

March 12, 2007

153 East 53<sup>rd</sup> Street New York, NY 10043

Mr. Lawrence Smith Financial Accounting Standards Board 401 Merritt 7 P. O. Box 5116 Norwalk, CT 06856-5116



LETTER OF COMMENT NO. 55

## RE: File Reference No. 1510-100, Disclosures about Derivative Instruments and Hedging Activities an amendment of FASB Statement No. 133

Dear Mr. Smith:

Citigroup is pleased to have the opportunity to submit comments on the Proposed Statement of Financial Accounting Standards, *Disclosures about Derivative Instruments and Hedging Activities* (proposed Derivatives Disclosure Statement or ED), and support the FASB in providing additional guidance in this area. Disclosures concerning derivative use are of particular importance to the users of financial statements of banks and other financial institutions, which are the most significant users of derivatives to generate revenues and manage risk. However, we are concerned that the Derivatives Disclosure ED, as currently drafted, does not achieve the Board's objective of providing enhanced transparency on derivatives and hedging relationships.

As an attachment to this letter, we have included some of the disclosures related to derivatives from Citigroup's 2006 annual report, which were prepared in accordance with the current disclosure requirements. We think these tables already provide users with sufficient information to enable them to understand and assess the risks created by derivative holdings and the effects of hedge accounting within Citigroup.

Although it contains a significant overlap with currently required disclosures, the ED's additional requirements will significantly increase costs for financial statement preparers, without creating additional value for the users.

The following are some of the more specific proposals in the ED that cause our concern:

- The requirement to disclose notional amounts, fair values and income statement impact by derivative purpose (i.e., by hedged financial statement item, forecasted item being hedged, or reason why the derivative is held) results in a large volume of data that would obscure the overall picture of the entity's risk exposures.
- The proposed disaggregation will place undue focus on derivatives used for hedging purposes, which may be a small portion of a financial

institution's total derivative holdings relative to derivatives held for trading purposes.

- The need to disclose leverage factors and contingencies embedded in derivatives, without a focus on significant high-risk items, would overwhelm the users with excess data. We believe that this generic disclosure cannot be helpful to the user in understanding the risks the entity may be exposed to due to the use of derivatives.
- The assumption that entities would not need to make major systems enhancements to meet the disclosure requirements proposed in the ED is wrong. Contrary to the Board's belief as set out in paragraph B.53, the disclosures prescribed by the ED would require significant systems upgrades at large financial institutions and corporations where derivative use is pervasive.

Additionally, if the ED is issued in its current form, we believe that the proposed implementation period is too short to achieve compliance due to the volume of required systems enhancements. Therefore, we recommend that the effective date for any final standard be delayed by at least one year.

While our more specific comments are explained in Appendix 1 to this letter, Citigroup believes that a careful reconsideration of the disclosures required by this ED is crucial to provide the users of financial statements with more useful information on derivatives and related activities.

We would be pleased to discuss our views and comments on this ED. Please contact me at (212) 559-7721.

Very truly yours,

Robert Traficanti Vice President and Deputy Controller

## General

We do not agree that the proposed expanded disclosure requirements would significantly improve transparency surrounding derivative instruments and hedged items. In Appendices 2-5, we have attached the disclosures from Citigroup's 2006 annual report, which we believe already provide sufficient detail to the users of our financial statements, allowing them to assess how and why Citigroup uses derivative instruments; how derivative instruments and related hedged items are accounted for; and how derivative instruments affect Citigroup's financial position, results of operations and cash flows.

Specifically, these disclosures provide the following:

- Narrative that discusses the manner in which derivative contracts are used for both risk management and proprietary trading purposes, including the associated accounting and hedge accounting activities (Appendix 2).
- Derivative notional values disaggregated by instrument type (i.e., swaps, futures and forwards, written options, and purchased options) to indicate the pervasiveness of derivative use, and the underlying risk types to which Citigroup has derivatives exposure (Appendix 3). We believe this type of disaggregation is easier for users to understand and provides adequate detail about the primary underlying risks of the derivatives.
- Fair values disaggregated by instrument type to demonstrate current exposure to the risks of derivative holdings (Appendix 3).
- Movements in fair value recorded through the Income Statement relating to trading derivatives is broken out under the Revenue From Principal Transactions note, illustrating the impact of derivatives on Citigroup's operations (Appendix 4).
- Value of collateral held against derivative positions in aggregate in order to demonstrate net credit exposure under such contracts (Appendix 3).
- While derivative notionals and fair values for hedge accounting activities are disclosed in the aggregate for asset/liability management hedges (Appendix 3), the disclosures of the amount of ineffectiveness included in earnings and the gains/losses excluded from the assessment of effectiveness are provided separately for Statement 133 fair value, cash flow and net investment hedges (Appendix 5).

