

**Minutes of the European repo council's general meeting held on March 21, 2006 in Paris**

Location: Hotel Lutetia,  
45, boulevard Raspail,  
FR-75006 Paris.

Time: 9.30 - 13.00

**The following members of the European repo committee were present:**

Mr. Ulf Bacher, Dresdner Bank AG, Frankfurt  
Mr. Jean Begonin, Credit Suisse Securities (Europe) Limited, London  
Mr. Stefano Bellani, J. P. Morgan Securities Ltd., London  
Mr. Eduard Cia, Bayerische Hypo- und Vereinsbank AG, Munich  
Mr. Jaime Comuni3n Artieda, Caja de Madrid, Madrid  
Mr. Cameron Dunn, Merrill Lynch International (MLI), London  
Mr. Godfried De Vidts (Chairman), ICAP Securities plc, London  
Mr. Dominik Emmanuelli, Barclays Capital Securities Ltd., London  
Mr. Johan Evenepoel, Dexia Bank Belgium NV/AS, Brussels  
Mr. Grigorios Markouizos, Citigroup Global Markets Ltd., London  
Mr. Andrea Masciovecchio, Banca Intesa S.p.A., Milan  
Mr. Edward McAleer, Morgan Stanley & Co. International Ltd., London  
Mr. David Nicholls, Deutsche Bank AG, London branch  
Mr. Simon Parkins, BNP Paribas, London branch

**Apologies:**

Mr. Edward Donald, ABN AMRO Bank N.V., London branch  
Mr. Michael Murray, Confederaci3n Espa3ola de Cajas de Ahorros (CECA), Madrid  
Mr. Francesco Cafagna, Goldman Sachs International, London  
Mr. Ashraf Rizvi, UBS AG, London branch

**Also present:**

Mr. Simon Parkins, BNP Paribas, London branch  
  
Mr. Stuart Berry, Bank of England, London  
Mr. John Burke, LCHClearnet, London  
Mr. Richard Comotto, University of Reading, Reading  
Mr. Richard Pattinson, Barclays Securities, London

Mr. Tony Baldwin, Daiwa Securities SMBC Europe Ltd., London  
Mr. Olly Benkert, Goldman Sachs International, London  
Mr. Herminio Crespo, Caja de Madrid, Madrid  
Mr. Michael Semaan, Nomura International plc, London  
Mr. Ewan Crawford, Nomura International plc, London  
Ms. Barbara Pung, Associate Counsel, ICMA, Zurich  
Mr. Paulo Costa, ICMA Ltd., London  
Mr. Brian Eyles, ICMA Ltd., London

**The following member firms were represented at the meeting:**

ABN AMRO Bank N.V., Amsterdam  
Banca Intesa S.p.A., Milan  
Banco Bilbao Vizcaya Argentaria, S.A., Madrid  
Banco Santander Central Hispano S.A., Madrid  
Bayerische Hypo- und Vereinsbank AG, Munich  
Barclays Capital Securities Ltd., London  
BNP Paribas, Paris  
Caja de Madrid, Madrid  
CALYON, Paris  
Citigroup Global Markets Limited, London  
Confederación Española de Cajas de Ahorros (CECA), Madrid  
Credit Suisse Securities (Europe) Limited, London  
Daiwa Securities SMBC Europe Limited, London  
Danske Bank A/S, Copenhagen  
Deutsche Bank AG, London branch  
Dexia Bank Belgium NV/SA, Brussels  
Dresdner Bank AG, Frankfurt  
DZ Bank AG Deutsche Zentral-Genossenschaftsbank, Frankfurt  
Fortis Bank, Brussels  
GEMOSA-GBI, Agencia de Valores, S.A., Madrid  
Goldman Sachs International, London  
HSBC Bank plc, London  
HSBC France, Paris  
ICAP Securities Limited, London  
ING Belgium SA/VN, Brussels  
IXIS Corporate & Investment Bank, Paris  
J.P. Morgan Securities Ltd., London  
KBC Bank N.V., Brussels  
Landesbank Baden-Württemberg, Stuttgart  
Lehman Brothers International (Europe), London  
Man Financial Limited, London  
Merrill Lynch International, London  
Morgan Stanley & Co. International Ltd., London  
Royal Bank of Canada Europe, Limited, London  
Nomura International plc, London  
UBS AG, London branch, London  
UniCredit Banca Mobiliare S.p. A., Milan

**The following member firms were not represented at the meeting:**

Aurel Leven Securities, Paris  
Banca Caboto S.p.A., Milan  
Banca d'Intermediazione Mobiliare IMI S.p.A., Milan  
Banca Monte dei Paschi di Siena S.p.A., Milan  
Banca Nazionale del Lavoro S.p.A., Rome  
Bank Austria Creditanstalt AG, Vienna  
Bank Julius Bär & Co. AG, Zurich  
Banque et Caisse d'Epargne de l'Etat, Luxembourg  
Bayerische Landesbank Girozentrale, Munich  
Bear, Stearns International Limited, London  
Canadian Imperial Bank of Commerce (CIBC), London branch  
Commerzbank AG, Frankfurt  
HBOS Treasury Services plc, London  
ING Bank N.V., Amsterdam  
Kredietbank S.A. Luxembourgeoise, Luxembourg  
Lloyds TSB Bank plc, London  
Mitsubishi Securities International plc, London  
Mizuho International PLC, London  
MPS Finance Banca Mobiliare S.p.A., Siena  
NIB Capital Bank N.V., The Hague  
Raiffeisen Zentralbank Oesterreich AG, Vienna  
Société Générale S.A., Paris  
The Royal Bank of Scotland plc, London  
WestLB AG, Düsseldorf

**1. Opening of the meeting by the chairman of the European repo committee (ERC committee)**

The chairman first welcomes the council members, observers and guests and thanks Euroclear bank for hosting today's meeting.

He then reports that Mr. Karsenti, who has been appointed as ICMA's new executive president by the board at the end of December 2005, with an anticipated start date of May 1, 2006 attended the ERC committee meeting on March 2, 2006 in London during which the mission and future role of the ERC committee was discussed. During the committee meeting Mr. Karsenti confirmed that he will fully support the ERC committee's endeavors to address the ongoing needs of ICMA's repo dealer community and to provide consensus solutions to the practical problems of the rapidly evolving repo market in Europe.

The chairman also thanks Mr. John Langton for the support granted to the ERC committee during his term of office as ICMA's chief executive.

Thereafter, the chairman gives a slide presentation on recent important market events and the issues discussed by the ERC committee in the past six months. A copy of the slide presentation prepared by the chairman is attached to these minutes as attachment 1.

**2. Approval of the minutes of the ERC general meeting held on September 21, 2005 and dated October 14, 2005**

The minutes of the ERC general meeting held in Luxembourg on September 21, 2005 and dated October 14, 2005 are unanimously approved.

**3. Update on GMRA related and other matters**

Ms. Pung provides the council with an update report in relation to the following matters:

3.1 Legal opinions

3.1.1 Update legal opinions being obtained jointly by ICMA and TBMA

ICMA is currently obtaining update legal opinions on the GMRA in 52 jurisdictions. In 24 jurisdictions, i.e. Austria, Belgium, Canada, Hungary, China, Cyprus, England, Finland, France, Germany, Greece, Guernsey, Ireland, Italy, Japan, Jersey, Luxembourg, the Netherlands, Norway, Poland, Portugal, Spain, Switzerland and the United States ICMA is conducting this exercise jointly with TBMA (attachment 2: slide presentation / slide 1: list showing all legal opinions obtained jointly by ISMA and TBMA; slide 2: list showing all legal opinions obtained by ICMA alone).

As in previous years, ICMA intends to publish the update opinions again by the end of March 2006.

3.1.2 Update legal opinions being obtained by ICMA alone

For Abu Dhabi, Australia, Bahamas, Bahrain, Bermuda, Brazil, British Virgin Islands, Cayman Islands, Denmark, Estonia, Hong Kong, Kuwait, Latvia, Lithuania, Malta, Mexico, the Netherlands Antilles, New Zealand, Philippines, Saudi Arabia, Scotland, Singapore, South Africa, South Korea, Sweden, Taiwan, Thailand and Turkey legal opinions are being updated by ISMA alone.

Update opinions for these countries are intended to be published by the end of March 2006 as well.

3.1.3 New legal opinions currently being sought by ICMA alone

ICMA recently received initial draft opinions for the Czech Republic, Slovakia and Slovenia, which are currently being reviewed (attachment 2: slide presentation / slide 3).

TBMA have yet to confirm whether they will join ICMA in seeking opinions for each of these jurisdictions.

#### 3.1.4 New opinions for being considered Croatia, Israel, Malaysia, Romania and Russia

In relation to Malaysia, Romania and Russia ICMA is monitoring legal developments with a view to ascertaining at what stage a clean opinion can reasonably be expected for each of these jurisdictions.

In relation to Croatia and Israel, ICMA is currently clarifying whether a clean opinion for these jurisdictions can be obtained. In the affirmative, and subject to acceptable cost caps, ICMA will consider seeking an opinion for these jurisdictions (attachment 2: slide presentation / slide 3 list of the jurisdictions where the enforceability of the GMRA is being monitored).

#### 3.1.5 Types of parties covered by the opinions

As reported at the last meeting ICMA decided to extend the scope of the 2006 update opinions to also cover insurance companies, hedge funds and mutual funds as parties to the GMRA covered by the opinions (in addition to companies, banks and securities dealers already covered by the current opinions). For cost reasons, however, the extension of the scope of the 2006 update opinions to also cover the above three categories of counterparties has been limited to the following 21 countries:

Austria, Belgium, British Virgin Islands, Canada, Cayman Islands, Denmark, England, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, the Netherlands, Portugal, Scotland, Sweden, Spain, Switzerland and the USA (excluding insurance companies).

#### 3.1.6 Extension of the cost sharing arrangement with the Association of German Banks

The Association of German Banks recently confirmed to ICMA that they agree to extend the cost sharing arrangement with ICMA according to which the Association shall bear three quarters of the fees billed by local counsel for updating the Core Provision Opinions (CPOs) for Belgium, Canada, the Cayman Islands, England, France, Germany, Ireland, Japan, Luxembourg, the Netherlands, Singapore, Switzerland and the United States, to now also cover the update opinions for the Bahamas, Hong Kong, Italy and Spain.

The Association also confirmed that they agree to extend the cost sharing arrangement to cover one third of the costs arising from the extension of the opinions to include insurance companies, hedge funds and mutual funds for the opinions from Belgium, Canada, the Cayman Islands, England, France, Germany, Ireland, Italy, Luxembourg, the Netherlands, Spain, Switzerland and the United States.

The extended cost sharing arrangement between ICMA and the Association as outlined above has already become effective and therefore applies to the 2006 updating exercise as well as future updating exercises.

#### **4. Elections**

##### **4.1 Elections to the European repo committee**

The chairman introduces the following 21 candidates standing for election at today's meeting to fill the 19 vacancies on the ERC committee:

Ulf Bacher	Dresdner Bank AG, Frankfurt
Anthony Baldwin	Daiwa Securities SMBC Europe Limited, London
Jean Marie Begonin	Credit Suisse First Boston (Europe) Limited, London
Stefano Bellani	J. P. Morgan Securities Ltd., London
Olly Benkert	Goldman Sachs International, London
Eduard Cia	Bayerische Hypo- und Vereinsbank AG, Munich
Herminio Crespo	Caja de Madrid, Madrid
Godfried De Vidts	ICAP Securities plc, London
Edward Donald	ABN AMRO Bank N.V., London branch
Cameron Dunn	Merrill Lynch International (MLI), London
Dominick Emmanuelli	Barclays Capital Securities Ltd., London
Johan Evenepoel	Dexia Bank Belgium NV/SA, Brussels
Andrea Masciovecchio	Banca Intesa S.p.A., Milan
Grigorios Markouizos	Citigroup Global Markets Limited, London
Edward McAleer	Morgan Stanley & Co. International Ltd., London

Michael Murray	Confederación Española de Cajas de Ahorros (CECA), Madrid
David Nicholls	Deutsche Bank AG, London branch
Simon Parkins	BNP Paribas, London branch
David Roberts	Royal Bank of Scotland, London
Michel Semaan	Nomura International plc, London
Simon Tims	UBS AG, Zurich branch

Subsequently, Ms. Pung explains the election procedure pursuant to ICMA rule 1014 and refers the council to the detailed instructions on the ballot form, which was sent to each council member on February 20, 2006.

Thereafter, the ERC council member representatives attending the meeting cast their votes by using the ballot form, which is again distributed at the meeting.

#### 4.2 Election of a nominee for appointment as member of the IRC committee by ICMA's board

In relation to the IRC committee, Ms. Pung reports that the three year term of office of the Mr. De Vidts, who is currently also a member and chairman of the IRC committee, is due to expire at today's meeting. Therefore, a nominee for appointment by ICMA's board as member and chairman of the IRC committee has to be determined by the ERC council at today's meeting (ICMA rule 1012.2).

Ms. Pung enquires whether there are individuals (ERC council members representatives only) who wish to stand for election to fill the vacancy on the ERC committee.

As this is not the case, Ms. Pung suggests that the ERC council determine the nominee for appointment as member and chairman of the IRC committee by ICMA's board following the appointment by the ERC committee of its new chairman and vice chairman at the next general meeting of the ERC council to be held in the fall 2006.

Ms. Pung further suggests that Mr. De Vidts continue to be chairman of the IRC committee until ICMA's board has appointed the nominee to be determined by the ERC council at its next general meeting as member and chairman of the IRC committee.

The ERC council unanimously agrees to determine the nominee for appointment by ICMA's board as member and chairman of the IRC committee at its next meeting to be held in the fall 2006.

The council also unanimously agrees that Mr. De Vidts continue to be chairman of the IRC committee until ICMA's board has appointed the nominee to be determined by the ERC council at its next general meeting as member and chairman of the IRC committee for another term of office of two and a half years to expire at the annual general meeting to be held in the spring 2009.

**5. Triparty repos in the light of "Basle 2"**

Mr. Evenepoel, Dexia Bank Belgium NV/AS gives a slide presentation on implications of "Basle 2" on triparty repos and the possibility of joint lobbying efforts aimed at achieving the exemption of triparty repos from capital charges

A copy of Mr. Evenepoel's presentation is attached hereto as attachment 3.

**6. Cost of failed repo trades in Greece: developments since the last ERC council meeting**

Mr. Markouizos, Citigroup Global Markets Ltd., reports that on December 12, 2005 he and the chairman sent a joint letter to the Greek primary dealers committee outlining the problems arising from the current settlement process in Greece forcing market participants with short positions at the end of the Greek settlement system's daily settlement cycle to undergo a mandatory auction process (introduced by the Bank of Greece at the request of the Greek primary dealers committee) which normally implies heavy penalty rates. The letter included the proposal that the primary dealers committee consider proposing to the Bank of Greece to maintain the mandatory auction process but to reduce the 6% penalty rate to 0%. A copy of the letter is attached hereto as attachment 4.

Mr. Markouizos further reports that in a subsequent telephone call with members of the Greek primary dealers committee, the head of fixed income trading of Citigroup in Athens reiterated the proposal that the penalty rate be reduced to 0%.

At the end of December 2005, the Greek primary dealers committee agreed to establish a working group, which will deal with this issue.

Mr. Markouizos will update the ERC council in this respect at its next meeting.

**7. Bank loans as collateral**

Mr. Bacher, Dresdner Bank AG gives a slide presentation on bank loans as collateral.

A copy of Mr. Bacher's presentation is attached hereto as attachment 5.

**8. The "bridge": settlement problems between Euroclear and Clearstream**

Mr. Cia, Bayerische Hypo- und Vereinsbank AG gives a slide presentation entitled: "Update on the Discussion Relating to the Settlement of German Securities Between Euroclear and Clearstream".

During his presentation Mr. Cia reports that subsequent to Clearstream Luxembourg's decision to exempt the settlement of transactions in intra-day borrowing and lending from charges from the end of 2005, Euroclear announced at the beginning of December 2005 that as of January 2006 the settlement of transactions in intra-day borrowing through Euroclear will also be free of charges. Since both clearing houses took the same decision in this respect some of the settlement problems between Euroclear and Clearstream could be resolved.

A copy of Mr. Cia's presentation is attached hereto as attachment 6.

At the chairman's request Mr. Bellani then updates the committee on the **recent developments regarding Monte Titoli.**

Mr. Bellani reports that on January 31, 2006 Monte Titoli failed to settle all transactions within the overnight settlement cycle. Monte Titoli did not give any explanation for this settlement failure. In Mr. Bellani's opinion the failure could have been caused by the increasing volume of CCP trades, which accelerated by more than 30 % within the last year.

As a consequence many trades had to be settled within the daily settlement cycle on January 31, 2006 which caused major problems since the system did not have the capacity to cope with the volume of trades within the daily cycle.

Monte Titoli is now trying to improve the capacity of the daily settlement system by establishing a netting system working over the day.

**9. Collateral management in light of the Payments Risk Committee's report on: "Global Payment Liquidity: Private sector solutions"**

Mr. Pattinson, Barclays Securities, gives a slide presentation entitled "Liquidity Collateral management in the light of the Payments Risk Committee's report on 'Global Payments Liquidity: Private Sector solutions'".

A copy of Mr. Pattinson's presentation is attached hereto as attachment 7.

**10. Results of the elections to the European repo committee**

Based on the ballot held, the chairman announces the results of the elections to and the new composition of the ERC committee as follows:

Ulf Bacher	Dresdner Bank AG, Frankfurt
Jean Marie Begonin	Credit Suisse Securities (Europe) Limited, London
Stefano Bellani	J. P. Morgan Securities Ltd., London
Olly Benkert	Goldman Sachs International, London
Eduard Cia	Bayerische Hypo- und Vereinsbank AG, Munich
Herminio Crespo	Caja de Madrid, Madrid
Godfried De Vidts	ICAP Securities plc, London
Edward Donald	ABN AMRO Bank N.V., London branch
Cameron Dunn	Merrill Lynch International (MLI), London
Dominick Emmanuelli	Barclays Capital Securities Ltd., London
Johan Evenepoel	Dexia Bank Belgium NV/SA, Brussels
Andrea Masciovecchio	Banca Intesa S.p.A., Milan
Grigorios Markouizos	Citigroup Global Markets Limited, London
Edward McAleer	Morgan Stanley & Co. International Ltd., London
Michael Murray	Confederación Española de Cajas de Ahorros (CECA), Madrid
David Nicholls	Deutsche Bank AG, London branch
David Roberts	Royal Bank of Scotland, London
Simon Parkins	BNP Paribas, London branch
Simon Tims	UBS AG, Zurich branch

The term of office of each of the above ERC committee members will expire at the annual general meeting of the ERC council to be held in spring 2007.

**11. Results of ICMA's 10<sup>th</sup> semi-annual European repo market survey of December 2005**

Mr. Comotto, ICMA Centre, University of Reading gives a slide presentation on the results of ICMA's 10<sup>th</sup> semi-annual European repo market survey conducted December 2005 and published March 2006.

A copy of Mr. Comotto's presentation is attached hereto as attachment 8.

**12. Reform of the Bank of England's operations in the sterling money markets: developments since the last ERC council meeting**

Mr. Berry, Bank of England gives a slide presentation on the reform of the Bank of England's operations in the sterling money market.

A copy of Mr. Berry's presentation is attached hereto as attachment 9.

**13. Any other business**

No comments.

**14. Next meeting**

The next general meeting of the European repo council will be held on October 4, 2006 in London. The meeting will be hosted by Bank of New York.

The exact time and venue will be confirmed in due course.

**15. Update on the products delivered by LCHClearnet**

Mr. Burke, LCHClearnet gives a slide presentation entitled: "LCH.Clearnet, RepoClear Service, Initiatives and Product Development Strategy".

A copy of Mr. Burke's presentation is attached hereto as attachment 10.

**16. Repo trade matching through ICMA's TRAX2**

Messrs. Costa and Eyles of ICMA Ltd. and Mr. Crawford of Nomura International give a presentation on repo matching through TRAX 2.

A copy of this presentation is attached hereto as attachment 11.

April 11, 2006  
BP/ys

The Chairman:

A handwritten signature in black ink, appearing to read "De Vidts", with a long horizontal line extending to the right.

Godfried De Vidts

The Secretary:

A handwritten signature in black ink, appearing to read "Pung", with a large, stylized initial "P" and a long horizontal line extending to the right.

Barbara Pung

Attachments



European Repo Council

A.G.M.

March 21, 2006

Paris

# Recents market events/issues

- New executive president, René Karsenti
- Thank you to John Langton
- Cesame working group – towards a efficient clearing and settlement infrastructure in Europe – MC Creevy to highlight possible steps in 2nd QTR of 2006
- ERC & EPDA to provide small study to EU Commission around same day repo transactions
- Target 2 . On schedule – what is the impact on our market
- ECB Standard 3 Working Group

# Recent market events/issues

- Extension of day-time bridge
- ABS/MBS pricing engines
- STEP to be launched in April
- CCP Conference
- French fails
- National Securities Market Association in Russia
- Repo seminars
- Next meeting October 4<sup>th</sup>, host BONY London

# International Capital Market Association

**European Repo Council Annual  
General meeting, March 21, 2006,  
Paris**

**Update report on GMRA related  
matters**

Attachment 2

ERC general meeting 21.3.2006



## Update report on GMRA related matters

### 1. Legal opinions obtained jointly by ICMA and TBMA

Update legal opinions intended to be published end of March, 2006

1. Austria
2. Belgium
3. Canada
4. China
5. Cyprus
6. England
7. Finland
8. France
9. Germany
10. Greece
11. Guernsey
12. Hungary
13. Ireland
14. Italy
15. Japan
16. Jersey
17. Luxembourg
18. Netherlands
19. Norway
20. Poland
21. Portugal
22. Spain
23. Switzerland
24. USA



## Update report on GMRA related matters

### 2. Legal opinions obtained/currently being sought by ICMA on its own

Update legal opinions intended to be published end of March, 2006

- |                           |                          |
|---------------------------|--------------------------|
| 1. Abu Dhabi              | 15. Malta                |
| 2. Australia              | 16. Mexico               |
| 3. Bahamas                | 17. Netherlands Antilles |
| 4. Bahrain                | 18. New Zealand          |
| 5. Bermuda                | 19. Philippines          |
| 6. Brazil                 | 20. Saudi Arabia         |
| 7. British Virgin Islands | 21. Scotland             |
| 8. Cayman Islands         | 22. Singapore            |
| 9. Denmark                | 23. South Africa         |
| 10. Estonia               | 24. South Korea          |
| 11. Hong Kong             | 25. Sweden               |
| 12. Kuwait                | 26. Taiwan               |
| 13. Latvia                | 27. Thailand             |
| 14. Lithuania             | 28. Turkey               |



# Update report on GMRA related matters



## **2. Legal opinions obtained / currently being sought by ICMA on its own**

### **New legal opinions currently being sought**

- 1. Czech Republic**
- 2. Slovakia**
- 3. Slovenia**

## **3. Jurisdictions where the enforceability of the GMRA is currently being reviewed**

- 1. Croatia**
- 2. Israel**
- 3. Malaysia**
- 4. Romania**
- 5. Russia**

# **TRI PARTY REPOS and BASEL II**

Annual General Meeting of the ERC Council  
Euroclear Collateral Conference, Paris  
March 2006

Johan Evenepoel  
Head Cash & Liquidity Management  
Dexia Group

- **Capital Requirement Formula**
- **Current approach (Basel I)**
- **Basel II approaches**
  - A. **Risk weight determination**
  - B. **Credit exposure determination**
    - B1 **Comprehensive approach for calculating credit exposure**
    - B2 **Internal Models Approach for calculating credit exposure**
  - C. **What information has to be provided by the custodian to support an advanced calculation**

$$\text{Credit exposure} \times \text{Risk Weight} \times 8 \%$$

**Basle 1**

Focus on a single risk measure

One size fits all

**Basle 2**

More emphasis on bank's own internal methodologies, supervisory review & market discipline

Flexibility, menu of approaches, incentives for better risk management

**Credit exposure = max (0, exposure less collateral)**

**Risk weight : based on counterparty classification**

Counterparty	Weighting
Government	0 %
Bank in OECD country	20 %
Corporate	100 %

## A. Risk weight determination

- Two methodologies

  - IRB1 : foundation approach (PD)

  - IRB 2 : advanced approach (PD, LGD, M)

- Components of the risk weight

  - PD – probability of default

  - M – effective maturity

    - \* 2.5 years for Foundation IRD

    - \* own calculation for advanced IRB

  - LGD – loss given default

    - \* 45 % Foundation

    - \* internal estimates for advanced IRB

### Example : standardised approach (external rating)

	AAA AA-	A+A-	BBB+ BBB-	BB+ B-	<B-	Unrated
Sovereign	0%	20%	50%	100%	150%	100%
Banks	20%	50%	50%	100%	150%	50%
Banks<3m.	20%	20%	20%	50%	150%	20%
Corporates	20%	50%	100%	100%	150%	100%

## B. Credit exposure determination

- **Comprehensive approach**
- **Internal models**

### B1. Comprehensive approach for calculating credit exposure

#### **§151 Basel 2**

**Standard supervisory haircuts (assuming daily mark-to-market, daily margining and a 10 day holding period)**

Issue rating for debt securities	Residual maturity	Sovereigns	Other issuers
AAA to AA-/A-1	≤ 1 year	0.5	1
	> 1 year, ≤ 5 years	2	4
	> 5 years	4	8
A+ to BBB-/ A-2/A-3/P-3 and unrated bank securities per para. 145(d)	≤ 1 year	1	2
	> 1 year, ≤ 5 years	3	6
	> 5 years	6	12
BB+ to BB-	All	15	
Main index equities (including convertible bonds) and Gold		15	
Other equities (including convertible bonds) listed on a recognised exchange		25	
UCITS/Mutual funds		Highest haircut applicable to any security in which the fund can invest	
Cash in the same currency		0	

