```
clear
use "Dataset.dta"

**************************Global Settings************************************
*Put Manufacturing, Wholesale, Retail, and Others (MWRO) all together
replace sicindcat=0 if sicindcat==2
sort sicindcat

gen service=sicindcat
gen highavgftr_service=highavgftr*service
gen lowavgftr_avgftr=lowavgftr*avgftr
gen highavgftr_avgftr=highavgftr*avgftr
gen lowavgftr_avgftr_service=lowavgftr*avgftr*service
gen highavgftr_avgftr_service=highavgftr*avgftr*service
gen avgros_service=avgros*service
*for tabulating summary stats, change f_emp_pct value to missing for inbound shifters
replace f_emp_pct=. if lowavgftr==0
******************************************************************************

**************************Summary Stats (Tables 1-3)**************************
**********************Table 1, Panel B
set more off
tab sic2

**********************Table 2
replace avg_at=exp(avgsize)-1 if avg_at==.
tabstat avgfros avgftr avgros avg_at sicindcat avgrd_sale avg_grant_count_per_year5 f_emp_pct emp_vol
 avg_big4plus_intensity_wrds avg_osg_intensity_wrds avgads_sale avgintan_sale avgcash_at avgdebt_at,
stat(n mean p25 median p75 sd) col(stat)

*Subsamples
tabstat avgfros avgftr avgros avg_at avgrd_sale avg_grant_count_per_year5 f_emp_pct emp_vol
avg_big4plus_intensity_wrds avg_osg_intensity_wrds avgads_sale avgintan_sale avgcash_at avgdebt_at if
 sicindcat==0, stat(n mean median) col(stat)

tabstat avgfros avgftr avgros avg_at avgrd_sale avg_grant_count_per_year5 f_emp_pct emp_vol
avg_big4plus_intensity_wrds avg_osg_intensity_wrds avgads_sale avgintan_sale avgcash_at avgdebt_at if
 sicindcat==1, stat(n mean median) col(stat)

ttest avgfros, by (sicindcat)
ttest avgftr, by (sicindcat)
ttest avgros, by (sicindcat)
ttest avg_at, by (sicindcat)
ttest avgrd_sale, by (sicindcat)
ttest avg_grant_count_per_year5, by (sicindcat)
ttest f_emp_pct, by (sicindcat)
ttest emp_vol, by (sicindcat)
ttest avg_big4plus_intensity_wrds, by (sicindcat)
ttest avg_osg_intensity_wrds, by (sicindcat)
ttest avgads_sale, by (sicindcat)
ttest avgintan_sale, by (sicindcat)
ttest avgcash_at, by (sicindcat)
ttest avgdebt_at, by (sicindcat)

**********************Table 3**********************
**********************Panel A
set more off
reghdfe avgfros avgftr avgros avgrd_sale avgads_sale avgintan_sale avgsize avgcash_at avgdebt_at, a(
fyear sic2) vce(cluster gvkey) keepsingleton
*Product
reghdfe avgfros avgftr avgros avgrd_sale avgads_sale avgintan_sale avgsize avgcash_at avgdebt_at if
sicindcat==0, a(fyear) vce(cluster gvkey) keepsingleton
*Service
```

```
reghdfe avgfros avgftr avgros avgrd_sale avgads_sale avgintan_sale avgsize avgcash_at avgdebt_at if sicindcat==1, a(fyear) vce(cluster gvkey) keepsingleton

*coefficient comparison
set more off
reg avgfros avgftr avgros avgrd_sale avgads_sale avgintan_sale avgsize avgcash_at avgdebt_at i.fyear if sicindcat==0
est store MHRO
reg avgfros avgftr avgros avgrd_sale avgads_sale avgintan_sale avgsize avgcash_at avgdebt_at i.fyear if sicindcat==1
est store Service
suest MHRO Service, cluster(gvkey)
test [MHRO_mean]avgftr=[Service_mean]avgftr

*Product (by outbound vs. inbound)
set more off
reghdfe avgfros lowavgftr_avgftr highavgftr_avgftr highavgftr avgros avgrd_sale avgads_sale avgintan_sale avgsize avgcash_at avgdebt_at if sicindcat==0, a(fyear) vce(cluster gvkey) keepsingleton

*Service (by outbound vs. inbound)
reghdfe avgfros lowavgftr_avgftr highavgftr_avgftr highavgftr avgros avgrd_sale avgads_sale avgintan_sale avgsize avgcash_at avgdebt_at if sicindcat==1, a(fyear) vce(cluster gvkey) keepsingleton

*coefficient comparison
set more off
reg avgfros lowavgftr_avgftr highavgftr_avgftr highavgftr avgros avgrd_sale avgads_sale avgintan_sale avgsize avgcash_at avgdebt_at i.fyear if sicindcat==0
est store MHRO
reg avgfros lowavgftr_avgftr highavgftr_avgftr highavgftr avgros avgrd_sale avgads_sale avgintan_sale avgsize avgcash_at avgdebt_at i.fyear if sicindcat==1
est store Service
suest MHRO Service, cluster(gvkey)
test [MHRO_mean]lowavgftr_avgftr=[Service_mean]lowavgftr_avgftr
test [MHRO_mean]highavgftr_avgftr=[Service_mean]highavgftr_avgftr

**********Panel B
set more off
reghdfe avgfros avgftr avgros avgrd_sale avgads_sale avgintan_sale avgsize avgcash_at avgdebt_at if service_shift_potential_sic4==1, a(fyear) vce(cluster gvkey) keepsingleton

fvset base 2002 fyear
fvset base 20 sic2
set more off
reg avgfros avgftr avgros avgrd_sale avgads_sale avgintan_sale avgsize avgcash_at avgdebt_at i.fyear if sicindcat==0
est store MHRO
reg avgfros avgftr avgros avgrd_sale avgads_sale avgintan_sale avgsize avgcash_at avgdebt_at i.fyear if service_shift_potential_sic4==1
