CGR Bond Panel Regressions Model Number 5

#############################################################################################  
### Unbalanced Bond Panel Estimation Augmented Model #5 ###################################  
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## Model Number 5  
  
# Full  
Panel\_Bond\_model\_5

Oneway (individual) effect Within Model  
  
Call:  
plm::plm(formula = form, data = data\_matrix, model = mdl, index = ind)  
  
Unbalanced Panel: n = 22, T = 10-21, N = 435  
  
Residuals:  
 Min. 1st Qu. Median 3rd Qu. Max.   
-32.1657 -4.7971 0.4324 5.3800 33.7030   
  
Coefficients:  
 Estimate Std. Error t value Pr(>|t|)   
TED -23.53185 3.33682 -7.0522 7.710e-12 \*\*\*  
VIX 1.65765 0.12779 12.9719 < 2.2e-16 \*\*\*  
SENT 1.49066 0.64652 2.3057 0.0216363 \*   
FEDFUNDS 2.96561 0.24808 11.9543 < 2.2e-16 \*\*\*  
ERM -23.68122 2.56967 -9.2157 < 2.2e-16 \*\*\*  
Euro -36.46369 3.37565 -10.8020 < 2.2e-16 \*\*\*  
Agg\_Econ\_Risk -0.74825 0.12874 -5.8120 1.256e-08 \*\*\*  
Agg\_Fin\_Risk 0.22962 0.31143 0.7373 0.4613660   
Agg\_Pol\_Risk -0.29942 0.20759 -1.4424 0.1499791   
Bond\_Liq 7.97086 2.18311 3.6511 0.0002955 \*\*\*  
---  
Signif. codes: 0 '\*\*\*' 0.001 '\*\*' 0.01 '\*' 0.05 '.' 0.1 ' ' 1  
  
Total Sum of Squares: 112390  
Residual Sum of Squares: 39666  
R-Squared: 0.64706  
Adj. R-Squared: 0.61991  
F-statistic: 73.8846 on 10 and 403 DF, p-value: < 2.22e-16

# Pre 2000  
Panel\_Bond\_model\_5\_Pre

Oneway (individual) effect Within Model  
  
Call:  
plm::plm(formula = form, data = data\_matrix, model = mdl, index = ind)  
  
Unbalanced Panel: n = 20, T = 7-10, N = 194  
  
Residuals:  
 Min. 1st Qu. Median 3rd Qu. Max.   
-17.08441 -2.07350 0.41548 1.93310 22.42649   
  
Coefficients:  
 Estimate Std. Error t value Pr(>|t|)   
TED 11.98663 6.97373 1.7188 0.0875217 .   
VIX -0.51614 0.13304 -3.8797 0.0001509 \*\*\*  
SENT 1.49887 1.07886 1.3893 0.1666123   
FEDFUNDS 1.60651 0.27679 5.8040 3.232e-08 \*\*\*  
ERM -21.92060 2.42951 -9.0227 4.558e-16 \*\*\*  
Agg\_Econ\_Risk 0.26806 0.16979 1.5788 0.1163053   
Agg\_Fin\_Risk 0.23946 0.21117 1.1340 0.2584503   
Agg\_Pol\_Risk -0.12191 0.16193 -0.7529 0.4526009   
Bond\_Liq -3.67714 3.25454 -1.1299 0.2601787   
---  
Signif. codes: 0 '\*\*\*' 0.001 '\*\*' 0.01 '\*' 0.05 '.' 0.1 ' ' 1  
  
Total Sum of Squares: 16688  
Residual Sum of Squares: 3646.1  
R-Squared: 0.78152  
Adj. R-Squared: 0.74444  
F-statistic: 65.578 on 9 and 165 DF, p-value: < 2.22e-16

# Post 2000  
Panel\_Bond\_model\_5\_Post

Oneway (individual) effect Within Model  
  
Call:  
plm::plm(formula = form, data = data\_matrix, model = mdl, index = ind)  
  
