

[]

10

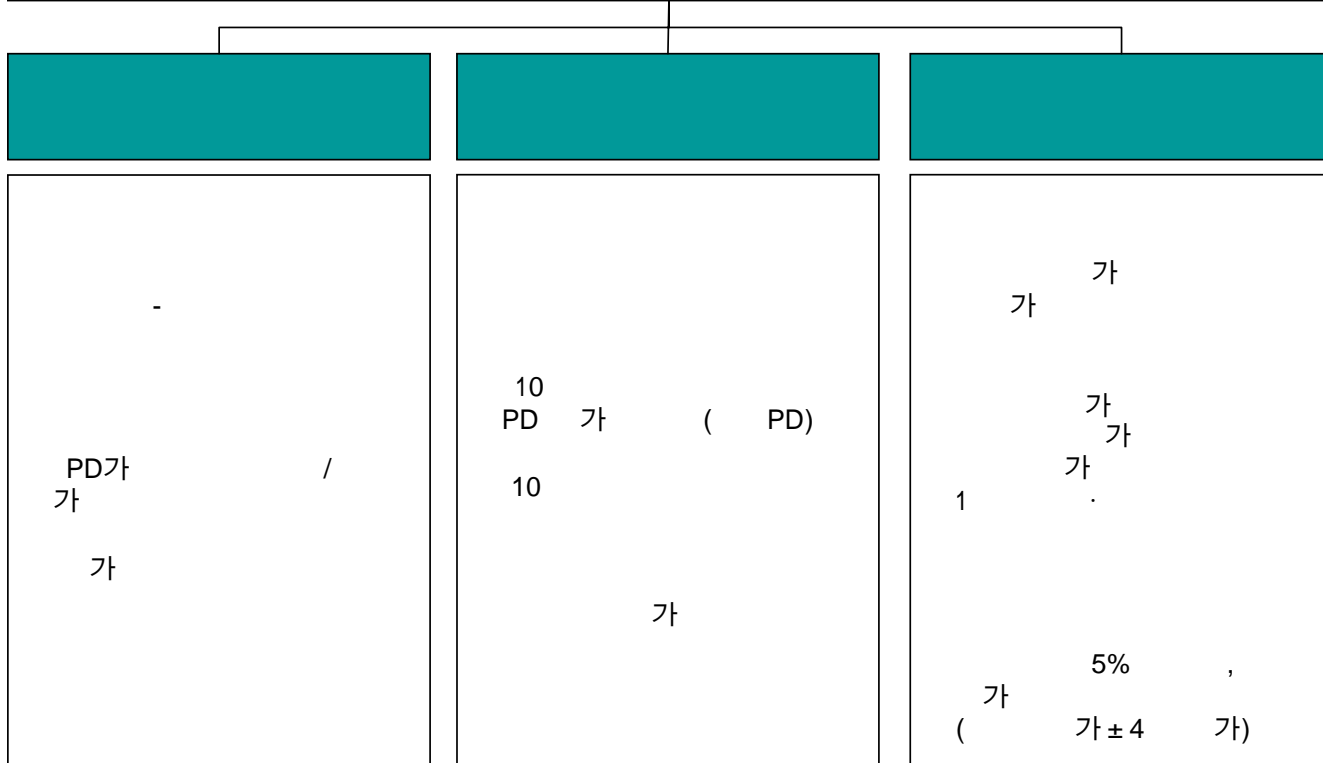
< 2010.09 >

seunghoon74.lee@samsung.com



- 
- ◆ I.
 - ◆ II.
 - ◆ III. 10
 - ◆ IV. 가
 - ◆ V.
 - ◆ VI.
 - ◆ VII.

I.



2010 10

I.

▶ (案)

▶ 10
- (9 1)
-

▶
-
- (12)
() 2010 10 11 가
* LKTB1012 LTKB1012
* LKTB1012 , LTKB1103 LKTB1103
* LKTB1012 LTKB1103 , LKTB1106

▶
- 가 가
-

II.

▶ /

- ▶ 1999 04 23 : 91 CD
- ▶ 1999 09 29 : 3 (KTB)
- ▶ 2000 07 01 : 가 가
- ▶ 2002 05 10 : 3
- ▶ 2002 12 06 : (MSB)
- ▶ 2003 03 01 : (3 6)
- ▶ 2003 08 22 : 5 (5TB)
- ▶ 2007 12 26 : CD , 3
- ▶ 2008 02 25 : 10 (LKT B)
- ▶ 2009 12 : 3 2,000 , 10 8
- ▶ 2010 10 : (10)

