# Instructions for the Central Bank Survey of Foreign Exchange and Derivatives Market Activity

## **Derivatives Outstanding Survey End-June 2007**

FR 3036 OMB No. 7100-0285

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#### A. Introduction

These instructions cover the survey of *amounts outstanding* for derivatives held as of the last day of business of June 2007. Separate instructions have been provided for the *turnover* part of the survey.

These instructions are for the United States portion of the triennial derivatives market activity undertaken by the central banks of the G-10 member nations. The primary objective of the FR 3036 is to obtain reasonably comprehensive and internationally consistent data on the size and structure of global over-the-counter (OTC) financial derivatives data. In order to limit reporting burden, no data are collected on amounts outstanding of exchange-traded derivative instruments, given that timely and comprehensive information on these products is available from commercial data sources. The data on derivatives outstanding are collected on a *consolidated* basis at end-June 2007.

The Federal Reserve System treats information provided by each respondent as confidential. Aggregate totals will be published by the Federal Reserve Bank of New York and the Bank for International Settlements.

#### B. Coverage

#### 1. Reporters

Reporting dealers for the *amounts outstanding* part of the survey are the top tier company or holding company for U.S.-based financial institutions that actively participate in foreign exchange and derivatives markets and that have significant derivatives positions.

#### 2. Risk categories

The survey collects data on OTC derivative products according to the following broad market classification:

- foreign exchange and gold contracts (Tables 1 and 4)
- single-currency interest rate derivatives (Tables 2 and 4)
- equity, commodity, credit and "other" derivatives (Tables 3, 4, and 5).

Foreign exchange and gold contracts. These contracts include those involving the exchange of currencies in the forward market. They cover outright forwards, foreign exchange swaps, currency swaps (including cross-currency interest rate swaps) and currency options. Foreign exchange contracts include all deals involving exposure to more than one currency, whether in interest rates or exchange rates.

Gold contracts include all deals involving exposure to that commodity.

Single-currency interest rate derivatives. Interest rate contracts are contracts related to an interest-bearing financial instrument whose cash flows are determined by referencing interest rates or another interest rate contract (e.g., an option on a futures contract to purchase a Treasury bill). Interest rate contracts include forward rate agreements, single-currency interest rate swaps and interest rate options, including caps, floors, collars and corridors.

This category includes only those deals where all the legs are exposed to only one currency's interest rates. Thus it excludes contracts involving the exchange of one or more foreign currencies (e.g., cross-currency swaps and currency options) and other contracts whose predominant risk

characteristic is foreign exchange risk and which should be reported as foreign exchange contracts.

Equity, commodity, credit and "other" derivatives. Equity derivative contracts are contracts that have a return, or a portion of their return, linked to the price of a particular equity or to an index of equity prices.

Commodity contracts are contracts that have a return, or a portion of their return, linked to the price of, or to a price index of, a commodity such as a precious metal (other than gold), petroleum, lumber or agricultural products.

Please note that contracts that have a return or a portion of their return, linked to the price of precious metals (other than gold) should be reported separately from *other commodity-linked* contracts

Credit derivatives are contracts in which the payout is linked primarily to some measure of the creditworthiness of a particular reference credit. The contracts specify an exchange of payments in which at least one of the two legs is determined by the performance of the reference credit. Payouts can be triggered by a number of events, including a default, a rating downgrade or a stipulated change in the credit spread of the reference asset. Typical credit derivative instruments are credit-spread forwards and options, credit event or default swaps and total return swaps.

"Other" derivatives are any other derivative contracts, which do not involve an exposure to foreign exchange, interest rate, equity, commodity or credit risk.

#### 3. Instrument types

For OTC derivatives, the following instrument breakdown is requested:

- forwards
- swaps
- OTC options
  - sold
  - bought
- other products

Forward contracts. Forward contracts are agreements for delayed delivery of financial instruments or commodities in which the buyer agrees to purchase and the seller agrees to deliver, at a specified future date, a specified instrument or commodity at a specified price or yield. Forward contracts are generally not traded on organized exchanges and their contractual terms are not standardized. Transactions where only the difference between the contracted forward outright rate and the prevailing spot rate is settled at maturity, such as non-deliverable forwards (i.e., forwards which do not require physical delivery of a non-convertible currency) and other contracts for differences, should be reported.

