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The increasing volume, proliferation and internationalisation of derivative product offerings is expected to continue in the 1990s. The more mature derivative markets (especially swaps and foreign exchange agreements), with reasonably settled legal and regulatory environments, will continue to have heavy trading and thin spreads.

Recent innovative changes to 'plain vanilla' swaps, futures, forwards and options have been designed to achieve various corporate finance, tax, accounting or pricing benefits or take advantage of market anomalies. These changes often combine the plain vanilla version with other capital markets products and make the traditional legal and regulatory analysis more complicated and the conclusions less certain. Indeed, one judge has remarked that trying to determine if United States securities laws or commodities laws apply to a particular hybrid instrument is like determining if tetrahedrons belong in square or round holes. In this article, we describe a number of derivative products and review certain essential legal and regulatory considerations under United States law relevant to derivative products and hybrid instruments.

SWAPS

THE EVOLVING MARKET

Swaps began in the United States in 1982 with a Student Loan Marketing Association fixed-for-floating interest rate exchange agreement. Since then, growth in both interest rate and currency swaps has been exceptional--it is estimated that there are currently outstanding US$3tn in notional amount of swap contracts. Innovation has been the key to the growth of the swaps market.

A recent application of the traditional fixed versus floating interest rate swap has been to airline leveraged lease transactions where the notional amount declines as the lease is paid down and the swap may accommodate repricing (see Chart A). (Chart A omitted) Swaps have also been developed based on other than interest or currency indices.

A price swap is a single currency fixed-for-floating or floating-for-floating swap where the floating rate is based on an index (such as a commodity or stock index) and the notional amount is expressed in terms of a quantity of the same commodity or security. Most commodity price swaps are in petroleum and petroleum products, although there has been moderate volume of commodity price swaps in gold and non-ferrous metals, such as copper and aluminum. These swaps are often used to hedge commodity price

exposure of users or to protect the feasibility of long-term project financings vulnerable to price instability (see Chart B). (Chart B omitted) Commodity price swaps can also be used to create an exposure to commodity price movements by traders who wish to speculate as to future price movement.

An equity swap creates a synthetic equity position in a particular stock, a custom-designed basket of stocks or a stock index such as the S&P 500 index. The investor earns equity returns without the transaction costs of liquidating an existing portfolio or building a cash market equity position, and also avoids the complications of dealing in unfamiliar foreign markets and incurring foreign exchange conversion costs (see Chart C). (Chart C omitted)

One specialised form of swap is the mortgage swap. Mortgage swaps are off-balance sheet transactions that are designed to replicate the purchase of mortgage-backed securities financed with a short-term or floating rate source of funds. In essence, the transaction combines a forward commitment to purchase mortgage-backed securities with an amortising interest rate swap. An investor such as a thrift institution may enter into a mortgage swap with a securities dealer to receive cash flows based on a generic class of mortgage-backed securities over a specified period in exchange for the payment of interest, typically Libor less a spread.

Payments are made as if there were an underlying notional pool of mortgage securities, such as GNMA 8-1/2's maturing in the two-year range from 2016 to 2017. The cash flow received by the investor is derived from the fixed coupon on the generic class of securities and, to the extent that the coupon is above or below market, from the benefit or loss implicit in the discount or premium. The notional amount of the mortgage swap is adjusted monthly based on the amortisation and prepayment experience of the generic class of securities. Although this affects future cash flows, no contemporaneous cash adjustment is made. At the termination of the mortgage swap, the investor is required either to accept delivery of mortgage securities of the identified issuer and coupon or to settle the swap in cash based upon the difference between the original cost and the current market value of the security.

Another specialised form of swap has been targeted initially for pension and employee plan assets (including those subject to the Employee Retirement Income Security Act of 1974) as an alternative to guaranteed investment contracts offered by insurance providers or banks. In this swap, the notional amount is based on the market value of an agreed-upon portion of the plan's existing portfolio (usually US government, agency or rated mortgage-backed securities). The composition of the subject portfolio may change over time depending upon the occurrence of certain events (including pre-payments of securities and substitution of securities).

The plan pays the floating rate reflecting the cash flow generated by the portfolio; the counterparty (often a triple-A credit) pays the fixed (guaranteed) rate. The counterparty may also assure the market value of the portfolio by periodically paying to the plan any decrease in market value of the subject portfolio's assets. Generally, investment discretion

remains with the plan as does any theoretical risk of default on the securities themselves. These swaps are individually tailored (and adjusted) to meet beneficiary withdrawals of plan assets occurring during the life of the swap.

The International Swap Dealers Association (ISDA) standard forms for swap transactions are adaptable for most variations, including caps, floors and collars, swaptions and captions, currency options, and forward rate and forward exchange transactions.

REGULATION

The characterisation of a derivative product is critical to understanding the relevant regulatory environment. In the broadest terms, if the product is deemed to be a security (including a securities option, but not a securities future), it is subject to federal regulation (unless exempted) by the Securities and Exchange Commission (SEC) pursuant to the Securities Act of 1933 (Securities Act) and the Securities Exchange Act of 1934 (Exchange Act) and, under certain circumstances, state securities laws. If the product is deemed to be a commodity contract (including a commodity future or option), it is subject to plenary federal regulation by the Commodity Futures Trading Commission (CFTC) pursuant to the Commodities Exchange Act (CEA). If the product, for federal law purposes, is neither a security nor a commodity, there is generally no federal regulation of the product but there may be state regulation regarding the product or activity. In situations where the product has aspects of both a security and a commodity, it may be subject to both SEC and CFTC regulation. Indeed, in the area of hybrid instruments, this has often led to much friction between the SEC and CFTC.

SECURITIES REGULATION

The two principal US federal securities laws are the Securities Act, which is concerned with the primary offering market for securities, and the Exchange Act, which is concerned with the secondary market for securities, especially stock exchanges, brokers and dealers and standards of fairness and disclosure applicable to issuers of securities. The Securities Act requires registration with the SEC of the offer and sale of securities absent an exemption, sets disclosure standards and provides potential civil or criminal liability for violations. The Exchange Act contains anti-fraud provisions that may result in civil liability to private plaintiffs or injunctive proceedings by the SEC for false or misleading statements made in connection with the purchase or sale of a security.

For purposes of the Securities Act and the Exchange Act, a security means any note, stock, bond, debenture, evidence of indebtedness, investment contract, any put, call, straddle, option, or privilege on any security or group or index of securities (including any interest therein or based on the value thereof). It also applies to any put, call, straddle, option, or privilege entered into on a national securities exchange relating to foreign currency, or, in general, any interest or instrument commonly known as a security, or any warrant or right to subscribe or purchase any of the foregoing. It is generally recognised that swaps are not securities for purposes of the US federal securities laws. Since swaps are not securities, the registration provisions of the Securities Act and the anti-fraud

provisions of the Exchange Act are inapplicable. In addition, since swaps are not securities, market participants are not required to be registered broker-dealers under the Exchange Act or registered investment companies under the Investment Company Act of 1940 solely by reason of their swap activities.

Although certain non-traditional swap derivatives (such as a zero coupon swap where, after an initial payment, the obligations only flow one way and which may be offered on set terms to a broader clientele) could possibly be treated as a security, swap market participants can minimise exposure to the US federal securities laws by structuring these transactions as not involving a public offering. The same is true for caps and floors. Non-public offerings are exempt from the registration requirements under Section 4(2) of the Securities Act, but remain subject to the anti-fraud provisions of the US federal securities laws.

