

## **Appendix A. Dynamic Panel Model with 2 Lagged Dependent Variables.**

As referenced in footnotes 41 and 45, we present results for a twice lagged Arellano-Bond estimator here. We believe this estimator to represent the most proper specification but elected to use a single lagged dependent variable within the body of our paper in order to allow access to an additional year of observation. As one can see by comparing Table A.1 to Table 6, the direction and relative magnitude of nearly all coefficients between the two estimators is nearly the same. In fact, the directionality on coefficients between Tables A.1 and 6 are the same and, within five of the six income items, the level of significance is nearly the same. With our twice lagged Arellano-Bond estimator, the year coefficients related to the line item “other income” tend to be slightly more positive than with our once lagged Arellano-Bond estimator and, therefore, display a greater level of significance. Notably— since our twice lagged model requires a firm to exhibit non-zero values in the income item of focus in year  $t$ , year  $t-1$ , and year  $t-2$ —fewer firms and observations are included within the twice lagged model in each year than were included within our once lagged model, which only requires non-zero values in year  $t$  and year  $t-1$ .

A similar dynamic occurs between our twice lagged and once lagged Arellano-Bond estimator with regards to the deduction items where the directionality, magnitude, and significance of our coefficients is typically the same. Some notable exceptions include officer compensation, where the coefficients exhibit more significance with the once lagged Arellano-Bond estimator and the year coefficient on 2012 is positive with regards to our twice lagged model and negative with our once lagged model. Elsewhere, the once lagged model displays greater significance on the 2012 and 2013 year coefficients for pension and profit-sharing deductions.

The impact of our twice lagged Arellano-Bond estimator is most significantly felt within figures A.1 and A.2 where the absence of a year of study leads to less precise forecasts and slightly

altered trend lines. Typically, we observe the 2017 and 2018 year coefficients to be less significantly off trend. Additionally, we observe slightly different trend lines with our twice lagged Arellano-Bond estimator so that we observe the 2018 estimate for cost of goods sold to be significantly different from the observed trend, but we no longer observe significance in bad debt deductions.

**Table A.1.**  
Regressions of Corporate Income Items

Natural Log of:	Dividends Excl. Repat, GILTI	Interest	Net Capital Gain Income	Gain/Loss Business Property	Other Income	Total Income Excl. Repat, GILTI
Lag Dependent Variable	0.511*** [0.0305]	0.750*** [0.0290]	0.226*** [0.0630]	0.0382 [0.0580]	0.417*** [0.0257]	0.556*** [0.0541]
2nd Lag Dependent Var.	0.119*** [0.0215]	0.0798*** [0.0157]	0.0716** [0.0318]	-0.00568 [0.0356]	0.0868*** [0.0150]	0.0984*** [0.0277]
2011 Fixed Effect	0.160*** [0.0417]	-0.268*** [0.0228]	0.186 [0.148]	0.390*** [0.0762]	0.104*** [0.0325]	-0.0423*** [0.0148]
2012 Fixed Effect	0.264*** [0.0406]	-0.259*** [0.0216]	0.347*** [0.119]	0.588*** [0.0721]	0.0787*** [0.0300]	-0.0441*** [0.0129]
2013 Fixed Effect	0.226*** [0.0412]	-0.311*** [0.0220]	0.232** [0.117]	0.303*** [0.0694]	0.0455 [0.0293]	-0.0449*** [0.0115]
2014 Fixed Effect	0.278*** [0.0379]	-0.251*** [0.0214]	0.317*** [0.103]	0.303*** [0.0627]	0.0677** [0.0278]	-0.00993 [0.0104]
2015 Fixed Effect	0.248*** [0.0364]	-0.195*** [0.0223]	0.231** [0.0916]	0.191*** [0.0557]	0.0718*** [0.0269]	-0.0216** [0.00878]
2016 Fixed Effect	0.226*** [0.0344]	-0.105*** [0.0216]	-0.0993 [0.0946]	0.277*** [0.0483]	0.0720*** [0.0265]	-0.0146* [0.00876]
2018 Fixed Effect	0.393*** [0.0431]	0.119*** [0.0252]	0.220** [0.0995]	0.0615 [0.0567]	0.154*** [0.0313]	0.0504*** [0.0105]
Firm Fixed Effects	x	x	x	x	x	x
No. Observations	20,255	37,369	4,756	6,277	28,326	39,452
No. Firms	3,809	6,711	1,500	1,822	5,847	6,976

Notes: \*\*\*, \*\*, and \* indicate the coefficient estimate is significant at the 1%, 5%, and 10% level respectively. Robust standard errors are clustered at the firm level and reported in the brackets. Income amounts are real in 2017 dollars using the GDP deflator.

**Table A.2.**

## Regressions of Corporate Deduction Items

Natural Log of:	Cost of Goods	Comp. of Officers	Interest Paid	Bad Debt Deduction	Pension and Profit Sharing	Total Deductions
Lag of Dependent Variable	0.641*** [0.0904]	0.700*** [0.0259]	0.656*** [0.0367]	0.246*** [0.0256]	0.512*** [0.0307]	0.708*** [0.0493]
2nd Lag of Dependent Var.	0.0718** [0.0318]	0.141*** [0.0137]	0.0545*** [0.0175]	0.105*** [0.0183]	0.134*** [0.0151]	0.0932*** [0.0231]
2011 Fixed Effect	0.0490*** [0.0187]	0.00755 [0.0124]	-0.123*** [0.0185]	0.386*** [0.0533]	-0.0243 [0.0206]	-0.0533*** [0.00983]
2012 Fixed Effect	0.0185 [0.0141]	0.0227** [0.0111]	-0.130*** [0.0173]	0.264*** [0.0473]	-0.0205 [0.0177]	-0.0775*** [0.00877]
2013 Fixed Effect	-0.00209 [0.0118]	-0.0319*** [0.0102]	-0.180*** [0.0165]	0.0556 [0.0425]	-0.111*** [0.0177]	-0.0773*** [0.00831]
2014 Fixed Effect	0.0163 [0.0120]	0.00333 [0.00969]	-0.125*** [0.0166]	-0.0282 [0.0371]	-0.0835*** [0.0170]	-0.0455*** [0.00855]
2015 Fixed Effect	-0.0278** [0.0119]	-0.0226** [0.00962]	-0.0788*** [0.0157]	-0.0665* [0.0344]	-0.0712*** [0.0161]	-0.0368*** [0.00763]
2016 Fixed Effect	-0.0377*** [0.0101]	-0.0637*** [0.00978]	-0.0195 [0.0151]	-0.00204 [0.0323]	-0.0613*** [0.0163]	-0.0354*** [0.00713]
2018 Fixed Effect	-0.00736 [0.0144]	-0.0414*** [0.0112]	-0.112*** [0.0218]	-0.153*** [0.0360]	-0.165*** [0.0197]	-0.0608*** [0.00962]
Constant	5.709*** [1.727]	2.468*** [0.514]	4.669*** [0.631]	8.774*** [0.542]	5.225*** [0.566]	3.807*** [0.878]
Firm Fixed Effects	X	X	X	X	X	X

Notes: \*\*\*, \*\*, and \* indicate the coefficient estimate is significant at the 1%, 5%, and 10% level respectively. Robust standard errors are clustered at the firm level and reported in the brackets. Income amounts are real in 2017 dollars using the GDP deflator.

Figure A.1.

