

how and why was the Federal Reserve given such a mandate in the first place?

2) More broadly, what does the Payment and Settlement Committee of the Federal Reserve Bank of New York actually do, and what role does the Federal Reserve play in its work?

3) What is the effect of Federal Reserve involvement in derivative-driven markets on credit generation, the banking system, and the economy as a whole?

4) What is the extent of criminal collusion between the Federal Reserve Bank of New York and the eight commercial banks which account for 90% of the activity in “over-the-counter” derivative transactions? The Federal Reserve Bank of New York is owned by the same banks which have systematically been violating the Commodity Exchange Act.

The broader purpose of a cleanup to reimpose order is straightforward:

1) So long as present methods of organizing credit flows within the economy and financial system are continued, there will be no prospect of economic recovery, nor a feasible job creation program, nor any capital- and technology-intensive renewal of the economy.

2) Derivative markets—options, futures options, options indexes, swaps, strips—whether on or off exchange, given the rate of growth in their international volume and turnover, especially in currencies and bonds, have become key in setting financially “acceptable” rates of return, thus interest rates, and thus overall credit flows.

3) Bush administration policy and Alan Greenspan’s Federal Reserve commitments to avoid at all costs the spillover of the savings and loan banking crisis into the nation’s commercial banks, by increasing spreads between bank lending and borrowing, made the problem much worse than it would otherwise have been. Returns from commercial and industrial loans cannot match the derivative-enhanced yield on the tax-free 4-5% spread they have been given in recent years.

4) To organize a recovery is to create *new wealth*. New wealth can only be created by putting Americans back to work in modern infrastructure construction projects, necessary to support expansion in employment and economic activity, and in technologically progressive capital goods industries, to increase productivity. This increases the tax base without increasing tax rates, and thereby reduces the deficit. Every 1 million jobs created at \$30-40,000 per year gross will add between \$5 and \$6 billion to the Treasury’s personal taxation revenue stream directly, and will obviously have quite dramatic additional indirect effects.

5) Unfortunately, the time-frame for achieving project viability, and the discounted present cash value of the returns on such investments, cannot compete with the derivative money-go-round. Therefore, either derivatives and their users submit to an exercise of national will, or the country submits to the continued rule of those who employ derivatives, in violation of its very laws.

Derivatives: What are they?

by Anthony K. Wikrent and Chris White

The textbook definition of a financial derivative is a financial instrument, the value of which is based on the value or values of one or more underlying assets or indexes of assets. Derivatives can be based on equities (stocks), debt (bonds, bills, and notes), currencies, and even indexes of these various things, such as the Dow Jones Industrial Average. Derivatives can be sold and traded either on a regulated exchange, such as the Chicago Board of Trade, or off the exchanges, directly between the different counterparties, which is known as “over-the-counter” (OTC). The textbook explanation of the purpose of derivatives is that they serve to reduce the risk inherent in fluctuations of foreign exchange rates, interest rates, and market prices. Derivatives traded on exchanges also are said to serve as a “price discovery” mechanism.

According to the Bank for International Settlements’ October 1992 report, *Recent Developments in International Interbank Relations*, “swaps” are the largest type of derivatives, as measured by the *notional principal amount* outstanding (Table 1).

A generation or so ago, the matter of what derivatives are might have been adequately summarized by contrasting the difference between investment, on the one hand, and gambling or speculation, on the other.

The instruments which “underlie” derivatives—stocks, bonds, commodities, money—represent a claim, usually through ownership, on wealth produced in the economy. Such claims can be purchased. Thus, shares in a company can be bought, as can bonds issued by governments or corporations, or hard commodities produced by agriculture, forest industries, or minerals extractors and refiners.

The instrument so purchased provides a means by which the wealth produced may be turned into money. In the case of stock, this may take the form of the company’s dividend payment, the part of after-tax profits distributed to shareholders, or it might take the form of capital gains realized through the appreciation of the stock’s value. Formerly, such monetization, or potential for monetization, would have been more or less directly related to the economic performance of the company, in contributing to an increasing overall rate of wealth generation through productivity-enhancing increases in the powers of labor. So too are bonds directly related to

economic activity, though where stocks represent equity ownership, bonds represent indebtedness. The interest paid corresponds, more or less, to the dividend yield of a stock. Moreover, like stocks, bonds can provide capital appreciation.