The ED will require additional substantial disclosures that include the following:

- Each derivative contract needs to be assigned to either a primary underlying risk (e.g., interest rate risk) or multiple risk group (e.g., interest rate risk combined with foreign currency risk);
- Every primary underlying risk group, and multiple risk group, has to be broken out by accounting designation (e.g., type of Statement 133 hedge and derivatives not designated in a Statement 133 hedge accounting

relationship), and further by financial statement classification (e.g., investments, loans, other assets, etc.);

- Each table would include notional and fair value amounts for derivatives, or both derivatives and associated hedged items, within each category that is broken out as described above;
- The unrealized and realized derivative gains and losses included in the income statement; and
- Disclosure of any effects of embedded leverage or contingent features in a derivative instrument.

Our concern is that the additional disclosure requirements proposed by the ED will overwhelm users and obscure information they would find useful. Specifically, since the overly complex and detailed disaggregation of derivative data is not helpful, we would suggest the Board retain the familiar breakout by contract type.

We are also concerned by the ED's focus on Statement 133 hedges and hedging instruments. For a financial institution like Citigroup, the vast majority of our derivatives are held in trading category (refer to the table of Citigroup Derivatives Notionals in Appendix 3) and Statement 133 hedges represent only a small portion of our total derivative activity. Thus, requiring significantly more disclosures about Statement 133 hedges compared with other derivatives would misrepresent the total picture of our derivative usage.

## **Costs of implementing the Proposed Statement's Requirements**

According to the ED (page vi, "Benefits and Costs of This Proposed Statement"), "The Board believes that the costs of implementing the disclosure requirements in this proposed Statement would not be significant because many entities are already tracking or have readily available this type of information." We note that this assumption, at least for large financial institutions with significant derivative activity, is not true. We expect that there will be significant costs involved in the implementation of the ED as proposed. For example, current systems do not include flags to identify derivative contracts that contain elements of either extra leverage or contingency. Compliance with this disclosure would require a complete review of all derivative contracts and considerable systems upgrades in order to capture the required information.

## **Disclosure of Notional Amounts**

We agree that the users of financial statements would likely find the disclosure of absolute notional amounts useful in understanding an entity's use of derivatives, and note that Citigroup already discloses this information. However, we do not agree that disaggregating the notional amounts in accordance with the ED would provide the user with beneficial information.

## Leverage and Contingency

When providing disclosures on leverage and contingent features in derivatives, we believe that the key to providing useful information is to focus on significant and high-risk speculative transactions.

The ED would require disclosure of the estimated magnitude of leverage factors within derivative instruments in order to help users understand the true level of risk to which an entity is exposed. We understand the Board's objectives in requiring such a disclosure following high-profile corporate losses on speculative, highly-leveraged derivative instruments. However, we do not believe that the ED as currently drafted would have necessarily provided users with information that would allow them to identify and understand such transactions. Many derivative instruments include leverage (as we understand the term) for justifiable business reasons (for example, to complete a cost-effective economic hedge), without significantly increasing the risk faced by an institution. Disclosure of all potential leverage factors across an entity's derivative portfolio puts undue focus on "low-risk" levered derivatives and may make high-risk transactions less visible to users.

While we believe that the disclosure of any high-risk leverage is necessary, we believe that it would be more appropriate to require management to apply judgment in identifying and disclosing leverage embedded in derivatives (or other financial instruments) that:

- Include significant leverage factors;
- Could have a significant impact on the financial position or the operating results of an entity, either individually or as a homogeneous group; and
- Are being used by an institution to increase overall entity risk as opposed to reduce risk.

This more targeted approach to the disclosure of leverage features would focus users on the key transactions and risks of the reporting entity without overwhelming them with excess data. Given the large variety of derivative instruments that exist today, we do not believe that the Board will be able to define a single "cut-off" point when a leverage factor should be deemed significant. Also, the Board has previously decided that it is not practicable to define what constitutes "speculation" versus when a transaction is actually reducing exposure to risk for purposes of determining what qualifies for hedge accounting. Therefore, we recommend that the Board require management to apply judgment in identifying transactions that require informative disclosures in order to make the leverage disclosures more meaningful.

We also note that the ED does not clearly articulate what the Board is seeking through the disclosure of contingent features in derivative contracts. Paragraph 3c seems to be requesting wide-ranging disclosure of all contingent features, while the example in paragraph A.16 only identifies features that contingently require the reporting entity to post additional collateral, which seems to be aimed

more at liquidity risk. If the Board is only seeking the disclosure of contingent collateral features as the example seems to imply, we recommend that this be explicitly made clear in the body of the final standard.

Alternatively, if the Board is looking for entities to provide broader disclosure of contingent features that expose the entity to risks other than liquidity risk, we recommend that such disclosure requirements be targeted and highly focused. Here we would again propose that any final standard require that management apply judgment to identify and disclose unusual contingent features that could have a significant impact on the fair value or cash flow requirements of the underlying instrument and that are not hedged in the open market. Again, we believe that focusing the disclosure requirement in this way is crucial to ensure that large volumes of irrelevant data do not obscure information that would be useful to the users of the financial statements.