Unbalanced Panel: n = 22, T = 10-11, N = 241  
  
Residuals:  
 Min. 1st Qu. Median 3rd Qu. Max.   
-33.64796 -5.75026 0.54259 5.62472 26.84627   
  
Coefficients:  
 Estimate Std. Error t value Pr(>|t|)   
TED -27.05035 3.72964 -7.2528 7.729e-12 \*\*\*  
VIX 1.96758 0.19271 10.2099 < 2.2e-16 \*\*\*  
SENT -1.32973 1.33820 -0.9937 0.3215   
FEDFUNDS 3.41902 0.63171 5.4124 1.691e-07 \*\*\*  
Euro -30.51444 5.10710 -5.9749 9.737e-09 \*\*\*  
Agg\_Econ\_Risk 0.73507 0.65265 1.1263 0.2613   
Agg\_Fin\_Risk -0.32959 0.63639 -0.5179 0.6051   
Agg\_Pol\_Risk -0.52960 0.38820 -1.3642 0.1740   
Bond\_Liq -115.64348 129.30428 -0.8944 0.3722   
---  
Signif. codes: 0 '\*\*\*' 0.001 '\*\*' 0.01 '\*' 0.05 '.' 0.1 ' ' 1  
  
Total Sum of Squares: 76706  
Residual Sum of Squares: 28162  
R-Squared: 0.63285  
Adj. R-Squared: 0.5804  
F-statistic: 40.2197 on 9 and 210 DF, p-value: < 2.22e-16

##  
  
## Model Number 5 with Equity\_Liq and Int\_Use  
  
# Full  
Panel\_Bond\_model\_5\_aug\_int

Oneway (individual) effect Within Model  
  
Call:  
plm::plm(formula = form, data = data\_matrix, model = mdl, index = ind)  
  
Unbalanced Panel: n = 22, T = 10-21, N = 431  
  
Residuals:  
 Min. 1st Qu. Median 3rd Qu. Max.   
-32.23667 -4.44956 0.29665 4.79282 31.94265   
  
Coefficients:  
 Estimate Std. Error t value Pr(>|t|)   
TED -19.900794 3.372297 -5.9013 7.725e-09 \*\*\*  
VIX 1.448395 0.151727 9.5461 < 2.2e-16 \*\*\*  
SENT 1.450209 0.690089 2.1015 0.03623 \*   
FEDFUNDS 2.018479 0.318848 6.3305 6.597e-10 \*\*\*  
ERM -25.003117 2.366660 -10.5647 < 2.2e-16 \*\*\*  
Euro -32.039131 3.705812 -8.6456 < 2.2e-16 \*\*\*  
Agg\_Econ\_Risk -0.276614 0.227387 -1.2165 0.22452   
Agg\_Fin\_Risk 0.135247 0.323435 0.4182 0.67606   
Agg\_Pol\_Risk -0.394485 0.221623 -1.7800 0.07584 .   
Bond\_Liq 2.105813 3.218137 0.6544 0.51326   
Internet\_Usage -0.126498 0.031209 -4.0533 6.075e-05 \*\*\*  
---  
Signif. codes: 0 '\*\*\*' 0.001 '\*\*' 0.01 '\*' 0.05 '.' 0.1 ' ' 1  
  
Total Sum of Squares: 111330  
Residual Sum of Squares: 38397  
R-Squared: 0.6551  
Adj. R-Squared: 0.62737  
F-statistic: 68.7228 on 11 and 398 DF, p-value: < 2.22e-16

# Pre 2000  
Panel\_Bond\_model\_5\_aug\_int\_Pre

Oneway (individual) effect Within Model  
  
Call:  
plm::plm(formula = form, data = data\_matrix, model = mdl, index = ind)  
  
Unbalanced Panel: n = 20, T = 7-10, N = 193  
  
Residuals:  
 Min. 1st Qu. Median 3rd Qu. Max.   
-16.18059 -2.23279 0.15704 2.08849 21.76036   
  
