

EXAM FM QUESTIONS OF THE WEEK

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Week of August 28/06

A 20 year bond purchased at an effective annual yield rate of 6% has level annual coupons. The amortized value of the bond just after the 5th coupon is \$9174.28 and just after the 6th coupon it is \$9231.23. Find the market value of the bond just after the 5th coupon if the market yield rate is an effective annual rate of 5%.

The solution can be found below.

Week of August 28/06 - Solution

$$BV_5(1.06) - Fr = BV_6 \rightarrow Fr = 493.51 .$$

$$BV_5 = Cv_{.06}^{15} + Fra_{\overline{15}|.06} \rightarrow 9174.28 = .4173C + (493.51)(9.7122) \rightarrow C = 10,500 .$$

$$MV_5 = Cv_{.05}^{15} + Fra_{\overline{15}|.05} = (10,500)(.4810) + (493.51)(10.3797) = 10,173 .$$