

Clearing Services for



Paris, 14th April 2008

Agenda

BLUENEXT Business model

LCH.Clearnet SA Business model & Implementation plan

Risks presentation: SPAN® Derivatives & Mutual Clearing Fund

CLEARING system

E-CCW tool presentation

Delivery Rules

Questions & Answers

Agenda

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LCH.Clearnet SA Business model & Implementation plan

Risks presentation: SPAN® Derivatives & Mutual Clearing Fund

CLEARING system

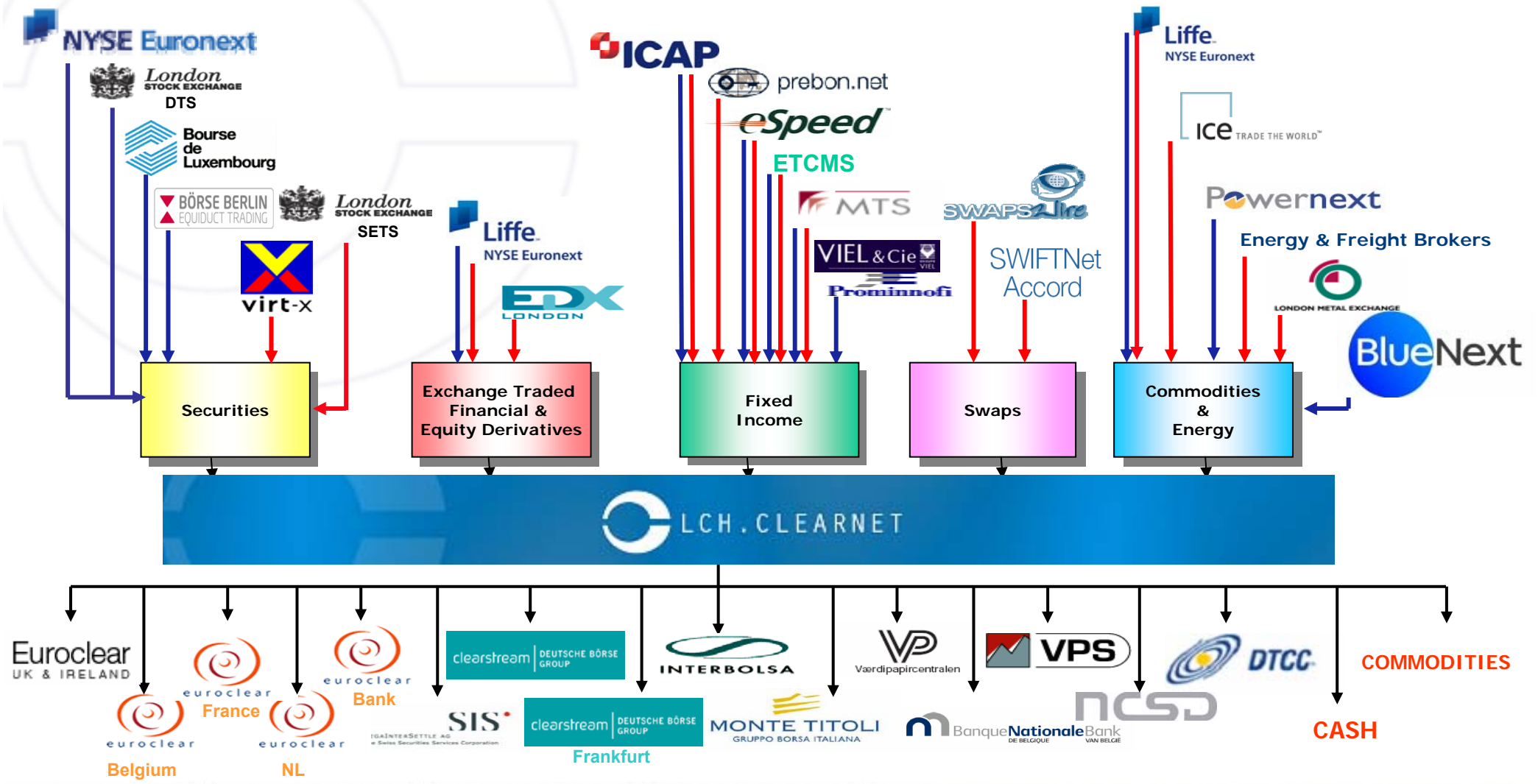
E-CCW tool presentation

Delivery Rules

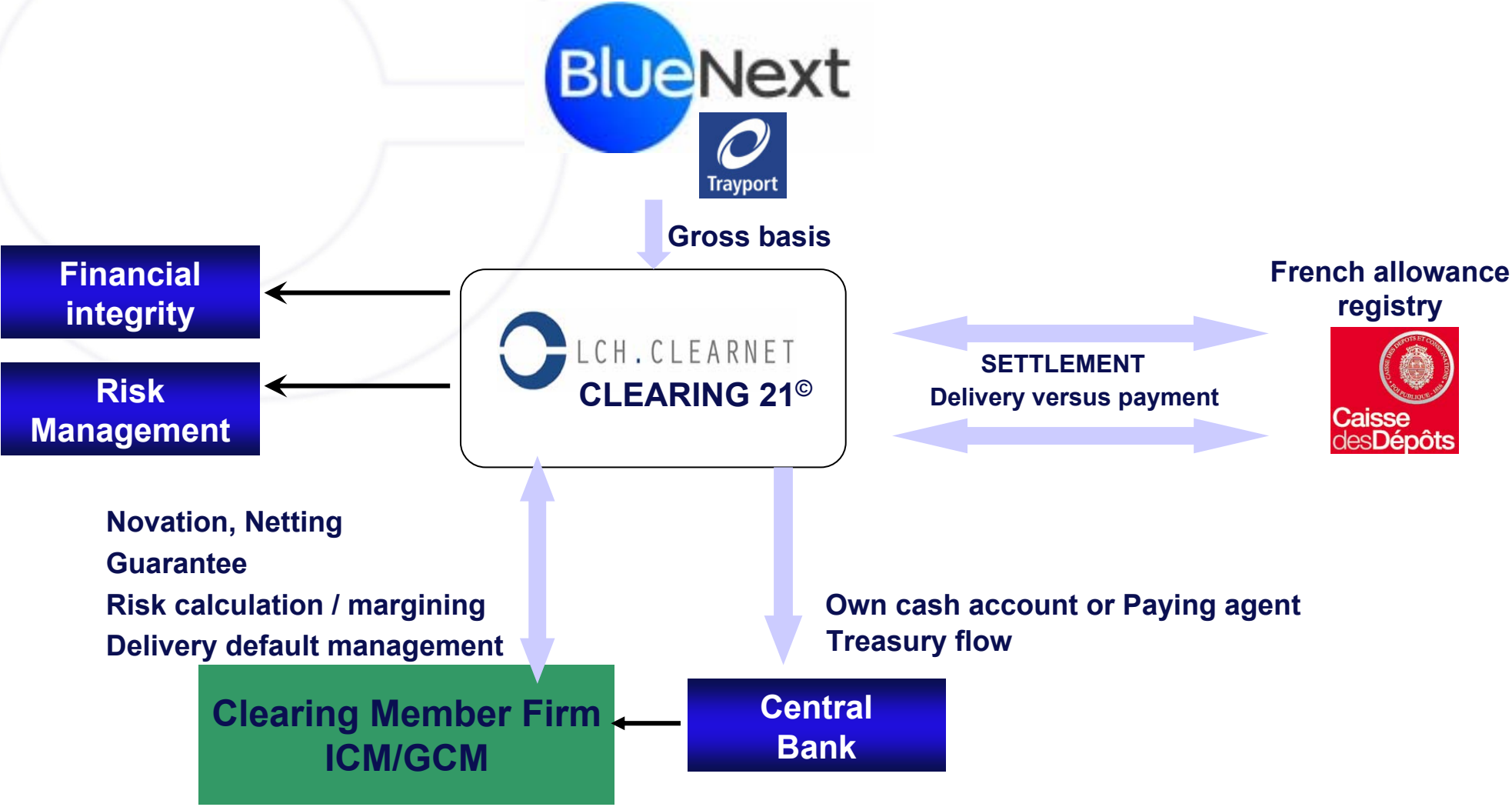
Questions & Answers

Clearing Services: Broad range of markets served (Group level)