### §152 Basel 2

The standard supervisory haircut for currency risk where exposure and collateral are denominated in different currencies is 8% (also based on a 10-business day holding period and daily mark-to-market)

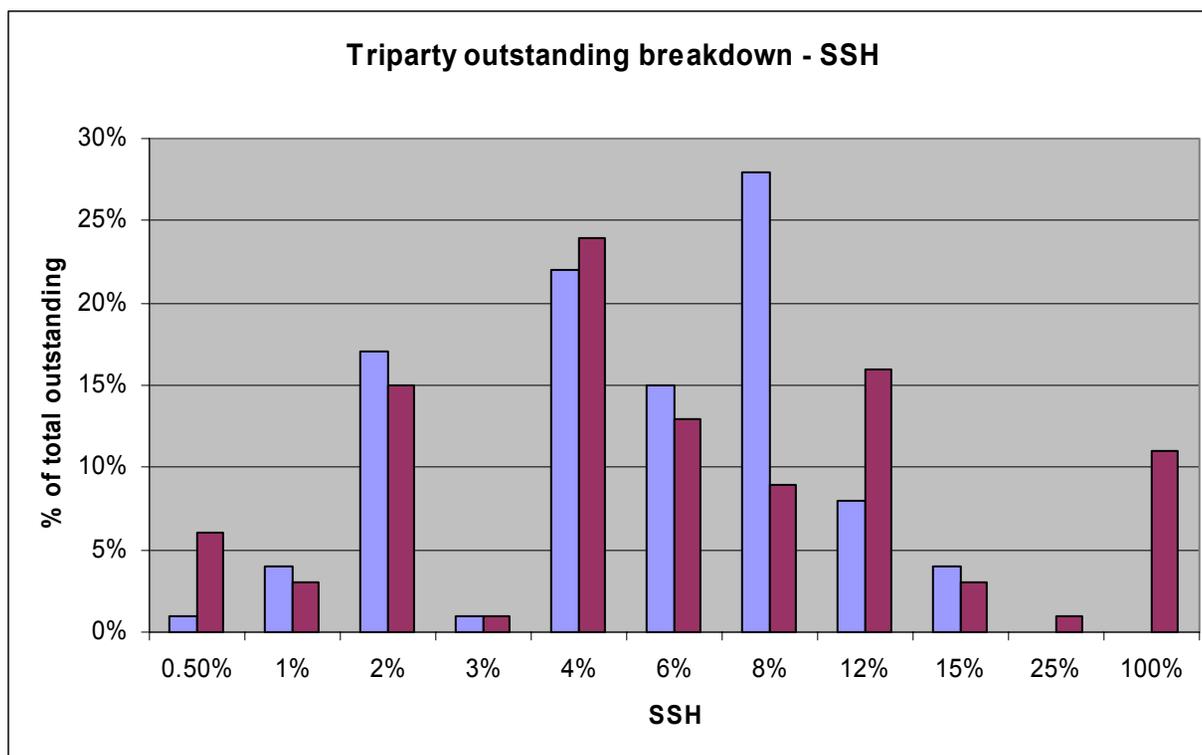
### Tri party repoTwo haircuts

- One on the security
- One for any currency differency between exposure and collateral

### • Solution ?

- Remove the negative capital impact by over collateralisation (sum of the haircuts)

 **NO !**



Numbers provided by 2 tri party agents (snapshot approach)

## B2. Internal Models approach for calculating credit exposure

**VAR model approach to reflect price volatility of exposure and collateral for repo transactions**

- netting agreements exist**
- The bank has received recognition for an internal market risk model  
(recognition will depend partly on back testing using one year of historical data)**

**Risk weight : IRB (Foundation / Advanced) or standardised ?**

**Credit exposure : comprehensive or VAR model ?**

**Choice of risk weight approach does not necessarily determine the choice of credit exposure approach!**

**e.g.: triparty repos under STANDARDISED APPROACH with credit exposures measured by the internal model (VaR)**

**→ only relying on the custodian for credit exposure calculation and not the components of the risk weight calculation**

**(internal ratings, PD, M, LGD)**

**No need to supply LGD&PDs to custodian**

### C.Information has to be provided by the custodian

- VaR output would be required from the custodian irrespective of whether the standardised or IRB approach was chosen**
- Depending on whether the standardised approach or IRB approach is applied, credit rating input is required for the risk weighting**

## 1. Standardised approach

Data requirement	Source	Required for
Exposure at default	Custodian	Credit Risk measurement
External Credit rating (AA-, BBB+, ...)	Moody's S&P	Risk weight percentage to asset class

## 2. IRB approaches

Approach	Data requirement	Source	Required for
Foundation IRB + Advances IRB	Exposure at default	Custodian	Credit risk measurement
Foundation IRB + Advanced IRB	Internal credit rating	Custodian	Risk weight
Foundation IRB + Advanced IRB	PD	Custodian	Risk weight
Advanced IRB only	LGD	Custodian (45% prescribed for Fnd. IRB)	Risk weight
Advanced IRB only	M	Custodian 2/5yrs prescribed for Fnd. IRB	Risk weight

**By e-mail**

The Greek Primary Dealers Steering Committee

Zurich, December 12, 2005

**Settlement process in the Greek Government Bond market**

Dear Sirs,

The European Repo Council met with the Bank of Greece in May 2005 in order to discuss the settlement process in Greece and in particular the subject of the end-of-day auctions, whereby market participants whose account is left short and are therefore unable to fulfill their settlement obligations, are given bonds from participants whose account is long at an effective rate of -6%. While the ERC fully realizes that this is a rare occurrence and fully supports any initiative that aims to facilitate full settlement and avoid fails, it has for some time now had a number of concerns about the operation of that process and in particular about the side effects that it is imposing on the Greek Government Repo Market and by extension on the Greek Government Bond Market.

After numerous discussions with market participants this feature of the market settlement process has come up time and again. It is widely understood by repo market participants that there is an elevated risk of having bonds at -6%, often through no fault of their own (if, for example, they are subjected to a fail-to-receive on a non-HDAT transaction, which causes them to be short to deliver on a HDAT transaction), and that this is a powerful deterrent which often stops them from offering liquidity on the GGB repo market. Put simply, the 'skew' that this punitive rate of -6% introduces to the settlement process and to the potential economic outcome of a transaction means that a great many repo market participants simply do not 'bother' with the GGB market! A situation has therefore developed whereby in the General Collateral repo market in Europe, GGBs are not viewed as pari-passu to the rest of the Euro-12 Government Bonds and are specifically excluded from the acceptable collateral baskets, a situation which the ERC finds simply unacceptable and detrimental to the GGB market and the European Repo market in general.

What is of further concern to the ERC is the current practice of the settlement agents in Greece, to delay instructing deliveries of bonds until such time as they have received instructions for their receipts, thereby ensuring that they (and their clients) will not be caught 'short'. This practice, which in the ERC's opinion introduces significant inefficiency in the GGB market settlement process, stems exclusively from the aforementioned feature of this market.

The situation has led to second order effects. For example, when one of the major Government Bond and Repo Brokers, BrokerTec, in attempting to streamline the settlement process for the GGBs traded on its platform, did a significant amount of work with the settlement agents in Greece and Bank of Greece and attempted to introduce straight-through processing, in line with the other European Government Bond markets which are traded on its platform, (whereby BrokerTec would have power-of-attorney from the market participants and would instruct the transactions directly to the Bank of Greece, thereby removing one step of the settlement process), at the 'turnkey' stage, when the system was ready to go live, market participants delayed (and indeed are still delaying) its implementation, fearing an increase in the frequency of their having to borrow bonds at the -6% rate. This has led to a further loss of settlement efficiency in the GGB market.

It is the ERC's estimation that this unnecessary 'skew', although stemming from a laudable initiative, namely the attempt to eradicate fails in the GGB market, has resulted in a loss of standing for the GGB market among Repo Market participants. We would therefore like to propose a slight modification to this process, which we feel would preserve all its essential elements and efficacy, but would remove the market 'skew' and would therefore help achieve its wider aims in a much better fashion.

The broader repo and cash market has as an effective 'penalty' rate in fails the rate of the overnight cost of funds, which stems from the 'free use of cash' in case of fails. That implies an effective 'fail rate' of 0%. In order to therefore align the GGB market with the broader market, while keeping in place the end-of-day auction process which we believe helps minimize fails, we would propose changing the penalty rate from 6% to 0%. This would have the effect of giving the participants offering bonds to the auction process the 'free use of cash' (currently a not insignificant 2.25%), while preserving the economics of a normal fail for the broader transaction and aiding settlement at the same time. We feel that in one stroke the disincentive to offer liquidity would be removed, the settlement process would become more efficient (for example, by BrokerTec or any other electronic trading platform being able to introduce settlement streamlining and by the settlement agents no longer having to 'hold back' their delivery instructions) and the GGB market would become more 'mainstream' in the eyes of market participants.

In our meeting with the Bank of Greece in May it was pointed out to us that the end-of-day auction process and the punitive rate of -6% stem from a proposal of the primary dealers committee that the BoG adopted. We

therefore feel that the most straightforward way to effect this change that we consider necessary for the long-term smooth functioning of the GGB market, is to approach the primary dealers committee and request that they ask the BoG to change the rate from 6% to 0%, while keeping the process the same. We would appreciate your help in effecting this change, which we believe will ultimately improve the liquidity and standing of the GGB market and is therefore in everyone's interest.

Yours sincerely,

Godfried de Vidts  
on behalf of the ERC

Grigorios Markouizos  
on behalf of the ERC



## Bank Loans as Collateral

Ulf Bacher

Global Head of Financing & Securities Management

Dresdner Bank AG

Paris, 21<sup>st</sup> March 2006

## ECB's Press Release on Bank Loans (22<sup>nd</sup> July 2005)

### **BANK LOANS**

According to the Governing Council's decision published on 18<sup>th</sup> February 2005 (see the "other decisions taken by the Governing Council" and published on that date), the inclusion of bank loans in the Single List will take place according to the following time frame:

- Bank loans will be eligible as collateral for Eurosystem credit operations in all euro area countries from 1<sup>st</sup> January 2007, when common eligibility criteria and the Eurosystem credit assessment framework (ECAAF) will be implemented;
- Between 1<sup>st</sup> January 2007 and 31<sup>st</sup> December 2011 an intermediate regime will be in place, allowing each Eurosystem national central bank to choose the minimum threshold for the size of loans eligible for collateral purposes and whether a handling fee should be applied;
- As from 1<sup>st</sup> January 2012 a unified regime will be in place for the use of bank loans as collateral with a common minimum threshold of € 500,000.

## Eligibility Criteria and Conditions

Legal instrument	Debt obligations
Eligible debtors	Non-financial firms + government
Minimum size of loans	€ 500,000 after 2012
Creditworthiness of the debtor	“Financially sound”
Currency of denomination	Euro
Maturity	No minimum or maximum
Governing law of agreement	Law of a Euro Area Member State
Location of the debtor/guarantor	Euro Area Member State
Additional legal requirements	Existence/Notification/Other aspects

Bank Loans as Collateral

# What are Bank Loans?

## Recent Meetings and Workshops

### Meeting on 27<sup>th</sup> September 2005

#### at Euroclear offices in Brussels

Attendees: Staffan Ahlner, Bank of New York  
Ulf Bacher, Dresdner Bank  
Brigitte Daurelle, Euroclear  
Godfried de Vidts, Fortisbank  
Johan Evenepoel, Dexia Bank  
Peter Kasteels, Bank of New York  
Klaus Loeber, ECB  
Jim Malgieri, Bank of New York  
John Morik, Bank of New York  
Orazio Mastroeni, ECB  
Joel Mérére, Euroclear  
Dan Toledano, Euroclear  
Jean-Robert Wilkin, Clearstream  
Peter Twilhaar, ABN Amro  
Stefaan van de Mosselaer, Fortisbank  
Georg-Henrich Sieveking, Investitionsbank

### Meeting on 16<sup>th</sup> December 2005

#### at ECB's offices in Frankfurt

Attendees: Ulf Bacher, Dresdner Bank  
Marc Bayle, ECB  
Andreas Bohn, Deutsche Bank  
Teresa Castilla, Iberclear  
Aloyse Demuth, Clearstream  
Godfried de Vidts, Fortisbank  
Guiseppe Lazzari, Monte Titoli  
Joel Mérére, Euroclear  
Daniel Russo, ECB  
Karine Themejian, ECB  
Dan Toledano, Euroclear  
Jean-Robert Wilkin, Clearstream

### Meeting on 3<sup>rd</sup> March 2006

#### at ECB's offices in Frankfurt

Attendees: Ulf Bacher, Dresdner Bank  
Marc Bayle, ECB  
Andreas Bohn, Deutsche Bank  
Giampiero Carla, ECB  
Teresa Castilla, Iberclear  
Frank Chatillon, BNP Paribas  
Aloyse Demuth, Clearstream  
Godfried de Vidts, ICAP  
Guiseppe Lazzari, Monte Titoli  
Joel Mérére, Euroclear  
Daniel Russo, ECB  
Karine Themejian, ECB  
Dan Toledano, Euroclear  
Jean-Robert Wilkin, Clearstream

Two Workshops took place on 11th August 2005 and 22<sup>nd</sup> February 2006  
at Bundesbank Frankfurt with several German Banks

The third workshop will take place on 28<sup>th</sup> March 2006 at Bundesbank Frankfurt

# Open Issues

## Legal

A legislative solution needs to enable enforceable pledges/transfers without prior notification to the debtors.

Outsourcing of the notification needs to be investigated.

Banking Secrecy can be an obstacle to the disclosure of the debtor's identity.

## Risk Management

There are a number of options for the valuation of the bank loan.

Option 1 – Valuation will be provided by the Central Bank on the basis of their model.

Option 2 – Valuation will be provided by the lending bank on the basis of IRB systems.

Option 3 – Valuation will be done by an external party.

We have to find the option that is both independent and cost efficient.

# Open Issues



## Operational

**Non fungibility** referring to the partial transfer of a loan

**Custody**

Should the CSD be involved in the processing of the cash flows associated with the loan: interest payment, amortization, partial reimbursement?

**Physical operation** - Deriving primarily from still required physical operations for processing bank loans, while the CSDs have gradually managed to dematerialize the securities market. This could result in major operation setup problems.

**Reference Data**

A central database comprising all characteristics of the loans would be helpful if bank loans will be used in bilateral or tri-party operations.

**Numbering** – according to the ISO rules bank loans are excluded from the ISIN.

possible solutions:    1) Talk to ANNA if ISO rules can be modified  
                                  2) Formation of a new standard European numbering directive

Do we need  
a secondary repo market  
for bank loans ?



# Update on the Discussion Relating to the Settlement of German Securities Between Euroclear and Clearstream

Eduard Cia

Head of Short Term Interest Rate Desk

HVB Corporates & Markets

# What was and still is the goal of the ERC in this discussion

- Create a level playing field for all market participants regardless where they hold the securities .
- The German securities market is and was the first securities market which opened up in terms of settlement location and had a negative impact for those participants who still settled domestic.
- There have been two meetings in 2005 with involved clearing institutions and central banks and ECB trying to solve the problem.
- After the first meeting the following statement from the ERC was given:
  - Improve settlement efficiency on CBF-EOC link :
    - Tackle cash fails caused by CBF international customers.
    - Address fails and blocks of German customers through bilateral talks set up by CBF.
  - Optimize usage of CBF-EOC link during nighttime: Increase file exchange.

# What was and still is the goal of the ERC in this discussion

- Market Participants to be encouraged to use intraday delivery options.
- Evaluate additional netting potential of incoming EOC instructions for STD processing (i.e. sub account solution).
- Investigate if the deadline for free intraday deliveries could be changed.

# What has been achieved so far

- Clearstream and Euroclear responded quickly to this challenge and by the second meeting one day before the ERC meeting at Clearstream's Global Securities Financing Summit in September 2005 – a solution was jointly presented and agreed:
  - set up of additional file exchanges between Clearstream and Euroclear so that settlement patterns were shifted from the day to the night time and an increased level of nighttime settlement efficiency was achieved (up to 99.9% for Clearstream Luxembourg).
  - one significant Clearstream Frankfurt customer with a high level of back-to-back instructions agreed to adjust their cash funding during the nighttime processing in order to increase settlement efficiency. The cumulative effect of these changes meant that the average daily cash countervalue of blocked instructions reducing again to around EUR 0.8 billion – which meant a drop of 91%.

## What has been achieved so far

- Clearstream announced that they will waive intraday borrowing fees for Bunds until 14:00 and Euroclear said that they will follow with a similar decision.
- By the end of November Euroclear announced also to waive intraday borrowing fees but for all securities not only Bunds until 14:00 from 31 of January 2006.

## Problem solved ?

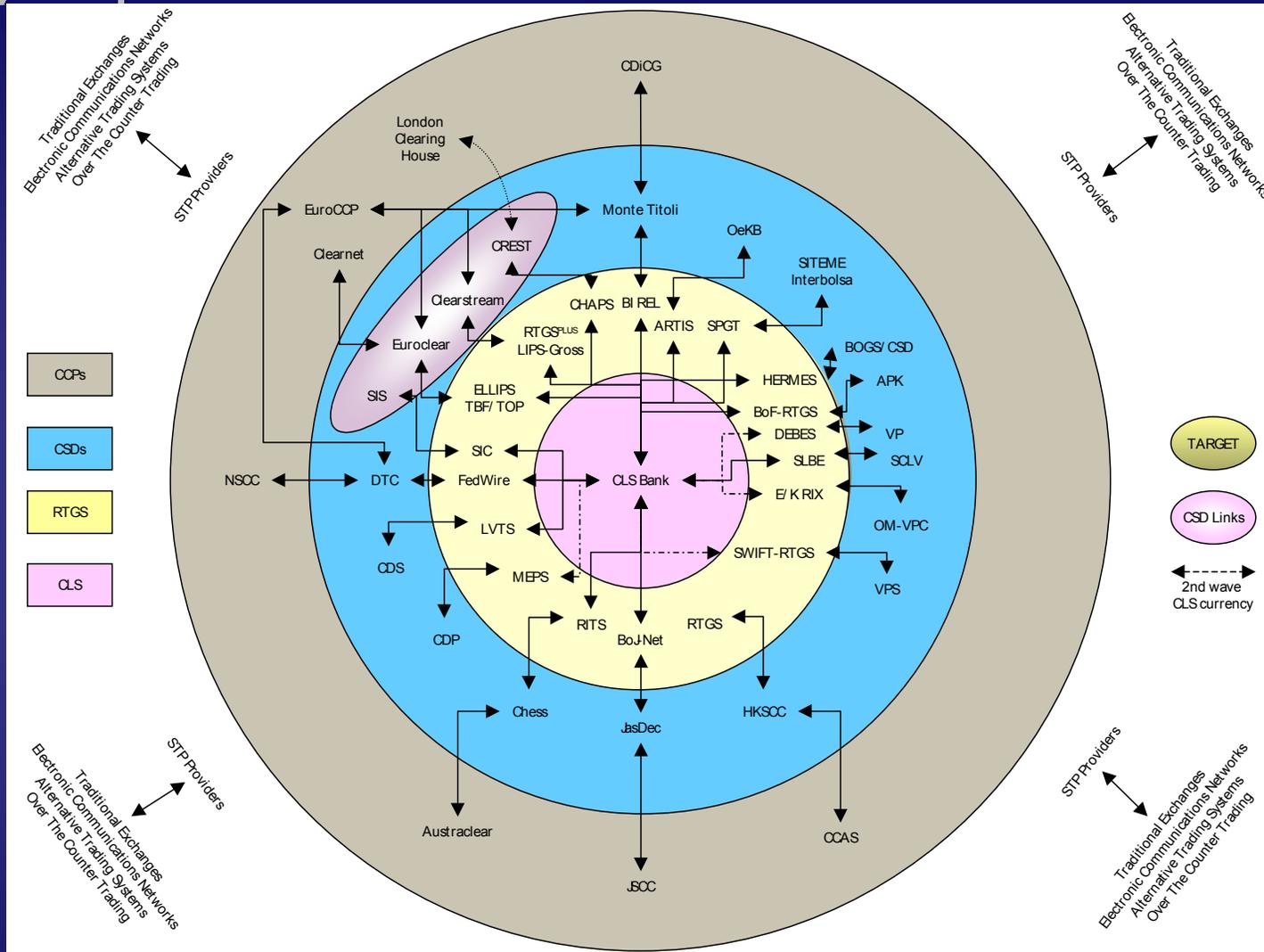
- **YES** if we all accept counterparties who settle German securities domestic as no additional cost and settlement problems should arise. So please inform your traders to act accordingly. So far no known problems arised. If it is the case then please inform us, the ERC, immediatley.
- If counterparties still refuse to trade with counterparties who settle domestic without any reason the ERC will intervene by taking aproprate actions.
- The ERC will monitor any changes which have a negative impact on the settlement process.

**Liquidity/Collateral management in light of  
the Payments Risk Committee's report  
“Global Payments Liquidity: Private Sector  
Solutions”**

Richard Pattinson, Senior Director, Barclays Bank PLC

ICMA's European Repo Council AGM

March 21<sup>st</sup>, 2006 – Hotel Lutetia, Paris



For simplicity the many hundreds of users, SWIFT and custodial links are not shown. Even so, the result is a complex web of linked real-time settlement systems.

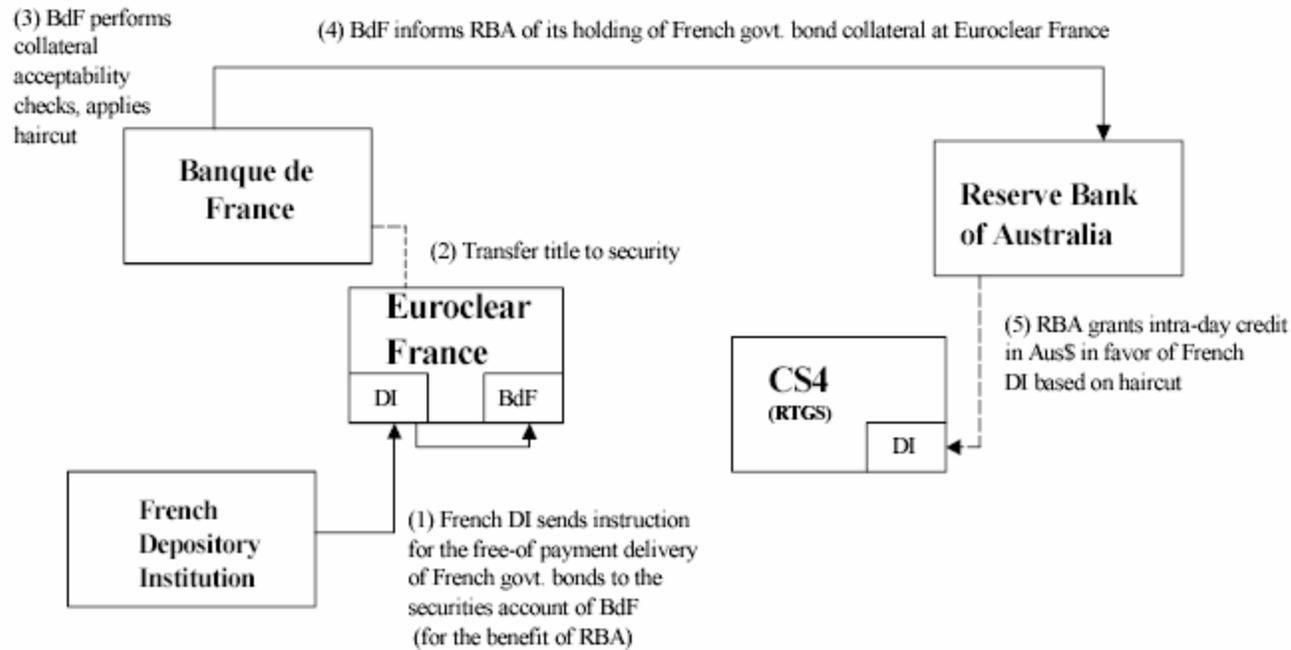
## PRC's March 2003 Report

- Proposed three models involving central bank involvement
  - Cross-border collateral pool facilities
    - home central bank option
    - 'all participating' central bank option
    - third-party agent option
  - Cash collateral pool model
    - away central bank option
    - home central bank option
    - third-party agent option
  - Central bank guarantee model

