**PRODUCT / CONTROL SUMMARY – CDS on MBS/ABS**

January 9, 2006

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|---|---|
| Trading Desk / Business Area: | GSM Mortgage Trading |

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|---|---|
| Preliminary Approval by Business Manager: | Randall Costa, Craig Fuoco, Michael Golding |
| Business Sponsor: | Jeffrey Perlowitz, Mark Tsesarsky, James De Mare, Matthew Cherwin, John Caputo, Stuart Goldberg |
| Product: | CDS on Mortgage and Asset Backed Securities |
| Legal Booking Entities: | Citibank, N.A. |
| Legal Vehicle Approval Required: | No |
| Covered Transaction Under Structured Finance Policy: | No |
| Tax Standards for Tax Sensitive Products or Strategies Applicable: | No |
| Approval under OTC Derivatives and Structured Product Marketing and Sales Practices Policy Required ("Derivatives Policy"): | No |
| Firm Investment Policy Applicable: | No |
| CMAC Review Date: | January 11, 2006 |

**Overview:**

The GFI Global Securitized Markets Mortgage Trading Desk seeks authorization to hedge with and make markets in Credit Default Swaps with Mortgage and Asset Backed Securities as their reference securities, whether on a single-name reference basis, or with reference to ABS indices (For purposes of this summary, ABS comprises both Mortgage and Non-Mortgage Asset Backed Securities). The Mortgage Trading Desk has represented Citigroup as a member of the dealer group that has developed the ABX index, and plans to continue to act as consortium member and participant in the ABX index market and the affiliated markets in similar indices that are planned to develop under the framework of the ABX initiative. No capital investment is required for such participation, only payment of license fees and adherence to market rules.

This Product and Control Summary includes the following attachments:

1. ABX Standard Term Sheet and Standard Terms
2. Citigroup Approved ABCDS Single Name Term Sheet
3. ABCDS Process Flows Overview

4. ABCDS e-Ticket Flow
5. Mortgage Trading RCSA with ABCDS Controls Sections

A Credit Default Swap (CDS) is a contract for a party to pay a fee, typically a monthly fixed premium calculated on the principal of the underlying, in return for the counterparty's commitment to make a payment on the occurrence of certain agreed default or credit events. These may include a failure to pay, bankruptcy of the reference entity, debt restructuring and ratings downgrade. The party paying the fixed premium is thus a buyer of credit protection, the counterparty the seller of such protection. The buyer, who will benefit if the underlying defaults, is synthetically short credit risk of the underlying, the seller long.

CDSs are an established derivative, extensively used by credit institutions and fund managers to hedge debt portfolios. For most CDS contracts, ISDA standard documentation is in use. The Citigroup GFI CDS desk makes markets in CDS both in the US and internationally, and Citigroup is an established presence in the CDS markets and markets for structured products involving CDS or derived from them. Citigroup is steadily improving the infrastructure required to support CDS activity.

The CDS markets were initially centered on corporate and other similar term debt. Recently, however, the market has expanded to include trading of CDS on Mortgage Backed Securities (MBS) and Asset Backed Securities (ABS, collectively, Asset-Backed CDS or ABCDS). The key incremental requirements for trading in CDS on MBS/ABS versus corporates are (1) the ability to value and manage the risk of the MBS/ABS underlyings and (2) the additional operational functionality to handle trade flows, settlements and payments on contracts with amortizing or prepaying underlyings. Managing MBS/ABS risk is a core competence of the Mortgage Desk, and in fact the ability for the Desk to trade in ABCDS will offer risk reduction opportunities, since there is otherwise generally no other way to short MBS/ABS in the cash markets. Separately, as set out in greater detail below, ABCDS trades will be processed through the same Derivatives Middle Office and Back Office processes utilized currently to process the CDS Desk's CDS trades. The Mortgage Desk has worked with each support area to ensure that the process enhancements required to manage CDS on amortizing underlyings have been put in place.

