

**GLOBAL**

**FEBRUARY 1994**

**FINANCIAL**

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## **Corporate Finance**

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### **Salomon Brothers**

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# **The CFO Quarterly: First Quarter 1994**

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The authors would like to acknowledge Peter Conroy, Gretchen Dougherty, John Hom, Asad Khan, and Bill Koch. We would also like to thank Kimberly Grigas, Kathleen Hanley and Laura McCaughey for their assistance in the production of this report.

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## INTRODUCTION AND SUMMARY

### Economic, Policy and Market Trends

- The Federal Reserve underscored its commitment to price stability by raising the Federal funds rate by 25 basis points — in a move that we expect to be the first in series of several future tightenings. **First-quarter U.S. growth will likely be around 3.5%**, although continued severe weather could dampen activity. The major economies remain desynchronized. Continental **Europe and Japan are still in recession**, and we consider their 1994 growth prospects minimal. For the balance of the year and in 1995, European and Japanese monetary policies will be eased, and Japanese fiscal policy will be expansionary. **The U.S. yield curve will flatten. We expect that short-term U.S. interest rates will rise** by an additional 50-75 basis points in the first half of the year, while **long-term U.S. Treasuries may reach 6.75% or so before falling below 6%** in the second half of the year. **Short-term interest rates in Europe and Japan will decline, and the U.S. dollar will appreciate against European currencies** and the yen. This outlook suggests several financing strategies that we discuss in this report.

### Equity Market Trends

- **Primary equity issuance activity**, including the issuance of **convertibles** and related **hybrids** such as **DECs**,<sup>1</sup> was particularly **strong** in 1993 and likely will remain so in 1994.

### Equity Derivatives

- Corporations are increasingly **using equity derivatives to manage** the economic costs of **executive stock options** and **share repurchase programs**.

### Mergers and Acquisitions

- **Merger and acquisition (M&A) activity** remains **focused on** four industry groups: **health care, telecommunications, multimedia, and finance**. Although **stock-for-stock transactions will remain attractive** because of the high equity market valuations, the Paramount case will remind players that valuations may not be as easy as they first appear.

### Fixed-Income Market Trends

- Although fixed-income capital market conditions are not as favorable as during the previous quarter, conditions are still attractive for new issuers, and refinancing opportunities still exist. **Borrowers rated BBB or lower may find the opportunity to finance themselves at historically narrow spreads to Treasuries**.

### Fixed-Income Derivatives

- Expectations about heightened U.S. interest rate volatility have **increased fixed-income derivative activity in areas such as swaptions, caps and accrual, and zero-coupon swaps**. Issuers may be able to capture additional value by embedding options in bond offerings or by issuing derivatives directly as a way to raise additional funds or to reduce their effective financing costs.

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<sup>1</sup> DECS, Debt Exchangeable for Common Stock and Dividend Enhanced Convertible Stock are service marks of Salomon Brothers Inc.

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## ECONOMIC, POLICY AND MARKET TRENDS

**Question 1**                      *What is the economic growth outlook for major industrialized countries?*

**Answer 1**

- **Major country economic growth remains desynchronized.** The U.S. expansion should slow only gradually, after experiencing a nearly 7% annualized growth rate in the fourth quarter of 1993. U.S. growth will remain at an annual rate of 3%-3.5%, which will reduce the cushion of excess capacity.
- **Durable goods, housing and capital equipment spending are spurring the U.S. economy,** but some slowing in final demand is likely, reflecting modest fiscal retrenchment and moderating consumption.
- **The continental European and Japanese economies are still in recession, and 1994 growth will be minimal.** The European growth outlook gradually should improve this year, as monetary policy in Europe is eased. Nonetheless, the upturn will be disappointing, and it will not prevent a rise in European unemployment to record levels. The Japanese economy should show some signs of recovery by the second half of the year, but the impact of fiscal moves remains elusive, and the yen's recent appreciation will weaken growth in export volumes.

**Question 2**                      *What are the economic policy prospects for major industrialized countries?*

**Answer 2**

- Economic policy prospects also diverge: **U.S. fiscal policy remains modestly restrictive, while monetary policy likely will be tightened further,** following the early-February 25-basis-point rise in the Fed funds rate. Although doubts could emerge about future U.S. fiscal moves, comprehensive health care reform — a potential deficit booster — is not likely to be adopted this year.
- **European monetary policy easing will extend through 1994,** while fiscal deficits remain high.

**Question 3**                      *What is the market outlook?*

**Answer 3**

- The yield backup in the U.S. Treasury bond market from fourth-quarter lows reflects stronger economic growth, heightened inflation worries and uncertainty about likely yield curve reshaping in response to higher Fed funds. **U.S. long-term rates likely will rise to around 6.75% in the coming months. By the second half of the year,** moderating growth and inflation, heightened Fed credibility, still-restrictive fiscal policy, and disappointing growth **abroad** will help push **U.S. long-term bond yields back below 6%.** However, **the risks are biased upward for now:** Long-term yields are more likely to remain above our forecast range than to fall below it.
- U.S. inflation performance is not likely to deteriorate this year, and **inflation will remain low globally.**
- **In European Government bond markets, yield curves should steepen,** or remain steep, as monetary policy in Europe is eased.
- **The U.S. dollar will strengthen** on trend versus **European currencies,** while **the yen faces near-term renewed weakness versus the dollar .** In addition, the Deutschemark likely will strengthen versus other European currencies.

## EQUITY MARKET TRENDS

- Equity market issuance in the United States reached record levels across-the-board in 1993, generating more than \$110 billion in total proceeds. Initial public offering (IPO) proceeds of \$42 billion in 1993 soared by more than 74% above 1992 levels. Convertible and common stock offerings by public companies also set records at \$23 billion and \$45 billion, respectively. The strength of the new issuance market largely reflected low interest rates and the unprecedented flow of money into equity mutual funds — \$128 billion in 1993 versus \$78 billion in 1992.

