Appendix 27A Adjustable Rate Preferred Stock, Auction Rate Preferred Stock, and Floating Rate Certificates of Deposit

Corporate cash managers are continually seeking new ways to improve the return on their surplus cash. Many of the sophisticated investment vehicles developed over the last decade are too illiquid or too risky or have an inappropriate time horizon for use in cash management. However, three instruments—adjustable rate preferred stock, auction rate preferred stock, and floating-rate CDs or notes—offer substantial benefits and are currently employed by corporations in their cash management activities.

Adjustable Rate Preferred Stock

Adjustable rate preferred stock (ARPS) is designed to offer rates of return competitive with more traditional money market instruments while still affording the corporate investor the 80 percent tax exclusion on dividend income—a tax advantage that makes equity investments extremely attractive.

Agencies such as Moody's or Standard & Poor's give issues credit ratings, so the cash manager has a gauge to judge the creditworthiness of the instruments relative to other investments. The dividend rate on these issues is adjusted quarterly at a fixed spread over or under the highest of the 90-day T-bill rate, the 10-year T-note rate, or the 20-year T-bond rate prevailing on the reset date. The spread is specified by each issuer. ARPS issues have *collars*—minimum and maximum dividend rate levels—that, when hit, result in the issue taking on the characteristics of a fixed-rate preferred instrument.

The floating-rate feature keeps the dividend rate (and thus the overall pretax return) in line with alternative investments and reduces price volatility caused solely by changes in interest rates. The floating rate does not, however, eliminate all of the incremental risk associated with these instruments.

Risk is present in the ARPS market and can be broken down into three categories. Cash managers must continually reevaluate the market in light of changes that might occur in any of the three areas.

The greatest risk in the ARPS market is derived from the limited number of issuers and their clustering in certain industry groups, most notably banking, and the ever-present risk of downgraded ratings. Like any other credit instrument, ARPS is subject to volatility based on the market's perceptions of the strength of the issuer and industry group. The possibility of impaired principal is a real one for ARPS purchasers because concerns about credit could govern the floating-rate dividend between and on reset dates. The cash manager must be aware that substantial month-to-month volatility (the normal time horizon for corporate evaluation of their cash portfolios) could exist with ARPS investments.

A second risk factor centers around the narrowness of the primary and secondary markets for ARPS. The demand for these issues comes primarily from corporate investors, and the limited nature of this investment base is a factor in evaluating the depth of the market. If a cash manager must liquidate a position quickly, a thin market could exacerbate price pressure. As a result, most corporate investors employ mutual fund managers who specialize in the ARPS market to run their portfolios. Liquidity is normally next-day with the funds (although principal is by no means guaranteed), and mutual fund managers represent the most active players in the market.

Finally, changes in the tax code have a great impact on the price of ARPS issues because their main feature is the tax advantage of the dividend exclusion. The Tax Reform Act of 1986 reduced this exclusion from 85 to 70 percent. Assuming a 46 percent tax rate, a corporate investor in the ARPS market would have found its dividend income being taxed at 13.8 percent (= 30 percent taxed at 46 percent) instead of 6.9 percent (= 15 percent taxed at 46 percent). Such an increase would have undoubtedly resulted in substantial price declines for existing issues. Luckily for both ARPS issuers and purchasers, the top corporate tax rate is now lower than 46 percent, resulting in only a small change for recipients of dividend income. The issue of tax advantage is crucial because ARPS as an investment is evaluated on an aftertax risk-adjusted basis relative to other instruments. If the added risk inherent in the instrument begins to eclipse the tax advantage, the instrument will become increasingly unattractive.

The adjustable rate preferred market has not fared as well as early proponents had hoped, primarily because the floating-rate dividend failed to compensate for credit concerns about the issuers. This has resulted in many issues trading below par and has prompted the development of several related instruments. The most successful of these new vehicles is auction rate preferred stock.

Auction Rate Preferred Stock

The similarity between ARPS and *auction rate preferred stock* extends only to the fact that both have a floating dividend rate and afford the corporate investor the same exclusion of taxes on dividends. Auction rates differ from ARPS in the way the dividend is set and in the way these portfolios are managed.

The dividend rate for auction rate preferred is set not by the issuers but by the market through a process called a *Dutch auction.* The auction permits investors to determine the dividend yield for the 49-day period that is standard between reset dates. The Internal Revenue Service requires that a corporate investor hold dividend-paying stock for at least 45 days to be eligible for the dividend exclusion; 49 days was chosen so the auctions will always occur on the same day of the week for the life of individual issues.

An auction rate preferred stock is auctioned as follows. Each bidder (someone who already owns shares and wishes to continue to hold them, or a new purchaser) submits to the agent in charge of the auction the number of shares desired and at what dividend level. The lowest rate that sells out the available shares will be the dividend for the 49 days until the next reset/auction. Investors who already own shares going into the auction have the option to take their shares at whatever dividend is set (called *rolling*) or bid the lowest rate they would accept and risk losing some or all of the shares to another bidder who would be willing to take a lower dividend. Of course shareholders also have the right to simply sell all of their shares at the auction. Although the process is essentially independent, the dividend rate for most issues is usually set at approximately 60 to 80 percent of the 60-day AA commercial paper rate prevailing on auction day.

Auction rate preferred stock offers the corporate investor several important features:

1. The 49-day reset period is shorter than the 90-day period found in the ARPS market, reducing the potential for price volatility resulting from both interest rate movement and credit concerns.
2. The auction method of determining the dividend level makes it more likely that the issue will trade at par, minimizing principal impairment. The shorter reset period also offers the cash manager increased liquidity in the event funds are needed for corporate operations between auctions. The auction rate investor sacrifices some return relative to ARPS because of these features but still garners a substantial aftertax benefit relative to alternative money market investments.

