Contents

Oscar Deng

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A Appendix A: Preparing everything

```
#source("setSweave.R")
#source("setSweave.big5.R")
require(stargazer)

## Loading required package: stargazer
##
## Please cite as:
##  Hlavac, Marek (2015). stargazer: Well-Formatted Regression and Summary Statistics Tables.
##  R package version 5.2. http://CRAN.R-project.org/package=stargazer

require(xtable)

## Loading required package: xtable

require(dplyr)

## Loading required package: dplyr
##
## Attaching package: 'dplyr'
## The following objects are masked from 'package:stats':
##
##    filter, lag
## The following objects are masked from 'package:base':
##
##    intersect, setdiff, setequal, union

require(data.table)

## Loading required package: data.table
## ------------------------------------------------------------------------------
## data.table + dplyr code now lives in dtplyr.
## Please library(dtplyr)!
## ------------------------------------------------------------------------------
##
## Attaching package: 'data.table'
## The following objects are masked from 'package:dplyr':
##
##    between, last

require(ggplot2)

## Loading required package: ggplot2

require(stats)
source("corstars.R")
TEJ8.1 <- read.csv("TEJ8.1.csv",row.names = 1)
```

B

Appendix D.1: Descriptive Statistics Table

```
stargazer(
    TEJ8.1 %>% select(ETR,CETR,STR,HHI_Dum,STR_HHI,ROA,SIZE,LEV,
                      INTANG,QUICK,EQINC,OUTINSTI,RELAT,FAM_Dum,GDP,
                      #,RD,EMP,MB,MARKET,PPE
                      STR_RD,STR_EMP,STR_MB,STR_MARKET,STR_PPE
                      )
 ,type = "latex"
 ,summary.stat = c("n","min","p25","median","p75","max","sd","mean")
 ,table.placement = "h!"
 ,title = "Descriptive Statistics Table"
 ,notes.append = TRUE)
```

