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AN EVALUATION OF CONNECTICUT'S CORPORATE INCOME TAX

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Executive Summary

Connecticut has one of the highest corporate income tax rates in the region at 9 percent including the temporary surcharge. Despite the surcharge and limits on the extent to which credits can offset income taxes due (currently limited to 50.01 percent of pre-credit tax liability), corporate income tax collections dropped by more than $125 million between 2006 and 2012. The tax is a small contributor to the overall finances of the state.

We were engaged to evaluate the existing corporate income tax in Connecticut, compare and contrast it with both its neighbors and with national trends, and to suggest possible steps that will both stabilize corporate tax revenues and enable long-term economic growth. Below is a summary of the current system, how it compares to the tax regimes in nearby competing states, and our findings and suggestions for reform.

Findings: The Current Regime

Connecticut levies an income tax on C Corporations, but does not levy an entity-level tax on pass-through entities such as S Corporations, LLCs, LLPs, partnerships, etc. If a firm's tax liability under the income tax is zero, the alternative capital base or minimum tax will apply. In 2012, 41,290 corporate taxpayers filed returns compared to 44,277 in 2003. In 2012, approximately 97 percent of corporate taxpayers (40,290 firms) filed single entity returns, with the remainder filing combined (998) or unitary (232) returns. Connecticut uses a broad nexus standard that asserts taxing authority on corporations with at least $500,000 in sales in the state, whether or not the corporation has property or payroll in the state. For most corporations, including manufacturers and any business selling tangible or intangible goods, income is apportioned to Connecticut using a single factor sales formula, and most other entities apportion income using a three-factor formula of property, payroll and double weighted sales. A small number of sectors confront unique apportionment rules. Sales of services are sourced to Connecticut when the services are performed in Connecticut, and are not based where the customer resides. Connecticut levies a preference tax on taxpayers who file combined returns. Businesses subtract the combined tax liability of businesses filing as separate entities from the tax liability of the combined group and pay the difference, up to a maximum limit, as a preference tax. For tax years beginning on or after January 1, 2016, Connecticut will have mandatory combined reporting for entities that are part of a unitary business. Connecticut requires addbacks of intercompany party interest and intangible expenses.

The Connecticut corporate tax regime is complex but in many respects similar to the structures in other states in the northeast region. Tax rates in the region range from 7.1 percent in New York and 7.0 percent in Rhode Island (roughly comparable to the Connecticut rate of 7.5 percent without the surcharge) to 10 percent in Pennsylvania. One notable difference is that several states in the region (e.g. Pennsylvania, New York, Delaware, Maine, Massachusetts and Rhode Island) source services based on the location of the customer, instead of where the services are performed. This market-based sourcing method if adopted in Connecticut would exclude from Connecticut tax any exported services and will tend to decrease the income tax burden of in-state firms providing services in other states. Market-based sourcing will levy a destination tax on services consumed in Connecticut but produced in other states.

Findings: Tax Credits

Tax credits are a significant element of the Connecticut corporate tax structure. They lead to revenue erosion, add complexity to the system and policy changes lead to instability and uncertainty in business tax liabilities. Business taxpayers claimed approximately $150 million in tax credits in 2012, a significant increase from the $93 million claimed in 2003. More significant, Connecticut taxpayers are carrying forward an estimated $2.5 billion in tax credits, almost four times the total net corporate income tax receipts in 2014. To stem the magnitude of lost revenue, the state passed legislation in the summer of 2015 that limits tax credits for years beginning on or after January 1, 2015 to 50.01 percent (down from 70 percent) of pre-credit tax liability. Furthermore, while the number of taxpayers claiming tax credits has declined by about 50 percent from 2003 through 2012, the value per credit increased by 225 percent during the same period to approximately $42,000 per credit and $151 million in total credits claimed in 2012. Elimination of all credits in 2012 would have supported rate reduction of 1.9 percentage points. The annual use of credits and the large overhang of credit carryforwards will put downward pressure on corporate income tax collections for the foreseeable future.

Findings: Revenue Performance

Connecticut is ranked 19th nationally in total corporate income tax collections which is broadly consistent with its GDP ranking of 23rd in the country. Compared to the northeast region, Connecticut collects less per person and relies on corporate income taxes for a smaller share of total revenues than its nearby competing states. Also consistent with most corporate income tax systems, the tax is highly volatile and more volatile than other revenue sources, with collections booming in economic expansion, peaking most recently at approximately $900 million in 2007, but then plummeting to less than $450 million in 2009. Furthermore, revenues have been flat or declining on a long-term basis despite a number of piecemeal fixes in recent years, such as restricting the use of credits, introduction of the surtax in 2003, an increase in

the maximum preference tax for combined returns in 2003, and the introduction of economic nexus for corporate filers in 2009. These measures have helped stem losses from the corporate income tax but indicate a growing and long-term problem with the corporate income tax as a stable and dependable source of revenue for Connecticut. Corporate income tax collections were only 3.9 percent of overall state tax collections in 2014 and would have been far less without the special provisions mentioned previously that have enhanced yield. For neighboring states, corporate tax collections represent larger shares of total tax revenue, and range from approximately 6.3 percent of total collections in New York to around 9 percent for Delaware and Massachusetts.

Policy Recommendations: Existing Corporate Income Tax

The corporate income tax system is intended to be a benefit tax and raise revenue to compensate for service demands imposed on the state. However, it must also be neutral if not competitive with the tax systems in other states for economic development purposes. With these competing goals in mind, below are suggested policy changes that will simplify the system, potentially broaden the base and therefore allow for lower rates, and partially address declining corporate income tax receipts without harming the business environment in Connecticut. We discuss the following policy recommendations in greater detail in the report.

1. Eliminate the capital base tax system. The requirement to calculate tax liabilities under two systems (the net income and capital base methods) and pay the higher of the two leads to higher administrative and compliance costs and creates taxpayer uncertainty regarding tax liabilities. Any revenue losses could be made up by raising the rate and/or placing limits on the future issuance of credits; base broadening would be a superior solution.

2. Implement a low-rate franchise (capital base) for all taxpayers. A franchise tax would add some stability to the business tax system portfolio and ensure that all taxpayers paid something in tax. However, these are unpopular taxes and some states have chosen to eliminate their franchise tax. In addition, it would sustain an additional tax instrument.

3. Clarify the corporate tax rate via elimination of the corporate surtax. The surcharge should be embedded as a statutory rate in the regular corporate income tax rate schedule. This would enhance policy stability, reduce tax-induced distortions and improve the transparency of the system.

4. Eliminate the proliferation of tax credits. The credit system narrows the base, is complicated, and subject to ongoing change which creates tax liability and tax revenue uncertainty. Further, many of the credits are used only by a small number of firms. In some

cases the credits simply reward businesses for decisions that they would have made regardless of the structure of taxation. The state continues to implement tax credits that erode corporate revenue performance while at the same time placing restrictions on their use. Base broadening could be undertaken to support corporate rate reduction.

5. Evaluate whether tax credits are achieving their objective. If tax credits are intended to provide corporate tax relief, then broaden the base by phasing credits out and lower the statutory tax rate. If tax credits are intended to promote economic development, then greater efforts should made to identify policies that can promote economic growth at lower revenue costs to the state.

6. Enact a market-based sourcing rule in lieu of the current cost-of-performance rule for apportionment of the sales factor for service providers. This can minimize distortions through taxation at destination rather than at origin and harmonize sourcing with the treatment of tangible goods.

7. Unitary groups for combined reporting should be as inclusive as possible. Include nontaxable entities such as insurance subsidiaries and foreign subsidiaries in tax havens. This can reduce distortions and opportunities for tax planning.

8. Broaden addback statutes by including management fees. This can reduce opportunities for tax planning.

9. Eliminate the election to report combined reporting on a water's edge, worldwide, or federal affiliated bases. Eliminating elections will reduce administrative and compliance costs.

10. Impose single factor sales apportionment for all taxpayers. This will help realize numerous policy goals including simplicity and neutrality and lower the tax cost on in-state production.

<u>Business Tax Options: Major Structural Reform and Elimination of the Corporate Tax</u>

The states have taken numerous steps in recent years to shore up the corporate income tax, including the introduction of combined reporting. However, due to base erosion and the volatility of the traditional corporate income tax, a number of states have moved to business taxes that tax business activity rather than profits or taxable income. These alternatives are best thought of as options on a continuum with the options varying by the deductions allowable under each system. On one end is the corporate income tax that allows all "ordinary and necessary" expenses as deductions, has a relatively small tax base of profits, and relatively high rates. On the other end is a gross receipts tax that includes all or most business receipts in the tax base and allows for few or no deductions. This results in a larger and more stable base

than the corporate income tax and allows for far lower tax rates (typically less than 1 percent) to raise revenues comparable to the corporate income tax. Between the two extremes are value-added taxes and gross margin taxes that allow for some deductions such as purchases from a third party in the case of a subtraction value-added tax and material and labor typically part of cost of goods sold for some existing gross margin taxes. These exclusions create administrative and compliance costs, enable tax planning and necessitate a higher tax rate. Generally these taxes are levied on all businesses, rather than just corporations.

Any variant of the currently-implemented activity taxes would be a dramatic change in the approach to business taxes and would set Connecticut apart from its competitors in the region. These activity-based taxes have several important advantages over the corporate income tax. The taxes are levied on a much larger base and thus support much lower rates, which reduces distortions including the payoff for many tax planning efforts (since it is more difficult to shift sales than net income); are more stable during expansions and recessions; show stronger base growth over time; and fall on virtually all businesses in the state. However, the disadvantages are that the tax can pyramid as goods move through the supply chain, with a tax potentially levied at each step - raw materials, finished goods, wholesaler, retailer, etc. This advantages vertically integrated firms and may encourage consolidations within a supply chain. The low tax rates would help minimize this distortion. The tax also will comparatively disadvantage high turnover, low profit margin businesses such as discount retail outlets and grocers versus high profit margin businesses such as retailers of luxury goods and many service providers. The presumption is that the tax will be shifted forward and firms in similar sectors will operate on a level playing field. Transitioning to an activity-based tax will pose transitional problems due to the presence of net operating loss carryovers and the large income tax credit carryforwards in Connecticut. These problems have been effectively addressed in other states.

Estimates developed for Connecticut indicate that a revenue neutral gross receipts tax (based on pre-credit corporate tax collections) would have required a 0.22 percent rate in 2012 while an addition VAT would have required a rate of 0.64 percent. The resulting simplifications and the lower rates would enhance the state's attractiveness as a place to do business. The gross receipts tax and VAT bases were more stable and showed stronger growth than corporate tax collections between 2007 and 2012. Stronger base growth would mitigate the need for ongoing structural changes that have been intended to enhance corporate income tax yield.

AN EVALUATION OF CONNECTICUT'S CORPORATE INCOME TAX

The Structure of Connecticut's Corporate Tax System

Forty-four states and the District of Columbia tax corporate net income, each with its own rates and definition of the tax base. Only Nevada, Ohio, South Dakota, Texas, Washington, and Wyoming do not impose broad corporate income taxes. State corporate income tax rates for the top bracket vary from a low of 4.0 percent in Kansas to a high of 12.0 percent in Iowa. The median state imposes a rate of approximately 7 percent. Connecticut's tax is the greater of 7.5 percent tax on net income or 3.1 mills per dollar of capital holding (maximum tax of $1 million). A 20 percent income tax surcharge for 2015 brings the top rate to 9.0 percent for affected companies. The surcharge applies to companies that have more than $250 in corporate tax liability and either (1) have at least $100 million in annual gross income or (2) file combined or unitary returns, regardless of the amount of annual gross income. Recent legislation extended the surcharge two additional years to 2016 and 2017, with a 10 percent surcharge (maximum effective rate of 8.25 percent) being imposed for the 2018 income year. The surcharge will be fully phased out for subsequent years. There is also a $250 minimum tax that applies to corporations. Financial service companies pay a tax equal to the greater of 7.5 percent of net income or $250. Insurance companies are exempt from the income tax but pay a separate tax; insurance company taxation is beyond the scope of this report.

Among neighboring states, corporate income tax rates are higher than Connecticut's 7.5 percent rate in Massachusetts, New Hampshire, Vermont, New Jersey and Pennsylvania, and are slightly lower in New York and Rhode Island (see Figure 1). Connecticut's 7.5 percent rate plus the surcharge places it among the highest tax rate states in the region. Three of Connecticut's neighboring states have higher personal income tax rates (New York, Vermont, and New Jersey) (see Figure 2). Massachusetts, Pennsylvania, and Rhode Island's rates are lower than that of Connecticut, and New Hampshire only imposes the personal income tax on interest and dividends. A recent report that focuses on industry-specific burdens notes that the state has an above average burden that has increased over time.[1]

The Connecticut corporate business tax is imposed on all corporations as a tax on the privilege of exercising a corporate franchise or engaging in corporate activities in Connecticut. Like other states, Connecticut can only levy income tax on businesses with a taxable presence, or *nexus* in the state. Federal law places some limits on the ability of states to subject certain businesses to the income tax. For example, Public Law 86-272 prohibits states from taxing business income when the only connection with the state is the solicitation of sales of tangible

[1] The Tax Foundation and KPMG, *Location Matters: The State Tax Costs of Doing Business*, 2015.

personal property to customers in the state. In the past, most states required some physical connection, such as an office or permanent employees, to assert nexus. However, many states have broadened their nexus standards to assert income taxing authority when the entity has an "economic nexus" and tax corporations with only customers or intangible assets located in the state. Connecticut has adopted a broad nexus standard, and for income years beginning on or after January 1, 2010, a corporation is subject to the Connecticut business tax if it has a substantial economic presence in Connecticut or derives income from sources in the state.[2] Several states, including California, Colorado, Connecticut, Michigan, New York, Ohio, Tennessee, and Washington, have adopted a "bright-line" receipts factor presence standard in which a taxpayer is deemed to establish income tax nexus if the taxpayer's gross receipts from the state exceed an established threshold. Connecticut has partially adopted the Multistate Tax Commission (MTC) model for factor presence nexus standard such that nexus is established if the business has any property or payroll in the state, or $500,000 or more in Connecticut sales even when the business has no other presence in the state.

Connecticut currently allows combined reporting but does not require it. However, for tax years beginning on or after January 1, 2016, Connecticut will have mandatory combined reporting for any company that is part of a unitary business.[3] Partnerships and S Corporations may be considered unitary if they meet certain criteria. The combined group's net income and apportionment factors will be determined on a water's edge basis but include affiliated corporations that are incorporated in a tax haven.[4] However, worldwide and/or federally-defined affiliated group elections are available. Insurance companies remain exempt from the income tax, and it is unclear in the new law whether insurance companies will be included in the group as a non-taxable member. Financial services companies are included with non-financial service company members.

Allowing entities to elect between combined reporting versus affiliate group basis is generally not the preferred policy option as a firm will always choose the method that minimizes its tax burden, creating potential horizontal inequities. Further, allowing such elections increases administration and compliance costs because both the state and businesses must administer two different sets of rules. In the Northeast region, Maine, New Hampshire, Vermont, Massachusetts, New York, and Rhode Island also have mandatory combined reporting. Within the past decade, eight states have adopted combined reporting in an effort to combat tax

[2] Prior to 2010, Connecticut used a physical presence test.