COMMODITIES REGULATION

The CEA gives the CFTC exclusive jurisdiction over most commodities futures and commodity option contracts. The CEA makes it unlawful to effect any transaction in, or contract for, the purchase or sale of a commodity for future delivery unless such transaction is conducted on a CFTC-approved contract market (ie a commodities exchange). The CEA gives the CFTC plenary authority over commodity options and the CFTC has used that authority to issue regulations prohibiting over-the-counter commodity option transactions, except for certain dealer and trade options. This general requirement of exchange trading distinguishes the CFTC's approach from that of the SEC.

Under the CEA, 'commodity' means all goods and articles (except onions) and all services, rights, and interests in which contracts for future delivery are presently or in the future dealt in. The CEA limits this sweeping definition in two material respects. First, pursuant to the so-called Treasury Amendment, the CEA is deemed inapplicable to transactions in government securities, repurchase options, mortgages and mortgage purchase commitments, security rights or warrants, resales of installment loan contracts, or foreign currency unless those transactions involve sales for future delivery on a board of trade. Second, the term future delivery as used in the CEA excludes sales of cash commodities for deferred shipment or delivery (which includes certain forward contracts).

Although swaps and futures contracts have similar economic characteristics, swap participants, prior to 1987, generally discounted the possible application of the CEA to swaps and similar instruments. This view prevailed because the swap markets are characterised by large, privately negotiated transactions between sophisticated parties and lack features associated with exchange trading of futures contracts such as daily variation margin payments, formal procedures for membership and an automatic right of offset of outstanding transactions. Furthermore, because of their extended duration and customised terms, swap transactions cannot be effected on traditional commodities exchanges and participation by the general public is absent. However, in 1987 the CFTC initiated

investigations and enforcement proceedings against certain US commodity price swap participants, casting doubt on this prevailing assumption.

To alleviate market uncertainty, in July 1989 the CFTC issued a Policy Statement recognising that most swaps transactions, although possessing elements of futures or options contracts, are not appropriately regulated under the CEA. The Policy Statement creates for swaps a safe harbour from CFTC regulation.

To be eligible for the safe harbour, a swap must be:

* individually tailored in its material terms;

* terminable (absent default) only with the consent of the counterparty without an exchange-style offset;

* unsupported by a clearing organisation or margin system;

* undertaken in conjunction with each party's line of business (which may be financial inter-mediation services); and

* not marketed to the general public.

The CFTC safe harbour is available for all swaps, including interest rate, currency, equity and commodity price swaps, and options on swaps.

The CFTC safe harbour is especially important for commodity price swaps where the potential for CFTC regulation appears greatest. However, the Policy Statement does not remove all uncertainty since swaps not within the safe harbour might yet be held to be subject to CFTC regulation. Since it is unclear whether the CFTC policy would be accorded deference upon judicial review, a court could determine that swaps were illegal off-exchange futures contracts.

As a result, the United States Senate passed a bill in April 1991 relating to futures trading practices which, among other things, directs the CFTC to formally exempt from the CEA most negotiated swap agreements between institutional participants. The Senate bill criteria for exemption is less restrictive than that of the CFTC safe harbour. The House of Representatives' version of the bill (passed earlier in the year) contains no comparable provisions and the final form of legislation remains to be determined.

STATE REGULATION

A swap transaction not subject to CFTC jurisdiction may be subject to challenge under state anti-gambling laws and bucket shop laws. Read literally, swap transactions could fall within the purview of these laws which, respectively, address wagers on future events and contracting for deliveries which are not intended to be made. However, when conducted by market participants in a commercial context for a valid business reason,

swaps should fall outside of the intended purpose of these laws.

Interest rate caps may also be literally viewed as insurance against a rise in interest rates and therefore subject to state insurance regulation. To date, state insurance departments have not required that swap dealers offering interest rate caps be licensed insurers. The reasoning behind the distinction between insurance and financial guarantee insurance (in the guise of interest rate protection agreements) appears to be that insurance (such as casualty and life insurance) is protection against independent fortuitous events striking at random but which are able to be predicted in the aggregate with statistical or credit analysis. These elements are not present in interest rate caps where a fluctuation in interest rates affects every aspect of an economy and is conversely tied to and caused by many factors, including the condition of the economy.

Model financial guarantee insurance legislation prepared in 1987 by the National Association of Insurance Commissioners (NAIC), which has been adopted into law in various states, is drafted broadly and would potentially include interest rate and currency swaps and interest rate caps, but the NAIC has informed ISDA that this legislation is not intended to cover swap dealers.

TAX CONSIDERATIONS

The US federal income tax treatment of swaps, caps, floors and similar financial contracts (collectively, Contracts) raises four principal issues. The first issue is the timing of any income, deductions, gains or losses that arise in connection with the Contracts. The second issue is the character, whether capital or ordinary, of any such income, deduction, gain or loss. The third issue is the source of payments under the Contracts, which determines whether the payment may be subject to US withholding tax. The fourth issue is under what circumstances the Contracts may be integrated with related financial assets or liabilities.

The United States Treasury recently proposed regulations (the Proposed Regulations) on the tax treatment of the Contracts for a US counterparty. The Proposed Regulations provide detailed rules concerning the timing of recognising income and deductions for US income tax purposes for interest rate swaps, basis swaps, interest rate caps and floors, commodity swaps, equity swaps, equity index swaps, and similar agreements.

The Proposed Regulations, however, explicitly avoid addressing the sometimes difficult issues of whether income and deductions are to be treated as capital or ordinary. In addition, the United States Internal Revenue Service (IRS) is currently considering whether equity and equity index swaps should be treated in the same manner as interest rate and commodity swaps for sourcing and withholding tax purposes.

TIMING--Under the Proposed Regulations, income and deductions from Contracts are taken into account using methods generally designed to reflect the economic substance of, and to clearly reflect the income from, each transaction. The Proposed Regulations provide that the parties to a Contract take into account for a taxable year the total of all

periodic payments (ie all regular and recurring payments under a swap) and nonperiodic payments (eg the premium for a cap or floor agreement, the yield adjustment fee for an off-market interest rate swap agreement, or the premium for an exercised option to enter into a swap) with respect to the Contract for the taxable year.

In addition, specific rules apply to termination payments, the payments that extinguish or assign the rights and obligations of any party under a Contract.

In general, periodic payments are recognised ratably over the period to which the payment relates. Special rules apply if the amount of a periodic payment is not determinable at the end of a taxable year because the value of the specified index is not fixed until after the end of the taxable year. Non-periodic payments, if any, are allocated and recognised over the term of the Contract. For example, non-periodic payments with respect to a swap contract are amortised over the term of the swap contract based on the values of a series of cash-settled forward contracts. An election permits nonperiodic payments for an interest rate swap to be allocated using a constant yield to maturity method. (The IRS intends to provide taxpayers with a similar elective alternative method of amortising payments for interest rate caps and floors). Once allocated to a taxable year, the non-periodic payment is further allocated ratably over the period to which the portion relates, generally as an offset to the related periodic payment.

Termination payments under a Contract are recognised in the year of extinguishment or assignment, except as otherwise provided by the straddle rules of Section 1092 of the Internal Revenue Code (Code) (see Forwards below). Any payments made or received pursuant to a Contract but not previously recognised under the rules of timing discussed above, are also recognised in the year of the extinguishment or assignment.

The rules provided by the Proposed Regulations do not override the rules of Code Section 988 when Contracts are Section 988 Transactions. Section 988 Transactions generally include any Contract whose payments are denominated in or determined by reference to a foreign currency. The typical currency swap would be a Section 988 Transaction. The timing and amount of the periodic interim payments provided in a currency swap are determined by:

* treating payments made under the swap contract as payments made pursuant to a hypothetical borrowing in the currency paid; and

* treating payments received under the swap contract as payments received pursuant to a hypothetical loan in the currency received.