A generation ago, such financial instruments were the means for transforming economic surplus into monetized net profit. "Hard" commodities are different, because they are part of the materials-flow needed to sustain production and consumption, which ought to be bought and sold so that production might proceed—outputs of production on the one side, are also the inputs for the next level of productive transformation on the other: Wheat becomes flour, flour becomes bread; iron ore becomes steel, steel becomes machinery, buildings, automobiles, and household appliances. Such activities used to contribute to generation of surplus, but their monetization is not part of after-tax profits.

Purchases of stocks and bonds would once have been seen as investment for the long haul. Trade in commodities would have been seen not as investment, but as purchases and sales.

With what are now called derivatives, we move from investment, and purchases and sales of hard commodities, to speculating on the future price or yield performance of what were once investments, and relatively simple, economically necessary transactions.

All derivatives are actually variations on futures trading, and, much as some insist to the contrary, all futures trading is inherently speculation or gambling. Thus until late in 1989, all futures trading, of any sort, was outlawed in Germany, under the country's gambling laws. Such activities were not treated as a legitimate part of business activity. And, who will contend against the observation, that Germany did quite well without them?

There are two types of futures trading; each can be applied to each of the instruments, like stocks and bonds, which, bought directly for cash, monetize what used to be after-tax profits. The first type is, as it were, a second step removed from economic activity as such. This is futures trading per se: contracting to buy or sell at a future date, at a previously negotiated price. Here the presumption used to hold, that commodities, for example, would actually change hands for money, as the agreed-on contracts fell due.

The other kind of futures contract, called an option, moves another step further away from economic activity as such. Now what is bought or sold is the right, but not the obligation, to buy or sell a commodity, stock, bond, or money, at a future price on an agreed-on date.

Where the futures contract speculates on what the price that would have to be paid against delivery will be, the option simply speculates on the price.

At yet another remove from economic activity per se is an index. An index is not the right to buy a commodity or stock in the future which is traded, but the future movement

Hierarchy of financial transactions

Currencies		Bonds		Stocks		Commodities		
CASH								Distance from real physical economy increases ↓
Interest rate	Exchange rate	Interest	Principal	Dividends	Price appreciation or depreciation	Price appreciation or depreciation		
FUTURES								
OPTIONS								
OPTIONS INDEXES								
FUTURES OPTIONS								
FUTURES OPTIONS INDEXES								
SWAPS								

As one proceeds downward in the chart, transactions have increasingly less bearing on processes in the real physical economy.

of an index based on a basket of stocks, commodities, bonds, or whatever.

Futures contracts

In the U.S., futures contracts on corn, oats, and wheat began to be traded on an organized exchange, the Chicago Board of Trade (CBOT), in 1859. "Notional principal amount" refers to the value of the underlying assets in a futures contract. For example, in a corn futures contract to take future delivery of 5,000 bushels three months hence, the notional principal amount of the contract would be the price of a bushel of corn times 5,000. If the price of corn were, for example, \$2.00, the notional principal value of the corn futures contract would be \$10,000. But the actual price of the contract, however, is the margin set by the exchange; the CBOT, for example, requires \$270 be paid to purchase a futures contract that on May 15 had a notional value of \$11,637.50.

Since financial deregulation in the 1970s, futures contracts have been developed for things that are not assets or

TABLE 1

Derivatives markets exploded in late 1980s

(notional principal amount outstanding at year end, billions \$)

Instrument	1986	1987	1988	1989	1990	1991
Exchange-traded instruments	\$ 583	\$ 725	\$1,300	\$1,762	\$2,284	\$3,518
Interest rate futures	370	488	895	1,201	1,454	2,159
Interest rate options	146	122	279	387	600	1,072
Currency futures	10	14	12	16	16	18
Currency options	39	60	48	50	56	59
Stock market index futures	15	18	28	42	70	77
Options on stock market indexes	3	23	38	66	88	132
Over-the-counter instruments	500	867	1,330	2,402	3,451	4,080
Interest rate swaps	400	683	1,010	1,503	2,312	2,750
Currency and cross-currency interest rate swaps	100	184	320	449	578	807
Other derivative instruments	—	—	—	450	561	577
Total derivatives outstanding	1,083	1,592	2,630	4,264	5,735	7,598