[3] See Fox and Luna (2010) for a detailed discussion of combined reporting. The report was commissioned by the NCSL Task Force on State & Local Taxation of Communications and can be found at http://www.ncsl.org/documents/standcomm/sccomfc/combinedreportingfinaldraft.pdf

[4] It may be difficult to determine which members to include in the combined report as it will be dependent on the listing of tax haven countries, which will be determined by the Connecticut Department of Revenue Services.

planning and limit revenue erosion. Existing research doesn't offer clarity on whether combined reporting will enhance or erode state tax collections.

The starting point for determining Connecticut taxable income is federal net income, and with a few exceptions, the rules conform to the federal law. Additions to federal income include certain payments (interest and intangible costs) to related corporations, section 199 qualified domestic production activities deduction, Connecticut state income or franchise taxes, bonus depreciation, dividends paid by a captive real estate investment trust (REIT), and interest from federal, state, or local government obligations.

Addbacks for related party expenses have been a common approach to combat abusive tax planning. Nearly two dozen states require some type of addback for intercompany expenses. Some combined reporting states also have addback statutes to apply to related party expense paid to a member not in the combined group (i.e., foreign company). Some state statutes are very narrow, requiring only intercompany royalty payments. Others require royalties and intangible interest, while some require royalties and all interest, including intercompany interest. Finally, a few require addback of all intercompany expenses, including management fees. Connecticut requires the addback of related party interest and intangible expenses, unless the corporation can provide convincing evidence that the adjustments are unreasonable and the intercompany transactions were not for tax avoidance purposes.

Most states follow the UDITPA approach to determine business and nonbusiness income, with the former apportioned and the latter allocated to the situs of the corporate headquarters. However, in Connecticut, a corporation's entire net income is subject to apportionment. States vary dramatically in how they apportion corporate income (see Table 1). Connecticut has two main apportionment formulas--the three factor formula with property, payroll, and double-weighted sales and the single-factor sales formula. Apportionment formulas that place extra weight on the sales factor are intended to promote economic development by reducing tax liabilities related to in-state property and payroll. The single sales formula applies to manufacturers, businesses who derive income from the sale or use of tangible personal or real property, broadcasters and production firms, brokerage services, and credit card activities. For both methods, sales are sourced using the destination method and are sourced to Connecticut if delivered to an in-state purchaser. Under the new combined reporting rules, each member of the combined group will calculate its own apportionment based on the formula applicable to that member. Pass through entities use the traditional three factor formula, but each factor is single weighted instead of double weighting of sales as with corporate taxpayers.

With the exception of Delaware, all states in the northeast and mid-Atlantic regions have moved away from the traditional 3-factor equal weighting formula (see Figure 3). Only

Vermont, New Hampshire and Massachusetts double weight sales; all other states in the region use a single sales factor formula. Connecticut should consider harmonizing the apportionment rules so a single set of rules applies to all business taxpayers regardless of form or line of business. In-state businesses with significant sales outside the state favor single factor formulas because the method disregards their in-state property and payroll, and will generally result in lower overall income apportioned to Connecticut. However, the single factor formula will tend to increase apportioned income for out of state businesses selling into Connecticut. Multiple apportionment formulas increase tax complexity and thus administrative and compliance costs and may affect the relative attractiveness of different organizational forms.

Connecticut sources multistate service revenue using the traditional cost of performance rules, so services performed in Connecticut are sourced to Connecticut, regardless of location of the customer. However, as the U.S. has evolved into a service-based economy, many states are moving away from these rules and are adopting market-based sourcing for multistate service revenue. Fox and Yang (2015) show that this can increase tax revenues. Cost of performance is often criticized for being too difficult to determine, for penalizing in-state companies (i.e., origin taxation), and unfair when using an all or nothing approach. Market-based sourcing seeks to assign revenue based on the location of either the service provider's customers or where the customers receive benefit from the service provided, yielding destination-based taxation. The cost of performance rule is looked at as an all or nothing type rule because the majority state gets assigned all of the revenue. Under market-based sourcing, the destination of the service revenue is important, not where the revenue is earned. Market-based sourcing allows states to tax out-of-state service providers with customers within the respective state. States lose revenues from in-state companies due to lower sales factor apportionment but generate more revenues from out-of-state firms performing services.

While destination taxation is generally preferred, the term "market" can vary substantially across the states, and the location of the benefit can be difficult to determine, particularly if the service is not site specific (e.g., management consulting, accounting services, custom software). This problem also exists in the sales tax arena, and it is common for sellers of software or information services to ask customers to specify where the service will be used. Reliance on customers' information will lead to inconsistencies. For example, one customer may think the benefit is received at the company headquarters while another may think the benefit is received in all jurisdictions where the company has operations. More guidance from states using market-based sourcing is needed.

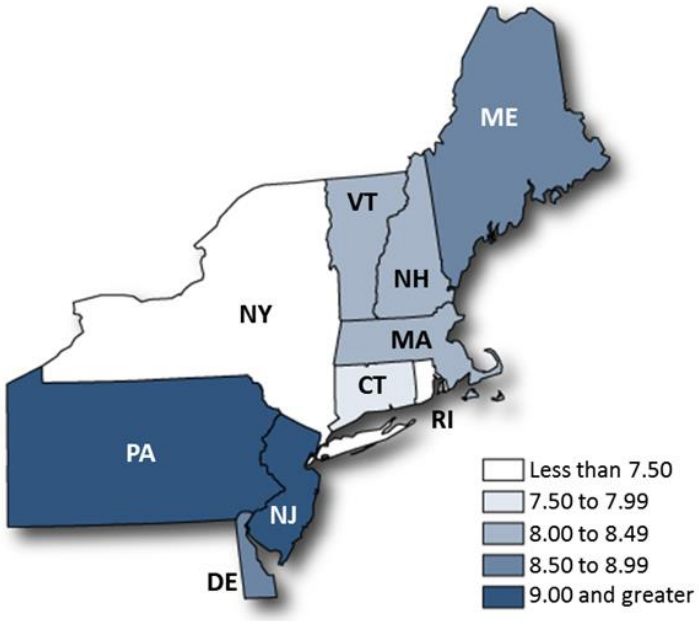
Most of Connecticut's neighbors have moved to market-based sourcing for services; New Jersey, Vermont, New Hampshire continue to use cost of performance (see Figure 4). States

also have special rules for sourcing royalties from holding companies and software services. The combination of cost of performance rules in one state and market-based sourcing in another state can lead to "nowhere" income or double taxed income. For example, Connecticut firms providing services to a state with market based sourcing (State M) may be taxed under Connecticut's cost of performance standards, and in the destination state under market based sourcing rules. Alternatively, a service provider located in State M providing services to Connecticut businesses may avoid income tax on the entire amount of the services provided (nowhere income).

An important feature of the state corporate income tax in Connecticut is the presence of a variety of non-refundable credits that businesses may use to offset their corporate tax liability. Connecticut is certainly not unique in its use of credits, but its scope of use is higher than other states, at least in terms of the number of credits offered through the corporate income tax code. To provide perspective, Table 2 shows the total number of refundable and nonrefundable corporate income tax credits in 2014 for those states with the traditional corporate income tax structure. These data show Connecticut having 30 credits compared to an average of just over 25 across all states. The only state in the region with more credits embedded in the corporate income tax is New York with 54. What these data do not reveal is how extensively the states actually employ the various credits and their consequences for foregone revenue. We discuss credits in more detail below.

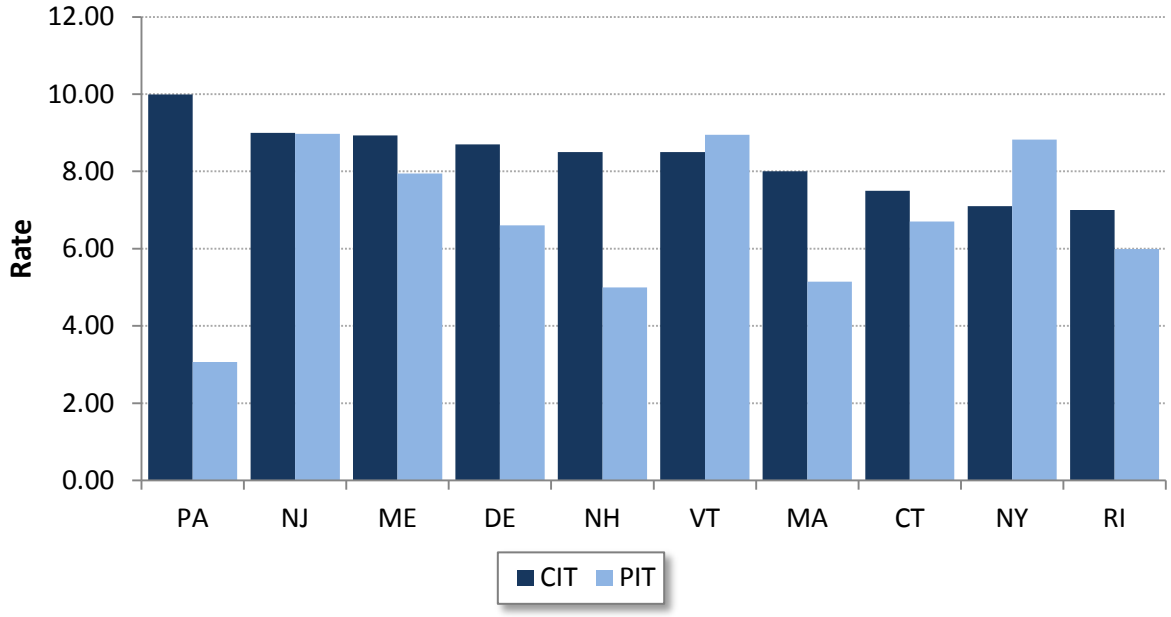
Recent legislation will impose limits on net operating loss (NOL) carryforwards and tax credits. Beginning with the 2015 tax year, the amount of the NOL deduction will be limited to 50 percent of Connecticut net income. An alternative limit is available for corporations that are part of a combined group with over $6 billion in unused NOLS from tax years prior to 2013. Tax credits used to reduce corporate tax liability will be limited to 50.01 percent (currently 70 percent) of the amount of tax due in any income year prior to the application of credits.

FIGURE 1: Northeastern State Corporate Income Tax Rates, January 1, 2015



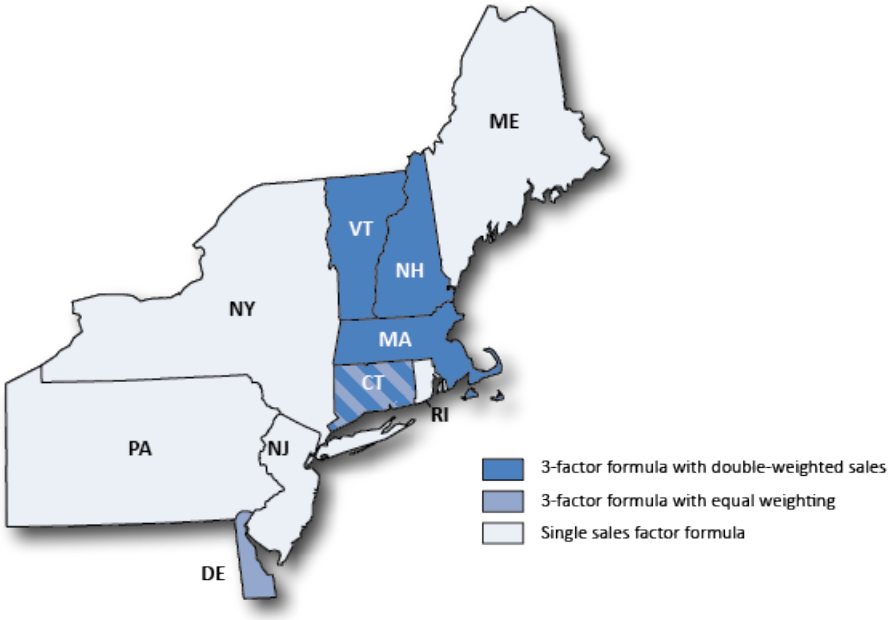
Source: RIA Checkpoint

FIGURE 2: Corporate and Personal Income Tax Rates for Neighboring States, January 1, 2015



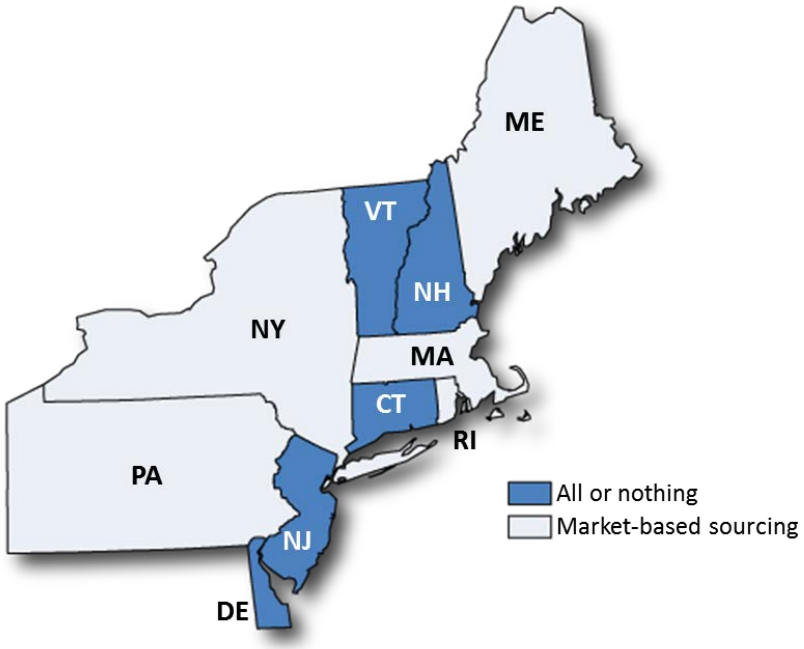
Source: The Federation of Tax Administrators from various sources. Does not include 20 percent Connecticut corporate surcharge which yields a 9.0 percent total rate for 2015.

FIGURE 3: Northeastern States with a Single Sales Factor



Source: RIA Checkpoint

FIGURE 4: Northeastern States that Source Service Revenue Using A Market-Based Approach



Source: RIA Checkpoint

TABLE 1: State Apportionment of Corporate Income as of January 1, 2015

State	Formula		State	Formula	
Alabama *	Double wtd Sales		Montana *	3-Factor	
Alaska*	3-Factor		Nebraska	Sales	
Arizona *	Double wtd Sales/90percent Sales, 5percent Property & 5percent Payroll		Nevada	No State Income Tax	
			New Hampshire	Double wtd Sales	
Arkansas *	Double wtd Sales		New Jersey	Sales	
California *	Sales		New Mexico *	3 /Triple wtd Sales	b
Colorado *	Sales		New York	Sales	
Connecticut	Double wtd Sales/Sales		North Carolina *	Double wtd Sales	
Delaware	3-Factor		North Dakota *	3-Factor	
Florida	Double wtd Sales		Ohio	n.a.	c
Georgia	Sales		Oklahoma	3-Factor	
Hawaii *	3-Factor		Oregon	Sales	
Idaho *	Double wtd Sales		Pennsylvania	Sales	
Illinois *	Sales		Rhode Island	Sales	
Indiana	Sales		South Carolina	Sales	
Iowa	Sales		South Dakota	No State Income Tax	
Kansas *	3-Factor		Tennessee	Double wtd Sales	
Kentucky *	Double wtd Sales		Texas	Sales	
Louisiana	3-Factor		Utah	Sales	
Maine *	Sales		Vermont	Double wtd Sales	
Maryland	Sales/Double wtd Sales		Virginia	Double wtd Sales/Sales	
Massachusetts	Sales/Double wtd Sales		Washington	No State Income Tax	
Michigan	Sales		West Virginia *	Double wtd Sales	
Minnesota	Sales		Wisconsin *	Sales	
Mississippi	Sales/Other	a	Wyoming	No State Income Tax	
Missouri *	3-Factor		Dist. Of Columbia	Sales	

Source: Compiled by Federation of Tax Administrators from state sources.