3. The auction rate preferred market is more accessible to the corporate investor, allowing it to invest individually rather than through a mutual fund. Many cash managers prefer the added control this gives them over their portfolios.

The risks associated with auction rate preferred stock are smaller than those associated with ARPS but must still be considered substantial for the cash manager who may need immediate liquidity or who faces strict return criteria. These risks include the following:

1. *Failed auctions*: If the agent supervising an auction does not receive enough bids to match offers to sell for existing shares of a particular issue, the auction is considered to have failed. There have been several auction failures, but it is not as catastrophic as it sounds. It means that the dividend rate for the subsequent 49-day period will be set at 110 percent of the 60-day AA commercial paper rate. A seller would therefore face a capital loss if she wished to liquidate.
2. *Issuer credit quality*: As with ARPS, all auction rate preferred issues receive a rating from Moody's or Standard & Poor's. They remain susceptible to perceived or actual changes in that credit quality between reset periods. To facilitate the new market, some large brokers were even guaranteeing to redeem auction rate preferred at par between reset periods to generate investor participation.
3. *Changes in the tax code*: Major changes in the tax code will affect the auction rate preferred market in much the same manner as they would the ARPS market. Once again, it is crucial to remember that these instruments are judged on an aftertax risk-adjusted basis relative to alternative investments.

Auction rate preferred stock has been extremely well received by the corporate marketplace. The key to its continued success will be diversification of issuers, orderly and successful auctions, and an ongoing aftertax yield advantage relative to other money market investments.

Floating-Rate Certificates of Deposit

A third investment available to the cash manager looking to increase the return on surplus cash is the *floating-rate certificate of deposit* or note. Our discussion centers on the CD, but the same argument applies to the short-term note, adjusting for time horizon considerations.

The floating-rate certificate of deposit (FRCD) market presents substantial investment opportunities for the manager of short-term cash. Frequently reset coupons, the hallmark of the FRCD, allow the investor to combine the yield of an intermediate-term instrument with the liquidity of a short-term one. This combination also reduces interest rate risk and provides for capital maintenance, while continuing to provide attractive returns.

Two issues must be addressed when evaluating the FRCD market:

1. How are the issues priced?
2. Which base rate should be selected?

Floating-rate CDs are priced at a spread above or below a well-known market index such as the London Interbank Offered Rate (LIBOR), T-bills, or commercial paper. The width of the spread reflects the issuer's credit, the maturity of the issue, its liquidity, and the overall level of rates at the time of issuance. In general, this spread is fixed over the life of the security, but some new issues do have a floating spread. When the market perception of credit quality changes significantly from that implied in the spread to the base rate, the price of the security will decline as the market compensates investors for the increased risk.

The actual coupon paid (the index rate plus or minus the predetermined spread) to the investor will be reset periodically, usually monthly, quarterly, or semiannually. The floating nature of the coupon keeps most FRCDs within one to two points of par at all times because the issues are continually repriced relative to existing market conditions. Price stability will increase with the frequency of reset.

Most FRCDs also feature redemption specifications in the form of call or put options. In the case of a call, the issuer has the option to call the security back from an investor at par, usually within three to five years of issuance. The security can be called on any coupon payment date, and, as would be expected, the option is usually exercised when the security is trading at a premium. For the put option, the investor has the right to sell the security back to the issuer at par before maturity. The option is usually exercised when the security is trading at a discount. These features must be incorporated into yield calculations, with the call or put dates generally substituted for the maturity date.

The initial price of the FRCD will adapt to reflect market demand for the issue, liquidity, and favorable aspects of the issue's structure. Whether the security trades at a premium or discount to par depends on changes in the market's perception of these and the other factors discussed previously. However, given frequently reset coupons, only drastic changes in issuer quality or quality spreads will prompt significant deterioration of principal.

The price of an FRCD will also be affected if a change occurs in the relationship between index rates, such as a widening of the T-bill/Eurodollar spread. Assume that two FRCDs are priced to identical yields, one at a spread over LIBOR and the other at a spread above T-bills. If the T-bill/Eurodollar spread widens, the FRCDs indexed to LIBOR will experience a price decline. This will occur regardless of the absolute level of interest rates or any shift in market perception of specific credit risk.

In evaluating an FRCD, the selection of an issue based on its index rate can be as important as selection of an issue based on the issuer's credit ratings or maturity. The choice of an index reflects the perception of how the issuer's industry fundamentals will behave relative to that index. For instance, the choice of T-bills as the base implies an analysis of how the issuer will perform relative to a risk-free measure; the choice of commercial paper implies an analysis of the issuer's prospects relative to companies with access to that market.

The base rate will also be important when general quality concerns arise in the market. A LIBOR index will reflect those concerns; the price of an FRCD indexed to LIBOR should not change drastically because its coupon is linked directly to a market-determined cost of funds. An FRCD indexed to T-bills, however, might exhibit substantial price volatility over the same period. The greater the index's sensitivity to market movement, the greater the issue's price stability.

Although the FRCD does not offer the tax advantage of ARPS or auction rate preferred stock, it gives the cash manager an opportunity to keep returns on excess cash in line with changing interest rates. The secondary market for FRCDs is still developing but is considerably deeper than that for preferred securities.

All of these investments were designed for cash management activities that allow for investment of cash for longer periods. Generally, a cash manager will be using at least a 9-month to 12-month horizon before considering investing in these vehicles. Money should not be committed to these investments unless the manager can be reasonably sure that it will not be needed for corporate operations for at least one year.