# Barclays Capital

Figure 7.4

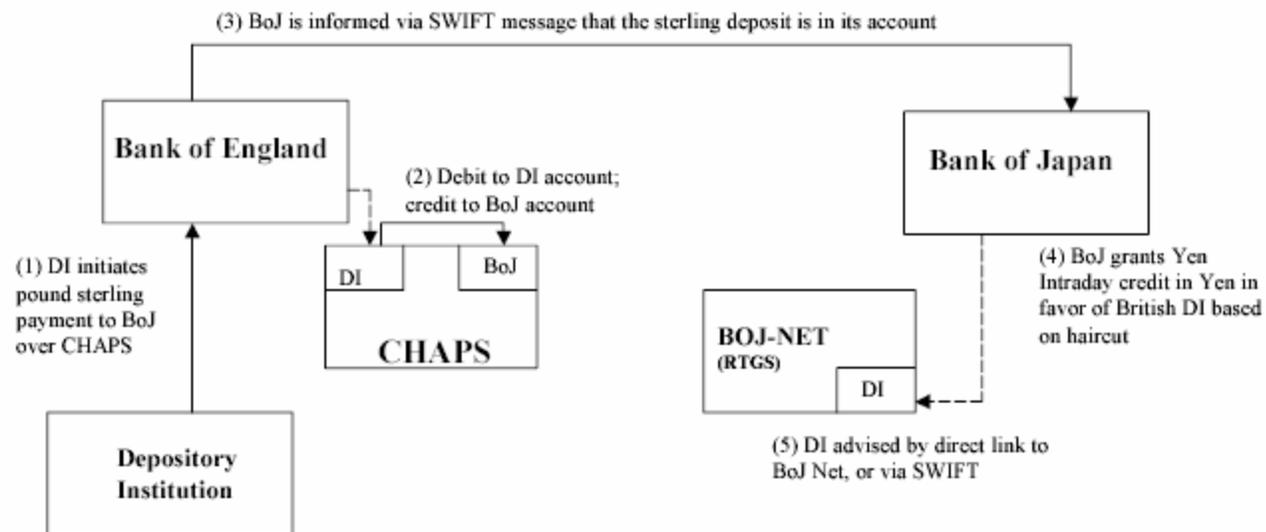
## Securities Facility – Home Central Bank Option



*The unwind would entail a series of sequential reversals of debit and credit entries beginning with: (6) RBA debiting the Aus\$ clearing account of the DI on CS4 at the agreed time; (7) RBA Informing BdF that intraday credit has been repaid and that collateral can be returned; (8) BdF instructing Euroclear France to return French government bonds to the DI through a free-of-payment delivery; (9) Euroclear France returning French government bonds to French DI through book-entry delivery.*

Figure 7.1

## Away Central Bank Option (collateralized loan)

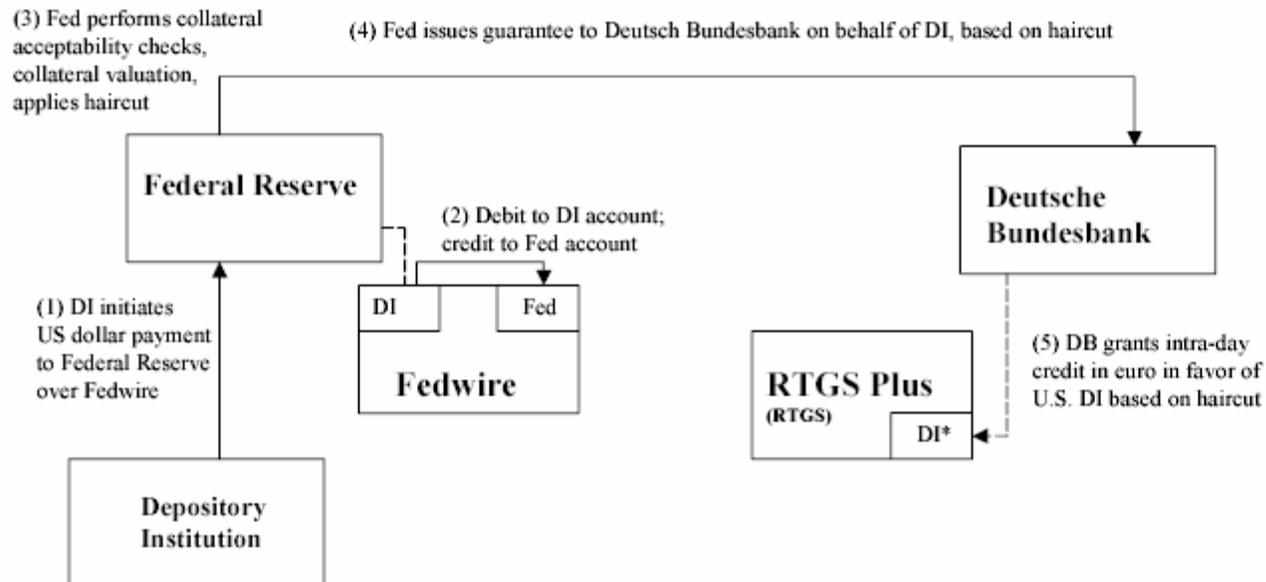


*The unwind would entail a series of sequential reversals of debit and credit entries beginning with: (6) BoJ debiting the Yen clearing account of the DI on BOJ-NET at the agreed time; (7) BoJ initiating payment instruction via SWIFT to return pound sterling to DI; (8) pound sterling automatically returned to the British DI through real-time transfer over CHAPS.*

*Communication via existing SWIFT protocol*

Figure 7.8

## Central Bank Guarantee Model



The unwind would entail a series of sequential reversals of debit and credit entries beginning with: (6) DB debiting the euro clearing account of the DI on RTGS Plus at the agreed time; (7) DB informing Fed that euro intraday liquidity has been repaid; (8) Fed informing DB that guarantee has been revoked; (9) Fed initiating payment instruction over Fedwire to return U.S. dollars to DI; (10) U.S. dollars automatically returned to the U.S. DI through real-time transfer over Fedwire.

## Central Bank Response

- Very mixed
- Scandinavian model up and running
- Several bi-lateral agreements in place
- Wider mix of eligible assets accepted by some central banks
- Non-domestic currency eligible assets accepted by some central banks
- A challenge to find 'private' sector solutions

Barclays Capital

# PRC's Private Sector Solutions Report October 2005

- **Cross-currency intraday swap**

Could be legally structured as two equal and opposite foreign exchange transactions agreed upon at the same time as part of a single swap, with the first leg settling immediately and the second later the same day

- **Cross-border intraday collateral swap**

could be legally structured as a securities loan transaction, collateralised by securities issued in a different currency, with the loan being reversed on the same business day

- **Cross-currency intraday repo**

could be legally structured as a repurchase agreement, with the repo being reversed on the same business day.

**BARCLAYS**

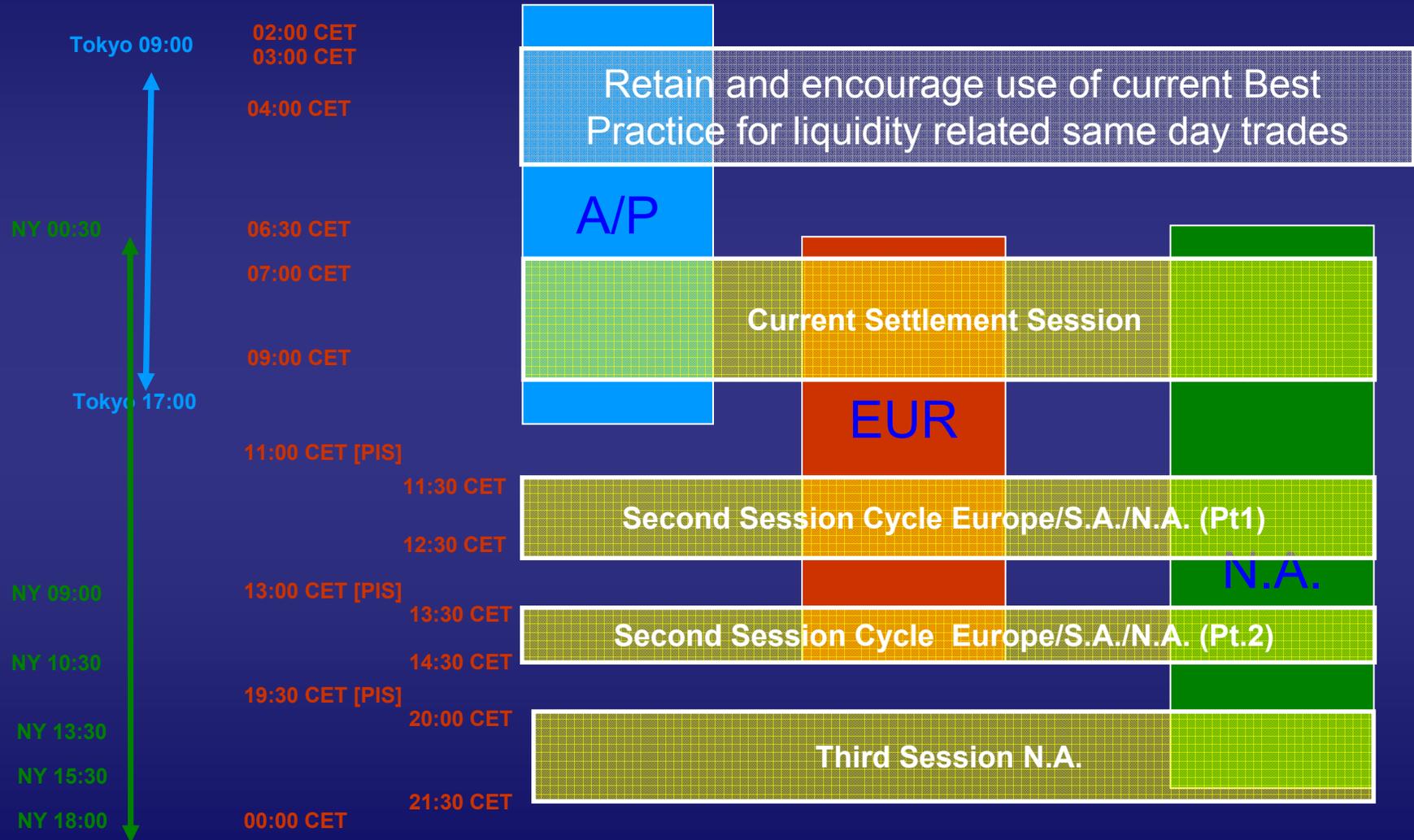
## PRC Requirements for intraday swap

- Intraday PvP settlement facility
- Enable banks to utilise RTGS funds in one currency for the benefit of another
- Two equal and opposite FX transactions

### Benefits

- PvP
- Use of current CLS processes
- Finality of settlement

# CLS multiple and continuous sessions?



## Cross-border intraday collateral swap

- The ICSD's the most plausible service providers
- Existing tripartite services
- Used by a majority of institutions
- Need for nearly 24 hour service
- A number of central banks are already members
  
- More to be discussed with ICSD's
- Repo facility not being progressed at this time

Barclays Capital

Thank you – [richard.pattinson@barclaysgt.com](mailto:richard.pattinson@barclaysgt.com)

**BARCLAYS**

# European Repo Council

10<sup>th</sup> European repo market survey  
December 2005

ERC General Meeting

Euroclear Collateral Solutions conference  
Paris, 21-22 March 2006

Attachment 8  
ERC general meeting, 21.3.2006



# European Repo Council

## 10<sup>th</sup> European repo market



### survey

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#### Survey overview

- Outstanding value of contracts at close on 7<sup>th</sup> December 2005
- 80 responses from 70 groups
- Respondents headquartered in 16 European countries, US, Japan



# European Repo Council

## 10<sup>th</sup> European repo market survey

Headline numbers



■ <b>December 2005</b>	<b>EUR 5,883 billion</b>
■ June 2005	EUR 5,319 billion
■ December 2004	EUR 5,000 billion
■ June 2004	EUR 4,561 billion
■ December 2003	EUR 3,788 billion
■ June 2003	EUR 4,050 billion
■ December 2002	EUR 3,377 billion
■ June 2002	EUR 3,305 billion
■ December 2001	EUR 2,298 billion
■ June 2001	EUR 1,863 billion



# European Repo Council

## 10<sup>th</sup> European repo market



### survey

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#### Organic growth

- 30 respondents in all 10 surveys
  - year-on-year = 18.5%
  - H1 = 9.2%
  - H2 = 8.5%
- 67 respondents in last 3 surveys
  - year-on-year = 15.4%
  - H1 = 5.1%
  - H2 = 8.9%



# European Repo Council

## 10<sup>th</sup> European repo market survey

Organic growth



- June 2005-December 2005 +9.2%
- December 2004-June 2005 +10.9%
- June 2004-December 2004 +5.9%
- December 2003-June 2004 +15.5%
- June 2003-December 2003 +6.7%
- December 2002-June 2003 +18.4%
- June 2002-December 2002 -8.2%
- December 2001-June 2002 +2.9%

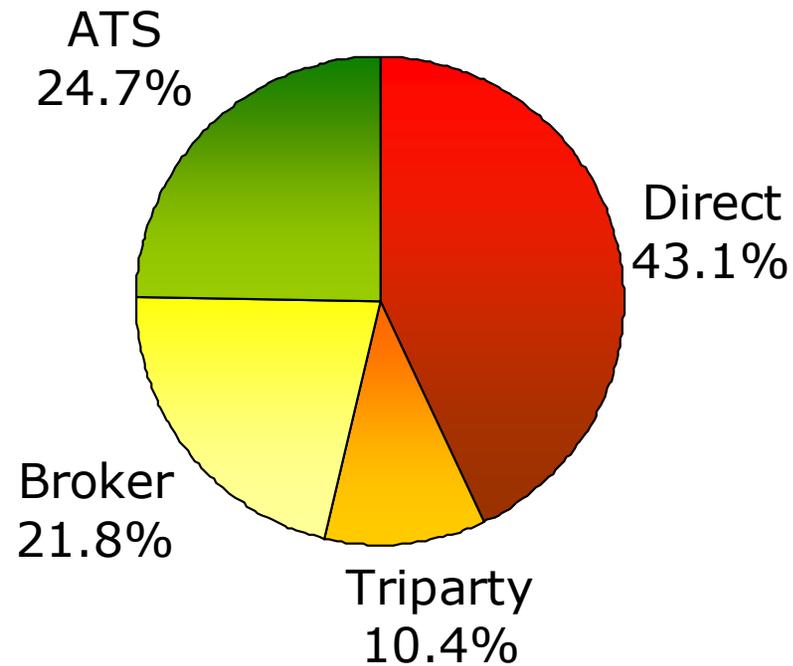


# European Repo Council 10<sup>th</sup> European repo market



## survey Counterparty analysis

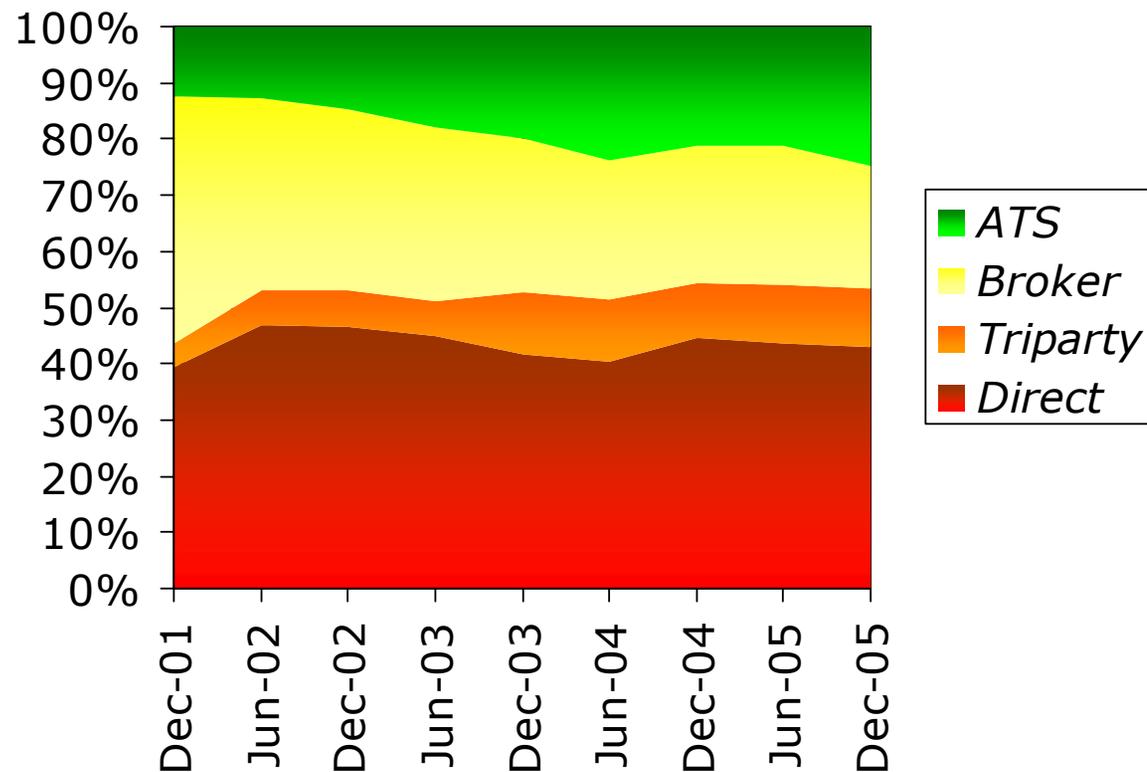
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# European Repo Council 10<sup>th</sup> European repo market



## survey Counterparty analysis

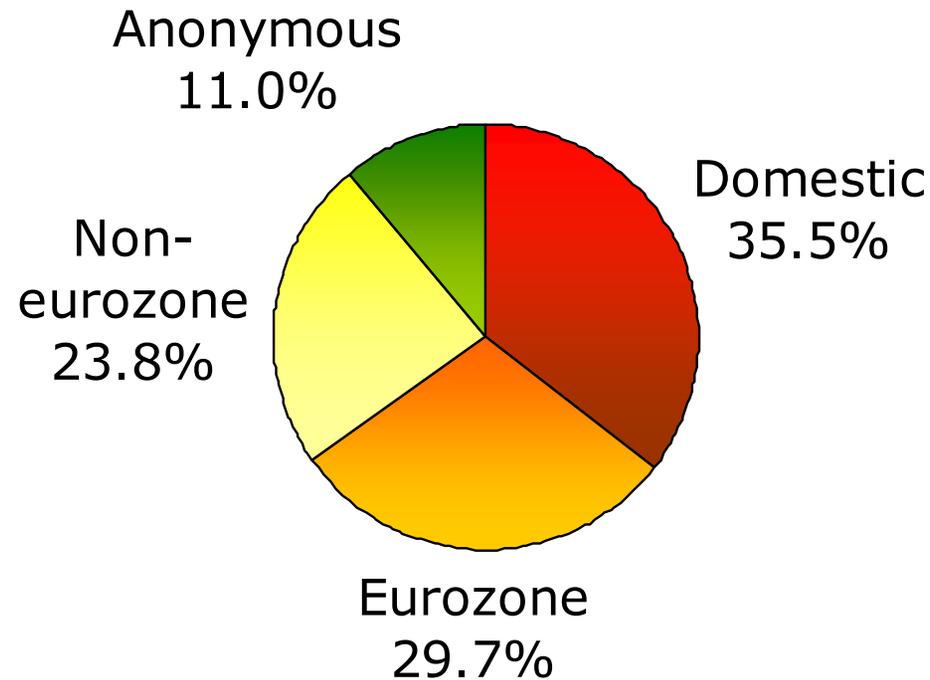


# European Repo Council 10<sup>th</sup> European repo market



## survey Geographical analysis

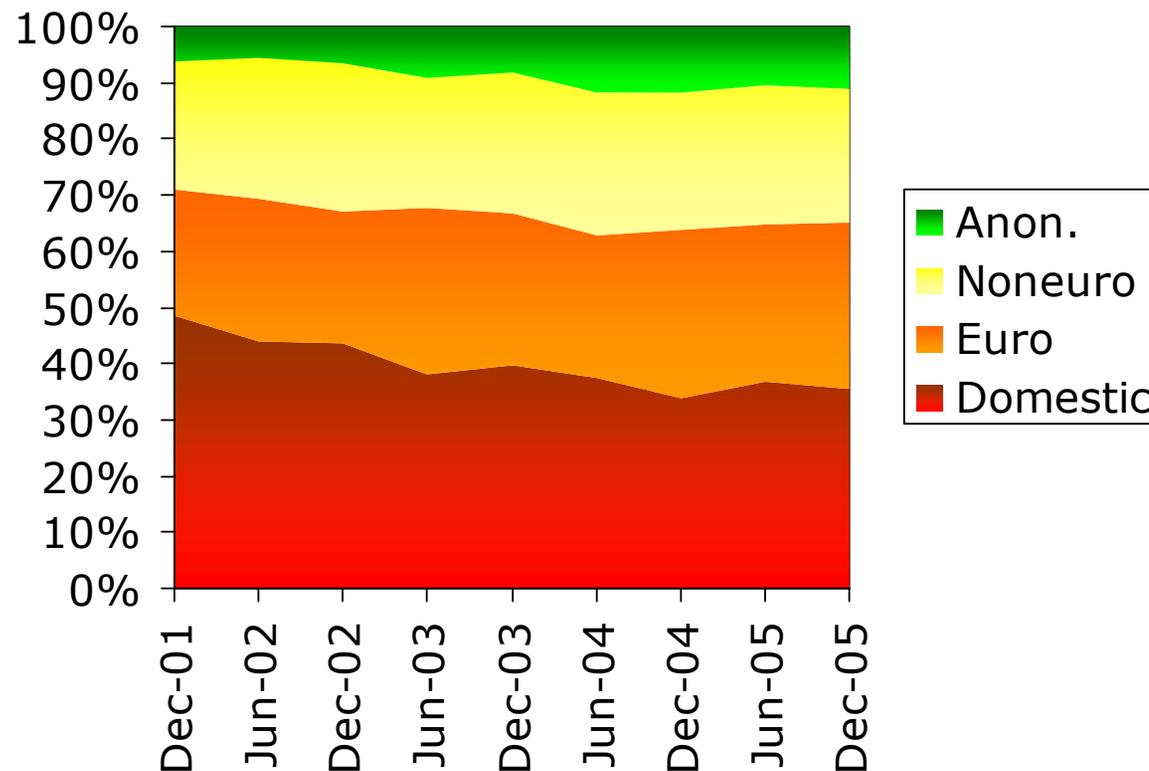
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# European Repo Council 10<sup>th</sup> European repo market



## survey Geographical analysis



# European Repo Council

## 10<sup>th</sup> European repo market

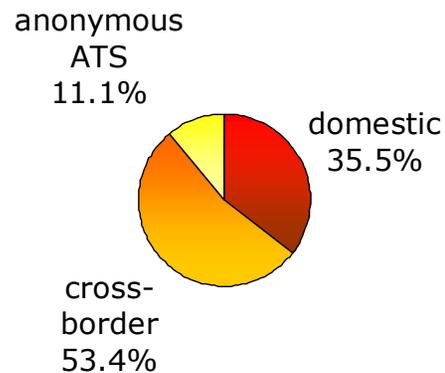


### survey

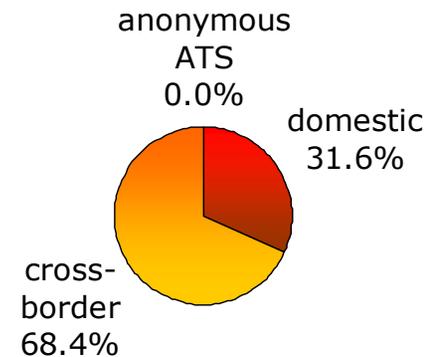
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### Geographical analysis

**Main survey**



**Triparty**



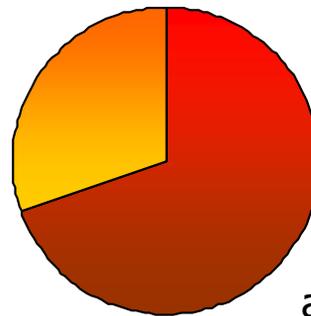
# European Repo Council 10<sup>th</sup> European repo market



survey  
ATS analysis

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anonymous  
ATS  
30.3%



non-  
anonymous  
ATS  
69.7%

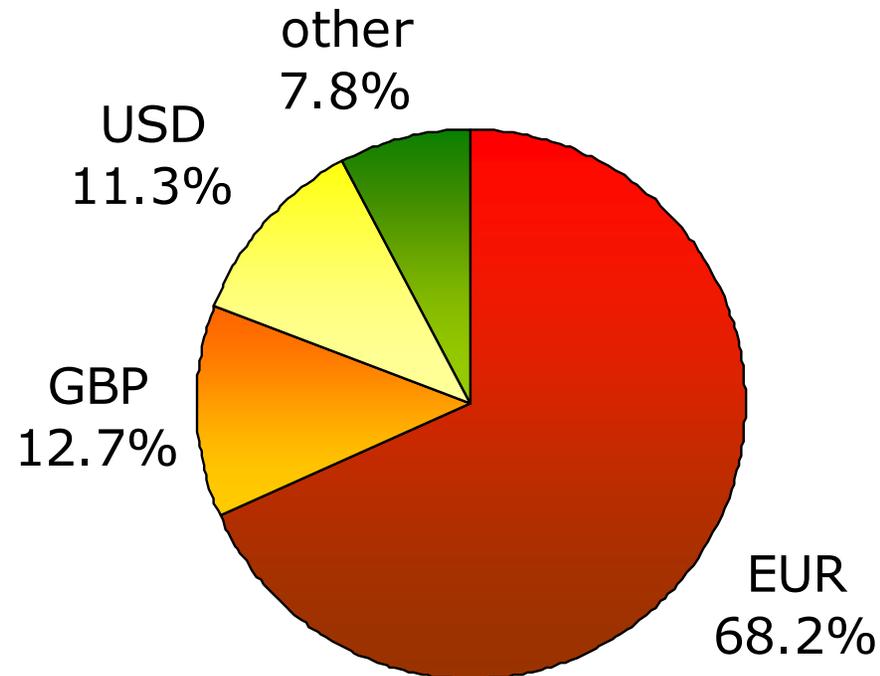


# European Repo Council 10<sup>th</sup> European repo market



survey  
Currency analysis

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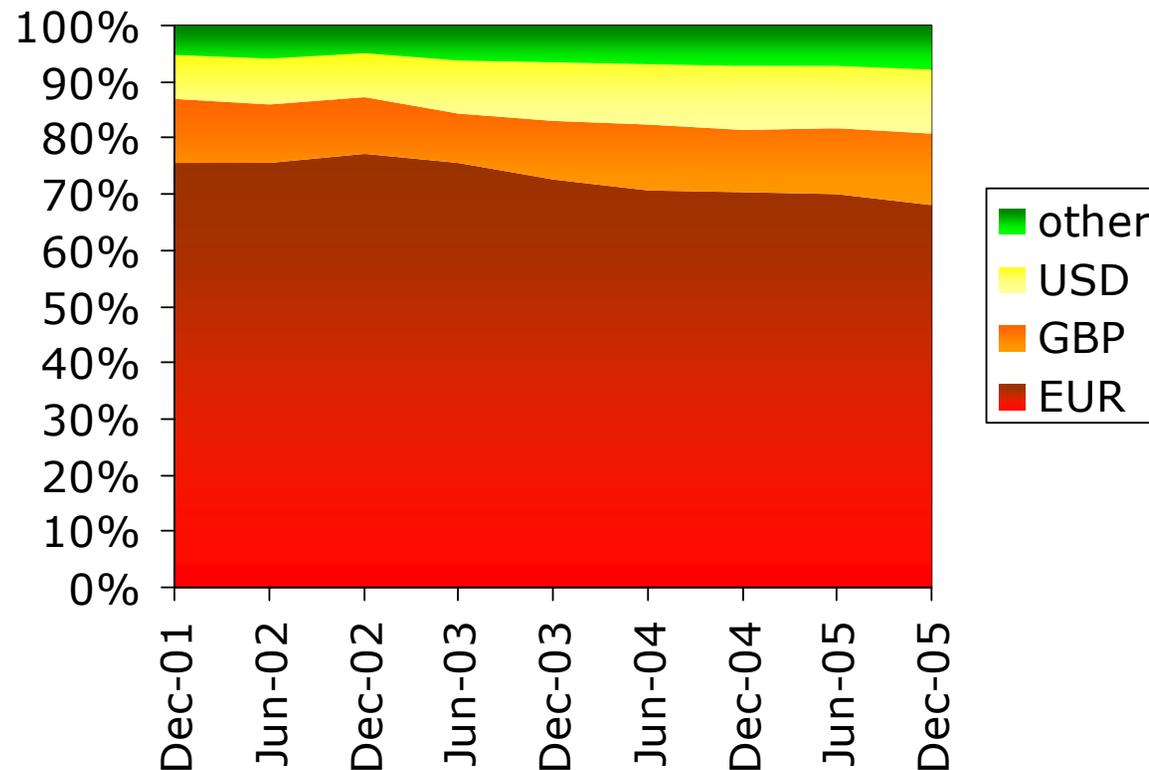
# European Repo Council