→ SA operational link
 → LTD operational link



Clearing Services: LCH.Clearnet SA Business Model

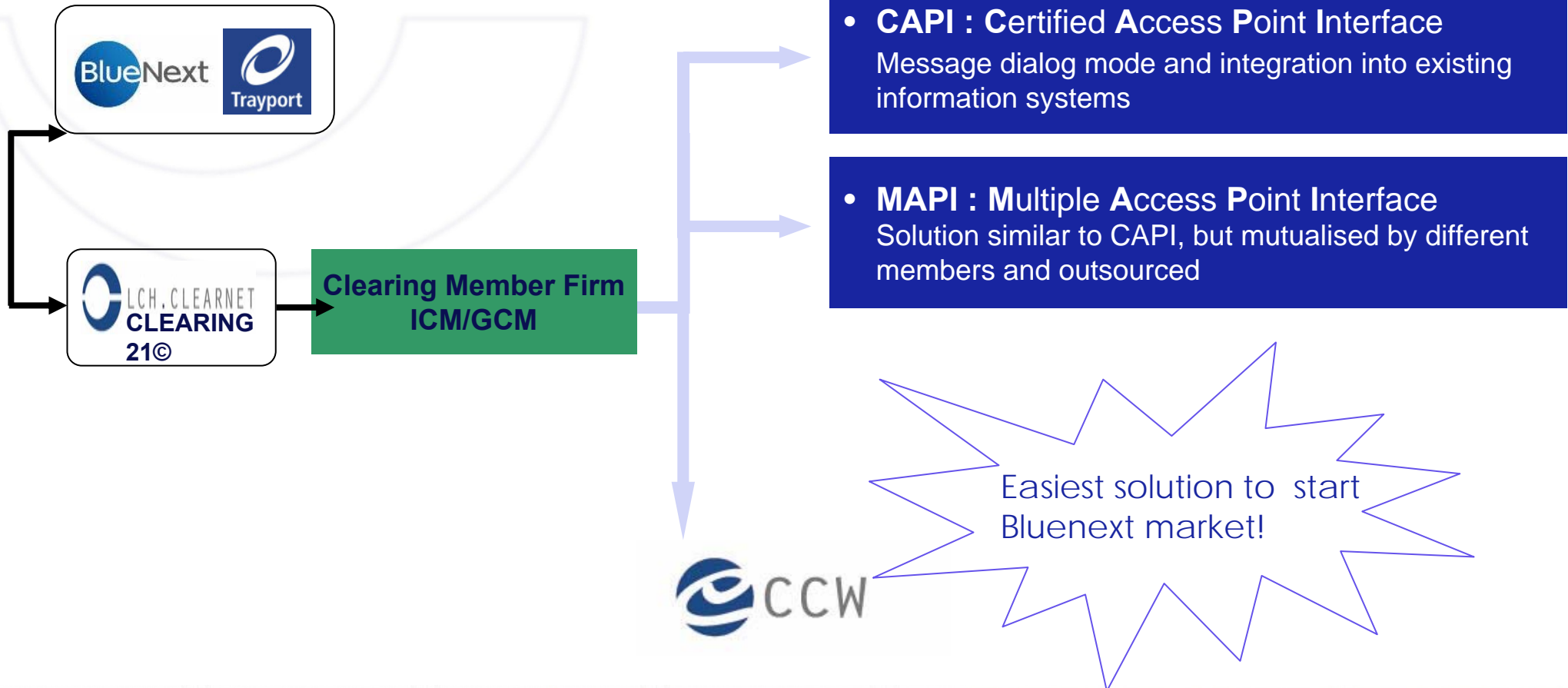


Clearing services for BlueNext: Clearing Fees

- **Clearing fees:** **EUA/CER Futures** **€ 1.50 / Contract**
 No delivery fees
- **LCH.Clearnet SA will also collect trading fees on behalf of BLX for TMFs**

Clearing services for BlueNext: Impact for Existing Members

○ Connectivity: No impact !



Clearing services for BlueNext: Impact for Existing Members

Operations: Low impact !

No change

- Clearing organisation: Monep (same financial market: 274)
- No change in the reporting

Change

- New clearing segment: BLXFT
- New trading venue: BLXOT (web) and BLXGV (Trayport)

Clearing services for BlueNext: Impact for Existing Members

- **Treasury: No impact !**

- **Treasury reports:**

- BlueNext will use the TARGET calendar,
- MONEP Treasury reports will be used for BlueNext,
- The specific trading and clearing fees will be added into the detail of “Stock and Index Derivatives” CASH Call document,
- For BlueNext deposits = same rules as for MONEP market applied on (Rates, eligible collateral, clearing fund, intraday margin call),

Clearing Services for BlueNext: Impact for Existing Members

○ Legal & Membership: Low impact !

Fast track membership package

- Letter of extension + Contacts form,
- Admission Agreement + Operating Rules,
- Tax identification and invoicing,
- Agreement for opening and maintaining a French greenhouse emission allowance account,
- Declaration of compliance (supersedes the current Clearing Agreement with a TMF),
- Declaration of compliance (supersedes the current Payment Agent Agreement),
- ECCW order form.

How to participate?

As a first step, documents included in membership package should be filled out and returned back to LCH.Clearnet SA.

Testing period

- ❖ Testing Platform available as from 31 March until the go live date,
- ❖ Environment: trading to clearing, including treasury reports
- ❖ Testing highly recommended for each member
- ❖ Free test cases

Go live: mid-April 2008

BLUENEXT project: Your contacts at LCH.Clearnet SA

Any documentation / request is to be returned or addressed to the following contacts

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Financial structure and account architecture