Notes:
The formulas listed are for general manufacturing businesses. Some industries have a special formula different from the one shown.
* State has adopted substantial portions of the UDITPA Uniform Division of Income Tax Purposes Act).
Slash (/) separating two formulas indicates taxpayer option or specified by state rules.
3-Factor = sales, property, and payroll equally weighted.
Double wtd Sales = 3 factors with sales double-weighted
Sales = single sales factor

1. Mississippi provides different apportionment formulas based on specific type of business. A single sales factor formula is required if no specific business formula is specified.
2. New Mexico is phasing in a single sales factor for manufacture business through 1/1/2018.
3. Ohio Tax Department publishes specific rules for situs of receipts under the CAT tax.

TABLE 2: Refundable and Nonrefundable Corporate Tax Credits: 2014

State	Number	State	Number	
Alabama	14	Nevada	n.a.	
Alaska	7	New Hampshire	8	*
Arizona	25	New Jersey	19	
Arkansas	44	New Mexico	19	
California	18	New York	54	
Colorado	18	North Carolina	48	
Connecticut	30	North Dakota	26	
Delaware	9	Ohio	n.a.	
Florida	22	Oklahoma	44	
Georgia	32	Oregon	36	
Hawaii	21	Pennsylvania	14	
Idaho	14	Rhode Island	14	
Illinois	21	South Carolina	57	
Indiana	40	South Dakota	n.a.	
Iowa	33	Tennessee	8	
Kansas	32	Texas	n.a.	
Kentucky	24	Utah	19	
Louisiana	58	Vermont	13	
Maine	18	Virginia	29	
Maryland	30	Washington	n.a.	
Massachusetts	18	West Virginia	27	
Michigan	1	Wisconsin	17	
Minnesota	6	Wyoming	n.a.	
Mississippi	29			
Missouri	60	**Average for**		
Montana	22	**states with**		
Nebraska	11	**CIT**	**25.2**	

Source: *Corporate Tax Incentives: Charting State Tax Credits*, Larry R. Garrison and Heather Evanoff, Journal of Multistate Taxation and Incentives 24(2014).

n.a. not applicable

*Business Profits Tax Credits only. Six credits under Business Enterprise Tax have direct counterparts under Profits Tax.

Note: Generally includes franchise and excise tax credits.

Corporate Income Tax Filers and Taxes Paid

Business taxpayers in Connecticut may file as pass-through entities with income taxed at the individual level under the personal income tax or choose the corporate form for reporting purposes.[5] Businesses must calculate tax on a net income basis and on a capital basis, as noted above, and then pay tax on the higher of the two measures; if the tax liability is below $250 for each method, the minimum tax of $250 is to be remitted. The net income tax is the most important component of the corporate tax system, yielding 85.6 percent of collections in 2012. The capital base method produced 10.9 percent of post-credit taxes compared to just 3.4 percent for the minimum tax.

In 2012, a total of 41,290 corporate taxpayers filed business tax returns as either single filers, combined filers or unitary filers.[6] Single filers dominated and accounted for 40,060 or 97.0 percent of the returns filed, compared to only 998 combined filers and 232 unitary filers. In 2012, 20.9 percent of non-exempt business tax filers paid the net income tax, 12.1 percent paid the capital base tax and a sizable 57.6 percent paid the minimum tax.

The overall trend of business tax return filing by filer type is shown in Figure 5. There were 44,277 business tax returns filed in 2003 and 41,290 returns filed in 2012, reflecting a decline of 2,987 or 6.7 percent. The number of single filers fell 3,122, combined filers fell by 75 and the number of unitary filers rose by 210 returns. The decline in corporate tax returns likely reflects, at least in part, an ongoing shift to pass-through personal income tax reporting at the individual level. The dip in the number of single filers in 2005 was followed by a sharp jump and then a smoother decline in the number of business filers. The number of single filers appears to have been affected by the onset of the Great Recession which occurred at the end of 2007. The rate of decline subsequently slowed and in 2012 the number of single filers showed the first growth since 2006. Combined filers show only a very small decline during the period of the recession, with slight growth emerging in 2010. The number of unitary filers shows slow, steady growth over the 2003-2012 time frame.

While single filers have considerable dominance in terms of the number of returns filed, the amount of tax paid per return is lower than for combined and unitary filers. In 2012, single filers accounted for 60.4 percent of taxes paid (after credits) compared to 29.2 percent for combined filers and 10.3 percent for unitary filers. In 2003, single filers contributed 59.6

[5] Pass-through entities have grown significantly and now account for over one-half of all business income at the federal level. The income is concentrated among high-income earners. Cooper et al. (2015) estimate that partnerships and sole proprietorships have much lower tax rates then regular corporations under the federal income tax.

[6] Data on business filers are taken from the *Annual Report,* Connecticut Department of Revenue Services, various years. See http://www.ct.gov/Drs/cwp/view.asp?a=1442&q=266020&drsPNavCtr=percent7C49946percent7C

percent of post-credit tax revenue versus 39.7 percent for combined filers and only 0.7 percent for unitary filers.

Combined filers potentially confront a unique preference tax. In 2003, the maximum preference tax was increased to $250,000 from $25,000. Combined filers must calculate tax as if they were reporting separately as well as if they were to file as a combined entity. The difference between these two tax liabilities—up to the preference cap—is the preference tax liability. Under the lower cap, preference tax revenues were only $7.8 million in 2002. However, under the revised cap of $250,000 preference tax revenues jumped to $34.6 million in 2003. Combined filers nonetheless saved $195.4 million in taxes in 2003 by not filing separate returns. The preference tax cap was increased to $500,000 in 2009. In 2012, preference tax revenue totaled $34.8 million and combined filers saved $467 million in taxes compared to filing separately.

A significant share of corporate revenue is derived from a small number of firms. For example, in 2012, 11 taxpayers paid 20 percent of all pre-credit taxes or 15.3 percent of post-credit taxes. On the other hand, 37,381 firms, representing 98.2 percent of all filers, paid the bottom 20 percent of pre-credit taxes and 23.7 percent of all post-credit taxes. The pattern was roughly similar in 2008.

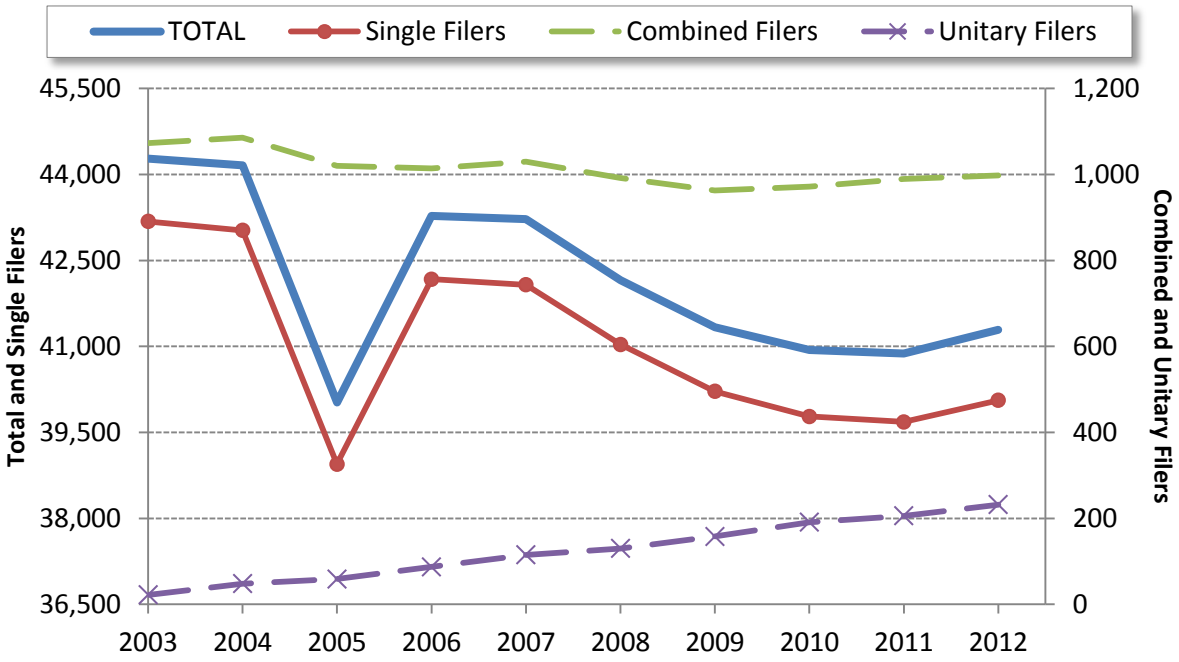
A corporate surtax was in place in 2003, 2004, 2006, and 2009-2015 and is scheduled to remain in place until 2018. The surtax, which applies to *pre-credit* tax liabilities as well as the minimum tax, produced $40.2 million in 2010, $38.6 million in 2011 and $77.5 million in 2012. The rates have ranged from a low of 10 percent in 2009-2011 to a high of 25 percent in 2004. The surtax is 20 percent through 2017 and 10 percent for 2018.

The number of returns filed for 2006 and 2012 by industry sector is reported in Table 3.[7] (Tables 10 and 11 below present data on taxes and credits by industry.) The largest number of returns in 2012 came from the professional, scientific and technical services sector (6,238), followed by manufacturing (3,871) and real estate and rental leasing (3,787). A total of 4,570 returns were not assigned to a specific sector. The number of returns filed fell 4.6 percent between 2006 and 2012. The decline was broadly based, with only professional, scientific and technical services, management of companies and enterprises and the unassigned category showing growth. The largest percentage decline was in the small mining sector (35.4 percent), which accounted for only 0.2 percent of returns in 2006 and 0.1 percent of returns in 2012. The construction sector saw the largest numerical decline, totaling 949 returns.

[7] Business tax returns by industry sector are not reported prior to 2006.

The Connecticut Department of Revenue Services effectively administers two rather complex business tax systems for those firms reporting under the corporate umbrella—the net income tax and the capital base tax. Connecticut is among a minority of states that impose a capital base tax and its rate is relatively high. The system is complicated further by the allowance for differing filing status which adds additional layers of complexity. This is especially noteworthy when only a very small number and share of returns are submitted by unitary and combined filers. The requirement that businesses calculate tax under the multiple systems adds appreciably to the compliance costs and administrative burden of the corporate tax system in Connecticut. The preference tax and the surtax are additional elements of the system which add further complexity and uncertainty due to ongoing policy changes.

FIGURE 5: Number of Taxpayers by Filing Status



Source: State of Connecticut, Department of Revenue Services, Annual Report, various years.

TABLE 3: Corporation Business Tax Returns by Industry

Industry Sector	Number of Returns		
	2006	2012	Growth 2006-12
11 Agriculture, Forestry, Fishing & Hunting	162	146	-9.9%
21 Mining	65	42	-35.4%
22 Utilities	114	96	-15.8%
23 Construction	4,000	3,051	-23.7%
31-33 Manufacturing	4,347	3,871	-11.0%
42 Wholesale Trade	2,873	2,561	-10.9%
44-45 Retail Trade	3,937	3,564	-9.5%
48-49 Transporting & Warehousing	940	762	-18.9%
51 Information	1,074	914	-14.9%
52 Finance & Insurance	3,024	2,683	-11.3%
53 Real Estate & Rental & Leasing	4,211	3,787	-10.1%
54 Professional, Scientific & Tech Services	6,032	6,238	3.4%
55 Management of Companies & Enterprises	816	895	9.7%
56 Administrative & Support Services	1,467	1,306	-11.0%
61-62 Education, Health Care & Social Assistance	2,220	1,787	-19.5%
71 Arts, Entertainment, & Recreation	517	431	-16.6%
72 Accommodation & Food Services	1,126	956	-15.1%
81-92 Other Services	3,815	3,630	-4.8%
999999 Not Yet Assigned	2,535	4,570	80.3%
TOTAL	**43,275**	**41,290**	**-4.6%**

Source: State of Connecticut, Department of Revenue Services, *Annual Report*, various years.

Corporate Tax Revenue and Yield Performance

The most recently-available data from the U.S. Census Bureau show Connecticut's corporate income tax yield to be $627.4 million in 2014. As shown in Table 4, this places Connecticut 19th in the nation among those states with a traditional net income tax, roughly in line with their GDP ranking of 23rd in 2014. Among Connecticut's neighbors, Delaware, Maine, New Hampshire, Rhode Island and Vermont all collect less corporate income tax revenue, while Massachusetts, New Jersey, New York and Pennsylvania all collect more revenue. The latter states find themselves in the top ten of all states in the size of corporate income tax collections.

State corporate income tax revenues tend to be more volatile than other revenue sources over short-run boom-bust business cycles. Figure 6 shows the historical pattern of revenue performance for Connecticut's corporate income tax as well as *total* tax collections. The level of corporate tax revenue collections was especially volatile during periods centered around the 1990-91, 2001 and 2007-09 recessions. Figure 7 looks at annual percent changes in Connecticut corporate tax collections and *non-corporate tax* collections; a similar pattern of volatility emerges. Simple coefficients of variation indicate that corporate tax revenue in Connecticut was more volatile than other states between 1975 and 2014.[8]

Longer-term corporate tax revenue growth is typically measured in terms of *buoyancy* and *elasticity*. Revenue buoyancy is the growth in revenue over time in response to economic growth, inclusive of structural changes to tax rates and tax bases. Elasticity, on the other hand, measures the responsiveness of taxes to economic growth, *net* of rate and base changes. The reporting behavior of business is embedded in both concepts. Connecticut's corporate tax revenue buoyancy was relatively high in the 1980s because of federal policy changes that expanded the taxable base at the state level. Over the past ten years buoyancy was high because of a series of state policy changes that enhanced revenue performance, including restrictions on the use of credits (2002), introduction of the corporate surtax (2003), an increase in the maximum additional preference tax for combined returns and introduction of interest addback provisions (2003), and a further increase in the maximum preference tax liability and introduction of economic nexus for corporate filers (2009). It is not clear how corporate revenues would have performed absent these policy changes.

