

IRS Enforcement and State Corporate Income Tax Revenues

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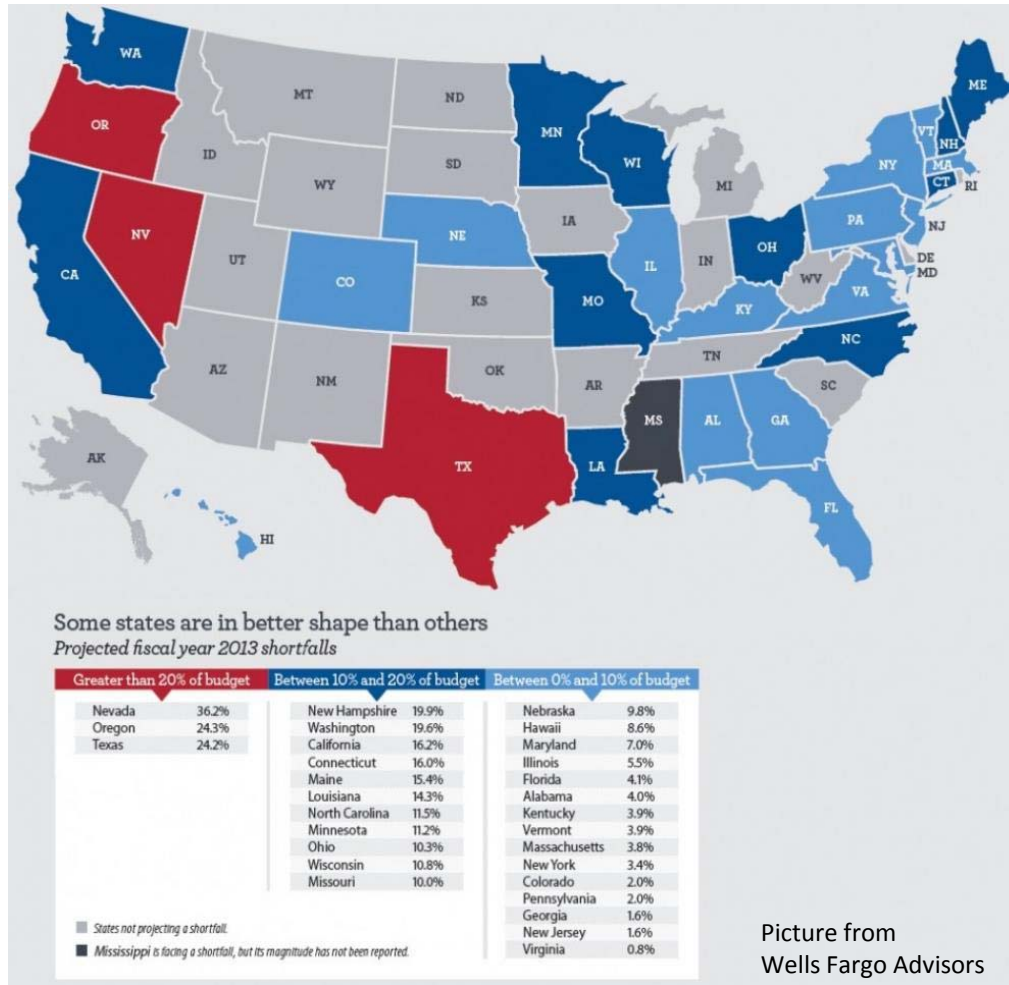
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Overview

- Relation between state corporate income tax (SCIT) revenues and IRS enforcement
 - 1995-2010
 - 43 states
- Are SCIT revenues related to IRS enforcement?
 - Yes, SCIT revenues and IRS enforcement are positively related
- How did the implementation of FIN 48 affect that relation?
 - The relation between SCIT revenues and IRS enforcement was attenuated by the implementation of FIN 48



Motivation



Picture from
 Wells Fargo Advisors

Motivation

- States facing major financial crises
 - State budget deficits
 - Proposed legislation to allow states to declare bankruptcy
 - Downgrade of state debt
 - State Budget Crisis Task Force
- Investigate one mechanism that may affect SCIT revenues – IRS enforcement



