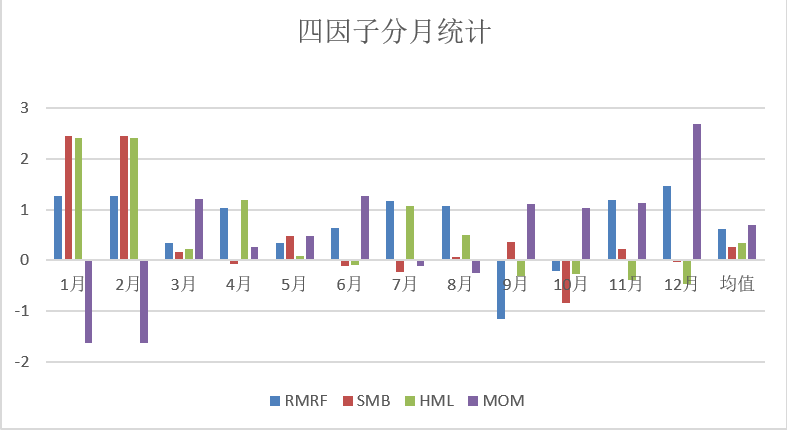
1.长期收益率高也许是因为流动性溢价吧。长期持有而言，其流动性要低于短期交易。为了补偿长期持有带来的流动性损失，以及更大的风险不确定性（假设股票满足随机游走趋势，则其波动随着时间的持续，会越来越大），长期来看都需要补偿。因此无论采用什么策略，为了补偿长期的流动性和风险溢价，长期来看都会具有长期风险溢价。

2.

1）多因子策略（仅有长仓）和传统CAPM策略相比，具有更高的拟合优度和更少的RMS，因此更优于CAPM。（可以见文末数据）

2）月度效应：因子在月度上具有明显的差异。



这应该不是仅仅一个数据问题，应该有内在的道理。美国股市具有“一月效应”，很多中小投资者会在1月由于税务的关系，卖出一些股票。其著名解释有Rozef和Kinney （1976）.

3.

1）累计数据见EXCEL。

2）并没有感受到很强的周期性。可以通过图表看出累计收益其具有一个较强的趋势，但是无法得出周期性的事情。只能说，在一定时间内会发生一次大的导致资本市场收益率大幅下降的事情，比如石油危机等。这些事情发生的时候自然会导致收益率下降。

3）



构建自己的策略。因为使用四因子，并且发现在一月、二月有明显的因子收益偏差。所以我们选用一月、二月的高回报因子，来进行回归。

VaR：-10.29085 SPRatio：0.2120076

很明显，具有更高的夏普比率和期望收益，风险略微加大。

. reg rirf rmrf smb hml mom

Source | SS df MS Number of obs = 166

-------------+---------------------------------- F(4, 161) = 322.06

Model | 5381.53729 4 1345.38432 Prob > F = 0.0000

Residual | 672.559829 161 4.17739024 R-squared = 0.8889

-------------+---------------------------------- Adj R-squared = 0.8861

Total | 6054.09712 165 36.6914977 Root MSE = 2.0439

------------------------------------------------------------------------------

rirf | Coef. Std. Err. t P>|t| [95% Conf. Interval]