MARGIN CALLS – Methodology and simulations

INTRA-DAY MARGIN CALLS - Methodology & Process

CLEARING FUNDS – Methodology and simulations

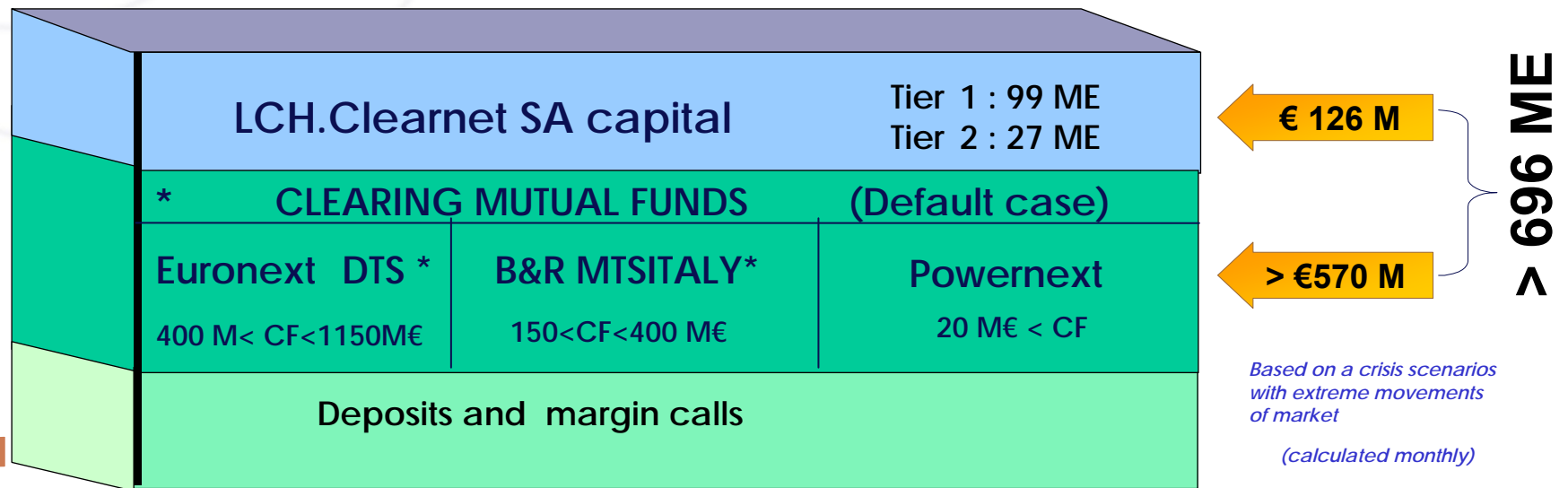
BLUENEXT: Risk Management

INTRODUCTION – Margin calls methodology

Financial structure of LCH. Clearnet SA

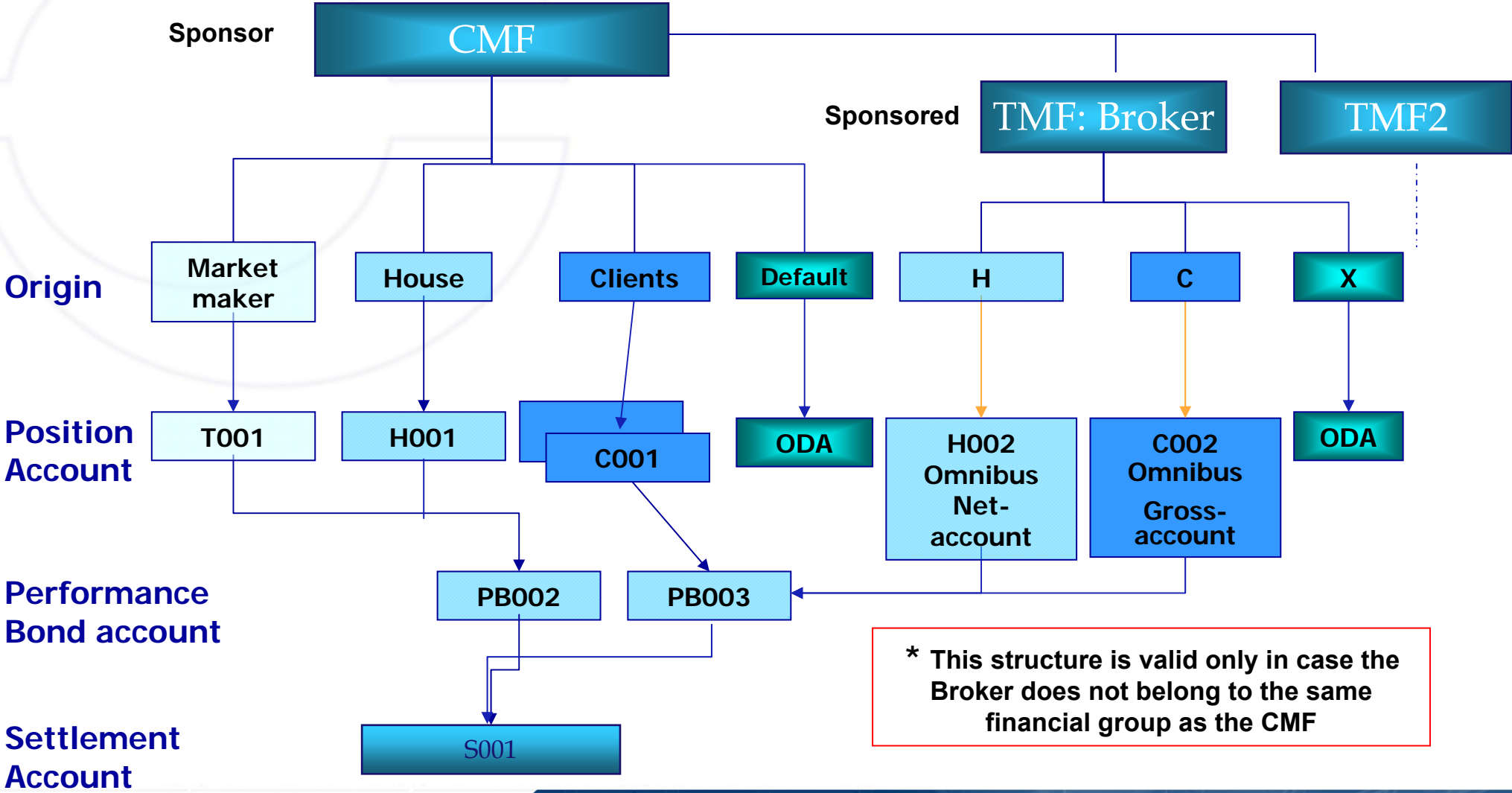
2008

Net worth End December 2007



Overall of a mutualized and dedicated financial structure

BLUENEXT: Account Architecture – Derivatives Markets



BLUENEXT: Risk Management

Agenda

Financial structure and account architecture

MARGIN CALLS – Methodology and simulations

INTRA-DAY MARGIN CALLS - Methodology & Process

CLEARING FUNDS – Methodology and simulations

BLUENEXT: Risk Management

MARGIN CALLS METHODOLOGY

- In order to guarantee the global net positions of the members and to face a default situation of one of them,

LCH.Clearnet SA requires from each member a financial commitment under the shape of *margin call (variation margin)* and of a *deposit (initial margin)*.

Margin call and deposit are the two daily components of risk coverage:

- ▶ *Margin call* covers the **past** market risk.
 - ▶ It covers the daily evolution of position valuation since the transaction valued with trade price .
- ▶ The *Deposit* covers the **future** market risk.
 - ▶ It aims to cover the clearing house risk in case of member default.
 - ▶ This risk covers the potential prices variations between the default and the effective liquidation of the positions by LCH.Clearnet SA .

BLUENEXT: Risk Management

INITIAL MARGIN CALLS METHODOLOGY

SPAN[®] (Standard Portfolio Analysis) software: **algorithm** calculating initial margins (deposit).

- ▶ developed in 1988 by CME (Chicago Mercantile Exchange) for Derivatives markets.
- ▶ Since then it has been implemented in more than 20 main Exchange and Clearing Houses all over the world and has become a world standard

LCH.Clearnet SA use SPAN[®] algorithm on Euronext.Liffe Derivatives Markets.

BLUENEXT: Risk Management

INITIAL MARGIN CALLS METHODOLOGY

SPAN® methodology for Derivatives:

Web-site available : http://www.lchclearnet.com/Images/SPAN_Derives_GB_200802_tcm6-29248.pdf

Deposit calculation by SPAN® is achieved in several steps :

1. Scenario risk: **16 scenarios** combine variations of the fluctuation range and of volatility of each product
(only **2 scenarios** for futures contracts)
2. The rise for calendar spreads
3. The rise for spot month
4. The reduction for spreads between combined groups (between **EUA and CER**)
5. **The minimum on options short positions**
6. **The liquidation value for options**
7. The final deposit calculation

BLUENEXT: Risk Management

INITIAL MARGIN CALLS METHODOLOGY

SPAN® methodology for Derivatives:

The 2 SPAN® scenario take into consideration:

- The potential variation of the underlying value of the instrument upon the calibration of the Scan risk parameter by LCH.Clearnet SA Risk department
- Among scenario results, SPAN® allows to identify the maximum loss of the portfolio, this result:
 - is designated as scenario risk (scanning risk)
 - provides the estimation of the future risk,
- Risk calculation at combined commodity level :
combined commodity gathers all contracts that have the same underlying instrument

BLUENEXT: Risk Management

INITIAL MARGIN CALLS METHODOLOGY

Risk Matrix

Risk Scenarios	underlying price variation	volatility variation	Weight fraction taken into account
1	0	1	100%
2	0	-1	100%
3	1/3	1	100%
4	1/3	-1	100%
5	-1/3	1	100%
6	-1/3	-1	100%
7	2/3	1	100%
8	2/3	-1	100%
9	-2/3	1	100%
10	-2/3	-1	100%
11	1	1	100%
12	1	-1	100%
13	-1	1	100%
14	-1	-1	100%
15	2	0	35%
16	-2	0	35%

BLUENEXT: Risk Management

INITIAL MARGIN CALLS METHODOLOGY

- **Regular initial margin**

Initial margin on outright positions, calculated with the scan risk (scenario risk)

- **Calendar spread**

Specific margin for spread position between two maturities on the same contract

- **Spot month:**

Specific margin applied 10 days before the last trading day (expiry of the maturity)

- **Credit for inter-commodity spreads**

Specific credit for a spread position between the two contracts EUA and CER, allowing a margin minoration linked to the price correlation between EUA and CER

- **Delivery margin:**

Specific margin applied during the delivery period after the last trading day (expiry) on positions to be delivered and released after the delivery/settlement of the position

- Starting launch, CO2 margin parameters will be available in Risk notice :

- on web site: http://www.lchclearnet.com/risk_management/sa/margining_methodology/margin_parameters.asp

- By RISKINFO message sent to members

BLUENEXT: Risk Management

INITIAL MARGIN CALLS METHODOLOGY

- Risk Notice: All these parameters will be applied at the launch of the contracts and re-examined at least once a month

RISK MANAGEMENT DEPARTMENT

LCH.CLEARNET SA

MARGIN PARAMETERS

BLUENEXT CONTRACTS

BLUENEXT CONTRACTS

CO MONEP

GLOBAL PARAMETERS

Regular initial margin

Combined commodity	Contract code	RIM	UPSR +/-
EUA	EUA	€ 2,350	€ 2.35
CER	CER	€ 1,600	€ 1.60

Spot month charge²

Combined commodity	Nbr of days	Naked Positions	Spread Positions
EUA	10	€ 1,180	€ 500
CER	10	€ 800	€ 220

DELIVERY INITIAL MARGIN

All commodities Futures contracts = 20 % of contract value at delivery price

BLUENEXT: Risk Management

INITIAL MARGIN CALLS METHODOLOGY

- Risk Notice: All these parameters will be applied at the launch of the contracts and re-examined at least once a month

INTER MONTH SPREAD CHARGE

Levels

Combined commodity	Level	Maturity
EUA	L1	1
	L2	2-3-4-5
CER	L1	1
	L2	2-3-4-5

Spread rules and charge amounts

Combined commodity	Priority	Leg 1			Leg 2			Additional charge
		Delta	Side of the leg	Level	Delta	Side of the leg	Level	
EUA	1	1	A	L1	1	B	L2	€1,000
	2	1	A	L2	1	B	L2	€1,000
CER	1	1	A	L1	1	B	L2	€450
	2	1	A	L2	1	B	L2	€950