## 10<sup>th</sup> European repo



## market survey

### Currency analysis



# European Repo Council

## 10<sup>th</sup> European repo market

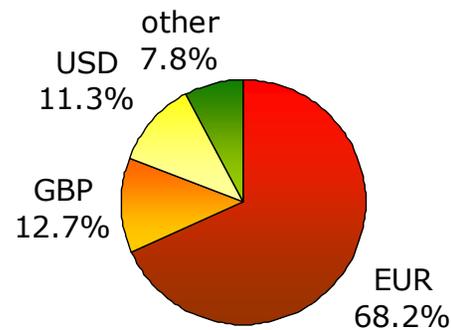


### survey

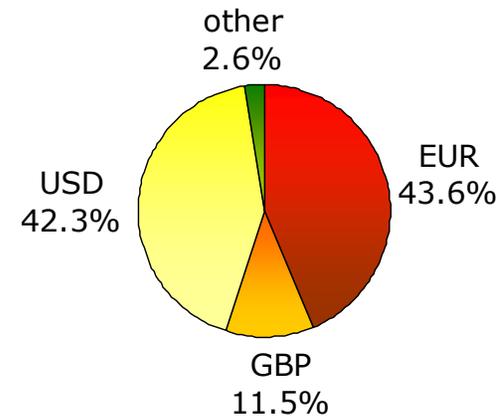
Currency analysis

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**Main survey**



**Triparty**



# European Repo Council

## 10<sup>th</sup> European repo market

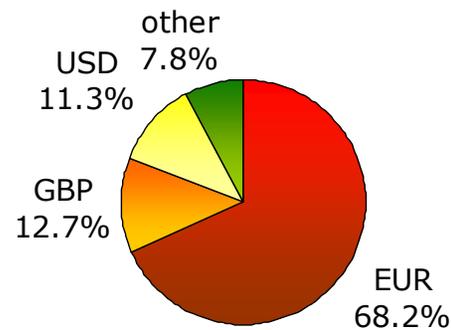


### survey

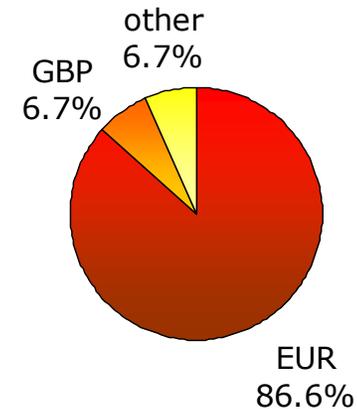
Currency analysis

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**Main survey**



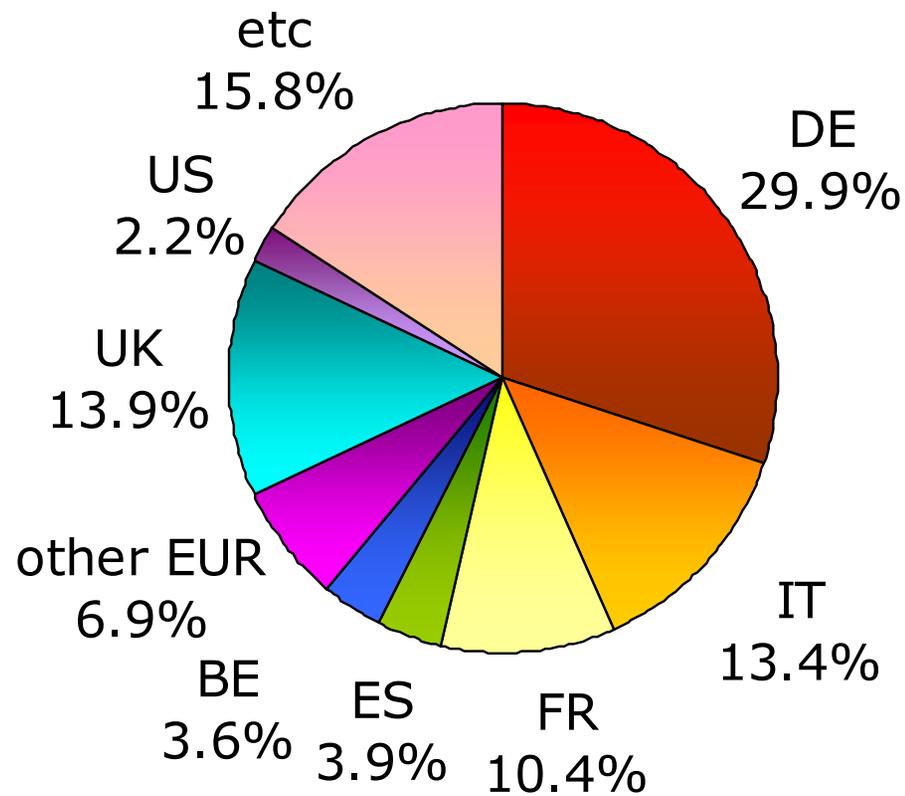
**ATS**



# European Repo Council

## 10<sup>th</sup> European repo

### market survey Collateral analysis

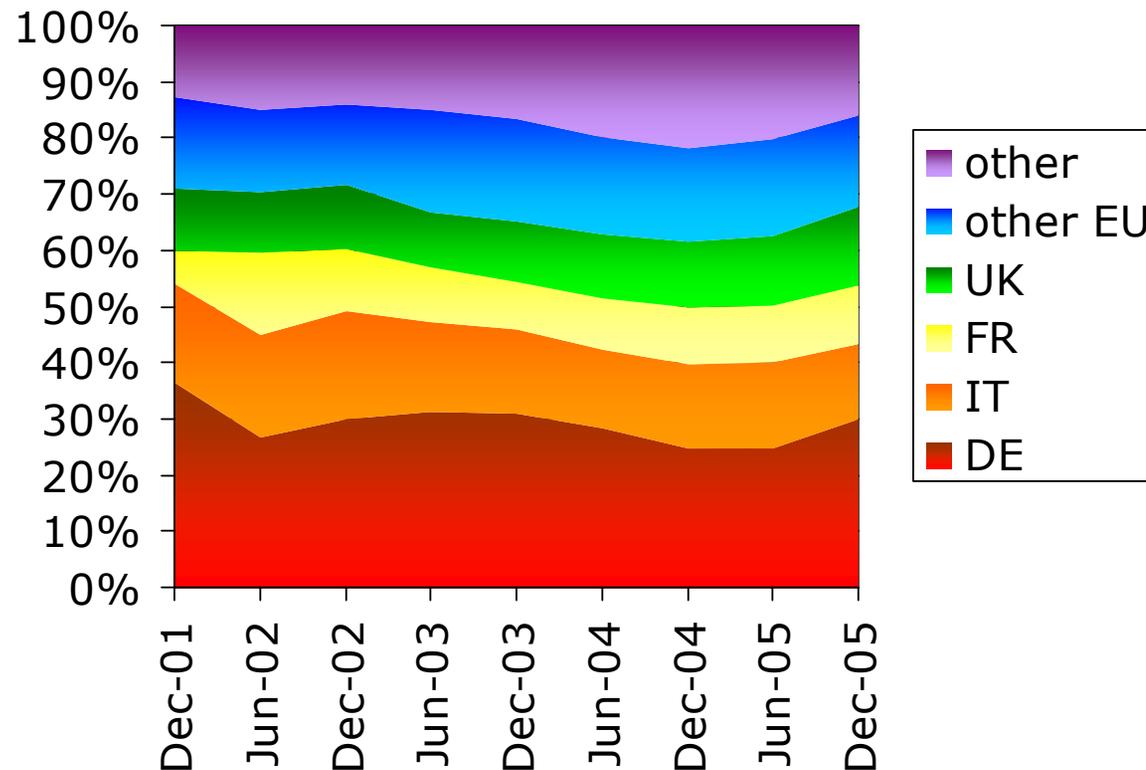


# European Repo Council

## 10<sup>th</sup> European repo market



survey  
Collateral analysis



# European Repo Council

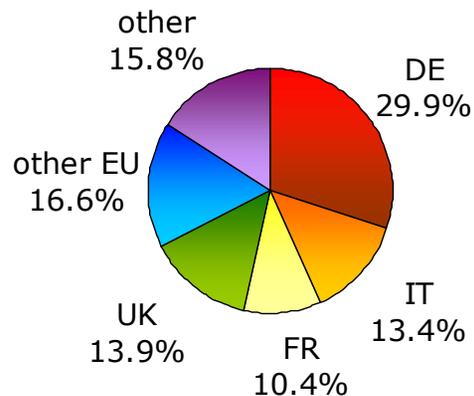
## 10<sup>th</sup> European repo



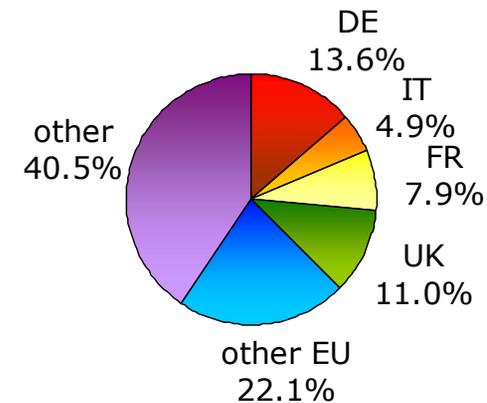
## market survey

### Collateral analysis

**Main survey**



**Triparty**



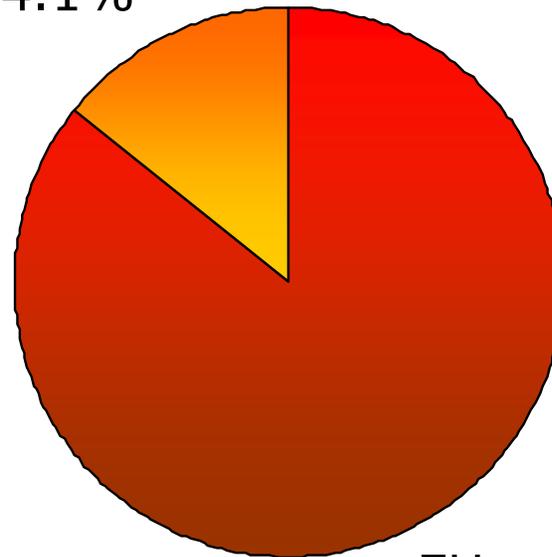
# European Repo Council 10<sup>th</sup> European repo market