Coefficients:  
 Estimate Std. Error t value Pr(>|t|)   
TED 21.682029 7.116174 3.0469 0.002698 \*\*   
VIX -0.550035 0.134196 -4.0987 6.536e-05 \*\*\*  
SENT 3.587148 1.278963 2.8047 0.005649 \*\*   
FEDFUNDS 0.830899 0.441049 1.8839 0.061357 .   
ERM -22.294223 2.328417 -9.5748 < 2.2e-16 \*\*\*  
Agg\_Econ\_Risk 0.394951 0.196223 2.0128 0.045785 \*   
Agg\_Fin\_Risk 0.050682 0.198515 0.2553 0.798810   
Agg\_Pol\_Risk -0.209612 0.176241 -1.1893 0.236032   
Bond\_Liq -4.277813 3.099628 -1.3801 0.169444   
Internet\_Usage -0.188229 0.084124 -2.2375 0.026608 \*   
---  
Signif. codes: 0 '\*\*\*' 0.001 '\*\*' 0.01 '\*' 0.05 '.' 0.1 ' ' 1  
  
Total Sum of Squares: 16674  
Residual Sum of Squares: 3515.1  
R-Squared: 0.78919  
Adj. R-Squared: 0.75168  
F-statistic: 61.0204 on 10 and 163 DF, p-value: < 2.22e-16

# Post 2000  
Panel\_Bond\_model\_5\_aug\_int\_Post

Oneway (individual) effect Within Model  
  
Call:  
plm::plm(formula = form, data = data\_matrix, model = mdl, index = ind)  
  
Unbalanced Panel: n = 22, T = 8-11, N = 238  
  
Residuals:  
 Min. 1st Qu. Median 3rd Qu. Max.   
-33.067626 -5.659816 0.029858 5.534828 26.992149   
  
Coefficients:  
 Estimate Std. Error t value Pr(>|t|)   
TED -28.80115 6.69369 -4.3027 2.606e-05 \*\*\*  
VIX 2.05788 0.32906 6.2538 2.274e-09 \*\*\*  
SENT 0.10401 2.73157 0.0381 0.9697   
FEDFUNDS 3.53050 0.66793 5.2857 3.181e-07 \*\*\*  
Euro -32.62242 7.37925 -4.4208 1.590e-05 \*\*\*  
Agg\_Econ\_Risk 0.68558 0.65787 1.0421 0.2986   
Agg\_Fin\_Risk -0.28697 0.61622 -0.4657 0.6419   
Agg\_Pol\_Risk -0.40374 0.37627 -1.0730 0.2845   
Bond\_Liq -119.55733 131.98256 -0.9059 0.3661   
Internet\_Usage 0.10931 0.20238 0.5401 0.5897   
---  
Signif. codes: 0 '\*\*\*' 0.001 '\*\*' 0.01 '\*' 0.05 '.' 0.1 ' ' 1  
  
Total Sum of Squares: 74496  
Residual Sum of Squares: 27479  
R-Squared: 0.63114  
Adj. R-Squared: 0.57563  
F-statistic: 35.2479 on 10 and 206 DF, p-value: < 2.22e-16

##  
  
## Model Number 5 with Equity\_Liq and Dev\_PC1  
  
# Full  
Panel\_Bond\_model\_5\_aug\_devpc

Oneway (individual) effect Within Model  
  
Call:  
plm::plm(formula = form, data = data\_matrix, model = mdl, index = ind)  
  
Unbalanced Panel: n = 16, T = 11-21, N = 324  
  
Residuals:  
 Min. 1st Qu. Median 3rd Qu. Max.   
-30.73315 -4.58239 0.26311 5.53580 28.12099   
  