Since May of this year, with the review and permission of Independent Risk, the Mortgage Desk has taken over a small book of ABCDS trades originally booked by the CDS desk, and has added a tightly limited number of additional trades (current number of trades: 208 trades broken out to a total of 323 line items with allocations to subaccounts; gross notional (absolute value of longs and shorts): $1.29 billion). Maintenance of this limited portfolio has enabled the Desk and each of the relevant support areas to observe and resolve in a production context the incremental requirements for managing ABCDS, and establish the criteria for processes to sustain growth.

Currently there is substantial inquiry and expansion in trading for single-name ABCDS, that is, contracts with reference to a single specific underlying. In addition, an index on MBS/ABS has developed, ABX, similar to the Dow Jones CDX index in the corporate CDS area (formerly iBoxx), which is scheduled to be executable as of January 19, 2006. ABX is being administered under the framework of CDS InvestCo, the consortium that developed the Dow Jones index. Because ABX builds from this existing corporate framework, no capital contribution from the members is required – license fees will fund the administration of the index. The ABX index, representing a basket of 20 Non-Agency Mortgage Backed Securities agreed by the leading dealer participants, is based on standardized documentation and will allow automated trade matching and confirmation through DTCC. An independent service provider, Markit, will collect industry wide pricing and reference security data, including paydown and credit data, and publish this to all ABX participants, thus simplifying trade and maintenance operations. It is planned that automated settlement will be made available through DTCC to further streamline index trading operations. The ABX model is expected to extend to Commercial Mortgage Backed Securities (CMBX) in the first quarter of 2006, and eventually to non-mortgage Asset Backed Securities.

It is impossible to predict the growth of the ABCDS markets, but such growth could be substantial. Clients expected to trade in these products will include large money managers, hedge funds, CDOs, banks, and life insurance companies (counterparties will be Dealers and Market Participants as defined in the GCIB OTC Derivatives and Structured Product Marketing and Sales Policy and Procedures). As noted, ABCDS allows participants to synthetically create short positions where there has historically been only a one-way market in the cash product. Market participants thus now have a way to express a negative bias towards a sector, tenor or even specific underlying, or may enhance, as noted, hedging strategies. Some arbitrage or relative value opportunities may arise. ABCDS will further facilitate liquidity, permitting synthetic trading on issues that were previously in short supply, and making possible trading in what is expected to be a highly liquid and operationally straightforward index product. If corporate CDS precedent is relevant, these benefits could drive substantial volume. In addition, in dealing in ABCDS the Mortgage Desk will be in position to work closely with other Citigroup Fixed Income desks in evolving new structured products to meet the full range of the Firm's clients' needs. Currently, the Desk's inability to trade large current flows in single name ABCDS and to collaborate with other Fixed Income Desks to structure synthetic CDOs on an underwritten or principal basis has resulted in substantial lost opportunities.

The opening of these new trading and hedging opportunities is expected to grow the market overall, and thus to offer traders and salespeople new areas to generate client business. It is also expected that clients will demand ABCDSs in conjunction with cash products, and that it will be essential for dealers to have the full capability to manage the market, credit and operational risks and processes of these products to be a "one stop shop" and remain relevant in a number of the key ABS/MBS markets, particularly as these become more commoditized over time. Citigroup's peer firms (e.g. Merrill, Deutsche, Goldman) have been thus far generally ahead of Citigroup in meeting customer demand and establishing a market profile in trading ABCDS.

The Mortgage Desk has worked closely with all relevant support and control areas to ensure that the Firm is capable of handling reasonably foreseeable trading ramp-up in these products. The single name ABCDS volume is expected to run 100 trades per month in the first months of 2006, a level that relevant support areas are comfortable sustaining. Because ABX index trading is operationally standardized, support of reasonable trade levels (e.g. several hundred trades per month in the first month with steady growth going forward) is considered relatively volume-insensitive. The Desk has worked particularly closely with the Derivatives Middle Office and Derivatives Operations to streamline flows, clarify roles and responsibilities, establish procedures that will minimize downstream breaks, and ensure that there is adequate resource to timely adapt to further expansion.

