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Challenges of derivatives collateral management in the new regulatory environment

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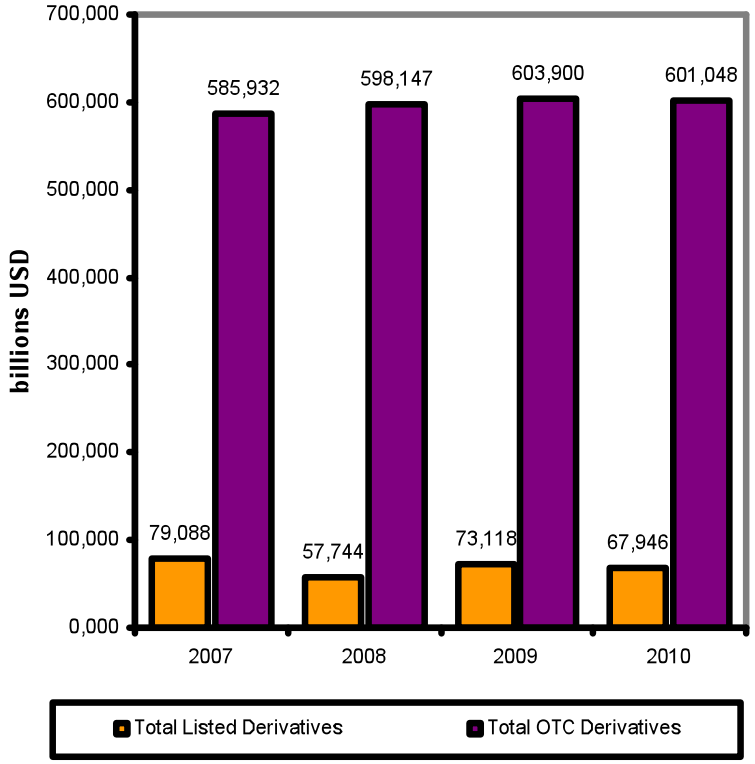
Introduction

- The volume of the OTC derivatives market is still above the pre-crisis level, with a total cumulative notional of 601,048 billions USD as of end-December 2010
- The recent financial crisis has emphasized the need for further mitigating counterparty risk and increased the importance of the collateral management function within all institutions
- Under the impulsion of regulators, the industry will be moving to central clearing or systematic collateralization of OTC derivatives in the short-term future
- The impacts in terms of collateral management will be numerous :
  - Global review of collateral processes across cleared and non-cleared OTC derivatives
  - Increase of collateral amounts and “flight-to-quality”
  - Collateral protection needs

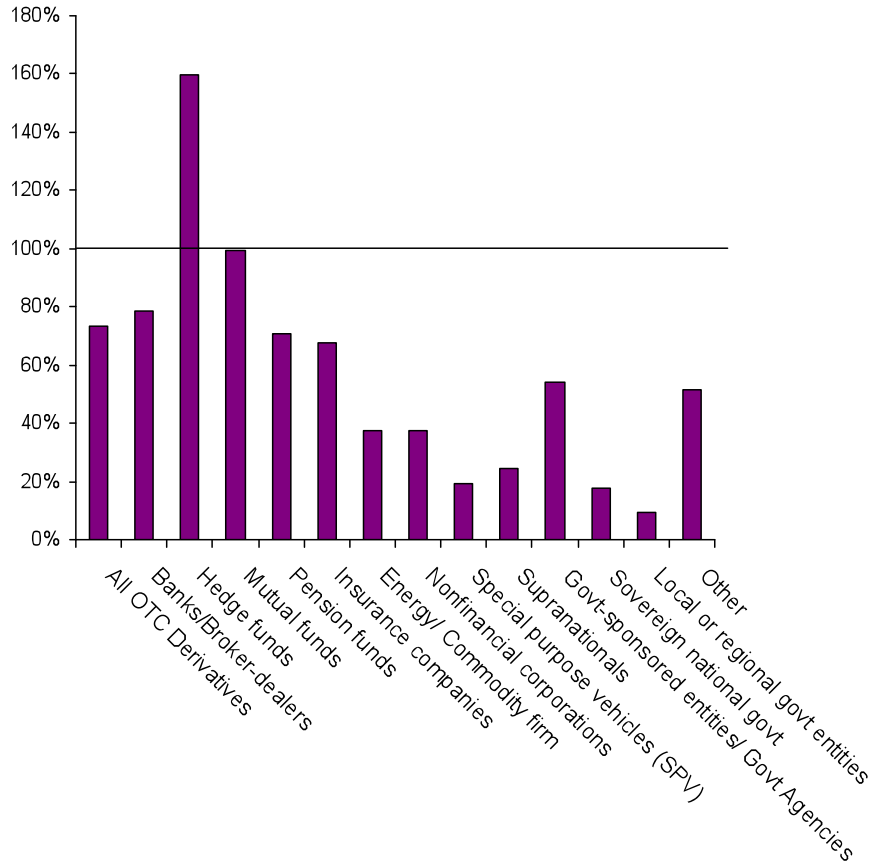
Oustanding notionals on listed and OTC derivatives (source bis.org)