Coefficients:  
 Estimate Std. Error t value Pr(>|t|)   
TED -21.994204 4.306895 -5.1067 5.868e-07 \*\*\*  
VIX 1.397832 0.157455 8.8777 < 2.2e-16 \*\*\*  
SENT 1.160423 0.806199 1.4394 0.15110   
FEDFUNDS 2.414967 0.472796 5.1078 5.837e-07 \*\*\*  
ERM -22.896911 2.586373 -8.8529 < 2.2e-16 \*\*\*  
Euro -29.383113 4.481855 -6.5560 2.444e-10 \*\*\*  
Agg\_Econ\_Risk -0.325660 0.228919 -1.4226 0.15590   
Agg\_Fin\_Risk -0.060409 0.420590 -0.1436 0.88589   
Agg\_Pol\_Risk -0.518086 0.306461 -1.6905 0.09197 .   
Bond\_Liq -0.828092 4.059555 -0.2040 0.83850   
Dev\_PC1 -1.337422 0.655455 -2.0404 0.04219 \*   
---  
Signif. codes: 0 '\*\*\*' 0.001 '\*\*' 0.01 '\*' 0.05 '.' 0.1 ' ' 1  
  
Total Sum of Squares: 78465  
Residual Sum of Squares: 30709  
R-Squared: 0.60862  
Adj. R-Squared: 0.57436  
F-statistic: 41.9874 on 11 and 297 DF, p-value: < 2.22e-16

# Pre 2000  
Panel\_Bond\_model\_5\_aug\_devpc\_Pre

Oneway (individual) effect Within Model  
  
Call:  
plm::plm(formula = form, data = data\_matrix, model = mdl, index = ind)  
  
Unbalanced Panel: n = 15, T = 9-10, N = 148  
  
Residuals:  
 Min. 1st Qu. Median 3rd Qu. Max.   
-14.12299 -2.40589 0.46723 1.86379 20.10218   
  
Coefficients:  
 Estimate Std. Error t value Pr(>|t|)   
TED -2.39804 8.64147 -0.2775 0.781860   
VIX -0.38589 0.18511 -2.0847 0.039167 \*   
SENT -0.38853 1.37745 -0.2821 0.778367   
FEDFUNDS 2.62232 0.41035 6.3904 3.094e-09 \*\*\*  
ERM -20.12280 2.52543 -7.9681 9.277e-13 \*\*\*  
Agg\_Econ\_Risk 0.40569 0.18924 2.1438 0.034015 \*   
Agg\_Fin\_Risk 0.22918 0.19637 1.1671 0.245417   
Agg\_Pol\_Risk -0.43664 0.22757 -1.9187 0.057338 .   
Bond\_Liq 1.20754 3.55841 0.3393 0.734926   
Dev\_PC1 2.26526 0.69050 3.2806 0.001348 \*\*   
---  
Signif. codes: 0 '\*\*\*' 0.001 '\*\*' 0.01 '\*' 0.05 '.' 0.1 ' ' 1  
  
Total Sum of Squares: 12027  
Residual Sum of Squares: 2720.4  
R-Squared: 0.77381  
Adj. R-Squared: 0.72968  
F-statistic: 42.0795 on 10 and 123 DF, p-value: < 2.22e-16

# Post 2000  
Panel\_Bond\_model\_5\_aug\_devpc\_Post

Oneway (individual) effect Within Model  
  
Call:  
plm::plm(formula = form, data = data\_matrix, model = mdl, index = ind)  
  
Balanced Panel: n = 16, T = 11, N = 176  
  
Residuals:  
 Min. 1st Qu. Median 3rd Qu. Max.   
-30.25481 -5.68444 0.41504 6.58190 25.52529   
  
Coefficients:  
 Estimate Std. Error t value Pr(>|t|)   
TED -24.80376 6.11179 -4.0583 7.927e-05 \*\*\*  
VIX 1.65821 0.32371 5.1225 9.135e-07 \*\*\*  
SENT -2.75160 2.40937 -1.1420 0.2552573   
FEDFUNDS 3.04213 0.79145 3.8437 0.0001785 \*\*\*  
Euro -20.25219 8.23315 -2.4598 0.0150358 \*   
Agg\_Econ\_Risk 1.43520 0.52074 2.7561 0.0065752 \*\*   
Agg\_Fin\_Risk -1.33965 0.68840 -1.9460 0.0535199 .   
Agg\_Pol\_Risk -0.41555 0.47222 -0.8800 0.3802694   
Bond\_Liq -334.89037 369.33654 -0.9067 0.3660012   
Dev\_PC1 -1.34448 2.21000 -0.6084 0.5438686   
---  
Signif. codes: 0 '\*\*\*' 0.001 '\*\*' 0.01 '\*' 0.05 '.' 0.1 ' ' 1  
  