# Disclosure of Gains and Losses on Derivatives and Hedged Items in Formally Documented Hedging Relationships

We generally support providing disclosures on hedging relationships and currently provide aggregate notional amounts and fair values by risk type in our disclosures (Appendix 3). We also provide amounts recorded due to hedge ineffectiveness by accounting designation (Appendix 5). However, we fail to see the significance of providing gains and losses on derivatives and hedged items for Statement 133 hedging relationships when these amounts, due to hedge effectiveness requirements of Statement 133, would largely offset each other. Moreover, the gain and loss disclosures for Statement 133 hedge accounting relationships alone do not provide a full picture of gains and losses, since derivatives are also widely used to manage risk outside formally designated hedge relationships. However, it would not be feasible to monitor or provide disclosures relating to all hedging relationships, because it is conceptually challenging to devise a formal definition of the term 'hedge,' which is widely interpreted in practice. Note that Citigroup already provides aggregate derivative gain/loss information on trading derivatives as part of Principal Transactions Revenue (Appendix 4).

We therefore ask the FASB not to require additional disclosures of gains and losses in hedging relationships, because we believe that the extent of the hedging activities to be disclosed through the derivative notional and fair value amounts is adequate.

## Disclosure of Overall Risk Profile

We are concerned that the current ED focuses on only one element of an entity's risk profile (derivative instruments), about which extensive information is already disclosed. We suggest that any further disclosure should focus on providing

sufficient context to these specific instruments to allow the user of the statements to fully understand management's intentions and risk management policies.

This ED could only be an interim step to clarify derivative-related disclosures until more comprehensive Financial Statement Presentation and Conceptual Framework projects are completed. It is our understanding that, as a starting point, these projects will consider IASB's IFRS 7 approach, which includes disclosures about all financial instruments that an entity may use as part of its risk management activities. The proposed Derivatives Disclosure Statement would create additional disclosures at a significant cost to preparers without generating the equivalent benefit to the users of the financial statements.

## **Effective Date**

As highlighted above, there will be significant time required to review and make the necessary systems changes before the data, as required by this ED, will become available for reporting purposes.

Assuming that the Board issues the final Statement by June 30, 2007 as planned, we recommend that the mandatory effective date of the Derivatives Disclosure Statement be postponed for at least a year so that it would be effective for fiscal years and interim periods ending after November 15, 2008. This would also ensure that calendar year-end banks and other companies would start providing the required disclosures at the same time as broker-dealers with November 30<sup>th</sup> fiscal year-ends, all starting with their 2008 financial statements.

We also note that in the past where the adoption of a new standard required significant reporting systems upgrades, the FASB has given constituents enough time to make those changes before the required adoption date. For example, while Statement 157 was issued in September of 2006, and Statement 159 was issued in February 2007, the mandatory effective date for these Standards did not start before January 1, 2008 for calendar year-end companies. Similar to those Standards, we ask the Board to allow companies enough time to make the necessary changes in their reporting systems before being required to adopt the Derivatives Disclosure Statement. We would not object the Board's permitting the Derivatives Disclosure Statement to be adopted early by companies that elect to do so.

#### **Trading Account Assets and Liabilities**

Trading account assets and liabilities, including securities and derivatives, are carried at fair value. Fair value is determined based upon quoted prices when available, or under an alternative approach such as matrix or model pricing when market prices are not readily available. If quoted market prices are not available for fixed income securities or derivatives, the Company discounts the expected cash flows using market interest rates commensurate with the credit quality and duration of the investment. Obligations to deliver securities sold, not yet purchased, are also carried at fair value and included in trading account liabilities. The determination of fair value considers various factors, including: closing exchange or over-the-counter market price quotations; time value and volatility factors underlying options, warrants, and derivatives; price activity for equivalent or synthetic instruments; counterparty credit quality; the potential impact on market prices or fair value of liquidating the Company's positions in an orderly manner over a reasonable period of time under current market conditions; and derivatives transaction maintenance costs during that period. The fair value of aged inventory is actively monitored and, where appropriate, is discounted to reflect the implied illiquidity for positions that have been available-for-immediate-sale for longer than 90 days. Changes in fair value of trading account assets and liabilities are recognized in earnings. Interest expense on trading account liabilities is reported as a reduction of interest revenue.

Commodities are accounted for on a lower of cost or market (LOCOM) basis and include physical quantities of commodities involving future settlement or delivery. Related gains or losses are reported as principal transactions.

Derivatives used for trading purposes include interest rate, currency, equity, credit, and commodity swap agreements, options, caps and floors, warrants, and financial and commodity futures and forward contracts. The fair value of derivatives is determined based upon liquid market prices evidenced by exchange traded prices, broker/dealer quotations, or prices of other transactions with similarly rated counterparties. The fair value includes an adjustment for individual counterparty credit risk and other adjustments, as appropriate, to reflect liquidity and ongoing servicing costs. The fair values of derivative contracts reflect cash the Company has paid or received (for example, option premiums and cash margin in connection with credit support agreements). Derivatives in a net receivable position, as well as options owned and warrants held, are reported as trading account assets. Similarly, derivatives in a net payable position, as well as options written and warrants issued, are reported as trading account liabilities. Revenues generated from derivative instruments used for trading purposes are reported as principal transactions and include realized gains and losses, as well as unrealized gains and losses resulting from changes in the fair value of such instruments. Trading profit at inception of a derivative transaction is not recognized unless the fair value of that derivative is obtained from a quoted market price, supported by comparison to other observable market transactions, or based upon a valuation technique incorporating observable market data. The Company defers trade date gains and losses on derivative transactions where the fair value is not determined based upon observable market transactions and market data. The deferral is recognized in income when the market data becomes observable or over the life of the transaction.