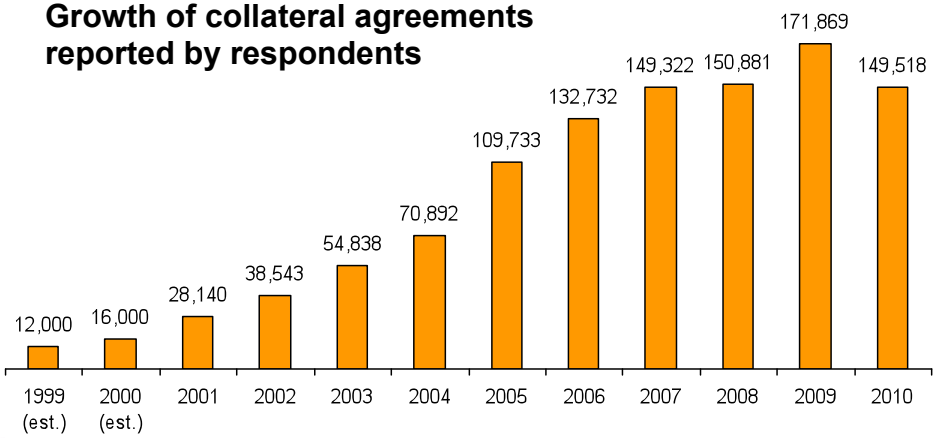
A picture of the collateral market as of 31st Dec. 2010 (1)

- USD 2.9 trillion (estimated) of collateral in circulation on OTC derivatives
- 149,518 collateral agreements
- 69.8% of OTC trades subject to collateral agreements
- Collateralization levels range from a 160% for Hedge Funds to 9% for local or regional government entities
- Cash accounts for 80% of the collateral delivered, government bonds for 17% and the remaining 3% are split between agency securities, corporate bonds, equities…

Collateralization levels by counterparty type (2)



Growth of collateral agreements reported by respondents



(1) According to ISDA Margin Survey 2011 (83 survey respondents across sell side and buy side institutions)
(2) Percentage above 100% reflects Independent Amounts posted

Updated commitments sent to the FED by ISDA (31st March 2011)

"In support of the global policy objectives promulgated by the G20, we aim to further increase efficiency and reduce risk for as wide a range of market participants as possible by continuing to make improvements to the OTC derivatives market infrastructure along four broad, thematic objectives:"

- **Mitigate the risks of uncleared transactions:** for the population of bilaterally managed OTC derivatives portfolios, the Signatories will continue to adopt and improve robust bilateral risk management practices, including the implementation of standardised methods for reconciling portfolios and resolving disputed margin calls

