disallowance, is assessed to allow for basis risk. The vertical disallowance capital requirement is 10.0 percent of the position eliminated by the intra-time-band netting, that is, 10.0 percent of the smaller of the net risk-weighted long or net risk-weighted short position, or if the positions are equal, 10.0 percent of either position.²⁵ The vertical disallowances for each time-band are absolute values, that is, neither long nor short. The vertical disallowances for all timebands in the maturity ladder are summed and included as an element of the general market risk capital requirement.

g. Within each zone for which there are risk-weighted long and short positions in different time-bands, the weighted long and short positions in all of the time-bands within the zone are then netted, resulting in a single net long or short position for each zone. Since different instruments and

different maturities may be included and netted within each zone, a capital requirement, referred to as the horizontal disallowance, is assessed to allow for the imperfect correlation of interest rates along the yield curve. The horizontal disallowance capital requirement is calculated as a percentage of the position eliminated by the intra-zone netting, that is, a percentage of the smaller of the net risk-weighted long or net risk-weighted short position, or if the positions are equal, a percentage of either position.²⁶ The percent disallowance factors for intra-zone netting are set out in Table II in section IV.A.2.h. of this appendix E. The horizontal disallowances, like the vertical disallowances, are absolute values that are summed and included as an element of the general market risk capital requirement. h. Risk-weighted long and short positions

in different zones are then netted between

the zones. Zone 1 and zone 2 are netted if possible, reducing or eliminating the net long or short position in zone 1 or zone 2 as appropriate. Zone 2 and zone 3 are then netted if possible, reducing or eliminating the net long or short position in zone 2 or zone 3 as appropriate. Zone 3 and zone 1 are then netted if possible, reducing or eliminating the long or short position in zone 3 and zone 1 as appropriate. A horizontal disallowance capital requirement is then assessed, calculated as a percentage of the position eliminated by the inter-zone netting. The horizontal disallowance capital requirements for each zone are then summed as absolute values and included in the general market risk capital charge. The percent disallowance factors for inter-zone netting are set out in Table II below:

I ABLE I	I.—HORIZONTAL	DISALLOWANCES

Zone	Time-band	Within the zone	Between adjacent zones	Between zones 1–3
1	0–1 month 1–3 months. 3–6 months. 6–12 months.	40 percent	40 percent	100 percent.
2	1–2 years 2–3 years. 3–4 years.	30 percent	40 percent	100 percent
3	1–5 years. 5–7 years. 7–10 years. 10–15 years. 15–20 years. Over 20 years.	30 percent	40 percent	100 percent

i. Finally, the net risk-weighted long or net risk-weighted short positions remaining in the zones are summed to reach a single net risk-weighted long or net risk-weighted short position for the banking organization's portfolio. The sum of the absolute value of this position and the vertical and horizontal disallowances is the capital requirement for general market risk. An example of the calculation of general market risk under the maturity method is in Attachment II to this appendix E.

j. In the *duration method*, the banking organization, after calculating each instrument's modified duration²⁷ using a formula that is subject to supervisory review, multiplies that modified duration by the interest rate shock specified for an instrument of that duration in Table III in section IV.A.2.k. of this appendix E. The resulting product (representing the expected percentage change in the price of the instrument for the given interest rate shock) is then multiplied by the current market value of the instrument. The resulting amount is then slotted as a long or short position into a time-band in the maturity ladder in Table III on the basis of the instrument's modified duration.²⁸

k. Once all of the banking organization's traded debt instruments have been slotted into the maturity ladder, the banking organization conducts the same rounds of netting and disallowances described in sections IV.A.2.f. through IV.A.2.h. of this appendix E for the maturity method, with the exception that the vertical disallowance requirement for the duration method is 5.0 percent (horizontal disallowances continue to be those set out in Table II).²⁹ As with the maturity method, the sum of the absolute value of the final net position and the vertical and horizontal disallowances is the general market risk capital requirement:

²⁸ For example, an instrument held by a banking organization with a maturity of 4 years and 3 months and a current market value of \$1,000 might have a modified duration of 3.5 years. Based on its modified duration, it would be subjected to the 75-

TABLE III—DURATION METHOD: TIME-BANDS AND ASSUMED CHANGES IN YIELD

Zone	Time-band	Assumed change in yield
1	Up to 1 month	1.00
	1 up to 3 months	1.00
	3 up to 6 months	1.00
	6 up to 12 months	1.00
2	1.0 up to 1.8 years	0.90
	1.8 up to 2.6 years	0.80
	2.6 up to 3.3 years	0.75
3	3.3 up to 4.0 years	0.75
	4.0 up to 5.2 years	0.70
	5.2 up to 6.8 years	0.65
	6.8 up to 8.6 years	0.60
	8.6 up to 9.9 years	0.60
	9.9 up to 11.3 yrs	0.60

basis point interest rate shock, resulting in an expected price change of 2.625 percent (3.5×0.75) . the corresponding expected change in price of \$26.25, calculated as 2.625 percent of \$1,000, would be slotted as a long position in the 3.3 to 4.0 year time-band of the maturity ladder.

²⁹ Two different vertical disallowances are used since the duration method takes into account an instrument's specific characteristics (maturity and coupon) and there is less opportunity for measurement error.

²⁵ For example, if the sum of the weighted longs in a time-band is \$100 million and the sum of the weighted shorts is \$90 million, the vertical disallowance for the time-band is 10.0 percent of \$90 million, or \$9 million.

 $^{^{26}}$ For example, if the sum of the weighted longs in the 1–3 month time-band in Zone 1 is \$8 million and the sum of the weighted shorts in the 3–6 month time-band is \$10 million, the horizontal disallowance for the zone is forty percent of \$8 million, or \$3.2 million.

²⁷ The duration of an instrument is its approximate percentage change in price for a 100 basis point parallel shift in the yield curve assuming that its cash flow does not change when the yield curve shifts. Modified duration is duration divided by a factor of 1 plus the interest rate.