### Risk Management Activities – Derivatives Used for Non-Trading Purposes

The Company manages its exposures to market rate movements outside its trading activities by modifying the asset and liability mix, either directly or through the use of derivative financial products, including interest rate swaps, futures, forwards, and purchased option positions such as interest rate caps, floors, and collars as well as foreign exchange contracts. These end-user derivatives are carried at fair value in other assets or other liabilities.

To qualify as a hedge, a derivative must be highly effective in offsetting the risk designated as being hedged. The hedge relationship must be formally documented at inception, detailing the particular risk management objective and strategy for the hedge, which includes the Item and risk that is being hedged and the derivative that is being used, as well as how effectiveness will be assessed and ineffectiveness measured. The effectiveness of these hedging relationships is evaluated on a retrospective and prospective basis, typically using quantitative measures of correlation with hedge ineffectiveness measured and recorded in current earnings. If a hedge relationship is found to be ineffective, it no longer qualifies as a hedge and any gains or losses attributable to the derivatives, as well as subsequent changes in fair value, are recognized in other revenue.

The foregoing criteria are applied on a decentralized basis, consistent with the level at which market risk is managed, but are subject to various limits and controls. The underlying asset, liability, firm commitment, or forecasted transaction may be an individual item or a portfolio of similar items.

For fair value hedges, in which derivatives hedge the fair value of assets, liabilities, or firm commitments, changes in the fair value of derivatives are reflected in other revenue, together with changes in the fair value of the related hedged item. These are expected to, and generally do, offset each other. Any net amount, representing hedge ineffectiveness, is reflected in current earnings. Citigroup's fair value hedges are primarily hedges of fixedrate long-term debt, loans, and available-for-sale securities.

For cash flow hedges, in which derivatives hedge the variability of cash flows related to floating rate assets, liabilities, or forecasted transactions, the accounting treatment depends on the effectiveness of the hedge. To the extent these derivatives are effective in offsetting the variability of the hedged cash flows, changes in the derivatives' fair values will not be included in current earnings but are reported as Accumulated other comprehensive income. These changes in fair value will be included in earnings of future periods when the hedged cash flows come into earnings. To the extent these derivatives are not effective, changes in their fair values are immediately included in other revenue. Citigroup's cash flow hedges primarily include hedges of loans, rollovers of short-term liabilities, and foreign currency denominated funding. They also include hedges of certain forecasted transactions in which a substantial majority of them mature within five years. For net investment hedges in which derivatives hedge the foreign currency exposure of a net investment in a foreign operation, the accounting treatment will similarly depend on the effectiveness of the hedge. The effective portion of the change in fair value of the derivative, including any forward premium or discount, is reflected in Accumulated other comprehensive income as part of the foreign currency translation adjustment.

End-user derivatives that are economic hedges rather than qualifying for hedge accounting purposes are also carried at fair value, with changes in value included in principal transactions or other revenue. Citigroup often uses economic hedges when qualifying for hedge accounting would be too complex or operationally burdensome; examples are hedges of the credit risk component of commercial loans and loan commitments. Citigroup periodically evaluates its hedging strategies in other areas, such as mortgage servicing rights, and may designate either a qualifying hedge or economic hedge, after considering the relative cost and benefits. Economic hedges are also employed when the hedged item itself is marked to market through current earnings, such as hedges of commitments to originate one-to-four family mortgage loans to be held-for-sale.

For those hedge relationships that are terminated or when hedge designations are removed, the hedge accounting treatment described in the paragraphs above is no longer applied. The end-user derivative is terminated or transferred to the trading account. For fair value hedges, any changes in the fair value of the hedged item remain as part of the basis of the asset or liability and are ultimately reflected as an element of the yield. For cash flow hedges, any changes in fair value of the end-user derivative remain in Accumulated other comprehensive income and are included in earnings of future periods when the hedged cash flows impact earnings. However, if the forecasted transaction is no longer likely to occur, any changes in fair value of the end-user derivative are immediately reflected in other revenue.

## Credit Exposure Arising from Derivatives and Foreign Exchange

Citigroup uses derivatives as both an end-user for asset/liability management and in its client businesses. In CIB, Citigroup enters into derivatives for trading purposes or to enable customers to transfer, modify or reduce their interest rate, foreign exchange and other market risks. In addition, Citigroup uses derivatives and other instruments, primarily interest rate and foreign exchange products, as an end-user to manage interest rate risk relating to specific groups of interest-sensitive assets and Habilities. Also, foreign exchange contracts are used to hedge non-U.S. dollar denominated debt, net capital exposures and foreign exchange transactions.

The Company's credit exposure on derivatives and foreign exchange contracts is primarily to professional counterparties in the financial sector, arising from transactions with banks, investment banks, governments and central banks, and other financial institutions.