CREDIT FOR INTER-COMMODITIES SPREADS

Spread rules and credit amounts

Priority	Credit rate	Leg 1			Leg 2		
		CC code	Delta Ratio	Side of the leg	CC code	Delta Ratio	Side of the leg
1	60%	CER	1.5	A	EUA	1	B

BLUENEXT: Risk Management

INITIAL MARGIN CALLS - Simulations

- **Market hypotheses: BlueNext target Year 1**
 - Hypothesis 1: Open interest = 20 000 lots
 - Hypothesis 1 bis : Open interest = 40 000 lots
 - Market concentration : 80% volume are concentrated among 20% players, with 10 players at start

- **Portfolio hypotheses:**
 - Most important portfolio : 40% of open interest = 8000 lots on first maturity (directional)
 - Mean portfolio : 10% of open interest with 95% on EUA and 80% on first maturity

	EUA		CER	
	Buy	Sell	Buy	Sell
2008	1 600	0	0%	100
2009	0	200	0	0
2010	100	0	0	0
2011	0	0	0	0
2012	0	0	0	0

BLUENEXT: Risk Management

INITIAL MARGIN CALLS - Simulations

Results :

Portfolio		Hyp 1	Hyp 1 bis
Mean	Initial Margin	3 695 000	7 390 000
Important	Initial Margin	18 800 000	37 600 000

BLUENEXT: Risk Management

Agenda

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MARGIN CALLS – Methodology and simulations

INTRA-DAY MARGIN CALLS - Methodology & Process

CLEARING FUNDS – Methodology and simulations

BLUENEXT: Risk Management

INTRA-DAY MARGIN CALLS

- In scope
 - Derivatives instruments of Amsterdam, Brussels, Lisbon, Paris & **BLUENEXT** cleared through LCH.Clearnet SA (futures & options on equities, index, currency, commodity and **Carbon** instruments)
 - All securities eligible as collateral (as they will be re-valued)
- Rationale
 - To strengthen the Clearing House's safety and guarantee mechanisms
 - To implement standards of best practice for intra-day margin and monitoring policy
 - To meet regulatory requirements on intra-day risk management

BLUENEXT: Risk Management

INTRA-DAY MARGIN CALLS

- Snapshot of updated positions
 - Clearing system CLEARING 21[®] is the source of position movements
 - Non posted trades will be treated the same way as in the end-of-day process (on house account by default)
- Revaluation
 - Of updated open positions
 - Of deposited collateral
 - Using updated intra-day prices
- Re-computation of margins

LCH.Clearnet SA calculates margin requirements. It provides one amount calculated at Performance Bond account level (including initial margin, variation margin and premium).

BLUENEXT: Risk Management

INTRA-DAY MARGIN CALLS

- Intra-day process
 - Re-computation of margins are performed internally by SA every hour from 9:45 am until 5:45 pm
 - The **1:45 pm** session (with margin call indicator) is set by default to generate a potential call before **2:45 pm** (in practice around 2.15 pm)
 - The with/without call indicator can be changed in case of extreme market movements
 - In case of very exceptional market circumstances, an additional intra-day call could be performed

Session number	Start time	Session qualification	Call time
1	09:45am CET	Without cover call	
2	10:45am CET	Without cover call	
3	11:45am CET	Without cover call	
4	12:45am CET	Without cover call	
5	01:45pm CET	With cover call	Before 02:45pm CET
6	02:45pm CET	Without cover call	
7	03:45pm CET	Without cover call	
8	04:45pm CET	Without cover call	
9	05:45pm CET	Without cover call	

BLUENEXT: Risk Management

INTRA-DAY MARGIN CALLS

- Intra-day thresholds
 - A threshold is implemented to ensure the exceptional character of this call
 - Threshold level
 - Are based on the level of the initial margin of the previous end of day
 - Are set up in order to generate a call only in exceptional market or member position change situations
- The threshold is a percentage or a fixed amount according to the amount of the initial margin
- The threshold is reviewed and its adequacy checked regularly as any other risk parameter

BLUENEXT: Risk Management

INTRA-DAY MARGIN CALLS

Intra-day thresholds

Intra-Day Margin Thresholds (1)		
Initial margin	Theoretical Threshold	Applicable Threshold
$\text{Margin}_{\text{EOD}(T-1)} \leq A$	Y Euro	751 000 €
$A < \text{Margin}_{\text{EOD}(T-1)} < B$	X % * IM	88% * IM
$\text{Margin}_{\text{EOD}(T-1)} \geq B$	Z Euro	125 000 000 €

A= 853 400 Euros B = 142 045 500 Euros

(1) : parameters currently available in March 08, reviewed regularly, available in the Risk notice

BLUENEXT: Risk Management

INTRA-DAY MARGIN CALLS

- Normal session will be fixed at à 13:45 and will take place to provide a potential intra-day call at 14:05;
- Intra-day call will arrive in the time-frame at 14:05 à 14:35:
 - In Target 2 (BoF) & BoP : Agreement period: 14:05 à 14h30;
 - Settlement period: 14:30 à 14:35;
- In case of large fluctuations during the day, LCH.Clearnet SA will keep the possibility to call several times:
 - Timings will be: in the morning: 11:05 –11:35;
 - in the afternoon: 15:05 – 15:35.

BLUENEXT: Risk Management

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BLUENEXT: Risk Management

CLEARING FUNDS - Principles -

- LCH.Clearnet SA set up to clearing funds to cover :
 - **Regulated markets (Euronext + DTS)** (Instruction I.6-1) + **BLUENEXT**
 - Bonds markets (OTC + MTS Italy).
 - Powernext market
- The clearing fund for regulated markets has for objective to cover the risks non-covered by the daily uncovered-risks on all the positions on :
 - Securities (equities, bonds,...)
 - Derivatives financial instruments, (options and futures on indexes, on equity, on currencies and on commodities)

BLUENEXT: Risk Management

CLEARING FUNDS - Principles -

- The size of the guarantee fund is calibrated to cover the clearing member default which non-covered risks (NCR) are the most important
- The concept of “non covered” daily risk of every member is estimated by obtaining the difference enter:
 - The stress-risk (on basis of parameters showing extreme variations, introduced into the SPAN algorithms) increased/decreased of the variation of margin on positions in the evening of D,
 - And the whole required cover and effectively deposited in D (in the morning, calculated on the basis of the positions D-1)

BLUENEXT: Risk Management

CLEARING FUNDS - Principles -

- Daily Non-covered Risk (NCR) is calculated:

- on Derivatives markets:

$$\text{NCR}_d = \text{Stress-Risk}_d - \text{Initial Margin}_{d-1} - \text{Variation Margin}_d$$

- The average of NCR increased by 3 standard deviations on 60 days, limited by real NCR maximum is used for monthly revaluation of the contributions to the guarantee fund (variation of contribution / previous month) and in case of default having required the use of the guarantee fund

BLUENEXT: Risk Management

CLEARING FUNDS - Principles -

- Are also calculated on the basis of these aggregates :
 - The non covered risk maximum among all members
 - The total non covered Risk of all members (Sum NCR)
- The monthly distribution of the contributions is stopped in the evening of the fifth market day of the month and calculated pro rata the NCR of each member M_i following the formula:
 - **Contribution $M_i = \text{Max NCR} \times \text{NCR } M_i / \text{Total NCR}$**
- The fund has a cap and a floor amount
- The sum of the contributions:
 - = Min (Max NCR; Cap) if Max NCR > Cap
 - = Max (Max NCR; Floor) if Max NCR < Floor

BLUENEXT: Risk Management

CLEARING FUNDS - Use -

- In case of clearing member default, the clearing fund can be used after exhaustion of covers (deposits and excess of collateral) and of the contribution to the fund of the defaulting member
- Principles of draw and replenishment of the fund:
 - 1 draw per default
 - 1 replenishment per draw within the limits of a ceiling equivalent to the latest clearing fund amount over a period of 90 calendar days
 - Restitution of the contribution (not used during a default) if normal cessation of business of the member
- Limitation in a single call of contribution if default occurring during 10 days preceding the effective closing of positions of the member stopping its activity

BLUENEXT: Risk Management

CLEARING FUNDS - Additional Margin -

A mechanism of margin call additional is implemented

- if the non-covered risk with a member **MI** exceeds the amount of the Clearing Fund (CF)
- and if the new non-covered risk with a member **MI**, after the daily cover call (Taking into account the **margin cash call of the day**), exceeds the amount of the Clearing Fund (CF)

New non covered risk (NNCR) after daily cover call:

$$\text{NNCR}_d = \text{Stress-Risk}_d - \text{Initial Margin}_d$$

The additional margin (AM) is equivalent to:

$$\text{AM} = \text{NNCR}_d (M_I) - \text{CF}$$

The additional margin is given back /revaluated the next day

BLUENEXT: Risk Management

CLEARING FUNDS - Simulation of impact -

UR = NCR = Non Coverd Risk

Current Clearing Fund	29/02/2008
Current Max UR	734 254 576
Current Sum UR	8 845 223 705
Current Contribution (% of UR)	8,3011%