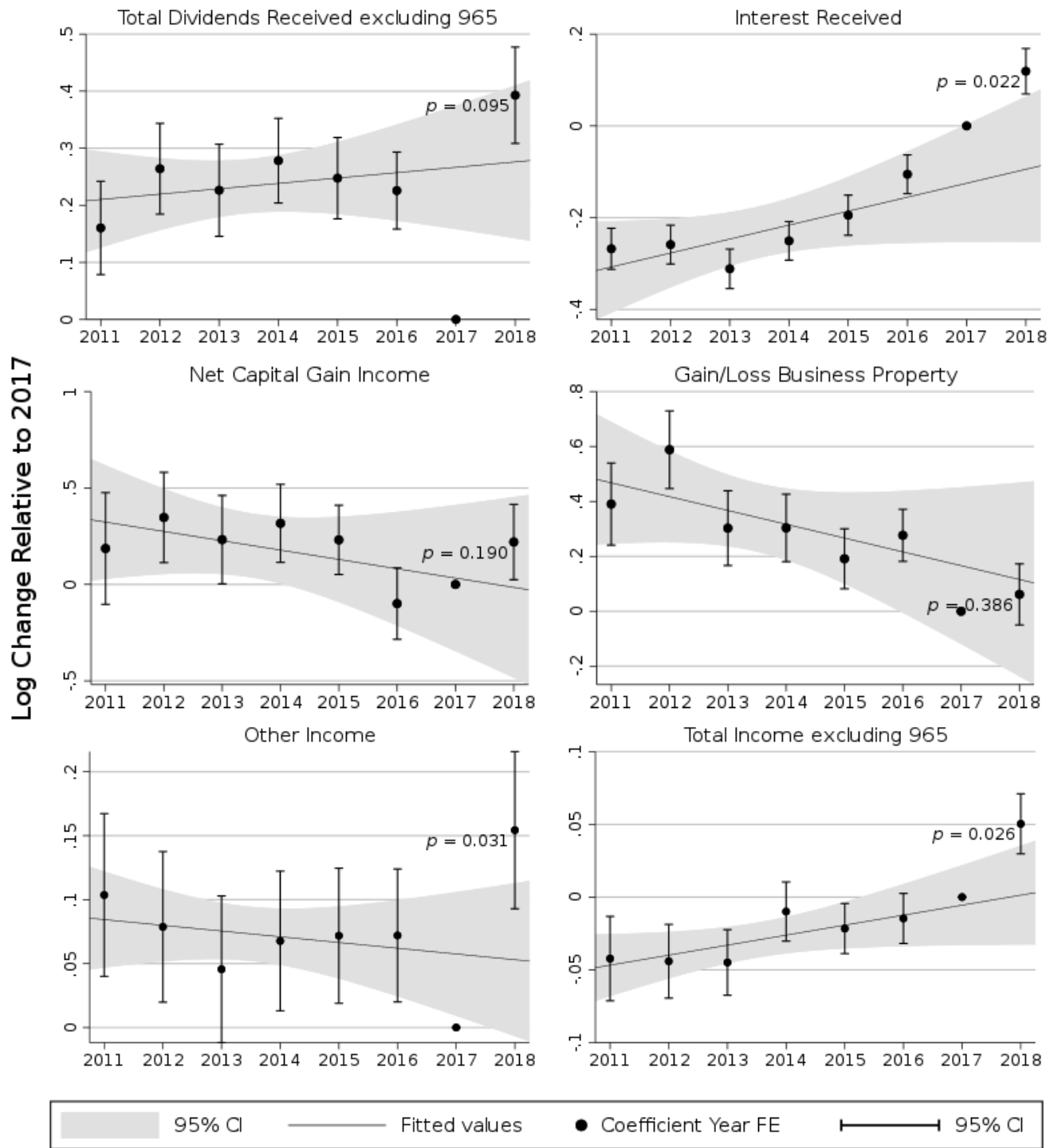
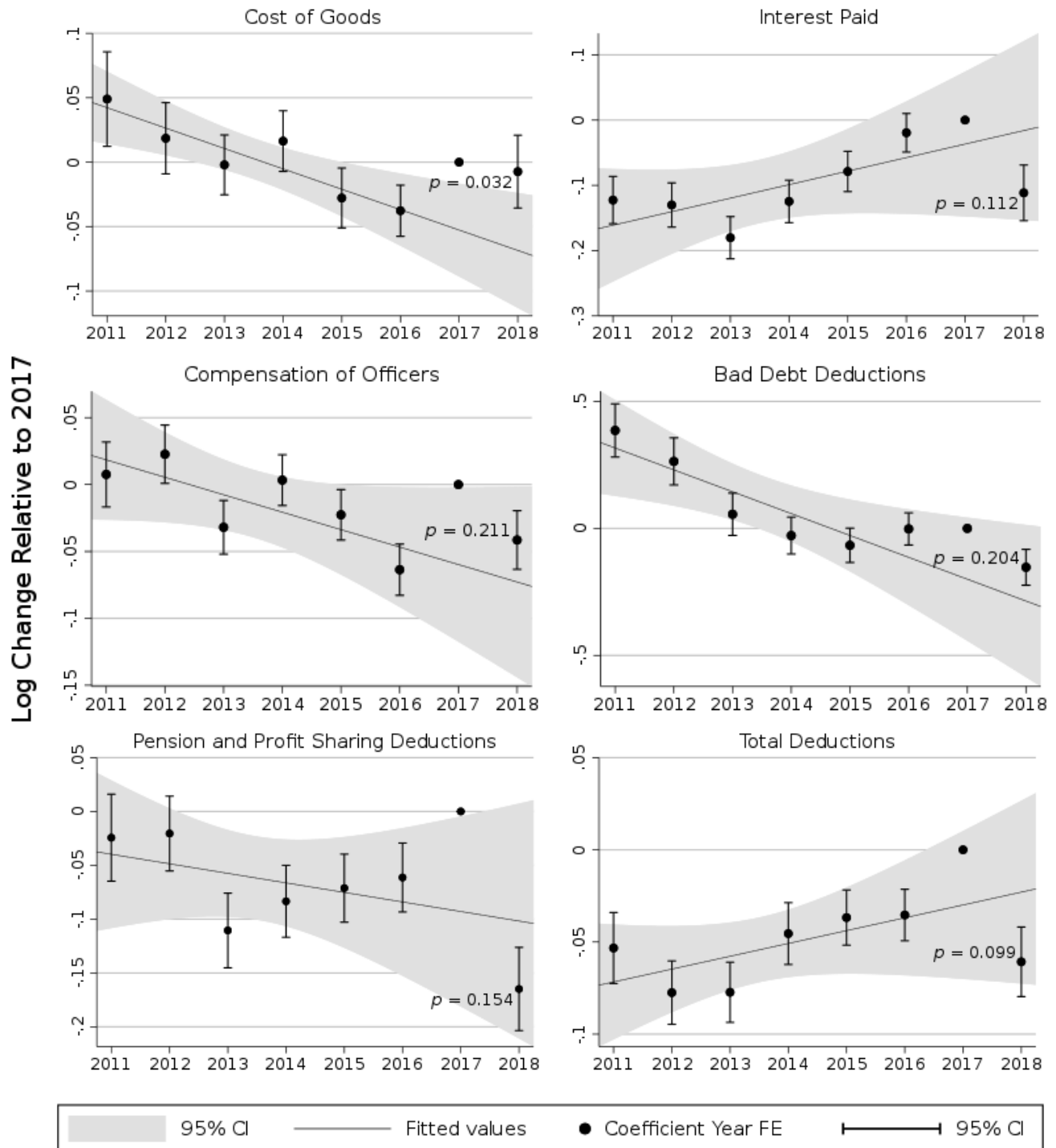


Figure A.2



## Appendix B. FE and LDV Models.

Here, we present sensitivity analysis alternative estimation strategies to the Arellano-Bond estimator which we present in the body of the paper. The first (1) alternative is a simple fixed effects model which regresses the income or deduction item of focus on firm fixed effects as well as year fixed effects for years 2010 through 2018 with the coefficient on year 2017 held as a base value. The second (2) alternative is a lagged dependent variable model without firm fixed effects and with the same year fixed effects included.