While ABCDS presents no inherent franchise risks, regulators recently have raised concerns relating to potential system risks associated with the industry backlog in unconfirmed corporate CDS trades and assigned but not formally novated trades. The industry has responded with commitments to rapidly reduce the numbers of unconfirmed trades to a much lower level, and dealers have signed a protocol that requires assigned trades to be promptly novated. In adding ABCDS, the Desk and Derivative Middle Office and Derivatives Operations have worked closely together to ensure adequate resources to avoid adding to the Firm's backlog, and Derivatives Operations feels that, at projected levels, there will be no compromise of the Firm's commitment to meet the terms of the industry agreement and the novation protocol.

There are no other franchise or reputational risks identified as associated with this product.

**I Product Description – Terms / Index Features**

The Desk will act primarily as intermediary in ABCDS to meet client needs (see subsection below), but may also utilize ABCDS to hedge, or to take limited principal trading risk. The Desk will be an active market maker in both single name and the index product. The risk involved in trading ABCDS is substantially similar to the current product mix actively risk-managed by the Desk in the cash markets.

The essential contract terms are the same for both single name and index ABCDS transactions:

- A buyer of protection, in exchange for a monthly fixed premium, is compensated on a "pay-as-you-go" basis for losses in the underlying security. A seller of protection, in exchange for the receipt of monthly fixed premium, will compensate the buyer for losses on the underlying security. The buyer of protection is synthetically short the cash market and the seller of protection is long the cash market.

- Single name ABCDS have a "pay-as-you-go" format where cash payments are made when a "default" or "loss" event occurs. Loss events closely track the defined underlying reference obligation. Physical delivery is expected to happen only as a rare occurrence. In contrast, single name corporate CDS are either cash or physically settled when a default event occurs to the underlying issuer.
- There is flexibility in the ABCDS terms, which will reflect the underlying reference obligation. These terms will define the losses, which are based on pre-defined events such as Interest Shortfall, Write-down and failure to pay principal at maturity. These terms will determine what payment will occur given the defined default events.

The index Term Sheet has been agreed to in standard form by the consortium of dealers participating in ABX, and is set out as Attachment 1 to this Summary. The contract is an appendix to the standard ISDA agreement. A template for Single Name ABCDS has also been approved by GFI Legal (Attachment 2).

ABX will initially be comprised of reference securities grouped by ratings from AAA to BBB-. The index will be independently marked to market by member dealers and closing prices will be sent to Markit. Markit is a leading industry source for asset valuation data and services supporting independent price verification and risk management in global financial and energy markets. Markit will aggregate and scrub the marks and to derive the daily independent market levels, and will provide these back to the market as well as any relevant information on events related to the reference obligations. CMBX indices will similarly be based on baskets of reference CMBS securities (initially all AAA rated securities), and Markit will perform the same aggregation, research and publishing services.

ABCDS addresses client needs and objectives as follows:

The ABS market with very few exceptions is currently one way. As mentioned previously with market makers, clients are currently limited in their ability to express a negative bias towards the entire sector or individual reference obligations other than not transacting. On rare occasions it is possible to short a specific reference bond but the transactor risks being unable to cover this short in the repo market and suffering losses due to a lack of liquidity. Here are examples of how the ABCDS market will improve the ABS market for market makers and end users:

- Hedge credit spread – Clients can use ABCDS to become effectively neutral to credit spread movements.
- Short the market – Clients now can express a negative view by buying protection with ABCDS (shorting the bond). This view can be specific using a single name or broad by choosing one of several indexes.