Total Sum of Squares: 51875  
Residual Sum of Squares: 20460  
R-Squared: 0.60559  
Adj. R-Squared: 0.53985  
F-statistic: 23.0313 on 10 and 150 DF, p-value: < 2.22e-16

##

#########################################################################################  
### Balanced Bond Panel Estimation Augmented Model #5 #################################  
#########################################################################################  
  
## Model Number 5  
  
# Full  
Bal\_Bond\_model\_5

Oneway (individual) effect Within Model  
  
Call:  
plm::plm(formula = form, data = data\_matrix, model = mdl, index = ind)  
  
Balanced Panel: n = 20, T = 15, N = 300  
  
Residuals:  
 Min. 1st Qu. Median 3rd Qu. Max.   
-29.03490 -4.68732 0.60824 5.09474 31.61813   
  
Coefficients:  
 Estimate Std. Error t value Pr(>|t|)   
TED -23.91244 3.40786 -7.0169 1.805e-11 \*\*\*  
VIX 1.82971 0.15316 11.9466 < 2.2e-16 \*\*\*  
SENT -1.65305 0.65613 -2.5194 0.01233 \*   
FEDFUNDS 4.21081 0.39894 10.5551 < 2.2e-16 \*\*\*  
Euro -31.22148 3.66261 -8.5244 1.076e-15 \*\*\*  
Agg\_Econ\_Risk -0.37028 0.21448 -1.7264 0.08541 .   
Agg\_Fin\_Risk -0.22700 0.39121 -0.5802 0.56223   
Agg\_Pol\_Risk -0.17729 0.21293 -0.8326 0.40581   
---  
Signif. codes: 0 '\*\*\*' 0.001 '\*\*' 0.01 '\*' 0.05 '.' 0.1 ' ' 1  
  
Total Sum of Squares: 80742  
Residual Sum of Squares: 28685  
R-Squared: 0.64473  
Adj. R-Squared: 0.60946  
F-statistic: 61.7014 on 8 and 272 DF, p-value: < 2.22e-16

# Pre 2000  
Bal\_Bond\_model\_5\_Pre

Oneway (individual) effect Within Model  
  
Call:  
plm::plm(formula = form, data = data\_matrix, model = mdl, index = ind)  
  
Balanced Panel: n = 20, T = 8, N = 160  
  
Residuals:  
 Min. 1st Qu. Median 3rd Qu. Max.   
-11.82454 -1.24976 0.31967 1.30551 5.39537   
  
Coefficients:  
 Estimate Std. Error t value Pr(>|t|)   
TED 2.27277 3.82182 0.5947 0.55307   
VIX -0.19140 0.10537 -1.8164 0.07155 .  
SENT 0.94932 0.75620 1.2554 0.21154   
FEDFUNDS -0.66752 0.55875 -1.1947 0.23434   
Agg\_Econ\_Risk 0.15923 0.14097 1.1295 0.26071   
Agg\_Fin\_Risk 0.13534 0.14747 0.9177 0.36042   
Agg\_Pol\_Risk 0.13298 0.16629 0.7997 0.42534   
---  
Signif. codes: 0 '\*\*\*' 0.001 '\*\*' 0.01 '\*' 0.05 '.' 0.1 ' ' 1  
  
Total Sum of Squares: 977.43  
Residual Sum of Squares: 867.35  
R-Squared: 0.11262  
Adj. R-Squared: -0.060852  
F-statistic: 2.41135 on 7 and 133 DF, p-value: 0.023477

# Post 2000  
Bal\_Bond\_model\_5\_Post

Oneway (individual) effect Within Model  
  
Call:  
plm::plm(formula = form, data = data\_matrix, model = mdl, index = ind)  
  