Table 1: Descriptive Statistics Table

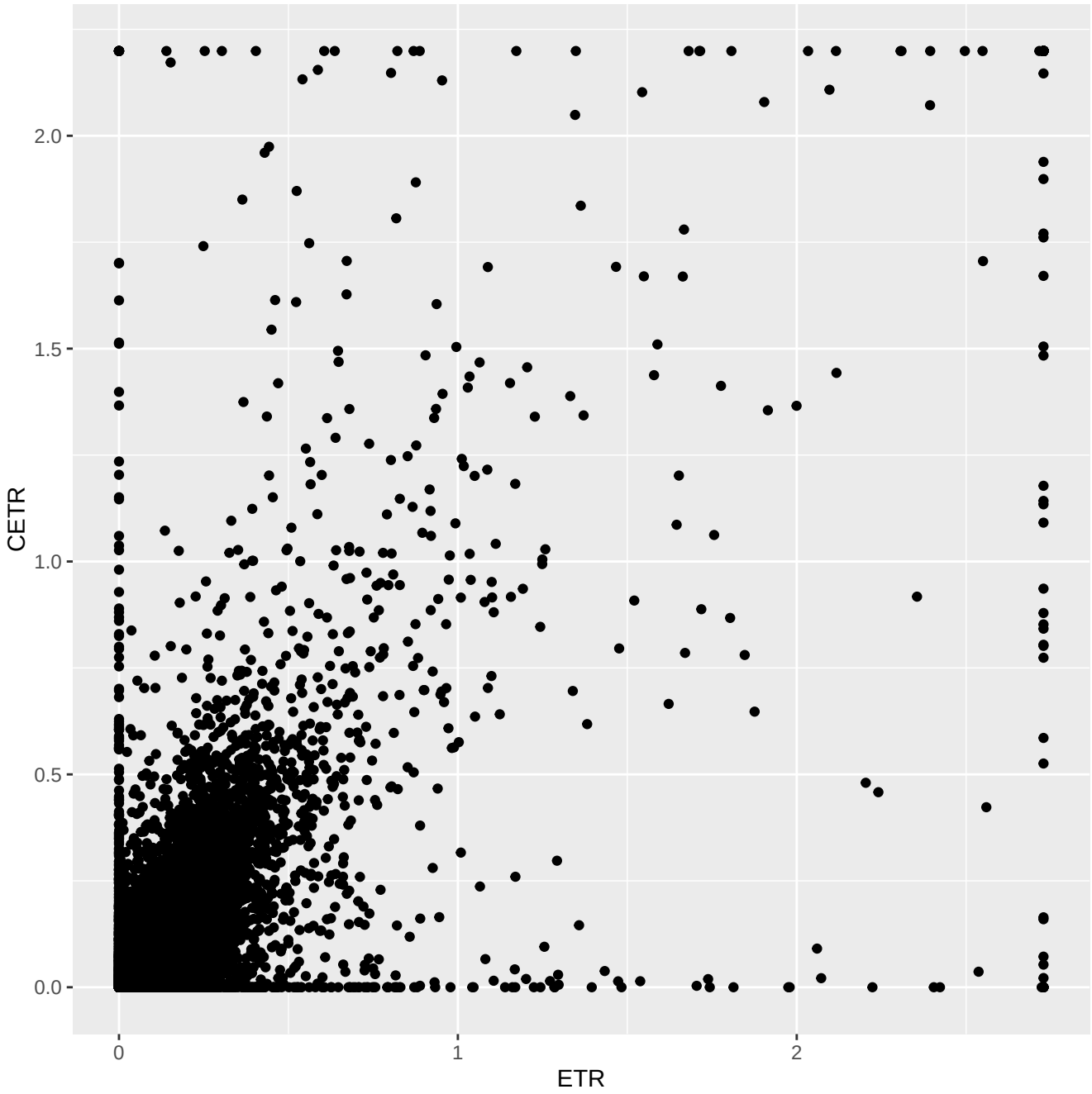
Statistic	N	Min	Pctl(25)	Median	Pctl(75)	Max	St. Dev.	Mean
ETR	15,570	0.000	0.031	0.157	0.225	2.728	0.260	0.175
CETR	15,570	0.000	0.011	0.122	0.207	2.199	0.234	0.157
STR	15,570	0	12	15	17	25	5.256	13.885
HHI_Dum	15,483	0	0	0	1	1	0.487	0.388
STR_HHI	15,483	0	0	0	13	25	7.591	5.554
ROA	15,570	−0.467	0.006	0.049	0.098	0.343	0.103	0.045
SIZE	15,570	12.310	14.201	14.981	15.993	19.948	1.421	15.199
LEV	15,570	0.041	0.281	0.418	0.542	0.904	0.178	0.416
INTANG	15,570	0.000	0.00002	0.003	0.013	0.250	0.030	0.013
QUICK	15,570	0.036	0.781	1.221	2.052	21.571	2.415	1.884
EQINC	15,570	−0.040	−0.00001	0.000	0.000	0.050	0.007	0.0002
OUTINSTI	15,570	0.000	0.179	0.333	0.530	1.000	0.227	0.365
RELAT	15,570	0.000	0.000	0.000	0.357	100.000	9.555	2.257
FAM_Dum	15,570	0	0	1	1	1	0.488	0.611
GDP	15,570	16.019	16.284	16.354	16.519	16.564	0.149	16.382
STR_RD	15,570	0.000	0.0001	0.014	0.040	1,648.593	13.417	0.191
STR_EMP	15,570	−0.0003	0.0001	0.0002	0.0005	0.142	0.002	0.0004
STR_MB	15,570	0.000	0.850	1.270	1.980	295.620	3.328	1.733
STR_MARKET	15,570	−0.196	0.022	0.042	0.073	100.397	1.076	0.079
STR_PPE	15,570	−0.048	0.088	0.194	0.327	0.943	0.165	0.222