- Relative value transactions – Clients can now take a view that one reference security will perform better than another or an AA security will out-perform AAA.
- Liquidity – Clients who have an axe for a specific bond but have been locked out due to demand being greater than supply can sell protection on ABCDS to synthetically create a long position in the desired bond.
- Balance sheet management – Clients with balance sheet constraints can synthetically replicate or hedge the risk they desire without tying up large amounts of balance sheet.
- CDO Transactions – Fund Managers can use ABCDS to gain synthetic exposure to the market by selling protection. This can be done as part of a deal or as a completely synthetic CDO.

Terms of Transaction – Below provides a comparison of a corporate and ABS Index CDS. Although there are specifics to each underlying product class, the CDS characteristics are very similar:

## INDEX COMPARISON

| Corporate CDS | CDS on Asset Back |
|---|---|
| **Premium Payment – Fixed Rate x Notional x day count** | **Premium Payment – Fixed Rate x Notional x day count** |
| **Effective Date = T+1. Upfront Payment = T+3** | **Effective Date = T+5. Upfront Payment = T+5** |
| **Payment – Quarterly** | **Payment – Monthly – 25th + 5 BD** |
| **Notional – Original Notional x Factor. Factor changes (decrease) when a default event occurs** | **Notional – Original Notional x Factor. Factor changes based on amortization of reference obligation and / or a default event** |
| **Default Entity – Based on characteristics of issuer** | |
| **Default Triggers – Standard set for all reference entity (i.e. bankruptcy)** | **Default Triggers – Standard set for all reference obligations (i.e. principal shortfall)** |
| **Default Event – Cash settlement based market value of defaulted reference obligation. RO removed from index** | **Default Event – Cash settlement based on monthly reports of performance of RO, typically remains within index** |
| **Floating payments – ISDA protocol determines the recovery rate and counterparty elects cash settlement (rare to have physical settlement)** | **Floating payment – Cash payment on principal and interest shortfalls determined by the specific reference obligations** |
| **Reference Obligations – vague, specifies a tenor and the seniority but not necessarily a specific issue** | **Reference Obligations – Defined Object, no optionality** |
| **Price – Spread / $ Price based** | **Price - $ Price based** |
| **Composition – Depends on index but typically between 40+ and 100 names** | **Composition – RMBS currently have 20 names but CMBS may have up to 25 names** |
| **Rating – Index can contain issuers with multiple ratings depending on criteria requirements** | **Rating – All reference obligations have the same initial rating within a specific index** |

The below is an example of an abbreviated transaction to demonstrate key events during the life of an ABS Index CDS:

## Glossary of ABS Terms:

- Reference Obligation – Underlying ABS security (Index = multiple securities)
- Pass Through Rate – the interest rate due on the reference obligation for the respective payment period
- Outstanding Principal Amount – Current Principal balance will decrease as principal payments are received or principal write down
- Factor – fraction of original balance outstanding. Impacted by principal payments and write downs
- Interest Due – Pass through rate x day count x outstanding principal amount
- Interest Payment – Interest payment actually received on the reference obligation
- Interest Shortfall – Interest due – Interest payment (note: this amount can be reimbursed in later periods)
- Principal Payment – Principal payment actually reported on the reference obligation
- Principal Shortfall – Write down actually reported on reference obligation. (note: this amount can be reimbursed in later periods)