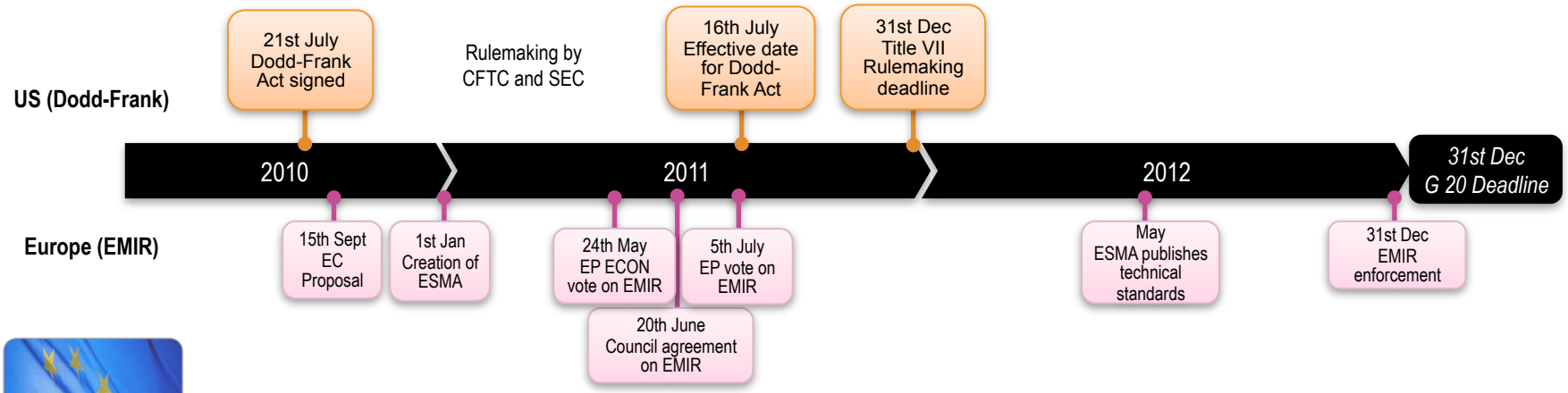
- **Create a safe and sound central clearing environment:** in order to expand central clearing in a safe and sound manner, the Signatories will employ a coordinated, phased-in approach to centrally clear more transactions in eligible products, expand central clearing product offerings, and to work toward supporting a central clearing environment that can feasibly extend the risk reducing and efficiency benefits of central clearing to a wider range of market participants

- **Develop the foundation for implementing market reforms:** further OTC derivatives product and process standardisation will lay the groundwork for a range of risk reducing and efficiency benefits, including more automated processing, expanded central clearing, and enhanced transparency

- **Design and implement data infrastructure to meet regulatory and industry needs:** A robust data infrastructure serving the OTC derivatives markets, including trade repositories, will provide critical tools to support Supervisors in carrying out their responsibilities and should also provide operational benefits to market participants

Main regulatory deadlines (still moving…)

- The new statutory regime covering the OTC swaps market is mostly contained in Title VII of the "Dodd-Frank Wall Street Reform and Consumer Protection Act" signed into law on 21st July 2010
  - Title VII deals mainly with participants registration, execution, clearing, collateralisation and reporting on "swaps"
  - CFTC and SEC are required to issue implementation measures by July 2011, but industry participants suggested recently a "Phased-In implementation schedule" to "avoid markets disruption"
- On 14th June 2011, the CFTC voted a "temporary exemptive relief", expiring on 31st December 2011, for provisions referencing "terms regarding entities or instruments that Title VII requires be further defined"



- European Market Infrastructures Regulation (EMIR) currently being finalised
  - Completion expected during summer 2011 and technical standards to be issued by ESMA in 2012
  - EMIR deals mainly with clearing, central counterparties, collateralisation and trade repositories
- In parallel, MiFID Review discussion is under way
  - Focusing on trading venues, standardisation and trade price transparency

Challenging developments for the buy-side community

Regulation and industry commitments

- Standardized and eligible OTC transactions must be cleared by a Central Counterparty
  - Exemptions for non-financial entities under certain conditions
  - Exemption under discussions on fx forwards and swaps

- Systematic collateralisation of bilateral trades, independent valuation and portfolio reconciliations
- Option for Independent Amounts segregation with a 3rd party custodian
- Standardisation of processes ("electronification", dispute resolutions…)

