清华大学国家金融研究院

[illegible]

研究报告

Fung Hsieh 2004

80%

10

Equity Market Factor

R_m-R_f

The Size Spread Factor

SMB

The Bond Market Factor 10

The Credit Spread Factor BBA

10

Bond Trend-Following Factor PTFS

Currency Trend-Following Factor PTFS

Commodity Trend-Following Factor PTFS

Fung Hsieh 2004

MKT SMB

HML MOM BOND10

CBMB10 BOND_RET

FUTURES

1. **MKT**

300

1

1

RET_HS300_t t 300

RF_t t 1

2. SMB

SMB

Fama-French SMB

1 T

6 6 A ME

Small Group Big Group

Book Value 12 A

Book to Market Ratio BE/ME

30% 40% 30% Growth

Group Neutral Group Value Group

1 Small Value

Group Small Neutral Group Small

Growth Group Big Value Group

Big Neutral Group Big Growth Group

1 SMB

1 SMB

		BE/ME		
		30%	40%	30%
ME	50%			
	50%			

6 T 6

T+1 6

A

T 6

T 7 T 6

SMB

2

$Small\ Value_t$ $Small\ Neutral_t$ $Small\ Growth_t$

$Big\ Value_t$ $Big\ Neutral_t$ $Big\ Growth_t$

t Fama-French SMB

BE/ME

3. **HML**

HML

Fama-French

HML SMB

HML

3

Small Value$_t$ Big Value$_t$ Small Growth$_t$

Big Growth$_t$ t

Fama-French HML

Size

4. MOM

MOM

2

2015-01 A ME

Small Group Big Group

1 11 30% 40% 30%

Down Group Median

Group Up Group 2

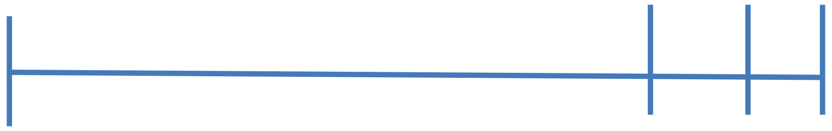
Small Up Group Small Median Group

Small Down Group Big Up Group

Big Median Group Big Down Group

A

2



2 MOM

		1 11		
		30%	40%	30%
ME	50%			
	50%			

MOM

4

Small Up_t Big Up_t Small Down_t Big Down_t

t

5. BOND10

BOND10 10

5

t 10

6. CBMB10

CBMB10 10 AA-

10

$$\frac{\quad}{\quad} \tag{6}$$

t 10

AA- t

10

7. BOND_RET

Fung Hsieh 2004

$$\frac{\quad}{\quad} \tag{7}$$

$BOND\_INDEX_t$ t

8. FUTURES

16

` t > ,º ,º¦

r>Â

>1 6¢ ¸ +gÄ CB† ^ 9cM6¢º