Balanced Panel: n = 20, T = 7, N = 140  
  
Residuals:  
 Min. 1st Qu. Median 3rd Qu. Max.   
-32.9554 -4.2348 1.2819 6.4003 32.1536   
  
Coefficients:  
 Estimate Std. Error t value Pr(>|t|)   
TED 151.22817 37.00559 4.0866 8.258e-05 \*\*\*  
VIX -7.17052 1.85824 -3.8588 0.0001909 \*\*\*  
SENT 268.26497 50.97378 5.2628 6.906e-07 \*\*\*  
FEDFUNDS -22.59523 5.23501 -4.3162 3.441e-05 \*\*\*  
Euro 53.46012 13.26428 4.0304 0.0001019 \*\*\*  
Agg\_Econ\_Risk 1.65053 0.81454 2.0263 0.0451061 \*   
Agg\_Fin\_Risk 0.12285 0.84762 0.1449 0.8850267   
Agg\_Pol\_Risk 0.20212 0.42564 0.4749 0.6358095   
---  
Signif. codes: 0 '\*\*\*' 0.001 '\*\*' 0.01 '\*' 0.05 '.' 0.1 ' ' 1  
  
Total Sum of Squares: 26920  
Residual Sum of Squares: 13060  
R-Squared: 0.51484  
Adj. R-Squared: 0.39788  
F-statistic: 14.8565 on 8 and 112 DF, p-value: 1.1973e-14

##  
  
## Model Number 5 with Equity\_Liq and Int\_Use  
  
# Full  
Bal\_Bond\_model\_5\_aug\_int

Oneway (individual) effect Within Model  
  
Call:  
plm::plm(formula = form, data = data\_matrix, model = mdl, index = ind)  
  
Balanced Panel: n = 19, T = 15, N = 285  
  
Residuals:  
 Min. 1st Qu. Median 3rd Qu. Max.   
-30.3122 -4.4917 0.4116 4.4488 28.5954   
  
Coefficients:  
 Estimate Std. Error t value Pr(>|t|)   
TED -18.698270 3.525920 -5.3031 2.463e-07 \*\*\*  
VIX 1.531276 0.215755 7.0973 1.248e-11 \*\*\*  
SENT -1.584232 0.666442 -2.3772 0.01818 \*   
FEDFUNDS 3.009490 0.720158 4.1789 4.022e-05 \*\*\*  
Euro -26.939489 4.411132 -6.1072 3.746e-09 \*\*\*  
Agg\_Econ\_Risk 0.038309 0.320869 0.1194 0.90506   
Agg\_Fin\_Risk -0.481831 0.412430 -1.1683 0.24378   
Agg\_Pol\_Risk -0.101755 0.209096 -0.4866 0.62693   
Bond\_Liq 11.219299 17.774728 0.6312 0.52848   
Internet\_Usage -0.102601 0.045211 -2.2694 0.02408 \*   
---  
Signif. codes: 0 '\*\*\*' 0.001 '\*\*' 0.01 '\*' 0.05 '.' 0.1 ' ' 1  
  
Total Sum of Squares: 72916  
Residual Sum of Squares: 26117  
R-Squared: 0.64182  
Adj. R-Squared: 0.60264  
F-statistic: 45.872 on 10 and 256 DF, p-value: < 2.22e-16

# Pre 2000  
Bal\_Bond\_model\_5\_aug\_int\_Pre

Oneway (individual) effect Within Model  
  
Call:  
plm::plm(formula = form, data = data\_matrix, model = mdl, index = ind)  
  
Balanced Panel: n = 19, T = 8, N = 152  
  
Residuals:  
 Min. 1st Qu. Median 3rd Qu. Max.   
-12.14666 -1.23310 0.32635 1.24303 5.20937   
  
