



..... 1

..... 3

..... 8

..... 10

..... 12

P 14

..... 22

..... 29

..... 37

..... 40

..... 41

..... 43

..... 50

..... 51

..... 56



1

2

)

(

)

3

)

(



T+0

A



1

2

3

4

5

6

7

8

9 2003 10 28

2012 12 28

2013 6 1

2015 4 24

<

>

14

/

15

16

17

18

19

20

3

21

22

23

24

25



41

42

43

44

45

46

47

48

49

(

)

10%

50

51

52

53

54

55

56

57

58



0.5%

5%

1000

1000

3

3

2

1.00

8



3
200
200

2
20
5000

60
5000

ETF

ETF

LOF



1

3

2

3

1

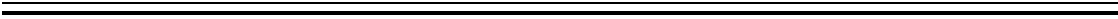
2

3

4

2

2



1

2

3

4

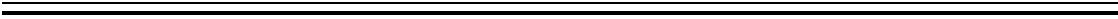


3

1000

10





1

2

3

3

1

2

3

4

5

1

2

T 7 ()

3

(T)

T

T+1

T+2 ()



1

2

3

4

1

3

4

T

T+1

2

2

3



2

4

5

6

7

1

2

3

4

5

6

1 2 3 5 6



1

2

3

4

5

6

1 2 3 5 6

4

1

(

)

10%

2

1



2

10%

3

2

()

20

3

3

1

2

1

1

3

1

2

2

2

1

4

2

2



1

2

2

1



68 9

2003 5 9

[2003]63

1.5

021-61009999

1

1

2

3

4

5

6

7

8



9

10

11

12

13

14

15

16

17

2

1

2

3

,

4

5

,

6

,

7

8

9

10

11

12

13

14

15

16

15

17

18

19

20

21

22

23

24

30

25

26

27

618

1999 8 18

[1999]77

[2014]511

1

1

2

3



4

5

6

7

2

1

2

3

4

5

6

7

8

9

10



11

15

12

13

14

15

16

17

18

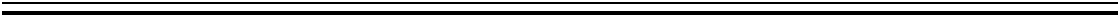
19

20

21

22

1



1

2

3

4

5

6

7

8

9

2

1

2

3

4

5

6

7

8

9



1

1

2

3

4

5

6

7

8

9

10

11

10%

10%

12

13

2

1



2

3

4

LOF

ETF

5

6

7

8

9

1

2

3

10

60

60

4

10%

10%



		10			
60				10%	10%
		10			
60					
5		10%	10%		
	10%	10%			30
6					
1				30	
1					
2					
3					
4					
5					
6					
7					
2					

3

1

1

2

50% 50%

2

1

2

2



3

50% 50%

4

3

3

1

2

2

3

4

5

1

2

1



50% 50%

2

30

2

1

50%

50%

2

2



1

1

2

3

4

,

2

5







7

8

1 10% 10% 6 10%

2/3 2/3

3

4

5 2

6

7

1 10% 10% 2

3

2





1

2

3

4

5

1

2

3

20

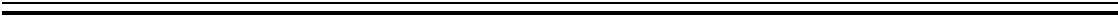
4



5

6

7



0.5%

5%

95%

90%

5%

90%



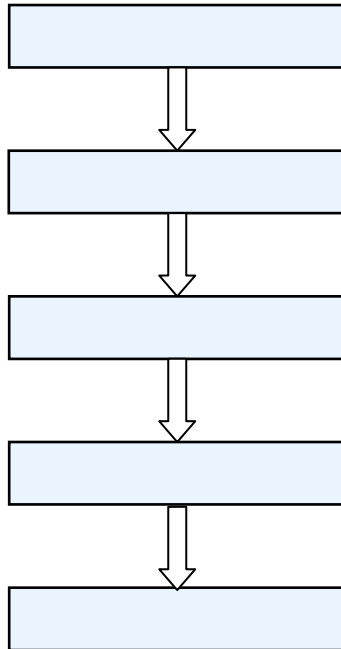
1

90% 95%

90%

5%

2



1

0.5%

$$S_e = \sqrt{\frac{\sum_{t=1}^T (e_t - \bar{e})^2}{T-1}}$$

e_t

$$e_t = R_{P_t} - R_{I_t} \quad R_{P_t}$$

R_{I_t}

T

2

3

4

5

3



5			
0.5%			
6			
10%			
7			
20%			
8	()
10%			
9			
		10%	
10	BBB	(BBB)