Impacts for the Buy-Side

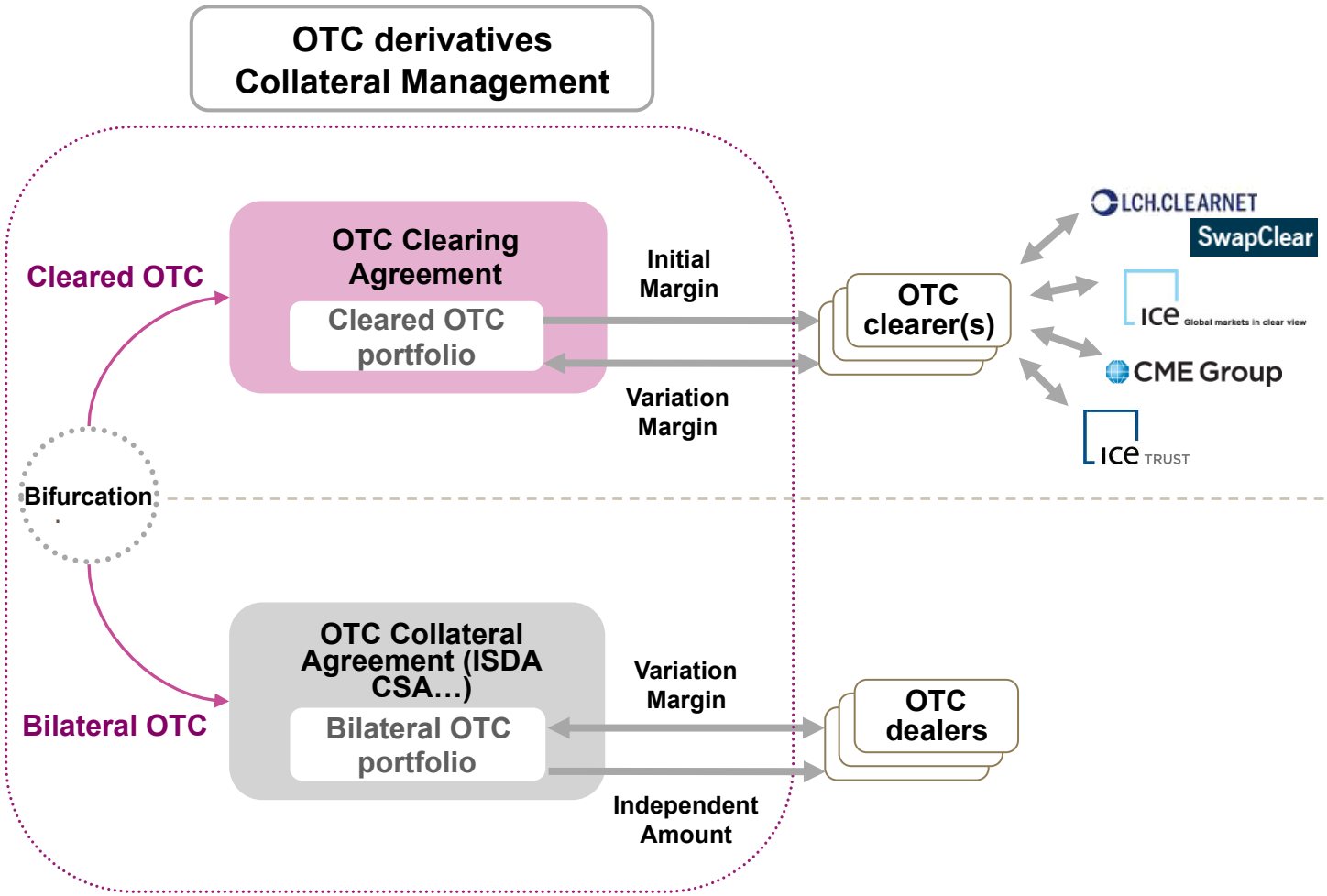
- Enter into clearing agreements with OTC clearers
- Adapt collateral processes on OTC derivatives to clearing

- Manage collateral sourcing and optimisation to face expected increase in collateral amounts due to initial margins, fragmentation of collateral requirements and limitations of collateral re-use

- Adapt bilateral collateral processes to ISDA commitments
- Manage daily independent valuation and portfolio reconciliations of non-cleared trades

- Manage Independent Amounts segregation with 3rd party custodians

Collateral bifurcation between cleared and bilateral OTC derivatives



- **Standardized and eligible** OTC derivatives
- First priority products are **Interest Rate Swaps and Credit Default Swaps**
- FX products (excluding forwards and swaps) in a rapid second step

- OTC derivatives not standardized or not eligible to clearing will remain **bilateral** and will be subject to **systematic collateralization,** with more stringent operational processes

Expected increase of collateral requirements in the cleared OTC scope…

- Examples of initial margin requirements by CCPs on IRS and CDS (single trades)