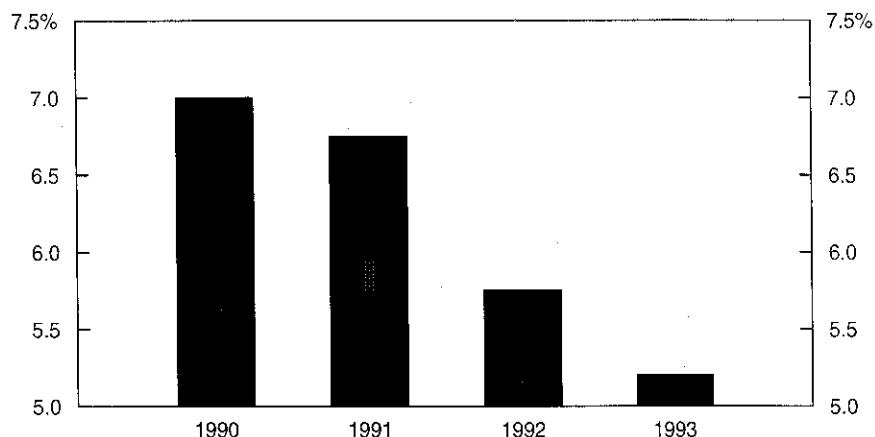
### Question 4

*What trends are likely to continue in 1994?*

### Answer 4

- **Corporate equity issuance will continue.** We anticipate that the equity markets will continue to be receptive to further corporate issuance. In particular, we expect that several recent issuers will revisit the equity markets, many choosing to tap the overheated convertible market. In addition, through the greater use of universal shelf registrations, several offerings will be marketed and priced in only a few days, and some will be done on a "bought deal" basis, with one underwriter purchasing all of the shares as in a block trade.
- **Strong Equity-Linked Market.** Investors searching for yield and downside protection have fueled the unprecedented demand for convertible securities. This trend has allowed corporations to issue convertible securities with low yields, high conversion premiums, quick execution, and innovative structures. Many single-B-rated companies can issue ten-year convertible debt with yields around 4.5%, almost 450 basis points lower than their straight-debt alternatives. Below-investment-grade companies also can issue convertible preferred shares with a mandatory conversion after four years with yield levels of 6% or less.<sup>2</sup> Investment-grade issuers similarly can achieve attractive financing terms in the convertible market. Average coupon yields of triple-B-rated convertible subordinated debentures (ten-year maturity) have declined by almost 300 basis points over the past three years (see Figure 1).

**Figure 1. Average Convertible Debenture Coupon Yields — Triple-B-Rated New Issues, 1990-93**



<sup>2</sup> Mandatory convertibles are known as DECS for Dividend Enhanced Convertible Stock. DECS are proprietary products developed by Salomon Brothers Inc.

• **Double-Dip Issuers.** In 1993, several issuers were able to make repeat visits to the equity markets, bucking the conventional thinking that multiple issuances would oversaturate the market for a company's stock. Last year, companies such as American Express, Comcast, MFS Communications, Pennzoil, and Wheeling-Pittsburgh all made multiple offerings of common, secondary stock or convertible securities. For example, MFS Communications went public on May 15, 1993, at \$20.00 per share (\$220 million in gross proceeds) and later sold an additional \$200 million of common stock at \$50.00 per share four months later. Similarly, Wheeling-Pittsburgh offered \$86 million of common stock at \$8.625 on April 8, 1993, and later sold \$135 million of convertible preferred stock less than three months later after the common stock price had risen to \$12.625. Last fall, Comcast raised \$425 million in capital by issuing two separate convertible debentures that were less than two months apart.

We expect other repeat issuers in 1994 — and many may choose to tap a different component of the market on the second trip. For example, if a "growth" company offered straight equity in the last offering, it may return with a convertible offering. The second issuance most likely would tap an altogether different base of buyers, such as dedicated convertible and equity income funds.

• **Accelerated Execution.** In 1993, several issuers were able to execute common and convertible offerings in an accelerated format. In several cases, management wanted to avoid a lengthy road show and to price its transaction quickly to avoid the risk of stock price volatility during the marketing period. For example, in mid-January, MascoTech, an auto parts manufacturer, issued a \$300-million convertible debenture utilizing only a two-day road show (Boston and New York) and one conference call to reach the other institutional accounts. Because of the strength of the convertible market, the company was in the marketing process for only three days and was able to increase its initial transaction size by 50%.

Later in January, USX sold five million common shares of U S Steel Group to one underwriter in a "bought deal" transaction. This transaction avoided any road shows and was marketed literally overnight. USX was able to execute this transaction at a minimum discount to the closing price for several reasons: The stock is closely followed by institutional investors, the steel sector had shown strong momentum, and the company had been in the market recently with several equity and convertible offerings. In a nutshell, the major advantage of a bought deal is quick execution and certainty of price. The negatives are that the deal may be executed at a discount to the last sale price, and management does not have the chance to tell its story via a road show.

• **Universal Shelf Offerings.** It is important to note that the quick offerings for USX and MascoTech were possible only because these companies had previously filed a "universal shelf." The universal shelf, which the Securities and Exchange Commission (SEC) introduced at the end of 1992, allows a company to put debt, equity, convertibles, and warrants onto a single-shelf filing without specifying the amounts of each security that it plans to issue. Once the SEC declares a shelf effective, an issuer can "pull down" an offering of its choice without any further SEC review for up to two years.



Because universal shelf filings have become almost commonplace, we believe that the market typically ignores the registration of equity securities via a universal shelf. More than 60 U.S. companies have filed a universal shelf over the past year (see Figure 2). In fact, more than \$45 billion of securities currently is registered under the universal shelf format. Companies including First Chicago Corp., MascoTech (auto parts), Stone Container (paper and pulp), Toll Brothers (homebuilders), and USX Corp. pulled down various equity securities from their universal shelf registrations just in the first five weeks of 1994.

**Figure 2. Selected Universal Shelf Filings, 1993-94 (Dollars in Millions)**

Shelf Filing Date	Issuer	Shelf Filing Amount	Amount Remaining on Shelf
10 Feb 93	Albertson's	\$600	\$337
07 May 93	Alco Standard	400	136
10 Nov 93	American Express	500	500
22 Oct 93	Anadarko Petroleum	300	300
06 May 93	Apple Computer	500	500
17 Jan 94	Battle Mountain Gold	200	200
22 Dec 92	Blockbuster Entertainment	300	150
12 Jan 94	Brown-Ferris	700	700
06 May 93	Capstead Mortgage	500	500
05 Nov 93	Carnival Cruise	450	450
11 Aug 93	Chemical Bank	2,500	2,500
24 Jan 94	Chiquita	300	75
02 Jul 93	Cigna Corp.	300	200
17 Jun 93	Citicorp	3,000	2,550
08 Mar 93	Coast Savings	100	6
25 Jan 93	Comcast	750	0
27 Oct 93	Comcast	1,000	1,000
26 Feb 93	Continental Bank	500	350
19 Oct 93	Cummins Engine	250	137
19 Jul 93	Deere	750	270
21 Jan 94	Digital Equipment	1,000	1,000
25 Jun 93	Dole Food	500	100
12 Mar 93	Federal-Mogul	300	160
15 Nov 93	Federal Realty Trust	300	300
12 Jul 93	First Chicago	1,500	1,150
23 Jul 93	First of America Bank	500	500
05 Apr 93	Great Western Financial	750	375
21 Jan 93	H.F. Ahmanson	500	250
10 Feb 93	Household International	400	159
02 Mar 93	Intel	3,000	2,700
29 Sep 93	Kansas City Southern	500	500
18 Aug 93	Kimco Realty	350	250
10 Jan 94	Lowe's Companies	500	500
08 Jun 93	Magma Copper	200	20
30 Mar 93	Margaretten Financial	250	100
25 Jun 93	Mediplex	125	0
31 Dec 92	Mellon Bank	250	46
02 Dec 93	National Health Investors	300	300
09 Dec 93	Niagara Mohawk	990	990
16 Jun 93	Norwest	800	400
03 Dec 93	Pegasus Gold	150	150
06 Nov 92	Pennzoil	500	25
20 Aug 93	Pennzoil	500	225
08 Nov 93	Pennzoil	500	500
30 Apr 93	QVC	400	400
13 Aug 93	Reliance Group	838	838
14 Apr 93	Republic New York	1,000	750
21 Jul 93	Rochester Gas	250	210
29 Mar 93	Sara Lee	300	300
27 Dec 93	Sara Lee	400	400
30 Jul 93	Stone Container	1,000	700
08 Nov 93	Storage Equities	200	150
12 Apr 93	Tele-Communications	3,000	2,150
13 Oct 92	Time Warner	1,375	140
14 Sep 93	Time Warner	1,800	1,800
30 Dec 93	Toll Brothers	250	200
05 Apr 93	TriMas	400	300
12 Nov 92	Tyler	150	150
21 Jan 93	UAL	1,500	1,500
14 Jun 93	Unisys	350	350
23 Aug 93	U S WEST	1,500	455
13 Sep 93	USAir	700	394
10 Jan 94	USF&G	600	600
13 Jul 93	W.R. Berkley	250	250
27 Jul 93	The Williams Companies	300	300
10 Nov 93	WR Grace	750	750
<b>Total</b>		<b>\$45,878</b>	<b>\$34,648</b>