For purposes of managing credit exposure on derivative and foreign exchange contracts, particularly when looking at exposure to a single counterparty, the Company measures and monitors credit exposure taking into account the current mark-to-market value of each contract plus a prudent estimate of its potential change in value over its life. This measurement of the potential future exposure for each credit facility is based on a stressed simulation of market rates and generally takes into account legally enforceable risk-mitigating agreements for each obligor such as netting and margining.

For asset/liability management hedges, a derivative must be highly effective in accomplishing the hedge objective of offsetting either changes in the fair value or cash flows of the hedged item for the risk being hedged. Any ineffectiveness present in the hedge relationship is recognized in current earnings. The assessment of effectiveness excludes the changes in the value of the hedged item that are unrelated to the risks being hedged. Similarly, the assessment of effectiveness may exclude changes in the fair value of a derivative related to time value, which, if excluded, is recognized in current earnings.

The following tables summarize by derivative type the notionals, receivables and payables held for trading and asset/liability management hedge purposes as of December 31, 2006 and December 31, 2005. See Note 23 to the Consolidated Financial Statements on page 148 for a discussion regarding the accounting for derivatives.

### **CITIGROUP DERIVATIVES**

### Notionals (1)

In millions of dallars		Trading Derivatives <sup>(2)</sup>	Manag	Ascot/Liability ement Hedges 🖻
As of December 31	2006	2005	2006	2005
Interest rate contracts				
Swaps	\$14,196,404	\$12,677,814	\$561,376	\$403,576
Futures and forwards	1,824,205	2,090,844	75,374	18,425
Written options	3,054,990	1,949,501	12,764	5,166
Purchased options	2,953,122	1,633,983	35,420	53,920
Total interest rate contract notionals	\$22,028,721	\$18,352,142	\$684,934	\$481,087
Foreign exchange contracts				
Swaps	\$ 722,063	\$ 563,888	\$ 53,216	\$ 37,418
Futures and forwards	2,068,310	1,508,754	42,675	53,757
Written options	416,951	249,725	1,228	-
Purchased options	404,859	253,089	1,246	808
Total foreign exchange contract notionals	\$ 3,612,183	\$ 2,575,456	\$ 98,365	<b>\$</b> 91,983
Equity contracts				
Swaps	\$ 104,320	\$70,188	<b>\$</b> —	\$ —
Futures and forwards	36,362	14,487		_
Written options	387,781	213,383	_	—
Purchased options	355,891	193,248		
Total equity contract notionals	\$ 884,354	\$ 491,306	\$ _	<u> </u>
Commodity and other contracts				
Swaps	\$ 35,611	\$ 20,486	\$ —	\$ —
Futures and forwards	17,433	10,876		
Written options	11,991	9,761		
Purchased options	16,904	12,240		
Total commodity and other contract notionals	\$ 81,939	\$ 53,363	\$	<u>\$                                    </u>
Credit derivatives	\$ 1,944,980	\$ 1,030,745	\$ -	\$
Total derivative notionals	\$28,552,177	\$22,503,012	\$783,299	\$573,070

### Mark-to-Market (MTM) Receivables/Payables

in millions of dollars	Rec	Derivatives Receivables—MTM		Derivati vas Pa yable—MTM	
As of December 31	2006	2005	2006	2005	
Trading Derivatives @					
Interest rate contracts	\$ 167,521	\$ 192,761	\$ 166,119	\$ 188,182	
Foreign exchange contracts	52,297	42,749	47,469	41,474	
Equity contracts	26,883	18,633	52,980	32,313	
Commodity and other contracts	5,387	7,332	5,776	6,986	
Credit derivatives	14,069	8,106	15,081	9,279	
Total	\$ 266,157	\$ 269,581	\$ 287,425	\$ 278,234	
Less: Netting agreements, cash collateral and market value adjustments	(216,616)	(222,167)	(212,621)	(216,906	
Net Receivables/Payables	<b>\$</b> <u>49</u> ,541	\$ 47,414	\$ 74,804	\$ 61,328	
Asset/Liability Management Hedges (3)					
Interest rate contracts	\$ 1,801	\$ 3,775	\$ 3,327	\$ 1,615	
Foreign exchange contracts	3,660	1,385	947	1,137	
Total	\$ 5,461	\$ 5,160	\$ 4,274	\$ 2,752	

Includes the actional amounts for long and short derivative positions.
Trading Derivatives include proprietary and market-making activities where the changes in market value are recorded to trading assets or trading liabilities.
Assort/Lability Management Hedges include only those end-user derivative instruments where the changes in market value are recorded to other assets or other labilities.

