

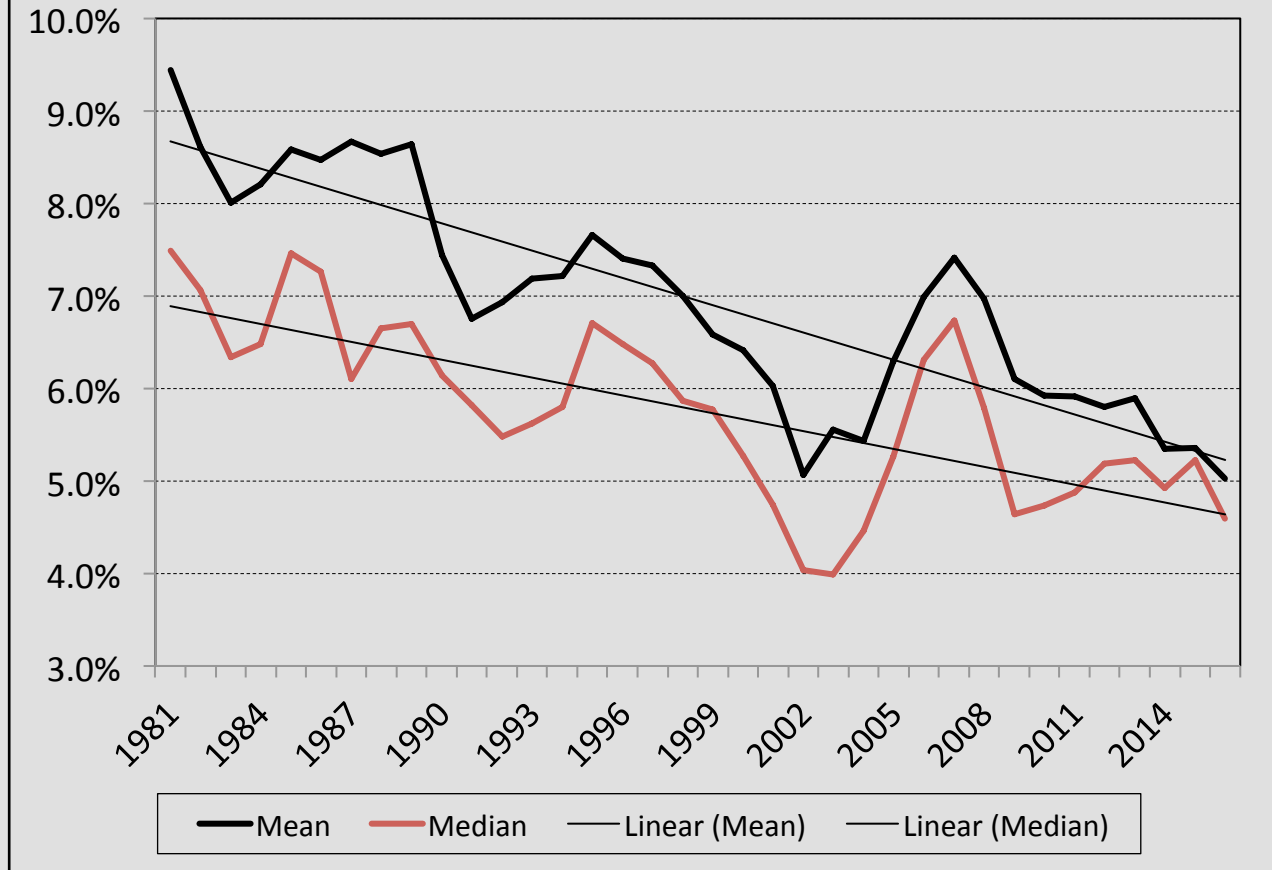
Long-Term Trends in State Corporate Income Taxes: A Zombie Tax?

Presentation by Elliott Dubin to the Federation of Tax
Administrators, Revenue Estimating Conference,
September 26, 2017

“The report of my death was
an exaggeration”

Mark Twain, *New York Journal*, June 2, 1897

Figure 1: State Taxes on Corporate Net Income as Percent of State Tax Revenues, Fiscal Years 1981 to 2016



Source: U.S. Bureau of the Census

TABLE 1: State Taxes on Net Corporate Income as Percent of All State Taxes: Selected Fiscal Years 1981 to 2016

