APPENDIX: ESTIMATION RESULTS

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Models estimated on spring 2005 data
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Call:
lm(formula = as.formula(KouwForm), data = datauttag)

Residuals:
    Min      1Q  Median      3Q     Max
-2.4760 -0.3731 -0.1131  0.1783  4.7344

Coefficients:
                        Estimate Std. Error t value Pr(>|t|)
(Intercept)             -0.22018    0.06084  -3.619 0.000304 ***
I(restid - fftid)        0.36251    0.04296   8.439  < 2e-16 ***
log(restid - fftid + 1)  0.88242    0.13594   6.491 1.08e-10 ***
langd                    0.02683    0.01266   2.119 0.034253 *
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Residual standard error: 0.7703 on 1951 degrees of freedom
Multiple R-squared: 0.5895,     Adjusted R-squared:  0.5889
F-statistic: 934.1 on 3 and 1951 DF,  p-value: < 2.2e-16

*******************************************

Call:
lm(formula = as.formula(Mahm1Form), data = datauttag)

Residuals:
    Min      1Q  Median      3Q     Max
-2.6259 -0.2222 -0.0861  0.1087  6.1732

Coefficients:
                 Estimate Std. Error t value Pr(>|t|)
(Intercept)     -0.298356   0.023821  -12.53   <2e-16 ***
I(restid/langd)  0.452338   0.008845   51.14   <2e-16 ***
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Residual standard error: 0.5854 on 1953 degrees of freedom
Multiple R-squared: 0.5725,     Adjusted R-squared:  0.5723
F-statistic:  2615 on 1 and 1953 DF,  p-value: < 2.2e-16

*******************************************

Call:
lm(formula = as.formula(EliasForm), data = datauttag)

Residuals:
     Min       1Q   Median       3Q      Max
-2.02707 -0.40941 -0.05681  0.34013  2.25230

Coefficients:
                 Estimate Std. Error t value Pr(>|t|)
(Intercept)      -1.25360    0.04666 -26.868  < 2e-16 ***
log(restid)       1.07109    0.03967  26.999  < 2e-16 ***
log(rel.fordroj)  0.52528    0.01955  26.865  < 2e-16 ***
log(langd)       -0.15237    0.03343  -4.558 5.47e-06 ***
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Residual standard error: 0.5696 on 1951 degrees of freedom
Multiple R-squared: 0.6647,     Adjusted R-squared:  0.6642
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F-statistic:  1289 on 3 and 1951 DF,  p-value: < 2.2e-16

*****************************************

Call:
lm(formula = as.formula(HellingaForm), data = datauttag)

Residuals:
    Min      1Q  Median      3Q     Max
-2.1091 -0.6158 -0.1234  0.4023  6.0817

Coefficients:
             Estimate Std. Error t value Pr(>|t|)
(Intercept) -0.328930   0.047114  -6.982 3.99e-12 ***
restid       0.347681   0.009843  35.321  < 2e-16 ***
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Residual standard error: 0.9388 on 1953 degrees of freedom
Multiple R-squared:  0.3898,     Adjusted R-squared:  0.3895
F-statistic:  1248 on 1 and 1953 DF,  p-value: < 2.2e-16

*****************************************

Call:
lm(formula = as.formula(Mahm2Form), data = datauttag)

Residuals:
     Min       1Q   Median       3Q      Max
-1.86663 -0.49532 -0.05867  0.44919  2.41020

Coefficients:
                 Estimate Std. Error t value Pr(>|t|)
(Intercept)      -2.14375    0.02285  -93.82   <2e-16 ***
log(restid/langd) 1.78844    0.02699   66.26   <2e-16 ***
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Residual standard error: 0.6672 on 1953 degrees of freedom
Multiple R-squared:  0.6921,     Adjusted R-squared:  0.692
F-statistic:  4391 on 1 and 1953 DF,  p-value: < 2.2e-16

*****************************************

Call:
lm(formula = as.formula(HermanForm), data = datauttag)

Residuals:
    Min      1Q  Median      3Q     Max
-1.8685 -0.6562 -0.1372  0.4299  7.2340

Coefficients:
             Estimate Std. Error t value Pr(>|t|)
(Intercept) -1.57442    0.08818  -17.86   <2e-16 ***
sqrt(restid) 1.36444    0.04266   31.98   <2e-16 ***
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Residual standard error: 0.9735 on 1953 degrees of freedom
Multiple R-squared:  0.3438,     Adjusted R-squared:  0.3434
F-statistic:  1023 on 1 and 1953 DF,  p-value: < 2.2e-16