Coefficients:  
 Estimate Std. Error t value Pr(>|t|)   
TED 3.897900 3.822525 1.0197 0.30985   
VIX -0.161825 0.093190 -1.7365 0.08496 .   
SENT 1.653035 0.894557 1.8479 0.06700 .   
FEDFUNDS -1.318958 0.625336 -2.1092 0.03694 \*   
Agg\_Econ\_Risk 0.180243 0.173679 1.0378 0.30139   
Agg\_Fin\_Risk 0.093572 0.139803 0.6693 0.50454   
Agg\_Pol\_Risk 0.141227 0.175659 0.8040 0.42294   
Bond\_Liq -15.827037 3.349888 -4.7246 6.139e-06 \*\*\*  
Internet\_Usage -0.037956 0.035715 -1.0627 0.28996   
---  
Signif. codes: 0 '\*\*\*' 0.001 '\*\*' 0.01 '\*' 0.05 '.' 0.1 ' ' 1  
  
Total Sum of Squares: 882.71  
Residual Sum of Squares: 759.66  
R-Squared: 0.1394  
Adj. R-Squared: -0.047991  
F-statistic: 2.2317 on 9 and 124 DF, p-value: 0.024107

# Post 2000  
Bal\_Bond\_model\_5\_aug\_int\_Post

Oneway (individual) effect Within Model  
  
Call:  
plm::plm(formula = form, data = data\_matrix, model = mdl, index = ind)  
  
Balanced Panel: n = 19, T = 7, N = 133  
  
Residuals:  
 Min. 1st Qu. Median 3rd Qu. Max.   
-30.7608 -5.2566 1.2812 5.3020 31.5276   
  
Coefficients:  
 Estimate Std. Error t value Pr(>|t|)   
TED 155.83606 35.94406 4.3355 3.370e-05 \*\*\*  
VIX -7.53688 1.81660 -4.1489 6.845e-05 \*\*\*  
SENT 293.35442 50.93467 5.7594 8.644e-08 \*\*\*  
FEDFUNDS -24.90927 5.24522 -4.7489 6.567e-06 \*\*\*  
Euro 47.90161 13.30729 3.5997 0.0004899 \*\*\*  
Agg\_Econ\_Risk 1.87990 0.76878 2.4453 0.0161522 \*   
Agg\_Fin\_Risk 0.20800 0.90573 0.2297 0.8188140   
Agg\_Pol\_Risk 0.18936 0.40391 0.4688 0.6401770   
Bond\_Liq -582.75010 410.75724 -1.4187 0.1589701   
Internet\_Usage 0.60748 0.20296 2.9931 0.0034503 \*\*   
---  
Signif. codes: 0 '\*\*\*' 0.001 '\*\*' 0.01 '\*' 0.05 '.' 0.1 ' ' 1  
  
Total Sum of Squares: 26023  
Residual Sum of Squares: 11783  
R-Squared: 0.5472  
Adj. R-Squared: 0.4253  
F-statistic: 12.5684 on 10 and 104 DF, p-value: 4.4879e-14

##  
  
## Model Number 5 with Equity\_Liq and Dev\_PC1  
  
# Full  
Bal\_Bond\_model\_5\_aug\_devpc

Oneway (individual) effect Within Model  
  
Call:  
plm::plm(formula = form, data = data\_matrix, model = mdl, index = ind)  
  
Balanced Panel: n = 15, T = 15, N = 225  
  
Residuals:  
 Min. 1st Qu. Median 3rd Qu. Max.   
-26.799923 -4.239934 0.026023 5.235393 26.309283   
  
Coefficients:  
 Estimate Std. Error t value Pr(>|t|)   
TED -20.82151 4.47443 -4.6534 5.933e-06 \*\*\*  
VIX 1.46482 0.23325 6.2800 2.069e-09 \*\*\*  
SENT -1.91803 0.82696 -2.3194 0.021385 \*   
FEDFUNDS 3.10282 0.76637 4.0487 7.360e-05 \*\*\*  
Euro -23.21349 4.99659 -4.6459 6.133e-06 \*\*\*  
Agg\_Econ\_Risk 0.14372 0.31511 0.4561 0.648815   
Agg\_Fin\_Risk -0.82218 0.50199 -1.6378 0.103028   
Agg\_Pol\_Risk -0.25573 0.26819 -0.9536 0.341459   
Bond\_Liq -0.53721 19.13760 -0.0281 0.977633   
Dev\_PC1 -2.04969 0.77742 -2.6365 0.009034 \*\*   
---  
Signif. codes: 0 '\*\*\*' 0.001 '\*\*' 0.01 '\*' 0.05 '.' 0.1 ' ' 1  
  