-------------+----------------------------------------------------------------

rmrf | 1.122105 .038636 29.04 0.000 1.045807 1.198404

smb | .4618022 .0562314 8.21 0.000 .350756 .5728484

hml | -.0605127 .0443044 -1.37 0.174 -.1480054 .0269801

mom | .6092792 .0396395 15.37 0.000 .5309989 .6875596

\_cons | -.166582 .1841302 -0.90 0.367 -.5302038 .1970398

------------------------------------------------------------------------------

. sum high, d

High

-------------------------------------------------------------

Percentiles Smallest

1% -13.39 -16.09

5% -7.86 -13.39

10% -6.135 -12 Obs 170

25% -2.36 -11.26 Sum of Wgt. 170

50% 2.005 Mean 1.510294

Largest Std. Dev. 6.02099

75% 5.16 13.8

90% 8.76 18.21 Variance 36.25232

95% 10.82 19.43 Skewness .1523009

99% 19.43 23.1 Kurtosis 3.979608

第二题文末数据

. sum Mkt RMRF SMB HML MOM Low Two Three Four Five Six Seven Eight Nine High, d

Mkt

-------------------------------------------------------------

Percentiles Smallest

1% -15.77 -29.01

5% -7.86 -23.71

10% -5.11 -22.54 Obs 996

25% -1.83 -22.03 Sum of Wgt. 996

50% 1.3 Mean .9107631

Largest Std. Dev. 5.46685

75% 4.01 23.61

90% 6.31 33.75 Variance 29.88645

95% 7.71 36.6 Skewness .1356536

99% 13.8 38.37 Kurtosis 10.48635

RMRF

-------------------------------------------------------------

Percentiles Smallest

1% -16.06 -29.04

5% -8.07 -23.7

10% -5.35 -23.14 Obs 997

25% -2.17 -22.01 Sum of Wgt. 997

50% .95 Mean .6098094

Largest Std. Dev. 5.474379

75% 3.68 23.61

90% 5.97 33.72 Variance 29.96882

95% 7.38 36.57 Skewness .1721713

99% 13.58 38.27 Kurtosis 10.52267

SMB

-------------------------------------------------------------

Percentiles Smallest

1% -6.87 -11.6

5% -4.21 -9.98

10% -3.28 -9.92 Obs 997

25% -1.51 -9.16 Sum of Wgt. 997

50% .06 Mean .2528987

Largest Std. Dev. 3.246796

75% 1.94 14.62

90% 3.69 17.76 Variance 10.54168

95% 5.07 19.32 Skewness 2.048123

99% 8.75 37.63 Kurtosis 22.76777

HML

-------------------------------------------------------------

Percentiles Smallest

1% -8.75 -20.79

5% -4.54 -14.97

10% -3.29 -13.52 Obs 997

25% -1.34 -13.25 Sum of Wgt. 997

50% .2 Mean .3432698

Largest Std. Dev. 3.74033

75% 1.75 19.72

90% 4.09 22.43 Variance 13.99007

95% 5.69 25.2 Skewness 1.519533

99% 13.11 35.95 Kurtosis 17.43374

MOM

-------------------------------------------------------------

Percentiles Smallest

1% -14.49 -50.63

5% -5.96 -44.85

10% -3.72 -34.76 Obs 997

25% -.77 -30.56 Sum of Wgt. 997

50% .89 Mean .6997492

Largest Std. Dev. 4.835

75% 3.01 15.22

90% 4.96 16.07 Variance 23.37723

95% 6.71 16.55 Skewness -3.029176

99% 12.57 18.4 Kurtosis 29.41622

Low

-------------------------------------------------------------

Percentiles Smallest

1% -25.59 -42.22

5% -13.87 -41.28

10% -8.77 -36.17 Obs 1,039

25% -3.79 -30.15 Sum of Wgt. 1,039

50% .2 Mean .3326853

Largest Std. Dev. 9.83134

75% 4.1 52.38

90% 9.01 71.04 Variance 96.65524

95% 13.72 74.44 Skewness 1.820343

99% 31.15 93.9 Kurtosis 19.23121

Two

-------------------------------------------------------------

Percentiles Smallest

1% -22.42 -40.3

5% -10.03 -39.28

10% -6.76 -38.67 Obs 1,039

25% -2.69 -28.08 Sum of Wgt. 1,039

50% .59 Mean .7202021

Largest Std. Dev. 8.171011

75% 4.11 43.24

90% 7.88 51.64 Variance 66.76542

95% 11.39 75.62 Skewness 1.785051

99% 24.34 80.01 Kurtosis 23.05084

Three

-------------------------------------------------------------

Percentiles Smallest

1% -19.95 -34.96

5% -8.63 -33.57

