## VANDERBILT $_{\text {ASSET MANAGMENT }}$ Ave

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## Mortgage Dollar Rolls

Portfolio managers should be aware of the opportunities to enhance return through the use of mortgage dollar rolls. Once an investment decision is made to invest in the mortgage sector, a portfolio manager has the option with certain securities of either purchasing the issue at a price for current month delivery or at a lower (forward) price for future delivery. The lower price is specified as a difference, or "drop" from the current price and is quoted in 32nds. The period between the current and future month delivery is called the roll period.

During the roll period, the investor foregoes principal and interest on the mortgage issue. An investor who has rolled a premium issue has eliminated the risk of higher prepayments during the roll period. He is compensated by the interest earned on the cash allocated for the purchase and by the lower (forward) price. The potential return is even greater when the cash is invested in higher-yielding short-term assets other than money market issues. The transaction is favorable to the portfolio manager when the interest earned and the drop is large enough to more than offset the principal and interest foregone. A sample computation of roll value is shown in the example below.

## I. Assumptions

|  |  |
| :--- | :--- |
| Prepayment Rate | $17.70 \mathrm{CPA}(300 \% \mathrm{PSA})$ |
| Settlement Date | $10717 / 93$ |
| Current Delivery Price | 10732 |
|  | 107 |
| Forward Price | $5 / 32$ |
| Price Drop | $3.1 \%$ |
| Reinvestment Rate (Repo Rate) |  |
| Initial Balance | $\$ 1 \mathrm{MM}$ |

II. Return from Holding of GNMA $8 \mathbf{1 / 2 \%}$ (BT on 7/28/93)
A) (\$1MM GNMA 81/2\% @ 107 5/32 8/17/93 S/D): $\$ 1,071,562.50$
$\begin{array}{rr}\text { Accrued Interest Paid: } & +\quad 3,777.78 \\ \text { Total Cost: } & \$ 1,075,340.28\end{array}$
One month principal \& interest received by investor on 9/16/93.

| Principal: | $\$ 16,715.59$ |
| ---: | ---: |
| Interest: | $+7,083.33$ |
|  | $\$ 23,798.92$ |

B) Value of Asset on $9 / 16 / 93$

Own $\$ 983,286.46$ principal
GNMA 81/2\%@107=
\$1,052,116.51
Principal \& Interest Rec'd:
$\begin{array}{r}1,23,798.92 \\ \hline\end{array}$
Accrued Interest (9/1/93-9/16/93):
Total Value on 9/16/93:

| $+\quad 3,482.47$ |
| :--- |

$\underline{\underline{\$ 1,079,397.90}}$

## III. Return from Dollar Roll of GNMA 8 1/2\%

A) Invest $\$ 1,075,340.28$ @ $3.10 \%$ for 30 days $=$
$\$ \quad 2,777.96$
B) Value of Asset on $9 / 16 / 93$

Money to invest: $\$ 1,075,340.28$
Interest @ 3.10\% (30 days):
Total:
$2,777.96$
$+\quad 1,078,118.24$
Drop (5/32) on \$1MM:
$\$ \quad 1,562.50$
Total Value on 9/16/93:
$\underline{\underline{\$ 1,079,680.74}}$

## IV. Evaluation

| Dollar Roll Value: | $\$ 1,079,680.74$ |
| :--- | :--- |
| Holding Security Value: | $\underline{-1,079,397.90}$ |
| Value Advantage of Dollar Roll: | $\underline{\underline{\$ ~ 282.84 ~}}$ |

Value Advantage of Dollar Roll:
$\$ \quad 282.84$

The above example reveals that the GNMA roll provides a superior return than purchasing and holding the GNMA security. Over time, an investor can add significant incremental return by doing dollar rolls over a buy and hold strategy.

Vanderbilt Research Team

## Emad A. Zikry <br> Chief Executive Officer <br> Vanderbilt Avenue Asset Management

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.