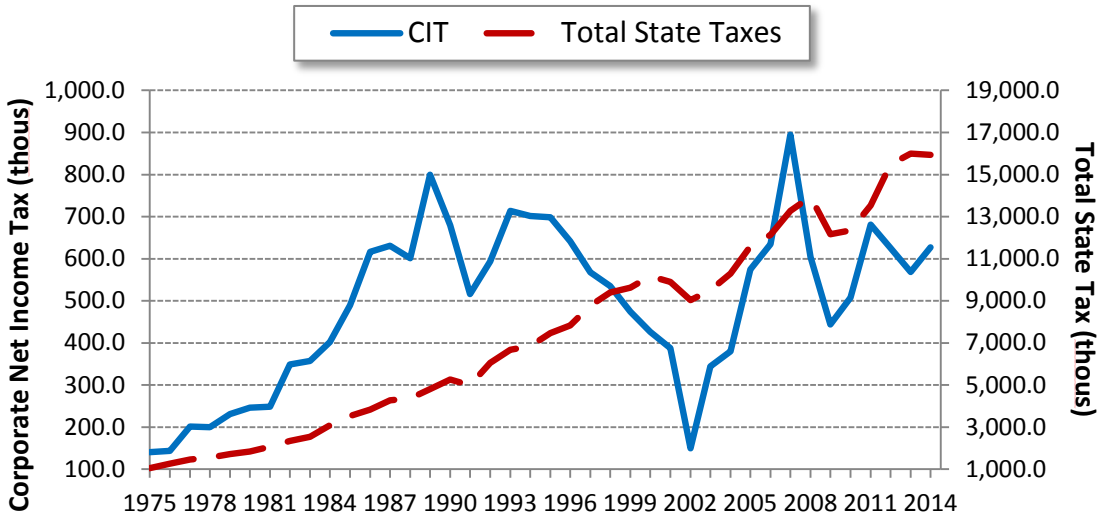
Corporate income tax elasticity is difficult to measure because it requires complicated adjustments to actual revenue series to net out the influence of policy; the policy changes lead to behavioral responses on the part of taxpayers that are exceedingly difficult to isolate. The

[8] The coefficient of variation is the mean divided by the standard deviation. Normalizing by the standard deviation allows comparability across states with different levels of corporate income tax collections.

corporate income tax is generally viewed as being inelastic which means the underlying base grows more slowly than the economy. Business tax planning is considered to be one reason for a relatively low corporate income tax elasticity. As businesses see their tax liabilities grow, they arrange their affairs to utilize provisions of the tax code that allow them to legitimately reduce their taxes. The growth of pass-through businesses also has had a significant dampening effect on corporate revenue yield and elasticity in Connecticut and other states as the corporate tax base has migrated to the personal income tax. While some of the revenue yield lost from the corporate income tax is captured by the personal income tax, the magnitude is not known.

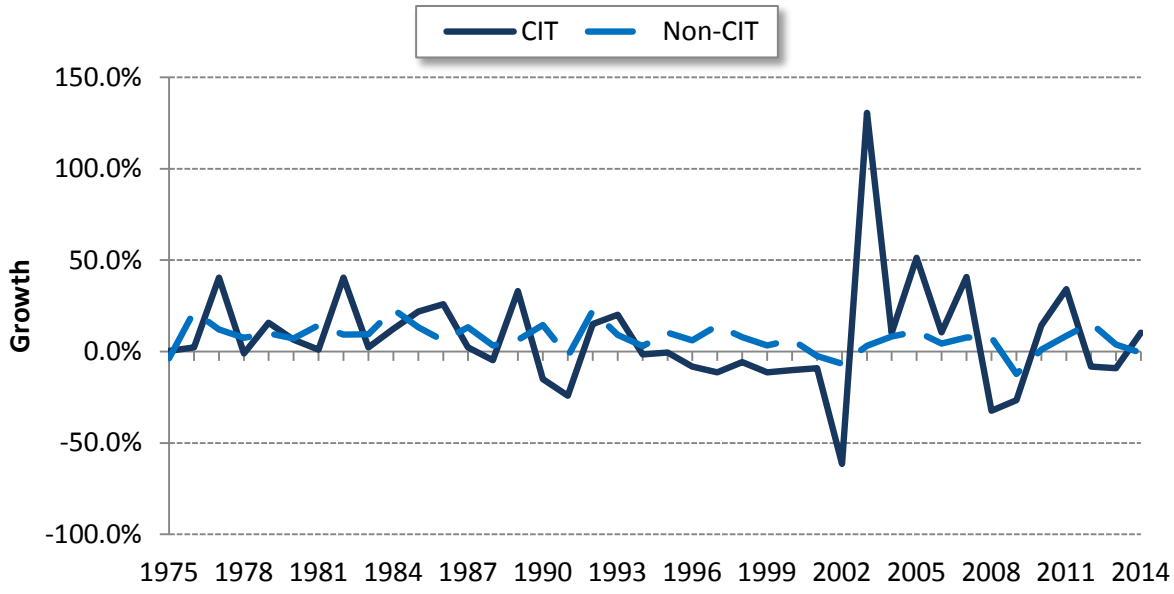
High revenue volatility and low revenue elasticity each have important implications for the state budget and reliance on other taxes. In the short run, highly-volatile corporate income tax revenues mean sharp reductions in collections during recessionary periods when there is significant stress on other revenue sources and the ability to support public service expenditures through the state budget. Exceptionally strong corporate tax revenue growth during subsequent periods of expansion may cause taxpayers to seek relief as they sense rising tax liabilities. The same strong growth in collections can also create the false illusion of a healthy and vibrant tax instrument in the eyes of the public and policymakers. Together this environment gives rise to pressures that could lead to implementation of provisions that diminish corporate revenue yield (e.g. tax credits) and/or increase public expenditures. Low revenue elasticity means that revenues may grow more slowly than public expenditure demands. Over the longer term, this creates pressures to implement policy changes to increase corporate collections and/or increase reliance on other revenue sources.

FIGURE 6: Connecticut Corporate Income and Total State Taxes: 1975 to 2014



Source: U.S. Census Bureau, *Annual Survey of State Government Tax Collections*, various years.

FIGURE 7: Annual Percent Change in Connecticut Corporate Income and Non-Corporate State Taxes: 1975 to 2014



Source: U.S. Census Bureau, *Annual Survey of State Government Tax Collections*, various years.

TABLE 4: Corporate Income Tax Revenue by State, 2014

State	Collections ($ thous)	Rank	State	Collections ($ thous)	Rank
Alabama	406,408	26	Montana	150,139	41
Alaska	408,938	25	Nebraska	306,591	34
Arizona	575,180	20	Nevada (a)	–	–
Arkansas	398,493	27	New Hampshire	542,847	21
California	8,858,498	1	New Jersey	2,368,068	4
Colorado	717,506	17	New Mexico	205,702	37
Connecticut	627,358	19	New York	4,861,687	2
Delaware	278,872	35	North Carolina	1,360,628	8
Florida	2,043,750	7	North Dakota	250,438	36
Georgia	943,806	13	Ohio (b)	–	–
Hawaii	126,045	42	Oklahoma	397,290	28
Idaho	190,002	39	Oregon	495,134	23
Illinois	4,284,646	3	Pennsylvania	2,301,589	5
Indiana	866,747	15	Rhode Island	120,112	43
Iowa	388,699	29	South Carolina	327,809	32
Kansas	330,181	31	South Dakota (a)	–	–
Kentucky	674,464	18	Tennessee	1,176,971	10
Louisiana	481,212	24	Texas (c)	–	–
Maine	182,928	40	Utah	307,910	33
Maryland	982,784	12	Vermont	105,817	44
Massachusetts	2,194,620	6	Virginia	740,511	16
Michigan	881,011	14	Washington (a)	–	–
Minnesota	1,315,762	9	West Virginia	203,508	38
Mississippi	526,302	22	Wisconsin	986,464	11
Missouri	357,724	30	Wyoming (a)	–	–

Source: U.S. Census Bureau, *2014 Annual Survey of State Government Tax Collections.*

a. No corporate income tax

b. Ohio no longer levies a tax based on income (except for a particular subset of corporations), but instead imposes a Commercial Activity Tax (CAT) equal to $150 for gross receipts situsted to Ohio of between $150,000 and $1 million, plus 0.26% of gross receipts over $1 million. Banks continue to pay a franchise tax of 1.3% of net worth. For those few corporations for whom the franchise tax on net worth or net income still applies, a litter tax also applies.

c. Texas imposes a Franchise Tax, otherwise known as margin tax, imposed on entities with more than $1,030,000 total revenues at rate of 1%, or 0.5% for entities primarily engaged in retail or wholesale trade, on lesser of 70% of total revenues or 100% of gross receipts after deductions for either compensation or cost of goods sold.

Revenue Portfolio and Corporate Revenue Reliance

In most states, corporate income tax collections account for a relatively small single-digit share of overall tax collections. As shown in Table 5, corporate tax collections in Connecticut accounted for only 3.9 percent of overall state tax collections in 2014, compared to 5.4 percent for all states and the District of Columbia. Corporate tax collections in Connecticut represent a much smaller share of overall tax revenue than most neighboring states, including Delaware (8.8 percent), Massachusetts (8.7 percent), New Jersey (8.0 percent), New York (6.3 percent) and Pennsylvania (6.7 percent). On the other hand, Connecticut's personal income tax accounted for 48.8 percent of total tax collections, well above the 35.8 percent national average. Of the neighboring states, only Massachusetts and New York placed greater reliance on the personal income tax than Connecticut. Connecticut's sales tax generates 25.0 percent of tax revenue versus 31.2 percent for all states and the District of Columbia.

Over time, Connecticut has seen a major shift in its revenue portfolio due in part to the adoption of the personal income tax, but also because of falling corporate tax revenues from the early 1990s to 2002. Corporate taxes as a share of total state taxes are illustrated in Figure 8. The volatility of the corporate income tax is apparent especially in the pre-1990 window. Following adoption of the personal income tax, the corporate income tax's contribution to total revenue collections bottomed out at just under 2.0 percent in 2002. Following a pre-recession spike in 2007, corporate income taxes have stabilized at about 4.0 percent of total collections.

Revenue reliance is commonly measured by taxes per capita or taxes as a share of personal income. The latter is generally the preferred measure because it reflects both the ability to pay taxes and the size of a state economy.[9] In the context of business taxation, both measures are somewhat problematic because corporate income taxes may be paid by out-of-state taxpayers.[10] Nonetheless, analysis of tax reliance across states and across time typically rely on population and personal income to normalize the size of tax collections to facilitate as close to apple-to-apple comparisons as is possible.

Connecticut's corporate income tax revenue per capita stood at $174 in 2014, placing it 14th in the nation. (See Table 6.) Delaware, New Hampshire, New Jersey, New York and Pennsylvania all placed greater reliance on the corporate income tax on a per capita basis. Because Connecticut has the highest per capita income in the nation, its ranking of corporate tax

[9] Personal income is a resident-based measure that includes wages and salaries, rental income, dividends, interest income, proprietors' income and transfer payments. A resident adjustment is used to account for out-of-state income earned state by residents, as well the accrual of in-state income by nonresidents which must be allocated to their state of residence.

[10] Corporate income taxes may also be shifted backwards to labor or other factors of production or shifted forward to final consumers or through the supply chain.

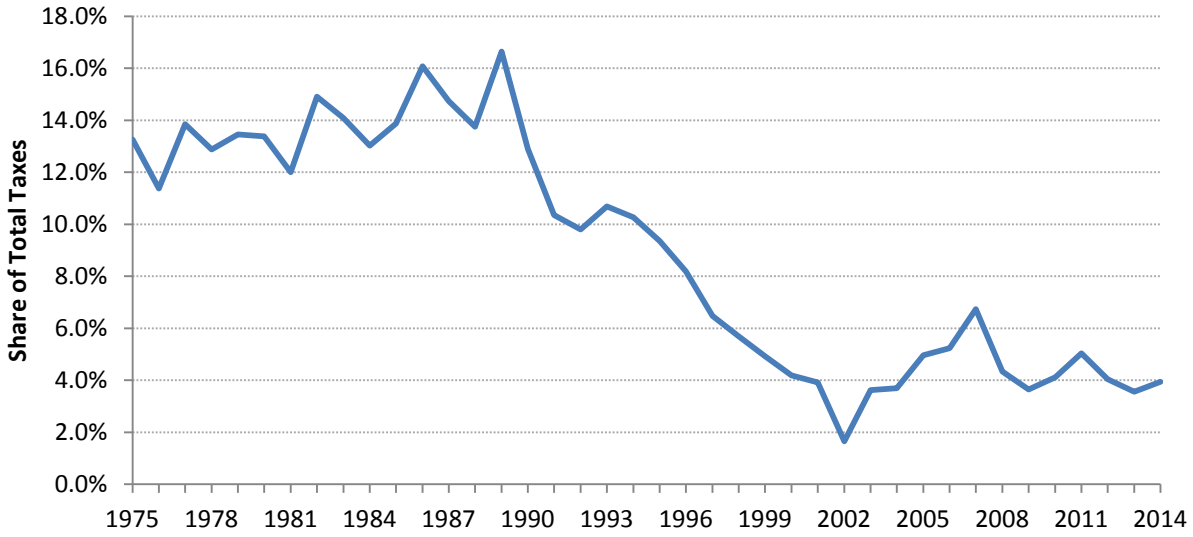
reliance as a share of personal income will be lower than its ranking of per capita reliance. In 2014, corporate taxes as a share of state personal income were 0.28 percent, placing Connecticut at 27th among all states. All neighboring states other than Rhode Island placed greater reliance on corporate income tax revenues as a share of personal income.

Figure 9 illustrates per capita corporate income tax reliance dating back to 1975. Per capita reliance rose steadily from under $50 in 1975 to $244 in 1989. As noted above, federal policy changes that affected the state corporate income tax base contributed to the rising burden in the 1980s. Subsequently declining corporate tax collections, again caused in part by federal policy changes, caused per capita reliance to return to roughly the level that prevailed in 1975 by 2002. State policy changes noted above contributed to rising per capita reliance which peaked at $254 in 2007. Reliance then fell before returning to $174 in 2014.

Between 1974 and 1999, corporate taxes as a share of personal income in Connecticut hovered between 0.4 percent and 1.0 percent, as shown in Figure 10. The upward movement in reliance as a share of personal income is smaller than the increase in per capita reliance because of relatively strong growth in state personal income. Reliance slipped to 0.1 percent in 2002 and in the years following fell in the 0.2-0.5 percent range. Non-corporate taxes—all state taxes other than the corporate income tax—have seen increased reliance over time. Standing at 4.7 percent of personal income in 1974, non-corporate tax reliance trended upward reaching a peak of 7.3 percent in 1998. In subsequent years, reliance has been between 5.9 percent (2002) and 7.1 percent (2012 and 2013).