Principles generally applicable to interest amortisation determine the timing of the interim periodic payments. Exchange gain or loss for the periodic interim payments for the taxable year generally will be the amount of hypothetical interest income received as translated into US dollars for the year less the amount of hypothetical interest expense paid in US dollars.

Additional gain or loss with respect to the swap principal amount is realised upon maturity on the day the units of swap principal in each currency are exchanged, and the amount of the gain or loss is the amount received as translated into US dollars less the amount paid in US dollars.

For Contracts other than currency swap contracts that represent Section 988 Transactions (eg an interest rate swap that provides for payment of amounts based on four per cent of a 10,000 yen principal amount in exchange for amounts based on yen Libor rates), gains and losses that are incurred because of currency fluctuations, as opposed to gains and losses that are incurred because of other elements of the transaction, are determined separately and the separate elements are taken into account in accordance with the foregoing.

CHARACTER--Although a Contract normally involves a notional principal amount, payments due under a typical Contract are not compensation for the use or forbearance of money and therefore are not interest. However, the Proposed Regulations treat swaps with significant nonperiodic payments, and caps and floors that are significantly in-the-money, as having one or more loan components that must be accounted for by both parties to the contract independently of the swaps, caps and floors.

The Proposed Regulations explain that the IRS is aware of the withholding tax consequences that may arise from the interest recharacterisation and that the rules are not intended to disrupt typical market transactions. Nonetheless, the Proposed Regulations do not specify what constitutes a significant non-periodic payment with respect to a swap contract. However, the Proposed Regulations provide that a cap or floor will be deemed to be significantly in-the-money, and thus treated as a loan, if the current value of the specified index in the agreement exceeds the cap rate or floor rate by more than 25 basis points.

Although not entirely clear, the character of periodic and non-periodic payments on most interest rate swaps should be ordinary. Depending upon the circumstances, the character of the termination payments may be treated as ordinary or capital. Periodic payments with respect to equity or commodity swaps, on the other hand, may be capital items for counterparties who are not dealers in the underlying property.

If a Contract is also a Section 988 Transaction, the exchange gain or loss will generally be treated as ordinary income or loss. The tax-payer may elect, subject to certain requirements, to treat any gain or loss recognised on a Contract that is a Section 988 Transaction as capital gain or loss, but only if the Contract is a capital asset, is not part of a straddle and is not a regulated futures contract or a non-equity option contract with respect to which an election under Code Section 988 is in effect.

TREATMENT OF NON-US PERSONS--Periodic payments made to non-resident aliens or foreign entities under a Contract are generally not subject to US withholding tax because they are not treated as income from US sources. The source of a payment is generally determined by reference to the taxpayer's residence. Non-periodic payments

characterised as interest under the Proposed Regulations, as discussed above, will be subject to US withholding tax, however.

INTEGRATION--Under certain circumstances, a debt instrument will be integrated with related hedging transactions and treated as a single synthetic debt instrument. Integration is required where the debt instrument is denominated in or determined by reference to a foreign currency and the related hedge is a Contract that permits the calculation of a yield to maturity in the currency in which the synthetic debt instrument is denominated.

If a debt instrument is integrated with a related hedging transaction, exchange gain or loss is not recognised on the debt instrument or on the related hedging transaction. Furthermore, the straddle rules and the mark-to-market rules (discussed below) of the Code will not apply to the debt instrument or the related hedge. The straddle rules may apply to the integrated transaction, however, if the integrated transaction is part of a straddle. Generally, income on a synthetic debt instrument will be sourced like the income on the debt instrument.

OTHER RULES--Where a Contract represents an offsetting position with respect to some other item of personal property, any loss recognised on termination of the Contract or disposition of the personal property will be subject to deferral under the straddle provisions of the Code. The Proposed Regulations provide that, for purposes of the straddle provisions, a Contract is an interest in personal property. Moreover, a Contract will be treated as actively traded property if similar contracts are actively traded (ie an established financial market exists).

The Proposed Regulations also provide rules for dealers and traders of Contracts. A dealer or trader in Contracts may elect a mark-to-market method of accounting for its income from Contracts. The election is available only if the dealer or trader:

* entered into the Contract in its capacity as a dealer or trader or as a hedge of another financial contract;

* marks to market for book purposes and uses the same valuation method for tax purposes;

* does not use a lower of cost or market method for accounting for securities and commodities it holds in its capacity as dealer or trader on its tax return;

* attaches a description of the valuation method for each class of contracts to its return; and

* uses this accounting method consistently for subsequent years.

ACCOUNTING CONSIDERATIONS

Swaps are off-balance sheet transactions. That is, neither the notional amount of swaps

nor the present value of future payments or receipts is explicitly recognised on the assets or liabilities side of a balance sheet when swaps are used to hedge another asset or liability. Swap activity is, however, recorded on the income statement.

While there is little authoritative guidance on the financial reporting practice for swaps and other financial derivatives, the key accounting issue for a swap is whether it qualifies for hedge accounting treatment. Swaps should only be treated as hedges when they effectively modify the interest rate characteristics of specific hedged assets or liabilities and are recorded in the company's records as a hedge. Then, the company would calculate the interest expense or revenue of the specific hedged liability or asset, as revised by the swap agreement, over the life of the swap, accrue the net receivable or payable at each payment date on the balance sheet, and on termination of the swap, amortise the resulting gain or loss as an adjustment of the future yield from the hedged asset or liability. This accrual method is most often used by manufacturing or other non-financial companies.

The accounting treatment for non-hedging swaps (as is generally the case with dealers and large traders) is increasingly based on mark-to-market accounting, which records the current market value or replacement cost of each swap (based on that party's position in the swap) on its balance sheet as a receivable or payable. Changes in such values result in income or expense. The replacement cost is the amount a party would pay (or receive) to secure a replacement swap with identical terms.

The fluctuations in the value of the swap over the relevant period of time would be recorded as a gain or loss on the income statement. The recording of receivables or payables related to the value of numerous swaps raises the issue of whether they should be separately presented on a gross basis or should be netted. The Financial Accounting Standards Board (FASB) has stated that receivables and payables should be separately presented as assets and liabilities unless a legal right of setoff exists and the parties intend to settle on a net basis.

The FASB is currently soliciting comments on a proposed interpretation that would permit the netting of receivables and payables arising from multiple swaps under a master swap agreement, even if the parties do not intend to settle outstanding positions on a net basis. Netting receivables and payables would not be allowed between swaps with different counterparties.

A recently adopted pronouncement (FASB105) requires certain additional information concerning the notional amount, terms, maximum accounting loss and discussion of credit and market risk for the swap (or other off-balance sheet instrument) to be included in the footnotes to the financial statements.

FUTURES

THE EVOLVING MARKET

Historically, futures traded in the United States involved only agricultural futures, mostly

grains and soya beans. However, in the early 1970s, with increased volatility in the financial markets, United States futures exchanges began to make markets in financial futures. London and Sydney followed in 1982, with Tokyo, Paris and Frankfurt following. Open interest positions on organised financial futures exchanges worldwide presently exceed US$1tn. There are financial futures in debt instruments, called interest rate futures; foreign exchange rates, called currency futures; and equity derivatives, called stock index futures.

Interest rate futures are written on US Treasury bills, notes and bonds, Eurodollars, certificates of deposit, mortgage instruments and other debt instruments. Currency futures exist for all major currencies.

A futures contract involving both interest rate and currency components is currently trading on the Chicago Mercantile Exchange. Entitled Euro-rate differential futures (or DIFF), this futures contract is tied to the interest rate differential of short-term interest rates in different currencies (ie US dollar three-month Libor v deutsche mark three-month Libor). Futures have become an important tool for companies to hedge the interest rate, currency and price risks arising from their businesses.