The following table presents the global derivatives portfolio by internal obligor credit rating at December 31, 2006 and 2005, as a percentage of credit exposure:

	2006	2005
AAAVAAVA	79%	80%
888	11	11
BB/B	8	8
CCC or below		_
Unrated	2	1
Total	100%	100%

The following table presents the global derivatives portfolio by industry of the obligor as a percentage of credit exposure:

	2006 2005
Financial institutions	67% 679
Governments	<b>11</b> 12
Corporations	<b>22</b> 21
Totai	100% 100%

### 7. PRINCIPAL TRANSACTIONS REVENUE

Principal transactions revenue consists of realized and unrealized gains and losses from trading activities. Not included in the table below is the impact of net interest revenue related to trading activities, which is an integral part of trading activities' profitability. The following table presents principal transactions revenue for the years ended December 31:

In millions of dollars	2006	2005	2004	
Fixed Income (1)	\$1,340	\$2,094	\$1,789	
Equities (2)	1,980	585	(335)	
Foreign exchange (3)	3,611	2,870	1,839	
Commodities (4)	436	910	371	
All other 🕸	341	(16)	52	
Total principal transactions revenue	\$7,708	\$6,443	\$3,716	

(1) Includes revenues from government securities and corporate debt, municipal securities, preferred stock, montgage securities, and other debt instruments. Also includes spot and forward trading of currencies and exchange-traded and over-the-counter (OTC) currency options, options on fixed income securities, interast rate swaps, currency swaps, swap options, caps and floors, credit derivatives, financial futures, OTC options, and forward contracts on fixed income securities.

 (2) Includes revenues from common and convertible preferred stock, convertible corporate debt, equitylinked notes, and exchange-traded and OTC equity options and warrants.
(3) Includes revenues from foreign exchange spot, forward, option and swap contracts, as well as

(3) includes revenues incomposing accuracy spot, for waite, option and swap contracts, as well as translation gains and lesses.

(4) Primarily includes the results of Phibro Inc., which trades crude all, refined all products, natural gas, and other commodities.

 (5) Includes commonweak to the interest-only strip related to the Company's securitized credit card receivables.

### 23. DERIVATIVES ACTIVITIES

In the ordinary course of business, Citigroup enters into various types of derivative transactions. These derivative transactions include:

- Futures and forward contracts which are commitments to buy or sell at a future date a financial instrument, commodity or currency at a contracted price and may be settled in cash or through delivery.
- Surap contracts which are commitments to settle in cash at a future date or dates that may range from a few days to a number of years, based on differentials between specified financial indices, as applied to a notional principal amount.
- Option contracts which give the purchaser, for a fee, the right, but not the obligation, to buy or sell within a limited time a financial instrument or currency at a contracted price that may also be settled in cash, based on differentials between specified indices.

Citigroup enters into these derivative contracts for the following reasons:
Trading Purposes — Customer Needs — Citigroup offers its customers derivatives in connection with their risk-management actions to transfer, modify or reduce their interest rate, foreign exchange and other market/ credit risks or for their own trading purposes. As part of this process, Citigroup considers the customers' suitability for the risk involved, and the business purpose for the transaction. Citigroup also manages its derivative-risk positions through offsetting trade activities, controls focused on price verification, and daily reporting of positions to senior managers.

- Tracking Purposes Own Account Citigroup trades derivatives for its own account. Trading limits and price verification controls are key aspects of this activity.
- Assel/Liability Management Hedging Citigroup uses derivatives in connection with its risk-management activities to hedge certain risks. For example, Citigroup may issue a fixed rate long-term note and then enter into a receive-fixed, pay-variable-rate interest rate swap with the same tenor and notional amount to convert the interest payments to a net variable-rate basis. This strategy is the most common form of an interest rate hedge, as it minimizes interest cost in certain yield curve environments. Derivatives are also used to manage risks inherent in specific groups of on-balance sheet assets and liabilities, including investments, corporate and consumer loans, deposit liabilities, other interest-sensitive assets and liabilities, as well as credit card securitizations, redemptions and sales. In addition, foreign exchange contracts are used to hedge non-U.S. dollar denominated debt, available-for-sale securities, net capital exposures and foreign exchange transactions.

Citigroup accounts for its hedging activity in accordance with SFAS 133. As a general rule, SFAS 133 hedge accounting is permitted for those situations where the Company is exposed to a particular risk, such as interest rate or foreign exchange risk, that causes changes in the fair value of an asset or liability, or variability in the expected future cash flows of an existing asset, liability, or a forecasted transaction.

Derivative contracts hedging the risks associated with the changes in fair value are referred to as *fair value bedges*, while contracts hedging the risks affecting the expected future cash flows are called *cash flow bedges*. Hedges that utilize derivatives to manage the foreign exchange risk associated with equily investments in non-U.S. dollar functional currency foreign subsidiaries are called *net investment bedges*.

All derivatives are reported on the balance sheet at fair value. If certain hedging criteria specified in SFAS 133 are met, including testing for hedging effectiveness, special hedge accounting may be applied. The hedge effectiveness assessment methodologies for similar hedges are performed in a similar manner and are used consistently throughout the hedging relationships. For fair value hedges, the changes in value of the hedged item, due to the risk being hedged, are reflected in current earnings. For cash flow hedges and net investment hedges, the changes in value of the hedging derivative are reflected in Accumulated other comprehensive income in stockholders' equily, to the extent the hedge was effective. Hedge ineffectiveness, in either case, is reflected in current earnings.