Related Literature

- Desai et al. (2007)
 - Corporate tax system and corporate governance
 - Government is largest minority shareholder of corporations
 - Outside stakeholders benefit from tax enforcement
- Guedhami and Pittman (2008)
 - IRS enforcement and private firm debt pricing
 - Transactional Records Access Clearinghouse (TRAC) data
- Hanlon et al. (2012)
 - IRS enforcement and financial reporting quality
- Hoopes et al. (2012)
 - IRS enforcement and tax avoidance



Related Literature

- Gupta et al. (2009)
 - Sample period 1982 through 2002
 - Examine the relation between SCIT revenues and SCIT policies such as tax rates and sales factor weighting
 - Find that SCIT revenues are positively related to tax rates, but negatively related to sales factor weighting
- Gupta and Lynch (2012)
 - Sample period 2000-2008
 - Examine the relation between SCIT revenues and state level enforcement
 - Find that state level enforcement in year t is positively associated with SCIT collections in year $t+2$

Apportionment Factor

- Traditional equally weighted three factor formula

$$\left(\frac{\text{Property within the state}}{\text{Total property in the U.S.}} + \frac{\text{Payroll within the state}}{\text{Total payroll in the U.S.}} + \frac{\text{Sales within the state}}{\text{Total sales in the U.S.}} \right) \div 3 = \text{Apportionment Factor}$$

- Trend of states moving towards a more heavily weighted sales factor
 - 33.3% - three factor formula
 - 50% - double weighted sales formula
 - 100% - single sales factor

IRS Enforcement and SCIT Revenues

- Are SCIT revenues related to IRS enforcement?

Yes

- Federal taxable income is the starting point for SCIT calculations
- Relation between IRS enforcement and contemporaneous:
 - Accounting quality – Hanlon et al. (2012)
 - Cash effective tax rates – Hoopes et al. (2012)

No

- Gupta et al. (2009)
 - Different filing groups
 - Federal return items unrelated to SCIT
- *Contemporaneous* SCIT revenues



IRS Enforcement and SCIT Revenues

H1: IRS enforcement has no effect on state corporate income tax collections.

$$\begin{aligned} SCIT/GSP_{it} = & \alpha_i + \beta_1 TXRATE_{it} + \beta_2 SALES_{it} + \beta_3 FLOWTHRU_{it} \\ & + \beta_4 FEDBASEGSP_{it} + \beta_5 UNEMP_{it} + \beta_6 LN_POP_{it} + \beta_7 IRS_AUDIT_t + \varepsilon_{it} \end{aligned}$$



SCIT Revenues and FIN 48

- Mills et al. (2010)
 - Model interaction between publicly traded companies and the government in a mandatory disclosure environment
 - Under FIN 48 some taxpayers will be deterred from tax avoidance transactions
- Gupta et al. (2013)
 - Reduced SCIT avoidance post-FIN 48

IRS Enforcement, FIN 48, and SCIT Revenues

H2: The relation between IRS enforcement and SCIT revenues was attenuated with the implementation of FIN 48

$$\begin{aligned} SCIT/GSP_{it} = & \alpha_i + \beta_1 SALES_{it} + \beta_2 TXRATE_{it} + \beta_3 FLOWTHRU_{it} \\ & + \beta_4 FEDBASEGSP_{it} + \beta_5 UNEMP_{it} + \beta_6 LN_POP_{it} + \beta_7 IRS_AUDIT_t \\ & + \beta_8 FIN48_t + \beta_9 IRS*FIN48_t + \epsilon_{it} \end{aligned}$$

Results

$$SCIT/GSP_{it} = \alpha_i + \beta_1 TXRATE_{it} + \beta_2 SALES_{it} + \beta_3 FLOWTHRU_{it} + \beta_4 FEDBASEGSP_{it} + \beta_5 UNEMP_{it} + \beta_6 LN_POP_{it} + \beta_7 IRS_AUDIT_t + \epsilon_{it}$$