Source: Bank for International Settlements, *Recent Developments in International Interbank Relations*, Basle, Switzerland, October 1992.

commodities. The first move was the introduction of futures contracts on foreign exchange rates. In May 1972, the International Monetary Market of the Chicago Mercantile Exchange (CME) began trading in the first financial futures: futures contracts on the British pound, Canadian dollar, German mark, Dutch guilder, Japanese yen, Mexican peso, and Swiss franc.

In October 1975, the CBOT introduced trading in the first futures on interest rates, on the Government National Mortgage Association's (GNMA) mortgage-backed certificates. In January 1976, the CME began futures trading in 90-day U.S. Treasury Bills. Trading in futures contracts on 15-year U.S. Treasury Bonds began on the CBOT in August 1977. Trading in such interest rate futures, as they are called, quickly grew to become the most heavily traded futures contracts in the world. On the CBOT, trading in Treasury bond futures and options has risen from 28.3% of total volume in 1981, to 64.4% of total volume in 1991.

In February 1982, futures contracts for *indexes* of asset values began trading, with the introduction of futures contracts based on the Value Line Average Stock Index, on the Kansas City Board of Trade. Two months later, the CME began trading in the Standard and Poor's 500 Stock Price Index, which is now one of the most heavily traded futures contracts at the CME. Trading in this contract is considered so important, that the CME set up a special room in a different building to allow continued trading in the S&P 500, when the CME was forced out of its building by the flooding waters of the Chicago River in May 1992, closing trading in all other futures contracts. Not coincidentally, the S&P 500 Stock Price Index futures contracts is one of the instruments the U.S. Federal Reserve has reportedly used since October 1987 to reverse collapses on the New York Stock Exchange.

Other derivatives

There are other types of derivatives which are not traded on exchanges but are negotiated between contracting parties, usually large banks. These are called "over-the-counter" instruments. "Swaps" are designed to transform a nominally long or medium-term contract into a succession of shorter-term maturities.

For example, swapping a floating rate Swiss franc-denominated obligation for a fixed-rate dollar instrument between banks, involves the Euromarket, the currency markets, the swap market, and perhaps also the interest rate futures and/or options markets. The intrepid might want to try to calculate how far we now have moved from the first level of cash purchases of stocks and bonds.

An *interest rate swap* is a transaction in which two counterparties agree to exchange two different types of interest payment streams based on an underlying notional principal amount. For example, assume that a bank with a portfolio full of adjustable rate mortgages (ARMs) wished to receive an income stream of fixed-rate interest payments. The bank would package together, say, \$10 million of such mortgages, all paying interest currently at 6.5%, and exchange the ownership of the interest payment stream from that package of ARMs with a corporation that would give the bank in return the ownership of an interest payment stream fixed at, say, 8%. The notional principal amount of the swap would be \$10 million, but the actual amount of money that exchanges hands would be limited to the interest payments each counterparty owed to the other over the life of the swap.

Swapping of interest rates is said to have begun in connection with the Eurobond market in the early 1980s, when high interest rates dictated that only the highest quality borrowers could qualify for long-term, fixed-rate financing.

Borrowers of lesser quality, who were excluded from such financing, were able to obtain it indirectly through swaps.

However it was not until the U.S. Student Loan Marketing Association (Sallie Mae), began using swaps in 1982, that they began to be widespread. Sallie Mae was seeking a way to avoid having to borrow longer-term, higher-priced funds, to lend out for shorter terms at lower rates. The swaps used by borrowers in the Eurobond markets proved to be the perfect vehicle for Sallie Mae, which, as a quasi-government agency, is perceived by the markets to be an extremely high-grade borrower. The first swap for Sallie Mae was arranged through an investment bank in the summer of 1982, with ITT as a counterparty. ITT reportedly saved 17 basis points (17/100 of 1%) in borrowing costs in the deal.