C- U CB $º mb ¢ †KT-MB > e

2002 6 SMB HML MOM 2000 6

BOND_RET 2002 6 CMB10 2008 6 FUTURES

2005 6>

3

MKT SMB =r

† ´ HML pn† BOND10 CBMB10

BOND_RET Â 8p †DLŸ ´ FUTURES ,º

©G3eÃ M, CBH † ´ MOM

BOND_RET 0.69%

3 2000-2016

		%	%	Q1 %	%	Q3 %	%	%

3

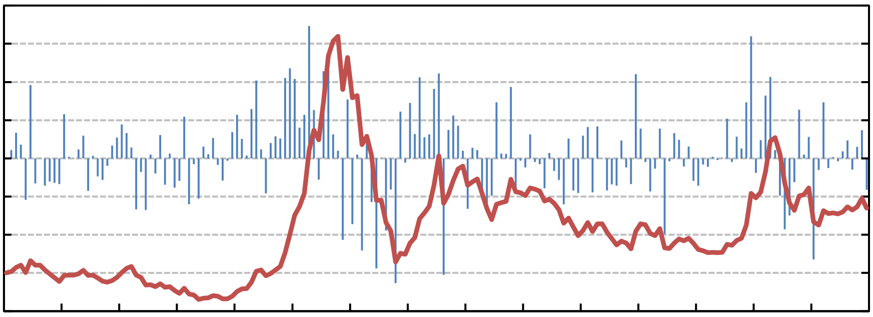
MKT

300 2002 MKT

2002 1 2016 12 1.85

85%

3 MKT

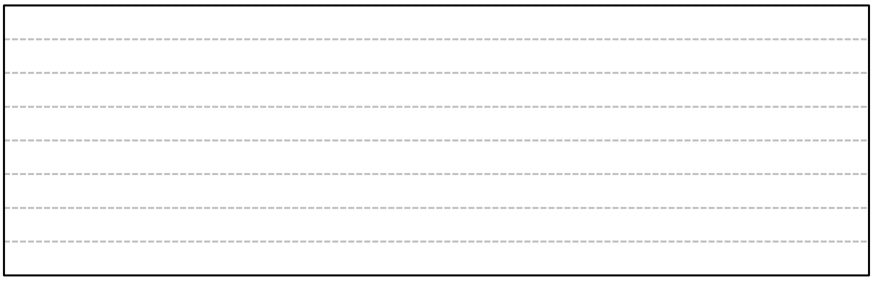


4 SMB

2000 SMB 2016

658%

4 SMB



5 HML

2000 2016 HML

-10% 2000 2008 HML

2008 HML

5 HML

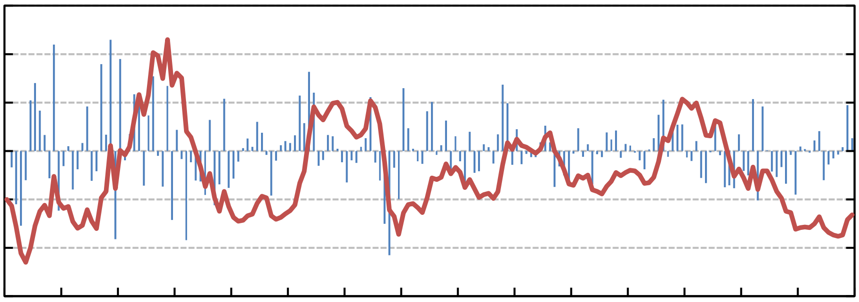
6 MOM

2000 2007 7 2010 MOM
2010 2014
MOM 2014 6
2016 12 MOM
2016 6 -46% 2016
MOM -47%

6 MOM

7 BOND10
2002 BOND10
2016 12 BOND10 -6% ƒÿ3_AÑMOMÆÅUM

7 BOND10



8 CBMB10

10 2008

2008

2016 12 83%

8 CBMB10

9 BOND_RET

2002 2002

2016 12

16%

9 BOND_RET

10 FUTURES

2005 2011

2016

12 38%

10 FUTURES

( )

-

1 2016 12

24 2

3

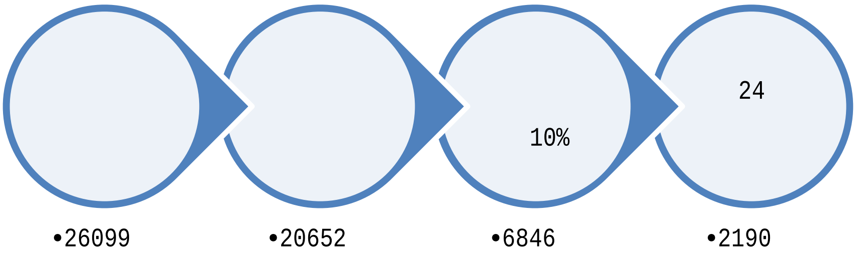
10%

Wind 11

Wind

26099 2190

11


10%
24
•26099
•20652
•6846
•2190

4

4 2190

73.1% 10.5%

7.9%

4

		%

5

2003 CBMB10

FUTURES 2003

2003

5

-

SMB_t HML_t MOM_t $BOND10_t$

$CBMB10_t$ $BOND\_RET_t$ $FUTURES_t$ t

1

β_1- β_8

( )

6 7

R^2

55.0% 42.5%

40%-50%

α CTA α

24.4%

MKT 0.514

BOND_RET

SMB 0.988 0.283

6 FUND BY FUND

					Q1		Q3		

-

					Q1		Q3		

-

			ALPHA %	MKT %	SMB %	HML %	MOM %	BOND10 %	CBMB10 %	BOND_RET %	FUTURES %

(　)

10

$INDEX\_R_{i,t}$ t i

MKT_t t 300

SMB_t HML_t MOM_t

-

$BOND10_t$ $CBMB10_t$ $BOND\_RET_t$ $FUTURES_t$ t

1

β_1 - β_8

( )

8

R^2 73.9%

60.6%

57.6% CTA

CTA CTA

CTA

R^2 3.7%

MKT

SMB , 0.51 0.44

MKT

0.18

8

						CTA

( )

MKT SMB HML MOM

BOND10 CMCB10 BOND_RET CTA

FUTURES

9

						CTA