$$(1) \quad \ln(y_{i,t}) = \alpha + \sum_{t=10, j \neq 17}^{18} \beta_j (Year == t) + \mu_i + \varepsilon_{i,t}$$

$$(2) \quad \ln(y_{i,t}) = \alpha + \beta_1 \ln(y_{i,t-1}) + \sum_{t=10, j \neq 17}^{18} \beta_j (Year == t) + \varepsilon_{i,t}$$

These two models should typically bound our preferred estimate with the LDV model representing the upper bound and the FE model representing the lower bound. Notably, our preferred estimates align far more closely with the LDV model. We believe there are important reasons to include both firm fixed effects as well as a lagged dependent variable. In particular, we believe that there is significant mean reversion for income and deduction shocks which necessitate the use of the lagged dependent variable. Additionally, there is significant heterogeneity in the firm efficiency and corporate governance that should be captured with the firm fixed effects. Therefore, we believe that our selected Arellano-Bond estimator incorporates the positive features of each model in a way which more accurately represents firm behavior. Nevertheless, we present these sensitivity results so that we can understand how each of these models behaves.

**Table B.1. Fixed Effects Model**  
Regressions of Corporate Income Items

Natural Log of:	Dividends Excl. Repat, GILTI	Interest	Net Capital Gain Income	Gain/Loss Business Property	Other Income	Total Income Excl. Repat, GILTI
2010 Fixed Effect	-0.325*** [0.0466]	-0.433*** [0.0294]	0.0499 [0.0367]	0.116* [0.0630]	-0.283*** [0.0857]	-0.130** [0.0555]
2011 Fixed Effect	-0.349*** [0.0429]	-0.529*** [0.0294]	0.0514 [0.0821]	0.164*** [0.0536]	-0.231*** [0.0326]	-0.153*** [0.0150]
2012 Fixed Effect	-0.217*** [0.0401]	-0.593*** [0.0281]	-0.209*** [0.0738]	0.120** [0.0518]	-0.279*** [0.0310]	-0.318*** [0.0145]
2013 Fixed Effect	-0.171*** [0.0388]	-0.668*** [0.0268]	-0.219*** [0.0716]	-0.0451 [0.0494]	-0.219*** [0.0289]	-0.283*** [0.0136]
2014 Fixed Effect	-0.0165 [0.0369]	-0.641*** [0.0248]	-0.0199 [0.0695]	0.0198 [0.0483]	-0.161*** [0.0278]	-0.205*** [0.0122]
2015 Fixed Effect	0.0566* [0.0333]	-0.517*** [0.0217]	-0.0285 [0.0662]	0.067 [0.0456]	-0.0843*** [0.0261]	-0.151*** [0.0106]
2016 Fixed Effect	0.147*** [0.0291]	-0.310*** [0.0173]	-0.0682 [0.0644]	0.134*** [0.0448]	-0.0374 [0.0235]	-0.0772*** [0.00830]
2018 Fixed Effect	0.364*** [0.0368]	0.348*** [0.0211]	0.170** [0.0707]	0.0734 [0.0509]	0.146*** [0.0271]	0.116*** [0.00999]
Constant	13.18*** [0.0249]	14.80*** [0.0161]	13.78*** [0.0456]	13.36*** [0.0321]	14.84*** [0.0184]	18.87*** [0.00790]
Firm Fixed Effects	x	x	x	x	x	x
No. Observations	32,508	56,307	24,268	13,025	16,396	21,188
R-Square	0.838	0.852	0.881	0.902	0.698	0.748

Notes: \*\*\*, \*\*, and \* indicate the coefficient estimate is significant at the 1%, 5%, and 10% level respectively.

Robust standard errors are clustered at the firm level and reported in the brackets. Income amounts are real in 2017 dollars using the GDP deflator.



**Table B.2. Fixed Effects Model**  
Regressions of Corporate Deduction Items

Natural Log of:	Cost of Goods	Comp. of Officers	Interest Paid	Bad Debt Deduction	Pension and Profit Sharing	Total Deductions
2010 Fixed Effect	-0.327*** [0.0216]	-0.261*** [0.0126]	-0.240*** [0.0274]	0.528*** [0.0343]	-0.377*** [0.0223]	-0.334*** [0.0126]
2011 Fixed Effect	-0.238*** [0.0208]	-0.217*** [0.0118]	-0.317*** [0.0254]	0.346*** [0.0340]	-0.296*** [0.0213]	-0.315*** [0.0120]
2012 Fixed Effect	-0.189*** [0.0195]	-0.155*** [0.0113]	-0.356*** [0.0238]	0.199*** [0.0322]	-0.224*** [0.0196]	-0.302*** [0.0111]
2013 Fixed Effect	-0.153*** [0.0185]	-0.153*** [0.0105]	-0.406*** [0.0216]	-0.0206 [0.0310]	-0.257*** [0.0181]	-0.287*** [0.0103]
2014 Fixed Effect	-0.110*** [0.0165]	-0.0920*** [0.00952]	-0.386*** [0.0198]	-0.119*** [0.0301]	-0.225*** [0.0172]	-0.230*** [0.00899]
2015 Fixed Effect	-0.0839*** [0.0139]	-0.0584*** [0.00847]	-0.301*** [0.0169]	-0.135*** [0.0290]	-0.175*** [0.0154]	-0.163*** [0.00785]
2016 Fixed Effect	-0.0668*** [0.0106]	-0.0674*** [0.00711]	-0.149*** [0.0132]	-0.0683** [0.0274]	-0.110*** [0.0138]	-0.101*** [0.00639]
2018 Fixed Effect	0.0539*** [0.0149]	-0.0104 [0.00916]	-0.0522** [0.0203]	-0.1000*** [0.0304]	-0.0565*** [0.0166]	0.0125 [0.00781]
Constant	19.67*** [0.0111]	15.22*** [0.00656]	15.88*** [0.0136]	13.33*** [0.0206]	14.55*** [0.0118]	18.80*** [0.00621]
Firm Fixed Effects	x	x	x	x	x	x
No. Observations	33,419	47,116	55,642	40,809	39,524	59,022
R-Square	0.914	0.889	0.833	0.725	0.892	0.938

Notes: \*\*\*, \*\*, and \* indicate the coefficient estimate is significant at the 1%, 5%, and 10% level respectively. Robust standard errors are clustered at the firm level and reported in the brackets. Income amounts are real in 2017 dollars using the GDP deflator.

