24,00	24,00	32,00	33,00	25,00	15,00
Supposed Minimum Margin (€) MIN:	21,00	26,00	26,00	27,00	29,00	34,00	37,00	41,00	26,00	23,00	24,00	32,00	33,00	25,00	15,00
Supposed Short Options Adjustment (€) MAX:	106,99	129,18	133,93	140,27	152,16	174,35	190,99	208,43	133,93	122,05	122,05	160,88	164,84	122,84	72,91
Supposed Short Options Adjustment (€) MIN:	106,99	129,18	129,97	136,31	145,03	169,60	185,45	203,67	129,97	115,71	118,88	160,88	164,84	122,84	73,70

Max Variations		
Increases		
Decreases		
	13,00%	max avg
	12,85%	max min

ATTACHEMNT 14

ABC/XYZ Product Group Offset Factor:

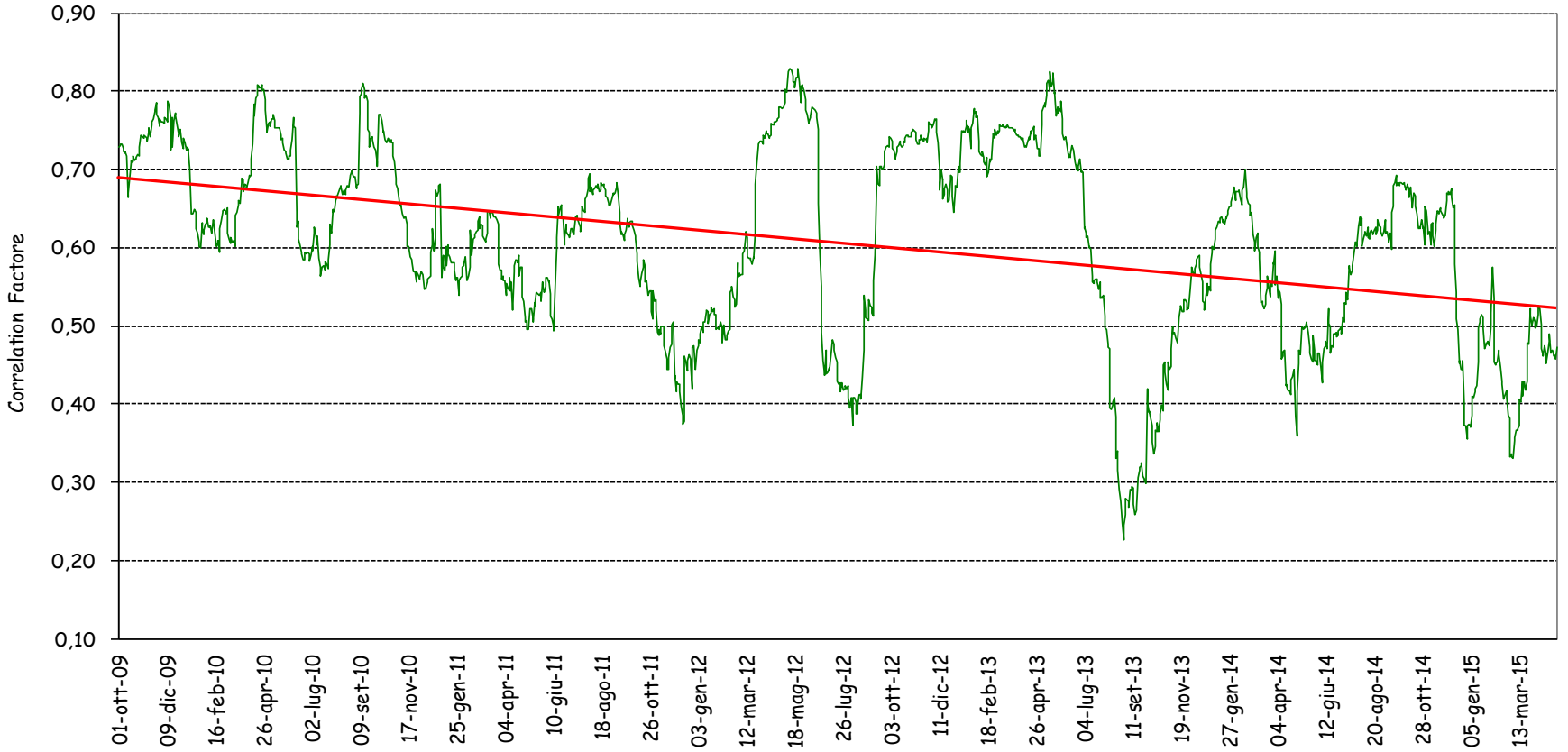
Correlation between ABC and XYZ daily value variations