Continuing with the example referred to above, the fixed rate long-term note is recorded at amortized cost under current U.S. GAAP. However, by electing to use SFAS 133 hedge accounting, the carrying value of this note is adjusted for changes in the benchmark floating rate, with any changes in fair value recorded in current earnings. The related interest rate swap is also recorded on the balance sheet at fair value, with any changes in fair value attributable to changes in interest rates reflected in earnings. Thus, any ineffectiveness resulting from the hedging relationship is recorded in current earnings. Alternatively, an economic-basis hedge, which does not meet the SFAS 133 hedging criteria, would involve only recording the derivative at fair value on the balance sheet, with its associated changes in value recorded in earnings. The note would continue to be carried at amortized cost, and therefore, current earnings would be impacted only by the interest rate shifts that cause the change in the swap's value. This type of hedge is undertaken when SFAS 133 hedge requirements cannot be achieved in an efficient and cost-effective manner.

### Fair value bedges

 Hedging of benchmark interest rate risk – Citigroup hedges exposure to changes in the fair value of fixed-rate financing transactions, including liabilities related to outstanding debt, borrowings and time deposits. The fixed cash flows from those financing transactions are converted to benchmark-variable-rate cash flows by entering into receive-fixed, pay-variable interest rate swaps. Typically these fair value hedge relationships use dollar-offset ratio analysis to assess whether the hedging relationships are highly effective at inception and on an ongoing basis.

Citigroup also hedges exposure to changes in the fair value of fixedrate assets, including available-for-sale securities, reverse repurchase agreements and inter-bank placements. The hedging instruments mainly used are receive-variable, pay-fixed interest rate swaps for the remaining hedged asset categories. Most of these fair value hedging relationships use dollar-offset ratio analysis to assess whether the hedging relationships are highly effective at inception and on an ongoing basis, while others use regression analysis.

For a limited number of fait value hedges of benchmark interest rate risk, Citigroup uses the "shortcut" method as SFAS 133 allows the Company to assume no ineffectiveness if the hedging relationship involves an interest-bearing financial asset or liability and an interest rate swap. In order to assume no ineffectiveness, Citigroup ensures that all the shortcut method requirements of SFAS 133 for these types of hedging relationships are met.

- Hedging of foreign exchange risk Citigroup hedges the change in fair value attributable to foreign exchange rate movements in available-for-sale securities that are denominated in currencies other than the functional currency of the entity holding the securities, which may be within or outside the U.S. Typically, the hedging instrument employed is a short-term forward foreign exchange contract. In this type of hedge, the change in fair value of the hedged available-for-sale security attributable to the portion of foreign exchange risk hedged is reported in earnings and not other comprehensive income-a process that serves to offset substantially the change in fair value of the forward contract that is also reflected in earnings. Citigroup typically considers the premium associated with forward contracts (differential between spot and contractual forward rates) as the cost of hedging; this is generally excluded from the assessment of hedge effectiveness and reflected directly in earnings. Hedge effectiveness is typically assessed based on changes in fair value attributable to changes in spot rates on both the available-for-sale securities and the forward contracts for the portion of the relationship hedged. As a result, the amount of hedge ineffectiveness Is not significant.
- Hedging the overall changes in fair value Citigroup primarily hedges the change in the overall fair value of portfolios of similar held-for-sale mortgage loans. Derivatives used in these hedging relationships are mainly forward sales of mortgage-backed securities. Citigroup assesses effectiveness at inception and on an ongoing basis using regression analysis.

### Cash flow bedges

Hedging of benchmark interest rate risk – Citigroup hedges variable cash flows resulting from floating-rate financings, including debt, deposits with stated maturities. Variable cash flows from those financings are converted to fixed-rate cash flows by entering into receive-variable, pay-fixed interest rate swaps. Efforts are made to match all critical terms of the hedged item and the hedging derivative at inception and on an ongoing basis to eliminate hedge ineffectiveness. To the extent all critical terms are not matched, these cash flow hedging relationships use regression or dollar-offset ratio analysis to assess whether the hedging relationships are highly effective at inception and on an ongoing basis. Since efforts are made initially to align the terms of the derivatives to those hedged forecasted cash flows, the amount of hedge ineffectiveness is not significant.

Citigroup also hedges variable cash flows resulting from investments in floating-rate available-for-sale securities, loans and receivables, as well as rollovers of short-term certificates of deposit. Variable cash flows from those assets are converted to fixed-rate cash flows by entering into receivefixed, pay-variable interest rate swaps. These cash flow hedging relationships use regression or dollar-offset ratio analysis to assess whether the hedging relationships are highly effective at inception and on an ongoing basis. Efforts are made initially to align the terms of the derivatives to those hedged forecasted cash flows. As a result, the amount of hedge ineffectiveness is not significant.