Sources: Securities Data Corp. and Salomon Brothers Inc.

Equity derivative activity continues on its innovative path as more and more borrowers and investors start using these products for a broad array of applications ranging from hedging employee compensation to complementing a stock buyback program to gaining leveraged exposure to emerging markets.

**Question 5**

*What are put warrants, and who should issue them?*

**Answer 5**

A put warrant is a put option issued by a corporation. Typically, the put option is on the corporation's own stock. Like a put option, a put warrant allows its holder the right to sell a stock back to the issuing corporation at a specified strike price and at or within a specified time to maturity.

The sale of put warrants achieves similar objectives as an outright share repurchase. In fact, corporations may find it useful to consider a put warrant sale as one of the instruments of an overall share repurchase program consisting of the following: (1) outright share repurchase; (2) call option purchases; and (3) put warrant sales. While achieving the same objectives as a share repurchase program, the sale of put warrants does not have the same risk-reward profile. Some of these similarities and differences follow:

- **Collect Money Today for a Decision Already Made.** As soon as a corporation commits itself to purchasing its own shares at a target price and within a target time period, it can monetize this decision by selling put warrants at this target price and expiring within the target time period.
- **Generate Tax Free Premium Income.** The premium received from the sale of put warrants is tax-free to the corporation.
- **Sends Bullish Signal at Reduced Cost.** A put warrant sale signals to the market that company management is bullish about the company's stock price, and it does so at a lower cost than an outright share repurchase.
- **Allows Increased Flexibility.** Over-the-counter put warrants can be customized to suit a corporation's preferences for exercise price, time to maturity and settlement type (that is, physical versus cash).
- **Allows Better Execution Than Target Price.** If a corporation has set a target price (the target is typically set below market at issuance) and time frame in which it is determined to purchase its own stock, then the following hold true:
  - (1) If the company's stock price stays above this target and the puts expire worthless, the corporation may use the put proceeds to subsidize future repurchases.
  - (2) If the company's stock price stays at the target, then the put proceeds allow the company to effectively lower the repurchase price by the amount of the premium.
  - (3) If the company's stock price falls below the target, the company effectively repurchases the stock at a price equal to the target less the premium collected. Therefore, at the time of expiration, the corporation may be purchasing stock at a price higher than market, but still below the original target price.

**Question 6**

*What are executive stock options (ESOs)<sup>3</sup> and why issue them?*

**Answer 6**

- Typically, ESOs are warrants awarded to senior executives as a form of noncash compensation. The warrants normally have an at-the-money strike price at issuance, and they often are exercisable at anytime during the subsequent ten years.
- ESOs ensure that management's incentives are aligned with those of the shareholders. That is, executives given ESOs will work harder to boost the company's share price in order to increase their own wealth.
- In addition, unlike other forms of compensation, ESOs create no immediate cash outflows to the company.

**Question 7**

*What are the costs associated with ESOs, and how can a corporation manage these costs?*

**Answer 7**

- When granted, the cost of an ESO is an **opportunity cost**; the granting company can otherwise sell equivalent options to a third party for cash. The ultimate cost of an ESO (its value upon exercise) is unknown and potentially unlimited. The granting of ESOs represents a transfer of wealth from one class of shareholders (existing stockholders) to another class of shareholders (management).
- A corporation can proactively offset the dilutive expense caused by ESOs by purchasing call options from a third party. These call options eliminate the unlimited potential dilutive cost to shareholders and replace it with a completely known up-front cost of the purchased options.
- Because of tax and timing considerations, a company can hedge its ESO program at a cost of approximately 50% of the ESOs' fair value. In addition, such a hedge may increase the demand for a company's stock because the seller of the call options must purchase the stock to hedge its exposure to upward movements in the stock price. This increased demand may have a positive impact on the corporation's stock price.

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<sup>3</sup> For further information regarding ESOs, see *Executive Stock Options: Benefits, Costs and Implications for Investors*, Eric Sorensen, et al., Salomon Brothers Inc, October 1993; and *Hedging Executive Stock Options*, Tad Flynn, et al., Salomon Brothers Inc, February 1994.

## MERGER AND ACQUISITION TRENDS

- **The strength in the M&A market continued into the fourth quarter of 1993:** Almost 1,900 transactions totaling \$91 billion were completed or announced, double the fourth-quarter 1992 activity level. The total for announced transactions in 1993 was \$267 billion, an 81% surge from 1992 levels.
- **Greater confidence in the direction of the economy, ongoing corporate restructuring and focus, structural changes within industries, and the prevalent use of equity** as merger consideration represent the major forces in the M&A market. The strong influences driving M&A activity mentioned in last quarter's *CFO Quarterly* continued in the fourth quarter of 1993.<sup>4</sup>
- **There was a significant increase in large transactions,** as the large increase in the dollar volume of M&A activity resulted from a modest 13% rise in the number of transactions. Almost 70% of the year's volume came from transactions in only four industries — namely, **health care, telecommunications, multimedia, and financial services.** The rapid changes in these industries, together with the increased confidence on the part of corporate executives, have encouraged companies in these sectors to make acquisitions now. The largest transactions announced in the quarter are presented in Figure 3.
- **Equity was used in almost two thirds of the volume of M&A transactions** in the fourth quarter (the corresponding figure was 54% for all of 1993), significantly above the 1992 levels, in which less than 10% of M&A volume was characterized by the use of equity securities. Equity is being used as merger consideration for several reasons. First, what has been viewed historically as large amounts of equity can be issued in sizable transactions because the equity market has been willing to absorb this level of issuance. Second, the use of equity helps to mitigate the concern of buyers regarding earnings per share dilution and balance sheet considerations. Finally, and most important, higher-multiple equity is an attractive currency in an equity market in which acquisition candidates can be characterized by historically high valuations. Purchasers who use equity have the advantages of relative valuation, compared with cash buyers, who are constrained by absolute valuation levels.