Variable	Predicted Sign	Coefficient
<i>TXRATE</i>	+	0.0259 *** (0.009)
<i>SALES</i>	-	0.0006 *** (<0.001)
<i>FLOWTHRU</i>	-	0.0071 *** (0.001)
<i>FEDBASEGSP</i>	+	0.0030 *** (0.001)
<i>UNEMP</i>	-	-0.0002 *** (<0.001)
<i>LN_POP</i>	+	-0.0022 *** (<0.001)
<i>IRS_AUDIT</i>	?	0.0906 *** (0.007)
<i>INTERCEPT</i>		0.0305 *** (0.004)
R ²		0.7926
No. of Obs.		682

Other Enforcement Variables

Enforcement Variable (Predicted Sign)	<i>EMP</i>	<i>REV_AGT</i>	<i>CI</i>	<i>FRAUD</i>
<i>TXRATE</i> (+)	0.0240 ** (0.0095)	0.0261 *** (0.0089)	0.0234 ** (0.0096)	0.0246 *** (0.0093)
<i>SALES</i> (-)	0.0006 *** (0.0001)	0.0007 *** (0.0001)	0.0006 *** (0.0001)	0.0006 *** (0.0001)
<i>FLOWTHRU</i> (-)	0.0058 *** (0.0013)	0.0130 *** (0.0012)	0.0065 *** (0.0019)	0.0108 *** (0.0011)
<i>FEDBASEGSP</i> (+)	0.0070 *** (0.0012)	0.0044 *** (0.0011)	0.0067 *** (0.0012)	0.0041 *** (0.0011)
<i>UNEMP</i> (-)	-0.0002 *** (<0.0001)	-0.0003 *** (<0.0001)	-0.0002 *** (<0.0001)	-0.0002 *** (<0.0001)
<i>LN_POP</i> (+)	-0.0022 *** (0.0002)	-0.0023 *** (0.0002)	-0.0023 *** (0.0003)	-0.0023 *** (0.0002)
<i>ENFORCEMENT</i> (?)	0.1135 *** (0.0284)	1.8240 *** (0.1732)	3.6398 *** (1.2313)	19.7332 *** (2.0430)
<i>INTERCEPT</i>	0.0302 *** (0.0037)	0.0250 *** (0.0036)	0.0303 *** (0.0037)	0.0297 *** (0.0038)
R2	0.7438	0.7866	0.7406	0.7750
No. of Obs.	682	682	682	682

Results

$$SCIT/GSP_{it} = \alpha_i + \beta_1 SALES_{it} + \beta_2 TXRATE_{it} + \beta_3 FLOWTHRU_{it} + \beta_4 FEDBASEGSP_{it} + \beta_5 UNEMP_{it} + \beta_6 LN_POP_{it} + \beta_7 IRS_AUDIT_t + \beta_8 FIN48_t + \beta_9 IRS*FIN48_t + \epsilon_{it}$$

Variable (Predicted Sign)	<i>IRS_AUDIT</i>	<i>EMP</i>	<i>REV_AGT</i>	<i>CI</i>	<i>FRAUD</i>
<i>ENFORCEMENT</i> (?)	0.0682 *** (0.009)	0.0853 *** (0.0283)	1.5113 *** (0.2064)	5.1274 *** (1.2282)	14.1394 *** (2.0993)
<i>FIN48</i> (+)	0.0053 *** (0.001)	0.0019 * (0.0011)	0.0049 *** (0.0014)	0.0031 (0.0019)	0.0031 *** (0.0008)
<i>ENF*FIN48</i> (-)	-0.3819 *** (0.120)	-0.0699 (0.0878)	-2.1311 *** (0.7196)	-4.9441 (4.9600)	-104.8890 *** (38.5925)
<i>INTERCEPT</i>	0.0314 *** (0.004)	0.0312 *** (0.0037)	0.0270 *** (0.0037)	0.0289 *** (0.0036)	0.0309 *** (0.0038)
R2	0.8031	0.7864	0.8096	0.7906	0.8004
No. of Obs.	682	682	682	682	682

Robustness Tests

- Endogeneity
- Lagged enforcement variables
- Drop OH observations
- Winsorize



Conclusion

- IRS enforcement is positively related to contemporaneous SCIT revenues
- The relation between IRS enforcement and SCIT revenues was attenuated by the implementation of FIN 48
- Effect of SCIT policies may have changed over time
- Policymakers should consider the broader environment, including enforcement and financial reporting, when considering how to improve SCIT revenues