*****************************************

Call:
lm(formula = as.formula(ArupForm), data = datauttag)

Residuals:
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      Min        1Q   Median       3Q      Max
-1.86293 -0.44557 -0.07692  0.38285  2.26744

Coefficients:
                  Estimate Std. Error t value Pr(>|t|)
(Intercept)       -2.18263    0.03368 -64.811  < 2e-16 ***
log(restid/fftid)  1.29527    0.04295  30.159  < 2e-16 ***
log(langd)        -0.14117    0.02146  -6.577 6.14e-11 ***
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Residual standard error: 0.6059 on 1952 degrees of freedom
Multiple R-squared:  0.4263,     Adjusted R-squared:  0.4257
F-statistic: 725.1 on 2 and 1952 DF,  p-value: < 2.2e-16

******************************************

Call:
lm(formula = as.formula(BMVDIForm), data = datauttag)

Residuals:
     Min        1Q   Median       3Q      Max
-2.06883 -0.66164  0.01742  0.63670  2.32833

Coefficients:
            Estimate Std. Error t value Pr(>|t|)
(Intercept) -1.71733    0.04753  -36.13   <2e-16 ***
log(restid)  1.05678    0.03336   31.68   <2e-16 ***
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Residual standard error: 0.7992 on 1953 degrees of freedom
Multiple R-squared:  0.3394,     Adjusted R-squared:  0.339
F-statistic:  1003 on 1 and 1953 DF,  p-value: < 2.2e-16

******************************************

Call:
lm(formula = as.formula(PeerForm), data = datauttag)

Residuals:
    Min      1Q  Median      3Q     Max
-3.1176 -0.3524 -0.1420  0.1554  4.8191

Coefficients:
                  Estimate Std. Error t value Pr(>|t|)
(Intercept)        0.02655    0.04103   0.647 0.517710
I(restid - fftid)  0.48849    0.02855  17.110  < 2e-16 ***
restid             0.12935    0.02362   5.477 4.89e-08 ***
langd             -0.08072    0.02412  -3.347 0.000833 ***
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Residual standard error: 0.7727 on 1951 degrees of freedom
Multiple R-squared:  0.587,      Adjusted R-squared:  0.5864
F-statistic: 924.4 on 3 and 1951 DF,  p-value: < 2.2e-16

******************************************
******************************************
Models estimated on spring 2006 data
******************************************

Call:
lm(formula = as.formula(KouwForm), data = datauttag)

Residuals:
    Min      1Q  Median      3Q     Max
-2.2407 -0.2824 -0.1154  0.1316  5.2774
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```
Coefficients:
                       Estimate Std. Error t value Pr(>|t|)
(Intercept)             0.04374    0.04525   0.966  0.33393
I(restid - fftid)       0.51253    0.04017  12.759  < 2e-16 ***
log(restid - fftid + 1) 0.36922    0.11485   3.215  0.00133 **
langd                  -0.04137    0.01022  -4.050 5.34e-05 ***
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Residual standard error: 0.6119 on 1908 degrees of freedom
Multiple R-squared:  0.5913,     Adjusted R-squared:  0.5906
F-statistic: 920.1 on 3 and 1908 DF,  p-value: < 2.2e-16

*****************************************

Call:
lm(formula = as.formula(Mahm1Form), data = datauttag)

Residuals:
    Min      1Q  Median      3Q     Max
-2.1828 -0.1807 -0.0207  0.0931  4.3258

Coefficients:
                 Estimate Std. Error t value Pr(>|t|)
(Intercept)     -0.454966   0.018280  -24.89   <2e-16 ***
I(restid/langd)  0.491873   0.007932   62.01   <2e-16 ***
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Residual standard error: 0.4214 on 1910 degrees of freedom
Multiple R-squared:  0.6682,     Adjusted R-squared:  0.668
F-statistic:  3846 on 1 and 1910 DF,  p-value: < 2.2e-16

*****************************************

Call:
lm(formula = as.formula(EliasForm), data = datauttag)

Residuals:
    Min      1Q  Median      3Q     Max
-1.6089 -0.4298 -0.0689  0.3261  2.5156

Coefficients:
                 Estimate Std. Error t value Pr(>|t|)
(Intercept)      -1.36607    0.04728 -28.893  < 2e-16 ***
log(restid)       1.06441    0.04351  24.465  < 2e-16 ***
log(rel.fordroj)  0.49302    0.01786  27.608  < 2e-16 ***
log(langd)       -0.17831    0.03602  -4.951 8.04e-07 ***
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Residual standard error: 0.6039 on 1908 degrees of freedom
Multiple R-squared:  0.5983,     Adjusted R-squared:  0.5977
F-statistic: 947.3 on 3 and 1908 DF,  p-value: < 2.2e-16