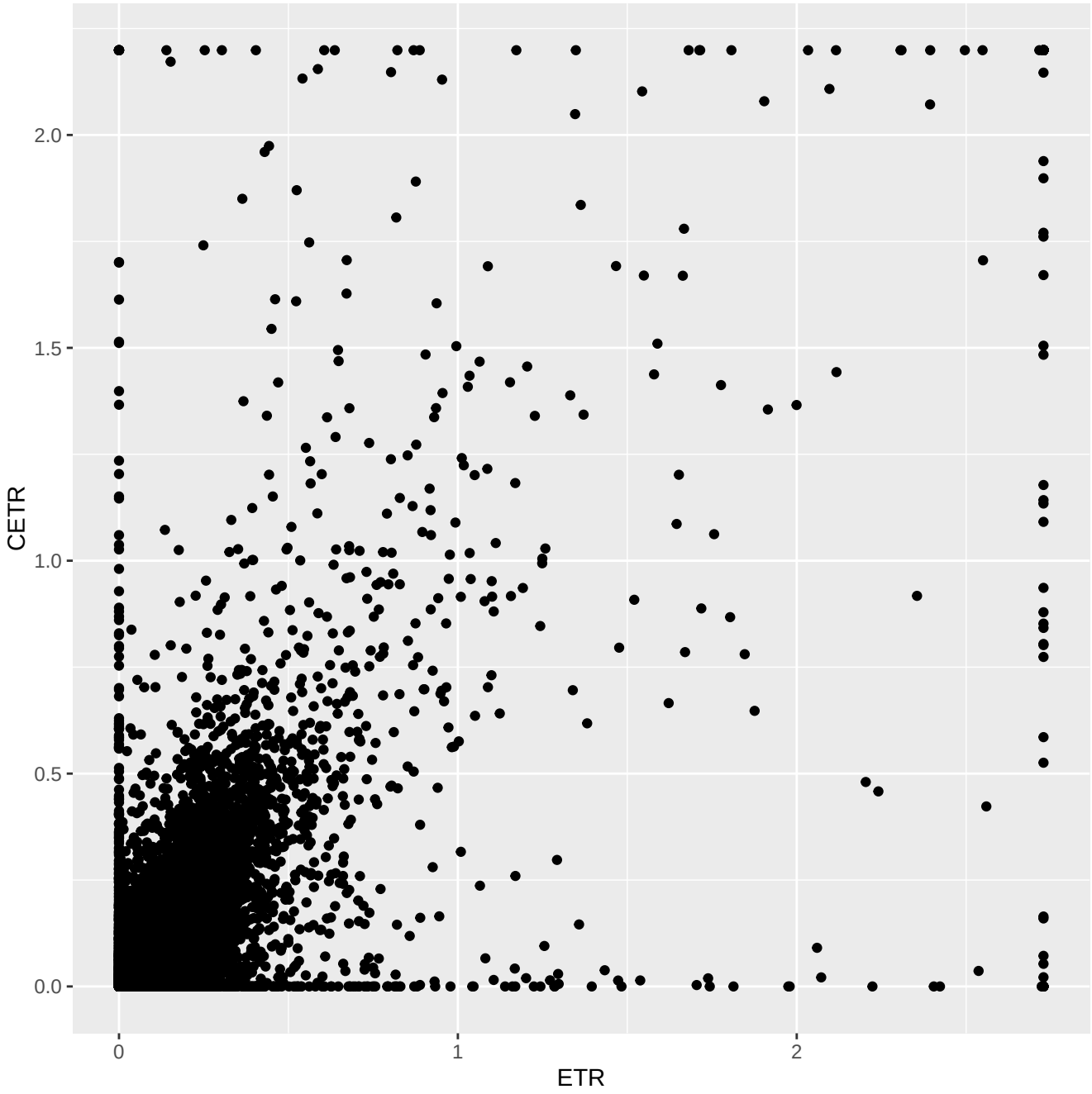
C

Appendix D.1.1: figures of each variables

ETR CETR (winsor)

```
qplot(ETR,CETR,data=TEJ8.1);qplot(ETR,CETR,data=TEJ8.1)
```