**Figure 3. Ten Largest Merger and Acquisition Deals Announced in the Fourth Quarter of 1993 (Dollars in Millions)**

Date Announced	Acquisitor/Target	Industry	Value	Type
12 Oct 93	Bell Atlantic Corporation/Tele-Communications Inc. <sup>a</sup>	Telecommunications	\$29,432	Stock Merger
03 Oct 93	Columbia Healthcare Corp./Hospital Corp. of America (HCA)	Health Care	5,536	Stock Merger
01 Oct 93	Society Corp./KeyCorp <sup>b</sup>	Banking	3,875	Stock Merger
06 Oct 93	Tele-Communications, Inc./Liberty Media Corp.	Telecommunications/Media	3,411	Stock Merger
06 Dec 93	Mellon Bank Corp./Dreyfus Corp.	Banking/Financial Services	1,848	Stock Merger
08 Nov 93	Nextel Communications, Inc./SMR Licenses and Properties (Motorola, Inc.)	Telecommunications	1,606	Divestiture
07 Dec 93	Southwestern Bell Corp./Cox Cable, Inc. (Cox Enterprises, Inc.)	Telecommunications	1,600	Divestiture
13 Dec 93	Loral Corporation/Federal Systems Company (IBM)	Defense	1,575	Divestiture
11 Nov 93	BellSouth Corporation/QVC Network, Inc.	Telecommunications	1,500	Stake Purchase
29 Oct 93	Leonard Green & Partners/Payless Drug Stores (Kmart Corp.)	Retail	1,000	Leveraged Buyout

<sup>a</sup> Terminated February 23, 1994. <sup>b</sup> Represents merger of equals; neither company can be characterized as "Acquisitor" or "Target."  
Source: Securities Data Company.

<sup>4</sup> See the *CFO Quarterly — Fourth Quarter 1993*, Niso Abuaf et al., Salomon Brothers Inc., November 1993.

- **In some cases, the stock prices of buyers have increased.** The equity markets have become very receptive to logical M&A transactions by rewarding those players who are proactively driving consolidation within their industries. In a departure from historical patterns, there are an increasing number of instances in which the stocks of *buyers* have increased upon the announcement of strategic moves. For instance, Loral's share price moved up by more than 10% in two days upon the announcement of its purchase of IBM's Federal Systems Division, and the shares of Federated Stores increased by more than 10% upon the announcement of its investment in the debt of R.H. Macy.

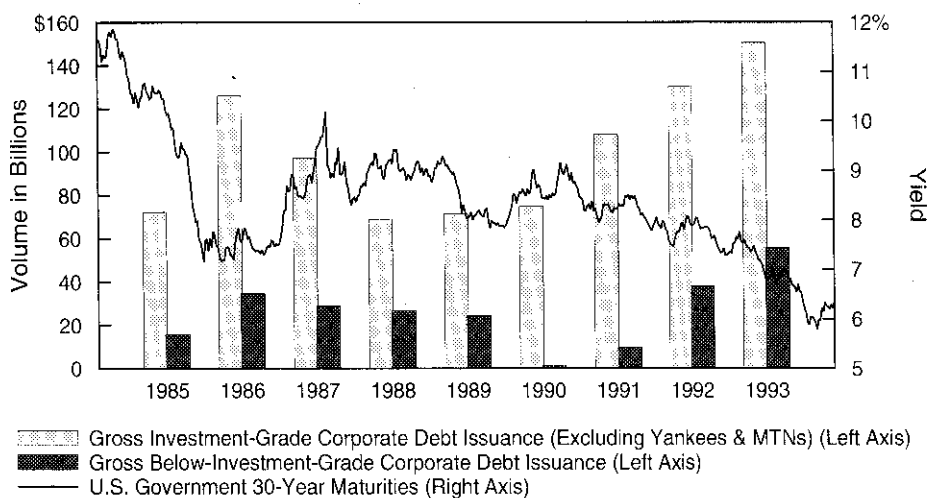
- **The Paramount case underscores the need for thoughtful and accurate valuation.** The equity market's receptiveness to the use of equity as M&A currency was tested in the battle for Paramount, because the market's view of the equity component of the transaction was a crucial determinant of victory. The Paramount case illustrates the need on the part of financial executives and their advisors to carefully and accurately value and structure transactions that use equity securities (both before and after the contemplated transaction is announced). In addition, it emphasizes the need to convince the market of the quantifiable long-term economic benefits to the buyer of its strategic vision.

**FIXED-INCOME MARKET TRENDS**

In 1993, financial managers made a significant contribution to corporate cash flow by calling or refinancing high-cost debt and prefunding capital need — exploiting the most attractive financing environment in almost 30 years. The debt market may be less benign in 1994, sharply slowing the pace of refundings and new money financing. Financial managers will have to work harder to identify incremental opportunities that add value to the corporate bottom line.

- **Bonds Break Records.** Historically attractive Treasury rates and narrow corporate credit spreads motivated borrowers to finance sooner rather than later in 1993. Corporate debt issuance — both investment- and below-investment-grades — surpassed 1992's record levels (see Figure 4).

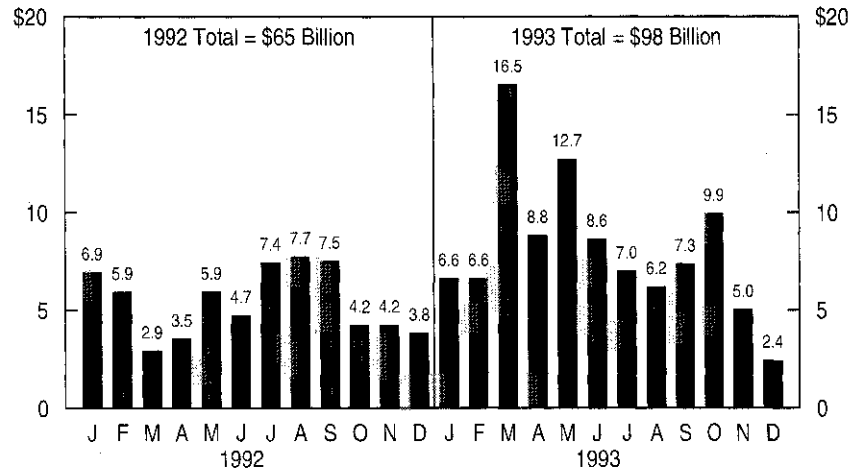
**Figure 4. Annual U.S. Corporate Debt Issuance, 1985-93 (Dollars in Billions)**



MTN Medium-term note.