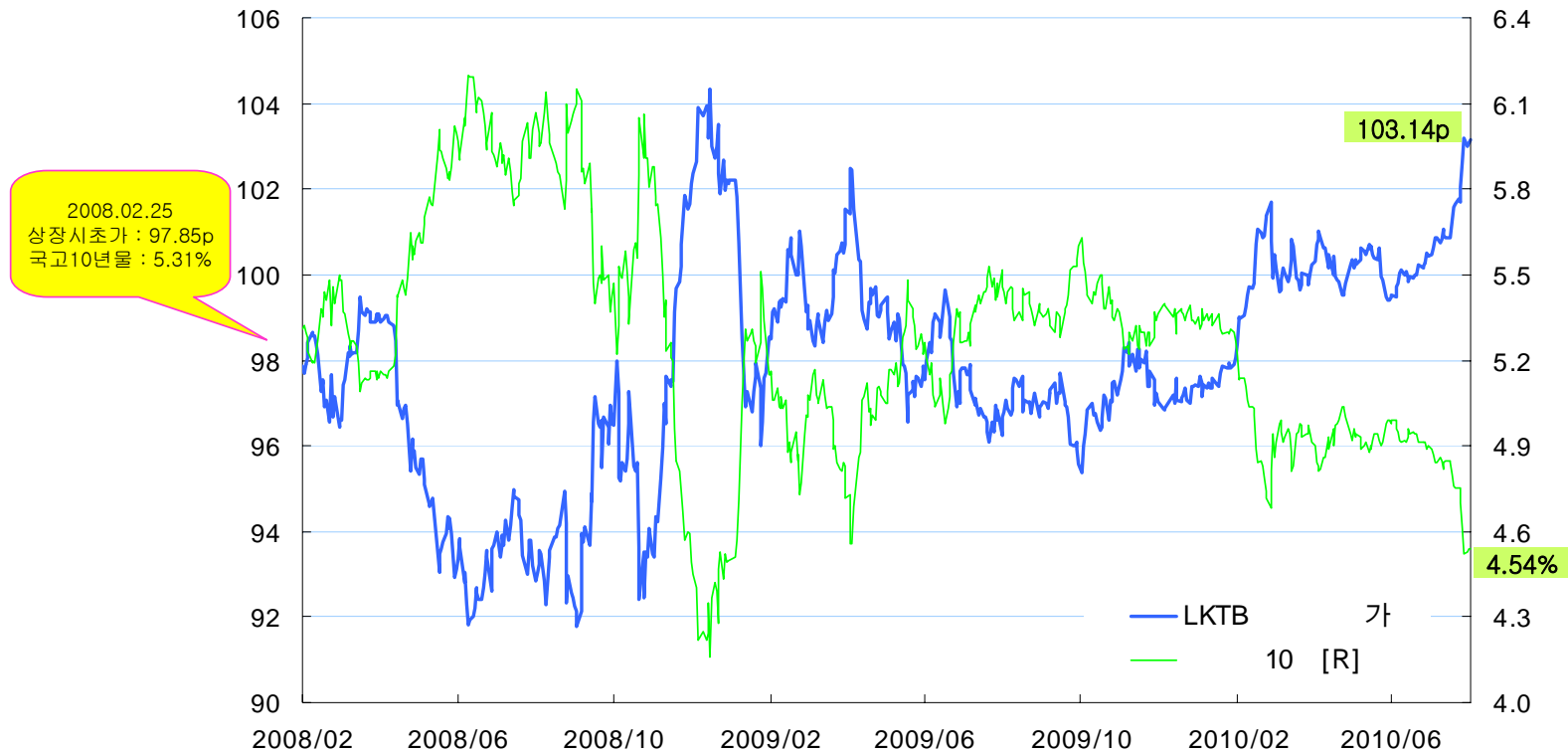
II.



	CD	1	3	5	10	3
1999	349,812	-	295,833	-	-	-
2000	2,081	-	1,538,507	-	-	-
2001	1,410	-	9,232,430	-	-	-
2002	2,100	1,688	12,777,991	-	-	24,790
2003	0	207.209	10,285,042	171,538	-	1229
2004	0	2,621	7,352,307	61	-	0
2005	0	3,308	11,223,244	567	-	0
2006	0	414	10,343,605	3,279	-	0
2007		0	13,032,854	100	-	
2008		0	15,910,800	0	9,394	
2009		0	20,057,773	0	8	
2010 7		0	14,428,421	0	0	
	1999/ 04/23	2002/12/16	1999/09/29	2003/08/22	2008/02/25	2002/05/10

II.

▶ 10 가 []



III. 10

	(2010 10)	
	5%, 6 10	
	1	5
	3, 6, 9, 12	
	6 2	9 3
가	100 ()	
가가	0.01	0.02
가	10,000 (1 *0.01*1/100)	10,000 (5 *0.02*1/100)
	09:00~15:15(09:00~11:30)	
	()	
		3
가	가 ±2.7%	
	: 2.7%, : 1.8%	
	(08:00~09:00) (15:05~15:15)	

III. 10

▶ (Basket) (案)

▶ : 가 6
(Basket)

▶ 가 :

- 10:00, 10:30, 11:00 11:30
()
- ()
- 가 ()

$$\text{최종결제가격} = \sum_{i=1}^{20} \frac{5 / 2}{(1 + r / 2)^i} + \frac{100}{(1 + r / 2)^{20}}$$

III. 10



(Basket)

- ▶ 10 2 (10-3 , 8-5)
- ▶ (10 6) [3 ~ 12]
- 가
- 가 (가- 가) 가



LKTB1012 & LKTB1103

(Basket)

2010.08.23

				()					가	
							12	3	12	3
[8-5] 0575-1809	08.09.10	18.09.10	5.75%	286,381	6.329	4.49%	4.582%	4.642%	103.26	102.82
[10-3] 0500-2006	10.06.10	20.06.10	5.00%	52,200	7.658	4.52%	4.597%	4.648%		