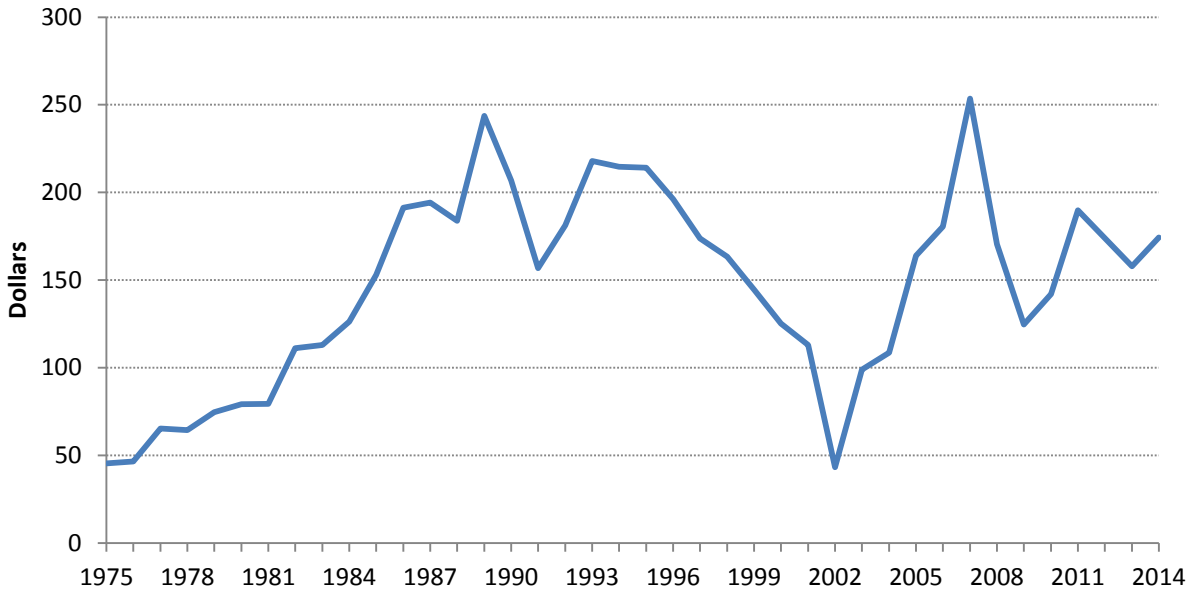
Together this discussion shows that Connecticut's corporate income tax has an above-average yield compared to other states but collections as a share of total taxes are well below the national average. The tax is much more volatile than other revenue sources over the ups and downs of the business cycle and its underlying elasticity is likely quite modest. Corporate tax revenue growth was relatively strong over the last decade because of rate and base changes that have enhanced revenue yield. Over the long term 1974-2014 time frame, corporate income tax collections have grown more slowly than non-corporate revenues; over the shorter 2005-2014 time frame, corporate tax collections per capita were up only 6.3 percent compared to 35.5 percent growth in non-corporate tax revenues. Additional policy changes will likely be required to maintain revenue yield in the years ahead, leading to policy uncertainty for taxpayers and ever-changing costs of administration and compliance.

FIGURE 8: Connecticut Corporate Income Tax as a Share of Total Taxes, 1975 to 2014



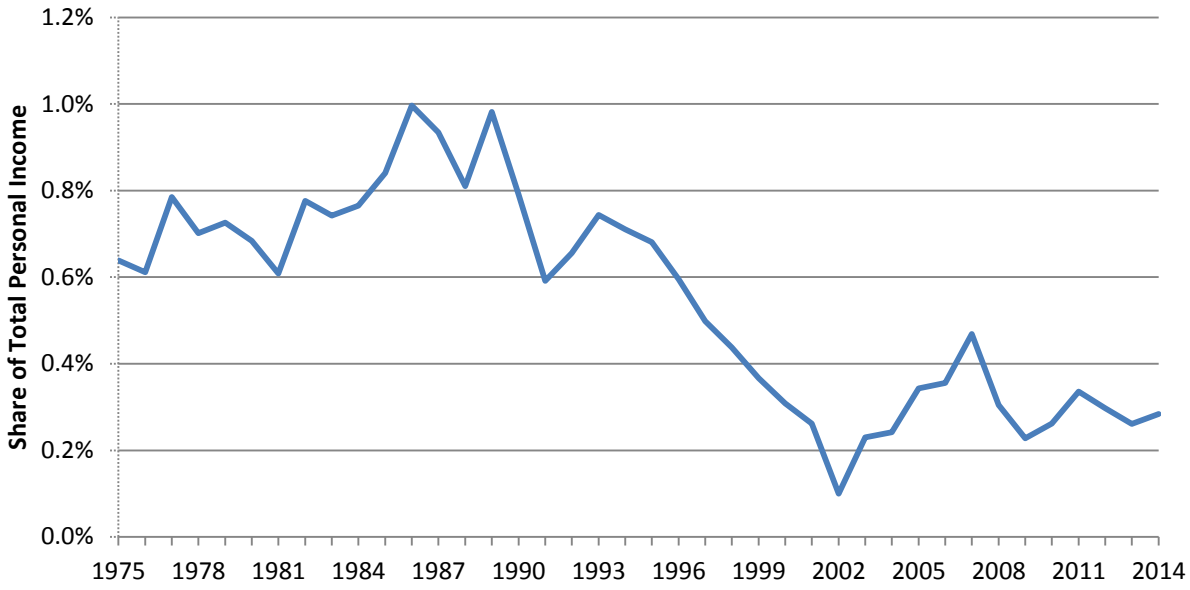
Source: U.S. Census Bureau, *Annual Survey of State Government Tax Collections*, various years.

FIGURE 9: Connecticut Corporate Income Tax Per Capita, 1975 to 2014



Source: U.S. Census Bureau, *Annual Survey of State Government Tax Collections*, various years; and U.S. Census Bureau, Annual Population Estimates, various years.

FIGURE 10: Connecticut Corporate Income Tax as a Share of Total Personal Income, 1975 to 2014



Source: U.S. Census Bureau, *Annual Survey of State Government Tax Collections*, various years; and Bureau of Economic Analysis, State Personal Income.

TABLE 5: 2014 State Tax Collections by Source (percentage of total)

	Property	Sales	Selective Sales*	Individual Income	Corporate Income	Other
Alabama	3.5	25.8	26.0	34.5	4.4	5.8
Alaska	3.8	--	7.6	--	12.1	76.6
Arizona	6.3	45.8	13.5	26.5	4.4	3.5
Arkansas	12.1	35.0	13.4	29.1	4.5	6.0
California	1.6	27.0	9.3	49.2	6.4	6.5
Colorado	--	22.3	15.8	48.1	6.1	7.7
Connecticut	--	25.0	17.6	48.8	3.9	4.7
Delaware	--	--	15.1	32.8	8.8	43.3
Florida	0.0	60.7	21.4	--	5.8	12.1
Georgia	4.2	27.5	11.7	48.1	5.1	3.3
Hawaii	--	46.8	16.9	28.9	2.1	5.2
Idaho	--	37.4	12.2	36.4	5.2	8.8
Illinois	0.1	21.7	18.5	41.0	10.9	7.7
Indiana	0.0	41.6	20.1	29.1	5.1	4.0
Iowa	--	32.1	13.5	38.7	4.7	11.0
Kansas	1.1	40.7	12.4	34.2	4.5	7.1
Kentucky	5.1	28.2	20.0	33.8	6.1	6.9
Louisiana	0.6	30.2	22.6	28.4	5.0	13.3
Maine	0.9	31.0	18.7	36.8	4.8	7.9
Maryland	3.8	22.2	20.2	41.1	5.2	7.5
Massachusetts	0.0	21.9	9.6	52.5	8.7	7.4
Michigan	7.7	33.9	15.7	31.7	3.6	7.3
Minnesota	3.6	23.5	18.7	41.2	5.7	7.3
Mississippi	0.3	43.6	18.5	22.0	6.9	8.6
Missouri	0.3	29.2	14.5	47.7	3.2	5.1
Montana	10.1	--	20.7	40.0	5.7	23.5
Nebraska	0.0	36.2	11.1	43.6	6.3	2.9
Nevada	3.6	53.6	26.4	--	--	16.4
New Hampshire	16.8	--	38.4	4.1	23.8	16.9
New Jersey	0.0	29.9	13.0	40.3	8.0	8.7
New Mexico	1.8	36.5	12.2	22.5	3.6	23.4
New York	--	16.5	14.1	55.8	6.3	7.3
North Carolina	--	25.0	17.7	44.4	5.8	7.1
North Dakota	0.0	21.6	8.6	8.1	4.1	57.5
Ohio	--	37.8	20.0	31.2	--	11.0
Oklahama	--	28.6	15.3	32.5	4.4	19.3
Oregon	0.2	--	14.9	68.7	5.1	11.1
Pennsylvania	0.1	27.8	23.2	31.6	6.7	10.6
Rhode Island	0.1	30.9	21.9	36.7	4.0	6.4
South Carolina	0.2	37.7	14.1	38.3	3.7	6.0
South Dakota	--	56.9	23.7	--	1.5	17.8
Tennessee	--	52.4	21.7	2.0	10.0	13.8
Texas	--	58.5	24.3	--	--	17.2
Utah	--	28.9	13.6	45.8	4.9	6.9
Vermont	33.3	12.0	22.3	22.8	3.6	6.1
Virginia	0.2	18.8	13.2	57.4	3.9	6.5
Washington	10.2	60.5	17.7	--	--	11.6
West Virginia	--	22.7	24.9	32.9	3.8	15.7
Wisconsin	1.0	28.2	16.6	41.4	6.0	6.8
Wyoming	13.3	33.8	7.1	--	--	45.8
Dist. of Columbia	32.5	17.8	7.3	26.3	6.5	9.6
U.S. Total	**1.9**	**31.2**	**16.1**	**35.8**	**5.4**	**9.6**

Source: U.S. Bureau of the Census.

--- tax not levied at state level.

* Selective sales taxes are state Excise taxes (i.e., motor fuel, alcoholic beverages, etc.)

TABLE 6: Corporate Income Tax Collections Per Capita and as Share of Total Personal Income by State, 2014

State	Per Capita CIT Collections ($)	Rank	CIT as a Share of Total Personal Income (%)	Rank	State	Per Capita CIT Collections ($)	Rank	CIT as a Share of Total Personal Income (%)	Rank
Alabama	83.94	42	0.23	39	Montana	147.31	20	0.37	16
Alaska	554.87	1	1.08	1	Nebraska	163.49	18	0.35	20
Arizona	86.06	41	0.23	38	Nevada (a)	–	–	–	–
Arkansas	134.51	24	0.36	18	New Hampshire	409.78	2	0.79	2
California	229.39	10	0.47	10	New Jersey	265.33	7	0.47	9
Colorado	135.02	23	0.28	29	New Mexico	98.60	36	0.27	31
Connecticut	174.36	14	0.28	27	New York	246.52	8	0.45	12
Delaware	299.72	6	0.66	4	North Carolina	137.49	22	0.35	19
Florida	103.50	34	0.25	34	North Dakota	342.28	3	0.64	5
Georgia	93.95	37	0.24	35	Ohio (b)	–	–	–	–
Hawaii	89.12	39	0.20	41	Oklahoma	102.78	35	0.24	36
Idaho	117.02	28	0.32	23	Oregon	125.38	27	0.31	24
Illinois	332.52	4	0.70	3	Pennsylvania	180.03	12	0.38	15
Indiana	131.65	25	0.34	21	Rhode Island	113.93	29	0.24	37
Iowa	125.40	26	0.28	30	South Carolina	68.26	43	0.19	42
Kansas	113.86	30	0.25	32	South Dakota (a)	–	–	–	–
Kentucky	153.06	19	0.42	13	Tennessee	180.43	11	0.45	11
Louisiana	103.72	33	0.25	33	Texas (c)	–	–	–	–
Maine	137.60	21	0.33	22	Utah	105.35	32	0.28	28
Maryland	164.96	17	0.30	26	Vermont	168.85	16	0.36	17
Massachusetts	326.23	5	0.56	6	Virginia	89.24	38	0.18	43
Michigan	88.95	40	0.22	40	Washington (a)	–	–	–	–
Minnesota	241.89	9	0.50	8	West Virginia	109.89	31	0.31	25
Mississippi	175.84	13	0.51	7	Wisconsin	171.55	15	0.39	14
Missouri	59.09	44	0.14	44	Wyoming (a)	–	–	–	–

Source: U.S. Census Bureau, *2014 Annual Survey of State Government Tax Collections*; Bureau of Economic Analysis, *Table SQ1. Quarterly Personal Income*; U.S. Census Bureau, Population Division, *Table 1. Annual Estimates of the Resident Population for the United States, Regions, States, and Puerto Rico: April 1, 2010 to July 1, 2014 (NST-*

a. No corporate income tax

b. Ohio no longer levies a tax based on income (except for a particular subset of corporations), but instead imposes a Commercial Activity Tax (CAT) equal to $150 for gross receipts situsued to Ohio of between $150,000 and $1 million, plus 0.26% of gross receipts over $1 million. Banks continue to pay a franchise tax of 1.3% of net worth. For those few corporations for whom the franchise tax on net worth or net income still applies, a litter tax also applies.

c. Texas imposes a Franchise Tax, otherwise known as margin tax, imposed on entities with more than $1,030,000 total revenues at rate of 1%, or 0.5% for entities primarily engaged in retail or wholesale trade, on lesser of 70% of total revenues or 100% of gross receipts after deductions for either compensation or cost of goods sold.

Evaluation of Corporate Tax Credits

Pre-Credit and Post-Credit Tax Collections

As shown in Figure 11, the *number* of Connecticut corporate taxpayers claiming credits has declined over the last decade, falling to 3,639 in 2012. However, the *value* of credits has trended up from $93.1 million in 2003 to $151.4 million in 2012, an increase of 62.6 percent. The value of credits carried forward to the 2013 tax year was a staggering $2.5 billion. This carry-forward value is almost four times actual corporate tax collections in 2014 and will lead to years of corporate revenue erosion. In order to restrain the magnitude of lost revenue, the state passed legislation in the special session in the summer of 2015 to limit the amount of credits that corporations could claim. This restriction goes into effect on January 1, 2015 and limits the amount of credits to 50.01 percent of the tax due in any year; the previous limit was 70 percent of tax due. Business taxpayers were very disappointed to see this change in policy because it creates an uncertain business climate and can affect returns on previously-made investments.

Table 7 provides annual detail on the number of credits claimed, the value of credits claimed and the average amount claimed per credit. As can be seen from the table, the 62.6 percent growth in the value of credits claimed has overwhelmed the 49.9 percent decline in the number of credits, producing 224.7 percent growth in the value per credit. So while utilization is declining, the value of credits to business taxpayers has nonetheless been rising in the aggregate and on a per-use basis as well. It is not clear the extent to which this pattern is an artifact of policy (intentional or unintentional) versus discretionary use by business taxpayers.

Pre-credit and post-credit tax liability per corporate tax filer is shown in Figure 12. These data include all business filers, regardless of whether they have actually made use of credits. Per-filer tax liabilities grew steadily between 2003 and 2006, advancing at a 79.7 percent rate. Tax due before credits subsequently fell until 2008 and then trended back upward, likely reflecting the effects of the 2007-2009 recession. Per-filer tax due after credits shows the same general pattern. However, the gap between pre- and post-credit tax liabilities rose indicating a rising value of credits claimed for each filer consistent with the pattern identified in Table 7.