REGULATION

The main thrust of the CEA is the regulation of contracts which are required to trade on a regulated market. Pricing terms for such contracts are derived through open out-cry on the floor of an exchange among registered brokers (futures commission merchants). As noted above, the CEA excludes privately negotiated forward contracts from CFTC jurisdiction so long as the sale of the cash commodity for deferred shipment or delivery (the forward contract) is not considered to be a contract for future delivery (a futures contract).

As contracts grow more complex, this basis for distinction between futures and forwards is not entirely useful because both the futures contract and the forward contract can be settled without physical delivery.

This issue was highlighted in April 1990 when a New York federal court ruled in the Transnor case that 15-day contracts for forward delivery of Brent crude oil (which were entered into and settled off-exchange) in fact constituted futures contracts subject to the CEA. The federal court indicated that, unless a party really intends to take delivery of a commodity, there may be a futures contract rather than a forward contract. The Court noted that approximately 95 per cent of Brent crude oil forwards were standardised contracts which were settled by pair-off with an offsetting contract rather than by delivery of crude oil.

In response to this decision, the CFTC issued a Statutory Interpretation concerning forward transactions in September 1990. Like the 1989 CFTC Policy Statement creating a safe harbour for swaps, the 1990 Statutory Interpretation established a safe harbour for what would not be a futures contract (and thus would be a forward contract not required

to trade on a regulated contract market).

The safe harbour requires that the contract:

* have individually tailored terms;

* not be subject to exchange-style offset;

* not be executed through a clearing-house or mark-to-market margining system;

* be entered into in conjunction with the parties' line of business; and

* not be marketed to the general public.

The Statutory Interpretation stressed the CFTC's view that the ability to require physical delivery of the commodity is the principal distinguishing characteristic of forward contracts outside of its regulatory jurisdiction. A recent (September 1991) Court of Appeals decision has affirmed the CFTC analysis in the Statutory Interpretation and clarified that so long as contracts create binding delivery obligations (in that case, off-exchange purchases of gold and silver bullion), a subsequent agreement to settle outstanding obligations by offset will not prevent the contract from being treated as a forward contract.

The court also recognised that the degree of public involvement is a relevant factor to be considered. However, language in the court's opinion suggesting that some contracts can be both forwards and futures may prove a fertile ground for future litigation.

Legislation is currently being considered in Congress to re-authorise the jurisdiction of the CFTC, including its authority to exempt swaps and forwards from the provisions of the CEA.

TAX CONSIDERATIONS

If a futures contract meets the specific Code definition of a regulated futures contract, the futures contract will be subject to a special regime provided by Code Section 1256. If a futures contract does not meet the specific definition, the futures contract will be treated for tax purposes as a forward contract.

Regulated futures contracts generally are defined as contracts traded on or subject to the rules of a qualified board of exchange and with respect to which the amounts required to be deposited or permitted to be withdrawn depend upon a system of marking-to-market.

TIMING--Code Section 1256 provides a significant departure from the US tax system's normal realisation requirement for recognising gains or losses. Under Code Section 1256, each regulated futures contract held at the close of the taxable year is marked-to-market

and any resulting gain or loss is taken into account for the taxable year.

In addition, termination or transfer of a regulated futures contract by offset, delivery, exercise, assignment, lapse or otherwise is treated as a sale of the contract for market value at the time of the termination or transfer.

CHARACTER--Gain or loss with respect to regulated futures contract is generally treated as if:

* 40 per cent of the gain or loss were short-term capital gain or loss; and

* 60 per cent of the gain or loss were long-term capital gain or loss.

However, the 40 per cent/60 per cent rule does not apply to:

* any regulated futures contract that was at any time personal property identified by the tax-payer as part of a hedging transaction; or

* any gain or loss that otherwise would be ordinary income or loss.

Although corporations currently pay tax at the same rate on all capital gains and ordinary income (and the rate differential for individuals is relatively small), capital losses may be used only to offset capital gains and not ordinary income.

FOREIGN CURRENCY CONTRACTS--With respect to regulated futures contracts relating to foreign currencies, an election is available to treat the exchange gains or losses as ordinary income or loss rather than 60 per cent/40 per cent capital. For these purposes, the amount of exchange gain or loss is computed in the same manner as for Contracts subject to Code Section 988 (discussed above).

In addition, the integration treatment for swap contracts and debt instruments applies to debt instruments and any regulated futures contracts if the regulated futures contract permits the calculation of a yield to maturity in the currency in which the synthetic debt instrument is denominated. Where a regulated futures contract is integrated with a debt instrument, the mark-to-market rules will not apply.

TREATMENT OF NON-UNITED STATES PERSON--Because gains and losses with respect to regulated futures contracts and other similar financial contracts are treated as gains or losses with respect to the sales of personal property, the source of any gains or losses is generally determined by the residence of the tax-payer. As a result, no US tax is imposed on a non-US person with respect to these gains (by withholding or otherwise) unless effectively connected with a US trade or business.

OTHER RULES--In general, the straddle rules of the Code do not apply to a straddle all the offsetting positions of which are contracts subject to Code Section 1256. Straddles are offsetting positions in actively traded personal property. Rather, in these circumstances,

all contracts are deemed terminated as of the date of delivery under any one of the contracts.

If only part but not all of a straddle is comprised of a regulated futures contract otherwise subject to the mark-to-market regime, an election to avoid the mark-to-market rules is available. If the election (referred to as a mixed straddle election) is made, the general straddle rules will apply to the regulated futures contract and the other elements of the straddle.

ACCOUNTING CONSIDERATIONS The accounting treatment of futures hedging is well established in US generally accepted accounting principles (GAAP). Under GAAP, speculative positions in futures (including hedging of a company's overall asset/liability mix) are marked-to-market by recording the changes in the margin account maintained with the exchange. Changes in the market values of these futures are recorded as profits and losses during the period in which they accrue. However, if the futures position is a hedge of a specific asset or liability (a cash position), then the profit or loss on the futures contracts can be amortised over the same period as the corresponding loss or profit on the cash position so that they offset each other in the aggregate.

Even with hedging futures contracts, however, the futures profits or losses are realised as they accrue while losses or profits on the cash position will be realised when the cash position is closed. This timing difference can result in volatility in taxable income and can also have unwanted, although temporary, tax effects as the hedger could be faced with large taxes in one year and a tax recovery in the next (or vice versa).

Futures contracts will also be subject to the FASB-105 footnote disclosure requirements discussed above.

FORWARDS

THE EVOLVING MARKET

Forwards, while similar to futures in purpose, have certain important distinguishing characteristics. Forwards trade in the over-the-counter dealer market, as opposed to trading on highly regulated exchanges. Forwards are not offered in standardised sizes to the general public, but are individually negotiated between the contracting parties with all contract terms subject to mutual agreement. Parties to a forward contract generally contemplate and at the time the contract is made are prepared to accept actual delivery of the underlying commodity (even if the forward contract is ultimately settled in cash).

Due to their highly negotiated terms, it is generally much more difficult to terminate forward contracts than to offset a standardised futures contract. Both forward and futures contracts are often used by transnational corporations to hedge their currency exposure.

Forwards have certain advantages over futures. Forwards can be tailor-made to fit very specific hedging needs with respect to the price of a product or the cost of a financing.

Futures do not exist on all commodities or financial instruments and have fixed end dates (typically four specified delivery months per year). In addition, futures typically have very short lives, while long-dated forwards are being used for commodities and are evolving for interest rates and currencies. However, forwards are still not considered as liquid as swaps for the longer maturities.

Two specific types of forwards are forward rate agreements (forwards on interest rates) and forward exchange agreements (short-term forwards in currencies), which are popular among global banks that make markets in swaps.