IV. 가

▶ 가

▶ 가 가 가

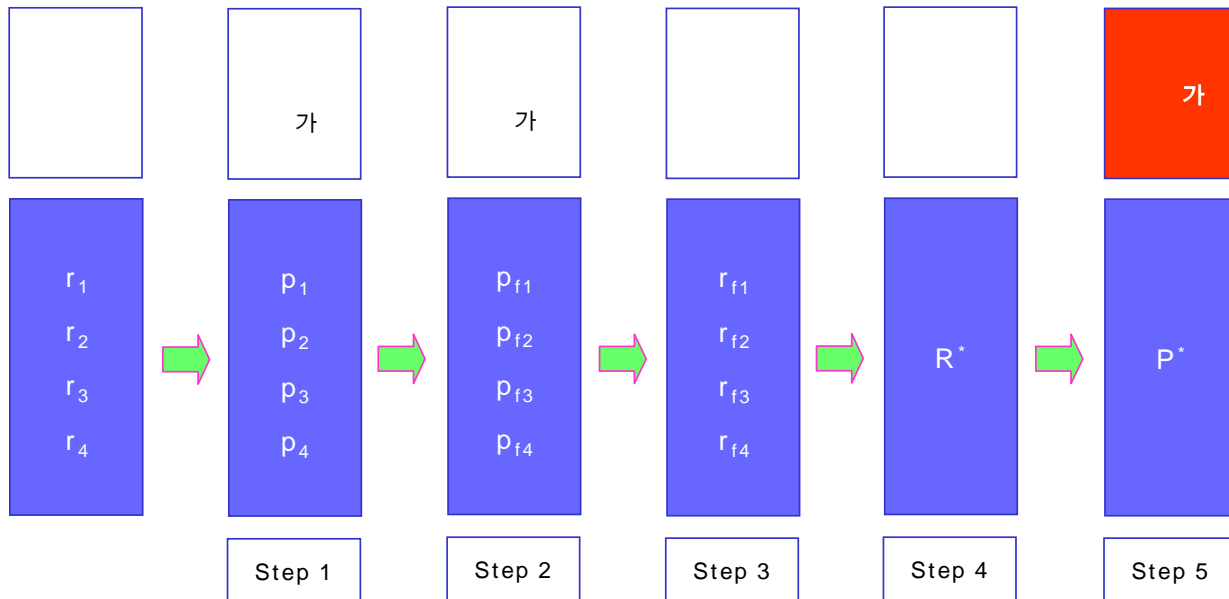
-
-

▶ : 가 가

▶ : , Basket

IV. 가

▶ 가



IV. 가

▶ 가 5

▶ Step 1 : 가

- (r) 가

$$p \cdot \left[1 + \frac{r}{2} \times \frac{d}{Q} \right] = \sum_{i=1}^n \frac{CR}{(1+r/2)^{i-1}} + \frac{A}{(1+r/2)^{n-1}}$$

p : 가

CR : (= * /2)

r :

A : (=100)

d :

n :

Q : [= -]

▶ Step 2 : 가 (14)

- 가 가

$$F = \left[S - \sum_{i=1}^n \frac{CR}{(1+r_i \times d_i / 365)} \right] \times (1 + r \times d / 365)$$

F : 가

ri :

S : 가

d :

CR :

di :

r : ()

IV. 가

▶ 가 5

▶ Step 3 :

- 가 가 r Newton-Raphson
- 가

▶ Step 4 :

- (R*)

▶ Step 5 :

- 가 (R*) 가 (P*)

$$P^* = \sum_{i=1}^{20} \frac{5/2}{(1 + R^*/2)^i} + \frac{100}{(1 + R^*/2)^{20}}$$

IV. 가

▶ 가 (Step 2)

▶ 가

$$F = (S - I)e^{rt}$$

S : 가 r :

I : 가 t :

▶ 6

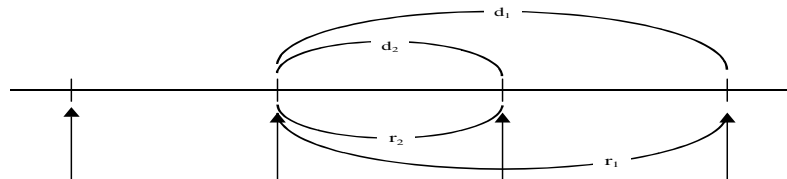
[Call - CD91 - 1]

$$F = \left[S - \frac{I}{1 + r_2 \times (d_2 / 365)} \right] \times \left(1 + r_1 \times \frac{d_1}{365} \right)$$

I : 6 d1 : ()