survey  
Collateral analysis

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other EU  
14.1%



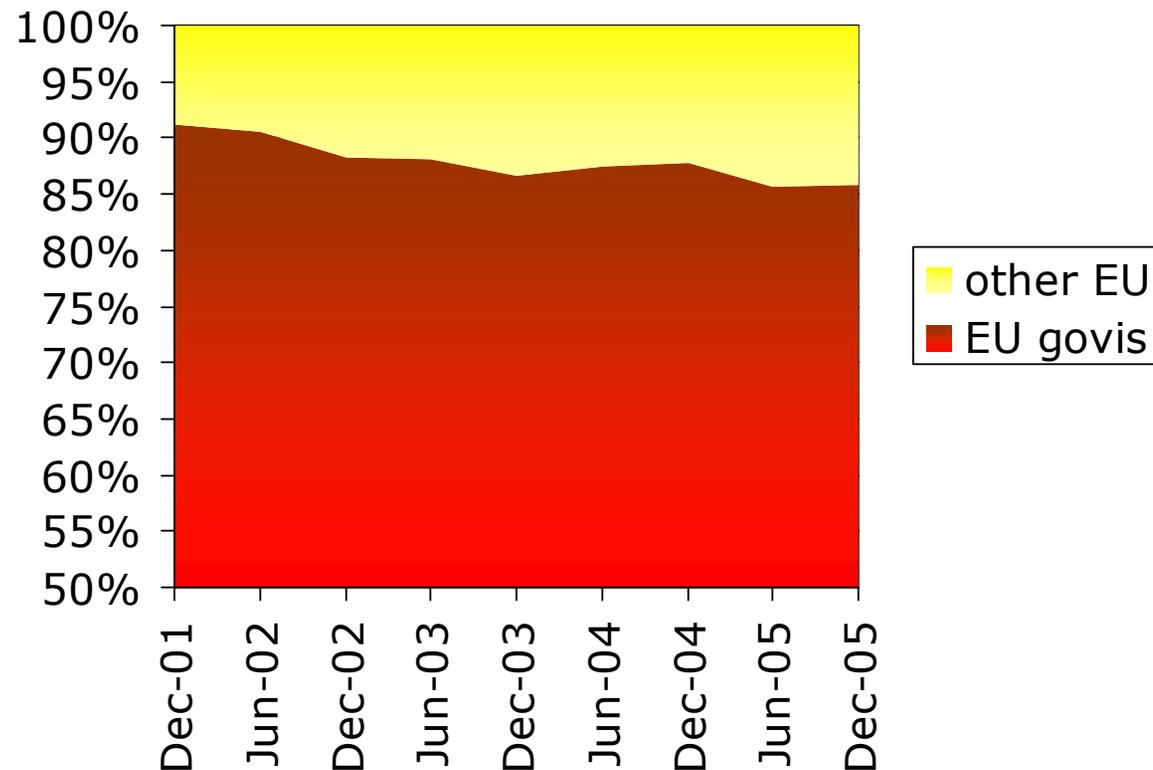
EU govis  
85.9%



# European Repo Council 10<sup>th</sup> European repo market



survey  
Collateral analysis



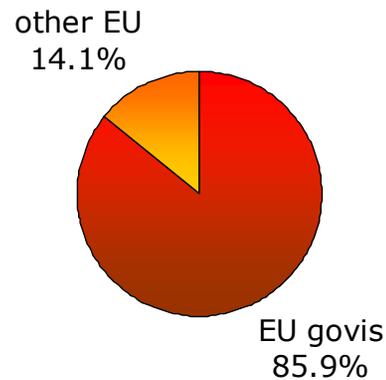
# European Repo Council

## 10<sup>th</sup> European repo market survey

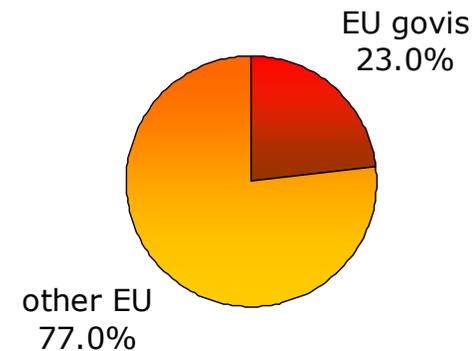
Collateral analysis



**Main survey**



**Triparty**



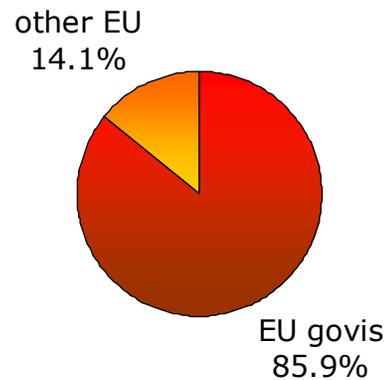
# European Repo Council

## 10<sup>th</sup> European repo market survey

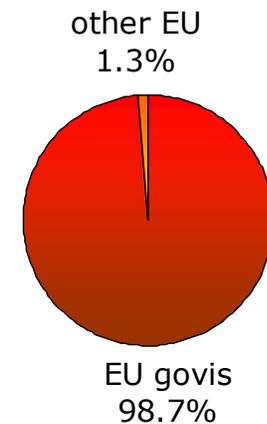
Collateral analysis



**Main survey**



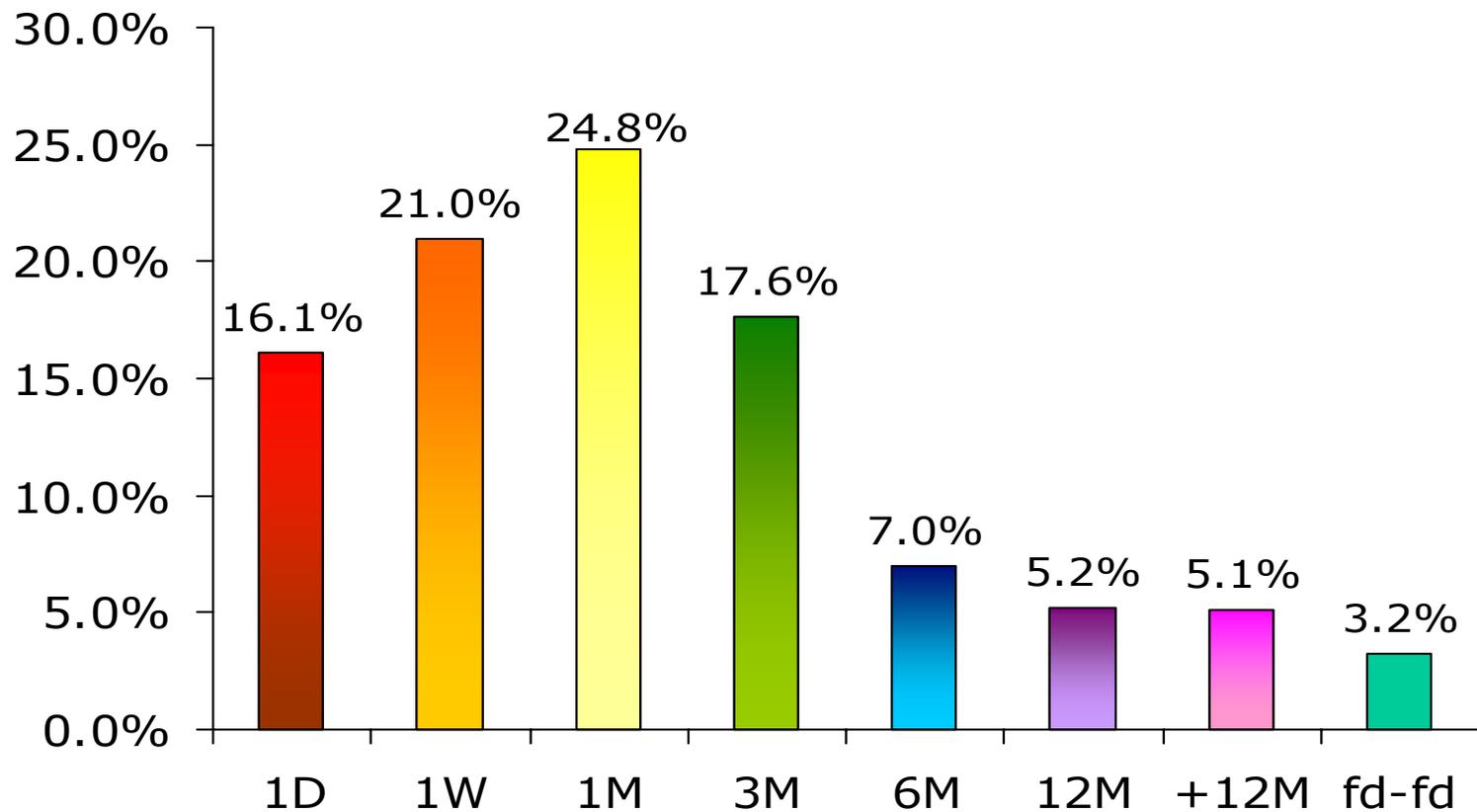
**ATS**



# European Repo Council 10<sup>th</sup> European repo market



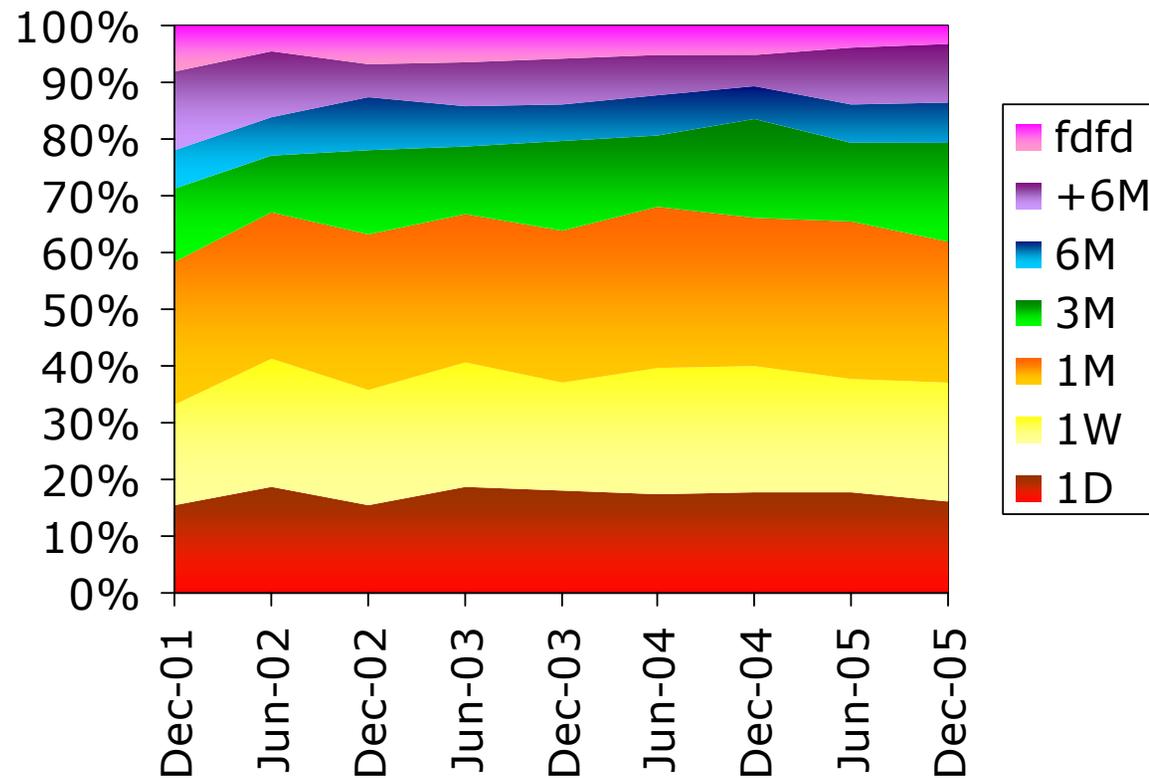
## survey Maturity analysis



# European Repo Council 10<sup>th</sup> European repo market



## survey Maturity analysis



# European Repo Council

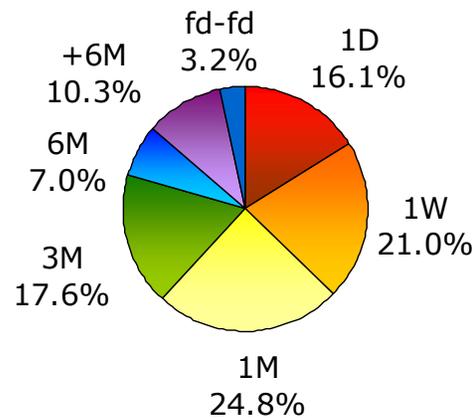
## 10<sup>th</sup> European repo



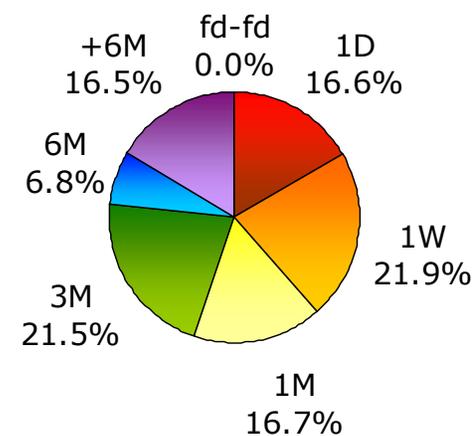
## market survey

### Maturity analysis

**Main survey**



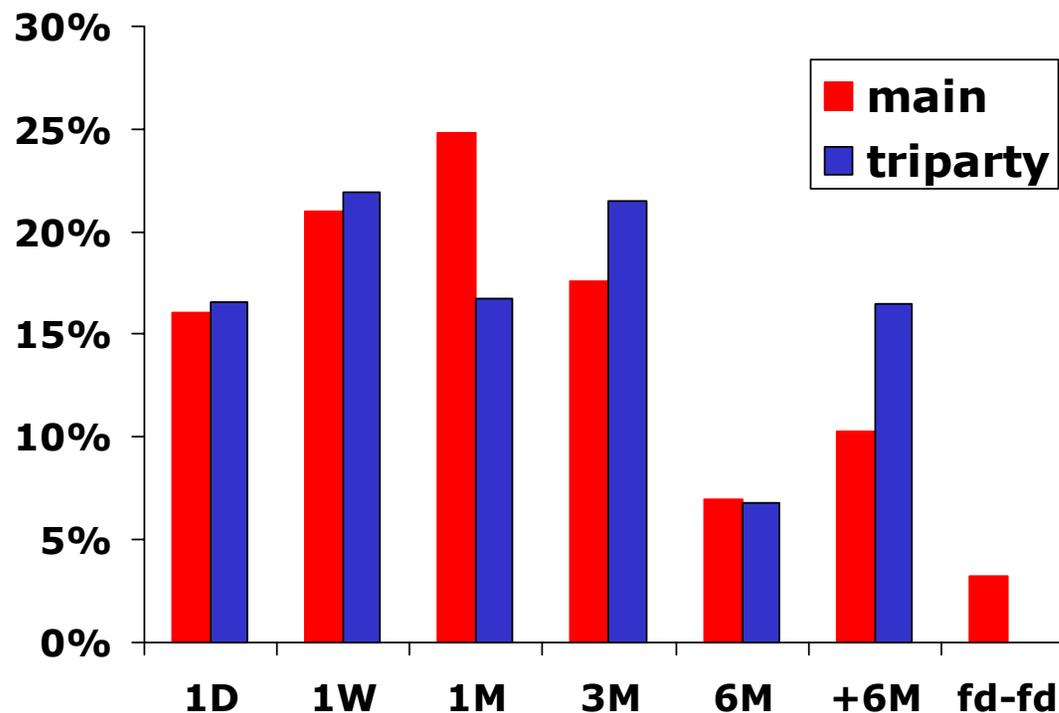
**Triparty**



# European Repo Council

## 10<sup>th</sup> European repo

### market survey Maturity analysis



# European Repo Council

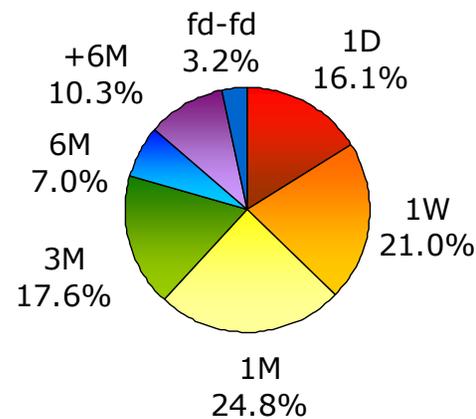
## 10<sup>th</sup> European repo



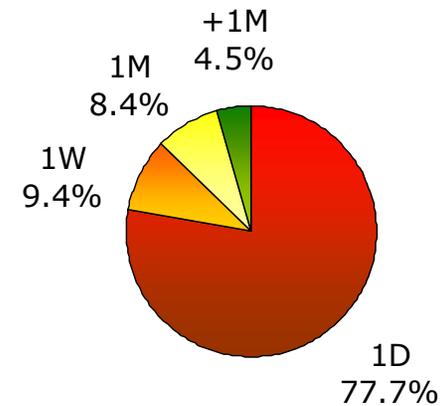
## market survey

### Maturity analysis

**Main survey**



**ATS**

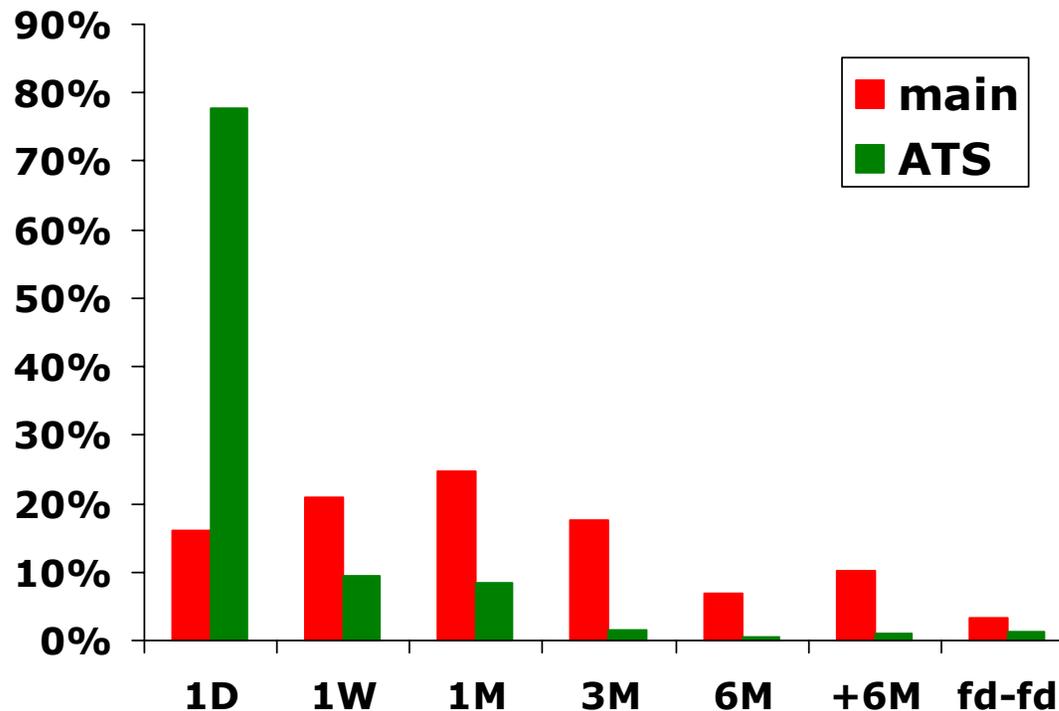


# European Repo Council

## 10<sup>th</sup> European repo

### market survey

Maturity analysis



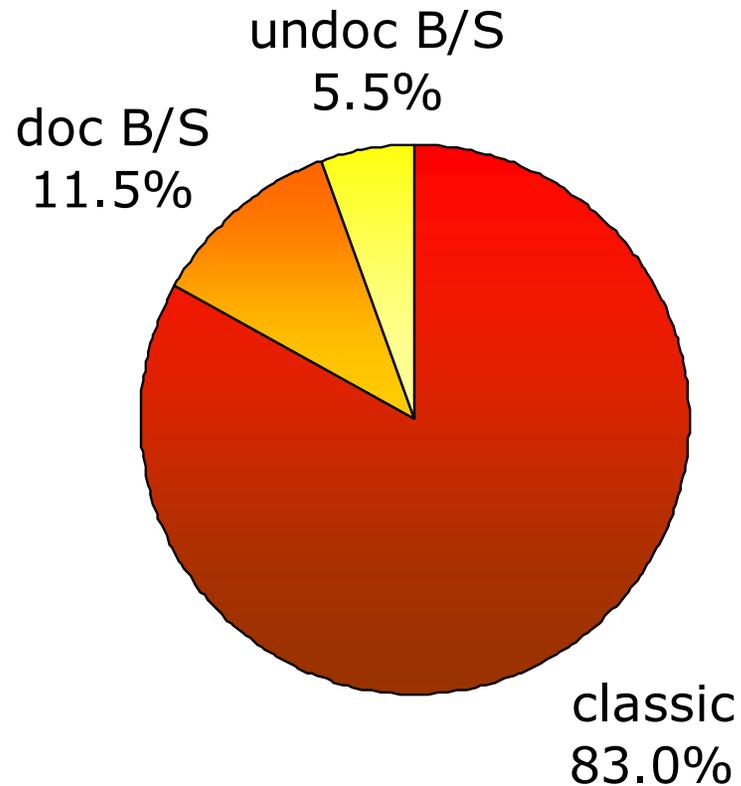
# European Repo Council

## 10<sup>th</sup> European repo



### market survey

#### Contract analysis

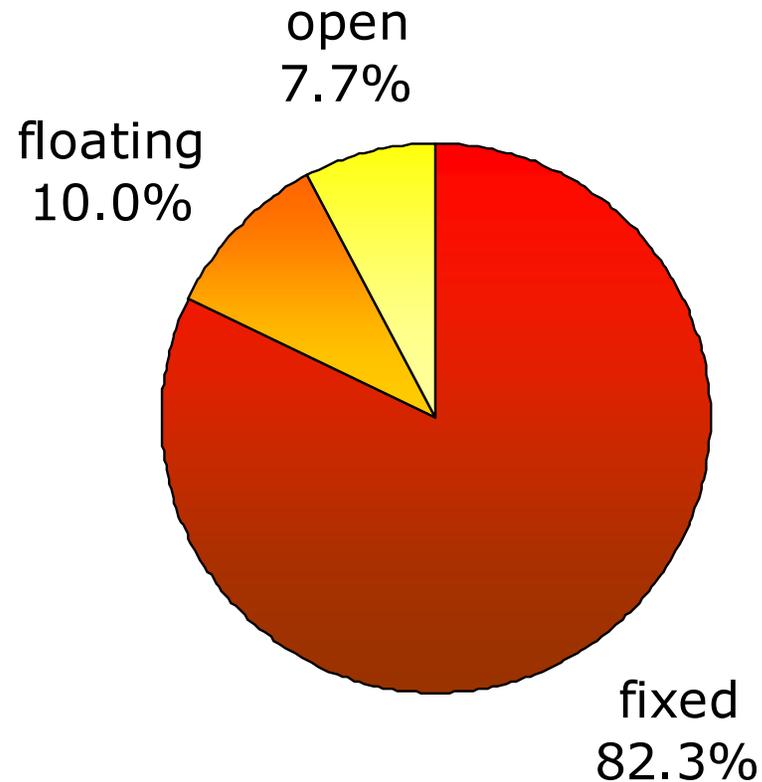


# European Repo Council 10<sup>th</sup> European repo market



survey  
Rate analysis

---

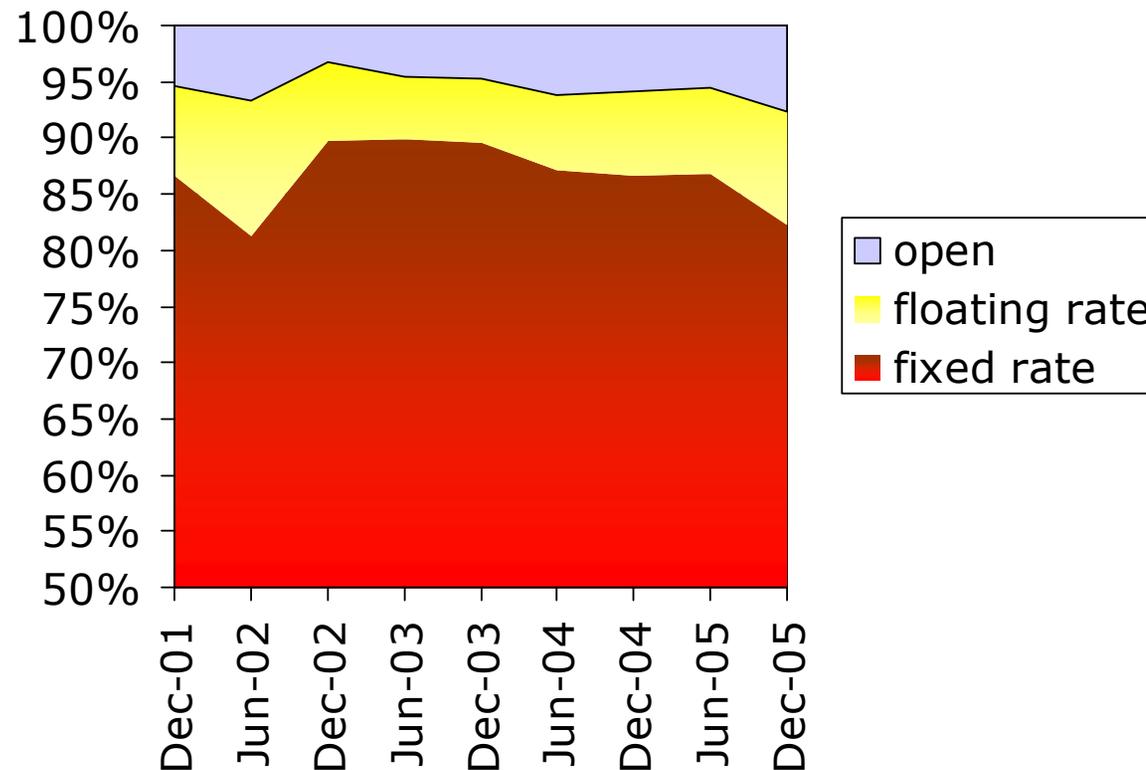


# European Repo Council

## 10<sup>th</sup> European repo market



survey  
Rate analysis



# European Repo Council

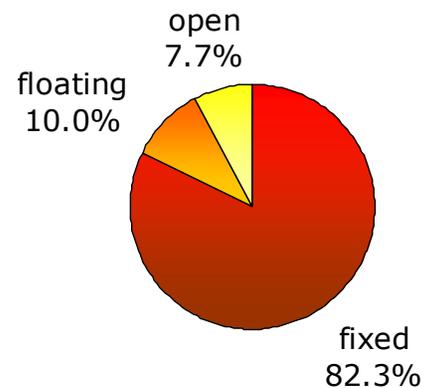
## 10<sup>th</sup> European repo



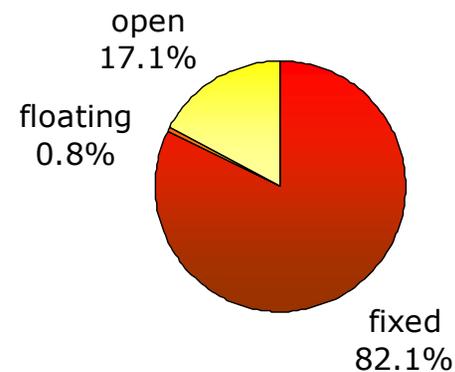
## market survey

### Rate analysis

**Main survey**



**Triparty**



# European Repo Council

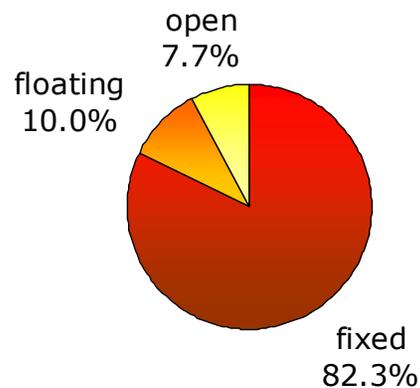
## 10<sup>th</sup> European repo



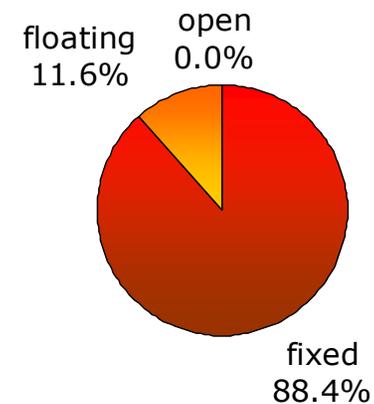
## market survey

### Rate analysis

**Main survey**



**ATS**



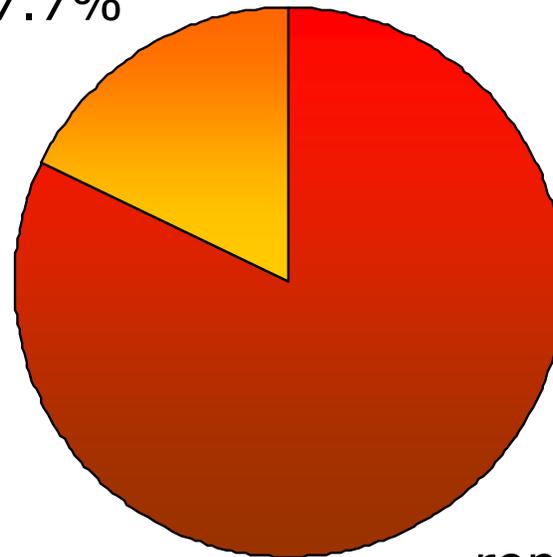
# European Repo Council 10<sup>th</sup> European repo market



survey  
Product analysis

---

lending  
17.7%



repo  
82.3%

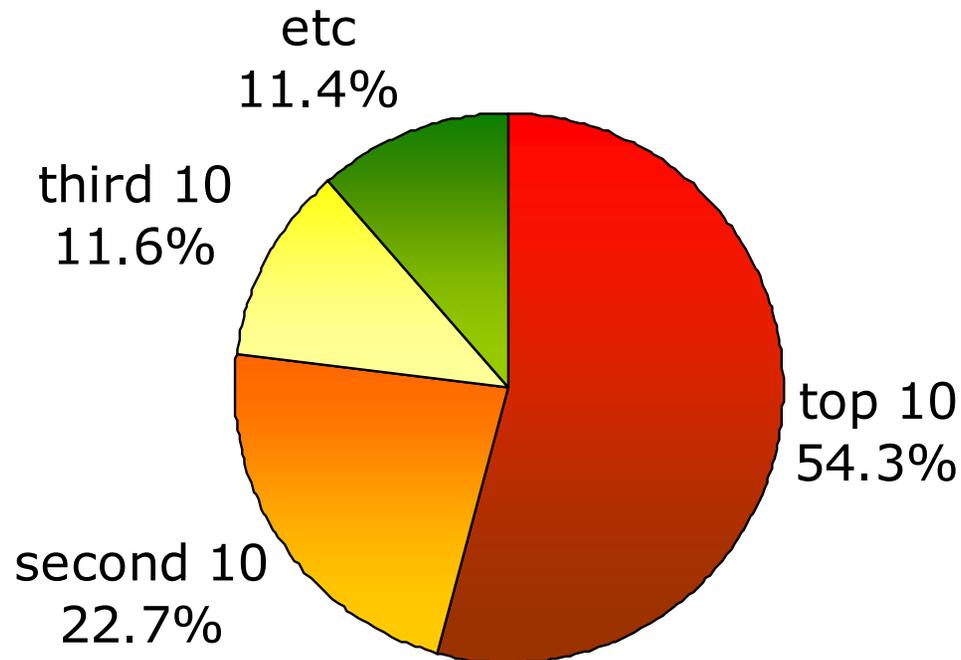


# European Repo Council 10<sup>th</sup> European repo market



survey

Concentration analysis



# European Repo Council

## 10<sup>th</sup> European repo market



survey

---

Date of next survey

14<sup>th</sup> June 2006





Attachment 9

ERC general meeting, 21.3.2006

# Reform of the Bank of England's Operations in the Sterling Money Markets

Stuart Berry  
Bank of England

# Objectives

- Flat money market yield curve, consistent with official policy rate, out to next decision date
- Efficient, safe and flexible framework for banking system liquidity management – both in competitive money markets and, where appropriate, using central bank money – in routine and stressed/extraordinary conditions
- Simple, straightforward, transparent framework
- Competitive and fair sterling money markets

# Reasons for change

- Overnight rates more volatile than desirable
- Complexity
- Limited access to central bank money

# New framework (I)

- Voluntary reserves
  - Monthly averaging (MPC decision dates)
  - Remunerated at repo rate
  - No compulsion – so central bank money on demand (subject to ceilings)
  - Target range for added flexibility
  - Available to settlement banks and all institutions that hold CRDs with the Bank

# New framework (II)

- Standing facilities
  - Unlimited access for eligible institutions
  - +/- 100bp on most days; +/- 25bp on final day of maintenance period (rate-setting day)
- OMOs
  - Weekly one-week maturity
  - Plus overnight maturity fine-tune on final day

# Setting official interest rates

- Narrow standing facility corridor on final day of maintenance period, plus fine-tuning OMO and target range to ensure reserve scheme members can meet their targets
- Reserves averaging during the rest of the maintenance period to smooth market interest rates

# Banking system liquidity management

- Widely available standing facilities
  - $\pm 100$ bp standing facility corridor (other than on final day of MP) for liquidity insurance not rate-setting.
  - Bank can intermediate flows of funds (lending against collateral) if money market disrupted in a crisis.
- Voluntary remunerated reserves
  - New high-quality liquid asset.
  - Averaging allows banks to offset liquidity shocks, so simpler day-to-day liquidity management on most days of the MP (only need to square up 12 times a year); range provides flexibility on final day of MP.

# Progress So Far

- Preparations by the Bank and participating banks are going well
- Final legal and operational documentation have been published
- The Bank has successfully completed an internal dress rehearsal
- Application period has now finished
  - Around 40 reserve scheme members
  - Around 55 standing facilities banks
  - Around 30 OMO counterparties
- Familiarisation exercises for participants now drawing to a close

# Long-Term Repos

- The Bank introduced long-term repo lending (3-12 mth maturity) alongside its daily short-term operations in January
- Monthly variable-rate tenders for 3,6,9, and 12mth repos (discriminatory price basis)
- Open to the Bank's OMO counterparties
- Same collateral basket as for short-term OMOs
- Aim to build up £15bn stock of LTRs ahead of MMR launch to limit increase in short-term lending from introduction of reserves

# Next steps

- External Dress Rehearsal involving participants on 5 and 8 April
- Complete application process ie. sign up participants to legal documentation
- Migration/launch of the new framework

# Timetable

- Currently expect to launch in May or June (18/5 or 15/6 the most likely dates)
- Hope to announce a single date soon
- Launch date will be confirmed following external dress rehearsal
- No new participants for 3 months after launch but other eligible institutions can join after that



# Reform of the Bank of England's Operations in the Sterling Money Markets

Stuart Berry  
Bank of England

# **LCH.Clearnet**

## **RepoClear Service**

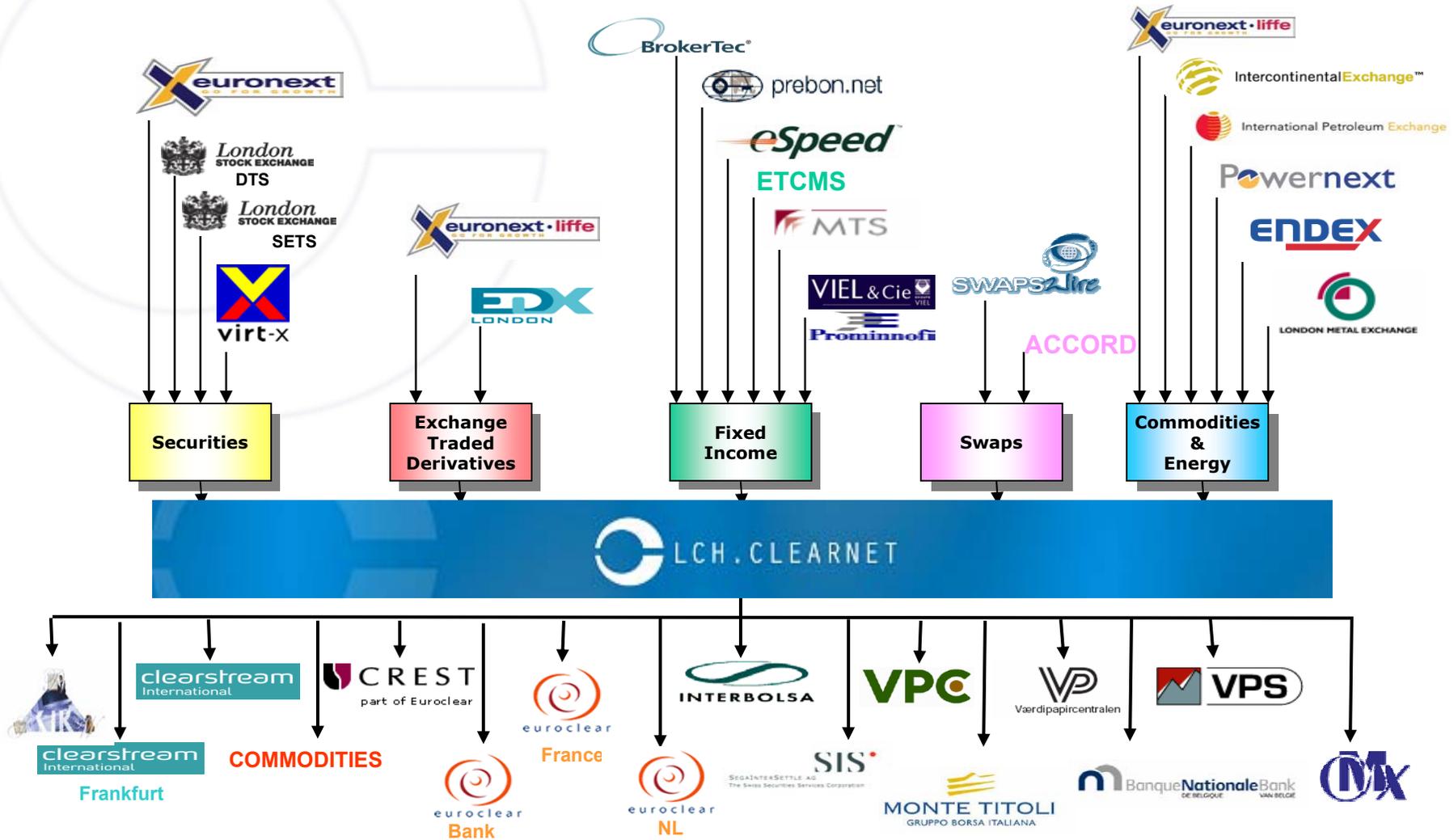
### **Initiatives and Product Development Strategy**