INTEREST RATE SWAP - LCH SWAPCLEAR

Notional (in million USD)	100	
Pay/Rec	Pay Fix / Receive Float	
Maturity	**Initial Margin (million USD)**	**IM as % of notional**
2Y	- 0.7	- 0.7%
5Y	- 2.9	- 2.9%
10Y	- 6.4	- 6.4%
15Y	- 7.5	- 7.5%
20Y	- 9.8	- 9.8%
25Y	- 11.7	- 11.7%
30Y	- 13.6	- 13.6%

CREDIT DEFAULT SWAP - ICE TRUST

Notional (in million USD)	100	
Buy Protection	CDX IG series 15	
Maturity	**Initial Margin (million USD)**	**IM as % of notional**
5Y	- 1.2	- 1.2%

CREDIT DEFAULT SWAP - CME

Notional (in million USD)	100	
Sell Protection	CDX HY series 15	
Maturity	**Initial Margin (million USD)**	**IM as % of notional**
5Y	- 7.0	- 7.0%

- Expected fragmentation of collateral requirements, due to the co-existence of multiple CCPs on cleared OTCs (few cross-margining possibilities), while bilateral collateral agreements will remain for non cleared trades

- For institutions with few liquidity available, sourcing the collateral through transformation and financing solutions with the clearers and the custodians will be a critical issue

… and in the bilateral OTC trades ?

- The CFTC's notice of proposed rulemaking as of 28th April contains margin requirements for uncleared “swaps”, with a more conservative approach than on cleared swaps

Transaction parties	Swap Dealer to Swap Dealer	Swap Dealer to Major Swap Participant	SD/MSP To Financial Entity	SD / MSP To Non Financial Entity
Margin Requirement	Mandatory collateral 99% 10 days Initial Margin or Alternative method Variation Margin Zero Threshold 100 000 USD MTA		Mandatory collateral 99% 10 days Initial Margin or Alternative method Variation Margin Zero threshold except for certain types of financial entities (under comment sollicitation)	Mandatory collateral agreement Initial Margin, Variation Margin and threshold at discretion

- In addition, trends to segregate and “lock” the collateral, thus limit its re-use, could potentially increase the demand for good collateral in the OTC market

Upcoming collateral issues on cleared and bilateral OTCs

- Adapt collateral processes and systems to OTC clearing environment
  - Modeling of Clearing Agreements - US (FCM) and European (ISDA) models
  - Collection of data from several clearers and distribution of the relevant information to each department in a consistent way (open positions, Mark-to-Markets, swap coupons, collateral, clearing fees…)
  - Netted flows (collateral, swap coupons, upfront fees, credit events settlements…) and collateral tracability issues
  - Distinction of eligibility clauses according to the type of collateral (initial margins, variation margins)
  - Currency of margin calls may depend on the underlying trades' currency
  - Calls paid on T (instead of T+1 on most bilateral agreements)

- Definition of a collateral strategy with clearers, custodians and collateral agents
  - Collateral transformation / collateral buffers held by the OTC clearers
  - Segregation and collateral portability depending on the model (LSOC…)
  - Backloading of trades

- Review of bilateral agreements
  - Adapt collateral eligibility and haircuts rules of the existing agreements to the recent turmoils of Eurozone government debts (Greece, Ireland…)
  - Setup new collateral agreements on trades not collateralized yet
  - Adapt existing procedures to the new industry requirements

OTC portfolio reconciliation

- OTC portfolios reconciliations are emphasized by the regulators as a means of preventing disputes

- European Commission Proposal (15th Sept. 2010)
  - *Financial counterparties or the non-financial counterparties (…), that enter into an OTC derivative contract not cleared by a CCP, shall ensure that appropriate procedures and arrangements are in place to measure, monitor and mitigate operational and credit risk, including (…)* ***robust, resilient and auditable processes in order to reconcile portfolios****, to manage the associated risk and to identify disputes between parties early and resolve them, and to monitor the value of outstanding contracts.*

    For [this purpose], the ***value of outstanding contracts shall be marked-to-market on a daily basis*** *and risk management procedures shall require the* ***timely, accurate and appropriately segregated exchange of collateral*** *or the appropriate and proportionate holding of capital.*

Frequency of portfolio reconciliation, percentage of trades reconciled at stated intervals (source : ISDA Margin Survey 2011)

Daily	31%
Weekly	10%
Monthly	12%
Quarterly	4%
Annualy	1%
Not regularly reconciled	42%
Total	100%

- ISDA commitments to the regulators (31st March 2011)
  - Reduce thresholds for portfolio reconciliation (at least monthly) of collateralized portfolios from those exceeding 1,000 transactions to those exceeding 500 transactions starting June 30, 2011.