A variation of these agreements is the foreign currency profit sharing forward contract, which is a contract in which two parties (typically, an investor and a financial institution) agree to exchange a predetermined amount of one currency for another currency at a certain future date at a specified exchange rate; provided, however, that if the prevailing spot market rate on the expiration date for such contract is more favourable to the investor than the exchange rate, the financial institution will pay the investor a profit sharing rebate as agreed between them.

REGULATION

The issue of whether a contract is a futures contract which must be traded on a CFTC-approved exchange or a forward contract not subject to CFTC regulation is discussed in the Futures Section above.

A securities forward could under some circumstances be a security subject to SEC jurisdiction; however, because such forwards are not publicly offered, they would be treated as an exempt transaction and would not be subject to registration with the SEC. Forwards remain subject to potential state regulation under anti-gambling and bucket shop provisions, although when used in a commercial transaction they are not within the purpose of these provisions.

TAX CONSIDERATIONS

No special statutory scheme exists for forward contracts. Where a forward contract is not part of a straddle (discussed below), there are no special consequences associated with entering into or holding a forward contract. Gain or loss generally is recognised at the time of physical delivery, cash settlement or sale of the forward contract, although a party taking physical delivery will defer recognition of gain or loss until it disposes of the delivered property.

Gain or loss on the forward contract will generally be capital except for dealers in the underlying property.

FORWARD CONTRACTS AS PART OF A STRADDLE--A forward contract often will be used to hedge an offsetting position. In these circumstances, the straddle rules of Code section 1092 will apply. Under the straddle rules, any loss with respect to a position may

be recognised in the taxable year only to the extent that the amount of the loss exceeds any unrecognised gain on an offsetting position. A tax-payer holds an offsetting position if there is a substantial reduction of the taxpayer's risk of loss from holding any position in personal property by reason of holding one or more positions in personal property. A loss that is not recognised in the taxable year will be carried forward to the next succeeding taxable year when the amount of the loss exceeds the unrecognised gain on offsetting positions. As a result, the recognition of loss may be deferred until the tax-payer disposes of the offsetting positions.

Somewhat stricter rules apply to certain identified straddles. In these circumstances, any loss must be deferred until the tax-payer disposes of all offsetting positions.

FOREIGN CURRENCY TRANSACTIONS--If a forward contract:

* requires delivery of, or the settlement is based on the value of, an actively traded foreign currency;

* is traded in the interbank market; and is entered into at arm's length at a price determined by reference to the price in the interbank market;

the contract will be subject to the mark-to-market rules for regulated futures contracts discussed above.

Each foreign currency forward contract will be marked-to-market at the close of each taxable year, but any resulting exchange gain or loss will be ordinary. In certain circumstances, however, the tax-payer may elect to treat the gain or loss as capital. The exchange gain or loss generally is the excess of the amount deemed realised as translated into US dollars over any amounts paid (or deemed paid) in US dollars with respect to the forward contract. Special rules are provided to determine the appropriate rate to translate the foreign currency amount into US dollars. The integration treatment, discussed above, applies to a debt instrument and a forward contract if the forward contract permits the calculation of a yield to maturity.

TREATMENT OF NON-US PERSONS--The discussion above in the Futures section relating to the treatment of non-US persons applies to forward contracts.

ACCOUNTING CONSIDERATIONS

A user might prefer a forward contract to a futures contract for hedging purposes due to its particular accounting treatment of profits and losses under US GAAP. While GAAP is not definitive on the accounting treatment for forwards, most industry participants apply mark-to-market principles unless the forwards are being used to buy or sell securities (in which case an accrual method of accounting for the forward would be used).

OPTIONS

THE EVOLVING MARKET

Options are instruments where the holder's profit is determined by the extent to which either a positive or negative change in price of the underlying instrument (securities or futures on commodities) exceeds the premium, while its loss is limited to the amount of the premium. The covered option writer forgoes the opportunity for appreciation of the asset but the premium received reduces losses in the event the value of the asset drops. Necessarily, any profit to the option holder is exactly offset by a loss to the option writer, and vice versa.

Despite the reallocation of risk and reward between buyer and writer, options can allow both parties to simultaneously reduce their portfolio risk in securities or commodities. Options have been written on interest rates (caps, floors and collars), commodity futures, common stocks, stock indices, government debt securities and foreign currency. Options may be traded on exchanges or over-the-counter, depending on the regulatory scheme governing the option. Standardised exchange-traded options (as to contract size, strike price and expiration dates) have furthered the development of a secondary market where option writers and buyers may close out their positions with an offsetting transaction.

REGULATION

Commodity options are options on commodity futures, including futures contracts on government securities and futures contracts on stock indices. As discussed above, the CEA gives plenary authority over commodity options to the CFTC. Pursuant thereto, the CFTC has promulgated regulations permitting certain limited commodity options to be traded on commodities exchanges and prohibiting over-the-counter commodity option transactions, except for certain dealer and trade options transacted with commercial commodity end users. The CFTC has taken the position that even if contracts are termed 'deferred delivery contracts' by the sellers, they will nevertheless be treated as commodity options if the economic substance of the transaction is to afford the buyer the right, but not the obligation, to purchase (or sell) a specified quantity of a commodity at a specified price.

The SEC has jurisdiction over options directly on securities which include common stock, stock indices, government debt securities and on foreign currency. Security options may be issued in registered public offerings or in unregistered private placements. Once issued, they may be traded over-the-counter or on securities exchanges, both of which are subject to SEC regulation. Two of the specific option regulations established by the option exchanges (and approved by the SEC) to limit potential market manipulation include limits on:

* the number of options held or written by a single investor on the same side of the market in a single underlying interest; and

* the number of puts or calls in the same underlying interest that a single investor may

exercise in any weekly period.

Options on swaps (swaptions) and on interest rate protection agreements such as caps (captions) are generally not subject to either CFTC or SEC aegis.

TAX CONSIDERATIONS

A US person has no tax consequences upon writing or purchasing an option contract. If the purchaser of the option exercises the option and takes delivery of the optioned property, the amount of the option premium is added to the purchaser's tax basis in the property. Upon a subsequent sale of the property, gain or loss is recognised as in any other sale.

Conversely, the writer of an option will include any option premium as part of its proceeds in recognising gain or loss on delivery of the property. Any gain recognised by an option writer or loss recognised by an option purchaser on the expiration of the option generally is treated as gain or loss from the expiration of the option and, except for dealers and persons for whom the options are used to hedge inventory, as capital gain or loss.

OPTIONS THAT ARE ALSO SECTION 1256 CONTRACTS--Non-equity options and dealer equity options are subject to the mark-to-market regime of Code Section 1256 discussed above. For these purposes, a non-equity option is an option which is traded on or subject to the rules of a qualified board of exchange and which is not an equity option.

A dealer equity option is an equity option, purchased or granted by an options dealer in the normal course of its dealing activity, which is listed on the qualified board of exchange where the options dealer is registered. An equity option is an option to buy or sell stock or an option the value of which is determined directly or indirectly by reference to any stock, group of stocks or stock index.

OPTIONS ON FOREIGN CURRENCIES--Code Section 988 and the regulations thereunder apply to an option contract if the option contract can be classified as a Section 988 Transaction. For this purpose, an option is a Section 988 Transaction if the amount required to be paid under the option is denominated in or determined by reference to the value of a foreign currency and if the underlying property to which the option ultimately relates is a foreign currency. If the option contract is a Section 988 Transaction, exchange gain or loss (as distinguished from gain or loss with respect to the underlying property) will be ordinary. In certain circumstances, the tax-payer may elect to treat any gain or loss as capital gain or loss.

TREATMENT OF NON-US PERSONS--The discussion in the Futures section above relating to the treatment of non-US persons applies to option contracts.