est store Service
suest MHRO Service, cluster(gvkey)
test [MHRO_mean]avgftr=[Service_mean]avgftr

*Service firms with a shifting potential based on the description of NAICS codes [service_shift_potential_naics6==1]
set more off
reghdfe avgfros avgftr avgros avgrd_sale avgads_sale avgintan_sale avgsize avgcash_at avgdebt_at if service_shift_potential_naics6==1, a(fyear) vce(cluster gvkey) keepsingleton

set more off
reg avgfros avgftr avgros avgrd_sale avgads_sale avgintan_sale avgsize avgcash_at avgdebt_at i.fyear if sicindcat==0
est store MHRO
reg avgfros avgftr avgros avgrd_sale avgads_sale avgintan_sale avgsize avgcash_at avgdebt_at i.fyear
```

```
    if service_shift_potential_naics6==1
106 est store Service
107 suest MHRO Service, cluster(gvkey)
108 test [MHRO_mean]avgftr=[Service_mean]avgftr
109
110 *Service firms with a shifting potential based on the description of GICS codes
    [service_shift_potential_gics8==1]
111 set more off
112 reghdfe avgfros avgftr avgros avgrd_sale avgads_sale avgintan_sale avgsize avgcash_at avgdebt_at if
    service_shift_potential_gics8==1, a(fyear) vce(cluster gvkey) keepsingleton
113
114 set more off
115 reg avgfros avgftr avgros avgrd_sale avgads_sale avgintan_sale avgsize avgcash_at avgdebt_at i.fyear
    if sicindcat==0
116 est store MHRO
117 reg avgfros avgftr avgros avgrd_sale avgads_sale avgintan_sale avgsize avgcash_at avgdebt_at i.fyear
    if service_shift_potential_gics8==1
118 est store Service
119 suest MHRO Service, cluster(gvkey)
120 test [MHRO_mean]avgftr=[Service_mean]avgftr
121
122 **********Table 4**************************
123 gen time=fyear-1997
124 gen avgftr_time=avgftr*time
125
126 *Full Sample
127 reghdfe avgfros avgftr avgftr_time time avgros avgrd_sale avgads_sale avgintan_sale avgsize
    avgcash_at avgdebt_at, a(sic2) vce(cluster gvkey) keepsingleton
128
129 *Product
130 reg avgfros avgftr avgftr_time time avgros avgrd_sale avgads_sale avgintan_sale avgsize avgcash_at
    avgdebt_at if sicindcat==0, vce(cluster gvkey)
131
132 *Service
133 reg avgfros avgftr avgftr_time time avgros avgrd_sale avgads_sale avgintan_sale avgsize avgcash_at
    avgdebt_at if sicindcat==1, vce(cluster gvkey)
134
135 *coefficient comparison
136 set more off
137 reg avgfros avgftr avgftr_time time avgros avgrd_sale avgads_sale avgintan_sale avgsize avgcash_at
    avgdebt_at if sicindcat==0
138 est store MHRO
139 reg avgfros avgftr avgftr_time time avgros avgrd_sale avgads_sale avgintan_sale avgsize avgcash_at
    avgdebt_at if sicindcat==1
140 est store Service
141 suest MHRO Service, cluster(gvkey)
142 test [MHRO_mean]avgftr_time=[Service_mean]avgftr_time
143
144 **********Table 5**********
145 **********R&D
146 egen rd_rank=xtile(avgrd_sale), n(2)
147 replace rd_rank=0 if rd_rank<2
148 replace rd_rank=1 if rd_rank==2
149 gen avgftr_rd_rank=avgftr*rd_rank
150 tab sicindcat rd_rank
151
152 *Product
153 reghdfe avgfros avgftr avgftr_rd_rank rd_rank avgros avgsize avgcash_at avgdebt_at if sicindcat==0, a
    (fyear) vce(cluster gvkey) keepsingleton
154
155 *Service
156 reghdfe avgfros avgftr avgftr_rd_rank rd_rank avgros avgsize avgcash_at avgdebt_at if sicindcat==1, a
    (fyear) vce(cluster gvkey) keepsingleton
```

```
157
158  *coefficient comparison
159  set more off
160  reg avgfros avgftr avgftr_rd_rank rd_rank avgros avgsize avgcash_at avgdebt_at i.fyear if sicindcat==0
161  est store MHRO
162  reg avgfros avgftr avgftr_rd_rank rd_rank avgros avgsize avgcash_at avgdebt_at i.fyear if sicindcat==1
163  est store Service
164  suest MHRO Service, cluster(gvkey)
165  test [MHRO_mean]avgftr_rd_rank=[Service_mean]avgftr_rd_rank
166
167  **********Patent Grants (2011 and forward)
168  egen patent_rank=xtile(avg_grant_count_per_year5), n(2)
169  replace patent_rank=0 if patent_rank<2
170  replace patent_rank=1 if patent_rank==2
171  gen avgftr_patent_rank=avgftr*patent_rank
172  tab sicindcat patent_rank
173
174  *Product
175  reghdfe avgfros avgftr avgftr_patent_rank patent_rank avgros avgsize avgcash_at avgdebt_at if
     sicindcat==0, a(fyear) vce(cluster gvkey) keepsingleton
176
177  *Service
178  reghdfe avgfros avgftr avgftr_patent_rank patent_rank avgros avgsize avgcash_at avgdebt_at if
     sicindcat==1, a(fyear) vce(cluster gvkey) keepsingleton
179
180  *coefficient comparison
181  set more off
182  reg avgfros avgftr avgftr_patent_rank patent_rank avgros avgsize avgcash_at avgdebt_at i.fyear if
     sicindcat==0
183  est store MHRO
184  reg avgfros avgftr avgftr_patent_rank patent_rank avgros avgsize avgcash_at avgdebt_at i.fyear if
     sicindcat==1
185  est store Service