- **Refinancing Drives Volume.** The pace of debt issuance in 1993 largely was propelled by refinancing activity, which reached record levels last year. The principal amount of investment-grade corporate bond calls totaled \$98 billion in 1993 (see Figure 5). Tender and defeasance activity also increased — particularly in the utility sector — as available call opportunities shrank toward year-end.

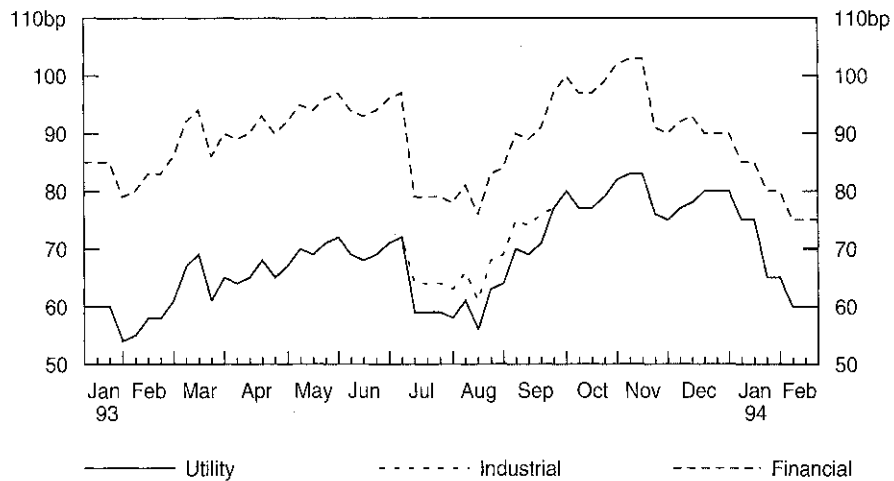
**Figure 5. Principal Amount of Corporate Securities Called in the Salomon Brothers Broad Investment-Grade (BIG) Bond Index, 1 Jan 92-31 Dec 93 (Dollars in Billions)**



Source: Salomon Brothers Inc.

- Spreads Narrow Despite Record Volume.** Corporate bonds continued to be the fixed-income investment of choice among portfolio managers — offering incremental yield over Treasuries and avoiding the prepayment risk of mortgage-backed securities. With about two thirds of gross issuance dedicated to refinancing activity, even record supply put little upward pressure on corporate spreads (see Figure 6).

**Figure 6. Long-Term AA-Rated New Issue Corporate Spreads, 1 Jan 93-10 Feb 94**



**Question 8**

*What does Salomon Brothers's economic forecast imply for borrowing strategies?*

**Answer 8**

- Accelerate Short-Term Maturities.** Because we expect that U.S. short-term rates will continue to rise and that U.S. long-term rates eventually will improve, we recommend that issuance in the two- to five-year-maturity sector be accelerated.



- **Delay Long-Term Maturities.** We recommend that market timers delay their long-term financing needs and opportunistically play the long bond's trading range.
- **Consider Ultra-Long Bonds as Quasi-Equity.** Conversely, borrowers who believe that attempting to time the market is inappropriate should consider issuing 30-, 50- or 100-year bonds. Long-term yields are more likely to remain above our forecast range than to fall below it. Ultra-long maturities (of 50 years or longer) may be viewed as a stable funding source comparable with equity.
- **Reduce Cost Through Structured Notes.** By tailoring securities to fit specific investors' needs in the structured note market, issuers can achieve financing costs that are lower than traditional "plain-vanilla" structures.
- **Nondollar Borrowing for Multinationals.** Borrowing in European currencies or the Japanese yen is consistent with the view that the U.S. dollar will strengthen and may enable multinational companies to naturally hedge their foreign assets with foreign liabilities. Many U.S.-based entities and supranational organizations, such as the World Bank, have been issuing nondollar debt in the Euromarkets. For example, in December 1993, McDonald's Corporation issued a ¥10-billion 30-year Eurobond noncallable for 15 years.

**Question 9**

*What are Salomon Brothers's expectations for corporate debt issuance in 1994?*

**Answer 9**

We expect that gross debt issuance activity will decelerate in 1994 from 1993's brisk pace. Assuming that interest rates remain level, Salomon Brothers estimates that \$25.9 billion, or 3.7% of outstanding bonds in the Salomon Brothers Broad Investment-Grade (BIG) Index, will be called in 1994. Electric utilities and industrials will constitute the bulk of the calls, totaling \$17.8 billion (see Figure 7).

**Figure 7. Projected Corporate Call Activity, 1994<sup>a</sup> (Dollars in Billions)**

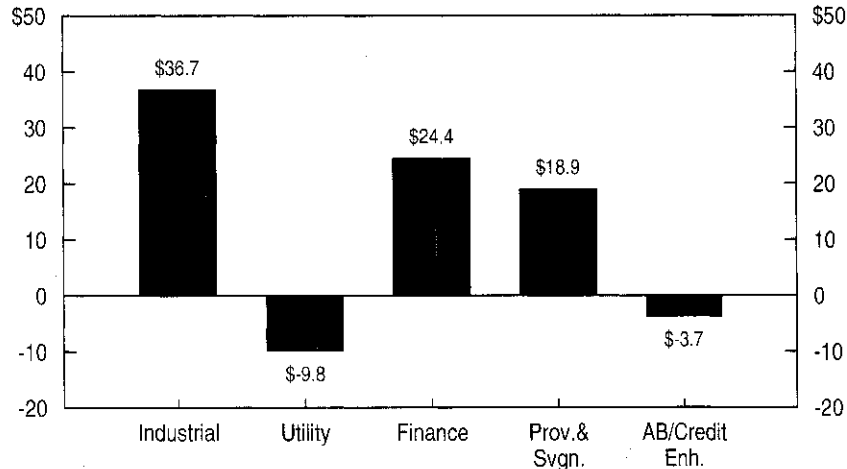
Sector	Total Outstanding 31 Dec 93	Projected Refundings			Total
		Long Maturities	Medium Maturities	Short Maturities	
Banks	\$57.6	\$0.0	\$0.3	\$0.8	\$1.1
Electric Utilities	101.0	4.5	4.6	3.5	12.6
Finance	194.2	0.2	0.2	2.5	2.9
Gas	4.2	0.3	0.0	0.1	0.4
Industrials	277.6	0.3	0.9	4.0	5.2
Telephones	49.2	1.5	1.0	0.8	3.3
Transportation	13.8	0.1	0.2	0.2	0.5
<b>Total</b>	<b>\$697.5</b>	<b>\$7.0</b>	<b>\$7.1</b>	<b>\$11.9</b>	<b>\$25.9</b>

<sup>a</sup> Includes partial call of sinking-fund bonds.

Note: Figures may not exactly add up because of rounding.

Anecdotal evidence also suggests that external financing requirements to fund capital spending programs in 1994 may be limited. Many companies took advantage of the dramatic Treasury market rally in 1993 to *prefund* future financing needs, reducing 1994's borrowing requirements. Consequently, we expect that financing activity in industrials, utilities and financials likely will slow. We expect the Yankee sector to exhibit continued robust growth (see Figure 8).