#### **Presentation to the European Repo Council**

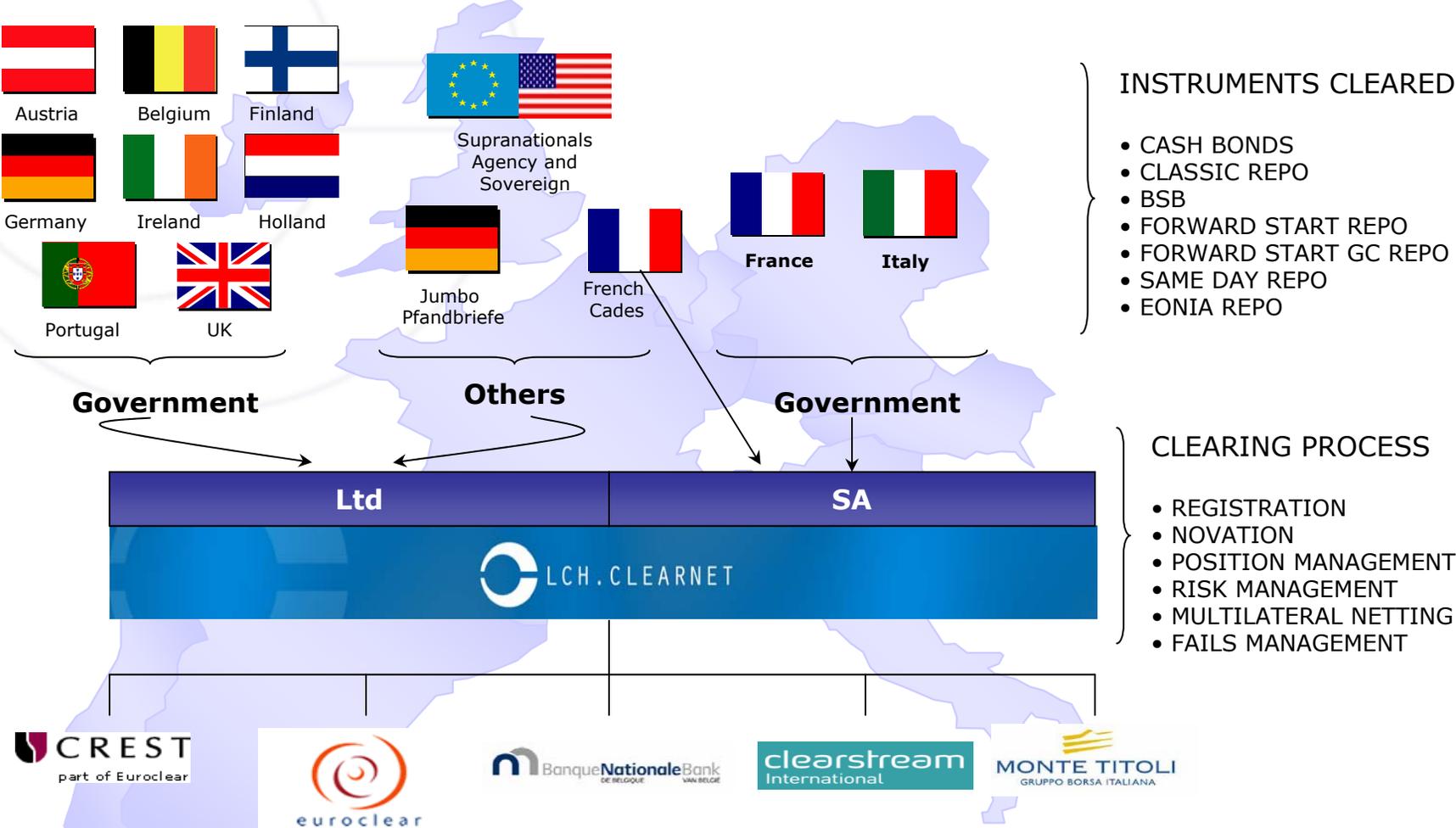
**Tuesday 21<sup>st</sup> March 2006**

**John Burke**  
**Director, Fixed Income**

# Group Business Model



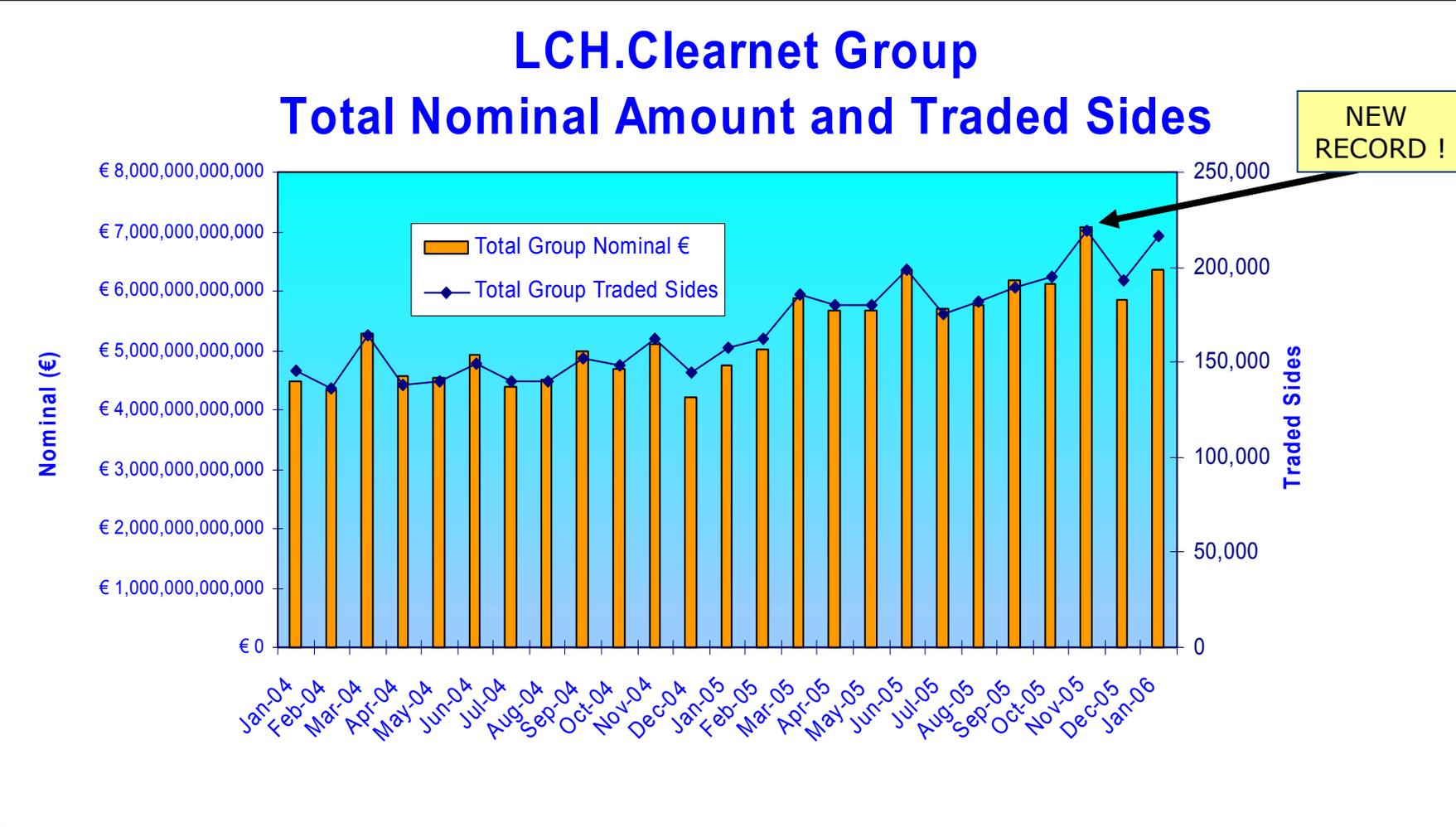
# Focus on Fixed Income: Scope



# Business Activity

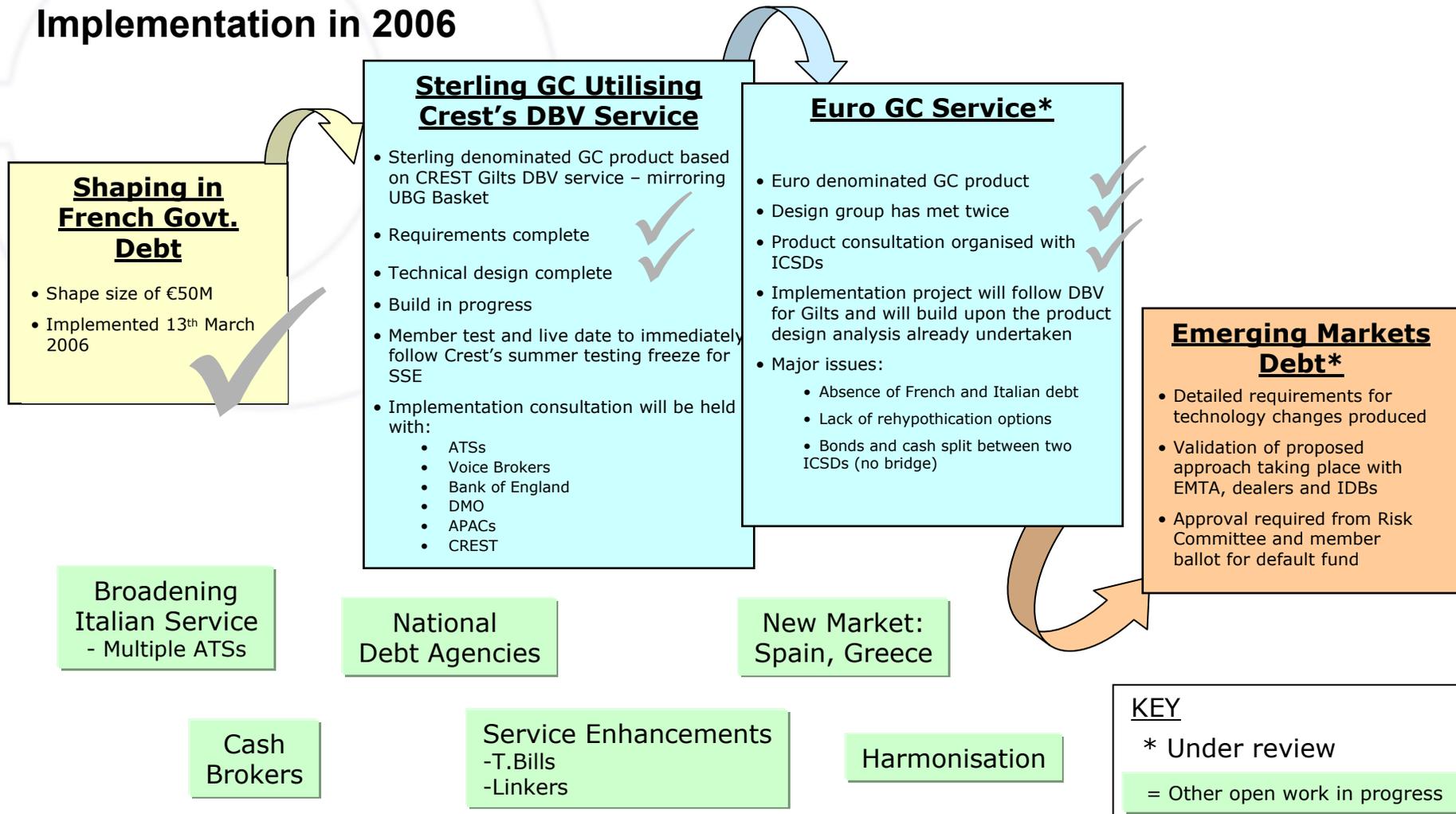
## LCH.Clearnet Group Total Nominal Amount and Traded Sides

NEW RECORD !



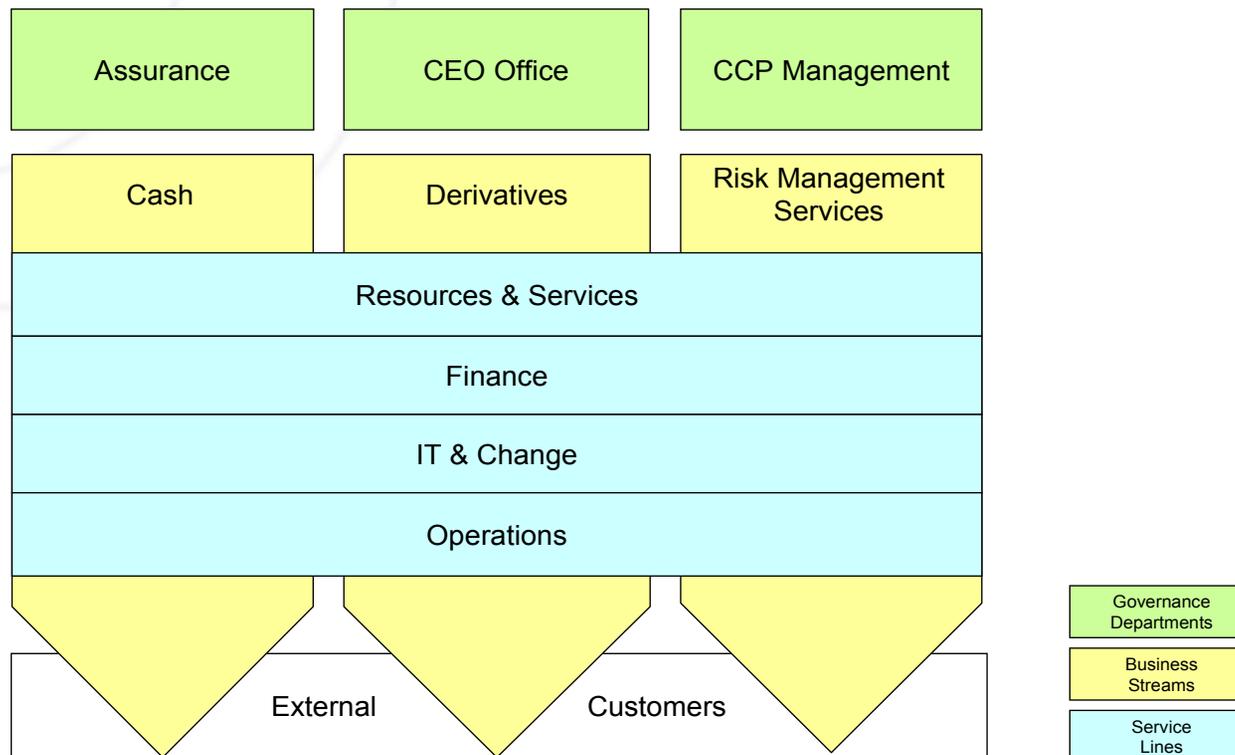
# Fixed Income: Product Development Schedule

## Implementation in 2006

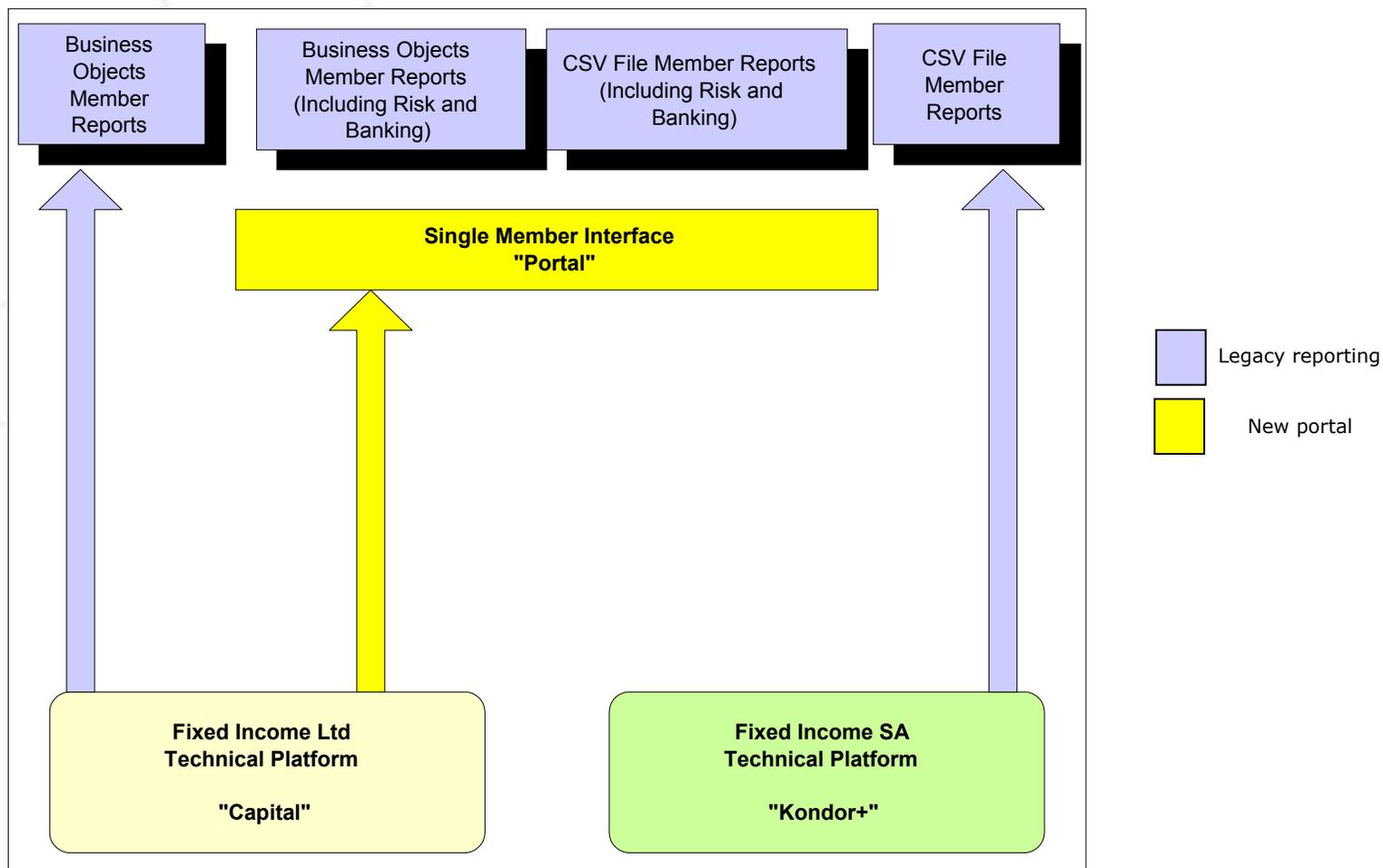


# Target Operating Model

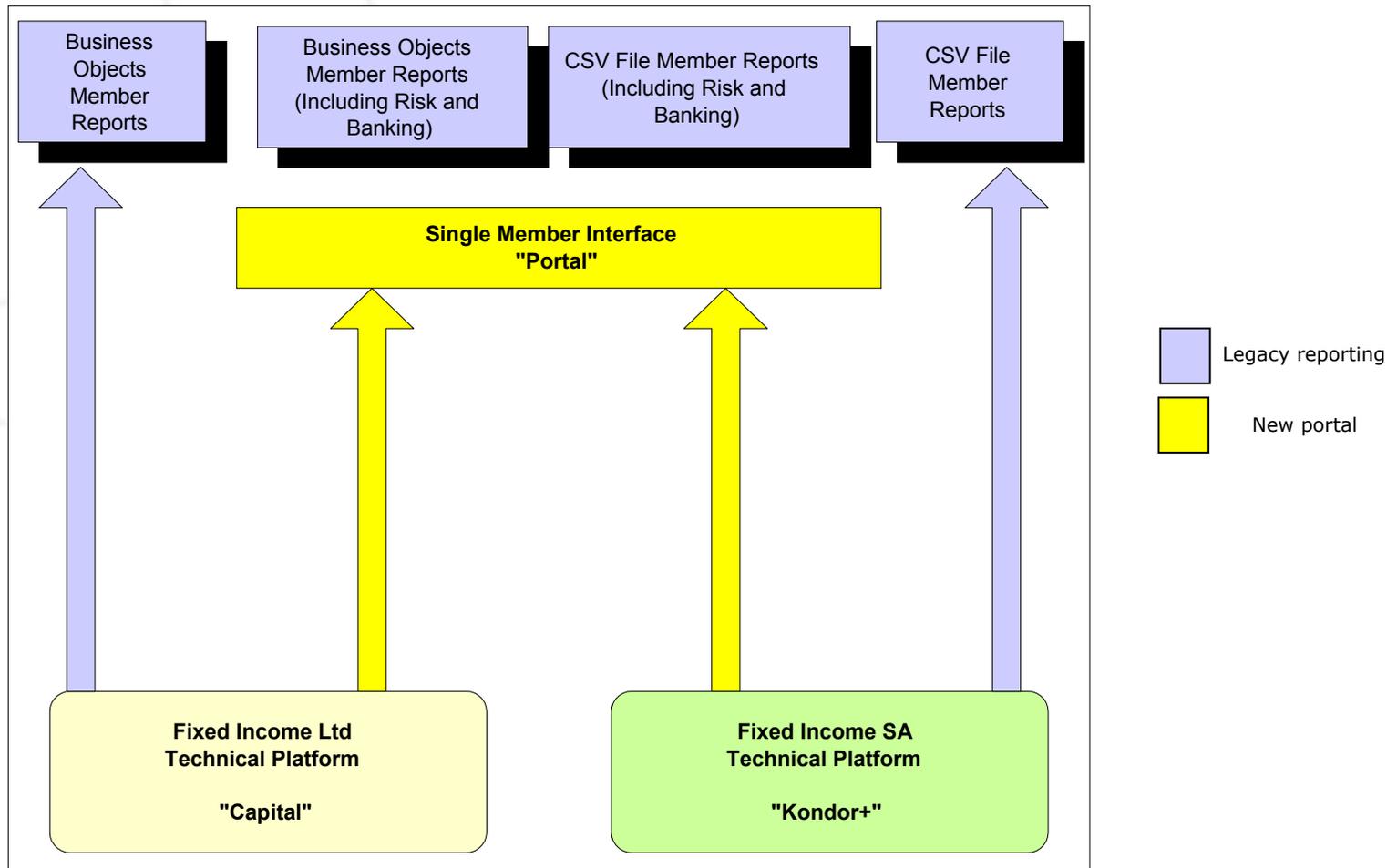
- 3 External Customer Focused Business Streams
- 4 Internal Customer Focused Service Lines
- 3 Cross Functional Governance Departments



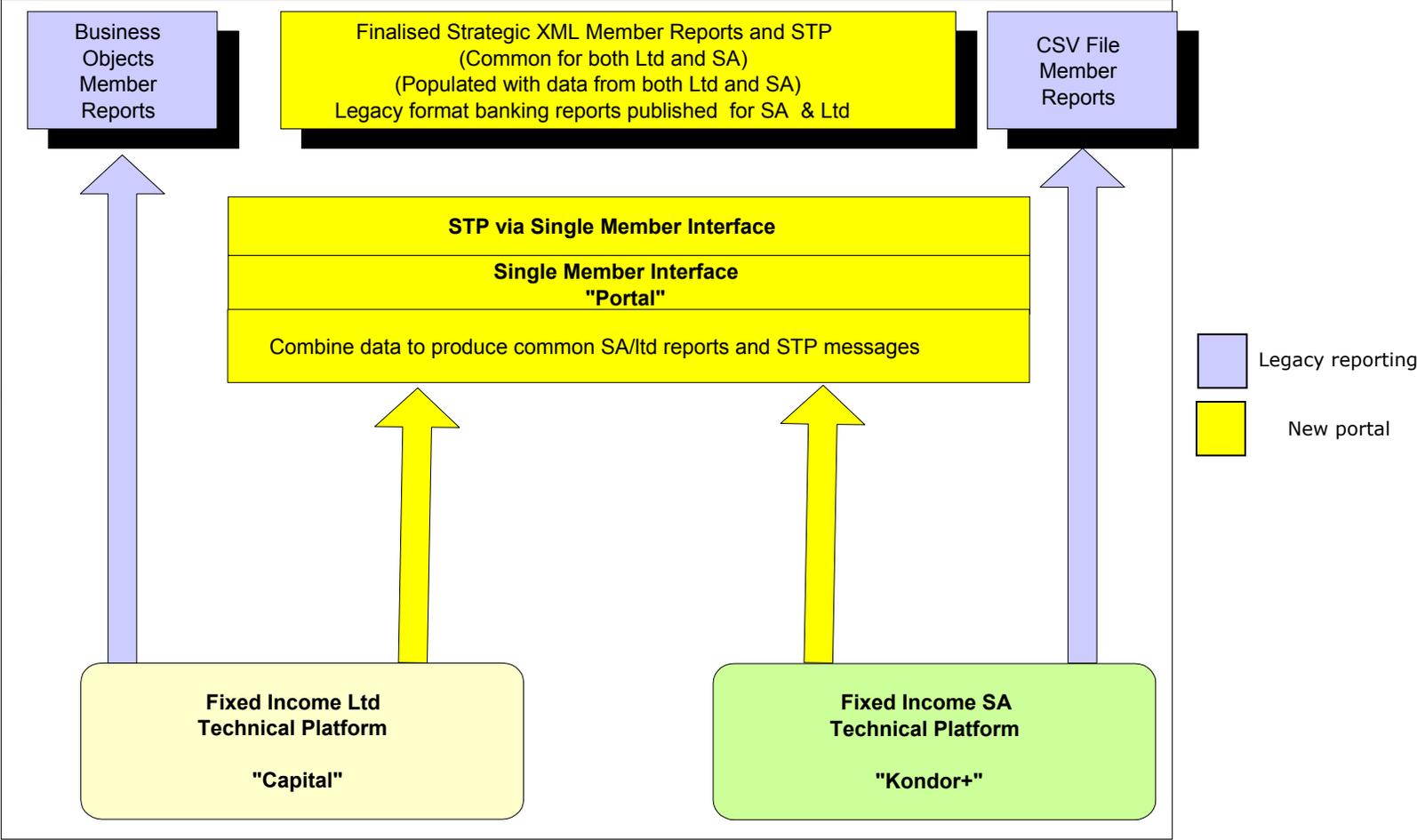
# LCH.Clearnet Portal Phase 1a.



