

Bond Price Calculation

BOND #1						
PAR	5,000,000		n		12	
STATED RATE	8% PER YEAR		i		1.5%	
INTEREST PAYMENT PERIODS	QUARTERLY		PMT		100,000	
LIFE	3 YEARS		FV		5,000,000	
MARKET RATE	6% PER YEAR					
Calculation using PV Tables:						
(1) Present value of Principal	[Table 2 -- n=12, i=1.5%]	5,000,000	x	0.83639	=	4,181,950
(2) Present value of Interest	[Table 4 -- n=12, i=1.5%]	100,000	x	10.90751	=	1,090,751
PRICE	AT PREMIUM					\$5,272,701
BOND #2						
PAR	1,000,000		n		5	
STATED RATE	10% PER YEAR		i		12.0%	
INTEREST PAYMENT PERIODS	ANNUALLY		PMT		100,000	
LIFE	5 YEARS		FV		1,000,000	
MARKET RATE	12% PER YEAR					
Calculation using PV Tables:						
(1) Present value of Principal	[Table 2 -- n=5, i=12%]	1,000,000	x	0.56743	=	567,430
(2) Present value of Interest	[Table 4 -- n=5, i=12%]	100,000	x	3.60478	=	360,478
PRICE	AT DISCOUNT					\$927,908
BOND #3						
PAR	2,000,000		n		12	
STATED RATE	15% PER YEAR		i		1.0%	
INTEREST PAYMENT PERIODS	MONTHLY		PMT		25,000	
LIFE	1 YEAR		FV		2,000,000	
MARKET RATE	12% PER YEAR					
Calculation using PV Tables:						
(1) Present value of Principal	[Table 2 -- n=12, i=1%]	2,000,000	x	0.88745	=	1,774,900
(2) Present value of Interest	[Table 4 -- n=12, i=1%]	25,000	x	11.25508	=	281,377
PRICE	AT PREMIUM					\$2,056,277
BOND #4						
PAR	1,500,000		n		20	
STATED RATE	8% PER YEAR		i		4.5%	
INTEREST PAYMENT PERIODS	SEMIANNUALLY		PMT		60,000	
LIFE	10 YEARS		FV		1,500,000	
MARKET RATE	9% PER YEAR					
Calculation using PV Tables:						
(1) Present value of Principal	[Table 2 -- n=20, i=4.5%]	1,500,000	x	0.41464	=	621,960
(2) Present value of Interest	[Table 4 -- n=20, i=4.5%]	60,000	x	13.00794	=	780,476
PRICE	AT DISCOUNT					\$1,402,436