*****************************************

Call:
lm(formula = as.formula(HellingaForm), data = datauttag)

Residuals:
    Min      1Q  Median      3Q     Max
-1.1882 -0.5500 -0.1550  0.2466  6.4721

Coefficients:
             Estimate Std. Error t value Pr(>|t|)
(Intercept) -0.133776   0.042161  -3.173  0.00153 **
```

```
restid      0.246342   0.009671  25.474  < 2e-16 ***
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Residual standard error: 0.8264 on 1910 degrees of freedom
Multiple R-squared:  0.2536,    Adjusted R-squared:  0.2532
F-statistic: 648.9 on 1 and 1910 DF,  p-value: < 2.2e-16

******************************************

Call:
lm(formula = as.formula(Mahm2Form), data = datauttag)

Residuals:
     Min       1Q   Median       3Q      Max
-2.19061 -0.45885 -0.09676  0.39846  2.53083

Coefficients:
                 Estimate Std. Error t value Pr(>|t|)
(Intercept)      -2.32870    0.02399  -97.06   <2e-16 ***
log(restid/langd) 1.81041    0.03285   55.11   <2e-16 ***
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Residual standard error: 0.7173 on 1910 degrees of freedom
Multiple R-squared:  0.6139,    Adjusted R-squared:  0.6137
F-statistic:  3037 on 1 and 1910 DF,  p-value: < 2.2e-16

******************************************

Call:
lm(formula = as.formula(HermanForm), data = datauttag)

Residuals:
    Min      1Q  Median      3Q     Max
-1.0949 -0.5813 -0.1577  0.2881  6.7074

Coefficients:
            Estimate Std. Error t value Pr(>|t|)
(Intercept) -0.93653    0.07762  -12.06   <2e-16 ***
sqrt(restid) 0.92183    0.03932   23.44   <2e-16 ***
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Residual standard error: 0.8429 on 1910 degrees of freedom
Multiple R-squared:  0.2235,    Adjusted R-squared:  0.2231
F-statistic: 549.6 on 1 and 1910 DF,  p-value: < 2.2e-16

******************************************

Call:
lm(formula = as.formula(ArupForm), data = datauttag)

Residuals:
     Min       1Q   Median       3Q      Max
-1.58053 -0.43557 -0.08308  0.31956  2.05701

Coefficients:
                 Estimate Std. Error t value Pr(>|t|)
(Intercept)      -2.46245    0.03345 -73.618  < 2e-16 ***
log(restid/fftid) 1.60613    0.05001  32.119  < 2e-16 ***
log(langd)       -0.12735    0.02176  -5.852 5.72e-09 ***
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Residual standard error: 0.6112 on 1909 degrees of freedom
Multiple R-squared:  0.4498,    Adjusted R-squared:  0.4492
F-statistic: 780.4 on 2 and 1909 DF,  p-value: < 2.2e-16
```

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******************************************

Call:
lm(formula = as.formula(BMVDIForm), data = datauttag)

Residuals:
     Min       1Q   Median       3Q      Max
-1.69470 -0.70306 -0.08463  0.65004  2.32607

Coefficients:
            Estimate Std. Error t value Pr(>|t|)
(Intercept) -1.76975    0.04692  -37.72   <2e-16 ***
log(restid)  0.89644    0.03503   25.59   <2e-16 ***
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Residual standard error: 0.8218 on 1910 degrees of freedom
Multiple R-squared:  0.2553,     Adjusted R-squared:  0.2549
F-statistic: 654.9 on 1 and 1910 DF,  p-value: < 2.2e-16

******************************************

Call:
lm(formula = as.formula(PeerForm), data = datauttag)

Residuals:
    Min      1Q  Median      3Q     Max
-2.3818 -0.2737 -0.1162  0.1005  5.2276

Coefficients:
                  Estimate Std. Error t value Pr(>|t|)
(Intercept)        0.13160    0.03242   4.059 5.12e-05 ***
I(restid - fftid)  0.58759    0.02434  24.140  < 2e-16 ***
restid             0.04451    0.01954   2.278   0.0229 *
langd             -0.07895    0.02019  -3.911 9.53e-05 ***
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Residual standard error: 0.6127 on 1908 degrees of freedom
Multiple R-squared:  0.5902,     Adjusted R-squared:  0.5895
F-statistic: 915.9 on 3 and 1908 DF,  p-value: < 2.2e-16

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