ATTACHMENT 15

ABC/XYZ Product Group Offset Factor:

Correlation betwen ABC and XYZ calculated on a quarterly basis



ATTACHMENT 16

3 long positions on futures exp. JNYY, trading price 12,0877; reference price 12,0272
2 short positions on futures exp. SPYY, trading price 12,1869; reference price 12,126

Variation Margins (Settle-to-Market)		
(Reference Price - Trading Price) x Numb. Positions x Numb. Underlying		
(12,0272 - 12,0877) x 3 x 1000	-181,50	Debit
(12,126 - 12,1869) x -2 x 1000	121,80	Debit
TOTAL	**-59,70**	Debit

Futures Straddle Margins		
(Straddle Positions) x Straddle margin		
2 x 400	-800,00	Debit
TOTAL	**-800,00**	Debit

	DOWNSIDE					Market Value	UPSIDE				
Margin Interval	-10,00%	-8,00%	-6,00%	-4,00%	-2,00%		2,00%	4,00%	6,00%	8,00%	10,00%
Securities Theoretical Value	10,746	10,985	11,224	11,462	11,701	11,940	12,179	12,418	12,656	12,895	13,134
Unitary settlement gain/loss (Euro)	-1,194	-0,955	-0,716	-0,478	-0,239		0,239	0,478	0,716	0,955	1,194
Futures Theoretical Value	10,833	11,072	11,311	11,550	11,788	12,027	12,266	12,505	12,744	12,982	13,221
Closing Price	12,027	12,027	12,027	12,027	12,027		12,027	12,027	12,027	12,027	12,027
Futures Theoretical Value	-1,194	-0,955	-0,716	-0,478	-0,239		0,239	0,478	0,716	0,955	1,194
X 1 Long Positions	-1,194	-0,955	-0,716	-0,478	-0,239		0,239	0,478	0,716	0,955	1,194
Unitary settlement gain/loss Futures (Euro)	-1.194,000	-955,200	-716,400	-477,600	-238,800		238,800	477,600	716,400	955,200	1.194,000
Settlement gain/loss Total (Euro)	-1.194,00	-955,200	-716,40	-477,60	-238,80		238,800	477,600	716,400	955,200	1.194,000

Largest Theoretical loss	-1.194,00	€ Debit
Additional Margins	-1.194,00	€ Debit
Futures Straddle Margins	-800,00	€ Debit
Total Initial margins - Class Group	-1.994,00	€ Debit

ATTACHMENT 17

3 long expiring futures positions; settlement price 12,00; underlying reference price 11,94

Settlement Balance		
Settlement Price x Numb. Positions x Numb. Underlying		
12 x -3000	-36.000,00	
Securities net amount	**3.000,00**	€ Collect
Cash net amount	**-36.000,00**	€ Pay

Mark-to-Market Margin		
(Reference Price - Settlement Price) x Numb. Positions x Numb. Underlying		
(11,94-12) x 3000	-180,00	€ Debit
TOTAL	**-180,00**	€ Debit