10% -5.82 -32.69 Obs 1,039

25% -2.07 -26.41 Sum of Wgt. 1,039

50% .77 Mean .7340905

Largest Std. Dev. 7.059631

75% 3.71 42.6

90% 6.62 51.94 Variance 49.83839

95% 9.73 61.6 Skewness 1.473515

99% 19.23 66.39 Kurtosis 21.60514

Four

-------------------------------------------------------------

Percentiles Smallest

1% -18.38 -32.54

5% -8.17 -28.15

10% -5.21 -22.97 Obs 1,039

25% -2.05 -22.75 Sum of Wgt. 1,039

50% 1.02 Mean .8644658

Largest Std. Dev. 6.441533

75% 3.72 40.67

90% 6.7 49.48 Variance 41.49335

95% 9.58 51.45 Skewness 1.461122

99% 17.15 62.19 Kurtosis 20.30586

Five

-------------------------------------------------------------

Percentiles Smallest

1% -15.42 -31.42

5% -8.16 -31.36

10% -5.14 -25.93 Obs 1,039

25% -1.78 -21.49 Sum of Wgt. 1,039

50% 1.12 Mean .8764966

Largest Std. Dev. 5.984716

75% 3.75 34.41

90% 6.37 39.78 Variance 35.81682

95% 8.42 45.3 Skewness 1.236385

99% 15.35 60.65 Kurtosis 20.23798

Six

-------------------------------------------------------------

Percentiles Smallest

1% -14.77 -30.92

5% -7.92 -28.95

10% -4.63 -24.68 Obs 1,039

25% -1.71 -23.78 Sum of Wgt. 1,039

50% 1.25 Mean .9348219

Largest Std. Dev. 5.824628

75% 3.89 35.31

90% 6.44 43.38 Variance 33.92629

95% 8.07 43.44 Skewness .6910704

99% 15.21 44.28 Kurtosis 14.70662

Seven

-------------------------------------------------------------

Percentiles Smallest

1% -14.13 -33.48

5% -7.72 -25.72

10% -5.08 -24.28 Obs 1,039

25% -1.84 -23.8 Sum of Wgt. 1,039

50% 1.29 Mean 1.020096

Largest Std. Dev. 5.562001

75% 3.92 31.99

90% 6.45 32.12 Variance 30.93585

95% 8.75 33.77 Skewness .1182917

99% 14.74 36.72 Kurtosis 10.32209

Eight

-------------------------------------------------------------

Percentiles Smallest

1% -14.3 -27.5

5% -7.29 -23.95

10% -5.25 -21.21 Obs 1,039

25% -1.75 -20.53 Sum of Wgt. 1,039

50% 1.33 Mean 1.129634

Largest Std. Dev. 5.395382

75% 4.04 26.79

90% 6.72 27.45 Variance 29.11015

95% 8.99 28.1 Skewness -.0021817

99% 14.62 32.22 Kurtosis 7.547613

Nine

-------------------------------------------------------------

Percentiles Smallest

1% -15.88 -26.91

5% -7.86 -26.28

10% -5.63 -25.08 Obs 1,039

25% -1.68 -22.85 Sum of Wgt. 1,039

50% 1.66 Mean 1.208749

Largest Std. Dev. 5.693801

75% 4.54 22.3

90% 6.98 22.63 Variance 32.41937

95% 9.02 23.48 Skewness -.3214427

99% 14.59 33.02 Kurtosis 6.599007

High

-------------------------------------------------------------

Percentiles Smallest

1% -17.32 -28.38

5% -9.41 -27.59

10% -6.5 -26.74 Obs 1,039

25% -2.01 -24.63 Sum of Wgt. 1,039

50% 1.84 Mean 1.521617

Largest Std. Dev. 6.551938

75% 5.59 21.88

90% 8.6 23.1 Variance 42.92789

95% 10.59 24.75 Skewness -.5009656

99% 17.56 28.87 Kurtosis 5.129833

.

. //以下是探究为何多因子模型比CAPM好

. corr RMRF SMB HML MOM

(obs=997)

| RMRF SMB HML MOM

-------------+------------------------------------

RMRF | 1.0000

SMB | 0.3401 1.0000

HML | 0.2378 0.1153 1.0000

MOM | -0.3459 -0.2031 -0.5327 1.0000

. reg Low RMRF SMB HML MOM

Source | SS df MS Number of obs = 997

-------------+---------------------------------- F(4, 992) = 2949.49

Model | 90418.4165 4 22604.6041 Prob > F = 0.0000

Residual | 7602.60346 992 7.66391478 R-squared = 0.9224

-------------+---------------------------------- Adj R-squared = 0.9221

Total | 98021.0199 996 98.4146787 Root MSE = 2.7684

------------------------------------------------------------------------------

Low | Coef. Std. Err. t P>|t| [95% Conf. Interval]