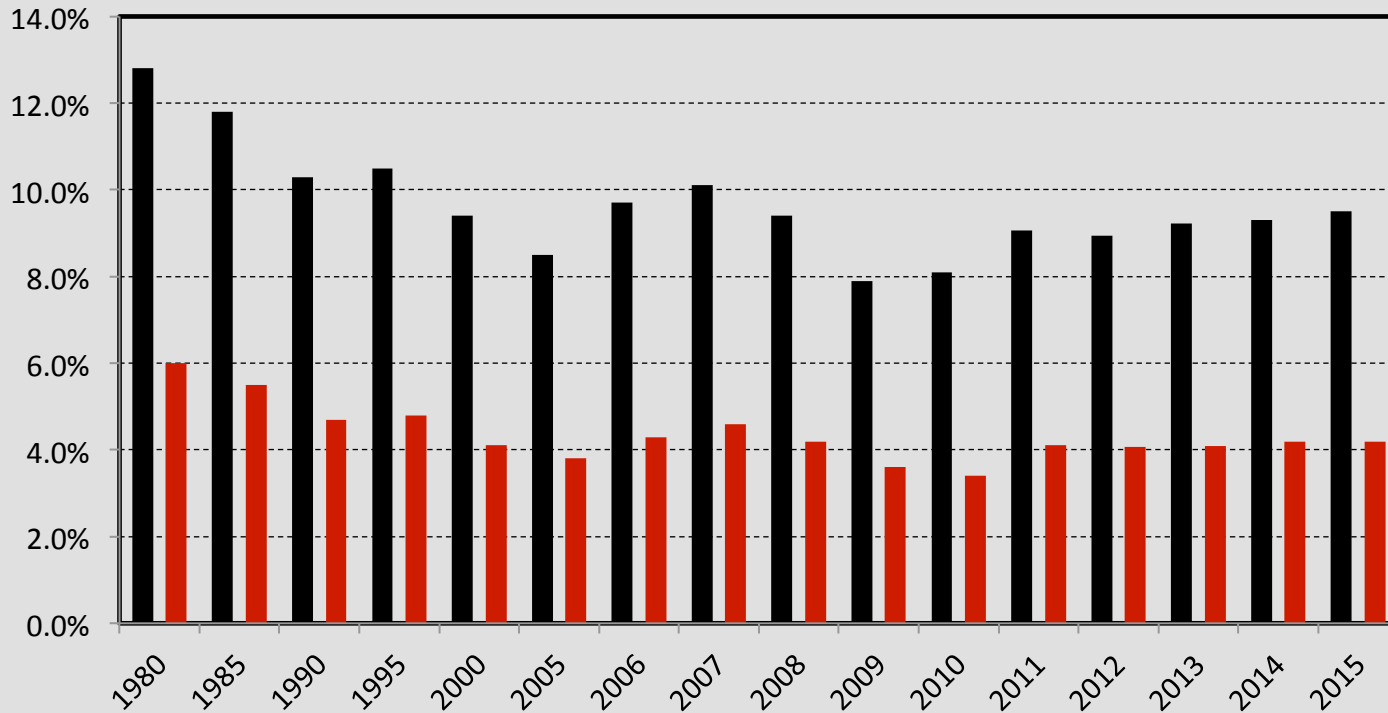
State	1981	1986	1991	1996	2001	2006	2011	2016
U.S.	9.45%	8.07%	6.55%	7.01%	5.66%	6.63%	5.39%	5.03%
Alabama	4.61	5.23	4.27	4.14	2.99	6.55	3.49	3.80
Alaska	38.62	9.57	14.04	21.48	28.03	33.07	13.02	20.37
Arizona	7.08	5.35	4.08	6.99	6.47	6.66	4.57	3.89
Arkansas	6.79	6.20	5.17	6.18	4.06	5.25	4.74	4.76
California	13.32	12.41	9.90	10.10	7.63	9.27	8.07	6.38
Colorado	7.16	4.99	3.56	4.27	4.49	5.36	4.05	4.89
Connecticut	12.00	16.08	10.35	8.19	3.92	5.23	5.03	4.72
Delaware	5.97	9.53	10.51	9.86	7.54	10.33	10.48	9.03
Florida	7.57	5.34	4.23	5.11	6.38	5.99	5.91	6.04
Georgia	8.35	8.50	5.82	6.99	4.81	5.23	4.19	4.57
Hawaii	4.85	2.93	4.41	2.13	1.72	3.01	1.40	1.56
Idaho	9.48	5.73	4.96	8.22	5.55	6.31	5.22	4.49
Illinois	11.40	8.77	7.08	9.26	9.58	8.56	9.08	8.66
Indiana	5.51	4.12	5.02	10.60	8.16	7.66	4.53	5.88
Iowa	7.40	5.64	5.86	4.57	3.23	4.66	3.42	3.94
Kansas	10.80	8.18	7.62	6.41	4.75	6.08	3.63	4.86
Kentucky	6.80	7.26	6.33	4.39	4.60	10.31	5.06	5.15
Louisiana	9.51	7.27	7.58	6.68	4.07	5.19	2.22	1.84
Maine	5.81	4.71	4.88	3.75	3.61	5.22	5.69	3.33
Maryland	5.29	5.36	3.99	4.05	4.65	5.82	4.82	5.40
Massachusetts	12.36	14.03	7.43	9.86	7.03	9.57	8.74	8.55
Michigan	15.28	15.56	14.35	11.71	9.44	7.95	3.06	3.27
Minnesota	9.83	7.50	6.50	6.86	5.41	6.18	5.30	6.02
Mississippi	4.57	5.07	5.68	5.23	4.44	5.29	5.31	6.05
Missouri	5.99	4.83	4.50	5.90	2.67	3.38	3.20	2.68
Montana	11.38	9.49	8.66	6.26	6.93	7.23	5.38	4.53
Nebraska	6.73	4.87	4.64	5.35	4.54	6.62	3.74	6.01
Nevada	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

TABLE 1 continued: State Taxes on Net Corporate Income as Percent of All State Taxes: Selected Fiscal Years 1981 to 2016