BLUENEXT: Risk Management

CLEARING FUNDS - Simulation of impact -

Hypotheses : 3 scenarios simulated for the 2 market size hypotheses (1 & 1 bis)

Scenario 1 : the clearing member having the highest Euronext markets UR does not support Bluenext UR, meaning the size of the clearing fund does not change

Scenario 2 : the clearing member having the highest Euronext markets UR does support a mean Bluenext UR, meaning the the size of clearing fund increases

Scenario 3 : the clearing member having the highest Euronext markets UR does support the highest Bluenext UR, meaning the the size of clearing fund increases (in the largest proportion mathematically)

For evaluation of the uncovered risks on the 60 days period that is used for clearing fund calibration, the change of portfolio have been computed as following:

- stability of mean portfolio : always the same mean portfolio
- stability of important portfolio : always the same important portfolio
- high volatility of portfolio positions : the portfolio change from mean to important every consecutive day

BLUENEXT: Risk Management

CLEARING FUNDS - Simulation of impact -

Results with market hypothesis 1: open interest = 20 000 lots

Uncovered risks simulated on Bluenext portfolios	
UR min	3 171 000
UR max	32 305 000
UR average	17 738 000
Number of member	10
Sum of UR	177 380 000

	Scenario 1	Scenario 2	Scenario 3
Max UR	Current Max UR	Current Max UR + Bluenext UR average	Current Max UR + Bluenext UR max
CF	734 254 576	751 992 576	766 559 576
CF variation (euros)	-	17 738 000	32 305 000
CF variation (%)	-	2,42%	4,40%
Sum UR	9 022 603 705	9 022 603 705	9 022 603 705
Contribution (% of UR)	8,1379%	8,3345%	8,4960%
Contribution variation (%)	-1,9660%	0,4023%	2,3473%

BLUENEXT: Risk Management

CLEARING FUNDS - Simulation of impact -

Results with market hypothesis 1: open interest = 20 000 lots

Contribution range

Contribution	Scenario 1	Scenario 2	Scenario 3
UR min	258 054	264 288	269 408
UR max	2 628 963	2 692 473	2 744 630
UR average	1 443 509	1 478 381	1 507 019

BLUENEXT: Risk Management

CLEARING FUNDS - Simulation of impact -

Results with market hypothesis 1bis: open interest = 40 000 lots

Uncovered risks simulated on Bluenext portfolios	
UR min	6 342 000
UR max	64 610 000
UR average	35 476 000
Number of member	10
Sum of UR	354 760 000

	Scenario 1	Scenario 2	Scenario 3
Max UR	Current Max UR	Current Max UR + Bluenext UR average	Current Max UR + Bluenext UR max
CF	734 254 576	769 730 576	798 864 576
CF variation (euros)	-	35 476 000	64 610 000
CF variation (%)	-	4,83%	8,80%
Sum UR	9 199 983 705	9 199 983 705	9 199 983 705
Contribution (% of UR)	7,9810%	8,3667%	8,6833%
Contribution variation (%)	-3,8561%	0,7892%	4,6040%

BLUENEXT: Risk Management

CLEARING FUNDS - Simulation of impact -

Results with market hypothesis 1bis: open interest = 40 000 lots

Contribution range:

Contribution	Scenario 1	Scenario 2	Scenario 3
UR min	506 158	530 613	550 697
UR max	5 156 551	5 405 694	5 610 297
UR average	2 831 355	2 968 153	3 080 497

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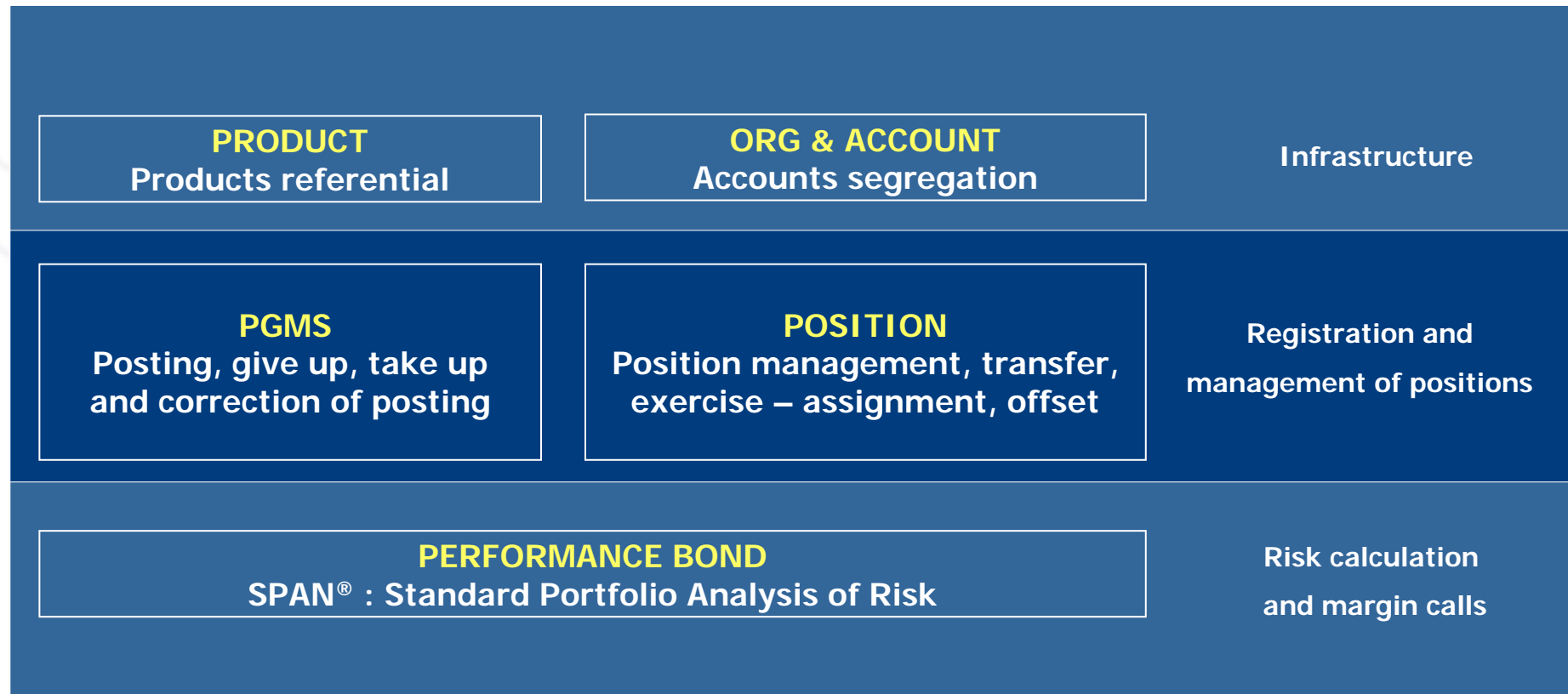
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BLUENEXT: Clearing system architecture

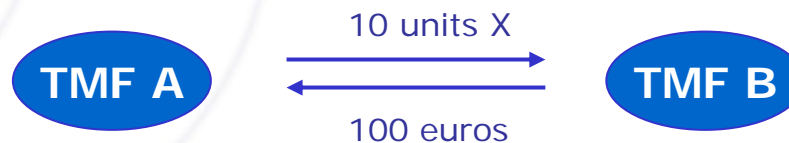
The Clearing system for derivatives includes modules as described in the diagram below:



BLUENEXT: Novation principle

Trades coming from trading platform are recorded in real time in the Clearing system.
The « matched » trade which includes the Buyer and the Seller is converted into two trade legs:
Buyer versus LCH.Clearnet SA & LCH.Clearnet SA versus Seller.

Initial trade:



Novates:



- Immediate commitment, at the point of execution
- Principal to principal relationship
- Final commitment is with the CMFs

BLUENEXT: Clearing main functionalities

• Posting

Posting is the allocation of a trade into a position account opened in a member's own account structure. Trades are executed and matched on trading platform and sent to the CCP system in real time.

⇒ After integration in the CCP system, the member receives a trade leg message (5011).

- **Manual posting:** the trade is integrated in the system with no clearing information, the member have to send a command of posting via his connection to the clearing system.

- **Automatic posting:** the trade is integrated in the system with posting instruction carry out by the trader in the same time that the order in the trading system.

- **Systematic posting:** to avoid any intervention the clearing house can trigger a systematic posting rule according to the need of the CMF. In this case all trades carried out on a dedicated Origin will be posted in the position account defined previously with the member.

⇒ Automatic and systematic posting are not available for BLUENEXT

BLUENEXT: Clearing main functionalities

• give up / take up

Give up is a transfer of a trade to an other member. To be available in the CCP system, it must be accepted by the receiving member.

