IRS Enforcement and State Corporate Income Tax Revenues

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June 20, 2013

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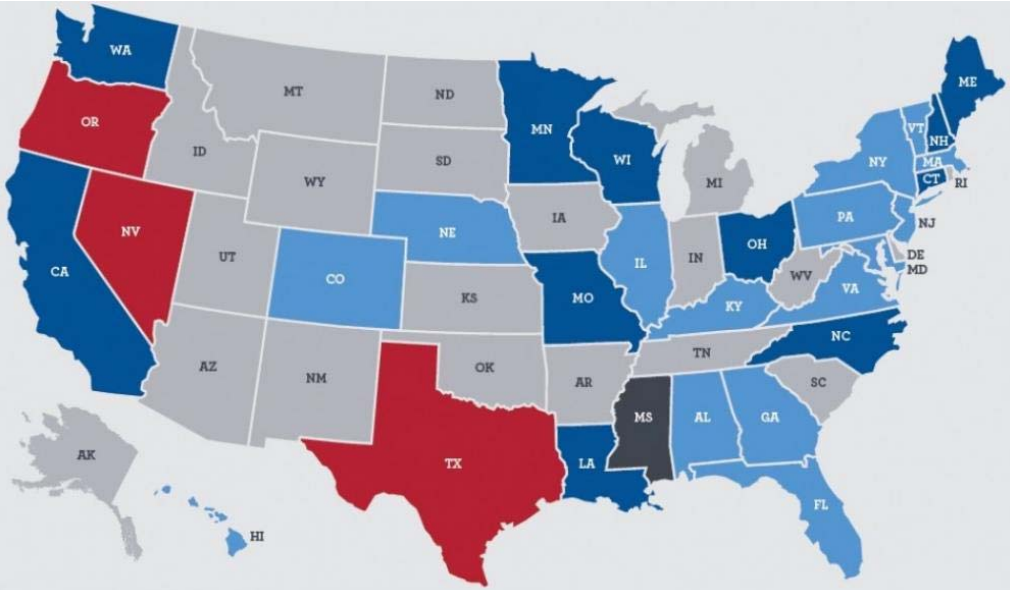
Overview

- 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



Some states are in better shape than others

Projected fiscal year 2013 shortfalls

Greater than 20% of budget		Between 10% and 20% of budget		Between 0% and 10% of budget	
Nevada	36.2%	New Hampshire	19.9%	Nebraska	9.8%
Oregon	24.3%	Washington	19.6%	Hawaii	8.6%
Texas	24.2%	California	16.2%	Maryland	7.0%
		Connecticut	16.0%	Illinois	5.5%
		Maine	15.4%	Florida	4.1%
		Louisiana	14.3%	Alabama	4.0%
		North Carolina	11.5%	Kentucky	3.9%
		Minnesota	11.2%	Vermont	3.9%
		Ohio	10.3%	Massachusetts	3.8%
		Wisconsin	10.8%	New York	3.4%
		Missouri	10.0%	Colorado	2.0%
				Pennsylvania	2.0%
				Georgia	1.6%
				New Jersey	1.6%
				Virginia	0.8%

States not projecting a shortfall.

Mississippi is facing a shortfall, but its magnitude has not been reported.

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.

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

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

$$SCIT/GSP_{it} = \alpha_i + \beta_1\, SALES_{it} + \beta_2\, TXRATE_{it} + \beta_3\, FLOWTHRU_{it}$$

$$+ \beta_4\, FEDBASEGSP_{it} + \beta_5\, UNEMP_{it} + \beta_6\, LN_POP_{it} + \beta_7\, IRS_AUDIT_t$$

$$+ \beta_8\, FIN48_t + \beta_9\, IRS*FIN48_t + \varepsilon_{it}$$

Results

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

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

Other Enforcement Variables

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

Results

$$SCIT/GSP_{it} = \alpha_i + \beta_1\, SALES_{it} + \beta_2\, TXRATE_{it} + \beta_3\, FLOWTHRU_{it} + \beta_4\, FEDBASEGSP_{it} + \beta_5\, UNEMP_{it}$$

$$+ \beta_6\, LN_POP_{it} + \beta_7\, IRS_AUDIT_t + \beta_8\, FIN48_t + \beta_9\, IRS{*}FIN48_t + \varepsilon_{it}$$

Variable (Predicted Sign)	*IRS_AUDIT*		*EMP*		*REV_AGT*		*CI*		*FRAUD*	
ENFORCEMENT (?)	0.0682	***	0.0853	***	1.5113	***	5.1274	***	14.1394	***
	(0.009)		(0.0283)		(0.2064)		(1.2282)		(2.0993)	
FIN48 (+)	0.0053	***	0.0019	*	0.0049	***	0.0031		0.0031	***
	(0.001)		(0.0011)		(0.0014)		(0.0019)		(0.0008)	
*ENF*FIN48* (-)	-0.3819	***	-0.0699		-2.1311	***	-4.9441		-104.8890	***
	(0.120)		(0.0878)		(0.7196)		(4.9600)		(38.5925)	
INTERCEPT	0.0314	***	0.0312	***	0.0270	***	0.0289	***	0.0309	***
	(0.004)		(0.0037)		(0.0037)		(0.0036)		(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