Total Sum of Squares: 57391  
Residual Sum of Squares: 22120  
R-Squared: 0.61457  
Adj. R-Squared: 0.56831  
F-statistic: 31.8896 on 10 and 200 DF, p-value: < 2.22e-16

# Pre 2000  
Bal\_Bond\_model\_5\_aug\_devpc\_Pre

Oneway (individual) effect Within Model  
  
Call:  
plm::plm(formula = form, data = data\_matrix, model = mdl, index = ind)  
  
Balanced Panel: n = 15, T = 8, N = 120  
  
Residuals:  
 Min. 1st Qu. Median 3rd Qu. Max.   
-11.67979 -1.56933 0.28406 1.58500 5.34912   
  
Coefficients:  
 Estimate Std. Error t value Pr(>|t|)   
TED -0.708152 4.628008 -0.1530 0.878708   
VIX -0.348291 0.122907 -2.8338 0.005608 \*\*   
SENT 0.011663 1.061208 0.0110 0.991254   
FEDFUNDS 0.208256 0.761619 0.2734 0.785103   
Agg\_Econ\_Risk 0.256573 0.152544 1.6820 0.095828 .   
Agg\_Fin\_Risk 0.294425 0.115049 2.5591 0.012056 \*   
Agg\_Pol\_Risk 0.170537 0.221535 0.7698 0.443312   
Bond\_Liq -20.683245 4.763151 -4.3423 3.495e-05 \*\*\*  
Dev\_PC1 0.466689 0.607434 0.7683 0.444197   
---  
Signif. codes: 0 '\*\*\*' 0.001 '\*\*' 0.01 '\*' 0.05 '.' 0.1 ' ' 1  
  
Total Sum of Squares: 905.89  
Residual Sum of Squares: 769.62  
R-Squared: 0.15043  
Adj. R-Squared: -0.053115  
F-statistic: 1.88868 on 9 and 96 DF, p-value: 0.062668

# Post 2000  
Bal\_Bond\_model\_5\_aug\_devpc\_Post

Oneway (individual) effect Within Model  
  
Call:  
plm::plm(formula = form, data = data\_matrix, model = mdl, index = ind)  
  
Balanced Panel: n = 15, T = 7, N = 105  
  
Residuals:  
 Min. 1st Qu. Median 3rd Qu. Max.   
-27.6831345 -5.4901624 0.0022126 5.9672163 30.3139858   
  
Coefficients:  
 Estimate Std. Error t value Pr(>|t|)   
TED 133.213965 44.696707 2.9804 0.003812 \*\*   
VIX -6.444017 2.282994 -2.8226 0.006008 \*\*   
SENT 256.417242 65.984142 3.8860 0.000209 \*\*\*  
FEDFUNDS -21.374099 6.839220 -3.1252 0.002476 \*\*   
Euro 45.056359 14.095097 3.1966 0.001992 \*\*   
Agg\_Econ\_Risk 2.343115 0.873156 2.6835 0.008851 \*\*   
Agg\_Fin\_Risk -0.308974 1.047214 -0.2950 0.768725   
Agg\_Pol\_Risk 0.055074 0.519547 0.1060 0.915844   
Bond\_Liq -787.726650 379.261853 -2.0770 0.041011 \*   
Dev\_PC1 4.341876 2.820251 1.5395 0.127620   
---  
Signif. codes: 0 '\*\*\*' 0.001 '\*\*' 0.01 '\*' 0.05 '.' 0.1 ' ' 1  
  
Total Sum of Squares: 18332  
Residual Sum of Squares: 9380  
R-Squared: 0.48832  
Adj. R-Squared: 0.33482  
F-statistic: 7.63491 on 10 and 80 DF, p-value: 1.9624e-08

##