| Year | 2005 | 2005 | 2005 | 2005 | 2006 | 2006 | 2006 | 2006 | 2006 | 2006 | 2006 | 2006 | 2006 | 2006 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Month | SEP | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT |
| USD 1M LIBOR | 1.62% | 1.84% | 1.93% | 2.18% | 2.42% | 2.53% | 2.65% | 2.85% | 3.02% | 3.09% | 3.31% | 3.31% | 3.31% | 3.31% |
| Period | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 |
| **REFERENCE OBLIGATION** | | | | | | | | | | | | | | |
| Accrual Period | | | | | | | | | | | | | | |
| Accrual Start | 25Aug05 | 26Sep05 | 25Oct05 | 25Nov05 | 27Dec05 | 25Jan06 | 27Feb06 | 27Mar06 | 25Apr06 | 25May06 | 26Jun06 | 25Jul06 | 25Aug06 | 25Sep06 |
| Accrual End | 25Sep05 | 24Oct05 | 24Nov05 | 26Dec05 | 24Jan06 | 26Feb06 | 26Mar06 | 24Apr06 | 24May06 | 25Jun06 | 24Jul06 | 24Aug06 | 24Sep06 | 24Oct06 |
| Accrual Days | 32 | 29 | 31 | 32 | 29 | 33 | 28 | 29 | 30 | 32 | 29 | 31 | 31 | 30 |
| Distribution Date | 26Sep05 | 25Oct05 | 25Nov05 | 27Dec05 | 25Jan06 | 27Feb06 | 27Mar06 | 25Apr06 | 25May06 | 26Jun06 | 25Jul06 | 25Aug06 | 25Sep06 | 25Oct06 |
| Spread Step-Up | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Pass Through Rate | 4.37% | 4.59% | 4.68% | 4.93% | 5.17% | 5.28% | 5.40% | 5.60% | 5.77% | 5.84% | 6.06% | 6.06% | 6.06% | 6.06% |
| Outstanding principal amount | 80,000,000 | 80,000,000 | 80,000,000 | 80,000,000 | 80,000,000 | 75,000,000 | 72,000,000 | 64,000,000 | 40,000,000 | 35,000,000 | 35,000,000 | 22,000,000 | 5,000,000 | 0 |
| Principal Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.94 | 0.90 | 0.80 | 0.50 | 0.44 | 0.44 | 0.28 | 0.06 | - |
| Interest Due | 310,400 | 295,800 | 322,684 | 350,578 | 333,017 | 363,000 | 302,400 | 288,711 | 192,333 | 181,689 | 170,982 | 114,886 | 26,111 | 0 |
| Interest Payment | 310,400 | 295,800 | 302,684 | 360,578 | 333,017 | 348,000 | 302,400 | 288,711 | 177,333 | 181,689 | 170,982 | 114,886 | 26,111 | 0 |
| Interest Shortfall (reimburse) | 0 | 0 | 20,000 | (10,000) | 0 | 15,000 | 0 | 0 | 15,000 | 0 | 0 | 0 | 0 | 0 |
| Principal Payment | 0 | 0 | 0 | 0 | 5,000,000 | 3,000,000 | 8,000,000 | 24,000,000 | 5,000,000 | 0 | 13,000,000 | 17,000,000 | 5,000,000 | |
| Principal Shortfall (reimburse) | 0 | 0 | 0 | 0 | 0 | 0 | 1,000,000 | 0 | (500,000) | 0 | 3,000,000 | 0 | | 0 |
| Writedown (reimbursement) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **SETTLEMENTS CALCULATOR** | | | | | | | | | | | | | | |
| Settlement Date | 03Oct05 | 01Nov05 | 02Dec05 | 03Jan06 | 01Feb06 | 06Mar06 | 03Apr06 | 02May06 | 01Jun06 | 03Jul06 | 01Aug06 | 01Sep06 | 02Oct06 | 01Nov06 |
| App (%) | 10.00% | 10.00% | 10.00% | 10.00% | 10.00% | 10.00% | 10.00% | 10.00% | 10.00% | 10.00% | 10.00% | 10.00% | 10.00% | 10.00% |
| Ref Ob Notional Amt | 8,000,000 | 8,000,000 | 8,000,000 | 8,000,000 | 8,000,000 | 7,500,000 | 7,200,000 | 6,400,000 | 4,000,000 | 3,500,000 | 3,500,000 | 2,200,000 | 500,000 | 0 |
| Fixed Rate | 0.80% | 0.80% | 0.80% | 0.80% | 0.80% | 0.80% | 0.80% | 0.80% | 0.80% | 0.80% | 0.80% | 0.80% | 0.80% | 0.80% |
| *Fixed Payments* | | | | | | | | | | | | | | |
| *Floating Payments* | | | | | | | | | | | | | | |
| **PAYMENTS** | | | | | | | | | | | | | | |
| **CDS (Fixed cap)** | | | | | | | | | | | | | | |
| Fixed | 5,689 | 5,156 | 5,511 | 5,689 | 5,156 | 5,500 | 4,480 | 4,124 | 2,667 | 2,489 | 2,256 | 1,516 | 344 | |
| Fixed (additional) | 0 | 0 | 0 | 1,000 | 0 | 0 | 0 | 0 | 50,000 | 0 | 0 | 0 | 0 | 0 |
| Floating | 0 | 0 | 2,000 | 0 | 0 | 1,500 | 100,000 | 0 | 1,500 | 0 | 300,000 | 0 | 0 | 0 |
| Net from Buyer's perspective | (5,689) | (5,156) | (3,511) | (6,689) | (5,156) | (4,000) | 95,520 | (4,124) | (51,167) | (2,489) | 297,744 | (1,516) | (344) | 0 |