**Table B.3. Lagged Dependent Variable Model**

Regressions of Corporate Income Items

Natural Log of:	Dividends Excl. Repat, GILTI	Interest	Net Capital Gain Income	Gain/Loss Business Property	Other Income	Total Income Excl. Repat, GILTI
Lag Dependent Variable	0.879*** [0.00441]	0.902*** [0.00280]	0.697*** [0.0104]	0.773*** [0.00849]	0.834*** [0.00414]	0.925*** [0.00415]
2010 Fixed Effect	0.173*** [0.0405]	-0.422*** [0.0229]	0.132 [0.109]	0.164*** [0.0633]	-0.0171 [0.0317]	-0.00863 [0.0102]
2011 Fixed Effect	0.146*** [0.0392]	-0.328*** [0.0226]	-0.029 [0.0980]	0.202*** [0.0619]	0.0487 [0.0320]	-0.0251** [0.0105]
2012 Fixed Effect	0.260*** [0.0377]	-0.313*** [0.0230]	0.0408 [0.0914]	0.422*** [0.0620]	-0.00154 [0.0305]	-0.0214** [0.0105]
2013 Fixed Effect	0.175*** [0.0385]	-0.339*** [0.0234]	-0.0075 [0.0883]	-0.036 [0.0608]	0.0282 [0.0305]	-0.0267** [0.0109]
2014 Fixed Effect	0.275*** [0.0386]	-0.255*** [0.0231]	0.147* [0.0861]	0.229*** [0.0608]	0.0455 [0.0303]	0.0111 [0.0112]
2015 Fixed Effect	0.209*** [0.0373]	-0.179*** [0.0237]	0.00338 [0.0813]	0.179*** [0.0577]	0.044 [0.0300]	-0.0188* [0.0107]
2016 Fixed Effect	0.211*** [0.0401]	-0.0959*** [0.0240]	-0.145 [0.0965]	0.242*** [0.0648]	0.048 [0.0327]	-0.00841 [0.0118]
2018 Fixed Effect	0.490*** [0.0465]	0.105*** [0.0257]	0.152 [0.0970]	0.297*** [0.0676]	0.148*** [0.0357]	0.0308*** [0.0119]
Constant	1.454*** [0.0622]	1.714*** [0.0450]	4.162*** [0.158]	2.952*** [0.123]	2.483*** [0.0659]	1.498*** [0.0796]
No. Observations	29,612	52,895	10,896	13,893	43,903	55,247
R-Square	0.788	0.832	0.482	0.579	0.706	0.902

Notes: \*\*\*, \*\*, and \* indicate the coefficient estimate is significant at the 1%, 5%, and 10% level respectively.

Robust standard errors are clustered at the firm level and reported in the brackets. Income amounts are real in 2017 dollars using the GDP deflator.

**Table B.4. Lagged Dependent Variable Model**

Regressions of Corporate Deduction Items						
Natural Log of:	Cost of Goods	Comp. of Officers	Interest Paid	Bad Debt Deduction	Pension and Profit Sharing	Total Deductions
Lag Dependent Variable	0.945*** [0.00394]	0.930*** [0.00227]	0.901*** [0.00379]	0.755*** [0.00664]	0.917*** [0.00285]	0.964*** [0.00252]
2010 Fixed Effect	0.0317** [0.0134]	0.00622 [0.00987]	-0.260*** [0.0185]	-0.00311 [0.0340]	-0.0525*** [0.0198]	-0.0746*** [0.00839]
2011 Fixed Effect	0.0588*** [0.0132]	-0.0180* [0.00980]	-0.202*** [0.0185]	-0.0558 [0.0342]	-0.0235 [0.0191]	-0.0496*** [0.00826]
2012 Fixed Effect	0.00115 [0.0131]	-0.000869 [0.00955]	-0.169*** [0.0180]	-0.0524 [0.0330]	-0.0344* [0.0179]	-0.0688*** [0.00875]
2013 Fixed Effect	-0.0114 [0.0134]	-0.0572*** [0.00988]	-0.194*** [0.0175]	-0.188*** [0.0335]	-0.132*** [0.0176]	-0.0709*** [0.00797]
2014 Fixed Effect	0.00403 [0.0142]	-0.0013 [0.00948]	-0.126*** [0.0171]	-0.146*** [0.0342]	-0.0726*** [0.0171]	-0.0335*** [0.00825]
2015 Fixed Effect	-0.0312** [0.0141]	-0.0320*** [0.00959]	-0.0753*** [0.0164]	-0.105*** [0.0350]	-0.0671*** [0.0178]	-0.0289*** [0.00802]
2016 Fixed Effect	-0.0419*** [0.0133]	-0.0732*** [0.0106]	-0.00131 [0.0174]	0.00453 [0.0393]	-0.0456** [0.0198]	-0.0324*** [0.00858]
2018 Fixed Effect	-0.00331 [0.0154]	-0.0618*** [0.0114]	-0.151*** [0.0229]	-0.0804** [0.0404]	-0.161*** [0.0217]	-0.0817*** [0.00961]
Constant	1.130*** [0.0798]	1.124*** [0.0354]	1.694*** [0.0619]	3.337*** [0.0894]	1.305*** [0.0439]	0.781*** [0.0493]
No. Observations	31,286	44,361	52,166	34,846	36,834	55,977
R-Square	0.92	0.87	0.82	0.58	0.86	0.95

Notes: \*\*\*, \*\*, and \* indicate the coefficient estimate is significant at the 1%, 5%, and 10% level respectively.

Robust standard errors are clustered at the firm level and reported in the brackets. Income amounts are real in 2017 dollars using the GDP deflator.

## **Appendix C. Dynamic Panel Model, Additional Income and Deduction Items**

Appendix C reports the results from our preferred dynamic panel model with a once lagged dependent variable, firm fixed effects, and an Arellano-Bond estimator for several additional income and deduction items. In most cases, these income and deduction items may be interpreted in the same manner by which we interpret the 12 income and deduction items highlighted in the body of the paper. Notably, we observe that firms report significantly less net income in 2017 before reporting significantly more in 2018. Elsewhere, we observe salary and wage deductions to be reported significantly lower than 2017 in all years, including 2018. Finally, taxable income, an item which we expect firms to specifically target for minimizing tax by intertemporally shifting income and deduction items is significantly lower in 2017 than any other year; 2017 is 16 and over 30 percent lower than 2016 and 2018, respectively.

We also report figures for graphical analysis for these income and deduction items. These figures mirror those discussed within the body of our paper and compare how 2017 and 2018 firm behavior compares to observed trends from 2010 to 2016.

**Table C.1. Dynamic Panel Model**  
Regressions of Corporate Income Items

Natural Log of:	Gross Receipts	Gross Rents	Gross Royalties	Net Income	Taxable Income
Lag Dependent Variable	0.582*** [0.0366]	0.360*** [0.0379]	0.0538 [0.0675]	0.275*** [0.0176]	0.261*** [0.0183]
2010 Fixed Effect	-0.0429*** [0.0138]	0.305*** [0.0325]	0.401*** [0.0596]	0.108*** [0.0256]	0.148*** [0.0270]
2011 Fixed Effect	-0.0277** [0.0113]	0.271*** [0.0316]	0.443*** [0.0572]	0.0455* [0.0238]	0.0859*** [0.0253]
2012 Fixed Effect	-0.0333*** [0.00945]	0.248*** [0.0292]	0.379*** [0.0553]	0.175*** [0.0220]	0.210*** [0.0239]
2013 Fixed Effect	-0.0280*** [0.00852]	0.193*** [0.0281]	0.309*** [0.0496]	0.0803*** [0.0204]	0.132*** [0.0218]
2014 Fixed Effect	-0.0127 [0.00821]	0.167*** [0.0248]	0.276*** [0.0443]	0.143*** [0.0190]	0.184*** [0.0202]
2015 Fixed Effect	-0.0237*** [0.00737]	0.136*** [0.0222]	0.117*** [0.0383]	0.150*** [0.0171]	0.177*** [0.0180]
2016 Fixed Effect	-0.0271*** [0.00748]	0.0705*** [0.0185]	0.0352 [0.0304]	0.142*** [0.0173]	0.157*** [0.0176]
2018 Fixed Effect	0.000703 [0.00898]	-0.0115 [0.0217]	-0.0149 [0.0314]	0.348*** [0.0209]	0.305*** [0.0222]
Firm Fixed Effects	x	x	x	x	x
No. Observations	43,472	18,155	9,520	27,642	24,116
No. Firms	6,866	3,238	1,825	5,496	4,645

Notes: \*\*\*, \*\*, and \* indicate the coefficient estimate is significant at the 1%, 5%, and 10% level respectively. Robust standard errors are clustered at the firm level and reported in the brackets. Income amounts are real in 2017 dollars using the GDP deflator.