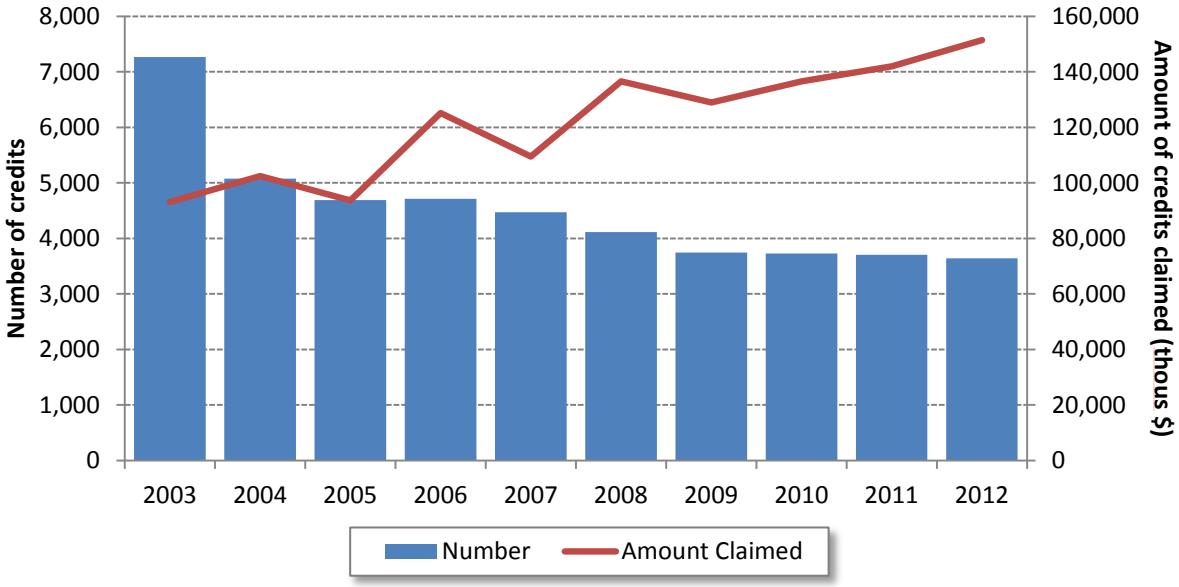
Not surprisingly, large taxpayers account for a large share of credit usage. In 2012, the 11 firms in the top quintile of pre-credit tax liabilities utilized 35.2 percent of all tax credits. In contrast, the 37,381 firms in the bottom quintile used only 7.9 percent of all credits for the tax year.

Tax due per filer before the application of credits saw 61.9 percent growth between 2003 and 2012 while tax due after credits was up at the slower rate of 58.1 percent, as shown in Table 8. Taxpayers with different filing status have seen a different pattern of pre-credit and post-credit

tax liability over time. Pre-credit tax due per filer was up 147.7 percent for unitary filers, 61.1 percent for single filers and only 22.1 percent for combined filers between 2003 and 2012. Credits had their largest impact on reducing the growth of tax liabilities for unitary filers—tax due before credits rose 147.7 percent and tax due after credits was up at the lower rate of 99.3 percent.

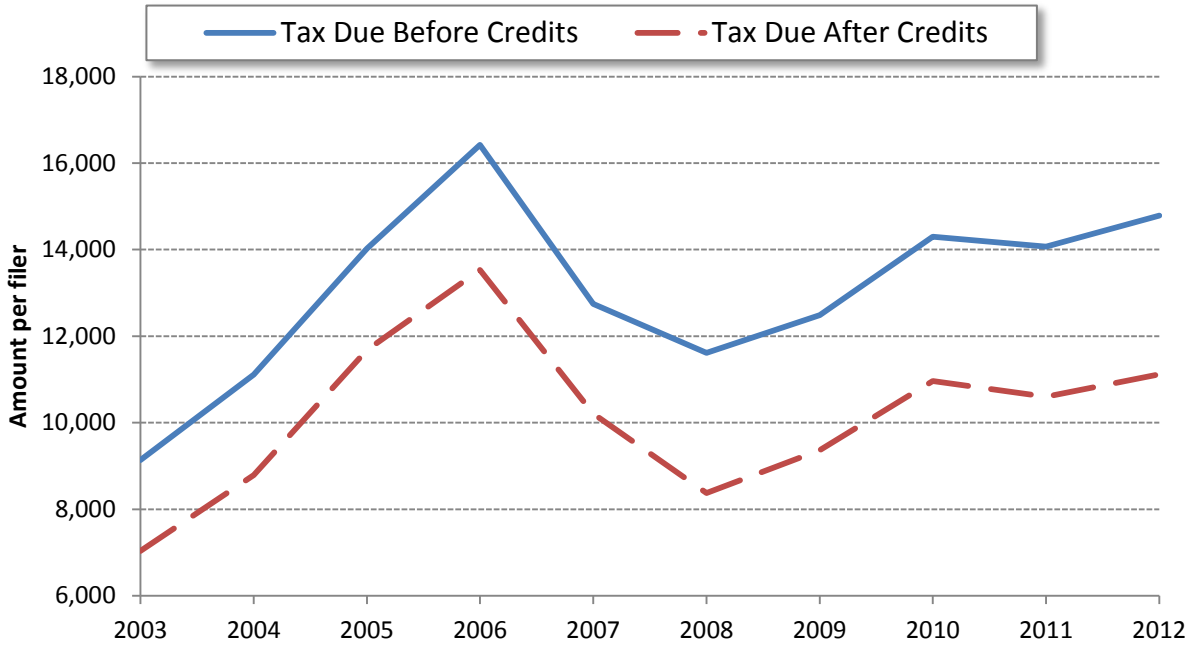
While credits have helped unitary taxpayers, the growth in tax liability per unitary filer has nonetheless been significant. On a compound annual basis, post-credit tax liabilities jumped 8.0 percent for unitary filers in the 2003-2012 interval. For all filers, the compound growth rate was 5.2 percent over the same period. These growth rates are well in excess of rates of gross domestic product and personal income growth between 2003 and 2012.

FIGURE 11: Number of Taxpayers and Tax Credits Claimed



Source: State of Connecticut, Department of Revenue Services, *Annual Report*, various years.

FIGURE 12: Pre-Credit and Post-Credit Tax Liability per Filer



Source: State of Connecticut, Department of Revenue Services, *Annual Report*, various years.

TABLE 7: Credits Claimed on Corporation Returns

Year	Number of Credits	Amount of Credit Claimed	Amount per Credit
2003	7,266	$93,096,165	$12,813
2004	5,074	102,436,324	20,188
2005	4,689	93,688,163	19,980
2006	4,711	125,104,265	26,556
2007	4,468	109,511,768	24,510
2008	4,112	136,551,409	33,208
2009	3,742	128,892,313	34,445
2010	3,724	136,559,915	36,670
2011	3,704	141,906,635	38,312
2012	3,639	151,376,542	41,598
Growth, 2003 to 2012	-49.9%	62.6%	224.7%

Source: State of Connecticut, Department of Revenue Services, *Annual Report*, various years.

TABLE 8: Pre-Credit and Post-Credit Taxes per Taxpayer by Filing Status

Year	Single Filers		Combined Filers		Unitary Filers		TOTAL	
	Tax Due Before Credits	Tax Due After Credits	Tax Due Before Credits	Tax Due After Credits	Tax Due Before Credits	Tax Due After Credits	Tax Due Before Credits	Tax Due After Credits
2003	4,978	4,299	174,139	115,092	122,426	102,649	9,136	7,033
2004	6,070	5,315	199,668	137,935	264,428	203,922	11,112	8,792
2005	6,336	5,539	289,278	229,978	329,636	292,797	14,023	11,682
2006	7,940	7,089	343,766	260,982	312,161	251,325	16,420	13,529
2007	6,725	5,911	230,351	167,968	266,592	170,542	12,745	10,211
2008	6,533	5,512	195,184	112,380	214,856	118,737	11,615	8,376
2009	6,591	5,865	207,235	118,612	325,372	234,690	12,484	9,366
2010	7,243	6,368	243,526	156,683	317,595	226,737	14,301	10,965
2011	7,895	6,841	211,633	123,555	254,111	191,734	14,070	10,599
2012	8,190	6,926	212,550	134,585	303,256	204,568	14,788	11,122
Growth, 2003 to 2012	64.5%	61.1%	22.1%	16.9%	147.7%	99.3%	61.9%	58.1%

Source: State of Connecticut, Department of Revenue Services, *Annual Report*, various years.

Tax Credits by Type of Credit and Use by Industry Sector

Tax credit policy is subject to ongoing legislative change in Connecticut. Business taxpayers took advantage of 23 credits in the 2012 tax year. Several credit categories have seen a relatively broad pattern of use while others are used by only a small number of firms. As reported in Table 9, only one taxpayer took advantage of the Computer Donation tax credit and only one utilized the Small Business Guaranty Fee credit. The amounts claimed were only $702 and $148, respectively. On the other hand, some of the credits with limited use had relatively large values on a per-credit basis. For example, in 2012 only two Digital Animation credits were claimed with an average value of $342,118; three Film Production Infrastructure credits were claimed with an average value of $492,588. Twelve credit categories were employed fewer than ten times.

A small number of tax credits were used rather extensively by corporate taxpayers in 2012. There were 1,128 Electronic Data Processing credits utilized, with a total credit value of $10.7 million and per credit value of $9,508. The Fixed Capital credit was used on 1,727 occasions, with $63.1 million in credits claimed at $36,552 per credit. These two credits alone accounted

for 48.8 percent of the value of all credits claimed in 2012. The Film Production credit accounted for 17.0 percent of credits claimed while the Research and Experimental credit represented 13.7 percent of credit value.

Table 10 demonstrates the importance of tax credits to different industry sectors of the economy. The manufacturing sector claimed the largest volume of credits in 2012 ($42.7 million), followed by management of companies and enterprises ($20.4 million) and information ($20.0 million). Manufacturing accounted for 28.2 percent of all credits claimed in 2012. The most rapid growth in credit use between 2006 and 2012 took place in the agriculture, finance and insurance and arts sectors, each of which saw growth well in excess of 100 percent.

The final columns of Table 10 illustrate the value of credits as a share of gross tax. On average, credits represented 24.8 percent of gross-tax liability in 2012. The utilities and arts sectors each had credits that exceeded one-half of total gross tax. The mining, construction, real estate, accommodation and food services and other services sectors had aggregate credits that were less than 10 percent of gross tax liability.

As shown in Table 11, firms in the manufacturing sector contributed the largest share of post-tax-credit revenue of any sector in 2012 (19.0 percent), followed by finance and insurance (13.8 percent), retail trade (9.4 percent) and management of companies and enterprises (8.8 percent); unassigned returns accounted for 13.5 percent of all post-credit corporate tax revenue in 2012. The average amount of post-credit tax liability per return was $11,122 across all sectors. On a per-return basis, the utility sector paid the highest amount of post-credit tax ($102,248), followed by management of companies and enterprises ($44,909) and information ($36,067). Manufacturing firms saw their share of post-credit taxes rise from 14.7 percent to 19.0 percent between 2006 and 2012. This was the largest percentage point increase of any sector.

TABLE 9: Credits Claimed on 2012 Corporation Returns

Type of Credit	Credits		Credits Claimed		Amount Claimed per Credit
	Number	Share of Total	Amount	Share of Total	
Apprenticeship Training	9	0.2%	$146,089	0.1%	$16,232
Computer Donation	1	0.0%	702	0.0%	702
Digital Animation	2	0.1%	684,235	0.5%	342,118
Donation of Land	3	0.1%	5,929	0.0%	1,976
Electronic Data Processing	1,128	31.0%	10,725,356	7.1%	9,508
Film Production	27	0.7%	25,796,631	17.0%	955,431
Film Production Infrastructure	3	0.1%	1,477,765	1.0%	492,588
Financial Institutions	2	0.1%	2,341	0.0%	1,171
Fixed Capital	1,727	47.5%	63,125,737	41.7%	36,552
Historic Homes Rehabilitation	3	0.1%	24,648	0.0%	8,216
Housing Program Contribution	4	0.1%	377,550	0.2%	94,388
Human Capital	116	3.2%	1,869,913	1.2%	16,120
Job Expansion	111	3.1%	2,223,373	1.5%	20,030
Machinery and Equipment	62	1.7%	439,783	0.3%	7,093
Manufacturing Facility in Targeted Investment Community or Enterprise Zone	16	0.4%	847,382	0.6%	52,961
Neighborhood Assistance	72	2.0%	2,284,116	1.5%	31,724
New Jobs Creation	6	0.2%	754,792	0.5%	125,799
Qualified Small Business Job Creation	5	0.1%	21,329	0.0%	4,266
Research & Development	145	4.0%	5,392,832	3.6%	37,192
Research & Development Grants to Institutions of Higher Education	2	0.1%	123,469	0.1%	61,735
Research & Experimental Expenditures	180	4.9%	20,681,089	13.7%	114,895
Small Business Guaranty Fee	1	0.0%	148	0.0%	148
Urban and Industrial Site Reinvestment	14	0.4%	14,371,333	9.5%	1,026,524
Total	**3,639**	**100.0%**	**$ 151,376,542**	**100.0%**	**$ 41,598**

Source: State of Connecticut, Department of Revenue Services, *Annual Report*, various years.

TABLE 10: Corporation Business Tax Returns and Tax Credit Utilization by Industry

Industry Sector	Gross Tax		Amount of Tax Credits		Tax Due After Credits		Distribution of Tax Credits by Industry		Tax Due After Credits Per Return		Tax Credits as a Share of Gross Tax	
	2012	Growth 2006-12	2012	Growth 2006-12	2012	Growth 2006-12	2006	2012	2012	Growth 2006-12	2012	Growth 2006-12 (pts)
11 Agriculture, Forestry, Fishing & Hunting	745,819	-44.8%	200,975	190.9%	544,844	-57.5%	0.1%	0.1%	3,732	-52.9%	26.9%	21.8
21 Mining	767,454	-57.7%	24,785	-69.6%	742,669	-57.1%	0.1%	0.0%	17,683	-33.7%	3.2%	-1.3
22 Utilities	22,384,245	74.0%	12,568,404	77.9%	9,815,841	69.3%	5.6%	8.3%	102,248	101.0%	56.1%	1.2
23 Construction	6,149,270	-53.6%	335,758	-24.5%	5,813,512	-54.6%	0.4%	0.2%	1,905	-40.5%	5.5%	2.1
31-33 Manufacturing	129,775,757	9.2%	42,742,939	30.4%	87,032,818	1.2%	26.2%	28.2%	22,483	13.6%	32.9%	5.3
42 Wholesale Trade	34,191,938	-18.2%	5,430,771	60.7%	28,761,167	-25.2%	2.7%	3.6%	11,230	-16.1%	15.9%	7.8
44-45 Retail Trade	58,766,357	9.0%	15,660,460	47.4%	43,105,897	-0.4%	8.5%	10.3%	12,095	10.0%	26.6%	6.9
48-49 Transporting & Warehousing	9,860,731	-4.4%	2,406,910	66.8%	7,453,821	-16.0%	1.2%	1.6%	9,782	3.6%	24.4%	10.4
51 Information	52,987,640	-40.2%	20,022,090	11.8%	32,965,550	-53.4%	14.3%	13.2%	36,067	-45.2%	37.8%	17.6
52 Finance & Insurance	70,783,394	-38.9%	7,372,995	123.4%	63,410,399	-43.7%	2.6%	4.9%	23,634	-36.6%	10.4%	7.6
53 Real Estate & Rental & Leasing	11,823,562	-24.8%	460,687	-2.1%	11,362,875	-25.5%	0.4%	0.3%	3,000	-17.1%	3.9%	0.9
54 Professional, Scientific & Tech Services	40,406,171	4.2%	7,424,745	49.8%	32,981,426	-2.5%	4.0%	4.9%	5,287	-5.7%	18.4%	5.6
55 Management of Companies & Enterprises	60,552,149	-25.6%	20,358,999	48.6%	40,193,150	-40.7%	10.9%	13.4%	44,909	-45.9%	33.6%	16.8
56 Administrative & Support Services	16,550,669	65.7%	1,815,967	27.0%	14,734,702	72.2%	1.1%	1.2%	11,282	93.4%	11.0%	-3.3
61-62 Education, Health Care & Social Assistance	7,999,913	-35.7%	1,418,509	17.9%	6,581,404	-41.5%	1.0%	0.9%	3,683	-27.3%	17.7%	8.1
71 Arts, Entertainment, & Recreation	1,766,568	-10.1%	936,541	153.0%	830,027	-48.0%	0.3%	0.6%	1,926	-37.6%	53.0%	34.2
72 Accommodation & Food Services	4,147,938	19.5%	181,843	-14.5%	3,966,095	21.8%	0.2%	0.1%	4,149	43.4%	4.4%	-1.7
81-92 Other Services	7,205,434	-36.2%	490,844	7.5%	6,714,590	-38.0%	0.4%	0.3%	1,850	-34.8%	6.8%	2.8
999999 Not Yet Assigned	73,724,717	-4.0%	11,522,321	-54.3%	62,202,396	20.6%	20.2%	7.6%	13,611	-33.1%	15.6%	-17.2
TOTAL	**610,589,725**	**-14.1%**	**151,376,542**	**21.0%**	**459,213,183**	**-21.6%**	**100.0%**	**100.0%**	**11,122**	**-17.8%**	**24.8%**	**7.2**

Source: State of Connecticut, Department of Revenue Services, *Annual Report*, various years.