186  suest MHRO Service, cluster(gvkey)
187  test [MHRO_mean]avgftr_patent_rank=[Service_mean]avgftr_patent_rank
188
189  **********Table 6**********
190  **********Foreign employment percentage (Drake at al. data)
191  egen emp_rank=xtile(f_emp_pct) if lowavgftr==1, n(5)
192  replace emp_rank=0 if emp_rank<5
193  replace emp_rank=1 if emp_rank==5
194  gen avgftr_emp_rank=avgftr*emp_rank
195  tab sicindcat emp_rank
196
197  *Product
198  set more off
199  reghdfe avgfros avgftr avgftr_emp_rank emp_rank avgros avgrd_sale avgads_sale avgintan_sale avgsize
     avgcash_at avgdebt_at if sicindcat==0, a(fyear) vce(cluster gvkey) keepsingleton
200
201  *Service
202  reghdfe avgfros avgftr avgftr_emp_rank emp_rank avgros avgrd_sale avgads_sale avgintan_sale avgsize
     avgcash_at avgdebt_at if sicindcat==1, a(fyear) vce(cluster gvkey) keepsingleton
203
204  *coefficient comparison
205  set more off
206  reg avgfros avgftr avgftr_emp_rank emp_rank avgros avgrd_sale avgads_sale avgintan_sale avgsize
     avgcash_at avgdebt_at i.fyear if sicindcat==0
207  est store MHRO
208  reg avgfros avgftr avgftr_emp_rank emp_rank avgros avgrd_sale avgads_sale avgintan_sale avgsize
     avgcash_at avgdebt_at i.fyear if sicindcat==1
209  est store Service
210  suest MHRO Service, cluster(gvkey)
211  test [MHRO_mean]avgftr_emp_rank=[Service_mean]avgftr_emp_rank
```

```
212
213 **********Employment volatility
214 egen empvol_rank=xtile(emp_vol), n(5)
215 replace empvol_rank=0 if empvol_rank<5
216 replace empvol_rank=1 if empvol_rank==5
217 gen avgftr_empvol_rank=avgftr*empvol_rank
218 tab sicindcat empvol_rank
219
220 *Product
221 set more off
222 reghdfe avgfros avgftr avgftr_empvol_rank empvol_rank avgros avgrd_sale avgads_sale avgintan_sale
    avgsize avgcash_at avgdebt_at if sicindcat==0, a(fyear) vce(cluster gvkey) keepsingleton
223
224 *Service
225 reghdfe avgfros avgftr avgftr_empvol_rank empvol_rank avgros avgrd_sale avgads_sale avgintan_sale
    avgsize avgcash_at avgdebt_at if sicindcat==1, a(fyear) vce(cluster gvkey) keepsingleton
226
227 *coefficient comparison
228 set more off
229 reg avgfros avgftr avgftr_empvol_rank empvol_rank avgros avgrd_sale avgads_sale avgintan_sale avgsize
     avgcash_at avgdebt_at i.fyear if sicindcat==0
230 est store MHRO
231 reg avgfros avgftr avgftr_empvol_rank empvol_rank avgros avgrd_sale avgads_sale avgintan_sale avgsize
     avgcash_at avgdebt_at i.fyear if sicindcat==1
232 est store Service
233 suest MHRO Service, cluster(gvkey)
234 test [MHRO_mean]avgftr_empvol_rank=[Service_mean]avgftr_empvol_rank
235
236 **********Table 7**********
237 gen avgftr_dot_intensity=avgftr*avg_dot_intensity_wrds
238 gen avgftr_big7_intensity=avgftr*avg_big7_intensity_wrds
239 gen avgftr_nonbig4_intensity=avgftr*avg_nonbig4_intensity_wrds
240 gen avgftr_big4_intensity=avgftr*avg_big4_intensity_wrds
241 gen avgftr_big4plus_intensity=avgftr*avg_big4plus_intensity_wrds
242 gen avgftr_haven_intensity=avgftr*avg_haven_intensity_wrds
243 gen avgftr_osg_intensity=avgftr*avg_osg_intensity_wrds
244 gen avgftr_osg5_intensity=avgftr*avg_osg5_intensity_wrds
245 gen avgftr_osg10_intensity=avgftr*avg_osg10_intensity_wrds
246 gen avgftr_desai12_intensity=avgftr*avg_desai12_intensity_wrds
247
248 winsor2 avg_haven_intensity_wrds avg_big7_intensity_wrds avg_big4_intensity_wrds
    avg_big4plus_intensity_wrds avg_holding_intensity_wrds avg_sink_intensity_wrds
    avg_conduit_intensity_wrds avg_osg_intensity_wrds avg_osg5_intensity_wrds avg_osg10_intensity_wrds
    avg_desai12_intensity_wrds avgftr_big7_intensity avgftr_big4_intensity avgftr_big4plus_intensity
    avgftr_osg_intensity avgftr_osg5_intensity avgftr_osg10_intensity avgftr_desai12_intensity, replace
    cuts(1 99)
249
250 *Product
251 set more off
252 reghdfe avgfros avgftr avgftr_osg_intensity avg_osg_intensity_wrds avgros avgrd_sale avgads_sale
    avgintan_sale avgsize avgcash_at avgdebt_at if sicindcat==0, a(fyear) vce(cluster gvkey) keepsingleton
253
254 reghdfe avgfros avgftr avgftr_big4plus_intensity avg_big4plus_intensity_wrds avgros avgrd_sale
    avgads_sale avgintan_sale avgsize avgcash_at avgdebt_at if sicindcat==0, a(fyear) vce(cluster gvkey)
    keepsingleton
255
256 *Service
257 reghdfe avgfros avgftr avgftr_osg_intensity avg_osg_intensity_wrds avgros avgrd_sale avgads_sale
    avgintan_sale avgsize avgcash_at avgdebt_at if sicindcat==1, a(fyear) vce(cluster gvkey) keepsingleton
258
259 reghdfe avgfros avgftr avgftr_big4plus_intensity avg_big4plus_intensity_wrds avgros avgrd_sale
    avgads_sale avgintan_sale avgsize avgcash_at avgdebt_at if sicindcat==1, a(fyear) vce(cluster gvkey)
    keepsingleton
```

```
260