State	1981	1986	1991	1996	2001	2006	2011	2016
New Hampshire	21.34	20.45	19.56	21.46	19.96	26.08	23.03	26.50
New Jersey	11.43	11.42	8.85	8.03	6.76	9.55	8.15	7.07
New Mexico	4.54	4.93	2.35	5.34	4.76	7.38	4.66	2.09
New York	10.96	8.36	7.17	7.99	7.13	7.00	5.91	5.14
North Carolina	8.16	9.18	6.37	7.90	4.64	6.35	4.88	4.07
North Dakota	9.11	9.14	6.74	7.54	5.44	7.41	5.43	2.78
Ohio	9.36	5.27	5.45	5.16	3.38	4.35	0.95	0.12
Oklahoma	5.77	3.62	3.56	3.55	2.64	3.89	4.55	3.86
Oregon	9.67	8.37	4.92	6.91	5.48	5.77	5.84	5.52
Pennsylvania	10.82	9.02	7.77	8.22	6.16	7.29	6.11	6.57
Rhode Island	8.28	7.64	3.66	5.60	3.47	6.20	4.81	4.42
South Carolina	8.36	6.45	3.85	4.91	2.99	3.82	2.80	4.61
South Dakota	1.24	5.85	7.30	5.22	4.44	5.20	1.10	1.87
Tennessee	9.96	8.21	8.02	8.64	8.37	8.71	9.38	11.49
Texas	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Utah	4.79	4.87	4.43	6.09	4.00	6.37	4.49	4.71
Vermont	7.79	6.11	4.00	5.33	2.87	3.58	3.91	3.19
Virginia	6.02	5.79	4.16	4.08	2.78	4.99	4.58	3.55
Washington	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
West Virginia	2.52	4.81	8.21	8.51	6.26	11.72	5.90	2.82
Wisconsin	7.04	7.42	6.28	6.48	4.21	5.86	5.54	5.60
Wyoming	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Median	7.49	6.15	5.57	6.22	4.62	6.13	4.78	4.59

Source: U.S. Bureau of the Census

Figure 2: State/Local Corporate Tax Revenues as Percent of State/Local Taxes Initially Imposed on Business and as Percent of All State/Local Tax Revenues: Selected Fiscal Years 1980 to 2015



Source: Ernst & Young Quantitative and Statistical Practices and Council on State Taxation



Figure 3: State/Local Taxes Initially Imposed on Business: Fiscal Years 2000-2015