## Life Cycle of Payment

1. Fixed Payment on 25th of each month + 5 Business Days
   - Actual / 360 day count
   - Notional x Fixed Rate x Days = Premium
2. Interest Shortfall – generates a floating payment
   - When a bond holder receives an interest payment that is less than the expected calculation
   - The premium will be reduced by the interest shortfall for that period only
   - Interest shortfalls will not net against future periods payment amounts
   - Interest shortfall is the applicable % (original face of notional / original face of bond) x the shortfall amount
   - If the interest shortfall is greater than the principal payment than it is capped at the premium amount and no premium payment will be made. The additional shortfall will accrue for the life of the trade or until shortfall reimbursements have been made
3. Shortfall Reimbursement
   - The premium will be increased by the shortfall reimbursement
4. Principal Pay-down – decreases premium payment
   - Factor is reduced by the principal pay down
   - Factor has no impact on the payment shortfall
5. Principal Write-down
   - Considered a default event
   - Factor is reduced by the principal write down
   - Generates a large floating payment
6. Principal Write-Up
7. Fully Paid off contract Terminates
   - When principal pays down to zero than the contract terminates prior to legal maturity

## II Controllers (Product Control / Regulatory)

Key work required for Mortgage Trading Financial Control (Tom Layton) has been mapped out and is either complete or in implementation for completion before trading of the index product. Trade processing, reconciliation, operations and settlement flows are set out as Attachment 3.

Like the bulk of corporate CDS, the existing ABCDS transactions, and ABCDS transactions going forward, are being booked on Citibank N.A. (CBNA). Upon completion of the CSE project to accord VaR-based treatment to broker dealer regulatory capital, the Desk together with the relevant support areas will evaluate the potential for ABCDS trading to shift to Citigroup Global Markets Inc. Financial Control has established the requisite accounts to capture this activity, and has mapped and is currently managing the relevant P&L and business, capital and legal vehicle reporting. Relevant feeds are being provided through OASYS. OASYS directly feeds the risk for ABCDS to MRMS, which permits risk modeling (including of the instruments' mortgage characteristics) by Market Risk Management (Adam Lechner). The feed from MRMS to the GMR Risk System, and the requisite reconciliations between these risk feeds and OASYS, have been proven out (Adam Lechner, Andy Feigenberg, Tom Layton). The Financial Division is working with the Desk to finalize the mechanics for the reconciliation of the OASYS positions with the traders' position/risk database (overall flows are

MRM
Market Risk Management

agreed – these are displayed in the ABCDS e-Ticket Flows set out in Attachment 4).