 Hedging of foreign exchange risk – Citigroup locks in the functional currency equivalent of cash flows of various balance sheet exposures, including deposits, notes and long-term debt (and the forecasted issuances, purchases or rollover of such items) that are denominated in a currency other than the functional currency of the issuing entity. Depending on the risk management objectives, these types of hedges are designated as either cash flow hedges of only foreign exchange risk or cash flow hedges of both foreign exchange and interest rate risk. Generally, the hedging instruments used are foreign exchange forward contracts and cross-currency swaps. Citigroup matches all critical terms of the hedged item and the hedging derivative at inception and on an ongoing basis to eliminate hedge ineffectiveness. To the extent all critical terms are not matched, any ineffectiveness is measured using the "hypothetical derivative method" as described in FASB Derivative Implementation Group Issue G7. Efforts are made initially to match up the terms of the hypothetical and actual derivatives used. As a result, the amount of hedge ineffectiveness is not significant.

Hedging the overall changes in cash flows – In situations where the contractual rate of a variable rate asset or liability is not a benchmark rate, Citigroup designates the risk of overall changes in cash flows as the hedged risk. Citigroup primarily hedges variability in the total cash flows related to non-benchmark-rate-based liabilities, such as customer deposits with stated maturities, and uses receive-variable, pay-fixed interest rate swaps as the hedging instrument. These cash flow hedging relationships use regression or dollar-offset ratio analysis to assess effectiveness at inception and on an ongoing basis.

Citigroup also hedges the forecasted purchase of mortgage-backed securities and designates the overall change in the purchase price as a hedged risk. The assessment of effectiveness is based on ensuring that the critical terms of the hedging instrument and the hedged item match exactly.

### Net investment bedges

Consistent with SFAS No. 52, "Foreign Currency Translation" (SFAS 52), SFAS 133 allows hedging of the foreign currency risk of a net investment in a foreign operation. Gitigroup primarily uses foreign currency forward contracts, short-term borrowings, and to a lesser extent foreign currency future contracts and foreign-currency-denominated debt instruments, to manage the foreign exchange risk associated with Citigroup's equity investments in several non-U.S. dollar functional currency foreign subsidiaries. In accordance with SFAS 52, Citigroup records the change in the carrying amount of these investments in the cumulative translation adjustment account within Accumulated other comprehensive income. Simultaneously, the effective portion of the hedge of this exposure is also recorded in the cumulative translation adjustment account, and any ineffective portion of net investment hedges is immediately recorded in earnings.

Achieving hedge accounting in compliance with SFAS 133 guidelines is extremely complex. Key aspects of achieving SFAS 133 hedge accounting are documentation of hedging strategy and hedge effectiveness at the hedge inception and substantiating hedge effectiveness on an ongoing basis. A derivative must be highly effective in accomplishing the hedge objective of offsetting either changes in the fair value or cash flows of the hedged item for the risk being hedged. Any ineffectiveness in the hedge relationship is recognized in current earnings. The assessment of effectiveness excludes changes in the value of the hedged item that are unrelated to the risks being hedged. Similarly, the assessment of effectiveness may exclude changes in the fair value of a derivative related to time value that, if excluded, are recognized in current earnings. The following table summarizes certain information related to the Company's hedging activities for the years ended December 31, 2006, 2005, and 2004:

In millions of datlars	2006	2005	2004
Fair value hedges			
Hedge ineffectiveness recognized in earnings	\$ 245	\$ 38	\$ (100)
Net gain (loss) excluded from			
assessment of effectiveness	302	(32)	509
Cash flow hedges			
Hedge Ineffectiveness recognized in earnings	(18)	(18)	10
Net gain excluded from			
assessment of effectiveness		1	8
Net investment hedges			
Net gain (loss) included in foreign currency translation	)		
adjustment within Accumulated			
other comprehensive income (loss)	(569)	492	(1,159)

For cash flow hedges, any changes in the fair value of the end-user derivatives remaining in Accumulated other comprehensive income (loss) on the Consolidated Balance Sheet and are generally included in earnings of future periods when earnings are also affected by the variability of the hedged cash flows. The net gains associated with cash flow hedges expected to be reclassified from Accumulated other comprehensive income within 12 months of December 31, 2006 are \$107 million.

The change in Accumulated other comprehensive income (loss) from cash flow hedges for the years ended December 31, 2006, 2005, and 2004 can be summarized as follows (after-tax):

In millions of dollars	2006	2005	2004
Beginning balance	\$ 612	\$ 173	\$751
Net gain (loss) from cash flow hedges	(29)	641	(251)
Net amounts reclassified to earnings	(644)	(202)	(327
Ending balance	\$ (61)	\$612	\$ 173

Derivatives may expose Citigroup to market, credit or liquidity risks in excess of the amounts recorded on the Consolidated Balance Sheet. Market risk on a derivative product is the exposure created by potential fluctuations in interest rates, foreign exchange rates and other values, and is a function of the type of product, the volume of transactions, the tenor and terms of the agreement, and the underlying volatility. Credit risk is the exposure to loss in the event of nonperformance by the other party to the transaction where the value of any collateral held is not adequate to cover such losses. The recognition in earnings of unrealized gains on these transactions is subject to management's assessment as to collectibility. Liquidity risk is the potential exposure that arises when the size of the derivative position may not be able to be rapidly adjusted in periods of high volatility and financial stress at a reasonable cost.