



## APPENDIX CA-12

### WORKED EXAMPLE OF DURATION METHOD OF CALCULATING GENERAL INTEREST RATE RISK MARKET RISK CAPITAL ADEQUACY

Zone	Modified Duration Band	Individual Net Positions		Assumed move in rates	Modified Duration	Weighted Individual Net Postions		By Band		By Zone		Between Zones	
A	B (Years)	C Long	D Short	E (% pa)	F (years)	G (C x E x F) Long	H (D x E x F) Short	I Matched	J Unmatched	K Matched	L Unmatched	M Matched	N Matched
1	1 month or less	\$100.00	-\$50.00	1.00%	0.00	\$0.00	\$0.00	\$0.00	\$0.00				
	1 to 3 months	\$200.00	-\$100.00	1.00%	0.20	\$0.40	-\$0.20	\$0.20	\$0.20				
	3 to 6 months	\$300.00	-\$200.00	1.00%	0.40	\$1.20	-\$0.80	\$0.80	\$0.40	\$0.00	\$1.30		
	6 to 12 months	\$400.00	-\$300.00	1.00%	0.70	\$2.80	-\$2.10	\$2.10	\$0.70				
	TOTAL					\$4.40	-\$3.10	Q \$3.10	\$1.30	T		Zone 1 & 2 \$ 1.30	
2	1 to 1.9 years	\$100.00	-\$200.00	0.90%	1.40	\$1.26	-\$2.52	\$1.26	-\$1.26				
	1.9 to 2.8 years	\$200.00	-\$300.00	0.80%	2.20	\$3.52	-\$5.28	\$3.52	-\$1.76	\$0.00	-\$5.27		Zone 1 & 3
	2.8 to 3.6 years	\$300.00	-\$400.00	0.75%	3.00	\$6.75	-\$9.00	\$6.75	-\$2.25	U			\$ 0.00
	TOTAL					\$11.53	-16.80	R \$11.53	-\$5.27			Zone 2 & 3	Z
3	3.6 to 4.3 years	\$100.00	-\$100.00	0.75%	3.65	\$2.74	-\$2.74	\$2.74	\$0.00				
	4.3 to 5.7 years	\$200.00	-\$200.00	0.70%	4.65	\$6.51	-\$6.51	\$6.51	\$0.00				
	5.7 to 7.3 years	\$300.00	-\$100.00	0.65%	5.80	\$11.31	-\$3.77	\$3.77	\$7.54				
	7.3 to 9.3 years	\$100.00	-\$200.00	0.60%	7.50	\$4.50	-\$9.00	\$4.50	-\$4.50	\$4.50	\$8.29		
	9.3 to 10.6 years	\$200.00	-\$100.00	0.60%	8.75	\$10.50	-\$5.25	\$5.25	\$5.25	V			
	10.6 to 12 years	\$300.00	-\$300.00	0.60%	10.00	\$18.00	-\$18.00	\$0.00	\$0.00				
	12 to 20 years	\$0.00	\$0.00	0.60%	0.00	\$0.00	\$0.00	\$0.00	\$0.00				
	over 20 years	\$0.00	\$0.00	0.60%	0.00	\$0.00	\$0.00	\$0.00	\$0.00				
	TOTAL					\$53.56	-\$45.27	S \$40.77	\$8.29				
Total of Columns		\$2,800	-\$2,550								\$4.32		
											Y		
General Interest Rate Risk Capital Requirement = 5% (Q + R + S) + 40% T + 30% (U + V) + 40% (W + X) + 100% Y + 100% Z								\$2.77		\$4.50	\$4.32	\$2.11	\$0.00
Total General Interest Rate Risk Capital Requirement													\$10.55
Assumption: This example uses the same portfolio as was used on worked example of the maturity method. The modified duration values are derived from that example. This example is for illustration only, as banks might have any number of positions in each zone, the modified duration of each being calculated on a case-by-case basis.													
Note: For instruments the maturity of which is on the boundary of two maturity bands, the instrument should be placed into the earlier maturity band. For example, instruments with a maturity of one year are placed into the 6 to 12 months band.													