2

1

2

3

4

5

6

1



()

2

+5%

5%

+5%

.4919

1

2

3





1

2

1

2

3

3

1

2



3

4

5

4

1

2

3

5

6

7

8

1

0.001

4

2

3 (3)

1

()



2

1

2

3

()

4

3

1

2

3

4



4

1

2

0.25%

0.5%

3

1

2

3

1

6

2



- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11

1

0.8%

H E 0.8%

H

E

2

2

2

2

0.2%

H E 0.2%

H

E

2

2

2

3

4 11

1

2

3

4





1

12

3

2

3

4

5

2

15





1

2

1 1 12 31

2

3

4

5

6

7

1

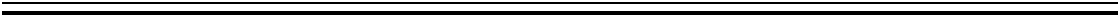
2

3

2



- 1
- 2
- 3
- 4
- 5
- 6



1

2

45

15

6

3

3



90

60

15

2

2

2

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

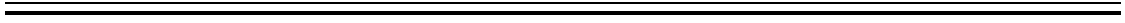
25

26

27

28

29



10

1

2

3

4

5



1

2

1

2

6

3

4

1

30

2

3

4

1

2

3



4

5

6

7

5

6

5

15



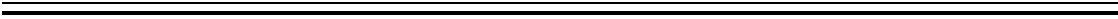
1

2

/

3





1

2

3

4

5





1

1

2

3

4

5

6

7

8

9

2

1

2

3

4



5

6

7

8

9

1

1

2

3

4

5

6

7

8

9

10

11

12



13

14

15

16

17

2

1

2

3

,

4

5

,

6

,

7

8

9

10

11

12

13

14