**Table C.2. Dynamic Panel Model**  
Regressions of Corporate Deduction Items

Natural Log of:	Salaries and Wages	Repairs and Maintenance	Rents Paid	State and Local Taxes	Charitable Contribution	Net Depreciation
Lag Dependent Variable	0.645*** [0.0344]	0.475*** [0.0308]	0.567*** [0.0281]	0.441*** [0.0344]	0.230*** [0.0407]	0.504*** [0.0285]
2010 Fixed Effect	-0.115*** [0.0151]	-0.0978*** [0.0178]	-0.0799*** [0.0121]	-0.105*** [0.0158]	-0.0866** [0.0337]	-0.142*** [0.0117]
2011 Fixed Effect	-0.0930*** [0.0130]	-0.0816*** [0.0167]	-0.0579*** [0.0120]	-0.0734*** [0.0138]	-0.0739** [0.0312]	-0.0253** [0.0113]
2012 Fixed Effect	-0.0788*** [0.0113]	-0.0929*** [0.0159]	-0.0579*** [0.0113]	-0.0609*** [0.0127]	-0.0454 [0.0304]	-0.255*** [0.0104]
2013 Fixed Effect	-0.0669*** [0.00995]	-0.0542*** [0.0146]	-0.0538*** [0.0106]	-0.0499*** [0.0109]	-0.0517* [0.0269]	-0.157*** [0.0108]
2014 Fixed Effect	-0.0468*** [0.00872]	-0.0168 [0.0138]	-0.0212** [0.0103]	-0.0155 [0.0103]	-0.0282 [0.0260]	-0.117*** [0.0103]
2015 Fixed Effect	-0.0265*** [0.00681]	-0.00466 [0.0130]	-0.00793 [0.00970]	-0.0367*** [0.00968]	-0.0453* [0.0241]	-0.0901*** [0.00922]
2016 Fixed Effect	-0.0245*** [0.00676]	0.0132 [0.0117]	-0.00356 [0.00965]	-0.0168* [0.01000]	-0.0299 [0.0233]	-0.0792*** [0.00923]
2018 Fixed Effect	-0.0276*** [0.00762]	-0.0193 [0.0139]	-0.0153 [0.0106]	0.0396*** [0.0112]	-0.0118 [0.0289]	0.0184 [0.0121]
Firm Fixed Effects	x	x	x	x	x	x
No. Observations	44,515	41,125	42,590	45,981	23,425	44,925
No. Firms	6,916	6,531	6,749	7,286	4,534	6,968

Notes: \*\*\*, \*\*, and \* indicate the coefficient estimate is significant at the 1%, 5%, and 10% level respectively. Robust standard errors are clustered at the firm level and reported in the brackets. Income amounts are real in 2017 dollars using the GDP deflator.

**Table C.3. Dynamic Panel Model**  
Regressions of Corporate Deduction Items

Natural Log of:	Depletion	Advertising Expenses	Employee Benefits	Other Deductions	Net Operating Loss Deduction	Special Deductions
Lag Dependent Variable	0.126 [0.129]	0.503*** [0.0304]	0.534*** [0.0252]	0.508*** [0.0391]	0.413*** [0.0387]	0.445*** [0.0525]
2010 Fixed Effect	0.328*** [0.0942]	-0.0850*** [0.0155]	-0.0721*** [0.0145]	-0.102*** [0.0147]	1.063*** [0.0997]	0.00575 [0.0551]
2011 Fixed Effect	0.418*** [0.0887]	-0.0633*** [0.0145]	-0.0574*** [0.0138]	-0.0720*** [0.0135]	0.950*** [0.0880]	0.0355 [0.0512]
2012 Fixed Effect	0.388*** [0.0833]	-0.0570*** [0.0137]	-0.0353*** [0.0127]	-0.0686*** [0.0117]	0.833*** [0.0801]	0.162*** [0.0472]
2013 Fixed Effect	0.434*** [0.0788]	-0.0548*** [0.0129]	-0.0342*** [0.0119]	-0.0737*** [0.0119]	0.610*** [0.0734]	0.064 [0.0442]
2014 Fixed Effect	0.464*** [0.0777]	-0.0128 [0.0121]	0.00255 [0.0115]	-0.0386*** [0.0100]	0.488*** [0.0677]	0.0953** [0.0410]
2015 Fixed Effect	0.262*** [0.0698]	-0.00884 [0.0115]	0.00533 [0.0107]	-0.0257*** [0.00890]	0.338*** [0.0567]	0.00901 [0.0370]
2016 Fixed Effect	-0.0174 [0.0505]	-0.0153 [0.0116]	0.000481 [0.0102]	-0.0328*** [0.00896]	0.192*** [0.0532]	-0.0537 [0.0361]
2018 Fixed Effect	-0.0687 [0.0557]	0.00554 [0.0129]	-0.00393 [0.0117]	-0.0454*** [0.0118]	-0.146** [0.0570]	0.820*** [0.0800]
Firm Fixed Effects	x	x	x	x	x	x
No. Observations	2,527	39,916	40,815	46,419	6,740	11,779
No. Firms	466	6,346	6,524	7,385	2,185	2,098

Notes: \*\*\*, \*\*, and \* indicate the coefficient estimate is significant at the 1%, 5%, and 10% level respectively. Robust standard errors are clustered at the firm level and reported in the brackets. Income amounts are real in 2017 dollars using the GDP deflator.

**Table C.4. Dynamic Panel Model**

Regressions of Corporate Cost of Goods Items

Natural Log of: Lag Dependent Variable	COGS Beginning Inventory	COGS: Purchases	COGS: Cost of Labor	COGS: Other Costs	COGS: Line 5 Schedule A Total	COGS: Ending Inventory
	0.497***	0.355***	0.432***	0.398***	0.535***	0.466***
	[0.0545]	[0.0581]	[0.0635]	[0.0389]	[0.0617]	[0.0822]
2010 Fixed Effect	-0.176***	-0.0154	-0.0415*	-0.0389	-0.0560***	-0.0775***
	[0.0159]	[0.0256]	[0.0241]	[0.0268]	[0.0207]	[0.0256]
2011 Fixed Effect	-0.0388**	0.0432**	-0.0214	-0.0078	-0.00797	-0.0226
	[0.0193]	[0.0196]	[0.0231]	[0.0246]	[0.0175]	[0.0206]
2012 Fixed Effect	7.62E-03	0.0104	-0.0135	-0.0303	-0.0290**	-0.0414***
	[0.0166]	[0.0166]	[0.0214]	[0.0222]	[0.0125]	[0.0139]
2013 Fixed Effect	-0.00473	-0.00394	-0.0249	-0.031	-0.0297**	-0.0352***
	[0.0126]	[0.0167]	[0.0179]	[0.0218]	[0.0123]	[0.0128]
2014 Fixed Effect	0.00357	0.0365**	-0.0069	-0.00323	-0.00756	-0.00855
	[0.0123]	[0.0160]	[0.0178]	[0.0196]	[0.0122]	[0.0123]
2015 Fixed Effect	0.0368***	-0.0326**	-0.0137	-0.00167	-0.0354***	-0.0215**
	[0.0103]	[0.0144]	[0.0154]	[0.0185]	[0.0109]	[0.0104]
2016 Fixed Effect	0.0185*	-0.0380***	-0.0112	-0.0531***	-0.0402***	-0.0273***
	[0.00980]	[0.0137]	[0.0148]	[0.0168]	[0.00979]	[0.0100]
2018 Fixed Effect	0.0262**	0.0447***	0.0177	-0.0145	-0.00147	0.0177
	[0.0127]	[0.0163]	[0.0181]	[0.0225]	[0.0129]	[0.0133]
Firm Fixed Effects	x	x	x	x	x	x
No. Observations	21,655	21,544	15,172	20,832	26,174	21,696
No. Firms	3,559	3,652	2,648	3,746	4,288	3,567

Notes: \*\*\*, \*\*, and \* indicate the coefficient estimate is significant at the 1%, 5%, and 10% level respectively. Robust standard errors are clustered at the firm level and reported in the brackets. Income amounts are real in 2017 dollars using the GDP deflator.