TABLE 11: Distribution of Corporation Business Tax Returns, Gross Tax Liability and Tax Due After Credits, by Industry

Industry Sector	Number of Returns		Gross Tax		Tax Due After Credits	
	2006	2012	2006	2012	2006	2012
11 Agriculture, Forestry, Fishing & Hunting	0.4%	0.4%	0.2%	0.1%	0.2%	0.1%
21 Mining	0.2%	0.1%	0.3%	0.1%	0.3%	0.2%
22 Utilities	0.3%	0.2%	1.8%	3.7%	1.0%	2.1%
23 Construction	9.2%	7.4%	1.9%	1.0%	2.2%	1.3%
31-33 Manufacturing	10.0%	9.4%	16.7%	21.3%	14.7%	19.0%
42 Wholesale Trade	6.6%	6.2%	5.9%	5.6%	6.6%	6.3%
44-45 Retail Trade	9.1%	8.6%	7.6%	9.6%	7.4%	9.4%
48-49 Transporting & Warehousing	2.2%	1.8%	1.5%	1.6%	1.5%	1.6%
51 Information	2.5%	2.2%	12.5%	8.7%	12.1%	7.2%
52 Finance & Insurance	7.0%	6.5%	16.3%	11.6%	19.2%	13.8%
53 Real Estate & Rental & Leasing	9.7%	9.2%	2.2%	1.9%	2.6%	2.5%
54 Professional, Scientific & Tech Services	13.9%	15.1%	5.5%	6.6%	5.8%	7.2%
55 Management of Companies & Enterprises	1.9%	2.2%	11.5%	9.9%	11.6%	8.8%
56 Administrative & Support Services	3.4%	3.2%	1.4%	2.7%	1.5%	3.2%
61-62 Education, Health Care & Social Assistance	5.1%	4.3%	1.8%	1.3%	1.9%	1.4%
71 Arts, Entertainment, & Recreation	1.2%	1.0%	0.3%	0.3%	0.3%	0.2%
72 Accommodation & Food Services	2.6%	2.3%	0.5%	0.7%	0.6%	0.9%
81-92 Other Services	8.8%	8.8%	1.6%	1.2%	1.9%	1.5%
999999 Not Yet Assigned	5.9%	11.1%	10.8%	12.1%	8.8%	13.5%
TOTAL	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**

Source: State of Connecticut, Department of Revenue Services, *Annual Report*, various years.

Assessment of Corporate Tax Credits

Economic development goals, unique industry-specific considerations and desires to remain competitive with other states commonly motivate policymakers to develop special provisions of the tax code to stimulate economic activity. In practice, all states use economic development incentives and all states use the tax code to pursue their goals. But special provisions of the tax code lead to revenue erosion, complexities of tax administration and compliance and in some instances, perceptions of unfairness on the part of different taxpayers. Moreover, there are ongoing concerns that tax-based incentives are simply not effective means of promoting economic development.[11] In some instances, credits may simply reward firms for decisions that they would have made even in the absence of credits. Because the business response to taxes is generally small, significant revenues can be lost with little or no economic development benefit being realized. The triennial reports of the Connecticut Department of Economic and Community Development illustrate many of the shortcomings of the state's incentive programs, including corporate tax credits.[12]

Business taxpayers are frustrated with limits that have been placed on Connecticut's tax credit programs. The business community feels that they have earned these credits in good faith, only to encounter legislative restrictions that limit their use and the scope of tax relief. As noted above, in 2002, the state imposed a restriction that confined credit relief to no more than 70 percent of a taxpayer's liability, while in the special summer session in 2015, the state placed a tighter restriction on credit use of 50.01 percent of a firm's tax liability. The restrictions have been imposed at the same time that the state has continued to use the corporate surtax (applied to pre-credit liabilities) on top of the regular corporate income tax rate.

The amount of revenue foregone because of credits is substantial and amounted to 24.8 percent of aggregate corporate tax liability in 2012. The state's financial exposure is substantial in light of the enormous volume of credits that have been carried forward.

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[11] Research on the effects of state taxes on economic growth and development generally find small-to-modest economic effects. See, for example, the comprehensive reviews undertaken by Michael Wasylenko (1997) and Bartik (1991). A recent paper by Gale, Krupkin and Reuben (2015) finds little evidence that state taxes affect economic growth. Bruce, Liu and Murray (2015) find no evidence that state taxes consistently influence entrepreneurship using a variety of measures of taxes and entrepreneurial activity. Luna and Murray (2010) examine how features of state personal and corporate income tax systems affect business organizational form. While they find some evidence that taxes matter, the impacts are small.

[12] See *An Assessment of Connecticut's Tax Credit and Abatement Programs*, Department of Economic and Community Development, September, 2014. Available at http://www.ct.gov/ecd/lib/ecd/decd_sb_501_sec_27_report_revised_2013_final.pdf

If the credits are to be maintained to pursue economic development objectives, consideration should be given to reducing the number of credits, especially those that have been found to be less effective and those that are used by a small number of firms. Emphasis should fall on credits that broaden and deepen private capital and human capital investments rather than tax concessions to specific firms. On the other hand, if the credits are intended to simply offer taxpayer relief, then one alternative would be to simply phase existing credits out and lower the overall corporate income tax rate. A reduction in the tax rate from the current 7.5 percent to 5.6 percent would have been roughly revenue neutral rate in 2012 in the absence of all corporate tax credits. This would be a very attractive corporate tax rate in the region surrounding Connecticut.

Business Tax Options Beyond the Corporate Income Tax

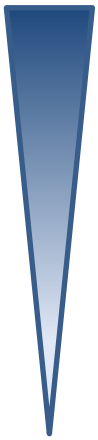
Many states are rethinking their approach to the taxation of business for two interrelated reasons. First, the income tax is complex, imposes significant compliance and administration costs, and accordingly creates deadweight economic losses (i.e. economic distortions). Second and perhaps more importantly, revenues from the corporate income tax are shrinking, for a variety of reasons. There are a number of factors affecting the declines in revenue, but numerous studies have not been able to isolate precisely the relative roles played by the factors. Fox and Luna (2005) find that part of this overall decline in corporate income tax collections is likely due to the growing popularity of pass through entities like S-corporations, partnerships, LLCs and LLPs, which often results in the profits being taxed on individual returns. They find three additional factors that offer explanations for state corporate tax base erosion, including changes in the federal tax base, state tax policy actions, and aggressive tax planning strategies[13] (Fox and Luna 2002). They note that the trend decline in tax revenues relative to corporate profits as suggestive that tax planning is a reason for some part of the decline in the effective corporate tax rate.

In response to declining revenues, many states have tried to plug holes in their traditional corporate tax systems, which has proven to be an ongoing struggle. On the other hand, several states have abandoned the traditional income tax and replaced it with other taxes on business activity rather than business profits. These taxes both expand the base and allow for much lower tax rates, but come with their own problems, as discussed more fully below. When considering these options, it is perhaps most useful to consider them as points on a continuum (See Figure 13). All taxes begin with gross receipts or gross income, and vary depending on what income is included in the tax base and what deductions are allowed. On one end are pure gross receipts taxes that levy a tax at a very low rate on all business receipts (although they

[13] Tax planning can be abusive, but much of it is firms making appropriate decisions to lessen their tax payments.

often exclude investment income such as interest and dividends). Few, if any, deductions are allowed. On the other end is the corporate income tax that allows deductions for all "ordinary and necessary" business expenses. Because of the allowable deductions and narrower tax base compared to a gross receipts tax (including fewer taxpayers), the income tax rate must be significantly higher than a gross receipts tax that raises the same amount of revenue. Between these extremes are taxes like the Texas gross margin tax, which taxes all receipts minus some measure of cost of goods sold and the business value added tax, which permits a deduction for business inputs and services purchased from other firms. We describe the gross receipt tax and value added tax options below and provide some examples of states using these taxes today.[14]

FIGURE 13: Taxonomy of Business Taxes



Tax Base	Examples	Description of Tax Base
General gross receipts tax	Ohio CAT, Washington B&O, Nevada	Gross receipts (GR) with few, if any, deductions
Modified GRT	Texas tax base option Texas tax base option	GR minus labor costs 70 percent of GR
Gross margin tax	Texas tax base option; Kentucky and New Jersey AMTs	GR minus cost of goods sold
Net receipts tax / Subtraction method VAT	Proposed in California	GR minus purchases from other firms, resulting in incomplete border adjustments
Credit Invoice VAT	Pure VAT	GR minus purchases from other firms
Corporate income tax	Traditional business entity tax imposed in 45 states; applies to C corps only	GR minus labor costs, depreciation, interest, purchases from other firms, other operating expenses

Source: We draw this table from the article by Cline, R. and T. Neubig, "Future State Business Tax Reforms: Defend or Replace the Tax Base," State Tax Notes, January 21, 2008, Table 4, p. 187, and have updated it for recent reforms.

[14] Refer to Luna, Murray, Yang (2012) for more detail on these business activity taxes and a review of related research.

Gross Receipt Taxes

A gross receipt tax (GRT) typically taxes all business receipts, such as sales of tangible and intangible property, services, rents, and lease payments. In practice, most GRTs do exclude from the tax base the proceeds from most financial transactions – interest, dividends and proceeds from the sale of stocks, bonds and other financial instruments. In many cases, the GRT taxable base is simply the numerator of the sales factor apportionment formula (i.e. total sales in that state) commonly used for apportioning taxable income for purposes of the traditional income tax.

The advantage to such a broad-based tax is primarily the very large taxable base. Typically the GRT not only taxes all business receipts, including goods and services, but it also frequently levies the tax on a broad range of businesses including corporations, partnerships, LLCs and individuals operating sole proprietorships. States often argue that the nexus threshold for a broad-based gross receipts tax is lower than that for income or sales taxes and therefore states can more aggressively assert nexus on out of state businesses making taxable sales into the state. Gross receipts taxes are privilege taxes and not subject to the restrictions imposed by Public Law 86-272. The broad base allows for very low rates, often one percent or less, compared to corporate income tax rates that average closer to 7 percent nationwide. Compliance and administration costs are low because the base is easily defined and tracked. Furthermore, the very low rate lowers the expected return for tax evasion and tax avoidance through tax planning, making such actions less profitable for taxpayers and therefore less likely. Finally, a base equal to gross sales requires firms to shift business activity out of a state to lower the GRT.

On the other hand, the advantages of the GRT are also the source of the primary disadvantages of the tax. The GRT is a tax on turnover, and there are no deductions or exclusions for business purchases of previously taxed items. Accordingly, the tax can cascade as an item passes through the various stages of production from raw materials to finished goods, and then from manufacturer to wholesaler to eventual retailer. This cascading effect will provide incentives for vertical integration, and give vertically integrated firms a distinct competitive advantage over firms concentrating their efforts at one point of the manufacturing and distribution

cycle.[15] For these reasons, states often levy a lower rate on wholesalers versus retailers. Lower rates are also levied on traditionally low margin, high volume industries such as grocers. The GRT is also criticized for taxing firms which may have no profit, but the same firms would also pay sales and property taxes regardless of profitability.

Value-Added Taxes

As suggested by the name, value added taxes (VATs) use one of various methods to tax only the value added by each business in the production and distribution cycle of both goods and services. Conceptually, value added is simply the selling price of a good minus the cost of inputs (tangible goods and services) purchased from other firms. There are three broad methods of levying a VAT. In theory, all three arrive at the same taxable base but use different methods. Most of Europe imposes a consumption type VAT, which levies a tax each time a good or service changes hand, with the seller allowed a credit (in a credit invoice system) for VAT previously paid along the supply chain. The final sale to a non-business consumer is subject to the VAT, but the purchaser (typically a household consumer) cannot claim any credits. Therefore, all VAT paid by businesses is in principle rebated along the way, and a VAT is functionally equivalent in results to an ideal retail sales tax levied only at the final non-business sale.

While the credit invoice VAT has received the attention of some academics and policy analysts, there has been no serious discussion about actually implementing such a tax in the U.S. at the Federal level or among the states. Accordingly, we will focus our attention on variants of the addition and subtraction VATs imposed by some states on business activity. The addition VAT arrives at the tax base by adding the firm's costs that produce value added, namely labor (in-house payroll), rent paid, interest paid, and a measure of profits. The obvious practical problem with this approach is the calculation of the profits share of the tax base retains many of the existing problems of existing corporate income tax systems which include complicated rules on what is and is not deductible for the purpose of arriving at a profits figure and the apportionment of profits across state taxing jurisdictions.

The subtraction method VAT begins with gross receipts and subtracts all purchases from other businesses, but not in-house labor or services. Notably, VAT systems typically recognize as deductions to 'value added' both direct and indirect inputs and so would include the components of cost of goods sold in an income tax regime (minus in-house labor) as well as indirect costs such as computer equipment, office furniture, supplies and all other purchases from businesses. The result is the value added by that firm.

[15] Cascading may also arise with higher-rate sales taxes since a considerable share of the sales tax is derived from the taxation of business inputs. We are not aware of any empirical evidence that the sales tax or gross receipts taxes leads to the vertical integration of firms.

For both methods, states have to determine how to treat capital assets and inventory. Under the income variant (IVAT) expenditures for inventory and capital assets are treated like they are in the traditional income tax – capitalized and deducted when sold in the case of inventory or depreciated over time in the case of capital assets. Under the consumption variant, all purchases including those for inventory and capital assets are deductible immediately from the tax base. In the addition VAT, capital purchases are fully deductible for purposes of the profits portion of the VAT base, and in the subtraction VAT are deductible from gross receipts.

The subtraction method VAT is most conceptually similar to the traditional income tax but there exist many important differences. First, the VAT typically excludes interest and dividend income from the taxable base. In-house wages are deductible for income tax purposes but not for the VAT. Further, most business VATs allow for immediate expensing of capital assets, although this is a policy option and states can require capital assets to be capitalized and depreciated similar to existing income tax regimes. Finally, most VATs exclude interest, dividend and capital gains income from the taxable base.