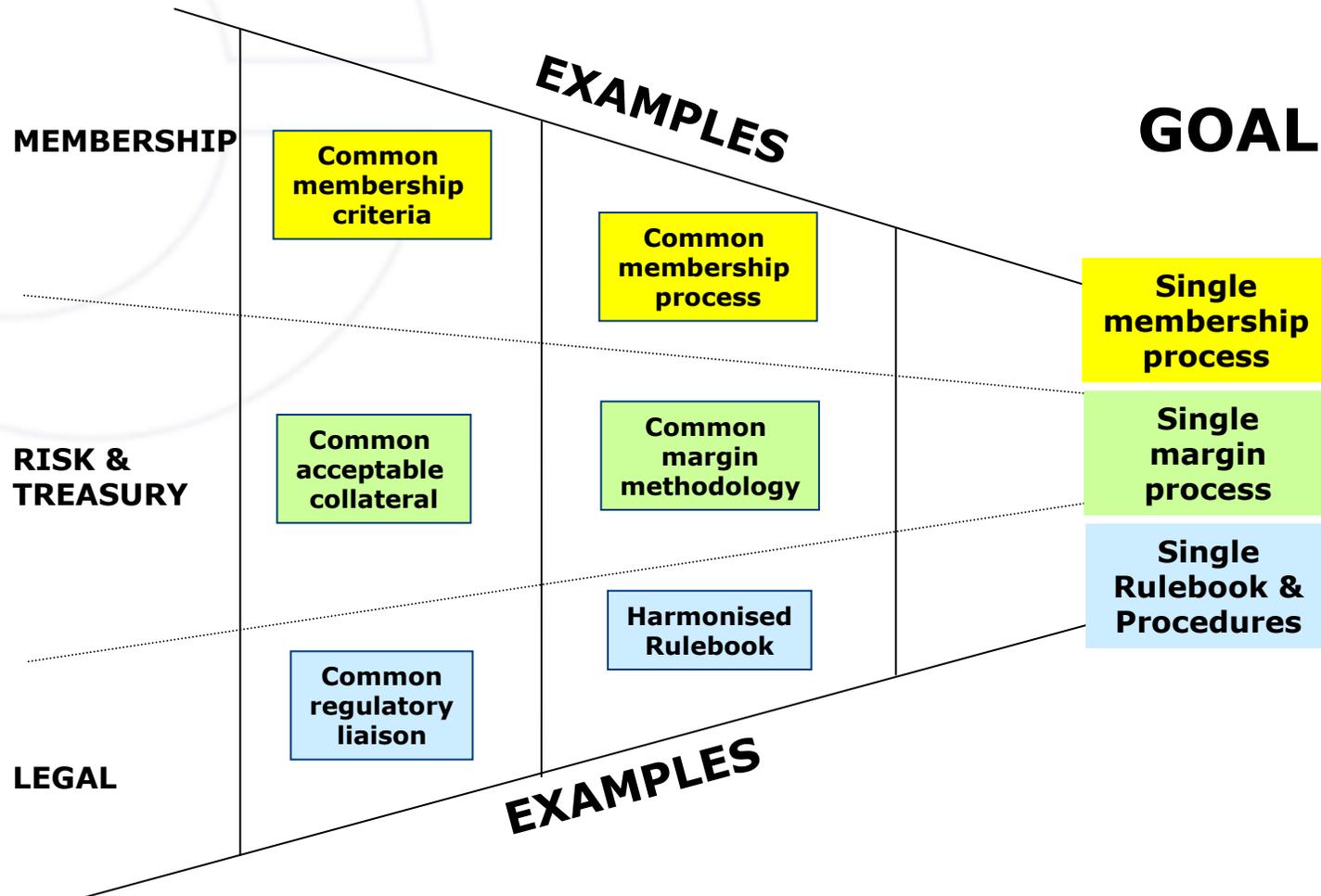
# LCH.Clearnet Portal Phase 1b.



# LCH.Clearnet Portal Phase 2

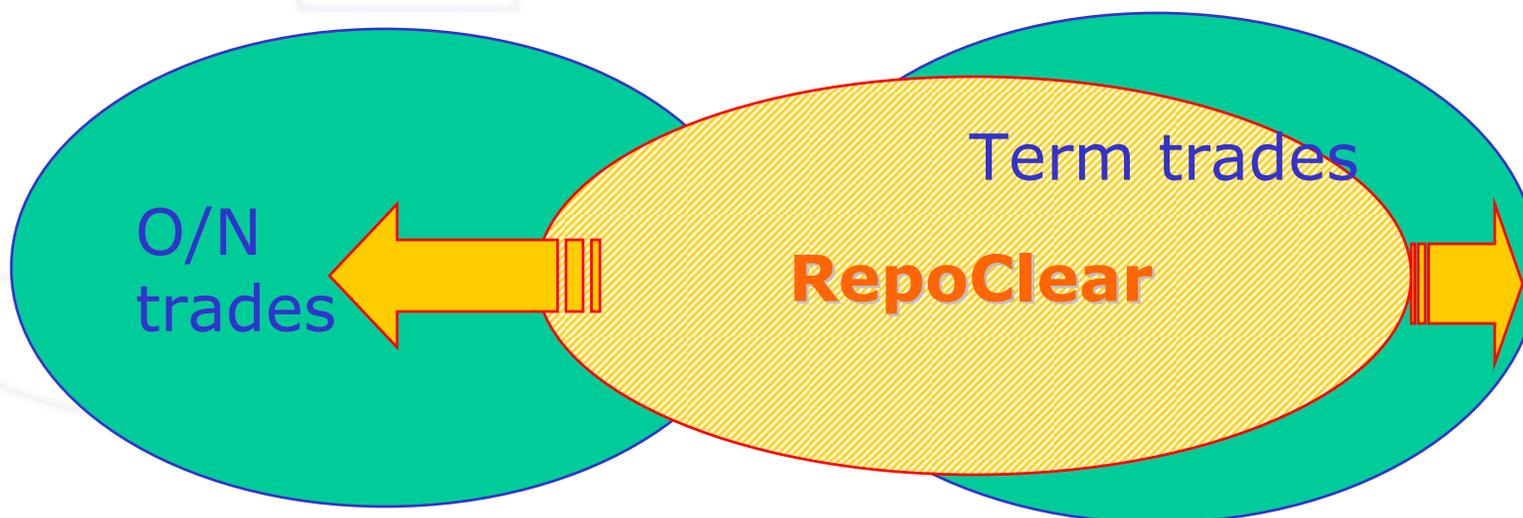


# Harmonisation Initiatives



# Sterling GC (Gilts DBV) – Objectives

## Gilt repo market



- Develop a **short-term Gilt funding product**
- Establish a strong basis for the **consolidation** and **expansion** of LCH.Clearnet GC product line in **Sterling** and **Euro**

# Sterling GC (Gilts DBV) - Description

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☞ The LCH.Clearnet Sterling GC product is a cleared General Collateral Gilts product that utilises the CREST Delivery By Value (DBV) service. This cash led funding tool:

- ☞ co-exists with, and complements, our existing Gilts service
- ☞ provides a standard process allowing market players to address their funding needs quickly and easily with limited intervention
- ☞ allows market players to move collateral quickly, easily, with minimal costs, minimal intervention and repair, and no need for manual substitution

☞ Features of the LCH.Clearnet Sterling GC service include:

- ☞ Sterling repo, GC basket mirroring the CREST UBG Class.
- ☞ Supports Overnight and Term repo DBV trades.
- ☞ Supports Same Day and Forward Start DBV trades.
- ☞ Uses the CREST Direct Input facility for LCH.Clearnet to supply CREST with net instructions on behalf of all participants in the LCH.Clearnet Sterling GC service.
- ☞ Uses the existing CREST auto-allocation tool.

The LCH.Clearnet DBV For Gilts service in effect re-characterises the term repo trade as a series of linked one-day trades plus a final repo interest payment. This maximises netting opportunities for members.

# Sterling GC (Gilts DBV) – Vertical Netting

Daily netting of all outstanding DBV positions:

	Day 1	Day 2	Day 3	Day 4	Day 5
<b>Trade 1 (5 day term)</b>	-100	-100	-100	-100	-100
<b>Trade 2 (2 day term)</b>	-150	-150			
<b>Trade 3 (3 day term)</b>		60	60	60	
<b>Trade 4 (3 day term)</b>			-250	-250	-250
<b>Trade 5 (Overnight)</b>	80				
<b>Net absolute position</b>	-170	-190	-290	-290	-350

We are seeking to achieve balance sheet netting offsets for members:

- Of DBV positions (as illustrated)
- Between DBV positions and standard Gilts positions

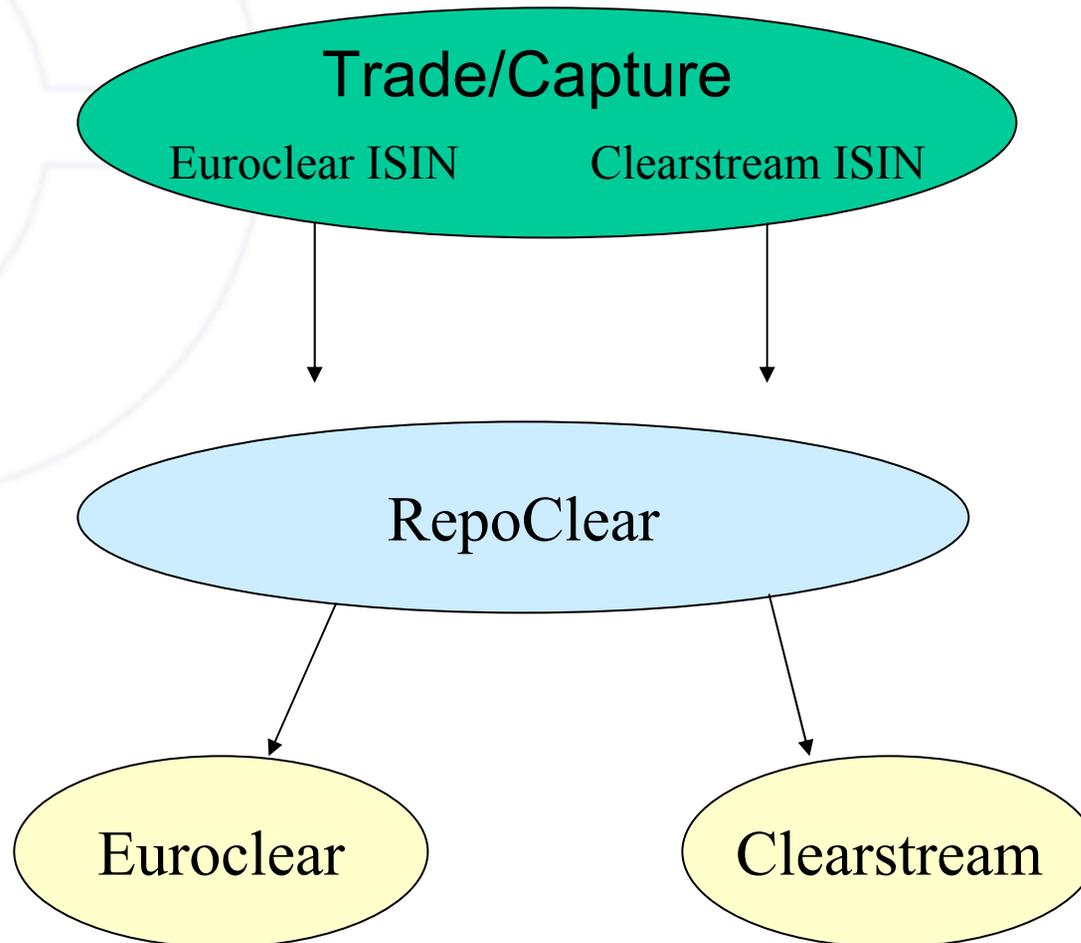
# Sterling GC (Gilts DBV) - Benefits

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- ☞ In addition to the benefits of a central counterparty, the LCH.Clearnet DBV For Gilts product brings the following advantages:
  - ☞ Anonymous trading capability
  - ☞ Settlement netting provides streamlined, low-cost settlement
  - ☞ Balance sheet netting benefits are expected (*to be confirmed*)
  - ☞ Reduced operational workload arising from use of CREST Direct Input and the ability to book term DBV trades
  - ☞ Uses the existing CREST auto-allocation tool, which suits funding needs
  - ☞ The service exploits existing RepoClear netting expertise by the implementation of a netting algorithm that allows for basket netting
  - ☞ Maximum usage of collateral – no concentration limits necessary
  - ☞ Increased process efficiency

# Euro GC

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LCH.CLEARNET

John Burke  
Director, Fixed Income  
Customer and Market Management  
LCH.Clearnet

 e-mail: [john.burke@lchclearnet.com](mailto:john.burke@lchclearnet.com)  
 Tel: 00 44 (0) 20 7426 7171

Nick Maggs  
Senior Manager  
Fixed Income Client Relationships  
Customer and Market Management  
LCH.Clearnet

 e-mail: [nick.maggs@lchclearnet.com](mailto:nick.maggs@lchclearnet.com)  
 Tel: 00 44 (0) 20 7426 7442  
 Mob: 00 44 (0) 771 485 0812

Nigel Bradley  
Senior Business Analyst  
Customer and Market Management  
LCH.Clearnet

 e-mail: [nigel.bradley@lchclearnet.com](mailto:nigel.bradley@lchclearnet.com)  
 Tel: 00 44 (0) 20 7426 7121

 Fax: 00 44 (0) 20 7667 7353

 Web: <http://www.lchclearnet.com>

**European Repo Council Meeting  
21<sup>st</sup> March 2006  
TRAX2 Repo Overview**



**Ewan Crawford (Nomura) - Head of FI & Collateral Operations  
Paulo Costa (ICMA) - Associate Director Business Development  
Brian Eyles (ICMA) - Manager Business Liaison**

# TRAX2 Repo Agenda



1. Introduction
2. The Benefits of using TRAX2 for Repo
3. Live Demo
4. Timeline
5. Question and Answer



# TRAX2 Repo Agenda



1. Introduction
2. The Benefits of using TRAX2 for Repo
3. Live Demo
4. Timeline
5. Question and Answer



## TRAX2 Repo Introduction

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- Repo enhancements have been developed in co-operation with the European Repo Council (ERC) and the Operations Committee of the Association of Foreign Banks (AFB). The key risks the group looked to identify were:
- No way of identifying errors within the terms of a transaction until Settlement Day -1 in most markets.
- Managing rate changes within the life of an transaction.
- Duplicated effort of matching trades on TRAX, then instruction details at the settlement agent.
- Creating a platform for future enhancement of current partial and pair off process and for instruction production



# TRAX2 Repo Introduction



- First phase enhancements will include:
  - Fixed or variable rate terms or open terms to be entered as a single transaction incorporating both the start and end legs; both legs are matched and allocated an individual status.
  - Provision to add Post Trade Actions (PTAs) for open term repos to enable end date and closing amount and currency; and rate, spread or price changes (rate rolls) throughout the life of a repo.
  - Provision of a Repo Update (rollovers) for facility for amending end leg details (end date and closing amount) for Term repos.
  - Repo trades will remain on the local and central databases 30 days after final close out.



# TRAX2 Repo Introduction



- Future enhancements will potentially include:
  - ICMA issuing settlement instruction on behalf of members with matched trades
  - ICMA initially providing an automated report identifying partial and pair off trades to reduce manual effort.
  - Eventually ICMA could provide via the above an automated process to issue partial and pair off instructions.
  - This automated process could be rolled to include cash trades at some point in the future.



# TRAX2 Repo Agenda



1. Introduction
2. The Benefits of using TRAX2 for Repo
3. Live Demo
4. Timeline
5. Question and Answer





## The Benefits of using TRAX2 for Repo

---

- Reduced operational and financial risk as all trade details electronically matched on trade date
- Elimination of fax and hard copy confirmations
- Reduced work to match close outs of open trades (as rate history will be matched during life of trade)
- Real-time identification of potential settlement problems

# TRAX2 Repo Agenda



1. Introduction
2. The Benefits of using TRAX2 for Repo
3. **Live Demo**
4. Timeline
5. Question and Answer



# TRAX2 – Buy/Sell Back



ABC Bank, London enters into a buy/sell back on 6.5% 07/27 Bund with XYZ Bank, Paris. ABC Bank, enters their side of the trade into TRAX.

**Repo Trade Entry (ABC LON)**

Searches Tools Help

<b>Trade Date/Time</b> Date: 20 October 05 Time: 11:30	<b>Security Details</b> Tradeable Security: Bond Code: DE0001135044 Code Type: ISIN	<b>Conditions</b> Special: Bargain: RE Sender's Ref: 12690948X1 Pool Ref: Place Of Trade Type: OFF Place: Quantity: 9.5M	<b>Repo Details:</b> Repo Type: Buy-Sell-Back Reference Rate: Actual Rate Repo Rate/Spread (%): 2.5 Forward Price: 141.73698 Call Notice: Second Leg Details: End Date: 09 November 05 Closing Amount: 13,681,561.42 Closing Currency: EUR Sender's Ref: 12690948X2
<b>Purchaser/Sale Indicator</b> <input checked="" type="radio"/> Purchase <input type="radio"/> Sell	<b>Price Details</b> Price: 141.88 Currency: EUR		
<b>Counterparty</b> Code: XYZ PAR Code Type: TRAX Sub Account: Settlement Date: 25 October 05 Settlement Amount: 13,669,771.23 Currency: EUR Settlement Transaction Type: Traditional	<b>Settlement Account Details</b> Entered By Counterparty Payment Indicators: Against Payment Place Of Settlement: MGTCEBEXXX Counterparty Place Of Settlement: Entered By Counterparty		

Submit Cancel



# TRAX2 – Buy/Sell Back



ABC Bank, London enters into a buy/sell back on 6.5% 07/27 Bund with XYZ Bank, Paris. ABC Bank, enters their side of the trade into TRAX.

**Repo Trade Entry (ABC LON)**

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<b>Trade Date/Time</b> Date: 20 October 05 Time: 11:30	<b>Security Details</b> Tradeable Security: Bond Code: DE0001135044 Code Type: ISIN	<b>Conditions</b> Special: <input type="text"/> Bargain: RE Sender's Ref: 12690948X1 Pool Ref: <input type="text"/>	<b>Repo Details:</b> Repo Type: Buy-Sell-Back Reference Rate: Actual Rate Repo Rate/Spread (%): 2.5 Forward Price: 141.73698 Call Notice: <input type="text"/>
<b>Purchaser/Sale Indicator</b> <input checked="" type="radio"/> Purchase <input type="radio"/> Sell	<b>Price Details</b> Price: 141.88 Currency: EUR Quantity: 9.5M	<b>Place Of Trade</b> Type: OFF Place: <input type="text"/>	<b>Second Leg Details:</b> End Date: 09 November 05 Closing Amount: 13,681,561.42 Closing Currency: EUR Sender's Ref: 12690948X2
<b>Counterparty</b> Code: XYZ PAR Code Type: TRAX Sub Account: <input type="text"/>	<b>Settlement Details</b>   <b>Settlement Account Details</b>   <b>Additional Settlement Details</b>   <b>Control No's</b>   <b>Narrative</b>   <b>PTAs</b>		
<b>Your Details For Receipt:</b>			
Account BIC:	Safekeeping Account Details:		Data Entered By Counterparty
Agent: ABCLGB2LXXX	56342		<input type="text"/>
Custodian:	<input type="text"/>		<input type="text"/>
<b>Counterparty Details For Delivery:</b>			
Account BIC:	Safekeeping Account Details:		Data Entered By Counterparty
Agent:	<input type="text"/>		<input type="text"/>
Custodian:	<input type="text"/>		<input type="text"/>

Submit Cancel



# TRAX2 – Buy/Sell Back

ABC Bank, London submits the trade into TRAX for confirmation.



**Repo Trade Entry (ABC LON)**

Searches Tools Help

<b>Trade Date/Time</b> Date: 20 October 05 Time: 11:30	<b>Security Details</b> Tradeable Security: Bond Code: DE0001135044 Code Type: ISIN	<b>Conditions</b> Special: Bargain: RE Sender's Ref: 12690948X1 Pool Ref: Place Of Trade Type: OFF Place: Quantity: 9.5M	<b>Repo Details:</b> Repo Type: Buy-Sell-Back Reference Rate: Actual Rate Repo Rate/Spread (%): 2.5 Forward Price: 141.73698 Call Notice: Second Leg Details: End Date: 09 November 05 Closing Amount: 13,681,561.42 Closing Currency: EUR Sender's Ref: 12690948X2
--	--	--	---

**Counterparty**  
Code: XYZ PAR  
Code Type: TRAX  
Sub Account:   
Purchaser/Sale Indicator  
 Purchase  Sell

**Price Details**  
Price: 141.88  
Currency: EUR

**Settlement Details** | Settlement Account Details | **Additional Settlement Details** | Control No's | Narrative | PTAs

Settlement Breakdown - (Total Amount From Settlement Details £nnnnnnn.nnn)

Amount type:	Amount:	Data Entered By Counterparty	

**Accrual Details**  
Accrual Method: Act/act  
Days Accrued: 112

Submit Cancel

# TRAX2 – Buy/Sell Back

The TRAX system validates the entry and allocates additional confirmation details including opening and closing leg statuses.



**Repo Trade Entry (ABC LON)**

Searches Tools Help

<b>Trade Date/Time</b> Date: 20 October 05 Time: 11:30	<b>Security Details</b> Tradeable Security: Bond Code: DE0001135044 Code Type: ISIN	<b>Conditions</b> Special: Bargain: RE Sender's Ref: 12690948X1 Pool Ref: Place Of Trade Type: OFF Place: Quantity: 9.5M	<b>Repo Details:</b> Repo Type: Buy-Sell-Back Reference Rate: Actual Rate Repo Rate/Spread (%): 2.5 Forward Price: 141.73698 Call Notice: Second Leg Details: End Date: 09 November 05 Closing Amount: 13,681,561.42 Closing Currency: EUR Sender's Ref: 12690948X2
--	--	--	---

**Counterparty**  
Code: XYZ PAR  
Code Type: TRAX  
Sub Account:   
Purchaser/Sale Indicator:  Purchase  Sell

**Price Details**  
Price: 141.88  
Currency: EUR

**Settlement Details** | Settlement Account Details | Additional Settlement Details | Control No's | Narrative | PTAs

Settlement Date: 25 October 05	Entered By Counterparty	Payment Indicators: Against Payment	Entered By Counterparty
Settlement Amount: 13,669,771.23		Place Of Settlement: MGTCEBEXXX	
Currency: EUR		Counterparty Place Of Settlement:	
Settlement Transaction Type: Traditional			

Ref No: 2005102063732 Reported: 11:54 Trade Status: UNM 2nd Leg Status: UNM Ver: 1 Type: Bond No. Of Unresolved PTAs: 0  
ICMA Code: A229930 Security Name: BUNDESANLEIHE 6.5 05/07/27

Submit Cancel

# TRAX2 – Buy/Sell Back

XYZ Bank, Paris submits their side of the repo trade into TRAX for confirmation.



**Repo Trade Entry (XYZ PAR)**

Searches Tools Help

<b>Trade Date/Time</b> Date: 20 October 05 Time: 11:33	<b>Security Details</b> Tradeable Security: Bond Code: DE0001135044 Code Type: ISIN	<b>Conditions</b> Special: Bargain: RE Sender's Ref: 2932098Z1 Pool Ref: Place Of Trade Type: OFF Place: Quantity: 9.5M	<b>Repo Details:</b> Repo Type: Buy-Sell-Back Reference Rate: Actual Rate Repo Rate/Spread (%): 2.5 Forward Price: 141.73698 Call Notice: Second Leg Details: End Date: 09 November 05 Closing Amount: 13,681,561 Closing Currency: EUR Sender's Ref: 2932098Z2
<b>Purchaser/Sale Indicator</b> <input type="radio"/> Purchase <input checked="" type="radio"/> Sell	<b>Price Details</b> Price: 141.88 Currency: EUR		
<b>Counterparty</b> Code: ABCLGB2LXXX Code Type: BIC Sub Account: Settlement Details Settlement Date: 25 October 05 Settlement Amount: 13,669,771 Currency: EUR Settlement Transaction Type: Traditional	<b>Settlement Account Details</b> Entered By Counterparty Payment Indicators: Against Payment Place Of Settlement: CEDELULLXXX Counterparty Place Of Settlement: Settlement Account Details Additional Settlement Details Control No's Narrative PTAs		

Submit Cancel



# TRAX2 – Buy/Sell Back



The TRAX system validates the entry and matches both the opening and closing legs. Settlement and other trade information entered by their counterparty, ABC Bank, are disclosed and included in the finalised trade.