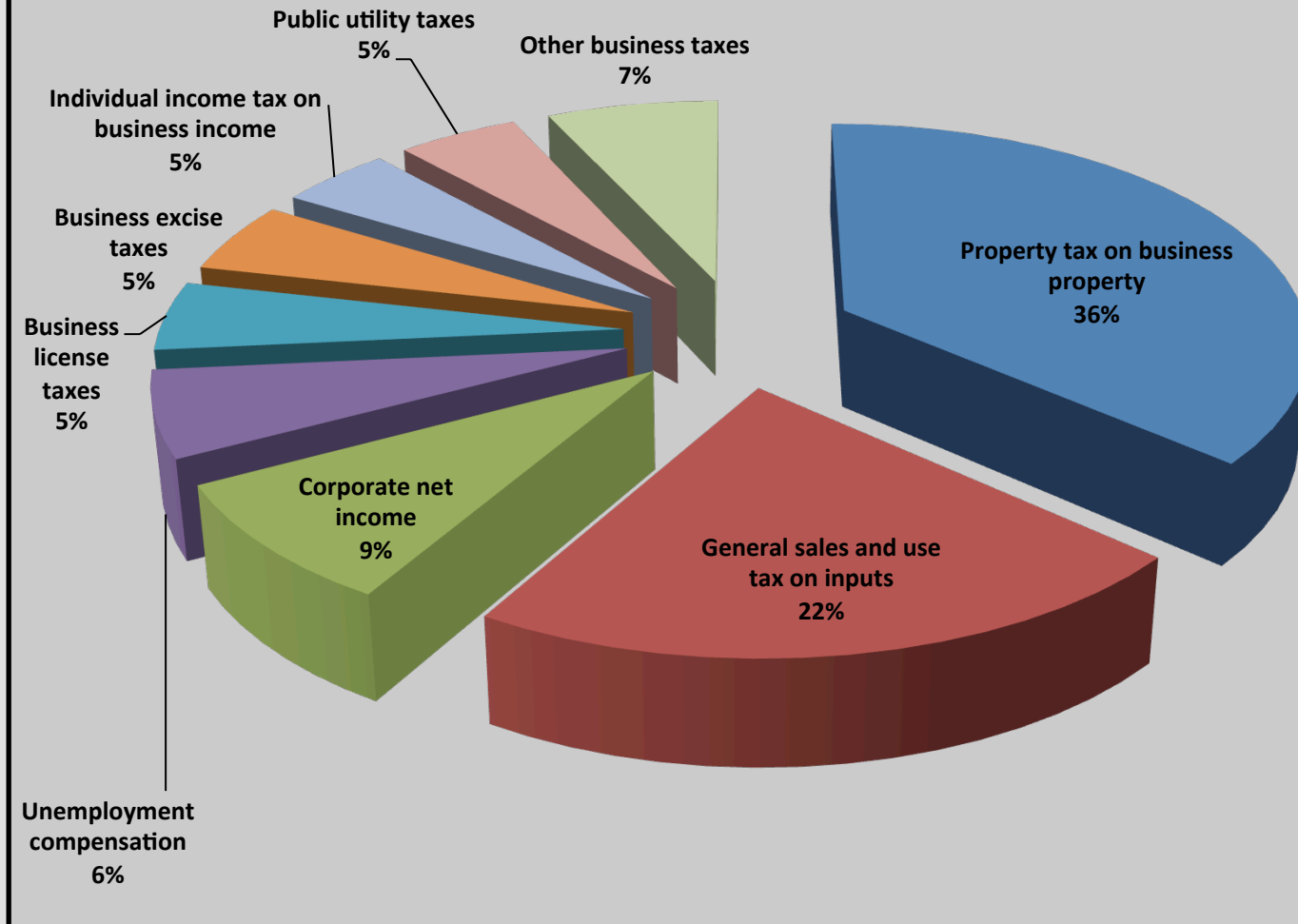
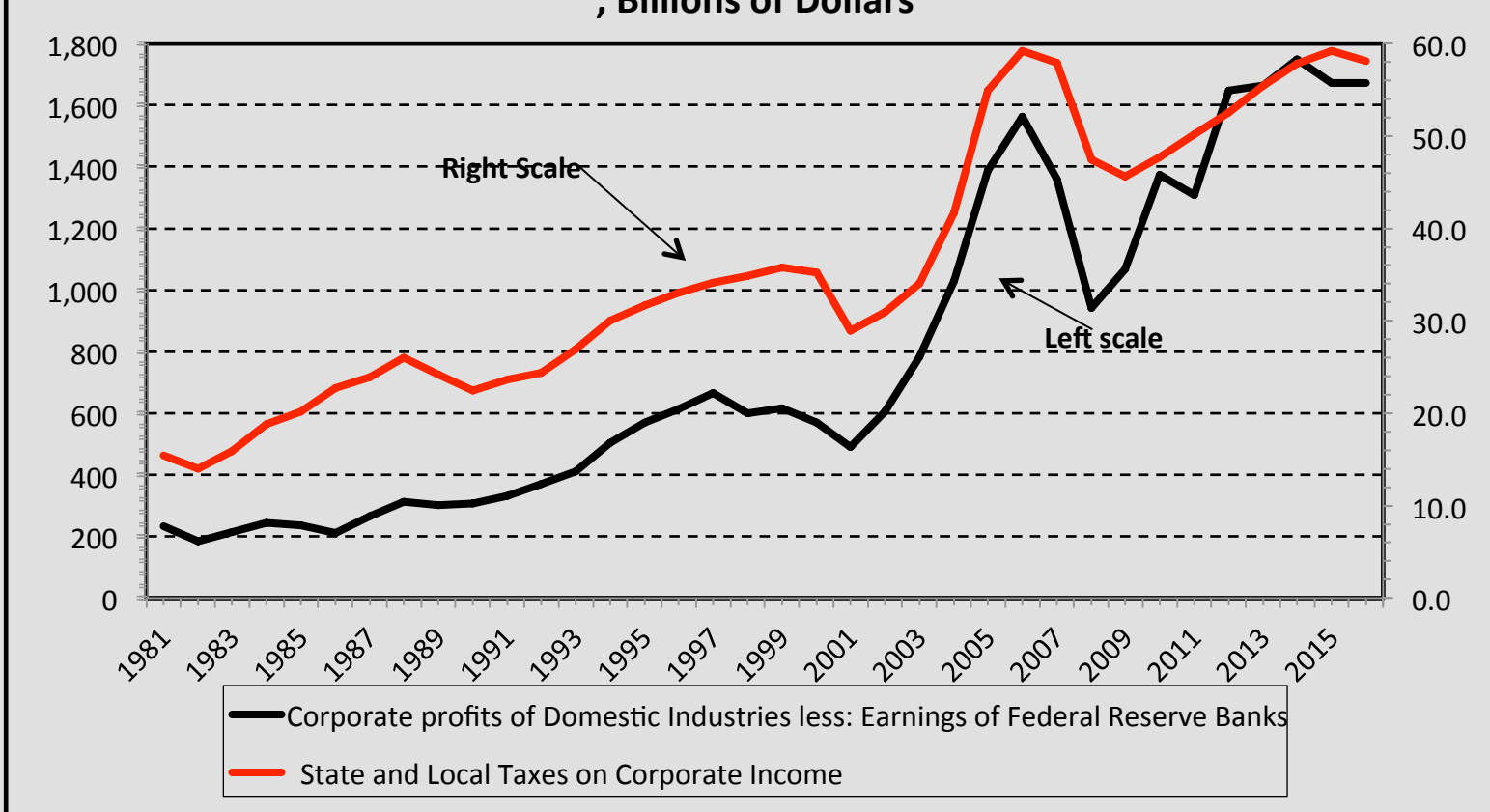
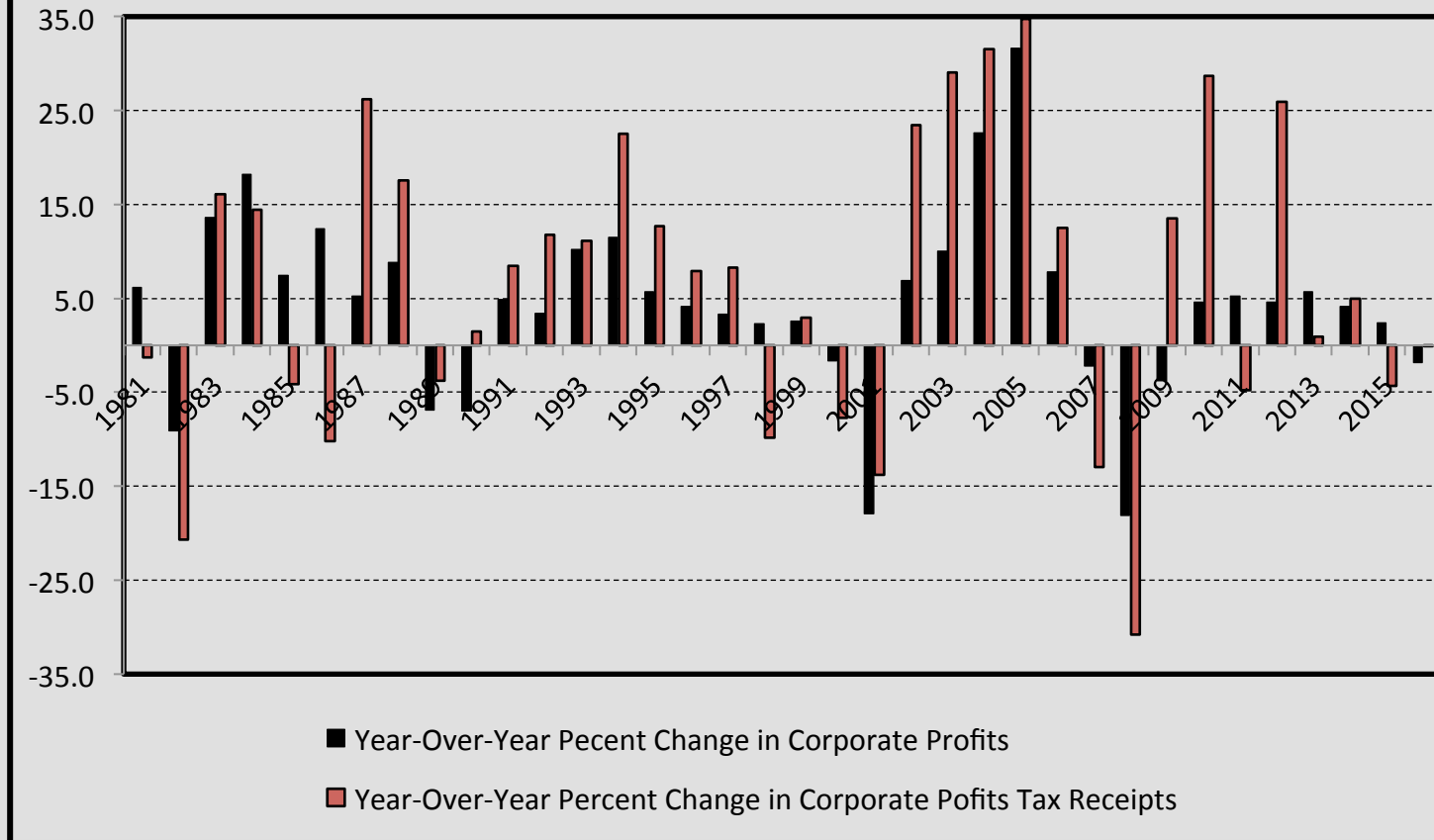


