

F. For fixed-principal securities reopened during a short first payment period:

Formula:

$$(P + A)[1 + (r/s)(i/2)] = (r'/s)(C/2) + (C/2) a_n + 100 v^n$$

Where:

$A = [(r' - r)/s](C/2)$ and

r' = number of days from the original issue date to the first interest payment date

Example:

For a 10½% 8-year note due May 15, 1991, originally issued on May 16, 1983, and reopened on August 15, 1983, with interest

payments on November 15 and May 15 (first payment on November 15, 1983), solve for the price per 100 (P) at a yield of 10.53%. Accrued interest is calculated from May 16 to August 15.

Definitions:

$C = 10.50$

$i = .1053$

$n = 15$

$r = 92$ (August 15, 1983, to November 15, 1983)

$s = 184$ (May 15, 1983, to November 15, 1983)

$r' = 183$ (May 16, 1983, to November 15, 1983)

$v^n = 1/[(1 + .1053/2)]^{15}$, or .463170

$a_n = (1 - .463170)/.05265$, or 10.196201

$A = [(183 - 92) / 184](10.50 / 2)$, or 2.596467

Resolution:

$$(P + A)[1 + (r/s)(i/2)] = (r'/s)(C/2) + (C/2) a_n + 100 v^n \text{ or}$$

$$(P + 2.596467)[1 + (92/184)(.1053/2)] = (183/184)(10.50/2) + (10.50/2)(10.196201) + 100(.463170)$$

$$(1) (P + 2.596467)[1 + .026325] = 5.221467 + 53.530055 + 46.3170$$

$$(2) (P + 2.596467)[1.026325] = 105.068522$$

$$(3) (P + 2.596467) = 105.068522 / 1.026325$$

$$(4) (P + 2.596467) = 102.373539$$

$$(5) P = 102.373539 - 2.596467$$

$$(6) P = 99.777072$$

$$(7) P = 99.777$$

G. For fixed-principal securities reopened during the fractional portion (initial short period) of a long first payment period:

Formula:

$$(P + A)[1 + (r/s)(i/2)] = [(r'/s)(C/2)]v + (C/2) a_n + 100 v^n$$

Where:

$A = [(r' - r)/s](C/2)$ and

r = number of days from the reopening date to the end of the short period

r' = number of days in the short period

s = number of days in the semiannual period ending with the end of the short period

Example:

For a 9¾% 6-year 2-month note due December 15, 1994, originally issued on October 15, 1988, and reopened on

November 15, 1988, with interest payments on June 15 and December 15 (first payment on June 15, 1989), solve for the price per 100 (P) at a yield of 9.79%. Accrued interest is calculated from October 15 to November 15.

Definitions:

$C = 9.75$

$i = .0979$

$n = 12$

$r = 30$ (November 15, 1988, to December 15, 1988)

$s = 183$ (June 15, 1988, to December 15, 1988)

$r' = 61$ (October 15, 1988, to December 15, 1988)

$v = 1 / (1 + .0979/2)$, or .953334

$v^n = [1 / (1 + .0979/2)]^{12}$, or .563563

$a_n = (1 - .563563)/.04895$, or 8.915975

$A = [(61 - 30)/183](9.75/2)$, or .825820