## WHAT IS THE RATE OF RETURN IN DAY 1?

	Opening Position	Day 1	Day 2	Day 3	Day 4	Day 5
Futures Price (or daily closing) (or settlement price)	1000	1100	1200	1050	950	900
Buyer (Long) DEPOSIT Initial Margin TOP UP PAYMENTS Variation Margin Margin Account Total Net Gains	200 O 200	- 300 100	400-	— 250 <u>50</u>	 150 -50	50 150 -100
Seller (Short) Initial Margin Variation Margin Margin Account Total Net Gains	200 <b>②</b>  200	50 150 -100	100 <sub>2</sub> 150 -200 <sup>2</sup>	300 -50	 400 50	 450 100
Maintenance Margin Margin Level	150					

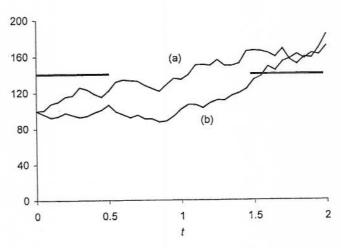


Figure 14.7 The intermittent barrier. Two varieties: barrier triggered if asset outside barrier on active days; barrier only triggered by asset price crossing barrier.

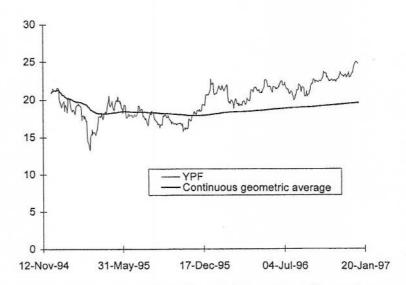
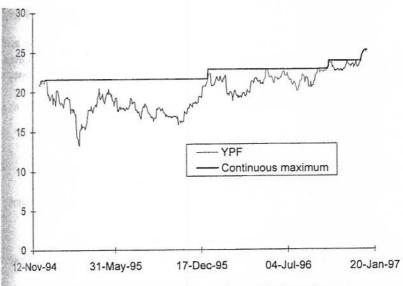


Figure 16.2 An asset price random walk and its continuous geometric running average.



2 An asset price path and the continuously-sampled maximum.

-		-	-	-
12	- 1	7	2	- 7
г.		1		- 1

Interest Rate Swap					
(1)	(2)	(3)	(4)	(5) NET INTEREST	
_		FLOATING-RATE	FIXED-RATE	RECEIVED BY FIXED-RATE PAYER	
EFFECTIVE	r vn on	PAYER'S	PAYER'S PAYMENTS <sup>†</sup>		
DATE	LIBOR	PAYMENTS*	PAYMENTS	(3) - (5)	
March 23, 1995	.085_		_	0 <u>-14</u>	
Sept. 23, 1995	.09	\$.425M	\$.475M	-\$.050M	
March 23, 1996	.095	.450	.475	025	
Sept. 23, 1996	.10	.475	.475	0	
March 23, 1997	.105	.500	.475	.025	
Sept. 23, 1997	.11	.525	.475	.050	
March 23, 1998	100000	.550	.475	.075	



## LE 17.2-3

Synthetic Fixed-Rate Loan						
(1) DATES	(2) (3) SEMIANNUAL INTEREST ON LIBOR VARIABLE LOAN*		(4) NET INTEREST RECEIVED BY FIXED-RATE PAYER <sup>†</sup>	(5) EFFECTIVE INTEREST COST (3) - (4)		
March 23, 1995 Sept. 23, 1995 March 23, 1996 Sept. 23, 1996 March 23, 1997 Sept. 23, 1997 March 23, 1998	.11 _	- \$.425M • .450 • .475 • .500 • .525 • .550	 -\$.050M 025 0 .025 .050 .075	\$.475M .475 .475 .475 .475 .475		

<sup>\*</sup>Interest =  $\left(\frac{\text{LIBOR}}{2}\right)$ (\$10,000,000) †See Table 17.2-1, column 5.

<sup>\*(\</sup>frac{\text{LIBOR}}{2}\)(\$10,000,000)
†(\frac{.095}{2}\)(\$10,000,000)

## **FIGURE 17.3-1**

## Currency Swap

American company issues a five-year, \$25M bond at 10% interest that it swaps with a German company that issues a five-year, DM 62.5M bond at 7.5% interest