-------------+----------------------------------------------------------------

RMRF | 1.182723 .0179073 66.05 0.000 1.147583 1.217864

SMB | .4695743 .0288673 16.27 0.000 .4129264 .5262223

HML | .0299444 .0277759 1.08 0.281 -.0245618 .0844505

MOM | -.8666556 .0223337 -38.80 0.000 -.9104823 -.822829

\_cons | .0691612 .0915452 0.76 0.450 -.1104832 .2488056

------------------------------------------------------------------------------

. reg Two RMRF SMB HML MOM

Source | SS df MS Number of obs = 997

-------------+---------------------------------- F(4, 992) = 4449.53

Model | 64445.5341 4 16111.3835 Prob > F = 0.0000

Residual | 3591.94816 992 3.62091548 R-squared = 0.9472

-------------+---------------------------------- Adj R-squared = 0.9470

Total | 68037.4823 996 68.3107252 Root MSE = 1.9029

------------------------------------------------------------------------------

Two | Coef. Std. Err. t P>|t| [95% Conf. Interval]

-------------+----------------------------------------------------------------

RMRF | 1.103717 .0123087 89.67 0.000 1.079562 1.127871

SMB | .0862362 .0198422 4.35 0.000 .0472986 .1251737

HML | .0472317 .019092 2.47 0.014 .0097663 .084697

MOM | -.6961655 .0153513 -45.35 0.000 -.7262901 -.6660408

\_cons | .4795628 .0629244 7.62 0.000 .3560825 .603043

------------------------------------------------------------------------------

. reg Three RMRF SMB HML MOM

Source | SS df MS Number of obs = 997

-------------+---------------------------------- F(4, 992) = 3784.35

Model | 47659.7728 4 11914.9432 Prob > F = 0.0000

Residual | 3123.29182 992 3.14847965 R-squared = 0.9385

-------------+---------------------------------- Adj R-squared = 0.9382

Total | 50783.0646 996 50.9870127 Root MSE = 1.7744

------------------------------------------------------------------------------

Three | Coef. Std. Err. t P>|t| [95% Conf. Interval]

-------------+----------------------------------------------------------------

RMRF | 1.015136 .0114777 88.44 0.000 .9926124 1.037659

SMB | -.0511145 .0185025 -2.76 0.006 -.0874231 -.0148059

HML | .0585651 .017803 3.29 0.001 .0236293 .0935009

MOM | -.5323667 .0143148 -37.19 0.000 -.5604575 -.504276

\_cons | .4486641 .058676 7.65 0.000 .3335207 .5638074

------------------------------------------------------------------------------

. reg Four RMRF SMB HML MOM

Source | SS df MS Number of obs = 997

-------------+---------------------------------- F(4, 992) = 2625.82

Model | 38644.7753 4 9661.19383 Prob > F = 0.0000

Residual | 3649.86764 992 3.67930206 R-squared = 0.9137

-------------+---------------------------------- Adj R-squared = 0.9134

Total | 42294.643 996 42.464501 Root MSE = 1.9182

------------------------------------------------------------------------------

Four | Coef. Std. Err. t P>|t| [95% Conf. Interval]

-------------+----------------------------------------------------------------

RMRF | .9960742 .0124076 80.28 0.000 .9717261 1.020422

SMB | -.0666241 .0200015 -3.33 0.001 -.1058743 -.0273739

HML | .0970049 .0192453 5.04 0.000 .0592387 .1347711

MOM | -.3221296 .0154745 -20.82 0.000 -.3524962 -.291763

\_cons | .4494987 .0634297 7.09 0.000 .3250268 .5739705

------------------------------------------------------------------------------

. reg Five RMRF SMB HML MOM

Source | SS df MS Number of obs = 997

-------------+---------------------------------- F(4, 992) = 2552.74

Model | 33156.226 4 8289.05651 Prob > F = 0.0000

Residual | 3221.14644 992 3.24712342 R-squared = 0.9115

-------------+---------------------------------- Adj R-squared = 0.9111

Total | 36377.3725 996 36.5234663 Root MSE = 1.802

------------------------------------------------------------------------------

Five | Coef. Std. Err. t P>|t| [95% Conf. Interval]