**Figure 8. Growth in the Outstanding Amount in the Salomon Brothers Broad Investment-Grade (BIG) Bond Index by Industry Sector, 1 Jan 93-31 Dec 93 (Dollars in Billions)**



Source: Salomon Brothers Inc.

**Question 10**

*What are Salomon Brothers's expectations for corporate spreads in 1994?*

**Answer 10**

Acceleration of the U.S. economic recovery will cause investment-grade spreads to tighten. This cyclical rebound, corporate deleveraging and lowering of financing costs will cause rating agencies to continue upgrading the credit ratings of both below-investment-grade and investment-grade debt. Such upgrades to investment grade will broaden the institutional buying universe of such securities, narrowing spreads dramatically. A persistently low-interest rate environment will cause yield-hungry investors, primarily retail and mutual funds, to buy below-investment-grade debt, further tightening spreads. The greatest risk to this outlook is that increasing short-term interest rates may cause retail buyers to switch out of high-yield funds and back into certificates of deposit, exerting significant pressure on high-yield spreads.

**Question 11**

*Will the popularity of the global bond market persist?*

**Answer 11**

A global bond structure offers issuers the best pricing by creating an extremely liquid security, which removes artificial primary selling restrictions and secondary market trading barriers. We expect that increasing numbers of sovereigns, emerging market borrowers, supranational agencies, and possibly U.S. corporates will use global bond structures in 1994.

**Question 12**

*What advantages does the Eurobond market offer to the corporate borrower?*

**Answer 12**

The Eurobond market offers issuers the following advantages:

- Generally lower commissions, lower legal fees and an absence of registration fees;
- A less regulated legislative environment, allowing for rapid execution; and
- Greater diversity of currencies and structures.

Primary market activity in the Eurobond market accelerated to a record high in 1993 — exceeding \$400 billion — reflecting a 43.6% jump in new issue volume. The Eurodollar sector led the other currency sectors, accounting for approximately 36% of total Eurobond new issue volume in 1993.

With these factors in mind, Salomon Brothers has developed a new Salomon Brothers Eurodollar Bond Index. This new Index offers a comprehensive guide to the Eurodollar bond market.<sup>5</sup> The new Index provides the borrower with a broad measure of the structure of the Eurodollar market, covering an extensive range of maturities, issuers and credit qualities with typical yields and other statistics available on the whole Index, as well as its subsectors. Fund managers who are broadening their investment universe will also find it a useful tool with which to evaluate market structure, risk and relative portfolio performance.

**Question 13**

*Will borrowers be affected by FAS 115, which became mandatorily effective in January 1, 1994, and will require some investors to mark-to-market their holdings of certain debt and equity securities?<sup>6</sup>*

**Answer 13**

Many institutional investors, in general, and insurance companies, in particular, will find that the accounting values of their investment portfolios will appear more volatile as a result of FAS 115. Consequently, we expect that these investors may modify their traditional investment behavior:

- **Increased Appeal of Private and Quasi-Private Debt.** Investors may exhibit increased interest in nonpublicly traded investments, which are not covered by FAS 115. Traditional private placement and 144A securities, as well as bank and mortgage loans, are such examples. This is because investors may view investments designated as "held to maturity" as being effectively illiquid. Consequently, investors may reason that they might as well be compensated for this lack of marketability by earning the illiquidity premium associated with private investments.
- **Increased Appeal of Intermediate-Term Debt.** Investors may show a decreased willingness to accept interest rate risk (and the resulting market valuation fluctuations) on investments classified as "available for sale." Investors may attempt to minimize this risk by selecting investments with shorter maturities, floating interest rates and put provisions. Consequently, the cost of long-term, fixed-rate financing may go up.
- **Increased Cost of Call Provisions.** To enhance their financial flexibility, borrowers may be inclined to include and even pay up for call provisions embedded in their new issue financings because of the perceived or real hassles described above.
- **Decreased Ability to Distribute Securities Through Swap.** Investors often purchase new issue securities "on swap" versus outstanding bonds in their portfolios. To the extent that these outstanding securities are classified as held to maturity by the investor, such swap activity may be inhibited.

<sup>5</sup> For further information, see *Introducing the New Salomon Brothers Eurodollar Bond Index*, Rosario Benavides, et al., Salomon Brothers Inc., January 1994; and *The Eurobond Market in 1993*, Rosario Benavides, Salomon Brothers Inc., February 1994.

<sup>6</sup> FAS 115 is the Financial Accounting Standards Board rule for Accounting for Certain Investments in Debt and Equity Securities. According to this rule, at the time of purchase, most investors must designate the purchased security as: (1) held until maturity; (2) available for sale; or (3) trading account. Category 1 securities do not have to be marked-to-market, whereas category 2 is marked-to-market on the balance sheet and category 3 is marked-to-market through the income statement. For further information on FAS 115, see *CFO Quarterly — Fourth-Quarter 1993*, Niso Abuaf, et al., Salomon Brothers Inc., November 1993; and *Ready or Not: FAS 115 and Marketable Securities Accounting*, Arthur Fliegelman, Salomon Brothers Inc., August 1993.

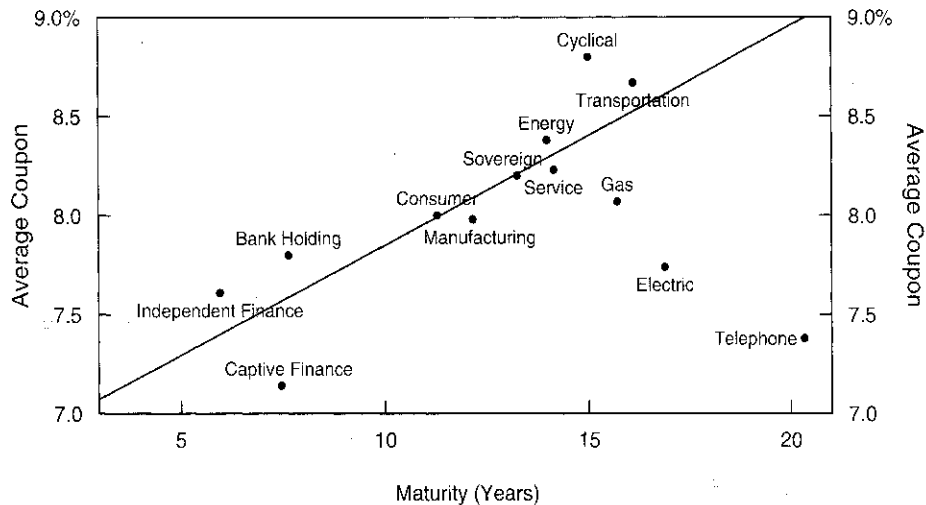
Question 14

What is the average coupon and average life of the taxable debt portfolio of corporate America by industry sector?

Answer 14

- Excluding electric and telephone utilities, the average coupon and average life of various corporate sectors follows a fairly predictable pattern: Higher cost is associated with longer average life (see Figure 9).