15

16

15

17

18

19

20

21

22

23

24

30

25

26

27

1

1

2

3

4

5

6

7

2

1

2

3

4

5

6

7

8

9

10

11

15

12

13

14

15

16

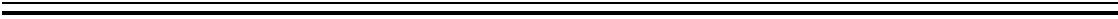
17

18

19



20



2

1

2

3

4

60

60

4

10%

10%

10

60

10%

10%

10

60

5

10%

10%

10%

10%

30

6

1

30

1

2

3

4

5



6

7

2

3

1

1

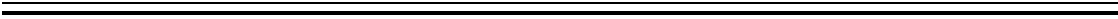
2

50% 50%

2

1

2



2

3

50% 50%

4

3



2

1

50%

50%

2

30

2

1

50%

50%

2

2



1

1

2

3

4

,

2



5

2

1

12

3

2



3

4

5

2

15

1

2

3

4

5

6

7

8

9

10

11

1

0.8%

H E 0.8%

H

E

2

2

2

2

0.2%

H E 0.2%

H

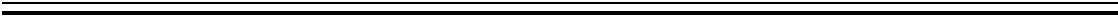
E

2

2

2

3



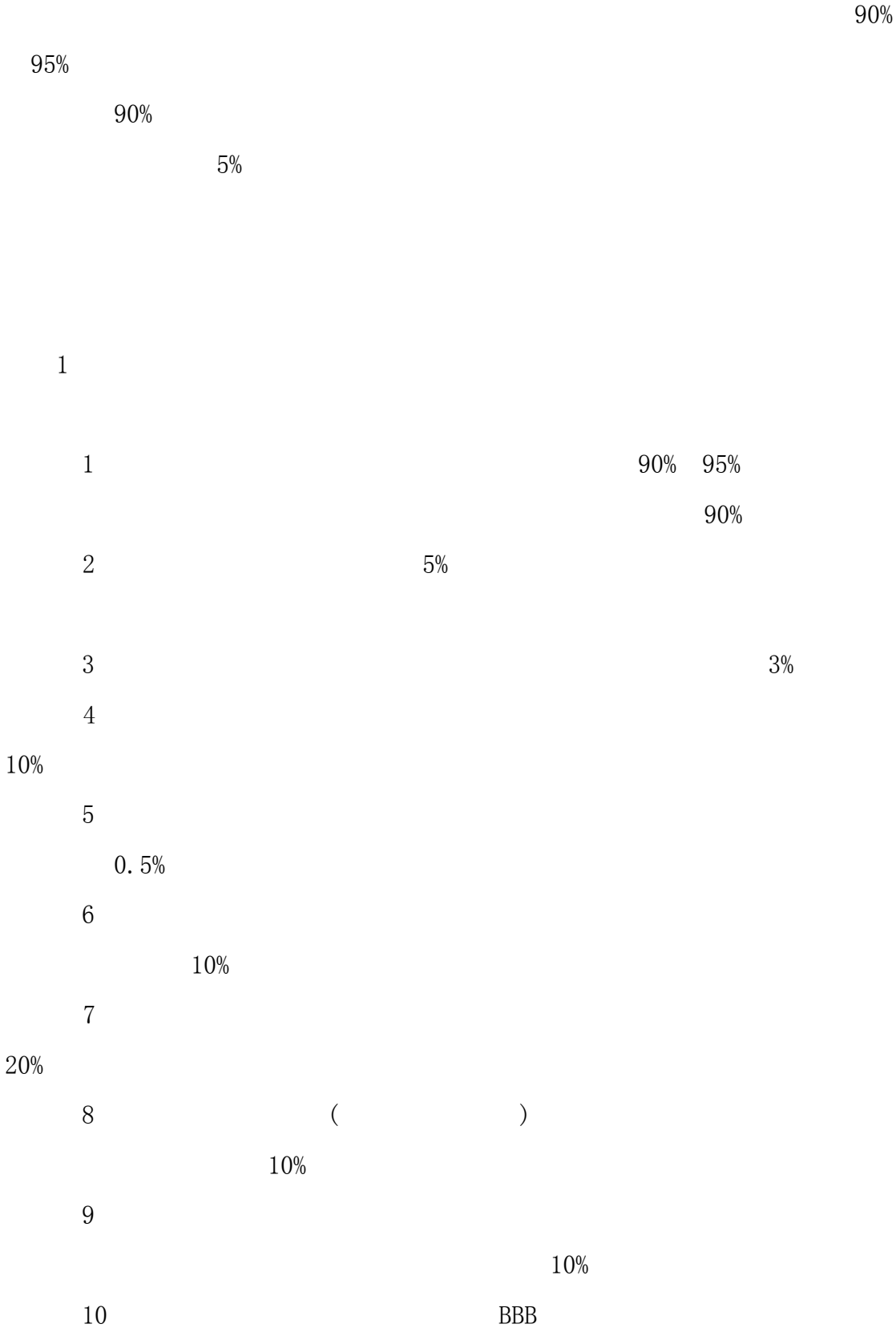
4 11

1

2

3

4





3
11
12 140%
13
40% 1
14 2006 141
15
10
6

2

- 1
- 2
- 3
- 4
- 5
- 6



1

2

1

2

3



3

1

2

3

4

5

4

1

2

3

5

6

7

8

1

0.001

4

2

3 (3)



1

()

2

1

2

3

()

4

3



1

2

3

4

4

1

2

0.25%

0.5%

3

1

2

3

1

6

2



1

2

1

2

6

3

4

1

30

2

3

4

1

2

3

4

5

6

7

5

6

5

15