261  **********Table 8**********
262  **********Alternative measure: Inventory
263  egen inv_rank=xtile(invt_at), n(4)
264  replace inv_rank=0 if inv_rank==1
265  replace inv_rank=1 if inv_rank>1
266  tab sicindcat inv_rank
267
268  *Product
269  set more off
270  reghdfe avgfros avgftr avgros avgrd_sale avgads_sale avgintan_sale avgsize avgcash_at avgdebt_at if
     inv_rank==1, a(fyear sic2) vce(cluster gvkey) keepsingleton
271
272  *Service
273  set more off
274  reghdfe avgfros avgftr avgros avgrd_sale avgads_sale avgintan_sale avgsize avgcash_at avgdebt_at if
     inv_rank==0, a(fyear sic2) vce(cluster gvkey) keepsingleton
275
276  *coefficient comparison
277  fvset base 2002 fyear
278  fvset base 20 sic2
279  set more off
280  reg avgfros avgftr avgros avgrd_sale avgads_sale avgintan_sale avgsize avgcash_at avgdebt_at i.fyear
     i.sic2 if inv_rank==1
281  est store MHRO
282  reg avgfros avgftr avgros avgrd_sale avgads_sale avgintan_sale avgsize avgcash_at avgdebt_at i.fyear
     i.sic2 if inv_rank==0
283  est store Service
284  suest MHRO Service, cluster(gvkey)
285  test [MHRO_mean]avgftr=[Service_mean]avgftr
286
287  **********Alternative measure: COGS
288  egen cogs_rank=xtile(cogs_exp), n(4)
289  replace cogs_rank=0 if cogs_rank==1
290  replace cogs_rank=1 if cogs_rank>1
291  tab sicindcat cogs_rank
292
293  *Product
294  set more off
295  reghdfe avgfros avgftr avgros avgrd_sale avgads_sale avgintan_sale avgsize avgcash_at avgdebt_at if
     cogs_rank==1, a(fyear sic2) vce(cluster gvkey) keepsingleton
296
297  *Service
298  set more off
299  reghdfe avgfros avgftr avgros avgrd_sale avgads_sale avgintan_sale avgsize avgcash_at avgdebt_at if
     cogs_rank==0, a(fyear sic2) vce(cluster gvkey) keepsingleton
300
301  *coefficient comparison
302  fvset base 2002 fyear
303  fvset base 20 sic2
304  set more off
305  reg avgfros avgftr avgros avgrd_sale avgads_sale avgintan_sale avgsize avgcash_at avgdebt_at i.fyear
     i.sic2 if cogs_rank==1
306  est store MHRO
307  reg avgfros avgftr avgros avgrd_sale avgads_sale avgintan_sale avgsize avgcash_at avgdebt_at i.fyear
     i.sic2 if cogs_rank==0
308  est store Service
309  suest MHRO Service, cluster(gvkey)
310  test [MHRO_mean]avgftr=[Service_mean]avgftr
311
312  **********Alternative measure: Employee Salary
313  sum pay, de
314  egen pay_rank=xtile(pay), n(5)
```

```
315  tab pay_rank
316
317  *Product
318  reghdfe avgfros avgftr avgros avgrd_sale avgads_sale avgintan_sale avgsize avgcash_at avgdebt_at if
     pay~=. & pay_rank<5, a(fyear) vce(cluster gvkey) keepsingleton
319
320  *Service
321  reghdfe avgfros avgftr avgros avgrd_sale avgads_sale avgintan_sale avgsize avgcash_at avgdebt_at if
     pay~=. & pay_rank==5, a(fyear) vce(cluster gvkey) keepsingleton
322
323  *coefficient comparison
324  set more off
325  fvset base 2002 fyear
326  fvset base 20 sic2
327  reg avgfros avgftr avgros avgrd_sale avgads_sale avgintan_sale avgsize avgcash_at avgdebt_at i.fyear
     if pay~=. & pay_rank<5
328  est store lowpay
329  reg avgfros avgftr avgros avgrd_sale avgads_sale avgintan_sale avgsize avgcash_at avgdebt_at i.fyear
     if pay~=. & pay_rank==5
330  est store highpay
331  suest lowpay highpay, cluster(gvkey)
332  test [lowpay_mean]avgftr=[highpay_mean]avgftr
333
334  **********Including Financial Institutions (Panel B)
335  clear
336  use "TCJA Test.dta"
337  *Global Settings
338  replace sicindcat=0 if sicindcat==2
339  replace sicindcat=. if financial==1
340  drop if fyear>2017
341  count if financial==1
342
343  *Financial Institutions
344  set more off
345  reghdfe avgfros avgftr avgros avgrd_sale avgads_sale avgintan_sale avgsize avgcash_at avgdebt_at if
     financial==1, a(fyear) vce(cluster gvkey) keepsingleton
346
347  *Product
348  reghdfe avgfros avgftr avgros avgrd_sale avgads_sale avgintan_sale avgsize avgcash_at avgdebt_at if
     sicindcat==0, a(fyear) vce(cluster gvkey) keepsingleton
349
350  *Service and financial institutions together
351  reghdfe avgfros avgftr avgros avgrd_sale avgads_sale avgintan_sale avgsize avgcash_at avgdebt_at if
     sicindcat==1 | financial==1, a(fyear) vce(cluster gvkey) keepsingleton
352
353  *coefficient comparison
354  set more off
355  reg avgfros avgftr avgros avgrd_sale avgads_sale avgintan_sale avgsize avgcash_at avgdebt_at i.fyear
     if sicindcat==0
356  est store MHRO
357  reg avgfros avgftr avgros avgrd_sale avgads_sale avgintan_sale avgsize avgcash_at avgdebt_at i.fyear
     if sicindcat==1 | financial==1
358  est store Service
359  suest MHRO Service, cluster(gvkey)
360  test [MHRO_mean]avgftr=[Service_mean]avgftr
361
362  *Reset dataset after this test!