Figure 9. Fixed-Rate Taxable Debt Portfolio Statistics by Industry Group, 31 Dec 93



Note: Regression line excludes electric and telephone sectors.

- *Financial institutions* have markedly shorter average lives (five to ten years) than nonfinancial companies, reflecting the tenor of the financial assets that they are funding. *Industrial companies* generally target a longer average life of 10-15 years. *Electric* and *telephone utilities* traditionally have viewed the refundable long bond as the funding instrument of choice because of the long-term nature of their fixed assets and a regulatory framework that passes through capital costs to ratepayers.
- These statistics, however, ignore floating-rate exposure such as bank debt or commercial paper that will, in the current yield curve environment, reduce average cost and shorten average life. This can have a significant impact on companies that often short-fund 30%-50% of their debt portfolios.
- Determining the appropriate average life of a funding portfolio is a difficult exercise with no simple answer. In general, 30-year refundable bonds allow issuers to lock in a longer-term rate, while still preserving the ability to take advantage of future rate decreases. In contrast, shorter-term financing reduces costs in a steep yield curve environment, but it exposes the issuer to future refinancing risk. Expectations of a flattening yield curve suggest that intermediate-term bonds may prove to be a superior alternative to a "barbell" strategy of borrowing equal amounts of short- and long-term maturities.

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**FIXED-INCOME LIABILITY MANAGEMENT TRENDS**

**Question 15**

*What does Salomon Brothers's forecast imply for liability management trends?*

**Answer 15**

A flattening yield curve will tend to enhance the economic benefits of a high-coupon debt buyback in two ways:

- As short-term rates rise, prices of bonds with one to three years to the first refund date will fall, decreasing the cost of a debt buyback.
- As long-term financing rates decline, the issuer's financing cost to fund the buyback program will decline.

**Question 16**

*Are there alternative approaches to capturing the value of a call option prior to the first refund date?*

**Answer 16**

Borrowers can sell options on swaps, swaptions or bond warrants to monetize the call option of a bond callable in the future. Borrowers may have such bonds already outstanding or may be considering issuing them. When a borrower retrieves the value of a call embedded in a bond by selling swaptions (namely, a put option on a swap), it effectively has neutralized its call option. A borrower would take such action only if the economic value of the neutralized option to the borrower is lower than the proceeds of the swaption sale. Tax and expectation asymmetries (for example, of volatility) between buyers and sellers of such swaptions might cause such strategies to be economically attractive for both sides.

By selling a swaption, a borrower sells to a counterparty an option to enter into an interest rate swap as of a specified future date to receive fixed and to pay floating for a predetermined period of time. Typically, the option would be exercisable on the first call date of the comparable bond. The swap would have a notional amount equal to the face value of the bond and a life equal to the number of years between the first call date and the maturity of the bond.

The swap could be structured such that the issuer will make fixed-rate payments equal to the coupon of the underlying bond (that is, the strike of the swaption).

On the exercise date of the option, if prevailing interest rates are lower than the swap rate, then the purchaser of the swaption would exercise the option, and the issuer would pay a fixed interest rate on the notional amount of the swap and would receive a floating rate. If so, the issuer would call its outstanding bond and refund it with a floating-rate instrument. The floating-rate interest expense on the new financing would be offset by the floating rate paid to the issuer by the purchaser of the swaption. Consequently, the net effective cost to the issuer would be the same as the coupon of the original bond. Alternatively, the issuer can refund the original bond with a lower-coupon fixed-rate bond. If so, the issuer could unwind the outstanding swap and essentially lock in an interest expense identical to the coupon of the original bond (assuming that the issuer's credit spread remains unchanged).

On the exercise date of the option, if prevailing rates are equal to or less than the strike of the option, which equals the coupon of the bond, the swaption would not be exercised, allowing the issuer to enjoy the up-front option premium.

In an alternative strategy, an issuer can "monetize" the value of a call option through a forward interest rate swap. Here, the issuer enters into a forward swap paying fixed and receiving floating commencing on the first call date and terminating on the maturity date of the bond.

**Question 17**

*What will be the impact of FAS 115 on liability management transactions?*

**Answer 17**

Borrowers may now have to overcome several hurdles when buying back securities they have issued, which the owner may have classified as held to maturity.

Conversely, FAS 115 allows investors to change their intent to hold a certain security to maturity if certain conditions are met. Such conditions entail changes in a bond's or bondholder's economic circumstances, including the following:

- Deterioration of a bond's creditworthiness;
- Reduction in the tax-exempt status of interest on a bond;
- A business restructuring of the investor that changes its interest rate and credit risk profile;
- Statutory or regulatory changes causing borrowers to sell held-to-maturity securities;
- Increases in an investor's capital requirements;
- Increases in the risk weights of investments; and
- Unusual events that investors could not have reasonably anticipated.

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## FIXED-INCOME DERIVATIVE TRENDS

Fixed-income derivative activity continued to grow rapidly in 1993, as the volume of standard instruments, such as simple interest rate swaps, and the breadth of newer innovative instruments, such as accrual and zero-coupon swaps, grew. In fact, according to the International Swaps and Derivatives Association's most recent survey, the notional amount of swaps and swap-related products soared by 71% in the first half of 1993. The total notional values of various instruments in the first half of 1993 follow: swaps (\$1.9 trillion); currency swaps (\$157 billion); caps, collars and floors (all currencies, \$287 billion); and swaptions (all currencies, \$223 billion).

### Question 18

*What are the types of risk that derivative instruments entail?*

### Answer 18

All derivative transactions, from the simplest interest rate swaps to exotic currency options, entail the following risks:

- **Market Risk.** The market value of a derivative instrument changes as factors affecting its value — such as the underlying price and volatility, interest rate and time to maturity — change. Such changes affect portfolio values of buyers and sellers. This value fluctuation is known as market risk.
- **Liquidity Risk.** Some derivative instruments such as standard interest rate swaps up to ten years in maturity are readily traded in large amounts. That is, bid-ask spreads for such instruments are within a narrow band of about ten basis points. Conversely, other instruments such as long-dated options (for example, a four-year option on gold) are not readily traded. The risk that a given position may not be tradable is known as liquidity risk.
- **Volatility Risk.** Most of the time, markets go up and down more or less smoothly. Sometimes, however, prices or yields may significantly jump from one level or trading range to another significantly different level or trading range. Examples include the October 1987 stock market collapse and the fall of 1992 virtual breakdown of the European Monetary System (EMS). Such large shocks, also known as volatility risk or jump processes, may cause significant market disruptions and portfolio revaluations.
- **Credit or Counterparty Risk.** When a corporation enters into an equity, currency or interest rate swap with a counterparty, not only does the corporation expect that the derivative instrument's market value will move in its favor, but it also expects that the counterparty will perform. Stated differently, an interest rate swap with a AAA-rated counterparty is more valuable than an interest rate swap with an A-rated counterparty. As a result, various financial intermediaries, including Salomon Brothers, have set up AAA-rated derivatives subsidiaries.
- **Legal, Regulatory, Tax, and Accounting Risk.** Sometimes, the legal, regulatory, tax, and accounting environment under which a derivative transaction is executed may not be fully clear-cut, leaving room for gray areas of the law and practice. Furthermore, such regulations and practices may change suddenly, imposing serious types of costs to various players. As a result, we recommend that counterparties to a derivatives transaction should consult their professional advisors before executing derivatives transactions.