Those forward contracts are to be reported that have been entered into by the reporting bank and are outstanding (i.e., open contracts) at the reporting date. Contracts are outstanding (i.e., open) until they have been cancelled by acquisition or delivery of the underlying financial instrument or commodity or settled in cash. Such contracts can only be terminated other than by receipt of the underlying asset, by agreement of both buyer and seller.

Swaps: Swaps are transactions in which two parties agree to exchange payment streams based on a specified notional amount for a specified period. Foreign exchange swaps involve the exchange of two currencies and the reverse exchange of the same currencies at a date further in the future. Forward-starting swap contracts should be reported as swaps.

For swaps executed on a forward/forward basis, both forward parts of the transaction should be reported separately. In contrast, in the case of foreign exchange swaps, which are concluded as spot/forward transactions, only the unsettled forward part of the deal is to be reported.

*OTC options.* Option contracts convey either the right or the obligation, depending upon whether the reporting institution is the purchaser or the writer, respectively, to buy or sell a financial

instrument or commodity at a specified price up to a specified future date. OTC option contracts include all option contracts not traded on an organized exchange. Swaptions (i.e., options to enter into a swap contract) caps, floors, collars, and corridors should be reported as options. Options such as call feature embedded in loans, securities and other on-balance-sheet assets do not fall within the scope of this survey and are therefore *not* to be reported unless they are a derivative instrument that must be treated separately under FAS 133. (FAS 133 requires the bifurcation of derivatives that are not clearly and closely related to the host contract.)

Sold options. OTC options contracts in which the reporter has, for compensation (such as a fee or premium), obligated itself to either purchase or sell financial instruments or commodities. Also to be reported are data for written caps, floors and swaptions and for the *written portion only* of collars and corridors.

Bought options. OTC option contracts in which the reporter has, for a fee or premium, acquired the right to either purchase or sell financial instruments or commodities. Also report data for purchased caps, floors and swaptions and for the *purchased portion only* of collars and corridors.

Other products. Other derivative products are instruments where decomposition into individual plain vanilla instruments such as forwards, swaps or options is impractical or impossible. Examples of "other" products are swaps with underlying notional principal in one currency and fixed or floating interest rate payments based on interest rates in currencies other than the notional (differential swaps or diff swaps) and instruments with leveraged payoffs and/or those whose notional principal varies as a function of interest rates, such as swaps based on LIBOR squared or index amortizing rate swaps.

Further instrument definitions and reporting categorizations are provided in Section G below.

#### 4. Types of data requested

To gauge the size of the foreign exchange and OTC derivatives markets, this survey collects data on outstandings in notional amounts and gross market values, '

Notional amounts outstanding are defined as the gross notional value of all deals concluded and not yet settled at the reporting date. The data should in principle be reported on a consolidated basis i.e., inter-company deals should be excluded. **Refer to Section 5 below, "Reporting basis".** For contracts with *variable notional amounts*, the basis for reporting should be the notional amounts at the time of reporting.

The notional amount or par value to be reported for a derivative contract with a multiplier component is the contract's effective notional amount or par value. For example, a swap contract with a stated notional amount of \$1,000,000 whose terms called for quarterly settlement of the difference between 5% and LIBOR multiplied by ten has an effective notional amount of \$10,000,000.

No netting of contracts is permitted. Therefore, the following should not be netted: (1) obligations of the reporting bank to purchase from third parties against the bank's obligations to sell to third parties, (2) written options against purchased options, and (3) contracts subject to bilateral netting agreements.

The notional value to be reported is that of the contract itself and not the par value of financial instruments intended to be delivered under forward contracts.

Swaps. The notional amount of a swap is the underlying principal amount upon which the exchange of interest, foreign exchange or other income or expense is based.

Equity and commodity-linked contracts. The contract amount to be reported for an equity or commodity contract is the quantity, e.g., number of units, of the commodity or equity product contracted for purchase or sale multiplied by the contract price of a unit.

The notional amount to be reported for commodity contracts with multiple exchanges of principal is the contractual amount multiplied by the number of remaining exchanges of principal in the contract.

*Credit derivatives.* The contract amount to be reported for credit derivatives is the notional value of the relevant reference credit. Credit linked notes are cash securities and should therefore be excluded from this survey.