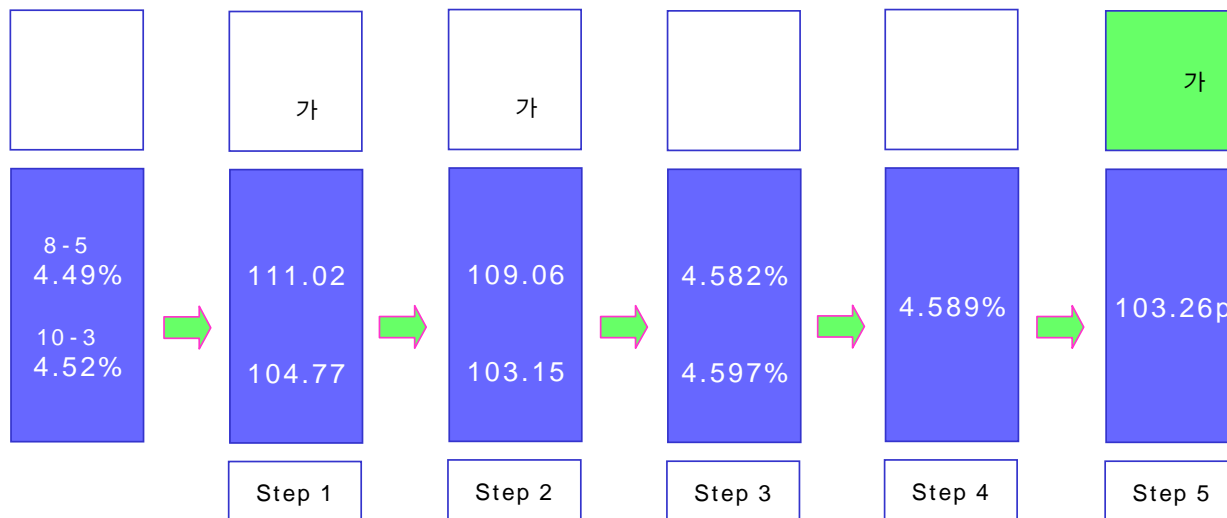
r1 : d2 :

r2 :



IV. 가

▶ LKTB1012 가 [2010.08.23]



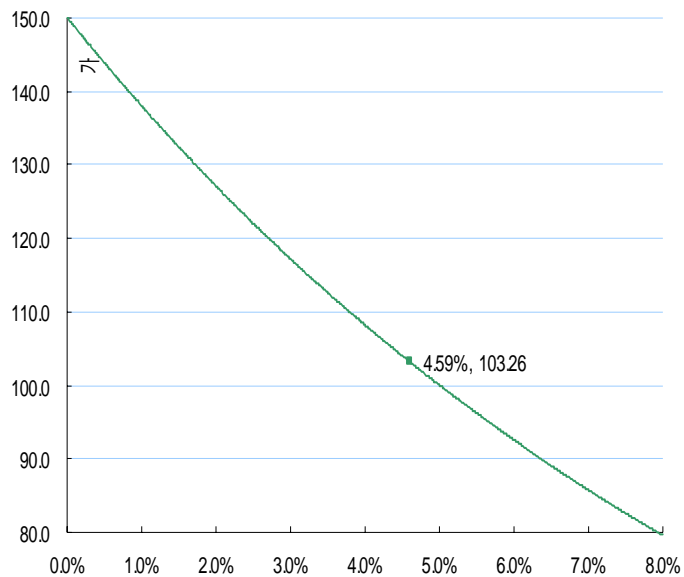
$$\text{가} = \sum_{i=1}^{20} \frac{5/2}{(1 + r^*/2)^i} + \frac{100}{(1 + r^*/2)^{20}}$$

$$r^* =$$

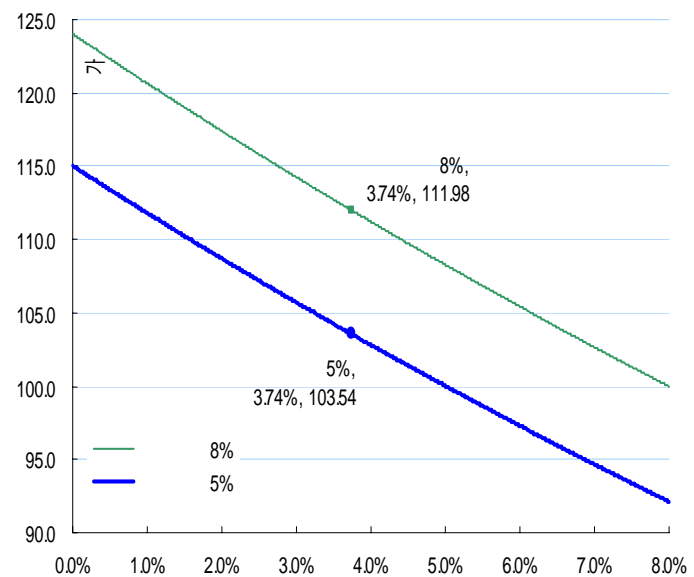
IV. 가

▶ 가

[10 (LKTb1012)]



[3 (KTb1009)]



2010.08.23

V.