Currency swaps

Currency swaps have been used by central banks for decades. The Bank of England, for example, would receive a set amount of dollars from the U.S. Federal Reserve in exchange for a set amount of pounds, in order to have dollars to use on the foreign exchange markets. After a period of time, the Bank of England would return the dollars to the U.S. Federal Reserve, and receive back its pounds. The accepted definition of a currency swap is a transaction in which one counterparty exchanges its principal and cash flows denominated in one currency, for the differently denominated principal and cash flows of another counterparty. At an agreed upon future date, the two counterparties close out the transaction by reversing the swap of the principal.

In the 1970s, a small number of currency swaps were arranged that were not related to central bank activity. A U.S. dollar/French franc swap, for example, was arranged for the Republic of Venezuela to help meet payment obligations arising from the construction of a commuter rail system in Caracas. The details of these swaps were largely kept from the public view, for fear of disclosing proprietary operating information.

After the debt bomb exploded when Mexico threatened a debt moratorium in 1981, however, the World Bank widely publicized a swap arranged by Salomon Brothers between itself and IBM. The motivations of the World Bank and IBM to conclude the transaction made the swap exceptional at the time. The World Bank was seeking to maximize the rate of interest on its debt, and IBM was seeking to hedge its Swiss franc and German mark debt, while at the same time capturing a paper profit from the appreciation of the dollar against both currencies. As Michael Wood, senior manager of International Financial Markets at Dresdner Bank in Frankfurt, noted in the 1992 textbook *Cross Currency Swaps*, by Lehigh University professor Carl Beidleman, it was "the first time that a currency swap was used to arbitrage between capital markets, that is, where a capital market issue was done solely for the purpose of swapping into another currency."

And then there are caps, floors, and collars, options on

the anticipated interest rate movements which make up the swap:

Caps, in which the buyer will receive from the seller the difference between current interest rates, and some agreed-upon rate, in the event interest rates should move above the agreed upon rate. In return for thus limiting its exposure to interest rate increases, the buyer pays to the seller a onetime fee.

Floors, in which the buyer is protecting himself from decreases in interest rates. That is, if interest rates fall below an agreed-upon level, the seller is obligated to make up the difference to the buyer, in exchange for the up-front fee paid by the buyer.

Collars, in which the buyer of a cap simultaneously sells a floor at the same time, or vice versa, with the object of maintaining interest rates within some defined band.

Currency forwards are perhaps the simplest derivative instruments, and perhaps the one with the greatest utility for companies involved in producing and shipping goods in foreign trade, given the insanity of floating exchange rates. Assume that Boeing has sold an airliner to Lufthansa. Rather than go through the trouble of converting the deutschemarks paid by Lufthansa into dollars—and being subjected to the risk of changing exchange rates if Lufthansa is paying Boeing back over a period of time—Boeing pays a fee to an intermediary (a swap dealer) to find a German company that has sold something in the United States that is of comparable value to the Boeing airliner purchased by Lufthansa. Let us assume that Siemens has sold some power-generating equipment to a U.S. utility. Under a currency forward, the utility that had bought equipment from Siemens, will pay dollars to Boeing instead of Siemens, and Lufthansa will pay deutschemarks to Siemens instead of Boeing. In other words, Boeing gets Siemens's U.S. income stream in the United States, in exchange for which Siemens gets Boeing's deutschemark income stream in Germany.

Thus, the definition of a currency forward is a contract in which two counterparties agree to exchange differently denominated income streams at an agreed upon exchange rate at some point in the future. There is no swapping of principal involved.

Within the United States, the entire "over-the-counter market" is quite illegal, since by the current version of the Commodity Exchange Act, banks and related agencies are prohibited from engaging in off-exchange futures contracts. Thanks to Sen. Phil Gramm's wife Wendy, former head of the Commodity Futures Trading Commission, regulatory agencies have successively undermined that exclusion through so-called interpretation and exemption, just as the earlier prohibition of options was undermined, or just as the 1930s Glass-Steagall Act, which divided U.S. banks into two, mutually exclusive types—commercial banks and investment banks—is now being disregarded, even though it remains on the books.