Gross fair values are defined as the sums of the absolute values of all open contracts with either positive or negative fair value on the *as of* date. Fair values are the amounts at which a contract could be exchanged in a current transaction between willing parties, other than in a forced or liquidation sale. If a quoted price is available for a contract, the number of trading units should be multiplied by that market price. If a quoted market price is not available, the reporting institution should provide its best estimate of market value based on the quoted price of a similar contract or on valuation techniques such as discounted cash flows.

Gross fair value is defined as the value of all open contracts before counterparty or any other netting. Thus, the gross positive market value of a firm's outstanding contracts is the sum of all positive fair values of a firm's contracts. Similarly, the gross negative fair value is the sum of all negative values of a firm's contracts.

The term gross is used to indicate that contracts with positive and negative fair values with the same counterparty should not be netted. Nor should the sums of positive and negative contract values be set off against each other within a risk category such as foreign exchange, interest rate, equity, commodity, credit and "other".

Unlike forwards or swaps, OTC options have a fair value at initiation, which is equal to the premium paid to the writer of the option. Throughout their life option contracts can only have a positive fair value for the buyer and a negative fair value for the seller. If a quoted market price is available for a contract, the fair value to be reported for that contract is the product of the number of trading units of the contract multiplied by that market price. If a quoted market price is not available, the fair value of an outstanding option contract at the time of reporting can be determined on the basis of secondary market prices for options with the same strike prices and remaining maturities as the option being valued, or by using option pricing models. In an option pricing model, current quotes of forward prices for the underlying (spot prices for American options) and the implied volatility and market interest rate relevant to the option's maturity would normally be used to calculate the "market" values.

Gross positive fair value is the sum of the current fair values of all purchased options, and gross negative fair value would be the sum of the values of sold options. Options sold and purchased with the same counterparty should not be netted against each other, nor should offsetting bought and sold options on the same underlying.

All data on amounts outstanding should be reported as of end-June 2007.

#### 5. Reporting basis

The reporting of amounts outstanding data should be on a *consolidated basis* by the top-tier company or holding company. Data from all branches and (majority-owned) subsidiaries worldwide must be added together and reported. Deals between branches and subsidiaries of the reporter must be eliminated. Please use the consolidation guidelines indicated in the latest version of the FR Y-9C, or, for nonbank dealers, on the same basis as described in generally accepted accounting principles (GAAP). Inter-company transactions should be excluded, even if they relate to transactions with affiliates which are unconsolidated, based on ownership criteria, but are in effect controlled by the reporting institution.

#### 6. Currency of reporting and currency conversion

Amounts outstanding are to be reported in US dollar equivalents. Contracts that are denominated in non-dollar currencies should be converted into US dollars by using the end-of-period exchange rates as of the reporting date. For practical reasons, reporting institutions may also use their internal (bookkeeping) exchange rates to convert amounts outstanding booked in non-dollar currencies, as long as these exchange rates correspond closely to market rates.

#### 7. Rounding

All data entered on the report form should be rounded to the nearest million US dollars (do not use decimals).

#### 8. Reporting deadline

Data should be submitted to the Federal Reserve Bank of New York by August 31, 2007.

#### C. Counterparties

Contracts are reported by counterparty as follows: reporting dealers, other financial institutions and non-financial customers.

"Reporting dealers" are those institutions whose head office is located in the Group of Ten countries that participate in the semi-annual OTC derivatives market statistics. In order to allow the accurate elimination of double counting of inter-reporter transactions, reporting institutions should identify transactions with "reporting dealers" to the best of their ability. Two separate lists of "reporting dealers" for the turnover and amounts outstanding parts of the survey are provided. "Reporting dealers" will mainly be commercial and investment banks and securities houses, including their branches and subsidiaries and other entities which are active dealers worldwide.

"Other financial institutions" covers all categories of financial institutions *not* classified as "reporting dealers". It will include all non-reporting financial institutions, such as commercial banks, investment banks and securities houses, mutual funds, pension funds, hedge funds, currency funds, money market funds, thrifts, leasing companies, insurance companies, and financial subsidiaries of non-financial companies

A "non-financial customer" is any counterparty other than those described above, in practice mainly corporate firms and governments.