▶ 10

가

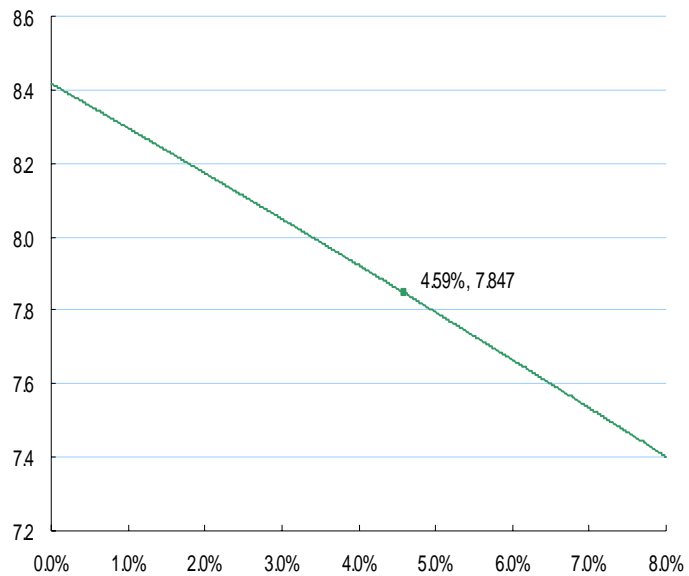
2010.08.23

		LKTB1012	LKTB1103	
	1	[8-5] 0575-1809	[8-5] 0575-1809	
	2	[10-3] 0500-2006	[10-3] 0500-2006	
가		103.26p	102.82p	+0.44p
가		4.589%	4.645%	-0.056%
	가	103.26p	102.82p	+0.44p
	가	0p	0p	0p
가		4.505%	4.505%	
	가	103.95p	103.95p	
		+0.69p	+1.13p	-0.44p
－ －		7.847	7.840	+0.007
		74.387	74.283	0.104
	DV01	0.081	0.081	-
	(2.7%)	2,788,020	2,776,140	+11,880
	(1.8%)	1,858,680	1,850,760	+7,920

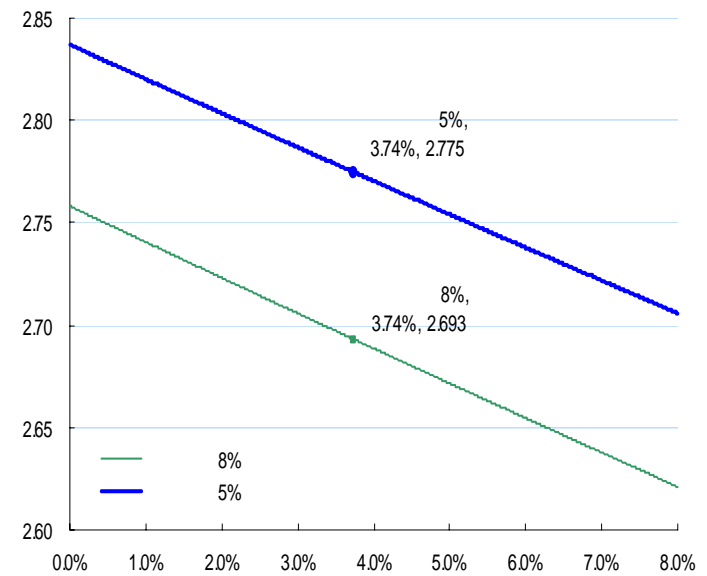
V.



[10 (LKTb1012)]



[3 (KTB1009)]

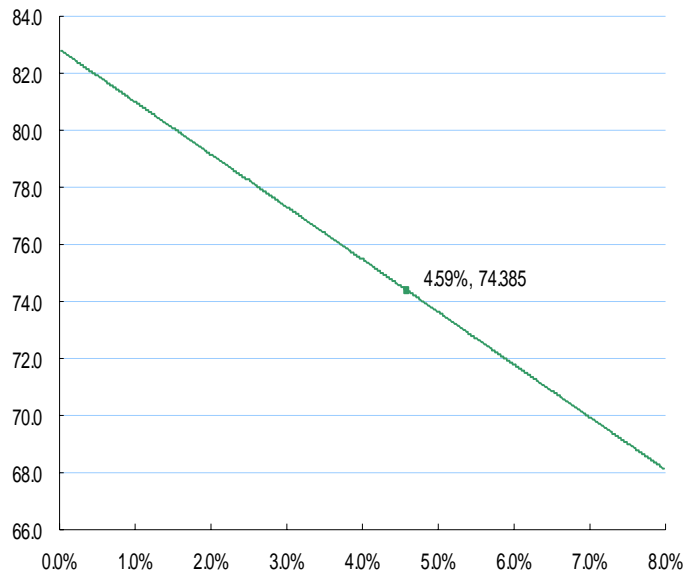


2010.08.23

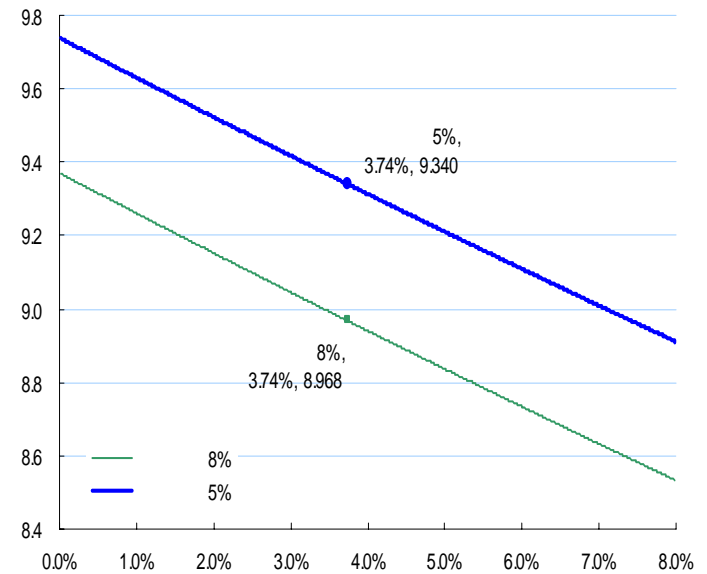
V.