Figure C.1.

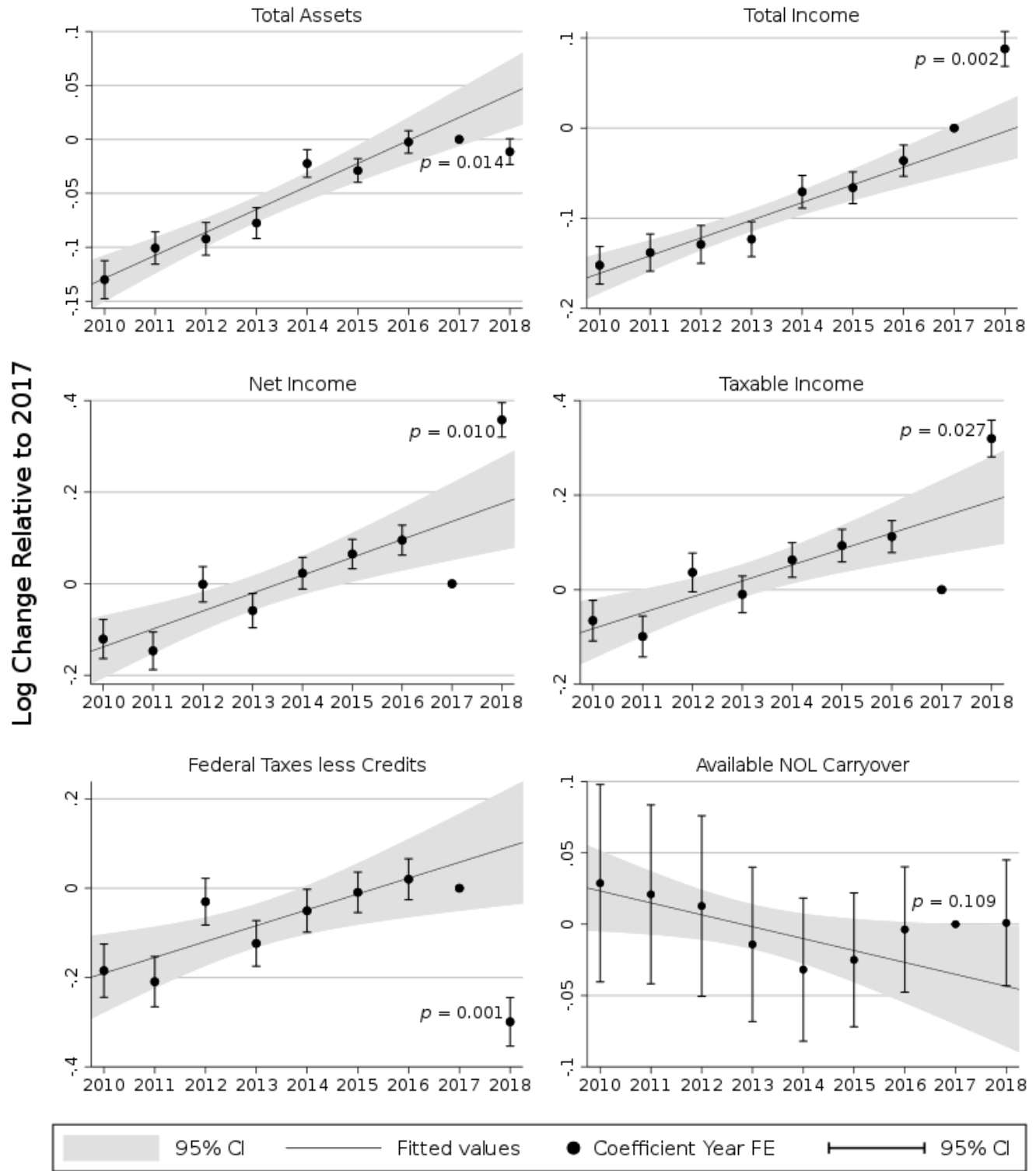


Figure C.2.

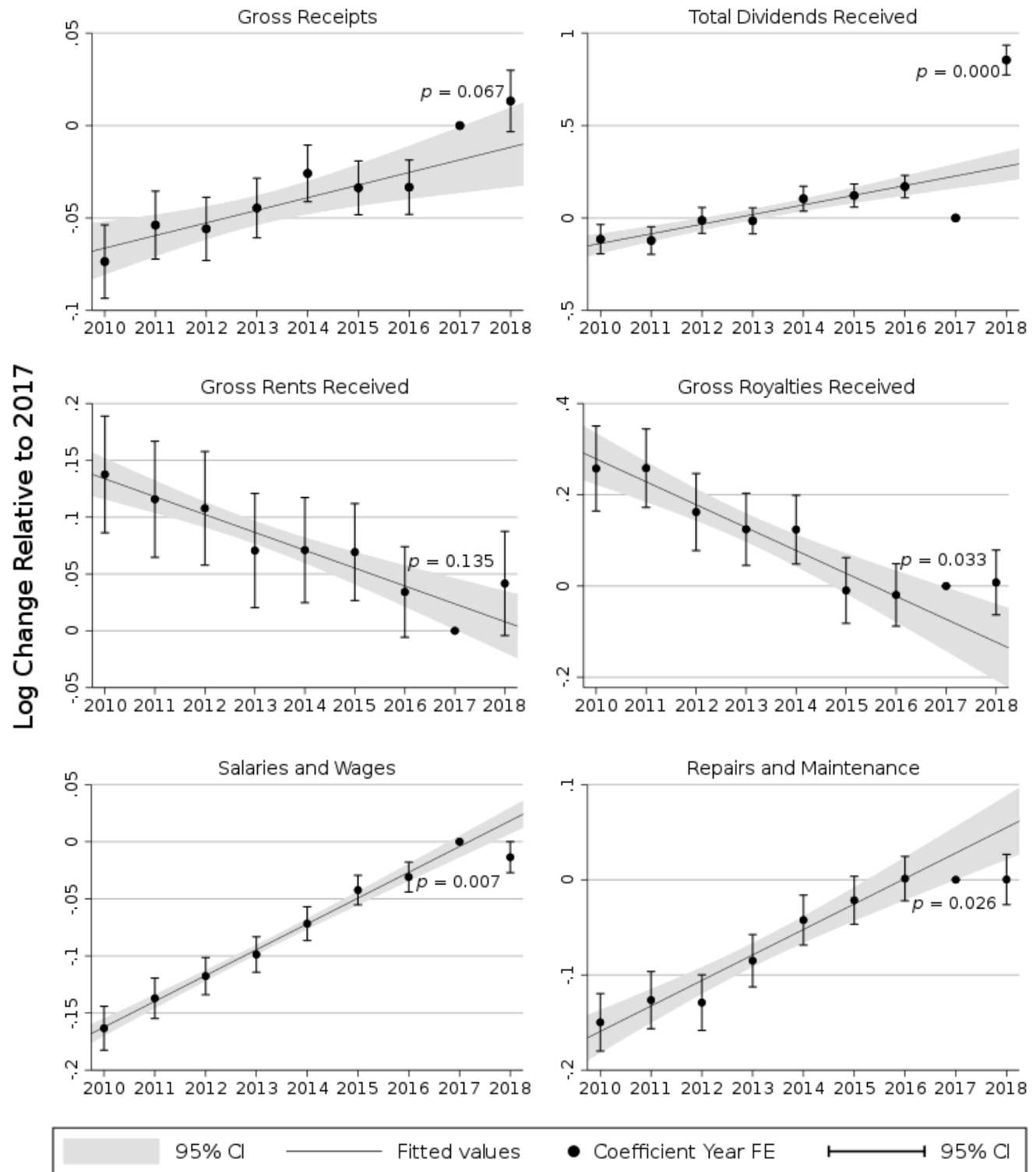


Figure C.3.

