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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 CPA (300% PSA)
Settlement Date	8/17/93
Current Delivery Price	107 5/32
Forward Price	107
Price Drop	5/32
Reinvestment Rate (Repo Rate)	3.1%
Initial Balance	\$1MM

II. Return from Holding of GNMA 8 1/2% (BT on 7/28/93)

A) (\$1MM GNMA 8 1/2% @ 107 5/32 8/17/93 S/D): \$1,071,562.50

Accrued Interest Paid:	+ 3,777.78
Total Cost:	<u>\$1,075,340.28</u>

One month principal & interest received by investor on 9/16/93.

Principal:	\$16,715.59
Interest:	+ 7,083.33
	<u>\$23,798.92</u>

B) Value of Asset on 9/16/93

Own \$983,286.46 principal	
GNMA 8 1/2% @ 107 =	\$1,052,116.51
Principal & Interest Rec'd:	+ <u>23,798.92</u>
Accrued Interest (9/1/93 – 9/16/93):	+ 3,482.47
Total Value on 9/16/93:	<u><u>\$1,079,397.90</u></u>

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

A) Invest \$1,075,340.28 @
3.10% for 30 days = \$ 2,777.96

B) Value of Asset on 9/16/93

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

IV. Evaluation

Dollar Roll Value:	\$1,079,680.74
Holding Security Value:	<u>- 1,079,397.90</u>
Value Advantage of Dollar Roll:	<u>\$ 282.84</u>

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.

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