CETR
2.0
1.5
1.0
0.5
0.0
0
1
2
ETR

D

Appendix D.2: Table of Market Structure(HHI)

```
plottbA5 <- function(x=TEJ8.1){
  x$TSE <- paste(x$TSE_code,x$TSE_name,sep="")
  HHI_DB <- base::subset(x, select=c(TSE,year,HHI)) %>% distinct
  HHI_DB$HHI <- replace(HHI_DB$HHI,HHI_DB$HHI >= 0.3,' I ')
  HHI_DB$HHI <- replace(HHI_DB$HHI,HHI_DB$HHI < 0.3 & HHI_DB$HHI >= 0.18,' II ')
  HHI_DB$HHI <- replace(HHI_DB$HHI,HHI_DB$HHI < 0.18 & HHI_DB$HHI >= 0.14,' I ')
  HHI_DB$HHI <- replace(HHI_DB$HHI,HHI_DB$HHI < 0.14 & HHI_DB$HHI >= 0.1,' II ')
  HHI_DB$HHI <- replace(HHI_DB$HHI,HHI_DB$HHI < 0.1 & HHI_DB$HHI >= 0.05,' I ')
  HHI_DB$HHI <- replace(HHI_DB$HHI,HHI_DB$HHI < 0.05,' II ')
  HHI_DB$HHI <- replace(HHI_DB$HHI,HHI_DB$HHI == "NaN","")
  HHI_tbl <- dcast(HHI_DB,TSE ~ year) %>% as.data.frame
  HHI_tbl <- as.data.frame(HHI_tbl[,-1],row.names=HHI_tbl[,1])
  return(HHI_tbl)
  };HHI_tbl <- plottbA5()

## Using 'HHI' as value column. Use 'value.var' to override
```

```
print(xtable(HHI_tbl),scalebox=0.70)
```

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
M1100				I	I	I	I	I	I	I	I	I	I	I	I
M1200	II	II	II	II	II	II	II	I	I	I	I	I	I	I	I
M1300		I	I	I	I	I	II	II	II	II	II	II	II	II	II
M1400	I	I	I	I	I	II	II	I	I	I	I	I	II	II	II
M1500	II	I	I	II	I	II	II	II	II	II	I	I	II	II	I
M1600	II	II	II	II	II	II	II	II	II	II	I	I	I	I	I
M1721	II	II	I	I	II	II	I	I	I	I	I	I	I	I	I
M1722		II	II	I	II	II	I	I	I	I	I	I	II	II	II
M1800												I	I	I	I
M1900			I	I	I	I	I	II	II	II	II	II	II	II	II
M2000	I	II	II	II	II	I	II	II	II	II	II	II	II	II	II
M2100				I	II	II	II	II	II	II	II	II	II	II	II
M2200					II	II	II	II	II	II	II	II	II	II	II
M2324	I	II	II	II	II	II	I	I	I	I	I	I	I	I	II
M2325			I	I	II	II	II	I	I	II	II	II	II	II	II
M2326	I	I	I	II	II	II	II	II	II	II	II	II	II	II	II
M2327	I	I	I	I	I	I	II	II	II	II	II	II	II	II	II
M2328	I	I	II	I	I	II	II	II	II	II	II	II	II	II	II
M2329			II	I	II	II	I	I	II	II	II	II	I	I	I
M2330	II	II	II	II	I	II	I	I	I	I	I	I	I	I	I
M2500	II	II	I	I	I	I	II	II	II	II	II	II	II	II	II
M2600		I	I	I	I	II	II	I	I	I	I	I	I	I	I
M2700		II	II	II	I	I	II	II	II	II	II	II	II	II	II
M2900		I	I	I	I	II	II	II	II	II	II	II	II	II	II
M3200				II	II	II	II	II	II	II	II	II	II	II	II
M9700	II	II	II	I	I	I	I	I	I	I	I	I	I	I	I