[10 (LKTb1012)]



[3 (KTB1009)]

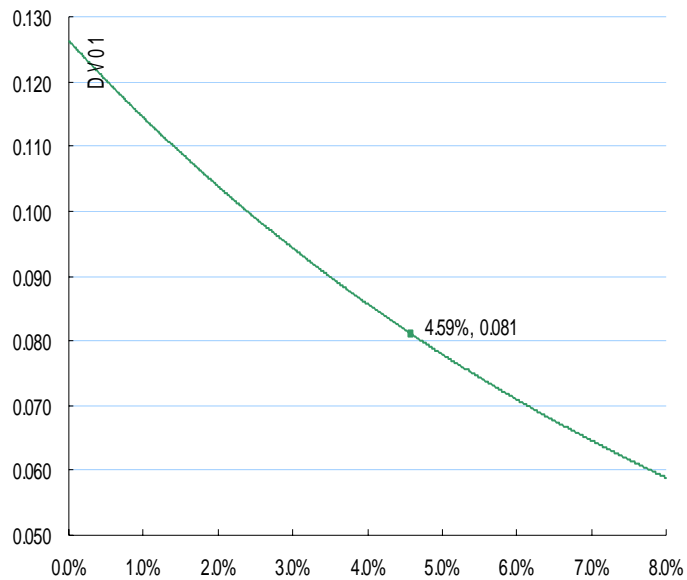


2010.08.23

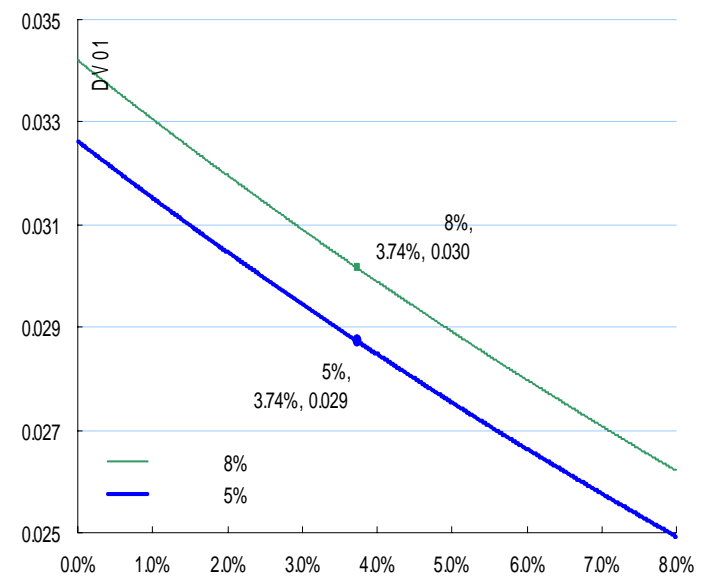
V.

► DV01

[10 (LKTb1012)]



[3 (KTB1009)]



2010.08.23

VI.



:

가



:



가 (BPV)


$$HedgeRatio = \left[\frac{BPV(spots)}{BPV(futures)} \right] \times \beta$$

Beta :



$$HedgeRatio = \frac{MD_s * Market Price_s * NotionalAmount_s}{MD_F * Market Price_F * NotionalAmount_F}$$

VI.