Figure 4: Corporate Profits Before Tax of Domestic Industries and State and Local Taxes on Corporate Income: 1981 to 2016
, Billions of Dollars



Source: U.S. Bureau of Economic Analysis FTA Revenue Estimating and Research
 Conference September 26, 2017

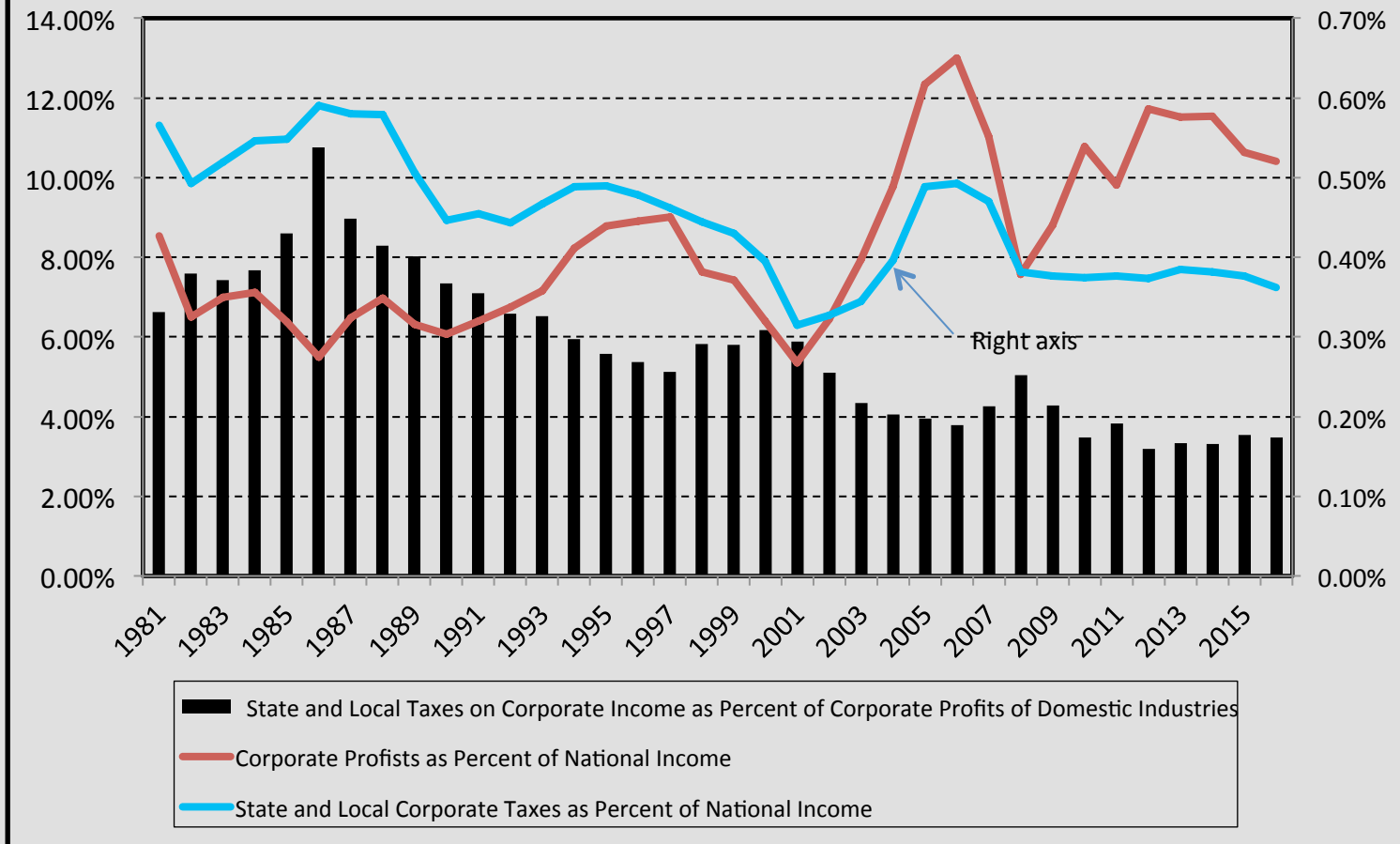
Figure 5: Year-Over-Year Percentage Change in Corporate Profits and State/Local Corporate Profits Tax Receipts, 1981 to 2016