:

a. HHI HHI

b. I 0.3 II 0.18 I 0.14 II 0.1 I 0.05 II

E

Appendix D.3: Pearson Correlation Coefficiency

```
ETR.cortab <- corstars(TEJ8.1 %>% select(ETR,STR,HHI_Dum,ROA,SIZE,LEV,
                     INTANG,QUICK,EQINC,OUTINSTI,RELAT,FAM_Dum,GDP)
  ,method = "pearson",removeTriangle = "lower",star = 3,result = "none")

## Loading required package: Hmisc
## Loading required package: lattice
## Loading required package: survival
## Loading required package: Formula
##
## Attaching package: 'Hmisc'
## The following objects are masked from 'package:dplyr':
##
##    combine, src, summarize
## The following objects are masked from 'package:xtable':
##
##    label, label<-
## The following objects are masked from 'package:base':
##
##    format.pval, round.POSIXt, trunc.POSIXt, units

CETR.cortab <- corstars(TEJ8.1 %>% select(CETR,STR,HHI_Dum,ROA,SIZE,LEV,
                     INTANG,QUICK,EQINC,OUTINSTI,RELAT,FAM_Dum,GDP)
  ,method = "pearson",removeTriangle = "lower",star = 3,result = "none")
```

(ETR)

```
xtable(ETR.cortab)
```

	ETR	STR	HHI_Dum	ROA	SIZE	LEV	INTANG	QUICK	EQINC	OUTINSTI	RELAT	FAM_Dum	GDP
ETR	1.00	0.01	-0.03**	0.06***	0.02**	0.02*	0.01	-0.02*	-0.01	-0.05***	0.00	0.01	0.04***
STR		1.00	0.05***	-0.03***	-0.11***	-0.11***	0.05***	0.09***	0.00	-0.11***	0.01	-0.02**	0.22***
HHI_Dum			1.00	-0.01	-0.09***	-0.07***	0.01	0.08***	-0.04***	-0.05***	0.04***	0.00	0.16***
ROA				1.00	0.10***	-0.26***	-0.04***	0.09***	0.17***	0.17***	0.01	-0.05***	-0.03***
SIZE					1.00	0.29***	0.04***	-0.21***	0.16***	0.39***	0.02**	0.03***	0.08***
LEV						1.00	-0.06***	-0.57***	-0.04***	0.04***	0.03***	0.06***	-0.08***
INTANG							1.00	0.05***	-0.03***	0.05***	0.00	0.01	0.06***
QUICK								1.00	0.01	-0.02*	-0.01	-0.08***	0.08***
EQINC									1.00	0.12***	0.00	0.00	0.08***
OUTINSTI										1.00	-0.01	-0.04***	0.07***
RELAT											1.00	-0.02*	-0.03***
FAM_Dum												1.00	-0.01
GDP													1.00

a.

b. *** ** * 1% 5% 10%

(CETR)

```
xtable(CETR.cortab)
```

	CETR	STR	HHI_Dum	ROA	SIZE	LEV	INTANG	QUICK	EQINC	OUTINSTI	RELAT	FAM_Dum	GDP
CETR	1.00	0.02*	-0.02**	0.02**	0.02*	0.02*	0.02	-0.03***	-0.02**	-0.06***	0.00	0.02*	0.04***
STR		1.00	0.05***	-0.03***	-0.11***	-0.11***	0.05***	0.09***	0.00	-0.11***	0.01	-0.02**	0.22***
HHI_Dum			1.00	-0.01	-0.09***	-0.07***	0.01	0.08***	-0.04***	-0.05***	0.04***	0.00	0.16***
ROA				1.00	0.10***	-0.26***	-0.04***	0.09***	0.17***	0.17***	0.01	-0.05***	-0.03***
SIZE					1.00	0.29***	0.04***	-0.21***	0.16***	0.39***	0.02**	0.03***	0.08***
LEV						1.00	-0.06***	-0.57***	-0.04***	0.04***	0.03***	0.06***	-0.08***
INTANG							1.00	0.05***	-0.03***	0.05***	0.00	0.01	0.06***
QUICK								1.00	0.01	-0.02*	-0.01	-0.08***	0.08***
EQINC									1.00	0.12***	0.00	0.00	0.08***
OUTINSTI										1.00	-0.01	-0.04***	0.07***
RELAT											1.00	-0.02*	-0.03***
FAM_Dum												1.00	-0.01
GDP													1.00

a.