For price verification, the ABX index product will be externally verified, since Markit will collect and publish market prices and daily. For single name ABCDS, the Model Validation Group (Mark Green) has completed a review of the model with test cases and provided a Level 1 validation report. Independent Risk (Paul Smiley) is currently conducting a detailed review of the model, in dialog with the Model Validation Group, which, subject to any need for significant model revision, is expected to conclude in the first weeks of January 2006. Upon final model validation the Desk and the Mortgage Trading Financial Control will have finalized the Price Verification Group's process for analyzing marks on non-externally verifiable ABCDS inventory (marked with reference to the relevant underlying) and also to be used by Financial Control as a basis for monitoring and explaining P&L swings.

Financial Control has indicated there are no other concerns relating to supporting this activity, and no additional resources required at this time and in view of near-term reasonably foreseeable growth. It is understood that if volumes accelerate, there may be a need for increased resourcing.

**III Treasury Considerations**

Like the majority of the Firm's current CDS book, ABCDS will be booked on CBNA, and will fall within the existing bank funding policy. Treasury (Joseph Martinelli) has confirmed that there are no concerns relating to supporting this activity.

**IV Accounting Policy / Regulatory Considerations**

The Desk has met with members of the Accounting Policy and Regulatory Groups, and is aware of no incremental concerns raised in adding ABCDS to the roster of CDS products traded by the Firm. An entity-level risk trigger has been established for ABCDS on CBNA, as required by the OCC (see Market Risk Considerations below). Aside from routine compliance matters associated with booking on CBNA, no additional concerns are raised with utilizing CBNA.

The Firm Investment Policy and Legal Vehicle Approval Policy do not apply to ABCDS. The ABX consortium does not required firm capital investment, but will be sustained through participant licensing fees.

## V Market Risk Considerations

- The key risk factors the trading desks observe are pre-payment, spread, basis and credit exposure. The introduction of ABCDS does not change the risk factors already observed. As mentioned previously, the ABCDS market allows the desk to mitigate existing risk that historically was not hedgable.
- The respective cash trading desks will trade the CDS associated with the underlying asset. ABCDS can be hedged long and short with ABCDS, but can also hedge or be hedged by MBS/ABS securities or the loan pools that are acquired by the Desk.
- ABCDS market risk will be assessed on the Desk through spreadsheet application of a model developed by the traders that refers to the relevant underlying. As noted above, the Model Validation Group (Mark Green) has reviewed and approved in principle this risk/pricing model and it is currently under review by Independent Risk. As also noted above, Financial Control will also be provided the model and the traders and Financial Control will work together to review and document the use of the model for price verification purposes.
- Mortgage Desk ABCDS exposure is properly captured and modeled against the relevant underlyings by Product Risk (Adam Lechner). Product Risk reports have been modified to show Mortgage Desk ABCDS Risk, including sub-categories to break ABCDS risk on each of asset type: non-agency MBS, CMBS, and ABS, and also will distinguish index trades from single-name.
- An entity-specific market risk trigger of Spread DVO1 is being established in accordance with the requirements of the OCC (Andy Feigenberg, Paul Smiley). This trigger will be reflected in the reports produced by Product Risk and monitored concurrently by the Product Risk, Independent Risk, and the Desk.
- Independent Risk (Paul Smiley) has indicated that there are no further concerns relating to support of this activity.

## VI Credit Risk Considerations

The general infrastructure the credit department uses for CDS on corporates will also support ABCDS. The new product will use the existing feeds that are already established to feed credit systems.

The long maturity and amortizing nature of ABCDS swaps requires a different credit exposure than a corporate CDS. The credit analytics department (Samson Lui) will calculate the credit exposure factors based on the weighted average life of the swaps that the desk will provide on an agreed regular basis to the credit department. Initially, it is planned that this data will be manually input with each trade, but the Desk and Credit are working together to formulate and prioritize a system solution.