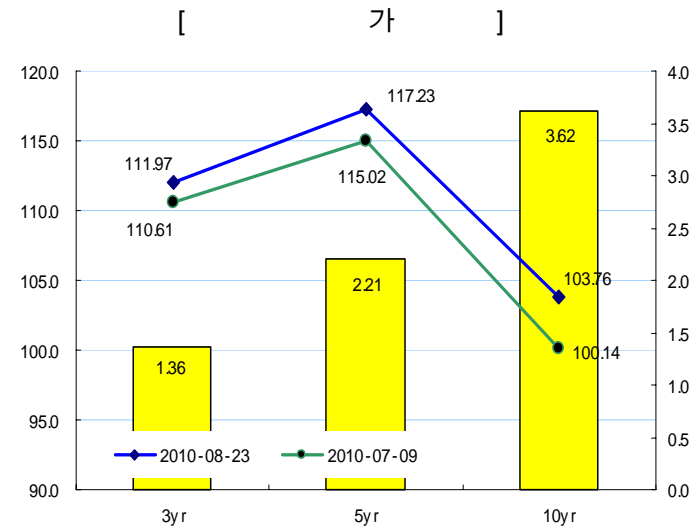
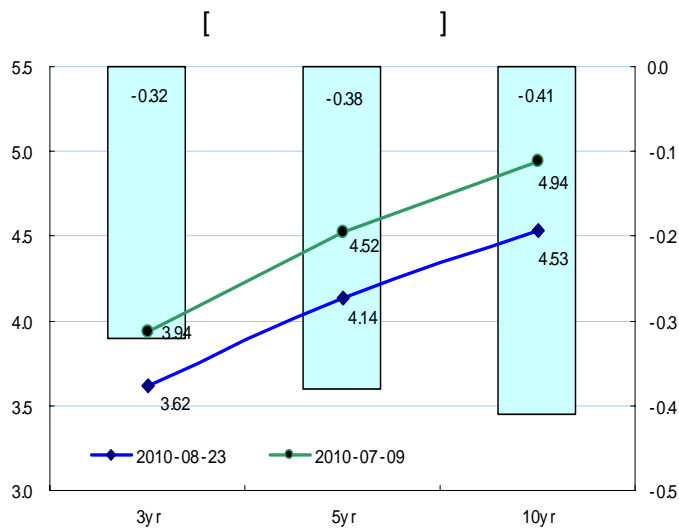
2010-08-23		LKTB Futures Calculator						
LKTB012	Basket YTM	10-3] 0500-2006	8-5] 0575-1809			Put data into this colored cell		
103.26		4.520%	4.490%					
LKTB103	Repo rate	Call	CD91d	MSB1yr		Put data into this colored cell		
102.82		2.29%	2.63%	3.17%				
Futures	Market Price	Theoretical Price	Theoretical Basis	Forward Yield	M.Duration	Spot Price	Market Basis	Implied Yield
LKTB012	103.26	103.26	0.00	4.589%	7.847	103.95	-0.69	4.589%
LKTB103	102.82	102.82	0.00	4.645%	7.840	103.95	-1.13	4.645%
Spread	0.45	0.45	0.00	-0.055%	0.007	0.00	0.45	-0.055%
Basket	YTM	Market Price	Hedge Ratio		M.Duration	Issue Date	Maturity	Coupon
			LKTB012	LKTB103				
[10-3] 0500-2006	4.520%	104.77	99.0	99.5	7.658	2010-06-10	2020-06-10	5.00%
[8-5] 0575-1809	4.490%	111.02	86.7	87.2	6.329	2008-09-10	2018-09-10	5.75%
[10-3] 0500-2006	4.520%	104.77	99.0	99.5	7.658	2010-06-10	2020-06-10	5.00%
[10-2] 0375-1306	3.620%	101.10	32.6	32.8	2.616	2010-06-10	2013-06-10	3.75%
[10-1] 0450-1503	4.140%	103.51	51.1	51.4	4.003	2010-03-10	2015-03-10	4.50%
[9-5] 0550-2912	4.670%	111.58	166.6	167.4	12.097	2009-12-10	2029-12-10	5.50%
[9-4] 0425-1212	3.540%	102.41	27.3	27.4	2.159	2009-12-10	2012-12-10	4.25%
[9-3] 0500-1409	4.090%	105.62	46.5	46.8	3.570	2009-09-10	2014-09-10	5.00%
[9-2] 0400-1206	3.430%	101.79	21.5	21.6	1.711	2009-06-10	2012-06-10	4.00%
[9-1] 0475-1403	3.980%	104.66	41.1	41.3	3.181	2009-03-10	2014-03-10	4.75%
[8-6] 0475-1112	3.280%	102.81	15.8	15.9	1.243	2008-12-10	2011-12-10	4.75%
[8-5] 0575-1809	4.490%	111.02	86.7	87.2	6.329	2008-09-10	2018-09-10	5.75%
[8-4] 0575-1309	3.810%	108.12	36.4	36.6	2.727	2008-09-10	2013-09-10	5.75%
[8-3] 0550-1106	3.020%	103.05	9.8	9.9	0.773	2008-06-10	2011-06-10	5.50%
[8-2] 0550-2803	4.670%	112.35	156.1	156.9	11.257	2008-03-10	2028-03-10	5.50%
[8-1] 0525-1303	3.700%	106.10	30.4	30.6	2.325	2008-03-10	2013-03-10	5.25%

VII.

▶ 7 (7 8) 25bp

▶ But : 美 FRB ,
韓美 , 가 () ,
韓 ,

▶ Yield Curve Bullish Flattening (09 5)



VII.

► Bullish Trade Strategy

► (Market Directional Betting)

►

	2010/07/09	2010/08/23	
3	110.61p*100 (+11,061,000,000)	111.97p*100 (- 11,197,000,000)	-136,000,000
10	100.14p*100 (- 10,014,000,000)	103.76p*100 (+10,376,000,000)	+362,000,000

[] +226,000,000

VII.

► Maturity Extension Trade Strategy

► (Yield Curve Slope Betting)

►

►

►

	2010/07/09	2010/08/23	
3	110.61p*260 (+28,758,600,000)	111.97p*260 (-29,112,200,000)	-353,600,000
10	100.14p*100 (-10,014,000,000)	103.76p*100 (+10,376,000,000)	+362,000,000

[] +8,400,000

VII.