-------------+----------------------------------------------------------------

RMRF | .9610173 .0116561 82.45 0.000 .9381439 .9838908

SMB | -.0781231 .0187902 -4.16 0.000 -.1149961 -.0412501

HML | .08945 .0180797 4.95 0.000 .0539711 .1249288

MOM | -.2286161 .0145373 -15.73 0.000 -.2571436 -.2000887

\_cons | .4114337 .0595881 6.90 0.000 .2945005 .5283668

------------------------------------------------------------------------------

. reg Six RMRF SMB HML MOM

Source | SS df MS Number of obs = 997

-------------+---------------------------------- F(4, 992) = 2758.88

Model | 31629.4163 4 7907.35406 Prob > F = 0.0000

Residual | 2843.22119 992 2.86615039 R-squared = 0.9175

-------------+---------------------------------- Adj R-squared = 0.9172

Total | 34472.6374 996 34.6110818 Root MSE = 1.693

------------------------------------------------------------------------------

Six | Coef. Std. Err. t P>|t| [95% Conf. Interval]

-------------+----------------------------------------------------------------

RMRF | .995514 .010951 90.91 0.000 .9740242 1.017004

SMB | -.0481864 .0176535 -2.73 0.006 -.0828289 -.013544

HML | .1113451 .016986 6.56 0.000 .0780124 .1446777

MOM | -.0637135 .0136579 -4.66 0.000 -.0905152 -.0369118

\_cons | .3285759 .0559834 5.87 0.000 .2187163 .4384354

------------------------------------------------------------------------------

. reg Seven RMRF SMB HML MOM

Source | SS df MS Number of obs = 997

-------------+---------------------------------- F(4, 992) = 2240.92

Model | 28180.1907 4 7045.04767 Prob > F = 0.0000

Residual | 3118.66605 992 3.14381659 R-squared = 0.9004

-------------+---------------------------------- Adj R-squared = 0.9000

Total | 31298.8568 996 31.424555 Root MSE = 1.7731

------------------------------------------------------------------------------

Seven | Coef. Std. Err. t P>|t| [95% Conf. Interval]

-------------+----------------------------------------------------------------

RMRF | .9931404 .0114692 86.59 0.000 .9706337 1.015647

SMB | -.0964667 .0184888 -5.22 0.000 -.1327484 -.0601849

HML | .110057 .0177898 6.19 0.000 .075147 .1449669

MOM | .0789895 .0143042 5.52 0.000 .0509196 .1070595

\_cons | .3231602 .0586325 5.51 0.000 .2081021 .4382182

------------------------------------------------------------------------------

. reg Eight RMRF SMB HML MOM

Source | SS df MS Number of obs = 997

-------------+---------------------------------- F(4, 992) = 2663.17

Model | 26861.4374 4 6715.35936 Prob > F = 0.0000

Residual | 2501.39768 992 2.52157024 R-squared = 0.9148

-------------+---------------------------------- Adj R-squared = 0.9145

Total | 29362.8351 996 29.4807581 Root MSE = 1.5879

------------------------------------------------------------------------------

Eight | Coef. Std. Err. t P>|t| [95% Conf. Interval]

-------------+----------------------------------------------------------------

RMRF | .9978806 .0102716 97.15 0.000 .977724 1.018037

SMB | -.0709472 .0165583 -4.28 0.000 -.1034405 -.0384538

HML | .1353636 .0159323 8.50 0.000 .1040987 .1666284

MOM | .2463914 .0128106 19.23 0.000 .2212523 .2715304

\_cons | .3053314 .0525104 5.81 0.000 .2022871 .4083757

------------------------------------------------------------------------------

. reg Nine RMRF SMB HML MOM

Source | SS df MS Number of obs = 997

-------------+---------------------------------- F(4, 992) = 3002.78

Model | 30193.0994 4 7548.27485 Prob > F = 0.0000

Residual | 2493.65366 992 2.51376377 R-squared = 0.9237

-------------+---------------------------------- Adj R-squared = 0.9234

Total | 32686.7531 996 32.8180252 Root MSE = 1.5855

------------------------------------------------------------------------------

Nine | Coef. Std. Err. t P>|t| [95% Conf. Interval]

-------------+----------------------------------------------------------------

RMRF | 1.056597 .0102557 103.03 0.000 1.036472 1.076723

SMB | .006085 .0165327 0.37 0.713 -.026358 .038528

HML | .161486 .0159076 10.15 0.000 .1302696 .1927024

MOM | .3975093 .0127908 31.08 0.000 .3724092 .4226094

\_cons | .2118821 .0524291 4.04 0.000 .1089974 .3147668

------------------------------------------------------------------------------

. reg High RMRF SMB HML MOM

Source | SS df MS Number of obs = 997

-------------+---------------------------------- F(4, 992) = 2109.12

Model | 38408.9412 4 9602.23529 Prob > F = 0.0000

Residual | 4516.30267 992 4.55272447 R-squared = 0.8948

-------------+---------------------------------- Adj R-squared = 0.8944

Total | 42925.2438 996 43.0976344 Root MSE = 2.1337

------------------------------------------------------------------------------

High | Coef. Std. Err. t P>|t| [95% Conf. Interval]