⇒ **the acceptance by the receiving member is named “take up”**

The sending member has to check, during the business day and before the cut off time, these give up request insofar as he is in charge of its trades, otherwise at the cut off time the trade leg which given up is posted by default in its house account.

- **Manual give up:** the trade is integrated in the system with no clearing information, the member have to send a command of give up via his connection to the clearing system. Furthermore member has to check if the take up is done by the receiving member.

- **Automatic give up:** the trade is integrated in the system with give up instruction carry out by the trader in the same time that the order in the trading system. **A take up** is requested by the receiving member.

- **Systematic give up:** the clearing house can trigger a systematic give up rule. In this case all trades carried out on a dedicated Origin will be sent to the receiving member defined previously. No take up is requested by the receiving member.

⇒ **Automatic and systematic give up are not available for BLUENEXT**

BLUENEXT: Clearing - Workstation facility - eCCW

One single access to CLEARING system

- The **Central Counter party Web services (eCCW)** is the clearing system access solution
- This end-to-end solution is a web based software
- The eCCW is an easy application, efficient and compliant with clearing members request
- Access secured by RSA Secure ID for each user

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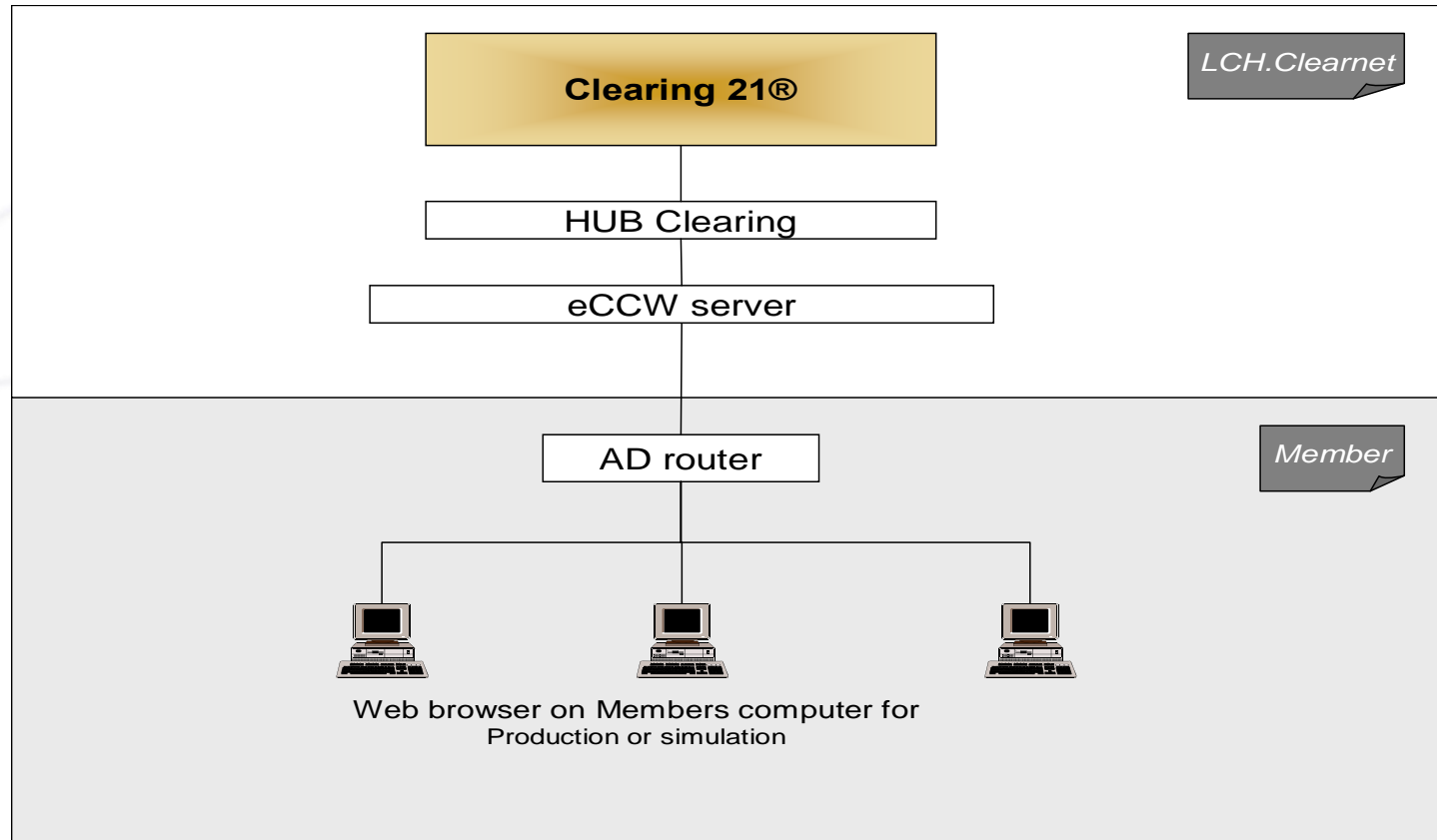
CLEARING system

E-CCW tool presentation

Delivery Rules

Questions & Answers

BLUENEXT: Clearing - Workstation facility - eCCW



BLUENEXT: Clearing system - Messages

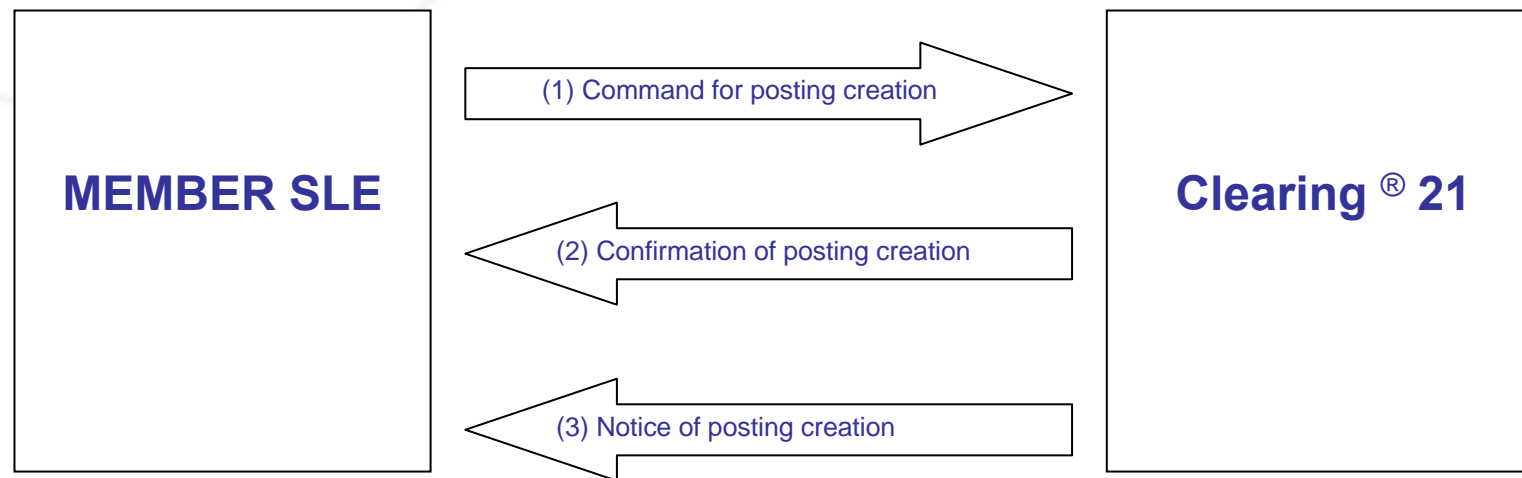
Message mode

- Under the current architecture, the C21[®] clearing system uses message mode to communicate with all members. It allows members to choose to connect through a proprietary product or a solution offered by an IT provider. It also permits the automated porting of information in real time to the member's information system.
- Several types of messages are used as follows:
 - Command messages (1000)
 - Registration messages (2000)
 - Confirmation messages (3000)
 - Rejection messages (4000)
 - Notice messages (5000)

BLUENEXT: Clearing system - Messages

Example: messages for posting creation

- Command for posting creation (1021)
- Confirmation of posting creation (3021)
- Notice of posting creation (5021)



BLUENEXT: Clearing system architecture

One single access to CLEARING SYSTEM

The Central Counter party Web services (eCCW) is an application which enables users to access the CLEARING 21® system.

➤ In real time:

- 📖 To carry out the management of integrated trades.
- 📖 To manage and update opened recorded positions.
- 📖 To set up, update and cancel the position account structure registered in CCP system.
- 📖 To export messages (sent & received) to the user computer for processing.

➤ After batch process:

- 📖 To get information on positions (actions on position resulting exercises, corporate events)
- 📖 To download and to print public and private files sent from CCP system.