Operational efficiency

- Increase of Straight-Through-Processing in the collateral processes
  - Communications of margin calls between counterparties
  - Instructions of collateral transfers to custodians

- Work-in-progress by ISDA to improve the dispute resolution process

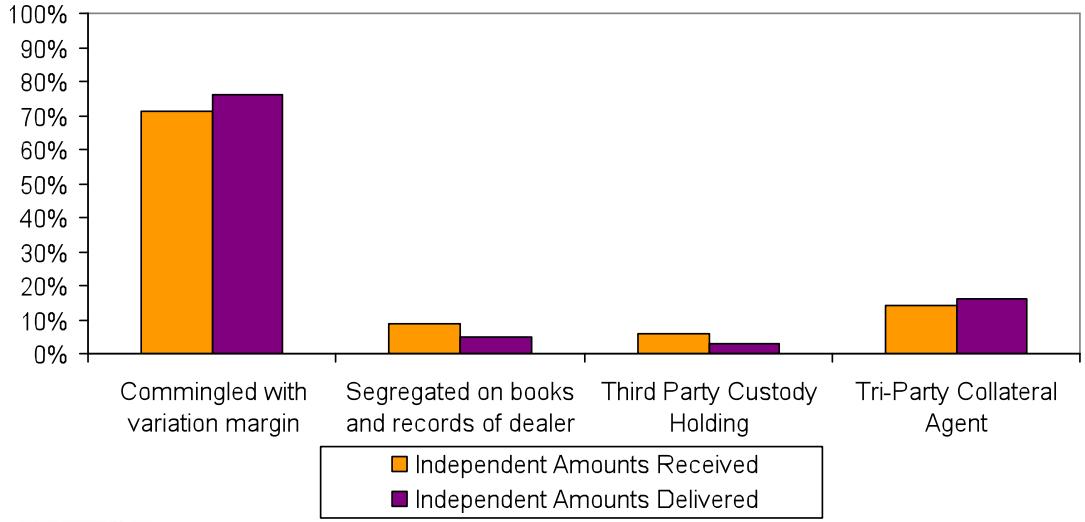
- The “Convention on portfolio reconciliation and the investigation of disputed margin calls” will provide strict guidelines and timelines to solve disputes between parties

- The Dispute Resolution Procedure will be sequenced in 4 phases
  - Portfolio and Margin Data Exchange
  - Administrative Review
  - Senior consultation
  - Secondary Resolution / Formal Market Polling Procedure

Independent Amounts protection

- The protection of independent amounts is a key concern in the OTC derivatives industry especially since the Lehman collapse.
- Unlike variation margin - which bears close relationship to the net amount owed between the parties during liquidation - the independent amounts potentially increases the credit exposure of the non-defaulting party to the defaulting party, and there is a strong need to secure this exposure
- Agreements with custodians, through Third-party or Tri-party structures are a way to mitigate this exposure

Disposition of Independent Amount (source : ISDA Margin Survey 2011)



- CFTC's notice of proposed rulemaking : Protection of Collateral of Counterparties to Uncleared Swaps (3rd Dec. 2010)
  - *An SD or MSP must notify each counterparty at the beginning of a swap transaction that the counterparty has the right to require segregation of the funds or other property that it supplies to margin, guarantee, or secure its obligations; and at the request of the counterparty, the SD or MSP must segregate such funds or other property with an independent third party.*

Conclusion

- Although all the details of the upcoming regulation are not published yet, the impacts are expected to be numerous. It is urgent for buy-side institutions to review their global processes on OTC derivatives, including collateral

- The review of the OTC clearing solutions available on the market should be started as soon as possible in order to
  - Assess the necessary developments and implement them in a sufficient time
  - Measure the increase in collateral requirements
  - Avoid the last minute rush, due to the regulation deadlines.

- On bilateral agreements, the latest collateral practices should be implemented according to the ISDA roadmap

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