ACCOUNTING ISSUES

As with other derivative products, accounting treatment of options is still evolving. Again, the critical issue is whether the option is used to hedge transaction risk at the inception of and throughout the hedge period. The premium for a purchased option used to hedge is split into intrinsic value (benefit realised on exercise of the option as opposed to buying or selling the underlying asset in the cash market) and time value (compensation to option writer for assuming risk).

Changes in the intrinsic value (which provides the hedge gain or loss that offsets the change in value of the hedged item) should be accounted for in the same way as the market value changes of the hedged item (generally accrual over time). The time value of the option premium should be amortised to expense over the life of the option. If the time value received on closing out the option differs from the unamortised balance, the differences should be recognised in income. Options not used as hedges should be carried at their market value as an investment.

BANKRUPTCY

There are two principal issues relevant to assessing bankruptcy risk for derivative products. First, will contractual provisions providing a right of termination upon the insolvency of a counterparty (even if there has been no payment or performance default on the transaction) be respected?

Having an enforceable termination right upon counterparty insolvency is important to the non-defaulting party in order to provide certainty with respect to the continued existence of the contract. If the contract cannot then be terminated by the non-defaulting party, the non-defaulting party will be forced to wait for the trustee in bankruptcy, receiver or conservator, as the case may be, to to decide whether to reject or assume and perform the underlying executory contract. Before such decision is made, markets can change and the non-defaulting party is unable to predict its position or effectively hedge its exposure. Moreover, until the trustee, receiver or conservator does affirm or reject the contract, it can, in effect, 'play the market.'

The trustee, receiver or conservator will ultimately perform only those contracts for which it is in-the-money. Where there is multi-transaction exposure to an insolvent party, this ability to selectively perform contracts is often referred to as 'cherry-picking'.

Second, will contractual provisions providing for close-out, netting and setoff of damages on multiple contracts be respected? Having a right to effect netting by set-off of closeout damages (closeout netting) upon insolvency is important to the non-defaulting party in order to minimise ultimate economic exposure to the bankrupt.

Parties entering into a single contract involving mutual exchanges of the same currency or commodity on the same date will often seek to net their positions so that on such date only one payment obligation will be incurred by one party to the other in respect of that particular contract, rather than two opposite pairs of rights and duties. Parties to a master agreement may also seek to net their positions on a given payment date under all

transactions covered by the master which are settled on such date in the same currency or involve delivery of the same commodity. Under this type of netting, referred to as netting by novation, two or more separate contracts disappear and one new contract having the same net effect arises to take their place. These two types of legal melding of payment or delivery obligations and entitlements arising between two parties on the same date have posed few problems in bankruptcy.

Until recently, closeout netting raised significant legal difficulties under US bankruptcy laws where the event triggering the netting occurred on a date other than a payment date due to counterparty insolvency. It was unclear whether closeout provisions which permit the early termination of all outstanding contracts of the same type upon insolvency and permit the payment of one closeout amount constituting essentially the sum of the market values (both positive and negative) of the outstanding contracts would be given effect.

However, as a result of recent amendments to the US Bankruptcy Code (applicable to corporate and broker-dealer insolvency) and to the Federal Deposit Insurance Act (applicable to federally insured depository institutions) the legal framework for closeout netting is now clearer.

Under the Bankruptcy Code, as amended, specified derivative products are now afforded special treatment. Insolvency triggered termination provisions with respect to swap agreements, commodities contracts (futures), forward contracts, repurchase agreements and securities contracts (contracts for the sale, purchase or loan of a security, including stock options) will be given effect (a departure from the traditional bankruptcy scheme where a mere insolvency event, in and of itself, is insufficient to terminate an executory contract as to which there had not been a payment or performance default), thereby overcoming cherry-picking and market position risk.

However, in the event of the insolvency of a broker-dealer subject to the Securities Investor Protection Act (SIPA), which provides insurance to customers of broker-dealers against loss up to specified amounts, the ability of the non-defaulting party to cause the liquidation of a securities contract or a repurchase agreement may be subject to a judicial stay or injunction obtained by the trustee appointed pursuant to SIPA. Because such contracts would be subject to avoidance by the SIPA trustee during the period of the stay, cherry-picking risk arises.

In addition, setting off mutual debts and claims including damages established on closeout in connection with securities contracts, commodities contracts, forward contracts, repurchase agreements and swaps is now permitted under the Bankruptcy Code (a departure from the automatic stay otherwise imposed by the Bankruptcy Code scheme).

It is unclear whether a master netting agreement encompassing some or all of securities contracts, commodities contracts, forward contracts, repurchase agreements and swap agreements would be enforced so as to permit, for example, a damage claim under a securities contract to be set off against a damage claim under a forward contract (cross-

product setoff). Thus, any cross-product setoff may still be subject to the automatic bankruptcy stay and to concepts limiting any improvement in position during the 90 days prior to bankruptcy.

Because the definition of a swap agreement under the Bankruptcy Code includes not only interest rate, currency and cross-currency rate swap agreements, but also currency options, forward rate agreements, commodity swaps, interest rate options, forward foreign exchange agreements and caps, floors and collars, and because the definition of swap agreement includes a master agreement for any of the foregoing, a master swap agreement providing for netting of all of the above components should be enforceable.

Foreign exchange spot contracts are not covered by the foregoing. Legislation recently enacted by the United States Congress as part of the banking reform bill and, at the time this report was written, expected to be signed by the President, would generally validate most types of netting arrangements, including netting of spot contracts and cross-product netting.

Even after the recent Bankruptcy Code amendments, however, a trustee can avoid a derivative products contract as a fraudulent conveyance when any transfer thereunder was made with actual intent to hinder or defraud creditors. A trustee, however, cannot avoid as a preference any margin or settlement payment made by the insolvent party to the creditor in good faith and in the ordinary course of its business on or prior to the date of its insolvency.

On August 9, 1989, the Financial Institutions Reform, Recovery and Enforcement Act (FIRREA) was signed into law. FIRREA, among other things, amended the Federal Deposit Insurance Act (FDIA) and codified the powers of the Federal Deposit Insurance Corporation (FDIC) as the receiver or conservator for an insolvent depository institution. The FDIC was accorded enhanced responsibilities over almost all banks and savings institutions in the United States (except those state-chartered institutions which lacked federal deposit insurance).

As in the Bankruptcy Code amendments discussed above, the FDIA as amended by FIRREA gives special treatment to specified derivative products, which FIRREA termed 'qualified financial contracts' (QFCs). QFCs include securities contracts, commodity contracts, forward contracts, repurchase agreements and swap agreements. Swap agreements are defined broadly to include the full panoply of swaps currently on the market, including interest rate and currency swaps, basis swaps, forward foreign exchange agreements, caps, floors, collars, cross currency rate swaps, commodity swaps, and any similar agreement.

Municipal swaps and equity swaps are not expressly mentioned but they and many as-yet uninvented variations should fall under the rubric of 'any similar agreement' contained in the definition of swap agreement.

QFCs must be in writing, executed by the depository institution and the counterparty at

the same time as the acquisition of the asset, approved by the depository institution's board of directors or its loan committee with the approval being noted in the board's minutes, and from the time of execution the QFC must be a continuous official record of the depository institution. Because some of these requirements are out of the control of the non-depository institution counterparty, that counterparty can never be certain that its agreement will be accorded QFC status. An FDIC policy statement attempts to provide a safe harbour.

The treatment of QFCs in the FDIA varies depending on whether the insolvent or troubled depository institution is in receivership or in conservatorship. A receiver is appointed in connection with the closing of a depository institution. A conservator, on the other hand, is generally appointed to continue to operate the depository institution in order to restore it to sound financial condition or to permit the determination to be made regarding an orderly liquidation of the depository institution. The FDIC is generally appointed as such receiver or conservator.