BLUENEXT: How to connect – Step by step eCCW Service

- Access to the respective URLs depending if the desired environment is test or production environment, if it is cash or derivatives market and of the network chosen (Internet or MSA dedicated access)

- Connection through Internet:
 - <https://eua.lchclearnet.e-ccw.com/cash>
 - <https://eua.lchclearnet.e-ccw.com/derivatives>
 - <https://prod.lchclearnet.e-ccw.com/cash>
 - <https://prod.lchclearnet.e-ccw.com/derivatives>

- Connection through MSA or dedicated access
 - [https://eua.wan.lchclearnet.e-ccw.com /Cash](https://eua.wan.lchclearnet.e-ccw.com/Cash)
 - <https://eua.wan.lchclearnet.e-ccw.com /Derivatives>
 - <https://prod.wan.lchclearnet.e-ccw.com /Cash>
 - <https://prod.wan.lchclearnet.e-ccw.com /Derivatives>

BLUENEXT: How to connect – Step by step eCCW Service

- Enter your:
 - Login name
 - Unique user name, linked to only one token in a given environment (production or user test)
 - provided by LCH.Clearnet at member's request
 - based on the first and last name of the users (so, surname.name for production environment & test.surname.name, for testing)
 - PIN code on the access card
 - Unknown by the card and only known by the user
 - initial PIN code is provided by LCH.Clearnet to EMSA
- Press the **◇** key

BLUENEXT: How to connect – Step by step eCCW Service

- You will obtain your PASS code (displayed by the card once the PIN code has been entered); for security reasons, the PASS code is not displayed on the computer screen at the authentication time
- The eCCW access card generates passwords that can be used only once: this means that after a maximum of 60 seconds, the code changes and the user must enter again the PIN code and press the \diamond key, in order to have a new password
- 2nd connection with the same access card generates an immediate logout
- In case of failure of connection, the user should wait until a new code is posted before any new attempt or press P to initialize the card and restart the procedure

BLUENEXT: How to connect – Step by step eCCW Service

- The access card code is displayed for 60 seconds maximum. This symbol indicates the validity period of the code. To obtain the password, enter your pin code (4 digits) on the keyboard
- 1 indicates that the password displayed is valid
- Press the \diamond key to obtain your code
- The P key allows the user to reinitialize the code displayed on the screen



BLUENEXT: eCCW – General Design

The main menus of the eCCW

CCWeb - Microsoft Internet Explorer

Fichier Edition Affichage Favoris Outils ?

Précédente Recherche Favoris

Adresse <https://eua.lchclearnet.e-ccw.com/Derivatives/CCWeb.html?locale=en> OK

LCH.CLEARNET **eCCW**

03/03/2008
601 / MONEP
TEST CLEARNET 601
test.atoure.admin

EUA DERIVATIVES

[Messages](#) [Settings](#) [Help](#) [Log out](#)

601/TEST CLEARNET 601

Home Accounts Positions Trades Requests Reportings

Home

- Home : To return to the main screen.
- Accounts : Position Account Management.
- Positions : Position Management.
- Trades : Trades screen and trades management.
- Requests: Take up, External correction and external transfer acceptance screen.
- Reportings : Referential, batch milestone, public and private files extraction via FTP.

Terminé Internet

BLUENEXT: eCCW – General Design

MANAGEMENT OF THE MESSAGES FLOW

In order to **follow in real time** the processing of messages exchanged with CLEARING 21® , a **status** code is attributes on every message (AT, TT, CR, CC) in **the eCCW**.

 User knows the statement of command and request sent for treatment to C21® in every screen of the eCCW relate to a command.

The status is updated as soon as one message is sent or received by CLEARING 21® .

BLUENEXT: eCCW – Main windows & their features

TRADES LEGS MENU

This window allows :



to check Trade legs coming from trading system and their status



to carry out posting and give up command



to visualize on a selected trade: postings & give-ups linked to this trade

BLUENEXT: eCCW – Main windows & their features

TRADES LEGS MENU

The screenshot shows the 'TRADES LEGS MENU' for 'EUA DERIVATIVES'. The user is logged in as '601 / MONEP TEST CLEARNET 601'. The interface includes a navigation menu with 'Home', 'Accounts', 'Positions', 'Trades', 'Requests', and 'Reportings'. Below the navigation menu, there are search filters for 'C21 Timestamp - start' (03/03/2008 00:00:00), 'C21 Timestamp - end' (03/03/2008 23:59:59), 'Contract', and 'ISIN code'. A 'more...' button with 'Validate' and 'Clear' options is also present. The main content is a table of trade legs with columns for 'Clearing org.', 'Status', 'Trade type', 'Prod. family', 'Ext. trade id.', 'TL. bus. date', 'Trade leg id.', 'Trading date', 'B/S', 'Contract id.', 'Traded qty', 'Unit price', 'O/C', 'Brokerage Fee', and 'Matching TS'. The table contains five rows of trade data.

	Clearing org.	Status	Trade type	Prod. family	Ext. trade id.	TL. bus. date	Trade leg id.	Trading date	B/S	Contract id.	Traded qty	Unit price	O/C	Brokerage Fee	Matching TS
<input type="checkbox"/>	MONEP	AT	MK	BXF	70	03/03/2008	90963990	03/03/2008	B	BXF 200803	3	0.3	o		03/03/2008 09:59:33
<input type="checkbox"/>	MONEP	ET	MK	BXF	70	03/03/2008	90963991	03/03/2008	S	BXF 200803	3	0.3	o		03/03/2008 09:59:33
<input type="checkbox"/>	MONEP	TT	MK	FTI	10	03/03/2008	90963970	03/03/2008	B	FTI 200805	4	0.2	o		03/03/2008 07:33:27
<input type="checkbox"/>	MONEP	TT	MK	FTI	10	03/03/2008	90963971	03/03/2008	S	FTI 200805	4	0.2	o		03/03/2008 07:33:27
<input type="checkbox"/>	MONEP	TT	MK	AGN	20	03/03/2008	90963972	03/03/2008	B	AGN 200803 C 9.2	300	0.9	o		03/03/2008 08:03:17

A
AT
ET
TT



Only trade with status AT or ET can be posted or given up.

♦ Modification and cancellation must be carried out from Posting window or Give up window.

BLUENEXT: eCCW – Main windows & their features

POSTING LIST WINDOW



to check Posting and its' status which is carried out during the current day



to carry out modification and cancellation of a Posting.

PS bus. date	Status	C21 TS	Prod. family	Contract id.	Subm. mbr.	Exec. mbr.	PS id.
03/03/2008	CI	03/03/2008 12:16:18	FCE	FCE 200803	MONEP	601	90964022
03/03/2008	CC	03/03/2008 12:12:53	BXF	BXF 200803	601	601	48234496
03/03/2008	CI	03/03/2008 11:57:38	PXA	PXA 200803 C 4825	MONEP	601	90964020
03/03/2008	CI	03/03/2008 11:57:38	PXA	PXA 200803 C 4825	MONEP	601	90964021
03/03/2008	CI	03/03/2008 11:57:03	PXA	PXA 200803 C 4825	MONEP	601	90964018
03/03/2008	CI	03/03/2008 11:57:03	PXA	PXA 200803 C 4825	MONEP	601	90964019
03/03/2008	CI	03/03/2008 11:56:48	PXA	PXA 200803 C 4825	MONEP	601	90964017
03/03/2008	CI	03/03/2008 11:56:48	PXA	PXA 200803 C 4825	MONEP	601	90964016

Only posting with status CC and CI can be modified or cancelled.

After a cancellation on posting, it is mandatory to get back in the trade leg screen to post or to give up the trade again.