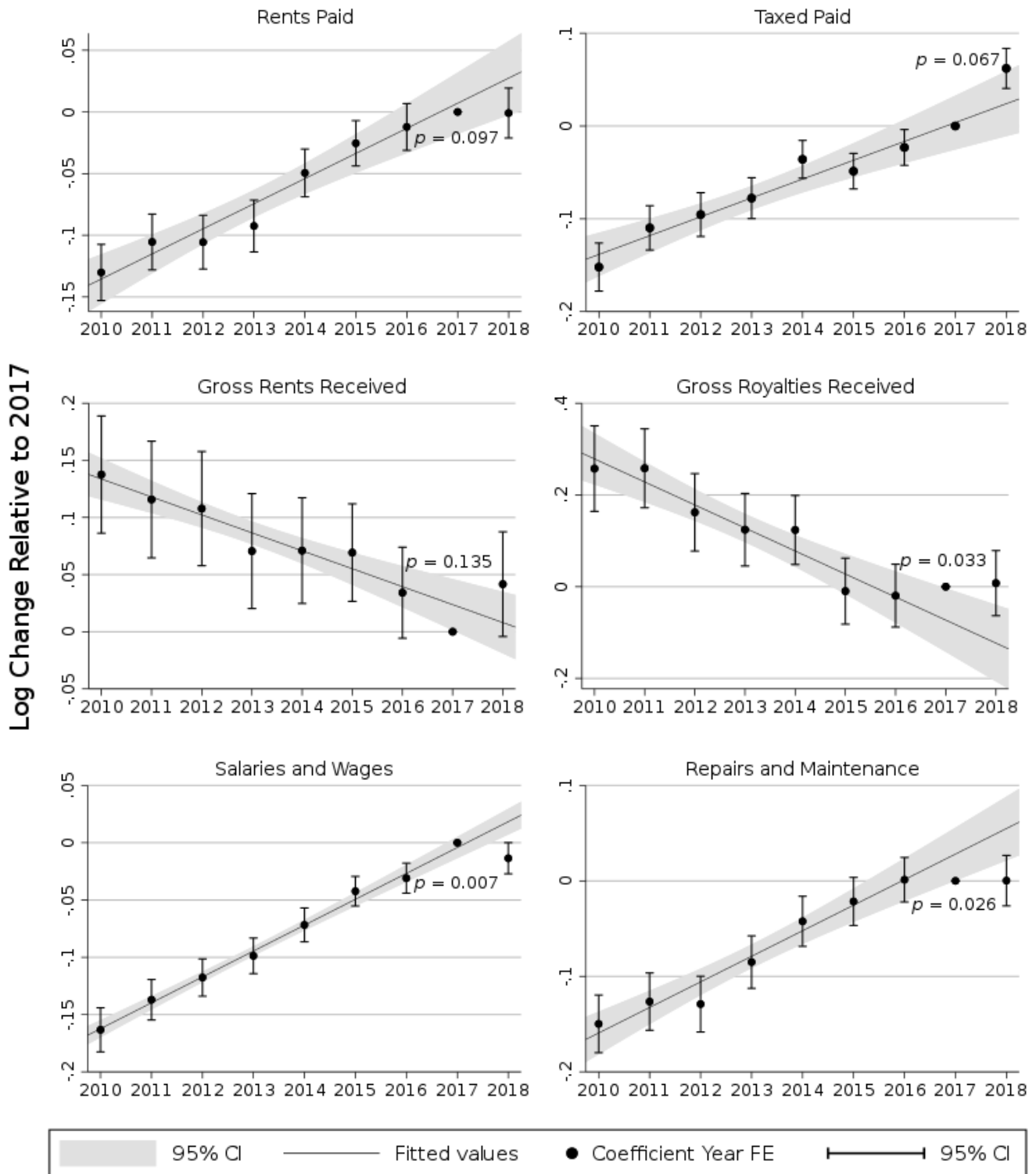


Figure C.4.