363
364  ********************************************************************************
365  **************************Online Appendix***************************************
366  ********************************************************************************
367
368  **********Table A1**********
```

```
tab sic if service_shift_potential_sic4==1


**********Table A2**********
set more off
reghdfe avgfros avgftr avgros avgrd_sale avgads_sale avgintan_sale avgsize avgcash_at avgdebt_at, a(fyear sic4) vce(cluster gvkey) keepsingleton

*Product
reghdfe avgfros avgftr avgros avgrd_sale avgads_sale avgintan_sale avgsize avgcash_at avgdebt_at if sicindcat==0, a(fyear sic4) vce(cluster gvkey) keepsingleton

*Service
reghdfe avgfros avgftr avgros avgrd_sale avgads_sale avgintan_sale avgsize avgcash_at avgdebt_at if sicindcat==1, a(fyear sic4) vce(cluster gvkey) keepsingleton

*coefficient comparison
fvset base 2002 fyear
fvset base 3533 sic4
set more off
reg avgfros avgftr avgros avgrd_sale avgads_sale avgintan_sale avgsize avgcash_at avgdebt_at i.fyear i.sic4 if sicindcat==0
est store MHRO
reg avgfros avgftr avgros avgrd_sale avgads_sale avgintan_sale avgsize avgcash_at avgdebt_at i.fyear i.sic4 if sicindcat==1
est store Service
suest MHRO Service, cluster(gvkey)
test [MHRO_mean]avgftr=[Service_mean]avgftr

**********Table A3**********
*Product
set more off
quietly sureg (avgfros avgftr avgros avgrd_sale avgads_sale avgintan_sale avgsize avgcash_at avgdebt_at i.fyear) ///
              (avgdros avgftr avgros avgrd_sale avgads_sale avgintan_sale avgsize avgcash_at avgdebt_at i.fyear) if sicindcat==0
suregr, cluster (gvkey) minus(1)

*Service
set more off
quietly sureg (avgfros avgftr avgros avgrd_sale avgads_sale avgintan_sale avgsize avgcash_at avgdebt_at i.fyear) ///
              (avgdros avgftr avgros avgrd_sale avgads_sale avgintan_sale avgsize avgcash_at avgdebt_at i.fyear) if sicindcat==1
suregr, cluster (gvkey) minus(1)

*coefficient comparison (FROS equation)
set more off
reg avgfros avgftr avgros avgrd_sale avgads_sale avgintan_sale avgsize avgcash_at avgdebt_at i.fyear if sicindcat==0
est store MHRO
reg avgfros avgftr avgros avgrd_sale avgads_sale avgintan_sale avgsize avgcash_at avgdebt_at i.fyear if sicindcat==1
est store Service
suest MHRO Service, cluster(gvkey)
test [MHRO_mean]avgftr=[Service_mean]avgftr

*coefficient comparison (DROS equation)
set more off
reg avgdros avgftr avgros avgrd_sale avgads_sale avgintan_sale avgsize avgcash_at avgdebt_at i.fyear if sicindcat==0
est store MHRO
reg avgdros avgftr avgros avgrd_sale avgads_sale avgintan_sale avgsize avgcash_at avgdebt_at i.fyear
```

```
    if sicindcat==1
420 est store Service
421 suest MHRO Service, cluster(gvkey)
422 test [MHRO_mean]avgftr=[Service_mean]avgftr
423
424 **********************Table A4**********************
425 **********************Panel A
426 set more off
427 reghdfe avgfros hatftr avgros avgrd_sale avgads_sale avgintan_sale avgsize avgcash_at avgdebt_at, a(
    fyear sic2) vce(cluster gvkey) keepsingleton
428
429 *Product
430 reghdfe avgfros hatftr avgros avgrd_sale avgads_sale avgintan_sale avgsize avgcash_at avgdebt_at if
    sicindcat==0, a(fyear) vce(cluster gvkey) keepsingleton
431
432 *Service
433 reghdfe avgfros hatftr avgros avgrd_sale avgads_sale avgintan_sale avgsize avgcash_at avgdebt_at if
    sicindcat==1, a(fyear) vce(cluster gvkey) keepsingleton
434
435 *coefficient comparison
436 set more off
437 reg avgfros hatftr avgros avgrd_sale avgads_sale avgintan_sale avgsize avgcash_at avgdebt_at i.fyear
    if sicindcat==0
438 est store MHRO
439 reg avgfros hatftr avgros avgrd_sale avgads_sale avgintan_sale avgsize avgcash_at avgdebt_at i.fyear
    if sicindcat==1
440 est store Service
441 suest MHRO Service, cluster(gvkey)
442 test [MHRO_mean]hatftr=[Service_mean]hatftr
443
444 **********************Panel B
445 *Product (97-07)