- **Settlement Risk.** Some transactions such as cross-border currency forwards may be subject to settlement risk. For example, one counterparty's bank account may be credited before the other counterparty's bank account is debited. If so, and if the first cash receiver fails before its bank account is debited, the first cash payor will have suffered counterparty settlement risk.

**Question 19**

*What are accrual swaps, and how can a borrower use them?*

**Answer 19**

- Accrual swaps are fixed-to-floating interest rate swaps in which the fixed-coupon receiver forgoes accrual on any given business day if a certain interest rate index moves above a preset threshold rate (the strike). In return, the fixed rate is set higher than the comparable conventional swap rate. For example, assume that we choose the index as the ten-year Constant Maturity Treasury (CMT). If the CMT rate stays below the chosen strike for the full coupon period, the full fixed rate is realized as the fixed coupon. However, if the CMT rises above the strike for one half of the business days in a period, the coupon received is one half the fixed rate. This accrual provision does not apply to the floating leg of the swap.
- Analytically speaking, a counterparty receiving a fixed rate in an accrual swap effectively has sold a series of daily (sometimes called digital) options on the index. Alternatively, a fixed-rate receiver in an accrual swap can view the transaction as entering into a regular swap and selling interest rate caps with a daily reset. The higher fixed rate in an accrual swap enables corporate liability managers to minimize their borrowing costs in situations where reverse interest rate swaps typically are used, such as swapping a fixed-rate bond issue into floating. Accrual swaps allow managers to vote their specific interest rate views. For example, many managers who do not believe that the high forward rates implied by the current steep yield curve will be realized have been entering into accrual swaps.
- Accrual swaps are extremely flexible. That is, the maturity, interest rate index and strike of the swap all can be tailored for specific scenarios or interest rate views.
- To gain exposure to longer-term yields, a manager would select the ten-year CMT as the index rate. If the manager had a specific view on short-term rates, the three-month London Interbank Offered Rate (LIBOR) could be used. In addition, if the manager is worried about an increase in interest rates over the longer-term horizon, the swap could be structured with strikes that step up after a few years.
- Investors have been using the accrual structure extensively by purchasing structured notes incorporating such features. Analogously, corporate clients selectively have been using accrual swaps in their liability management.



**Figure 10. Term Sheet of a Sample Accrual Swap**

Fixed-Rate Payor:	Salomon Brothers Inc
Floating-Rate Payor:	XYZ Corporation
Maturity:	3 Years
Fixed Rate:	6.09%
Floating Rate:	3-Month LIBOR
Reset:	Quarterly
Index Rate:	10-Year CMT
Strike:	6.09% (Current 10-Year Treasury + 100 bp)
Conventional Swap Rate:	5.04%
Accrual Swap Pickup:	105 bp

bp Basis points. CMT Constant Maturity Treasury. LIBOR London Interbank Offered Rate.  
Source: Salomon Brothers Inc.

**Question 20**

*What are zero-coupon swaps, and when should companies use them?*

**Answer 20**

- A zero-coupon swap resembles a zero-coupon bond in the sense that counterparties to such a swap do not typically exchange interim cash flows until the maturity date. This contrasts with a standard fixed-for-floating interest rate swap, in which counterparties periodically exchange fixed-coupon payments for floating payments such as LIBOR. Typically, however, only the net difference between the fixed and the floating payment exchanges hands. In a zero-coupon swap, conversely, both the fixed and the floating payments are allowed to accrue until maturity, at which point the net difference between the accrued fixed side and the accrued floating side exchanges hands. Because swap markets are flexible, a zero-coupon structure may allow floating-rate payments made with a standard reset frequency.
- A zero-coupon swap is priced like a standard interest rate swap. That is, at inception, the present value of the fixed side of the swap equals the expected present value of the floating side of the swap.
- Certain borrowers might find that executing a zero-coupon swap may have a better risk-reward profile than executing a standard swap. Suppose, for example, that a certain borrower issues a ten-year fixed-rate bond at 6.55% and swaps this bond into floating by receiving 6.08% fixed and paying LIBOR flat. Such a swap converts the borrower's fixed-rate borrowing into a floating borrowing costing LIBOR + 47 basis points, which equals LIBOR + 6.55% - 6.08%. Alternatively, the borrower can enter into a zero-coupon swap in which it receives 6.27% fixed and pays LIBOR flat, converting its fixed-rate borrowing into a floating borrowing costing LIBOR + 28 basis points, which equals LIBOR + 6.55% - 6.27%. The caveat is that, compared with a standard swap, a zero-coupon swap creates a cash flow mismatch on the fixed-coupon payments of the bond. This mismatch exposure created by the zero-coupon swap allows the borrower to attain a lower floating funding cost than a standard swap.
- Naturally, such an exposure can either benefit or cost the borrower, depending on whether its interest rate views are materialized. Compared with a fixed-rate receiver on a conventional swap, a fixed-rate receiver on a zero-coupon swap would be better off if LIBOR rates do not increase significantly. That is, if the yield curve flattens or if LIBOR rates do not rise as much as implied by LIBOR forward rates, the payoff on a zero-coupon swap would be higher than on a conventional swap.

- The market value of a zero-coupon swap has a higher duration and, as such, is more interest rate-sensitive than a standard swap. In particular, zero-coupon swaps are more sensitive to parallel up or down shifts in the yield curve. Zero-coupon swaps also are sensitive to changes in the slope of the coupon curve because such changes imply changes in zero-coupon rates.

**Figure 11. Hedging a Bond With a Standard Swap versus a Zero-Coupon Swap**

Company:	XYZ Corporation
New Issue Coupon:	6.55% (10-Year Treasury + 80 bp)
Alternative 1:	Standard Swap, Receive Fixed, Pay LIBOR Flat
Standard Swap Fixed Coupon:	6.09% (10-Year Treasury + 33 bp)
Effective Debt Cost:	LIBOR + 46 bp
Alternative 2:	Zero-Coupon Swap, Receive Fixed, Pay LIBOR Flat
Zero-Coupon Swap Fixed Coupon:	6.64% (10-Year Treasury + 89 bp)
Effective Debt Cost:	LIBOR - 9 bp
Risk of Zero versus Standard:	Cash Flow Mismatch of Bond Coupon
Reward of Zero versus Standard:	Better Effective Yield if Short-Term Rates Do Not Increase as Much as Implied by the Forward Curve, and if Rates Drop

bp Basis point. LIBOR London Interbank Offered Rate.  
Source: Salomon Brothers Inc.

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