Source: U.S. Bureau of Economic Analysis

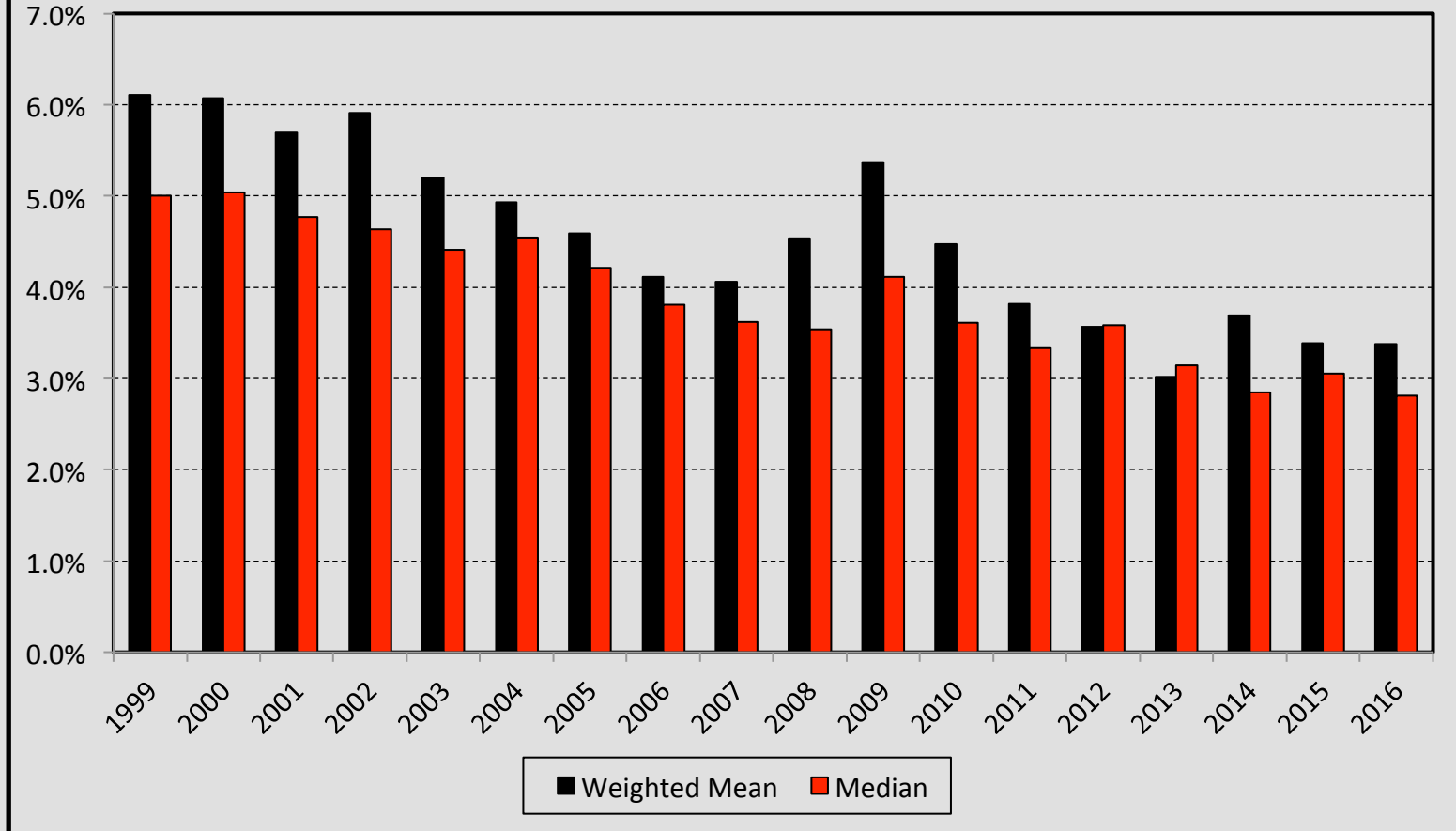
FTA Revenue Estimating and Research
Conference September 26, 2017