446 reg avgfros hatftr avgros avgrd_sale avgads_sale avgintan_sale avgsize avgcash_at avgdebt_at if
    sicindcat==0 & fyear<=2007, vce(cluster gvkey)
447
448 *Product (08-17)
449 reg avgfros hatftr avgros avgrd_sale avgads_sale avgintan_sale avgsize avgcash_at avgdebt_at if
    sicindcat==0 & fyear>2007, vce(cluster gvkey)
450
451 *Service (97-07)
452 reg avgfros hatftr avgros avgrd_sale avgads_sale avgintan_sale avgsize avgcash_at avgdebt_at if
    sicindcat==1 & fyear<=2007, vce(cluster gvkey)
453
454 *Service (08-17)
455 reg avgfros hatftr avgros avgrd_sale avgads_sale avgintan_sale avgsize avgcash_at avgdebt_at if
    sicindcat==1 & fyear>2007, vce(cluster gvkey)
456
457 *coefficient comparison
458 set more off
459 reg avgfros hatftr avgros avgrd_sale avgads_sale avgintan_sale avgsize avgcash_at avgdebt_at if
    sicindcat==0 & fyear<=2007
460 est store MHRO
461 reg avgfros hatftr avgros avgrd_sale avgads_sale avgintan_sale avgsize avgcash_at avgdebt_at if
    sicindcat==1 & fyear<=2007
462 est store Service
463 suest MHRO Service, cluster(gvkey)
464 test [MHRO_mean]hatftr=[Service_mean]hatftr
465
466 set more off
467 reg avgfros hatftr avgros avgrd_sale avgads_sale avgintan_sale avgsize avgcash_at avgdebt_at if
    sicindcat==0 & fyear>2007
468 est store MHRO
469 reg avgfros hatftr avgros avgrd_sale avgads_sale avgintan_sale avgsize avgcash_at avgdebt_at if
```

```
      sicindcat==1 & fyear>2007
470   est store Service
471   suest MHRO Service, cluster(gvkey)
472   test [MHRO_mean]hatftr=[Service_mean]hatftr
473
474   **********************Table A5**********************
475   clear
476   use "TCJA Test.dta"
477   *Global Settings
478   replace sicindcat=0 if sicindcat==2
479   drop if financial==1
480   tab fyear
481
482   gen post=.
483   replace post=0 if fyear<2017 & fyear>=2015
484   replace post=1 if fyear>=2020 & fyear<=2021
485   tab fyear post
486   gen hatftr_post=hatftr*post
487   gen avgftr3_post=avgftr3*post
488   tab sicindcat if post==0
489   tab sicindcat if post==1
490
491   *Product
492   set more off
493   reg avgfros3 hatftr hatftr_post post avgros3 avgrd_sale avgads_sale avgintan_sale avgsize avgcash_at
      avgdebt_at if sicindcat==0, vce(cluster gvkey)
494   tab post if e(sample)==1
495
496   set more off
497   reg avgfros3 avgftr3 avgftr3_post post avgros3 avgrd_sale avgads_sale avgintan_sale avgsize
      avgcash_at avgdebt_at if sicindcat==0, vce(cluster gvkey)
498   tab post if e(sample)==1
499
500   *Service
501   set more off
502   reg avgfros3 hatftr hatftr_post post avgros3 avgrd_sale avgads_sale avgintan_sale avgsize avgcash_at
      avgdebt_at if sicindcat==1, vce(cluster gvkey)
503   tab post if e(sample)==1
504
505   set more off
506   reg avgfros3 avgftr3 avgftr3_post post avgros3 avgrd_sale avgads_sale avgintan_sale avgsize
      avgcash_at avgdebt_at if sicindcat==1, vce(cluster gvkey)
507   tab post if e(sample)==1
508
509   *coefficient comparison
510   set more off
511   reg avgfros3 hatftr hatftr_post post avgros3 avgrd_sale avgads_sale avgintan_sale avgsize avgcash_at
      avgdebt_at if sicindcat==0
512   est store MHRO
513   reg avgfros3 hatftr hatftr_post post avgros3 avgrd_sale avgads_sale avgintan_sale avgsize avgcash_at
      avgdebt_at if sicindcat==1
514   est store Service
515   suest MHRO Service, cluster(gvkey)
516   test [MHRO_mean]hatftr+[MHRO_mean]hatftr_post=[Service_mean]hatftr+[Service_mean]hatftr_post
517
518   set more off
519   reg avgfros3 avgftr3 avgftr3_post post avgros3 avgrd_sale avgads_sale avgintan_sale avgsize
      avgcash_at avgdebt_at if sicindcat==0
520   est store MHRO
521   reg avgfros3 avgftr3 avgftr3_post post avgros3 avgrd_sale avgads_sale avgintan_sale avgsize
      avgcash_at avgdebt_at if sicindcat==1
522   est store Service
523   suest MHRO Service, cluster(gvkey)
```

```
524  test [MHRO_mean]avgftr3+[MHRO_mean]avgftr3_post=[Service_mean]avgftr3+[Service_mean]avgftr3_post
525
526  *Reset dataset after this test!