#### D. Currency and other risk factor breakdowns

For amounts outstanding of foreign exchange and interest rate contracts the following currency breakdown is requested:

USD, EUR, JPY, GBP, CHF, SEK, and other currencies.

Reporting institutions are asked to identify individual other currencies if they have a material amount of outstanding contracts in those currencies, for example, if a notional amount outstanding in a currency for a given instrument is greater than 2% of the total notional amount outstanding for that instrument.

Amounts outstanding of *foreign exchange contracts* are to be broken down on a single-currency basis. This means that the notional amount outstanding and the gross positive or negative fair value of each contract will be reported twice, according to the currencies making up the two "legs" of the contract. The total of the amounts reported for individual currencies will thus be 200% of total amounts outstanding. For example, a reporting institution entering into a forward contract to purchase US dollars in exchange for euro with a notional principal amount of \$100 million would report \$100 million in the USD column and another \$100 million in the EUR column.

Equity-linked contracts must be categorized according to whether they are related to US, Japanese, European (excluding countries in Eastern Europe), Latin American, other Asian or other countries' equity and stock indices. The contracts should be allocated according to the nationality of the issuer of the underlying rather than the country where the instrument is being traded. For commodity, credit and "other" derivatives, no further breakdown by risk factor is required.

#### E. Maturities

For amounts outstanding of foreign exchange (including gold), interest rate and equity-linked contracts, a breakdown is requested by remaining maturity according to the following bands:

- one year or less
- over one year and up to five years
- over five years.

In the case of transactions where the first leg has not come due, the remaining maturity is to be determined by the difference between the near and far-end dates of the transaction and not by the date of conclusion of the deal.

#### F. Categorization of derivatives involving more than one risk category

Individual derivatives transactions are to be categorized into six risk classes: foreign exchange, single-currency interest rate, equity, commodity, credit and "other". Transactions should be reported in only one risk category based on the contracts predominant risk character at the origination of the derivative.

#### G. Detailed instrument definitions and categorization

In each risk category OTC derivatives are in principle to be broken down into three types of plain vanilla instrument (forwards, swaps and options). Plain vanilla instruments are those traded in generally liquid markets according to more or less standardized contracts and market conventions. If a transaction is composed of several plain vanilla components, each part should in principle be reported separately. OTC foreign exchange derivatives outstanding should be defined and categorized as follows:

#### 1. Foreign exchange transactions

Outright forward: Transaction involving the exchange of two currencies at a rate agreed on the date

of the contract for value or delivery (cash settlement) at some time in the future (more than two business days later). This category also includes forward foreign exchange agreement transactions (FXA), non-deliverable forwards and other

forward contracts for differences.

Foreign exchange swap: Transaction, which involves the actual exchange of two currencies (principal

amount only) on a specific date at a rate agreed at the time of the conclusion of the contract (the short leg), and a reverse exchange of the same two currencies at a date further in the future at a rate (generally different from the rate applied to the short leg) agreed at the time of the contract (the long leg). Both spot/forward and forward/forward swaps should be included. Short-term swaps carried out as "overnight swaps" and "spot next swaps", and "tomorrow/next day" transactions

should also be included in this category.

Currency swap: Contract which commits two counterparties to exchange streams of interest

payments in different currencies for an agreed period of time and to exchange principal amounts in different currencies at a pre-agreed exchange rate at

maturity.

Currency option: Option contract that gives the right to buy or sell a currency with another currency

at a specified exchange rate during a specified period. This category also includes exotic foreign exchange options such as average rate options and barrier options.

Currency swaption: OTC option to enter into a currency swap contract.

Currency warrant: OTC option; long-dated (over one year) currency option.

#### 2. Single-currency interest rate derivatives

Forward rate agreement

(FRA):

Interest rate forward contract in which the rate to be paid or received on a specific obligation for a set period of time, beginning at some time in the future, is

determined at contract initiation.

Interest rate swap: Agreement to exchange periodic payments related to interest rates on a single

currency; can be fixed for floating, or floating for floating based on different indices. This group includes those swaps whose notional principal is amortized

according to a fixed schedule independent of interest rates.

Interest rate option: Option contract that gives the right to pay or receive a specific interest rate on a

predetermined principal for a set period of time.

Interest rate cap: OTC option that pays the difference between a floating interest rate and the cap

rate.

Interest rate floor: OTC option that pays the difference between the floor rate and a floating interest

rate.