Because the mortgages underlying ABCDS typically have a 30 year tenor, the ABCDS technically have a maturity that in certain circumstances would raise extended exposure concerns for Credit. In actuality the amortizing nature of the swap underlying, and thus the swap, creates a much shorter maturity, which is better represented by the mortgage weighted average life. A long legal maturity is generally handled by adding mutual termination clauses to a contract, which could still be used for these trades. Even in instances where ABCDS contracts do not contain such mutual break provisions, the credit department (Peter Anguilla, Vincent Lucanie) is comfortable that these trades should be treated as being for less than 10 years as long as there is a margining agreement in place and do not need the break clauses. For all trades the existing CIB credit processes will be followed.

## VII Legal Considerations

- Single name ABCDS and CDS on ABS Index (ABX) have been documented pursuant to ISDA Master Agreements. Legal has reviewed and approved the Single name and ABX confirmations. The ABX index term sheet has been finalized and approved by GFI Legal. Single Name documents are largely standardized, but if there are variations, these are negotiated by the Derivatives Documentation Group, supported by GFI Legal.
- There are no legal or regulatory issues.
- No external legal advice has been sought or is required. Cleary Gottlieb Steen & Hamilton is counsel to the ABX consortium.
- The routine compliance requirements associated with booking transactions on CBNA have been met (authorization of traders to book on CBNA, confirmation with sales that relevant AML procedures are being attended to).
- Legal (Hugh Conroy – Bank Regulatory, Myongsu Kong and Anna Choe, GFI Legal) has indicated there are no other legal or regulatory concerns related to supporting this activity.
- As noted, all bank regulatory questions have been addressed.
- There are no anti-tying issues.

## VIII Tax Considerations

Tax (Joel Dictrow, Susan Grbic) has confirmed that this product is not tax sensitive, is treated as a "Notional Principal Transaction" which falls within parameters of existing OTC products, and otherwise raises no specific tax concerns.

## IX Operations and Technology

- The trade settlements and clearing mechanics will be the same as the existing Corporate CDS desk. See Attachment 4 for complete settlement processes.
- The systems and processes used will be identical to those utilized by the Corporate and other CDS trading desks.

- The business support groups are comfortable with the existing process and there are sufficient manual processes to maintain control of the index product until more efficient systems solutions are implemented. For the single name ABCDS transactions the business has agreed to limit volume until more controls are in place, with such limits to reviewed and adjusted from time to time by agreement amongst Derivatives Middle Office, Derivatives Operations and the Desk. Technology will be developing solutions for factors, floating payments and other enhancements to better support this product.
- Necessary incremental resource has been approved for Derivatives Operations to ensure sufficient support, particularly in the confirmations and settlements areas, for reasonably foreseeable volume growth through mid-2006, even absent systems efficiency improvements (Mary Ambrecht).
- Middle Office has confirmed that it is sufficiently resourced to handle initial anticipated volumes (Rick Isenberg), within the limits for single name trades agreed amongst Derivatives Middle Office, Derivatives Operations and the Desk from time to time. It is understood that increased resources may be required in the future for both Derivatives Middle Office and Derivatives Operations if volumes increase and such increase are not yet offset through systems enhancements.
- Mortgage Trading's RCSA has been completed to take into account the new product, including relevant controls of Middle Office and Back Office processes (See Attachment 5).

## X Franchise and Other Risks

- The franchise risks associated with this product focus primarily on confirmations and settlements. This is an issue for the entire industry. Operations has confirmed that with the resource additions noted above, and in view of the processes and controls that have been implemented, the addition of this product set to the overall CDS flow of the Firm should not add to the Firm's confirmation backlog or be otherwise detrimental to the Firm's work to meet the industry's commitments to reduce operational risk in this area.
- The industry has developed protocol and Citigroup has set guidelines to address these issues and these rules and protocol will be adhered to.

## XI Application of Derivatives Policy

Legal (Scott Flood, Myongsu Kong, Anna Choe) and In-Business Risk and Control (Gabriella Demenyi) have indicated that ABCDS are considered Category A Products for purposes of the Derivatives Policy. Counterparties are expected to be Dealers and Market Participants. This is being further reconfirmed in conference with Product and Sales management.