Figure 6: State and Local Taxes on Corporate Income as Percent of National Income and as a Percent of Corporate Profits of Domestic Industries; and, Corporate Profits of Domestic Industries as Percent of National Income: 1981 to 2016



Source: Bureau of Economic Analysis and Multistate Tax Commission

Figure 7: State Corporate Income Tax as Percent of Apportioned Corporate Profits, by State, Fiscal Years 1999 to 2016



Source: U.S. Bureau of the Census, U.S. Bureau of Economic Analysis, and Multistate Tax Commission

TABLE 2: State Corporate Income Tax Revenues as Percent of Apportioned Corporate Profits

STATE	Tax Effort					
	1999-2001	2002-2004	2005-2007	2008-2010	2011-2013	2014-2016
United States	6.27%	5.61%	4.40%	4.98%	4.03%	3.36%
Alabama	3.01	4.30	3.21	3.37	2.14	2.13
Alaska	27.51	19.50	21.12	26.61	17.99	5.97
Arizona	6.03	4.64	4.54	3.07	2.65	2.23
Arkansas	4.88	4.83	3.76	4.19	3.59	3.50
California	9.19	9.31	6.59	6.78	4.42	3.94
Colorado	3.53	2.24	1.97	1.99	2.10	2.22
Connecticut	4.19	2.63	3.13	2.79	2.79	2.86
Delaware	3.89	3.02	2.36	5.49	6.32	6.23
District of Columbia	16.43	9.91	9.44	6.62	6.59	4.66
Florida	5.32	4.76	4.04	3.49	3.02	2.68
Georgia	4.18	3.09	2.35	2.41	1.73	2.08
Hawaii	3.86	2.73	3.61	2.23	1.96	1.60
Idaho	5.98	4.68	4.28	3.39	3.61	3.14
Illinois	7.33	4.62	4.09	3.92	5.61	5.13
Indiana	6.73	6.22	3.58	3.42	2.37	2.67
Iowa	2.54	1.26	1.58	2.29	2.44	2.35
Kansas	4.66	2.79	3.28	4.14	2.42	2.50
Kentucky	4.32	5.40	5.80	4.27	4.21	3.49
Louisiana	3.24	3.00	2.59	3.47	1.16	1.27
Maine	6.58	4.93	4.16	4.31	4.22	3.03
Maryland	4.58	4.22	3.83	3.76	2.87	3.39
Massachusetts	7.67	6.42	4.83	6.37	4.70	4.92
Michigan	10.11	9.16	4.04	3.38	2.03	2.12
Minnesota	5.90	4.40	3.84	4.01	4.05	4.49
Mississippi	5.81	7.39	4.25	4.62	4.41	4.71
Missouri	2.12	2.08	1.35	1.76	1.63	2.32
Montana	8.67	5.25	5.76	5.52	4.44	3.34
Nebraska	3.81	3.83	2.98	2.90	2.31	2.84
Nevada	0.00	0.00	0.00	0.00	0.00	0.00

TABLE 2 (continued) : State Corporate Income Tax Revenues as Percent of Apportioned Corporate Profits

STATE	Tax Effort					
	1999-01	2002-04	2005-07	2008-10	2011-13	2014-16
United States	6.27%	5.61%	4.40%	4.98%	4.03%	3.36%
New Hampshire	11.68	15.83	10.11	10.86	8.56	8.24
New Jersey	5.97	7.61	5.31	6.64	4.47	4.54
New Mexico	7.33	4.74	6.29	4.24	4.14	2.38
New York	9.30	6.35	7.52	12.05	9.86	3.60
North Carolina	5.76	5.31	4.13	3.59	2.90	2.70
North Dakota	7.32	5.04	4.74	5.55	5.22	2.83
Ohio	2.68	3.80	2.40	1.47	1.67	2.89
Oklahoma	3.34	2.51	2.77	2.61	3.21	1.96
Oregon	5.47	4.17	3.50	2.84	2.33	2.70
Pennsylvania	5.76	5.00	3.61	4.81	3.99	3.51
Rhode Island	3.86	2.86	3.90	3.57	3.08	2.86
South Carolina	3.13	2.87	2.02	1.82	1.72	1.98
South Dakota	3.76	3.52	2.38	1.97	1.05	0.48
Tennessee	5.60	6.06	4.22	4.58	4.41	4.47
Texas	4.23	3.93	2.42	4.37	3.41	2.81
Utah	4.41	3.63	3.68	3.39	2.38	2.33
Vermont	3.97	4.63	3.50	4.31	4.05	3.55
Virginia	3.32	2.66	2.63	2.54	2.15	1.80
Washington	16.65	18.44	9.45	10.17	9.03	7.74
West Virginia	9.55	8.49	9.05	8.05	4.11	2.48
Wisconsin	4.54	4.78	3.27	3.83	3.45	3.34
Wyoming	0.00	0.00	0.00	0.00	0.00	0.00
MEDIAN	4.88	4.63	3.76	3.76	3.21	2.84

Source: U.S. Bureau of the Census and Bureau of Economic Analysis.