527
528  **********Table A6**********
529  **********High_tech (Panel A)
530  replace high_tech=0 if high_tech==.
531
532  set more off
533  reghdfe avgfros avgftr avgros avgrd_sale avgads_sale avgintan_sale avgsize avgcash_at avgdebt_at if
     high_tech==1, a(fyear) vce(cluster gvkey) keepsingleton
534
535  *Product without high-tech
536  reghdfe avgfros avgftr avgros avgrd_sale avgads_sale avgintan_sale avgsize avgcash_at avgdebt_at if
     sicindcat==0 & high_tech==0, a(fyear) vce(cluster gvkey) keepsingleton
537
538  *Service without high-tech
539  reghdfe avgfros avgftr avgros avgrd_sale avgads_sale avgintan_sale avgsize avgcash_at avgdebt_at if
     sicindcat==1 & high_tech==0, a(fyear) vce(cluster gvkey) keepsingleton
540
541  *coefficient comparison
542  set more off
543  reg avgfros avgftr avgros avgrd_sale avgads_sale avgintan_sale avgsize avgcash_at avgdebt_at i.fyear
     if sicindcat==0 & high_tech==0
544  est store MHRO
545  reg avgfros avgftr avgros avgrd_sale avgads_sale avgintan_sale avgsize avgcash_at avgdebt_at i.fyear
     if sicindcat==1 & high_tech==0
546  est store Service
547  suest MHRO Service, cluster(gvkey)
548  test [MHRO_mean]avgftr=[Service_mean]avgftr
549
550  *coefficient comparison with main sample
551  set more off
552  reg avgfros avgftr avgros avgrd_sale avgads_sale avgintan_sale avgsize avgcash_at avgdebt_at i.fyear
     if sicindcat==0 & high_tech==0
553  est store MHRO
554  reg avgfros avgftr avgros avgrd_sale avgads_sale avgintan_sale avgsize avgcash_at avgdebt_at i.fyear
     if sicindcat==1 & high_tech==0
555  est store Service
556  reg avgfros avgftr avgros avgrd_sale avgads_sale avgintan_sale avgsize avgcash_at avgdebt_at i.fyear
     if sicindcat==0
557  est store MHRO_main
558  reg avgfros avgftr avgros avgrd_sale avgads_sale avgintan_sale avgsize avgcash_at avgdebt_at i.fyear
     if sicindcat==1
559  est store Service_main
560  suest MHRO Service MHRO_main Service_main, cluster(gvkey)
561
562  test [MHRO_mean]avgftr=[MHRO_main_mean]avgftr
563  test [Service_mean]avgftr=[Service_main_mean]avgftr
564
565  **********FAANG Stocks (Panel B)
566  count if faang==1
567  tab sicindcat if faang==1
568
569  set more off
570  reghdfe avgfros avgftr avgros avgrd_sale avgads_sale avgintan_sale avgsize avgcash_at avgdebt_at if
     faang==1, a(fyear) vce(cluster gvkey) keepsingleton
571
572  *Product without FAANG
573  reghdfe avgfros avgftr avgros avgrd_sale avgads_sale avgintan_sale avgsize avgcash_at avgdebt_at if
     sicindcat==0 & faang==0, a(fyear) vce(cluster gvkey) keepsingleton
574
575  *Service without FAANG
```

```
reghdfe avgfros avgftr avgros avgrd_sale avgads_sale avgintan_sale avgsize avgcash_at avgdebt_at if sicindcat==1 & faang==0, a(fyear) vce(cluster gvkey) keepsingleton

*coefficient comparison
set more off
reg avgfros avgftr avgros avgrd_sale avgads_sale avgintan_sale avgsize avgcash_at avgdebt_at i.fyear if sicindcat==0 & faang==0
est store MHRO
reg avgfros avgftr avgros avgrd_sale avgads_sale avgintan_sale avgsize avgcash_at avgdebt_at i.fyear if sicindcat==1 & faang==0
est store Service
suest MHRO Service, cluster(gvkey)
test [MHRO_mean]avgftr=[Service_mean]avgftr

*coefficient comparison with main sample
set more off
reg avgfros avgftr avgros avgrd_sale avgads_sale avgintan_sale avgsize avgcash_at avgdebt_at i.fyear if sicindcat==0 & faang==0
est store MHRO
reg avgfros avgftr avgros avgrd_sale avgads_sale avgintan_sale avgsize avgcash_at avgdebt_at i.fyear if sicindcat==1 & faang==0
est store Service
reg avgfros avgftr avgros avgrd_sale avgads_sale avgintan_sale avgsize avgcash_at avgdebt_at i.fyear if sicindcat==0
est store MHRO_main
reg avgfros avgftr avgros avgrd_sale avgads_sale avgintan_sale avgsize avgcash_at avgdebt_at i.fyear if sicindcat==1
est store Service_main
suest MHRO Service MHRO_main Service_main, cluster(gvkey)

test [MHRO_mean]avgftr=[MHRO_main_mean]avgftr
test [Service_mean]avgftr=[Service_main_mean]avgftr

**********Silicon Valley Firms (Panel C)
set more off
reghdfe avgfros avgftr avgros avgrd_sale avgads_sale avgintan_sale avgsize avgcash_at avgdebt_at if siliconvalley==1, a(fyear) vce(cluster gvkey) keepsingleton

*Product without siliconvalley
reghdfe avgfros avgftr avgros avgrd_sale avgads_sale avgintan_sale avgsize avgcash_at avgdebt_at if sicindcat==0 & siliconvalley==0, a(fyear) vce(cluster gvkey) keepsingleton