BLUENEXT: eCCW – Main windows & their features

GIVE-UP WINDOW



to check give ups and its' status which is carried out during the current day

The screenshot shows the eCCW web application interface for checking give-ups. The browser window title is "CCWeb - Microsoft Internet Explorer". The address bar shows the URL: <https://eua.lchclearnet.e-ccw.com/Derivatives/CCWeb.html?locale=en#refresh>. The page header includes the LCH.CLEARNET logo and the eCCW logo. The main heading is "EUA DERIVATIVES". Below the header, there is a navigation menu with links: Home, Accounts, Positions, Trades, Requests, Reportings. A search bar contains the text "601/TEST CLEARNET 601". The "Give-up list" section contains a form with the following fields: "Business date - start" (03/03/2008), "Business date - end" (03/03/2008), "Contract" (empty), "ISIN code" (empty), and "Status" (dropdown menu). Below the form, there are "more...", "Validate", and "Clear" buttons. A table displays the give-up list with the following data:

Status	Clearing org.	Prod. family	Subm. mbr.	C21 TS	Exec. mbr.	GU id.	GU bus. date	Ext. trade id.	TL bus. date	Trade leg id.
CR	MONEP	BXF	601	03/03/2008 12:25:22	601	48234498	03/03/2008	70	03/03/2008	90963991
CC	MONEP	BXF	601	03/03/2008 12:24:24	601	48234497	03/03/2008	70	03/03/2008	90963990

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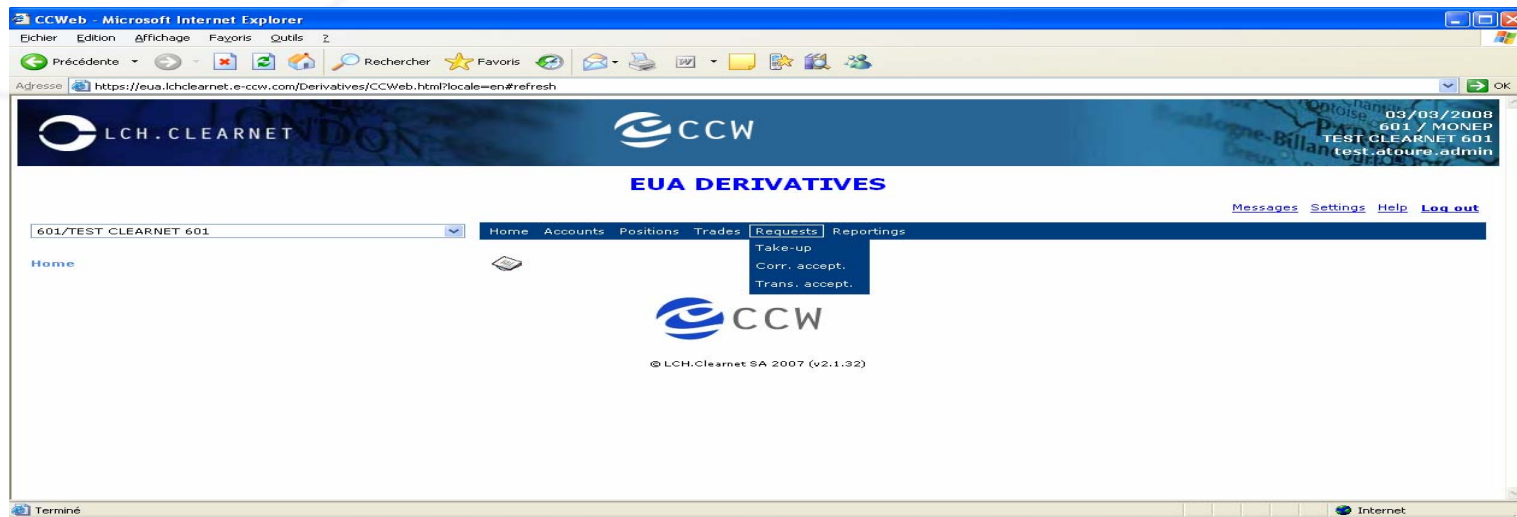
Only give up with status CR can be cancelled.

BLUENEXT: eCCW – Main windows & their features

REQUESTS WINDOW

Requests window allows to visualize the request coming from an another member.



- 📖 To visualize Give-Ups, Externals Transfers, and Externals Corrections received.
- 📖 To accept Give-Ups, Externals Transfers and Externals corrections.



Only give up, External Correction and External transfer with status CI can be Accepted.

BLUENEXT: eCCW – Main windows & their features

POSITIONS WINDOW

-  to check the account structure available in CLEARING 21®
-  to display the open position on a selected Position Account



The screenshot displays the 'POSITIONS WINDOW' in the eCCW application. The main content area shows a table of open positions with the following columns: CMF, TMP, Clearing org., Pos. acct., Net/gross ind., Contract id., Prod. family, Settl. date, Guarantee ind., Short qty, Long qty, Pos. value, ISIN code, Trading code, and Update date. The table lists several positions for clearing member 601, including contracts FOR 200806 C 24, FOR 200803 C 17, and various AGN contracts (AGN 200806 P 11, AGN 200803 P 11, AGN 201212 C 8, AGN 201212 P 8, AGN 200906 P 8, and AGN 200803). The interface also features a search bar with fields for Contract, ISIN code, and Position, and a 'Positions list' sidebar on the left.

The Clearing Member can display :

- all its own open position in CLEARING 21®
- all open position of his Trading Member Firm with which he has sponsoring link.

BLUENEXT: eCCW – Main windows & their features

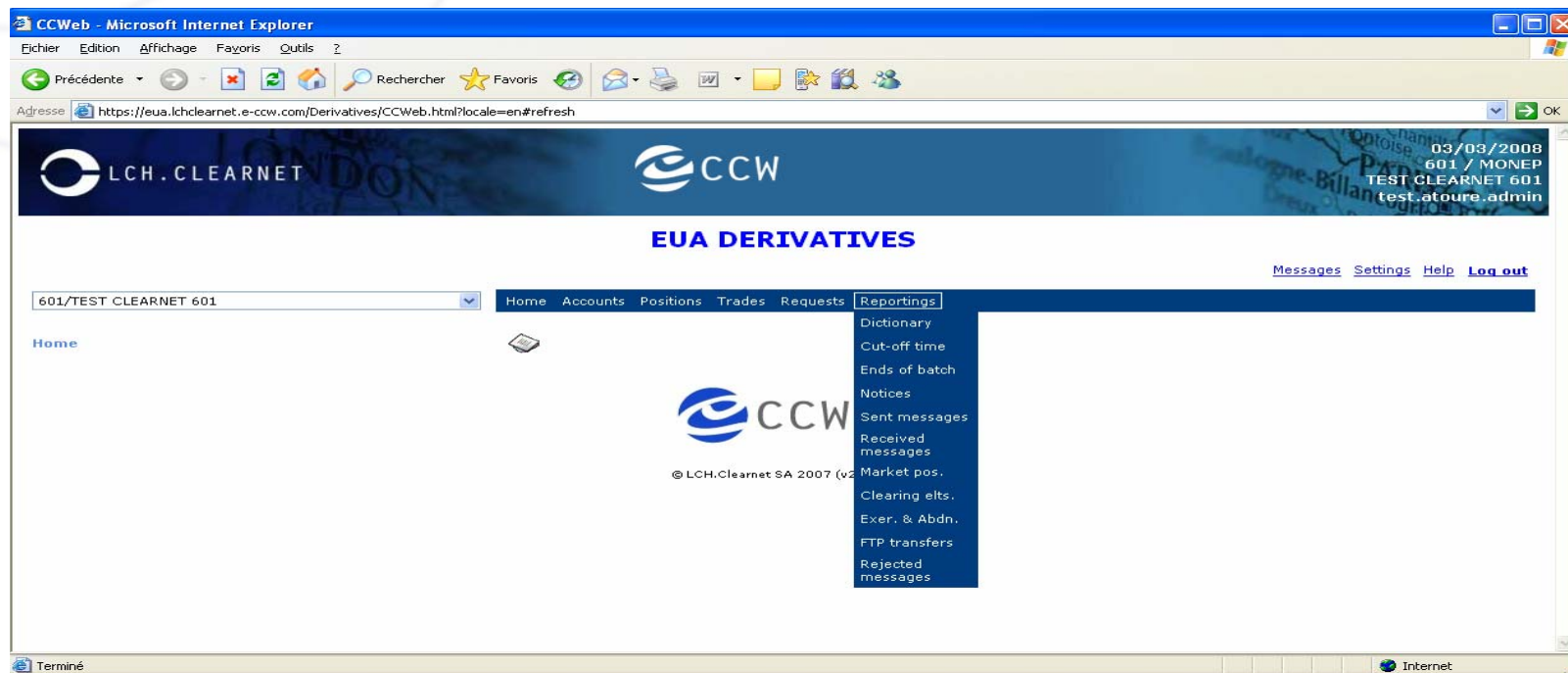
REPORTING WINDOW



Check the referential (Dictionnaire), messages and milestone.



Extract public and private files via the FTP transfers menu.



BLUENEXT: eCCW – Main windows & their features

FTP Transfers Menu: PUBLIC FILES

03/03/2008
601 / MONEP
TEST CLEARNET 601
test.atoure.admin

EUA DERIVATIVES

Messages Settings Help Log out

601/TEST CLEARNET 601 Home Accounts Positions Trades Requests Reportings

FTP transfers

Public Private

Select a type ...
Select a type ...
Open interest
Closing Prices
Derivatives Exercises
Clearing Elements
SPAN
Products referential Intra Day
Products referential

Public files contains specific files on clearing prices, market open interest (per contract), voluntary derivatives exercises, closing prices (equities), SPAN file and derivatives referential.

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Agenda

BLUENEXT Business model

LCH.Clearnet SA Business model & Implementation plan

Risks presentation: SPAN® Derivatives & Mutual Clearing Fund

CLEARING system

E-CCW tool presentation

Delivery Rules

Questions & Answers

Questions / Answers