Possible Causes of Decline in State Corporate Income Taxes

- **Changes in Federal tax base:**
 1. States use **Federal** definition of net income and then make statutory adjustments
 2. Federal changes to base; e.g., “bonus depreciation”, liberalization of expensing, QPAI all acted to reduce tax base
 3. Many states have “decoupled” their tax code from IRS code regarding these provisions.
- **Growth of Multinational Enterprises (MNE’s)**
 1. Dyreng, Hanlon, Maydew, and Thornock could not find differences in decline in Cash Effective Tax Rate (CETR) between MNE’s and large domestic firms.
 2. Decline in foreign *statutory* tax rates partially explains decline in rate for MNE’s.

Possible Causes of Decline in State Corporate Income Taxes, continued

- **State Policies Negatively Affecting Tax Rates**

1. *Recognition of “Pass-Through” Entities:* Profits of “pass-throughs” recognized as corporate profits but no corporate tax liability – taxed at shareholder level only. Fox/Luna posit significant impact on state corporate tax revenues.
- *Increasing Weight of Sales Factor in Apportionment Formula:* Apportionment formula used as an economic development policy rather than revenue raising policy.
 - *Generalized Tax Credits:* Mostly for investment and job creation, but increasing use of credits for other purposes -- environmental purposes, creation of infrastructure, etc. Frequently, these are refundable credits.
 - *Specific Credits:* To specific industries (film) or to firms (Amazon).

State Policies That Positively Affect Corporate Tax Rate

- *Adoption of Combined Reporting*: States that have adopted combined reporting in recent years – Vermont, New York, Massachusetts, West Virginia, Michigan, Wisconsin, Texas. Reduces ability to shift income to low tax jurisdictions.
- *Examining Tax Code and General Tax Reform*: Eliminates ineffective credits and deductions {film production credits have been reduced or eliminated in some states –MD}
- *Decoupling from Federal Tax Base*: QPAI, expensing, and “bonus depreciation.”
- *Raise Tax Rates*: National Association of State Budget Officers – cumulative tax increases since 1990 -- \$3.3 billion

General Apportionment Formula

$$\Pi_{ijt} = \Pi_{it} \bullet \{ \alpha_{jt} (S_{ijt}/S_{it}) + \beta_{it} (L_{ijt}/L_{it}) + \gamma_{it} (P_{ijt}/P_{it}) \}$$

Where:

Π_{ijt} are the profits of industry sector (i) in state (j) at time (t)

Π_{it} is the profits of industry sector (i) at time (t)

α_{jt} is the weight of apportionment factor for sales in state (j) at time (t)

S_{ijt}/S_{it} is the ratio of the sales of industry sector (i) in state (j) at time (t) to total sales of industry sector (i) at time (t)

β_{it} is the weight of the apportionment factor for payroll in state (j) at time (t)

L_{ijt}/L_{it} is the ratio of the payroll of industry sector (i) in state (j) at time (t) to total payroll of industry sector (i) at time (t)

γ_{it} is the weight of the apportionment factor for property in state (j) at time (t)

P_{ijt}/P_{it} is the ratio of the property of industry sector (i) in state (j) at time (t) to the total property of industry sector (i) at time (t)

$$\alpha_{jt} + \beta_{it} + \gamma_{it} = 1$$

However, since we do not have data on the property factor by state, the apportionment formula used here is:

$$\Pi_{ijt} = \Pi_{it} \bullet \{ \alpha_{jt} (S_{ijt}/S_{it}) + (1 - \alpha_{jt}) (L_{ijt}/L_{it}) \}$$

Derivation of Sales by Industry by State, 1999 through 2016

Estimates of sales by industry by state on a destination basis were derived using a method very similar to the ACIR method found in the September 1993 publication cited previously. As shown below, a proxy for sales by destination was derived through use of Gross State Product by industry by state and annual national input-output tables for 1999-2016 according to the following procedure:

Let:

Tab_{1,c} = the percentage of the dollar value of industry i's output that is commodity c. The distribution of commodity outputs is based on the "Make of Commodities" table (Table 1) in the US input-output tables.

Tab_{2,c,j} = the percentage of the total dollar value of commodity c used as an input in industry j. Where c is not used as an intermediate input, but is purchased by all final users, Gross Domestic Product (GDP) of each state constitutes a 15th industry. The distribution of commodities to industries is based on the "Use of Commodities" table (Table 2) in the US input-output tables.

Then:

Where $A_{i,j} = \sum_{c=1}^{14} \sum_{i=1}^{14} (\text{Tab}_{1,c} * \text{Tab}_{2,c,j})$ the percentage of industry i's output purchased by industry j.

When j is GDP, **A_{i,j}** is the amount of industry i's output that is sold as final goods.

Now let:

GDP_{j,s} = the percentage of industry j's Gross Domestic Product located in state s. Where industry j is final use expenditures, the cell value represents that state's share of total sales.

Then:

$\text{Sales}_{i,s} = \sum_{j=1}^{14} (A_{i,j} * \text{GDP}_{j,s})$

Where **Sales_{i,s}** = the share of industry i's output sold in each state s.

Thus, **Sales_{i,s}** is used as a proxy for the sales-by-destination factor in the three-factor formula.