Repo Trade Entry (XYZ PAR)

Searches Tools Help

<b>Trade Date/Time</b> Date: 20 October 05 Time: 11:33	<b>Security Details</b> Tradeable Security: Bond Code: DE0001135044 Code Type: ISIN	<b>Conditions</b> Special: Bargain: RE Sender's Ref: 293209821 Pool Ref: Place Of Trade Type: OFF Place: Quantity: 9.5M	<b>Repo Details:</b> Repo Type: Buy-Sell-Back Reference Rate: Actual Rate Repo Rate/Spread (%): 2.5 Forward Price: 141.73698 Call Notice: Second Leg Details: End Date: 09 November 05 Closing Amount: 13,681,561 Closing Currency: EUR EUR Sender's Ref: 293209822
--	--	---	---

**Counterparty**  
Code: ABCLGB2LXXX  
Code Type: BIC  
Sub Account:   
Purchaser/Sale Indicator  
 Purchase  Sell

**Price Details**  
Price: 141.88  
Currency: EUR

**Settlement Details** | Settlement Account Details | Additional Settlement Details | Control No's | Narrative | PTAs

Settlement Date: 25 October 05	Entered By Counterparty	Entered By Counterparty
Settlement Amount: 13,669,771	13,669,771.23	Payment Indicators: Against Payment
Currency: EUR	EUR	Place Of Settlement: CEDELULLXXX
Settlement Transaction Type: Traditional	Traditional	Counterparty Place Of Settlement: 

Ref No: 2005102063732 Reported: 12:07 Trade Status: MMS 2nd Leg Status: MMS Ver: 2 Type: Bond No. Of Unresolved PTAs: 0  
ICMA Code: A229930 Security Name: BUNDESANLEIHE 6.5 05/07/27

Submit Cancel

# TRAX2 – Buy/Sell Back



The receiving and delivering agents and safekeeping accounts are disclosed in the finalised trade.

**Repo Trade Entry (XYZ PAR)**

Searches Tools Help

<b>Trade Date/Time</b> Date: 20 October 05 Time: 11:33	<b>Security Details</b> Tradeable Security: Bond Code: DE0001135044 Code Type: ISIN	<b>Conditions</b> Special: Bargain: RE Sender's Ref: 293209821 Pool Ref: Place Of Trade Type: OFF Place: Quantity: 9.5M	<b>Repo Details:</b> Repo Type: Buy-Sell-Back Reference Rate: Actual Rate Repo Rate/Spread (%): 2.5 Forward Price: 141.73698 Call Notice: Second Leg Details: End Date: 09 November 05 Closing Amount: 13,681,561 Closing Currency: EUR Sender's Ref: 293209822
--	--	---	---

**Counterparty**  
Code: ABCLGB2LXXX  
Code Type: BIC  
Sub Account:   
Purchaser/Sale Indicator:  Purchase  Sell

**Price Details**  
Price: 141.88  
Currency: EUR

**Settlement Details** | Settlement Account Details | **Additional Settlement Details** | Control No's | Narrative | PTAs

Your Details For Delivery:			
Account BIC:	Safekeeping Account Details:	Data Entered By Counterparty	
Agent: XYZPFR2LXXX	37698		
Custodian:			

Counterparty Details For Receipt:			
Account BIC:	Safekeeping Account Details:	Data Entered By Counterparty	
Agent:		ABCLGB2LXXX	56342
Custodian:			

**Ref No:** 2005102063732 **Reported:** 12:07 **Trade Status:** MMS **2nd Leg Status:** MMS **Ver:** 2 **Type:** Bond **No. Of Unresolved PTAs:** 0  
**ICMA Code:** A229930 **Security Name:** BUNDESANLEIHE 6.5 05/07/27

Submit Cancel

# TRAX2 – Buy/Sell Back



Any settlement breakdown amounts and accrual details are disclosed in the finalised trade.

**Repo Trade Entry (XYZ PAR)**

Searches Tools Help

**Trade Date/Time**

Date: 20 October 05

Time: 11:33

**Security Details**

Tradeable Security: Bond

Code: DE0001135044

Code Type: ISIN

**Conditions**

Special:

Bargain: RE

Sender's Ref: 293209821

Pool Ref:

**Repo Details:**

Repo Type: Buy-Sell-Back

Reference Rate: Actual Rate

Repo Rate/Spread (%): 2.5

Forward Price: 141.73698

Call Notice:

**Purchaser/Sale Indicator**

Purchase  Sell

**Price Details**

Price: 141.88

Currency: EUR

Quantity: 9.5M

**Place Of Trade**

Type: OFF

Place:

**Counterparty**

Code: ABCLGB2LXXX

Code Type: BIC

Sub Account:

**Settlement Details** | Settlement Account Details | **Additional Settlement Details** | Control No's | Narrative | PTAs

Settlement Breakdown - (Total Amount From Settlement Details £nnnnnnn.nnn)

Amount type:	Amount:	Data Entered By Counterparty	

**Accrual Details**

Accrual Method: Act/act

Days Accrued: 112

From Counterparty: Act/act

112

**Second Leg Details:**

End Date: 09 November 05

Closing Amount: 13,681,561

Closing Currency: EUR

Sender's Ref: 293209822

**Ref No:** 2005102063732 **Reported:** 12:07 **Trade Status:** MMS **2nd Leg Status:** MMS **Ver:** 2 **Type:** Bond **No. Of Unresolved PTAs:** 0  
**ICMA Code:** A229930 **Security Name:** BUNDESANLEIHE 6.5 05/07/27



# TRAX2 – Open Dated Repo



ABC Bank enters into an open dated repo with XYZ Bank on a Italy 5.375% 06/33. ABC Bank, enters their side of the repo into TRAX with a spread of 5bps over the European Overnight Index Average (EONIA). They submit the trade for confirmation.

The screenshot shows the 'Repo Trade Entry (ABC LON)' window with the following fields:

- Trade Date/Time:** Date: 19 October 05, Time: 10:45
- Security Details:** Tradeable Security: Bond, Code: US465410BG26, Code Type: ISIN
- Conditions:** Special: (empty), Bargain: RE, Sender's Ref: 12690701X1, Pool Ref: (empty)
- Repo Details:** Repo Type: Open, Reference Rate: EONIA, Repo Rate/Spread (%): 5, Forward Price: (empty), Call Notice: (empty)
- Purchaser/Sale Indicator:** Purchase (selected), Sell
- Counterparty:** Code: XYZPFR2LXXX, Code Type: BIC, Sub Account: (empty)
- Price Details:** Price: 105.32, Currency: USD, Quantity: 95M
- Place Of Trade:** Type: OFF, Place: (empty)
- Settlement Details (Active Tab):** Settlement Date: 24 October 05, Settlement Amount: 101,391,982.64, Currency: USD, Settlement Transaction Type: Traditional, Payment Indicators: Against Payment, Place Of Settlement: MOTIITMMXXX, Counterparty Place Of Settlement: (empty)
- Second Leg Details:** End Date: Open, Closing Amount: (empty), Closing Currency: (empty), Sender's Ref: 12690701X2

Buttons: Submit, Cancel





# TRAX2 – Open Dated Repo



On 28<sup>th</sup> October, ABC Bank, London enters a Post Trade Action to increase the repo spread above EONIA to 7bps, effective 31/10/2005.

**Repo Trade Entry (ABC LON)**

Searches Tools Help

<b>Trade Date/Time</b> Date: 19 October 05 Time: 10:45	<b>Security Details</b> Tradeable Security: Bond Code: US465410BG26 Code Type: ISIN	<b>Conditions</b> Special: <input type="text"/> Bargain: RE Sender's Ref: 12690701X1 Pool Ref: <input type="text"/>	<b>Repo Details:</b> Repo Type: Open Reference Rate: EONIA Repo Rate/Spread (%): 5 Forward Price: <input type="text"/> Call Notice: <input type="text"/>
<b>Purchaser/Sale Indicator</b> <input checked="" type="radio"/> Purchase <input type="radio"/> Sell	<b>Price Details</b> Price: 105.32 Currency: USD Quantity: 95M	<b>Place Of Trade</b> Type: OFF Place: <input type="text"/>	<b>Second Leg Details:</b> End Date: Open Closing Amount: <input type="text"/> Closing Currency: <input type="text"/>
<b>Counterparty</b> Code: XYZPFR2LXXX Code Type: BIC Sub Account: <input type="text"/>	<b>Settlement Details</b> Settlement Date: 24 October 05 Settlement Amount: 101,391,982.64 Currency: USD Settlement Transaction Type: Traditional		<b>Settlement Account Details</b> Entered By Counterparty: 101,391,982.50 Payment Indicators: Against Payment Place Of Settlement: MOTIITMMXXX Counterparty Place Of Settlement: <input type="text"/>

Ref No: 200510199824561 Reported: 11:03 Trade Status: MMS 2nd Leg Status: MAT Ver: 2 Type: Bond No. Of Unresolved PTAs: 0  
ICMA Code: A461270 Security Name: ITALY,REPUBLIC OF 5.375 S 15/06/33

Submit Cancel



# TRAX2 – Open Dated Repo



On 28th October, ABC Bank, London enters a Post Trade Action to increase the repo spread above EONIA to 7bps, effective 31/10/2005.

The screenshot displays the TRAX2 software interface for a Repo Trade Entry. The main window is titled "Repo Trade Entry (ABC LON)" and contains several sections for data entry:

- Trade Date/Time:** Date: 19 October 05, Time: 10:45
- Purchaser/Sale Indicator:** Purchase (selected), Sell
- Counterparty:** Code: XYZPFR2LXXX, Code Type: BIC, Sub Account: [empty]
- Security Details:** Tradeable Security: Bond, Code: [empty], Code Type: [empty]
- Price Details:** Price: [empty], Currency: [empty], Quantity: [empty]
- Conditions:** Special: [empty], RE, 12690701X1, OFF
- Repo Details:** Repo Type: Open, Reference Rate: EONIA, Repo Rate/Spread (%): 5, Forward Price: [empty], Call Notice: [empty]
- Second Leg Details:** End Date: Open, Closing Amount: [empty], Closing Currency: [empty], Sender's Ref: 12690701X2

A "PTA Update" dialog box is open in the center, showing the following details:

- PTA Details:** Type: Rate, Effective Date: 31 October 05, Repo Rate: [empty], Spread: 7, Price: [empty], End Date: [empty], Closing Amount: [empty], Currency: [empty], Status: [empty], Action: Update (selected), Cancel, Deny, Reinstate

Buttons for "New" and "Edit" are visible at the bottom of the main window. At the bottom of the screen, a status bar displays: "Ref No: 200510199824561 Reported: 11:03 Trade Status: MMS 2nd Leg Status: MAT Ver: 2 Type: Bond No. Of Unresolved PTAs: 0 ICMA Code: A461270 Security Name: ITALY,REPUBLIC OF 5.375 15/06/2033 S".



# TRAX2 – Open Dated Repo



The PTA is validated at TRAX and a PTA status and reference number allocated. The number of unresolved PTAs is increased to 1. A real time PTA advisory is also sent to XYZ Bank informing them of the change.

**Repo Trade Entry (ABC LON)**

Searches Tools Help

**Trade Date/Time**

Date: 19 October 05

Time: 10:45

**Security Details**

Tradeable Security: Bond

Code: US465410BG26

Code Type: ISIN

**Conditions**

Special:

Bargain: RE

Sender's Ref: 12690701X1

Pool Ref:

**Repo Details:**

Repo Type: Open

Reference Rate: EONIA

Repo Rate/Spread (%): 5

Forward Price:

Call Notice:

**Purchaser/Sale Indicator**

Purchase  Sell

**Price Details**

Price: 105.32

Currency: USD

Quantity: 95M

**Place Of Trade**

Type: OFF

Place:

**Counterparty**

Code: XYZPFR2LXXX

Code Type: BIC

Sub Account:

Settlement Details | Settlement Account Details | Additional Settlement Details | Control No's | Narrative | **PTAs**

Ref	Type	Entry Date	Effective Date	Repo Rate	Spread	Price	End Date	Closing Amount	Currency	Status
1	Rate	28 October 2005	31 October 2005		7					UNM

New Edit

**Second Leg Details:**

End Date: Open

Closing Amount:

Closing Currency:

Sender's Ref: 12690701X2

Submit Cancel



# TRAX2 – Open Dated Repo



XYZ Bank receive the PTA notification and enter their side.  
However, they enter the effective date as 01/11/05 resulting in  
the PTA remaining unmatched.

Repo Trade Entry (XYZ PAR)

Searches Tools Help

Trade Date/Time  
Date: 19 October 05  
Time: 10:47

Purchaser/Sale Indicator  
 Purchase  Sell

Counterparty  
Code: ABC LON  
Code Type: TRAX  
Sub Account:

Security Details  
Tradeable Security: Bond  
Code: [empty]  
Code Type: [empty]

Price Details  
Price: [empty]  
Currency: [empty]  
Quantity: [empty]

Conditions  
Special: [empty]  
RE

Repo Details:  
Repo Type: Open  
Reference Rate: EONIA  
Repo Rate/Spread (%): 5  
Forward Price: [empty]  
Call Notice: [empty]

Second Leg Details:  
End Date: Open  
Closing Amount: [empty]  
Closing Currency: [empty]  
Sender's Ref: 293195622

PTA Update

PTA Details:  
Type: Rate  
Effective Date: 01 November 05  
Repo Rate: [empty]  
Spread: 7  
End Date: [empty]  
Closing Amount: [empty]  
Currency: [empty]  
Status: [empty]  
Action:  Update  Cancel  Deny  Reinstate

Ref	Type	Entry Date	Effective Date	Repo
1	Rate	28 October 2005	31 October 2005	

Ref No: 200510199824561 Reported: 11:07 Trade Status: MMS 2nd Leg Status: MAT Ver: 2 Type: Bond No. Of Unresolved PTAs: 1  
ICMA Code: A461270 Security Name: ITALY,REPUBLIC OF 5.375 15/06/2033 S

Submit Cancel

# TRAX2 – Open Dated Repo

XYZ Bank, Paris realise their mistake and perform a PTA update.



Repo Trade Entry (XYZ PAR)

Searches Tools Help

Trade Date/Time  
Date: 19 October 05  
Time: 10:47

Purchaser/Sale Indicator  
 Purchase  Sell

Counterparty  
Code: ABC LON  
Code Type: TRAX  
Sub Account:

Security Details  
Tradeable Security: Bond  
Code:   
Code Type:   
Price Details  
Price:   
Currency:   
Quantity:

Conditions  
Special:   
RE   
2931956Z1

Repo Details:  
Repo Type: Open  
Reference Rate: EONIA  
Repo Rate/Spread (%): 5  
Forward Price:   
Call Notice:   
Second Leg Details:  
End Date: Open  
Closing Amount:   
Closing Currency:   
Sender's Ref: 2931956Z2

Settlement Details Settlement Account Details Additional Sett

Ref	Type	Entry Date	Effective Date	Repo
1	Rate	28 October 2005	31 October 2005	
2	Rate	28 October 2005	1 November 200	

PTA Update

PTA Details:  
Type: Rate  
Effective Date: 31 October 05  
Repo Rate:   
Spread: 7  
Price:   
End Date:   
Closing Amount:   
Currency:   
Status: UNM  
Action:  
 Update  
 Cancel  
 Deny  
 Reinstate

Submit Cancel

New Edit

Ref No: 200510199824561 Reported: 11:07 Trade Status: MMS 2nd Leg Status: MAT Ver: 2 Type: Bond No. Of Unresolved PTAs: 2  
ICMA Code: A461270 Security Name: ITALY,REPUBLIC OF 5.375 15/06/2033 S

Submit Cancel

# TRAX2 – Open Dated Repo

This results in the unmatched and advisory PTA matching.



Repo Trade Entry (XYZ PAR)

Searches Tools Help

**Trade Date/Time**  
Date: 19 October 05  
Time: 10:47

**Security Details**  
Tradeable Security: Bond  
Code: US465410BG26  
Code Type: ISIN

**Conditions**  
Special:   
Bargain: RE  
Sender's Ref: 2931956Z1  
Pool Ref:   
Place Of Trade  
Type:   
Place:   
Repo Details:  
Repo Type: Open  
Reference Rate: EONIA  
Repo Rate/Spread (%): 5  
Forward Price:   
Call Notice:   
Second Leg Details:  
End Date: Open  
Closing Amount:   
Closing Currency:   
Sender's Ref: 2931956Z2

**Purchaser/Sale Indicator**  
 Purchase  Sell

**Counterparty**  
Code: ABC LON  
Code Type: TRAX  
Sub Account:   
Price Details  
Price: 105.32  
Currency: USD  
Quantity: 95M

Settlement Details Settlement Account Details Additional Settlement Details Control No's Narrative **PTAs**

Ref	Type	Entry Date	Effective Date	Repo Rate	Spread	Price	End Date	Closing Amount	Currency	Status
1	Rate	28 October 2005	31 October 2005		7					MAT

Ref No: 200510199824561 Reported: 11:07 Trade Status: MMS 2nd Leg Status: MAT Ver: 2 Type: Bond No. Of Unresolved PTAs: 0  
ICMA Code: A461270 Security Name: ITALY,REPUBLIC OF 5.375 15/06/2033 S

New Edit Submit Cancel

# TRAX2 – Open Dated Repo

On 18<sup>th</sup> November 2005, they agree to close-out the repo for value date 21<sup>st</sup> November. XYZ Bank enter their close-out PTA.



Repo Trade Entry (XYZ PAR)

Searches Tools Help

Trade Date/Time  
Date: 19 October 05  
Time: 10:47

Purchaser/Sale Indicator  
 Purchase  Sell

Counterparty  
Code: ABC LON  
Code Type: TRAX  
Sub Account:

Security Details  
Tradeable Security: Bond  
Code:   
Code Type:   
Price Details  
Price:   
Currency:   
Quantity:

Conditions  
Special:   
RE   
2931956Z1

Repo Details:  
Repo Type: Open  
Reference Rate: EONIA  
Repo Rate/Spread (%): 5  
Forward Price:   
Call Notice:   
Second Leg Details:  
End Date: Open  
Closing Amount:   
Closing Currency:   
Sender's Ref: 2931956Z2

PTA Update  
PTA Details:  
Type: Close Out  
Effective Date:   
Repo Rate:   
Spread:   
Price:   
End Date: 21 November 05  
Closing Amount: 101,713,902.20  
Currency: USD  
Status:   
Action:   
 Update  
 Cancel  
 Deny  
 Reinstate  
Submit Cancel

Ref	Type	Entry Date	Effective Date	Repo
1	Rate	28 October 2005	31 October 2005	

Ref No: 200510199824561 Reported: 11:07 Trade Status: MMS 2nd Leg Status: MAT Ver: 2 Type: Bond No. Of Unresolved PTAs: 0  
ICMA Code: A461270 Security Name: ITALY,REPUBLIC OF 5.375 15/06/2033 S

Submit Cancel

# TRAX2 – Open Dated Repo



The PTA is validated and a PTA status and reference number allocated. The second leg details including the status are also updated. An advisory PTA and trade update is also sent to ABC Bank.

**Repo Trade Entry (XYZ PAR)**

Searches Tools Help

**Trade Date/Time**

Date: 19 October 05

Time: 10:47

**Security Details**

Tradeable Security: Bond

Code: US465410BG26

Code Type: ISIN

**Conditions**

Special:

Bargain: RE

Sender's Ref: 2931956Z1

Pool Ref:

**Repo Details:**

Repo Type: Open

Reference Rate: EONIA

Repo Rate/Spread (%): 5

Forward Price:

Call Notice:

**Purchaser/Sale Indicator**

Purchase  Sell

**Price Details**

Price: 105.32

Currency: USD

Quantity: 95M

**Place Of Trade**

Type:

Place:

**Counterparty**

Code: ABC LON

Code Type: TRAX

Sub Account:

Ref	Type	Entry Date	Effective Date	Repo Rate	Spread	Price	End Date	Closing Amount	Currency	Status
1	Rate	28 October 2005	31 October 2005		7					MAT
3	Close Out	18 November 20					21 November 20	101,713,902.20	USD	UNM

**Second Leg Details:**

End Date: 21 November 05

Closing Amount: 101,713,902.20

Closing Currency: USD

Sender's Ref: 2931956Z2

New Edit

Submit Cancel

**Ref No:** 200510199824561 **Reported:** 11:07 **Trade Status:** MMS **2nd Leg Status:** MCS **Ver:** 3 **Type:** Bond **No. Of Unresolved PTAs:** 1  
**ICMA Code:** A461270 **Security Name:** ITALY,REPUBLIC OF 5.375 15/06/2033 S



# TRAX2 – Open Dated Repo



ABC Bank receive the real time PTA and 2<sup>nd</sup> leg update notification. They then enter their close-out PTA.

**Repo Trade Entry (ABC LON)**

Searches Tools Help

**Trade Date/Time**  
 Date: 19 October 05  
 Time: 10:45

**Security Details**  
 Tradeable Security: Bond  
 Code:   
 Code Type:   
 Price:   
 Currency:   
 Quantity:   
 Conditions  
 Special:   
 RE

**Repo Details:**  
 Repo Type: Open  
 Reference Rate: EONIA  
 Repo Rate/Spread (%): 5  
 Forward Price:   
 Call Notice:   
**Second Leg Details:**  
 End Date: Open  
 21 November 2005  
 Closing Amount: 101,713,902.20  
 Closing Currency: USD  
 Sender's Ref:   
 Submit Cancel

**Purchaser/Sale Indicator**  
 Purchase  Sell

**Counterparty**  
 Code: XYZPFR2LXXX  
 Code Type: BIC  
 Sub Account:   
 Price Details  
 Price:   
 Currency:   
 Quantity:   
 Settlement Details  
 Settlement Account Details  
 Additional Sett

**PTA Update**

PTA Details:  
 Type: Close Out  
 Effective Date:   
 Repo Rate:   
 Spread:   
 Price:   
 End Date: 21 November 05  
 Closing Amount: 101,713,902  
 Currency: USD  
 Status:   
 Action:  
 Update  
 Cancel  
 Deny  
 Reinstate  
 Submit Cancel

Ref	Type	Entry Date	Effective Date	Repo
1	Rate	28 October 2005	31 October 2005	
3	Close Out	18 November 20		

Ref No: 20051019824561 Reported: 11:03 Trade Status: MMS 2nd Leg Status: MCS Ver: 3 Type: Bond No. Of Unresolved PTAs: 1  
 ICMA Code: A461270 Security Name: ITALY,REPUBLIC OF 5.375 15/06/2033 S

New Edit

# TRAX2 – Open Dated Repo

The close-out PTA results in the 2<sup>nd</sup> leg being fully matched.



**Repo Trade Entry (ABC LON)**

Searches Tools Help

**Trade Date/Time**

Date: 19 October 05

Time: 10:45

**Security Details**

Tradeable Security: Bond

Code: US465410BG26

Code Type: ISIN

**Conditions**

Special:

Bargain: RE

Sender's Ref: 12690701X1

Pool Ref:

**Repo Details:**

Repo Type: Open

Reference Rate: EONIA

Repo Rate/Spread (%): 5

Forward Price:

Call Notice:

**Purchaser/Sale Indicator**

Purchase  Sell

**Price Details**

Price: 105.32

Currency: USD

Quantity: 95M

**Place Of Trade**

Type: OFF

Place:

**Counterparty**

Code: XYZPFR2LXXX

Code Type: BIC

Sub Account:

Ref	Type	Entry Date	Effective Date	Repo Rate	Spread	Price	End Date	Closing Amount	Currency	Status
1	Rate	28 October 2005	31 October 2005		7					MAT
3	Close Out	18 November 20					21 November 20	101,713,902.20	USD	MAT

New

Edit

**Second Leg Details:**

End Date: 21 November 05

Closing Amount: 101,713,902

Closing Currency: USD USD

Sender's Ref: 12690701X2

**Ref No:** 200510199824561 **Reported:** 11:03 **Trade Status:** MMS **2nd Leg Status:** MMS **Ver:** 4 **Type:** Bond **No. Of Unresolved PTAs:** 0  
**ICMA Code:** A461270 **Security Name:** ITALY,REPUBLIC OF 5.375 15/06/2033 S

Submit

Cancel

# TRAX2 Repo Agenda



1. Introduction
2. The Benefits of using TRAX2 for Repo
3. Live Demo
4. **Timeline**
5. Question and Answer



# TRAX2 Timeline



**TRAX2 Repo  
Beta Test System**

**TRAX2 Derivatives & Cash  
Beta Test System**

**TRAX2  
Live**

**TRAX1  
System  
Discontinued**



# TRAX2 Repo Agenda



- 
1. Introduction
  2. The Benefits of using TRAX2 for Repo
  3. Live Demo
  4. Timeline
  5. Question and Answer





## Contacts

International Capital Market Association  
Rigistrasse 60  
P.O. Box  
CH-8033 Zurich  
Telephone (41-44) 363 42 22  
Fax (41-44) 363 77 72  
E-mail [info@icma-group.org](mailto:info@icma-group.org)  
Website [www.icma-group.org](http://www.icma-group.org)

International Capital Market Association Limited  
7 Limeharbour  
Docklands  
GB-London E14 9NQ  
Telephone (44-20) 7538 5656  
Fax (44-20) 7538 4902  
E-mail [business.development@icma-group.co.uk](mailto:business.development@icma-group.co.uk)