-------------+----------------------------------------------------------------

RMRF | 1.135983 .0138019 82.31 0.000 1.108899 1.163068

SMB | .3024168 .0222493 13.59 0.000 .2587556 .3460779

HML | -.0086514 .0214081 -0.40 0.686 -.0506618 .0333589

MOM | .5995997 .0172136 34.83 0.000 .5658206 .6333789

\_cons | .3248984 .0705579 4.60 0.000 .1864385 .4633583

------------------------------------------------------------------------------

.

. reg Low RMRF

Source | SS df MS Number of obs = 997

-------------+---------------------------------- F(1, 995) = 2674.69

Model | 71443.6155 1 71443.6155 Prob > F = 0.0000

Residual | 26577.4045 995 26.7109593 R-squared = 0.7289

-------------+---------------------------------- Adj R-squared = 0.7286

Total | 98021.0199 996 98.4146787 Root MSE = 5.1683

------------------------------------------------------------------------------

Low | Coef. Std. Err. t P>|t| [95% Conf. Interval]

-------------+----------------------------------------------------------------

RMRF | 1.547096 .0299144 51.72 0.000 1.488393 1.605798

\_cons | -.6304446 .164694 -3.83 0.000 -.953632 -.3072572

------------------------------------------------------------------------------

. reg Two RMRF

Source | SS df MS Number of obs = 997

-------------+---------------------------------- F(1, 995) = 3731.95

Model | 53715.9104 1 53715.9104 Prob > F = 0.0000

Residual | 14321.5719 995 14.3935396 R-squared = 0.7895

-------------+---------------------------------- Adj R-squared = 0.7893

Total | 68037.4823 996 68.3107252 Root MSE = 3.7939

------------------------------------------------------------------------------

Two | Coef. Std. Err. t P>|t| [95% Conf. Interval]

-------------+----------------------------------------------------------------

RMRF | 1.341488 .0219593 61.09 0.000 1.298397 1.38458

\_cons | -.1145518 .1208974 -0.95 0.344 -.3517948 .1226912

------------------------------------------------------------------------------

. reg Three RMRF

Source | SS df MS Number of obs = 997

-------------+---------------------------------- F(1, 995) = 4361.91

Model | 41350.5406 1 41350.5406 Prob > F = 0.0000

Residual | 9432.52405 995 9.47992367 R-squared = 0.8143

-------------+---------------------------------- Adj R-squared = 0.8141

Total | 50783.0646 996 50.9870127 Root MSE = 3.0789

------------------------------------------------------------------------------

Three | Coef. Std. Err. t P>|t| [95% Conf. Interval]

-------------+----------------------------------------------------------------

RMRF | 1.176999 .0178212 66.04 0.000 1.142027 1.21197

\_cons | -.015388 .098115 -0.16 0.875 -.2079241 .1771481

------------------------------------------------------------------------------

. reg Four RMRF

Source | SS df MS Number of obs = 997

-------------+---------------------------------- F(1, 995) = 5594.88

Model | 35908.617 1 35908.617 Prob > F = 0.0000

Residual | 6386.02597 995 6.41811655 R-squared = 0.8490

-------------+---------------------------------- Adj R-squared = 0.8489

Total | 42294.643 996 42.464501 Root MSE = 2.5334

------------------------------------------------------------------------------

Four | Coef. Std. Err. t P>|t| [95% Conf. Interval]

-------------+----------------------------------------------------------------

RMRF | 1.096819 .0146636 74.80 0.000 1.068044 1.125594

\_cons | .1791035 .0807303 2.22 0.027 .0206823 .3375248

------------------------------------------------------------------------------

. reg Five RMRF

Source | SS df MS Number of obs = 997

-------------+---------------------------------- F(1, 995) = 6653.18

Model | 31644.8082 1 31644.8082 Prob > F = 0.0000

Residual | 4732.56423 995 4.75634596 R-squared = 0.8699

-------------+---------------------------------- Adj R-squared = 0.8698

Total | 36377.3725 996 36.5234663 Root MSE = 2.1809

------------------------------------------------------------------------------

Five | Coef. Std. Err. t P>|t| [95% Conf. Interval]