▶ Butterfly Trade Strategy (Dollar Duration Neutral)

- ▶ (Yield Curve Curvature Betting)
- ▶ 가 (가)
- ▶ : =0, =0
- ▶

	2010/07/09	2010/08/23	
3	110.61p*74 (- 8,185,140,000)	111.97p*74 (+8,285,780,000)	+100,640,000
5	115.02p*100 (+11,502,000,000)	117.23p*100 (- 11,723,000,000)	- 221,000,000
10	100.14p*34 (- 3,527,840,000)	103.76p*34 (+3,404,760,000)	+123,080,000

[] +2,720,000

VII.

▶ Butterfly Trade Strategy (Fifty Fifty Weighting)

▶ (Yield Curve Curvature Betting)

▶ 가

▶ : =0, DD= DD

▶

	2010/07/09	2010/08/23	
3	110.61p*81 (-8,959,410,000)	111.97p*81 (+9,069,570,000)	+110,160,000
5	115.02p*100 (+11,502,000,000)	117.23p*100 (-11,723,000,000)	-221,000,000
10	100.14p*31 (-3,104,340,000)	103.76p*31 (+3,216,560,000)	+112,220,000

[] +1,380,000

VII.

▶ Butterfly Trade Strategy (Maturity Weighting)

▶ (Yield Curve Curvature Betting)

▶ 가
▶ : =0, 가
▶

	2010/07/09	2010/08/23	
3	110.61p*75 (- 8,397,750,000)	111.97p*75 (+ 8,295,750,000)	+102,000,000
5	115.02p*100 (+ 11,502,000,000)	117.23p*100 (- 11,723,000,000)	-221,000,000
10	100.14p*33 (- 3,424,080,000)	103.76p*33 (+ 3,304,620,000)	+119,460,000

[] +460,000

VII.



▶ 가 가 가

▶ (Rverse Cash & Carry Arbitrage)

- 가 가 가

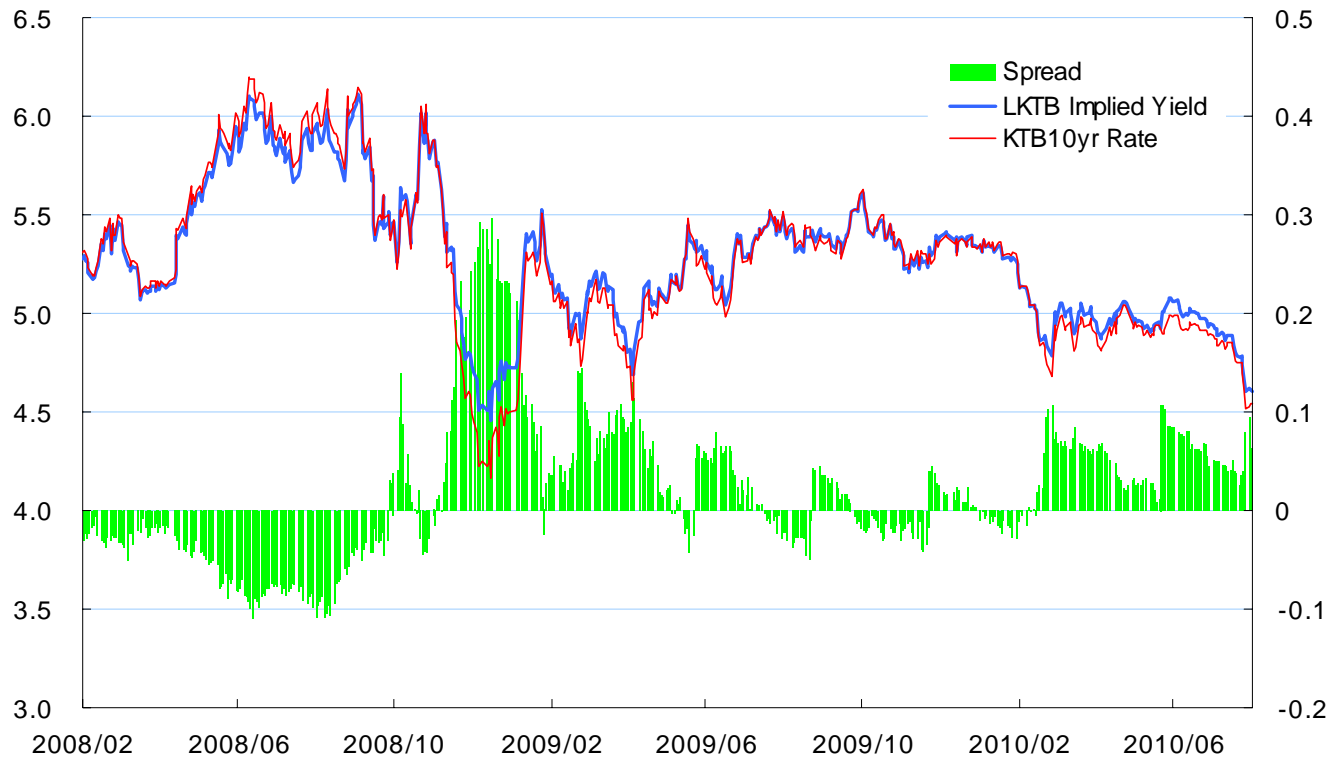
▶ (Cash & Carry Arbitrage)

- 가 가 가

VII.



-



VII.



-