In receivership of depository institutions, contractual termination provisions in QFCs are enforceable for all default events including insolvency defaults. However, this is subject to the receiver's power to transfer to a single transferee those QFCs which the depository institution has with a particular counterparty. The receiver cannot select among the failed depository institution's QFCs with a given counterparty when making its transfer determination; either all of the insolvent's QFCs must be transferred to a single depository institution or none can be.

The FDIC has issued a Policy Statement asserting that it will notify counterparties by noon on the business day following its appointment if it intends to transfer QFCs of the defaulting institution. The extent to which this statement prevents the non-defaulting party from immediately terminating any QFC is uncertain.

The FDIA also permits a party to a QFC, in the case of a receivership, to exercise any right to offset or net out any termination value, payment amount or other transfer obligation arising under any QFC. Whether a master agreement permitting netting of different types of QFCs under the same agreement would be given effect is an open issue.

In conservatorship, termination provisions based solely on insolvency are not enforceable. Accordingly, the solvent counterparty must await the conservator's determination whether or not to reject (or repudiate) any QFC not fully performed. There is risk that a conservator (without effecting any transfer) could cherry-pick by selectively repudiating the economically disadvantageous contracts although, as noted above, a master swap agreement (including all contracts thereunder) is treated as a single contract which must be affirmed or repudiated in whole and not in part.

In conservatorship, the right to offset or net out termination values is generally protected. But since insolvency termination clauses are not given effect during a conservatorship, there would be no damages to offset unless and until a non-insolvency event of default

occurs (such as a payment default or repudiation).

Payments made or collateral transferred in respect of a QFC by a depository institution prior to insolvency may not be avoided by the FDIC except where made with actual intent to hinder, delay or defraud the institution or creditors.

SPECIAL ISSUES AFFECTING BANKS

A principal user of derivative products is the banking industry. Two major issues confronting banks in their use of derivative products are:

* power;

* risk-based capital impact.

Generally, banks in the United States have power to conduct those businesses authorised by statute and activities incidental thereto. A good deal of confusion has arisen in the area of banking powers because different justifications have been used for different derivative products, even though the activities in question were fundamentally the same on an economic basis. Regulators have worried that banks which generally cannot deal in corporate debt and equity securities or in commodities (other than bullion and exchange) were effectively so dealing through derivatives. Thus, the regulatory justifications became a basis for limiting the activity.

Futures and forwards on securities were generally justified as incidental to rate risk management and were initially limited to this function although later they were expanded to include reasonable trading activities, at least where the underlying security could be dealt in.

Commodity swaps were justified where used as a hedge or, where fully matched, were justified as financial intermediation.

For historical reasons, foreign exchange forwards were never subjected to limitations other than prudence, although some precedents have subjected currency options to the same restrictions as futures and forwards on securities.

Interest rate swaps were always recognised as financial intermediation and not otherwise subjected to limits other than prudence. As precedent on banking use of derivatives continues to develop, the trend is to treat derivatives as unlimited by powers-related constraints so long as the derivative is cash-settled but, as detailed below, regulators are not uniform in their approach to various products.

In Banking Circular 79 (3rd revision), the Office of the Comptroller of the Currency (OCC), the principal regulator of national banks in the US, discussed national bank participation in the financial futures, forward placement and option markets. The OCC views such contracts as neither inherently prudent nor imprudent, but rather as a

permissible activity incidental to banking when appropriately used.

A bank engaging in such activities must do so pursuant to Board of Director-approved written policies and procedures; there must be in place specific limitations for each contract position entered into:

* for investment portfolio operations;

* for asset-liability management; and

* in relation to dealer-bank trading activities.

The OCC has also permitted banks, in connection with legally permitted trading and dealing activities, to arbitrage financial futures contracts against other financial futures contracts (in lieu of or in addition to taking positions in the cash market for the underlying securities eligible for bank dealing or trading).

With respect to commodity swaps, the OCC permitted a bank to enter into commodity swaps on an unmatched basis with counterparties who had satisfied the bank's creditworthiness criteria. Such swap positions were permitted so long as the bank did not speculate in commodity price fluctuations, hedged its swap positions with exchange-traded futures contracts or commodity swaps, and cash settled such futures and swap contracts so that no dealing in goods occurred.

Any residual commodity price exposure resulting from an imperfect hedge was considered to be not substantively different from a deposit account whose interest was tied to a commodity price or other index which could not be perfectly hedged (which the OCC has also permitted) and, therefore, permissible for the bank to assume as part of the business of banking.

While the Federal Reserve Board (FRB), the principal regulator in the United States of bank holding companies and state-member banks, has generally used the same approach as the OCC to financial futures, forwards, options and interest rate/currency swaps, the FRB has shown some hesitancy with respect to commodity and equity swaps.

Indeed, in a recent interpretation of Regulation H issued under the Federal Reserve Act (Regulation H deals with membership of state banks in the Federal Reserve System), the FRB stated that engaging in commodity-linked activities and similar transactions linked to equity securities (ie derivative products such as forward contracts, options and swaps linked to prices of commodities or equity securities or to related indices), where the bank does not have the power to purchase and hold the underlying commodity or equity directly, would be a change in the general character of a state member bank's business requiring prior FRB approval. This would apply even where the bank clearly had power to engage in the derivative activity under state law.

Because the interpretation does not extend to commodities which state law empowers a

bank to purchase and deal in, banks could engage in gold and silver commodity swaps, and in some cases platinum swaps, without prior FRB review. The interpretation also reaches the overseas activities of a bank holding company and Edge corporation subsidiaries under Regulation K (International Banking Operations).

It is beyond the scope of this article to address powers issues affecting other participants in the derivative products markets, such as municipalities, insurance companies, investment companies, broker-dealers and pension plans. In each instance, power to engage in the activity would depend on applicable governing law (both federal and state) and the particular regulated industries' approach to incidental activity. Derivatives are seldom expressly authorised in existing statutory schemes.

However, in response to the Hammersmith case in the United Kingdom, which held that all swaps entered into with the London Borough of Hammersmith were void because the city lacked the requisite power, several states have legislation pending to confirm the propriety of municipalities entering into swap transactions.

The second critical issue affecting bank participation in the derivative products arena is risk-based capital.

Generally, an off-balance sheet item is incorporated into the risk-based capital ratio by multiplying its principal amount by a credit conversion factor and assigning the resultant credit equivalent amount to the appropriate risk-weighted category according to the type of obligor. Principal or notional amounts in derivative products are seldom a useful measure of risk. Credit equivalent amounts therefore are computed for interest rate contracts (including single currency interest rate swaps, basis swaps, forward rate agreements, and interest rate options purchased, including caps, collars and floors purchased) and exchange rate contracts (including cross-currency interest rate swaps, forward foreign exchange contracts and currency options purchased) by adding in-the-money market value to an empirically derived factor representing risk of potential change. The result is placed in the appropriate risk category.

Instruments that give rise to credit risks similar to those of interest rate contracts and exchange rate contracts (which presumably encompasses certain hybrids) are treated as an interest rate contract or exchange rate contract. Since the risk-based capital scheme is designed to address only credit exposure and not market risks, only in-the-money derivatives attract capital.

The credit conversion for interest rate and exchange rate contracts is computed as follows:

The total replacement cost of contracts (obtained by summing the positive mark-to-market values of contracts) is added to a measure of future potential increases in credit exposure. This future potential exposure measure is calculated by multiplying the total notional value of contracts by one of the following credit conversion factors, as

appropriate:

(Chart omitted)

No potential exposure is calculated for single currency interest rate swaps in which payments are made based upon two floating rate indices, that is, so-called floating/floating or basis swaps. The credit exposure on these contracts is evaluated solely on the basis of their mark-to-market value. Exchange rate contracts with an original maturity of 14 days or less are excluded. Instruments traded on exchanges that require daily payment of variation margin are also excluded.