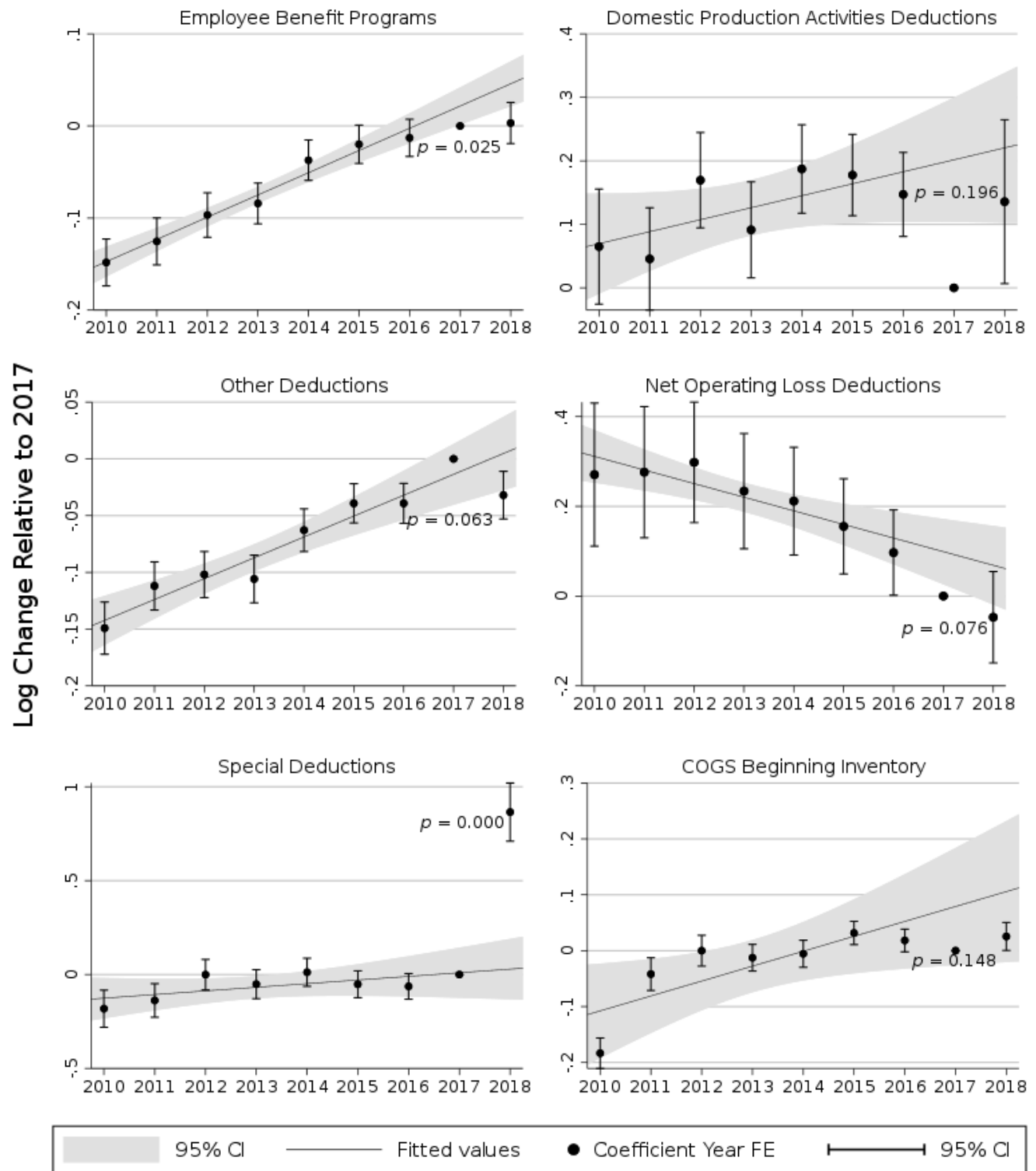
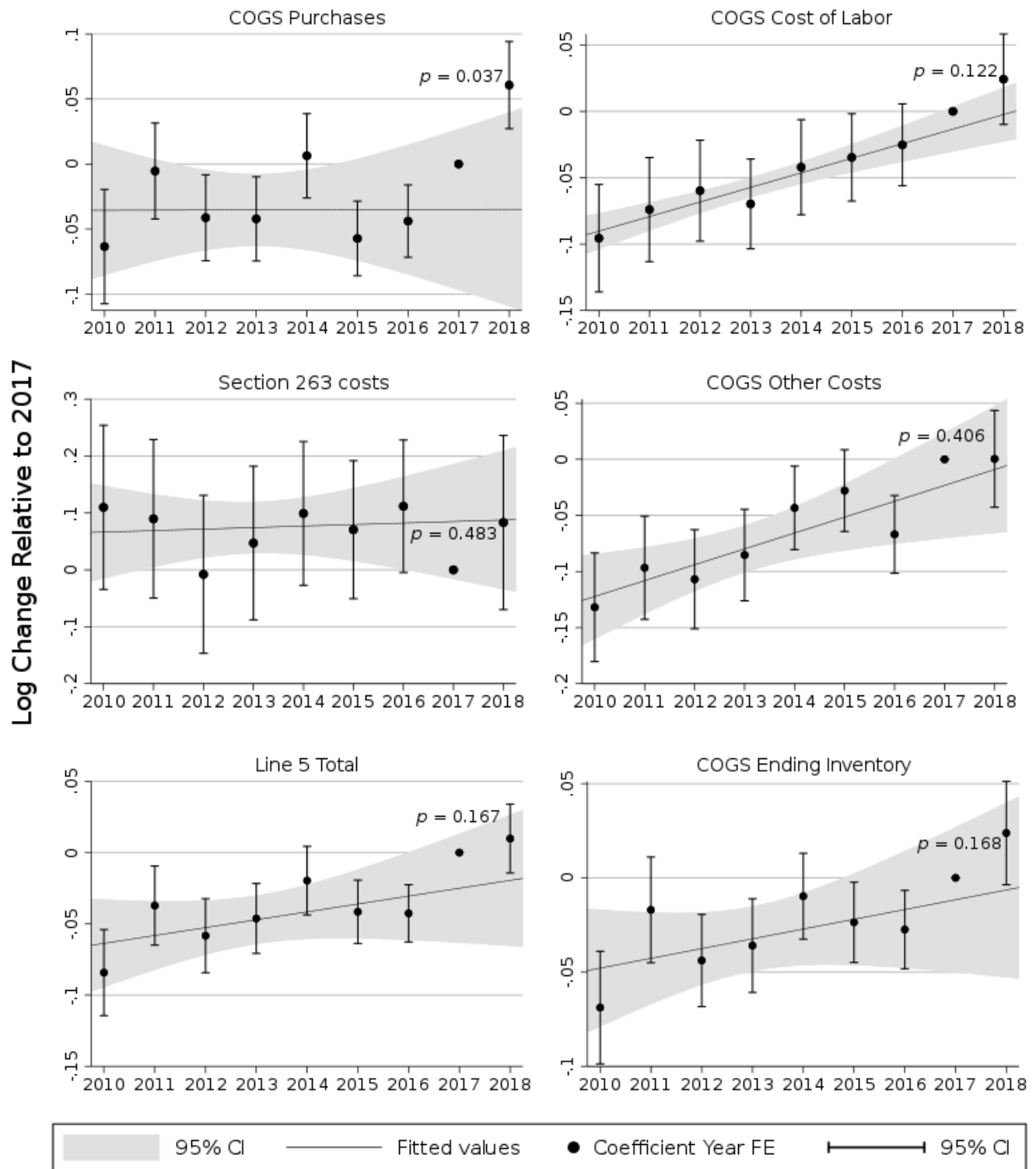


Figure C.5.



## Appendix D. Schedule J Tax and Credit Items, and Timing of Payments for 81 corporations

### Schedule J.

Credits and other items reported by the 81 corporations on Part I of the Form 1120 Schedule J are shown in Table D.1. Income tax before credits — before the inclusion of BEAT and the deemed repatriation liability — declined every year before rising in 2018. As shown in table 6, the use of both general business credits and foreign tax credits declined in 2017 before increasing in 2018 by around two-thirds. Total tax after credits — also before the inclusion BEAT and deemed repatriation — fell 30 percent in 2017 and increased 29 percent in 2018. Table D.1. also shows the effect of the repeal of the AMT. In 2018, the AMT fell to zero while claims of prior year AMT credits, which are refundable starting in 2018 under TCJA, grew by 87 percent. Importantly, these credits are much smaller in magnitude than general business credits and foreign tax credits. Notably, the observation that tax liability declined in 2017 before the consideration of international tax reforms may reveal that corporations were able to shift income and deductions in response to TCJA.

**Table D.1.**  
Credits and Other Items on Part I of Form 1120 Schedule J  
Year over Year Percentage Change

	2014 - 2015	2015 - 2016	2016 - 2017	2017 - 2018
Income Tax Before Credits	-3.9%	-7.6%	-29.7%	47.1%
Alternative Minimum Tax	47.3%	-5.5%	69.9%	-100.0%
Foreign Tax Credit	-17.1%	-16.2%	-30.8%	68.1%
General Business Credit	8.8%	9.0%	-24.5%	64.4%
Prior Year Minimum Tax Credit	-43.1%	278.9%	-25.9%	87.1%
Tax Credit Bonds	-0.9%	-10.4%	0.7%	-5.2%
Total Credits	-11.8%	-8.9%	-28.7%	66.8%
Total Tax without Repat, BEAT	3.5%	-6.7%	-30.1%	28.6%

Source: Statistics of Income, Corporation Tax Returns (2014-2017), and Statistics of Income Advance File Corporation Tax Returns (2018).

## Timing of payments

For the selected 81 corporations, Table D.2. shows total payments<sup>1</sup> claimed on 2017 tax returns increased by 52 percent from the prior year. Tax overpayments increased 25 percent in 2017 as tax liability was lower than expected before the enactment of TCJA. While tax overpayments fell 39 percent in 2018, these overpayments were still more than 100 times greater than tax due in each year. This is not surprising as large corporations are subject to penalties if they do not remit sufficient estimated payments to cover their current year final tax liability. The large increase in tax due in 2018 results from substantial growth from a very low level in 2017.

**Table D.2.**  
Tax Payment Reported on Form 1120  
Year over Year Percentage Change

	2014 - 2015	2015 - 2016	2016 - 2017	2017 - 2018
Overpayment Credit	-9.7%	27.1%	11.5%	-13.6%
Estimated Tax Payments	5.1%	-8.9%	-7.9%	-36.9%
Total Payments and Credits	5.8%	-3.5%	52.5%	-39.6%
Tax Due	-50.9%	-88.0%	-65.3%	3715.0%
Tax Overpayment	18.0%	11.6%	25.1%	-38.9%

Source: Statistics of Income, Corporation Tax Returns (2014-2017), and Statistics of Income Advance File Corporation Tax Returns (2018).

<sup>1</sup> These payments mostly originate from estimated tax payments and overpayments credited from the prior year excluding deemed repatriation tax paid.