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REPURCHASE AGREEMENTS

In light of the frequent media attention to the Federal Reserve and the recent change in monetary policy, it is important to understand the Repurchase Agreement (REPO) market and how it concerns your portfolio.

The REPO market is one of the largest, most liquid sectors of the financial industry. However, a REPO is often not well understood. Simply stated, a repurchase agreement is the simultaneous sale and repurchase of a security or group of securities for different settlement dates.

The Federal Reserve (the Fed) influences short-term interest rates by adding or subtracting funds through the REPO market. In this regard, the Fed uses the REPO market in the implementation of monetary policy. The Fed can expand or contract the money supply by entering into repurchase agreements with non-bank primary dealers. REPO rates closely follow the Federal Funds rate.

To gain some perspective on the growth of this market, consider that in 1989, the REPO market was valued at \$781.4 billion, but by 1998 it had grown to \$2.53 *trillion*. This spectacular growth can be attributed to a few key factors. The highly liquid nature of this market allows brokers/dealers to economically finance their inventories while lowering their borrowing costs. Broker/dealers also engage in "matched book" trading, where traders seek arbitrage opportunities between different types of securities.

As stated above, in a REPO, an account manager agrees to sell a security or a group of securities to a broker/dealer, while simultaneously agreeing to repurchase the same securities at a future date at a specified price. This time period can be as short as one day and is usually no longer than one year. The account manager and the broker/dealer also agree on the type of collateral to be used in the transaction. (U.S. Government Securities, known as "General Collateral", are the most common type of collateral. Mortgage Backed Securities and Corporate Bonds are also typical collateral). The two parties must agree on the interest rate, or REPO rate, to be paid. The REPO rate is the interest that the account manager pays the broker/dealer for use of the funds. The quality of the collateral and the maturity of the REPO determine this rate. The better credit quality collateral, the lower the REPO rate. The account manager will then deliver the security to the broker/dealer while the broker/dealer delivers cash to the account manager.

Trade date: 06/15/99 Settlement date: 06/16/99 REPO Rate: 5.35% Maturity Date: 07/16/99

As an example, if an account manager were to raise \$1 million in the REPO market for 30 days, the trade would read as follows:

REPO \$1,000,000 CMSI 1998-1 A 6.50% 01/25/28 CMO @ 5.35% to 07/16/99

In this example, the account manager agrees to deliver 1,000,000 worth of collateral on 6/16/99 to the broker/dealer. The broker/dealer delivers cash to the account manager. The account manager simultaneously agrees to repurchase the same security on 07/16/99, for the same 1,000,000.

It is important to note that the account manager continues to own the security while it is out on REPO to the broker/dealer. The account is entitled to all interest receivable from the security, and participates in any and all price fluctuations.

The second part of the trade is to invest the \$1,000,000 in a short-term instrument with the same maturity as the REPO. This only makes sense if the instrument in which the account manager invests the cash has a higher interest rate than that of the REPO (above 5.35% in this example). Investments included in this category would be Structured Money Market Securities, Commercial Paper, Certificates of Deposit, or a Custodial "STIF" account. The account manager would then earn the difference between the coupon of the investment vehicle and the REPO rate on \$1,000,000. For example:

1) Account enters into a REPO agreement:

REPO \$1,000,000 CMSI 1998-1 A @ 5.35% to 07/16/99

2) Account invests \$1,000,000 from REPO in a Structured Money Market Note:

SMMN 99-1 M. \$1,000,000 @ 6.00% to 07/16/99

In conclusion, the repurchase agreement can provide incremental value to a portfolio with very little risk. routinely participates in trades of this nature on behalf of its clients. It is a prudent method of enhancing portfolio returns by participating in a large, efficient market offering extremely high liquidity.

Vanderbilt Research Team

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Emad is the Managing Partner and Chief Executive Officer of Vanderbilt Avenue Asset Management LLC. Vanderbilt's client base includes Multi-national Corporations, Public Funds, Foundations/Endowments, and Taft Hartley accounts.

Previously, Emad was Chairman of Institutional Business at Pioneer Investments. Pioneer investments has more than \$300 Billion in assets under management. The parent of Pioneer, UniCredit S.p.A., is the largest bank in Italy and the second largest bank in Europe. Pioneer had purchased Vanderbilt Capital Advisors, of which Emad was the founder and Chief Executive Officer.

Emad has had numerous articles published in professional and academic journals such as The Journal of Forecasting, The American Economist and The Journal of Fixed Income. He is a Board member of The National Investment Company. Emad was a member of the Board of Advisors of the Pacific Institute, The Advisory Committee of Fulcrum Global Partners, The Chief Executive Officers Club and formerly a board member of The Foreign Policy Association. He also served on the Board of Directors of the University of Albany Foundation, NextGen Healthcare Inc., The Park Avenue Bank, AA Bank and The New Providence Fund and Associates LP.

Emad is an FINRA Arbitrator. He is also a member of the National Association for Business Economists and The Economic Club of New York. Emad served as an adjunct professor at the University of Kansas and St. John's University.

Emad holds a Bachelor of Science from the University of Albany, and a M.A. and Ph.D. in Economics from the University of Kansas.