The only form of netting recognised for risk-based capital purposes is netting by novation of like contracts having the same value date or settlement date. The fact that the capital guidelines recognise only netting by novation and not closeout netting is a source of increasing annoyance to US depository institutions, which are facing increased competition in the swaps market, narrowing spreads, and, by year-end 1992, increased capital requirements, since they believe this approach overstates real counterparty credit exposure.

Although the FRB is said to be evaluating whether to recognise other forms of netting, the US regulators, like those in the other G10 countries, probably want to continue to act in unison under the aegis of the Bank for International Settlements (BIS). The current BIS position, under review for the last few years, essentially requires the setting aside of capital on a per contract basis.

HYBRID INSTRUMENTS

As the derivative products market has evolved, new types of financial instruments have been developed which resemble securities or bank deposits except that payment is calculated by reference to the price of a commodity, currency or market index.

For instance, certificates of deposit have been issued with interest keyed, in whole or in part, to changes in the Standard & Poor's 500 stock index. This product enables a depositor, whose principal remains fully insured, to take a risk on the S&P 500 index at a cost less than that of purchasing a retail option thereon. Cross-currency warrants, which are unsecured contractual obligations of an issuer that settle in cash, allow investors to take a risk on foreign exchange rates more cheaply, than by rolling over short-term retail currency options.

Another variant is Principal Exchange Rate Linked Securities (PERLS), which are interest-bearing notes with principal repayment tied to the relative appreciation or depreciation of the currency of issue against a designated currency. Obligations indexed to commodity-price movements enable a holder to in effect acquire a commodity option at below retail cost.

In many of these cases the issuer is able, through use of a dynamic hedge, to hedge itself

in the wholesale futures market and pass along a portion of the savings realised. The issuer, of course, retains the risk that the cost of its dynamic hedge over time will exceed the proceeds from sale of the option.

The extent to which these types of hybrid instruments are subject to any SEC or CFTC regulation (or regulation by the OCC or FRB as a banking product) has been clarified somewhat by the CFTC's July 17, 1989 promulgation of final rules on hybrid instruments.

The CFTC's final rules governing hybrid instruments exempt from CFTC regulation certain debt, preferred equity and depository instruments with significant commodity option-like features, such as payments (either in the form of cash returns or, for example, interest paid by discount, premium or coupon) that result from indexing to, or calculation by reference to, the price of a commodity.

Such hybrid instruments must satisfy each of the following five requirements in order to be exempt from CFTC regulation:

The instrument is:

* a security registered under the Securities Act, a security exempt from registration because of the nature of the obligation (commercial paper or certain insurance policies and annuity contracts) or the nature of the issuer or guarantor (US government or instrumentality; US branch or agency of a foreign bank; insurance company), or a security offered and sold pursuant to an exempt transaction under Section 4(2) of the Securities Act (dealing with private placements); or

* a demand deposit, time deposit or transaction account that is offered by an insured US financial institution or an uninsured US branch or agency of a foreign bank that is subject to US regulation.

* The value of the implied option premium (ie the issue price less the present value of the payments that do not result from indexing to the price of a commodity, using the actual, or if unavailable, the estimated annual yield at the time of issuance for a comparable non-hybrid instrument of a similar term issued by the same or a comparable issuer) does not exceed 40 per cent of the issue price of the instrument at the time the instrument is priced.

* The issuer or instrument satisfies one of the following requirements:

* the instrument (or if the instrument has not been rated, another outstanding instrument of comparable seniority of the issuer) has been rated in one of the four highest categories by a nationally recognised rating organisation;

* the issuer has at least US$100m in net worth;

* the issuer maintains letters of credit, or cover consisting of:

(a) the physical commodity that is the subject of the hybrid instrument;

(b) futures, forward, or option contracts, for the commodity; or

(c) like interests under applicable CFTC rules in an amount sufficient to satisfy its obligations in respect of the commodity underlying the instrument; or

* the instrument is eligible for insurance by United States government agency or United States chartered corporation.

* The instrument is not generally marketed as a futures contract or a commodity option.

* The instrument does not provide for settlement in the form of a delivery instrument (ie a warehouse receipt or shipping certificate) specified in the rules of a designated exchange.

In April 1990, following promulgation of the final exemptive rules on hybrid products, the CFTC issued a Statutory Interpretation governing hybrid instruments that do not possess the significant commodity option-like characteristics contemplated by the exemptive rules. In the Statutory Interpretation, the CFTC stated that hybrid instruments which are debt, preferred equity or depository instruments (as described above) are not subject to the CEA, provided that they:

* are indexed to a commodity on no more than a one-to-one basis;

* limit the maximum loss on the instrument; have a commodity-independent yield that is between 50 per cent and 150 per cent of the estimated annual yield for a comparable conventional instrument;

* do not have detachable commodity components;

* do not call for delivery of a commodity through an exchange-specified instrument; and are not marketed as being or having the characteristics of a futures contract or commodity option. Such instruments are viewed as having minimal futures-like or commodity option-like characteristics and can be offered and sold free of CFTC regulation.

The CFTC retains the right to consider other hybrid instruments on a case-by-case basis.

Many hybrid instruments do not fall within the confines of the final rules or the Statutory Interpretation. For instance, in the recently concluded debt restructuring for the Republic of Venezuela, certain longer-term bonds, for legitimate business reasons, were issued with detachable oil-indexed payment obligation certificates where the return on the certificates was keyed to the level of future Venezuelan oil export revenues. Although designed to comport generally with the CFTC hybrid instruments rules and Statutory

Interpretation discussed above, the detachability feature precluded total reliance on the CFTC's pronouncements and a special exemptive order had to be obtained from the CFTC in order to complete the transaction.

Continuing uncertainty as to the legal status of hybrid instruments under the CEA has fuelled widespread fears that commodity-indexed instruments will increasingly be issued overseas, thereby depriving US issuers and investors of the benefits of such instruments.

The United States Senate and House of Representatives have recently passed bills relating to futures trading practices in an effort to resolve some of the uncertainties concerning the regulation of hybrid instruments. However, final legislation has not yet been adopted and the risk of overlapping regulation by multiple federal agencies remains.

Hybrid instruments often raise difficult tax issues. Recently proposed Treasury regulations provide a basis for bifurcating a hybrid instrument that consists of a debt component and a contingent component providing for payments based on the price of a publicly traded commodity or other property. If, subject to the proposed Treasury regulations, the hybrid instrument will be treated for tax purposes as consisting of the two separate components, each component would be taxed in accordance with normally applicable rules.

Application of these bifurcation rules often will have a variety of advantages or disadvantages depending on the circumstances of the issuer and the holder of the instrument. Where an equity based instrument has significant forward or future elements, bifurcation of the instrument under US federal income tax law is far less likely. As a result, significant differences in timing and character of income, as well as US estate tax consequences, will often arise.

There are also difficult accounting issues raised by the lack of authoritative guidance on the treatment of innovative financial derivatives. Accountants struggle to determine whether hedge or mark-to-market accounting should apply to these products and whether they should be bifurcated into separate components or treated as a synthetic instrument analogous to a similar traditional financial product. The FASB is currently studying this area but has not yet issued any new interpretations or rules.

Until regulatory, accounting and tax uncertainties are clarified, the development and use of hybrid instruments will require close and effective coordination between the issuer, the underwriter, the lawyer and the applicable regulator(s).