	Downside					Market value	Upside				
Margin Interval	-10,00%	-8,00%	-6,00%	-4,00%	-2,00%		2,00%	4,00%	6,00%	8,00%	10,00%
Securities Theoretical Value	10,746	10,985	11,224	11,462	11,701	11,940	12,179	12,418	12,656	12,895	13,134
Reference Price	11,940	11,940	11,940	11,940	11,940		11,940	11,940	11,940	11,940	11,940
Unitary settlement gain/loss (Euro)	-1,194	-0,955	-0,716	-0,478	-0,239		0,239	0,478	0,716	0,955	1,194
Theoretical settlement gain/loss (Euro) X 3000 securities long positions	-3.582,00	-2.865,60	-2.149,20	-1.432,80	-716,40		716,40	1.432,80	2.149,20	2.865,60	3.582,00
Settlement gain/loss Total (Euro)	-3.582,00	-2.865,60	-2.149,20	-1.432,80	-716,40		716,40	1.432,80	2.149,20	2.865,60	3.582,00

Largest Theoretical loss	-3.582,00	€ Debit
Additional Margins	-3.582,00	€ Debit
Futures Straddle Margins	0,00	€ Credit
Mark to Market Margins	-180,00	€ Debit
Total Initial margins - Class Group	-3.762,00	€ Debit

ATTACHMENT 18

2 long positions options call 11,00 exp. SPYY, trading price 2,216; closing price 2,176
2 short positions futures exp. JNYY, trading price 12,0877; closing price 12,0272

Variation Margins (Settle-to-Market)		
(Reference Price - Trading Price) x Numb. Positions x Numb. Underlying		
(12,0272 - 12,0877) x -2 x 1000	121,00	€ Credit
TOTAL	**121,00**	€ Credit

Premium Options		
(Trading Price x Numb.Positions x Numb. Underlying)		
2,2162 x 2 x 1000	4.432,40	€ Collect
TOTAL	**4.432,40**	€ Collect

Premium Margins		
(Closing Price x Numb. Positions x Numb. Underlying)		
2,1755 x 2 x 1000	4.351,00	€ Credit
TOTAL	**4.351,00**	€ Credit

	Downside					Market Value	Upside				
Margin Interval	-10,00%	-8,00%	-6,00%	-4,00%	-2,00%		2,00%	4,00%	6,00%	8,00%	10,00%
Securities Theoretical Value	10,746	10,985	11,224	11,462	11,701	11,940	12,179	12,418	12,656	12,895	13,134
Unitary settlement gain/loss (Euro)	-1,194	-0,955	-0,716	-0,478	-0,239		0,239	0,478	0,716	0,955	1,194
Theoretical Value Option Call 11 OCT YY	1,436	1,573	1,715	1,863	2,017	2,176	2,339	2,508	2,681	2,858	3,039
Closing Price	2,176	2,176	2,176	2,176	2,176		2,176	2,176	2,176	2,176	2,176
Settlement gain/loss (Euro)	-0,740	-0,603	-0,461	-0,312	-0,159		0,164	0,332	0,505	0,683	0,864
X 2 Long Positions	-1,479	-1,206	-0,921	-0,625	-0,318		0,327	0,664	1,010	1,365	1,728
Settlement Theoretical gain/loss (Euro) Call 11 OCT-YY	-1.479,000	-1.205,800	-921,000	-624,600	-317,600		327,400	664,400	1.010,400	1.365,000	1.727,800
Futures Theoretical Value	10,833	11,072	11,311	11,550	11,788	12,027	12,266	12,505	12,744	12,982	13,221
Closing Price	12,027	12,027	12,027	12,027	12,027		12,027	12,027	12,027	12,027	12,027
Unitary settlement gain/loss (Euro)	-1,194	-0,955	-0,716	-0,478	-0,239		0,239	0,478	0,716	0,955	1,194
X 2 Long Positions	2,388	1,910	1,433	0,955	0,478		-0,478	-0,955	-1,433	-1,910	-2,388
Settlement gain/loss Futures (Euro)	2.388,000	1.910,400	1.432,800	955,200	477,600		-477,600	-955,200	-1.432,800	-1.910,400	-2.388,000
Settlement gain/loss Total (Euro)	909,00	704,60	511,80	330,60	160,00		-150,20	-290,80	-422,40	-545,40	-660,20

Largest Theoretical loss	-660,20	€ Debit
Additional Margins	-660,20	€ Debit
Option Premium Margin	4.351,00	€ Credit
Total Initial margins - Class Group	3.690,80	€ Credit

CONTACT

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Risk Management

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