Interest rate collar: Combination of cap and floor.

Interest rate corridor: 1) A combination of two caps, one purchased by a borrower at a set strike and

the other sold by the borrower at a higher strike to, in effect, offset part of the premium of the first cap. 2) A collar on a swap created with two swaptions - the structure and participation interval is determined by the strikes and types of the swaptions. 3) A digital knockout option with two barriers bracketing the current

level of a long-term interest rate.

Interest rate swaption: OTC option to enter into an interest rate swap contract, purchasing the right to

pay or receive a certain fixed rate.

Interest rate warrant: OTC option; long-dated (over one year) interest rate option.

#### 3. Equity and stock index derivatives

Equity forward: Contract to exchange an equity or equity basket at a set price at a future date.

Equity swap: Contract in which one or both payments are linked to the performance of equities

or an equity index (e.g. S&P 500). It involves the exchange of one equity or equity index return for another, or the exchange of an equity or equity index

return for a floating or fixed interest rate.

Equity option: Option contract that gives the right to deliver or receive a specific equity or equity

basket at an agreed price at an agreed time in the future.

Equity warrant: OTC option; long-dated (over one year) equity option.

#### 4. Commodity derivatives

Commodity forward: Forward contract to exchange a commodity or commodity index at a set price at

a future date.

Commodity swap: Contract with one or both payments linked to the performance of a commodity

price or a commodity index. It involves the exchange of the return on one commodity or commodity index for another, and the exchange of a commodity or

commodity index for a floating or fixed interest rate.

Commodity option: Option contract that gives the right to deliver or receive a specific commodity or

commodity index at an agreed price at a set date in the future.

#### 5. Credit derivatives

Credit spread forward: Agreement to pay or receive at some time in the future a cash payment that

depends on the difference between a spread (i.e. the difference in yields between two financial assets) agreed at contract initiation and that prevailing at

settlement.

Credit event/default swap: Contract, which commits two counterparties to exchange a periodic fee in

exchange for a payment contingent on a default event or any other, agreed change in the credit quality of a reference asset for an agreed period of time.

Total return swap: Contract, which commits two counterparties to exchange the total economic

performance of a financial asset (defined to include all interest payments, fees and any capital appreciation or depreciation) in exchange for a floating rate payout based on a reference index (usually LIBOR plus a spread reflecting the creditworthiness of the counterparty as well as the credit rating and liquidity of

the underlying asset).

Credit spread option: Option contract that gives the right to receive a cash payment if a spread, i.e. the

difference in yields between two financial assets, widens beyond an agreed strike

level during a specific period.

### H. Guidelines and definitions for the reporting of additional information on credit default swaps (Table 5)

#### 1. Coverage

Credit default swaps (CDS) are bilateral financial contracts in which the protection buyer (risk shedder) pays a fixed periodic fee in return for a contingent payment by the protection seller (risk taker), triggered by a credit event on a reference entity. Credit events, which are specified in CDS contracts, may include bankruptcy, default, or restructuring.

#### Instrument types

The following instrument breakdown is requested:

- Single-name instruments
- Multi-name instruments

Single-name CDS are CDS contracts where there is one reference entity or asset specified.

Multi-name CDS are CDS contracts where there is more than one reference entity or asset specified in the portfolio or basket credit default swaps or credit default swap indices. A basket credit default swap is a CDS where the credit event is the default of some combination of the credits in a specified basket of credits. In the particular case of an nth-to-default basket it is the nth credit in the basket of reference credits whose default triggers payments.

Another common form of multi-name CDS is that of the "tranched" credit default swap. Variations operate under specifically tailored loss limits – these may include a "first-loss" tranched CDS, a "mezzanine" tranched CDS, and a senior (also known as a "super-senior") tranched CDS.

<u>C</u>Exclude credit linked notes, options on CDS and total return swaps are not to be included as credit default swaps.

#### 2. Sector (only for single-name instruments)

A breakdown is requested by economic sector of the obligor of the underlying reference obligation (reference entity) as follows:

- Sovereigns are defined as only entities of a country's central, state, or local government. They do not include government-owned financial or non-financial firms. Also exclude international organizations (e.g., the World Bank).
- Non-sovereigns are defined as all entities other than sovereigns (as defined above).