-------------+----------------------------------------------------------------

RMRF | 1.029643 .0126233 81.57 0.000 1.004872 1.054414

\_cons | .2205593 .0694976 3.17 0.002 .0841806 .3569379

------------------------------------------------------------------------------

. reg Six RMRF

Source | SS df MS Number of obs = 997

-------------+---------------------------------- F(1, 995) = 9679.10

Model | 31259.2272 1 31259.2272 Prob > F = 0.0000

Residual | 3213.4102 995 3.22955799 R-squared = 0.9068

-------------+---------------------------------- Adj R-squared = 0.9067

Total | 34472.6374 996 34.6110818 Root MSE = 1.7971

------------------------------------------------------------------------------

Six | Coef. Std. Err. t P>|t| [95% Conf. Interval]

-------------+----------------------------------------------------------------

RMRF | 1.023351 .0104018 98.38 0.000 1.002939 1.043763

\_cons | .2930523 .057267 5.12 0.000 .1806743 .4054302

------------------------------------------------------------------------------

. reg Seven RMRF

Source | SS df MS Number of obs = 997

-------------+---------------------------------- F(1, 995) = 8266.21

Model | 27936.1898 1 27936.1898 Prob > F = 0.0000

Residual | 3362.66698 995 3.37956481 R-squared = 0.8926

-------------+---------------------------------- Adj R-squared = 0.8925

Total | 31298.8568 996 31.424555 Root MSE = 1.8384

------------------------------------------------------------------------------

Seven | Coef. Std. Err. t P>|t| [95% Conf. Interval]

-------------+----------------------------------------------------------------

RMRF | .9674289 .0106406 90.92 0.000 .9465483 .9883095

\_cons | .4074951 .0585819 6.96 0.000 .2925368 .5224533

------------------------------------------------------------------------------

. reg Eight RMRF

Source | SS df MS Number of obs = 997

-------------+---------------------------------- F(1, 995) = 7279.31

Model | 25831.9043 1 25831.9043 Prob > F = 0.0000

Residual | 3530.93081 995 3.54867418 R-squared = 0.8797

-------------+---------------------------------- Adj R-squared = 0.8796

Total | 29362.8351 996 29.4807581 Root MSE = 1.8838

------------------------------------------------------------------------------

Eight | Coef. Std. Err. t P>|t| [95% Conf. Interval]

-------------+----------------------------------------------------------------

RMRF | .93028 .0109036 85.32 0.000 .9088834 .9516766

\_cons | .5474908 .0600297 9.12 0.000 .4296915 .6652901

------------------------------------------------------------------------------

. reg Nine RMRF

Source | SS df MS Number of obs = 997

-------------+---------------------------------- F(1, 995) = 5472.86

Model | 27658.3049 1 27658.3049 Prob > F = 0.0000

Residual | 5028.44815 995 5.05371673 R-squared = 0.8462

-------------+---------------------------------- Adj R-squared = 0.8460

Total | 32686.7531 996 32.8180252 Root MSE = 2.248

------------------------------------------------------------------------------

Nine | Coef. Std. Err. t P>|t| [95% Conf. Interval]

-------------+----------------------------------------------------------------

RMRF | .9626053 .0130119 73.98 0.000 .9370714 .9881393

\_cons | .6043282 .0716372 8.44 0.000 .4637509 .7449055

------------------------------------------------------------------------------

. reg High RMRF

Source | SS df MS Number of obs = 997

-------------+---------------------------------- F(1, 995) = 2468.10

Model | 30592.2003 1 30592.2003 Prob > F = 0.0000

Residual | 12333.0436 995 12.3950187 R-squared = 0.7127

-------------+---------------------------------- Adj R-squared = 0.7124

Total | 42925.2438 996 43.0976344 Root MSE = 3.5207

------------------------------------------------------------------------------

High | Coef. Std. Err. t P>|t| [95% Conf. Interval]

-------------+----------------------------------------------------------------

RMRF | 1.012374 .0203779 49.68 0.000 .9723851 1.052362

\_cons | .8933571 .1121906 7.96 0.000 .6731998 1.113515

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