b. *** ** * 1% 5% 10%

01

```
lm.ETR <- lm(ETR ~ STR+HHI_Dum+ROA+SIZE+LEV+INTANG+QUICK+EQINC+OUTINSTI+RELAT+FAM_Dum+GDP
             ,TEJ8.1)
lm.CETR <- lm(CETR ~ STR+HHI_Dum+ROA+SIZE+LEV+INTANG+QUICK+EQINC+OUTINSTI+RELAT+FAM_Dum+GDP
              ,TEJ8.1)
lm.ETR.SH <- lm(ETR ~ STR+HHI_Dum+STR_HHI+ROA+SIZE+LEV+INTANG+QUICK+EQINC+OUTINSTI+RELAT+FAM_Dum+GDP,TEJ8.1)
lm.CETR.SH <- lm(CETR ~ STR+HHI_Dum+STR_HHI+ROA+SIZE+LEV+INTANG+QUICK+EQINC+OUTINSTI+RELAT+FAM_Dum+GDP,TEJ8.1)
```

F

Appendix F.1: Empirical - 1

1:

$$TAXAVO_{it} = \beta_0 + \beta_1 STR_{it} + \beta_2 HHI_{jt} + \beta_3 ROA_{it} + \beta_4 SIZE_{it} + \beta_5 LEV_{it} + \beta_6 INTANG_{it} + \beta_7 QUICK_{it} + \beta_8 EQINC_{it} + \beta_9 OUTINSTI_{it} + \beta_{10} RELAT_{it} + \beta_{11} FAMILY_{it} + \beta_{12} GDP_{it} + \varepsilon_{13}$$

STRATEGY×HHI

```
stargazer(lm.ETR,lm.CETR,
  dep.var.labels = c("$TAXAVO_{it}=ETR_{it}$","$TAXAVO_{it}=CashETR_{it}$"),
  digits=3)
```

Table 2:

	Dependent variable:	
	$TAXAVO_{it} = ETR_{it}$	$TAXAVO_{it} = CashETR_{it}$
	(1)	(2)
STR	−0.0002	0.0003
	(0.0004)	(0.0004)
HHI_Dum	−0.018***	−0.014***
	(0.004)	(0.004)
ROA	0.210***	0.107***
	(0.022)	(0.020)
SIZE	0.006***	0.005***
	(0.002)	(0.002)
LEV	0.043***	0.019
	(0.015)	(0.014)
INTANG	0.121*	0.144**
	(0.070)	(0.063)
QUICK	−0.001	−0.002**
	(0.001)	(0.001)
EQINC	−0.782***	−0.942***
	(0.289)	(0.260)
OUTINSTI	−0.095***	−0.083***
	(0.010)	(0.009)
RELAT	−0.0001	0.0001
	(0.0002)	(0.0002)
FAM_Dum	0.006	0.006*
	(0.004)	(0.004)
GDP	0.100***	0.080***
	(0.015)	(0.013)
Constant	−1.539***	−1.223***
	(0.240)	(0.216)
Observations	15,483	15,483
R^2	0.014	0.011
Adjusted R^2	0.013	0.011
Residual Std. Error (df = 15470)	0.259	0.233
F Statistic (df = 12; 15470)	18.272***	14.713***
Note:		*p<0.1; **p<0.05; ***p<0.01

G

Appendix F.2: Empirical - 2

2:

$$TAXAVO_{it} = \beta_0 + \beta_1 STR_{it} + \beta_2 HHI_{jt} + \beta_3 ROA_{it} + \beta_4 SIZE_{it} + \beta_5 LEV_{it} + \beta_6 INTANG_{it} + \beta_7 QUICK_{it} + \beta_8 EQINC_{it} + \beta_9 OUTINSTI_{it} + \beta_{10} RELAT_{it} + \beta_{11} FAMILY_{it} + \beta_{12} GDP_{it} + \varepsilon_{13}$$

STRATEGY×HHI

```
stargazer(lm.ETR.SH,lm.CETR.SH,
  dep.var.labels = c("TAXAVO_{it}=ETR_{it}","TAXAVO_{it}=CashETR_{it}"),
  digits=3)
```

Table 3:

	Dependent variable:	
	$\text{TAXAVO}_{it} = ETR_{it}$	$\text{TAXAVO}_{it} = CashETR_{it}$
	(1)	(2)
STR	0.0002	0.001*
	(0.001)	(0.0005)
HHI_Dum	0.0001	0.006
	(0.013)	(0.012)
STR_HHI	−0.001	−0.001*
	(0.001)	(0.001)
ROA	0.210***	0.107***
	(0.022)	(0.020)
SIZE	0.006***	0.005***
	(0.002)	(0.002)
LEV	0.043***	0.018
	(0.015)	(0.014)
INTANG	0.127*	0.150**
	(0.070)	(0.063)
QUICK	−0.001	−0.002**
	(0.001)	(0.001)
EQINC	−0.791***	−0.952***
	(0.289)	(0.260)
OUTINSTI	−0.095***	−0.083***
	(0.010)	(0.009)
RELAT	−0.00005	0.0001
	(0.0002)	(0.0002)
FAM_Dum	0.006	0.006*
	(0.004)	(0.004)
GDP	0.098***	0.078***
	(0.015)	(0.013)
Constant	−1.511***	−1.192***
	(0.241)	(0.216)
Observations	15,483	15,483
R^2	0.014	0.011
Adjusted R^2	0.013	0.011
Residual Std. Error (df = 15469)	0.259	0.233
F Statistic (df = 13; 15469)	17.035***	13.837***
Note:		*p<0.1; **p<0.05; ***p<0.01

```
TEJ8.2 <- TEJ8.1 %>% mutate(STR.PR = STR_RD.perank+STR_MB.perank+STR_EMP.perank+STR_PPE.perank+STR_MARKET.per

stargazer(TEJ8.2 %>% select(ETR,STR.PR,HHI_Dum,STR.PR_HHI,ROA,SIZE,LEV,INTANG,QUICK,EQINC,OUTINSTI,RELAT,FAM
          type = "latex")
```

Table 4:

Statistic	N	Mean	St. Dev.	Min	Max
ETR	15,570	0.175	0.260	0.000	2.728
STR.PR	14,454	2.500	0.771	0.351	4.972
HHI_Dum	15,483	0.388	0.487	0	1
STR.PR_HHI	14,454	0.989	1.316	0.000	4.807
ROA	15,570	0.045	0.103	−0.467	0.343
SIZE	15,570	15.199	1.421	12.310	19.948
LEV	15,570	0.416	0.178	0.041	0.904
INTANG	15,570	0.013	0.030	0.000	0.250
QUICK	15,570	1.884	2.415	0.036	21.571
EQINC	15,570	0.0002	0.007	−0.040	0.050
OUTINSTI	15,570	0.365	0.227	0.000	1.000
RELAT	15,570	2.257	9.555	0.000	100.000
FAM_Dum	15,570	0.611	0.488	0	1
GDP	15,570	16.382	0.149	16.019	16.564

```
stargazer(TEJ8.2 %>% select(CETR,STR.PR,HHI_Dum,STR.PR_HHI,ROA,SIZE,LEV,INTANG,QUICK,EQINC,OUTINSTI,RELAT,FA
          type = "latex")
```

Table 5:

Statistic	N	Mean	St. Dev.	Min	Max
CETR	15,570	0.157	0.234	0.000	2.199
STR.PR	14,454	2.500	0.771	0.351	4.972
HHI_Dum	15,483	0.388	0.487	0	1
STR.PR_HHI	14,454	0.989	1.316	0.000	4.807
ROA	15,570	0.045	0.103	−0.467	0.343
SIZE	15,570	15.199	1.421	12.310	19.948
LEV	15,570	0.416	0.178	0.041	0.904
INTANG	15,570	0.013	0.030	0.000	0.250
QUICK	15,570	1.884	2.415	0.036	21.571
EQINC	15,570	0.0002	0.007	−0.040	0.050
OUTINSTI	15,570	0.365	0.227	0.000	1.000
RELAT	15,570	2.257	9.555	0.000	100.000
FAM_Dum	15,570	0.611	0.488	0	1
GDP	15,570	16.382	0.149	16.019	16.564