

Using Amortizing Advances to Fund 15-Year Fixed-Rate Mortgage Loans

FHLBank Boston members are faced with threats to their mortgage business from non-depository lenders, dwindling refinance activity, and lower levels of housing inventory. Current refinancing activity as a portion of mortgage originations has fallen to its lowest level in almost a decade, and mortgage originations among depositories may continue to be a challenge in the future. Rather than selling the mortgages you are originating for a one-time gain, consider booking them and managing the associated interest-rate risk with a well-constructed hedge using FHLBank Boston advances. Over time, you can generate net interest income that will outpace the one-time gain on sale.

Let's review how \$5 million of 15-year fixed-rate mortgages with a coupon of 4.04 percent could be funded to manage the exposure to rising interest rates. To hedge your institution against rising interest rates, FHLBank Boston offers an Amortizing advance where the principal balance is reduced over time as members make monthly contractual payments of principal and interest. The 7-year Amortizing advance can provide an effective match-funding opportunity for pools of mortgages whose balance also pays down over time. In this strategy, after three years, if rates are unchanged, the mortgage balance would be approximately \$3.1 million at a 10 percent CPR. If rates decline by 50 basis points and prepayments increase to 13 percent CPR, the balance would be approximately \$2.9 million. If rates increase 300 basis points and prepayments slow to 7 percent CPR, the mortgage balance would be approximately \$3.3 million. Using \$5 million of a 7-year Amortizing advance provides a reasonable balance between these possible outcomes. Approximately \$3.0 million of the Amortizing advance would be outstanding after three years. The cost of the advance is 3.16 percent and has an average life of 3.7 years. The initial net interest spread on the strategy is 0.88 percent. The average cost of funds over seven years in the base case (no change in rates), declines 6 basis points from the initial cost, to 3.10 percent. One-month advances, at a rate of 2.24 percent, are used to balance the transaction as the Amortizing advance balance declines over time. If interest rates increase 300 basis points, the cost of funds increases from 3.10 percent to 3.55 percent or only 15 percent of the increase in market rates. Net interest income declines in all rate scenarios compared to the base case but averages \$172,000 over seven years in the six rate scenarios modeled. The results of this funding solution can be seen in the following table:

15Y Fixed-Rate Mortgages	4.04%	Results Years 1 through 7			
		Cost of Funds	Net Interest Spread	Net Interest Income (\$000s)	
\$5.00M 7Y Amortizing	3.16%	Down 100 basis points	3.13%	0.73%	\$ 155
\$5.00M Total Funding	<u>3.16%</u>	Down 50 basis points	3.11%	0.86%	187
Initial Net Spread	0.88%	Rates Unchanged	3.10%	0.92%	209
		Up 100 basis points	3.21%	0.82%	193
		Up 200 basis points	3.37%	0.66%	163
		Up 300 basis points	3.55%	0.49%	126

Fifteen-year residential mortgages provide opportunities for profitable balance sheet growth and are one of the primary sources of collateral pledged to secure advances and other activities with the Bank. We can work with you to model funding alternatives for the loans or investments you are using to grow your balance sheet.

Please contact me at kevin.martin@fhllbboston.com or 617-292-9644 to see what will work for your institution.