*Service without siliconvalley
reghdfe avgfros avgftr avgros avgrd_sale avgads_sale avgintan_sale avgsize avgcash_at avgdebt_at if sicindcat==1 & siliconvalley==0, a(fyear) vce(cluster gvkey) keepsingleton

*coefficient comparison
set more off
reg avgfros avgftr avgros avgrd_sale avgads_sale avgintan_sale avgsize avgcash_at avgdebt_at i.fyear if sicindcat==0 & siliconvalley==0
est store MHRO
reg avgfros avgftr avgros avgrd_sale avgads_sale avgintan_sale avgsize avgcash_at avgdebt_at i.fyear if sicindcat==1 & siliconvalley==0
est store Service
suest MHRO Service, cluster(gvkey)
test [MHRO_mean]avgftr=[Service_mean]avgftr

*coefficient comparison with main sample
set more off
reg avgfros avgftr avgros avgrd_sale avgads_sale avgintan_sale avgsize avgcash_at avgdebt_at i.fyear if sicindcat==0 & siliconvalley==0
est store MHRO
reg avgfros avgftr avgros avgrd_sale avgads_sale avgintan_sale avgsize avgcash_at avgdebt_at i.fyear
```

```
    if sicindcat==1 & siliconvalley==0
626 est store Service
627 reg avgfros avgftr avgros avgrd_sale avgads_sale avgintan_sale avgsize avgcash_at avgdebt_at i.fyear
    if sicindcat==0
628 est store MHRO_main
629 reg avgfros avgftr avgros avgrd_sale avgads_sale avgintan_sale avgsize avgcash_at avgdebt_at i.fyear
    if sicindcat==1
630 est store Service_main
631 suest MHRO Service MHRO_main Service_main, cluster(gvkey)
632
633 test [MHRO_mean]avgftr=[MHRO_main_mean]avgftr
634 test [Service_mean]avgftr=[Service_main_mean]avgftr
635
636 **********Table A7**********
637 count if top30==1
638 tab sicindcat if top30==1
639
640 set more off
641 reghdfe avgfros avgftr avgros avgrd_sale avgads_sale avgintan_sale avgsize avgcash_at avgdebt_at if
    top30==1, a(fyear) vce(cluster gvkey) keepsingleton
642
643 *Product without top30
644 reghdfe avgfros avgftr avgros avgrd_sale avgads_sale avgintan_sale avgsize avgcash_at avgdebt_at if
    sicindcat==0 & top30==0, a(fyear) vce(cluster gvkey) keepsingleton
645
646 *Service without top30
647 reghdfe avgfros avgftr avgros avgrd_sale avgads_sale avgintan_sale avgsize avgcash_at avgdebt_at if
    sicindcat==1 & top30==0, a(fyear) vce(cluster gvkey) keepsingleton
648
649 *coefficient comparison
650 set more off
651 reg avgfros avgftr avgros avgrd_sale avgads_sale avgintan_sale avgsize avgcash_at avgdebt_at i.fyear
    if sicindcat==0 & top30==0
652 est store MHRO
653 reg avgfros avgftr avgros avgrd_sale avgads_sale avgintan_sale avgsize avgcash_at avgdebt_at i.fyear
    if sicindcat==1 & top30==0
654 est store Service
655 suest MHRO Service, cluster(gvkey)
656 test [MHRO_mean]avgftr=[Service_mean]avgftr
657
658 *coefficient comparison with main sample
659 set more off
660 reg avgfros avgftr avgros avgrd_sale avgads_sale avgintan_sale avgsize avgcash_at avgdebt_at i.fyear
    if sicindcat==0 & top30==0
661 est store MHRO
662 reg avgfros avgftr avgros avgrd_sale avgads_sale avgintan_sale avgsize avgcash_at avgdebt_at i.fyear
    if sicindcat==1 & top30==0
663 est store Service
664 reg avgfros avgftr avgros avgrd_sale avgads_sale avgintan_sale avgsize avgcash_at avgdebt_at i.fyear
    if sicindcat==0
665 est store MHRO_main
666 reg avgfros avgftr avgros avgrd_sale avgads_sale avgintan_sale avgsize avgcash_at avgdebt_at i.fyear
    if sicindcat==1
667 est store Service_main
668 suest MHRO Service MHRO_main Service_main, cluster(gvkey)
669
670 test [MHRO_mean]avgftr=[MHRO_main_mean]avgftr
671 test [Service_mean]avgftr=[Service_main_mean]avgftr
672
673 ********************************************************************************
674 **********Footnoted Tests**********
675 ********************************************************************************
676 *Holding Company Havens
```

```
677   gen avgftr_holding_intensity=avgftr*avg_holding_intensity_wrds
678
679   *Product
680   set more off
681   reghdfe avgfros avgftr avgftr_holding_intensity avg_holding_intensity_wrds avgros avgrd_sale
      avgads_sale avgintan_sale avgsize avgcash_at avgdebt_at if sicindcat==0, a(fyear) vce(cluster gvkey)
      keepsingleton
682
683   *Service
684   set more off
685   reghdfe avgfros avgftr avgftr_holding_intensity avg_holding_intensity_wrds avgros avgrd_sale
      avgads_sale avgintan_sale avgsize avgcash_at avgdebt_at if sicindcat==1, a(fyear) vce(cluster gvkey)
      keepsingleton
686
```