Current Examples of Business Activity Taxes

There are currently four states with a GRT: the Ohio commercial activity tax, the Washington business and occupation (B&O) Tax, the Delaware gross receipts tax, and most recently, the Nevada commerce tax[16] These are similar taxes but with a few notable differences. Ohio and Delaware are in addition to a traditional personal income tax and do not tax returns on capital (i.e. interest, dividends or capital gains) but that income will be taxed by the states' existing income taxes. Washington State does not have an income tax, but its GRT does tax returns on capital. B&O rates range from 0.138 percent to 3.30 percent, but rates for retailing, wholesaling and manufacturing are about 0.5 percent. Services are taxed at 1.5 percent. Delaware's tax is extremely broad and allows for no deductions, but it does allow for a monthly exemption of $80,000, and it only applies to manufacturers with gross receipts exceeding $1 million annually. Rates range from 0.1006 percent to 0.7543 percent with manufacturers taxed at 0.1886% and retailers at 0.7543 percent. Texas has a gross margin tax, which allows cost of goods sold as a deduction but excludes most other deductions. The tax rate is 0.50 percent for retailers and wholesalers, and 1 percent for all other taxpayers, although the rates are reduced somewhat if revenue goals are met. The new Nevada commerce tax base is gross revenue apportioned to Nevada with a $4,000,000 standard deduction. There are exclusions and deductions from gross revenue; however, there is no deduction for cost of goods sold or other expenses incurred. Tax rates vary from 0.051 percent (mining, etc.) to 0.331 percent (rail transportation) with manufacturing taxed at a rate of .091 percent, and retail trade at 0.111 percent.

[16] The Nevada Commerce tax (signed into law on June 10, 2015) is effective July 1, 2015.

These taxes enjoy the advantages of a very broad and relatively easily defined base (gross sales with few exemptions or deductions) and low nominal rates. The most commonly cited problem is the taxes are assessed at each step as goods move through the business pipeline, and so the taxes will tend to cascade for firms that are not vertically integrated. For this reason, states typically assess tax at lower rates for retailers, wholesalers and manufacturers versus firms who do not tend to purchase inputs from other businesses. However, these concessions still disadvantage stand-alone firms versus those who are vertically integrated and so provide a tax incentive to consolidate supply chains. The low tax rates help mitigate this problem. Furthermore the taxes are a larger share of profits for those businesses (e.g. grocery stores and discount stores) that operate on very thin margins and are assessed against firms that are losing money, including startups that traditionally experience losses in early years. The general presumption is that businesses will shift the tax forward to consumers. Firms operating in the same industry will generally be on a level playing field.

New Hampshire has an addition VAT (called the business enterprise tax or BET), with the base equal to in-house compensation plus interest and dividends paid, taxed at a rate of 0.75 percent. Addition VATs normally include a measure of profits in the tax base, but because New Hampshire also imposes a separate business profits tax, profits are not included in the VAT base.

Transitioning to these broad-based taxes poses a number of practical problems. One significant one is that NOL carryforwards generated under an income tax are not directly transferrable to a tax on business activity because the tax rates are so much lower and the tax base broader. The potential tax savings from existing NOLs applied against a broad tax base drops precipitously. In Ohio, the compromise reached with taxpayers was to convert NOLs to tax credits that could offset a maximum of 50 percent of the pre-credit tax each year. After 30 years, the remaining NOLs could be used in full. This compromise still represented significant tax benefit losses for some companies because while an NOL could eliminate all taxable income until exhausted, tax credits could only offset half of the pre-NOL credit liability.

Conclusion: Policy Evaluation

Policy Criteria

The evaluation of state tax systems is traditionally built on a set of well-established policy criteria commonly referred to as the *requirements of a good tax system*. These criteria, as approved by the Tax Study Panel at the May 2012 meeting provide a systematic and structured basis for tax system analysis. The discussion that follows presents the policy criteria and then applies them to various facets of the corporate business tax system in Connecticut. The discussion of policy closes with consideration of major structural reforms in Connecticut that could replace the current corporate tax system.

Criteria for Judging a High Quality System in the Context of General Business Taxation

1. **Benefit Tax-Public Service Nexus**. The taxation of business is typically predicated on the *benefit principle* where taxes are imposed to compensate government for the public service benefits provided to business taxpayers. If tax costs are relatively high compared to public services, firms will be discouraged from conducting business in the state; if taxes are lower than the value of public services provided, then the gap must be made up by other taxpayers or services must be reduced. To the extent possible, tax payments from businesses should align with the benefits they receive from the state. In this context benefits are understood to be generalized benefits that range from the specifics of judicial and public safety services to the public sector's provision of a public infrastructure that directly and indirectly subsidizes the business enterprise.

2. **Neutrality**. Taxes should be neutral and not distort the choices made by firms, including where to conduct business, the capital/labor/land mix in the production function, and the business structural form (e.g. the corporate form versus a pass-through entity).

3. **Ease of Administration and Tax Compliance Simplicity**. All taxes give rise to costs of administration and costs of compliance. In general, these costs rise as the tax system becomes more complex. The corporate income tax is notorious for its complexity and relatively high costs of administration and compliance. This complexity stems inherently from the need to measure the net income base. There is simply no practical way to avoid complexity in the design of a net income tax for businesses. Complexity also arises through special provisions of the tax code which are intended to provide relief to specific taxpayers or taxpayer groups. Connecticut's corporate tax credits are an example of such special provisions. (Credits have an additional element of complexity since they are intended to

promote specific economic development objectives and their effectiveness must be evaluated accordingly.)

4. **Certainty, Predictability and Transparency**. Tax policy must be dynamic and adapt to evolving expenditure requirements and changes in the market environment wherein taxes are imposed. This is especially important for general business taxes since the traditional corporate income tax was developed in an era when factors of production were relatively immobile, manufacturing was paramount and services were a small share of the economy, and tax planning was not prominent. At the same time, policy changes should display some element of certainty and predictability and retroactive policy changes in particular should be avoided. (Mandatory unitary combined reporting was initially to be made retroactive to January 1, 2015 but the final law made it applicable effective January 1, 2016.) Transparency of the tax system is also important so that taxpayers feel that they are treated fairly by the state. Firms make business decisions based on market conditions, the tax structure and other factors, with the expectation of realizing a return on their investment. Changes in business tax policy can alter the returns to investments that have already been made and thus weaken state's attractiveness as a place to do business. In general, tax structure uncertainty, volatility and opaqueness can hamper investment growth and job creation.

5. **Revenue Performance**. Revenue performance is multifaceted and includes (i) revenue yield; (ii) revenue elasticity and buoyancy; and (iii) revenue stability. Revenue yield reflects the level of revenue collected. Elasticity measures revenue growth over time in response to economic growth, net of policy changes that affect the tax base and tax rates. Tax systems that are relatively elastic—i.e. responsive to economic growth—tend to be desirable because revenues grow to support expenditure needs that tend to rise with population and economic growth. Buoyancy is the growth in revenue over time in response to economic growth, inclusive of policy changes that affect revenues. A relatively inelastic tax can be made buoyant through increases in tax rates or expansions of the tax base, though these changes must work their way through the political process which can be contentious. Revenue stability is the performance of revenues over the ups and downs of the business cycle.

6. **Fairness**. Fairness in the context of business taxation refers to horizontal equity and the equal treatment of firms across sectors and across organizational form.

Findings

The review of Connecticut's business tax structure presented above reveals a highly complex and nuanced system that includes multiple tax structures, different reporting mechanisms for firms with different organizational structure and an extensive set of costly-to-administer tax credits that provide taxpayer relief at the expense of collections. In principle the system is similar to the structure in other states. But the Connecticut structure is arguably more complicated. State policy changes over the last decade have been significant, including the introduction of the corporate surtax (which has been volatile), the introduction of the preference tax for combined reporters (which has been subject to change) and changes to the credit structure that have increasingly limited taxpayer relief even as new credits have been introduced. Revenue yield is small compared to overall state tax collections. Over the long term, corporate revenue performance has been highly volatile and much more volatile than non-corporate tax revenues. Revenue yield and buoyancy have been sustained largely through policy changes, including the corporate tax surcharge which applies to pre-credit tax liabilities, the preference tax and limitations on tax credit use.

Based on the analysis above, along with the requirements of a good tax system, the following policy considerations are offered to policymakers and the business community. As possible, revenue neutrality is used to guide the policy considerations. It is important that lawmakers consider the impact of policy reforms on firm financial statements, especially major structural reforms. Changes in the law will impact deferred tax liabilities and have potentially adverse effects on reported income for the year of change.

1. Eliminate the capital base system. The requirement to calculate tax liabilities under two systems (the net income and capital base methods) and pay the higher of the two leads to higher administrative and compliance costs and creates taxpayer uncertainty regarding tax liabilities. The net income tax produced over 85 percent of post-credit corporate tax collections in 2012; the minimum tax, which produced only 3.4 percent of post-credit collections in 2012, is viewed as punitive by the business community. This system is likely in place to ensure that all corporate taxpayers pay something in tax and that net-operating losses and other factors do not cost the state too much in revenue. By eliminating the capital base system and placing reliance on the net income tax, the minimum tax could be retained to ensure all firms pay tax. Revenue losses could be made up by raising the corporate tax rate and/or placing limits on future issuance of tax credits; broadening the base would be a superior means of making up for any foregone revenue.

2. Implement a low-rate franchise (capital base) tax for *all* taxpayers. The minimum tax could be eliminated and the corporate tax rate could remain unchanged or be reduced. A franchise

tax would add some stability to the business tax system portfolio and ensure that all taxpayers paid something in tax; greater revenue stability may in turn translate into enhanced business tax policy stability. However, this approach would come at the cost of sustaining an additional tax instrument. Moreover, franchise taxes are not popular and some states have eliminated them.

3. Clarify the corporate tax rate via elimination of the corporate surtax. The regular corporate statutory tax rate in Connecticut is 7.5 percent. However, the overall rate is much higher and has changed markedly over time because of the volatility of the corporate surtax which has varied between zero and 25 percent. The surcharge rate is slated to fall to 10 percent in 2018 and may then be eliminated entirely. The surcharge should be embedded as a statutory rate in the regular corporate income tax rate schedule. This would enhance policy stability, reduce tax-induced distortions and improve the transparency of the system.

4. Eliminate the proliferation of tax credits. The credit system narrows the tax base, is complicated and is subject to ongoing change, including the creation of new credits and limitations on their use. This leads to a higher tax rate, policy and tax liability uncertainty, changing incentives for investment and job creation, and a lack of transparency. Placing restrictions on credit use is a form of retroactive policy change that affects the rate of return on previously-made investments. Many of the credits are used only by a small number of firms and yield limited tax savings for businesses; these credits could be eliminated. The credit system is also costly to the state in terms of revenue yield and there is a huge volume of credits outstanding that will lead to future revenue losses to the state. In some cases the credits may alter investment incentives. But in other cases they may simply reward businesses for decisions that they would have made regardless of the structure of taxation. This means that revenue losses are incurred for no economic development gain. Base broadening would serve as an opportunity to reduce the corporate tax rate.

5. Evaluate whether tax credits are achieving their objective. If tax credits are intended to simply provide corporate tax relief, then broaden the base by phasing out tax credits and lower the statutory tax rate. Elimination of credits for the 2012 tax year would have supported nominal rate reduction from 7.5 percent to 5.6 percent, benefiting all business taxpayers. On the other hand, if tax credits are intended to promote economic development, then greater efforts should be made to identify policies (including non-tax policies) that can promote economic growth at lower revenue cost to the state.

6. Enact a market-based sourcing rule in lieu of the current cost-of-performance rule for apportionment of the sales factor. The traditional approach to interstate apportioning of the sales factor associated with services is based on the cost of performance in the state(s) from

which the service is sourced. In principle this aligns with the benefit tax view where public services are provided in support of production activities. However, in practice cost of performance is difficult to measure, especially when service provision comes from multiple states. Moreover, the cost-of-performance rule translates into origin-based taxation—i.e. taxation at the source of production—and can distort where production activities occur. A market-based rule would harmonize policy with the treatment of tangible goods and allocate sales to the destination of consumption and use.

7. Unitary groups for combined reporting should be as inclusive as possible. The unitary group should include non-taxable entities, such as insurance companies and subsidiaries in foreign tax havens. This will reduce distortions and tax planning.

8. Include management fees in addback provisions. Connecticut's current addback provisions could be enhanced through the inclusion of management fees. This would reduce distortions that induce tax planning activities. A small increase in revenues might be anticipated from this policy change.

9. Eliminate taxpayer elections. Under the newly-implemented mandatory uniform combined reporting system, taxpayers will be allowed to elect to report on a water's edge, worldwide, or federal affiliated basis. This will significantly increase the cost associated with administration and compliance of the corporate tax system. The state should evaluate this new structure to determine if a single reporting regime would be adequate.

10. Impose single factor sales apportionment for all taxpayers. Connecticut has a variety of different apportionment formulas for corporations engaged in different types of economic activity, and members of a combined or consolidated group may use different apportionment formulas. It also applies different apportionment formulas for corporations than for pass-through entities. This leads to different incentives for different firms, sectors and organizational structures. A single factor sales tax for all entities will achieve numerous policy goals including simplicity and neutrality as well as lower the tax cost on in-state production. A corporate income tax with 100 percent weighting of sales is similar to a gross receipts tax.

Major Structural Reform

The policy recommendations presented above are all reflective of the current structure of business taxation in Connecticut. As such, they represent small-to-modest changes to an already highly-complex system of taxation. They are generally consistent with the requirements of a good tax system and may help on the margin but nothing presented in the discussion above, other than the elimination of credits, would fundamentally change the characteristics or outcomes of the business tax structure in Connecticut. It is likely that ongoing

policy changes will be required to sustain the performance of the corporate income tax even with mandatory unitary combined reporting.

1. **Eliminate the corporate income tax and require all reporting to take place at the pass-through level of the personal income tax.** This would dramatically simplify the system but would lead to significant revenue losses to the state from non-residents; no other state has chosen to eliminate the corporate income tax and tax business entities exclusively through the personal income tax. This option is not considered in further detail here.

2. **Replace the corporate income tax with an alternative business tax system.** The options include a value-added tax (VAT) or a gross receipts tax (GRT). Each of these options is discussed more fully below.

There is precedent for a VAT at the state level, including Michigan's single business tax (which has been eliminated) and New Hampshire's business enterprise tax (which is still in existence). Gross receipts taxes have long been a staple of state and local tax systems, though traditional revenue reliance has been modest. There are exceptions, including Washington's longstanding business and occupations tax and the relatively new and somewhat differentiated GRTs in Ohio, Texas and Oklahoma which have served as replacements for the traditional net income tax.

A VAT or GRT could be imposed on corporate taxpayers as a business entity (activities) tax. A business entity tax would not be subject to the constraints of Public Law 86-272 and so nexus would be more easily established for businesses penetrating Connecticut's markets. This would promote neutrality. In principle, consistent with the benefit tax view, the VAT should be a production tax and capture value-added in the production process, including wages and salaries, proprietor's profits, interest paid, dividends paid, and rents paid. (Capital purchases would be deductible under profits.) The GRT would be a destination-based tax and apply to the sale of services and tangible goods that are sitused in the state. Some receipts could be exempted from a GRT, including returns to capital, with returns taxed at the individual level.

Depending on their design, VATs and GRTs can produce significant improvements in the business tax structure. First, they can be simpler taxes to administer and comply with. This can be seen by comparing the instructions and tax returns for the business enterprise tax in New Hampshire and the commercial activity tax in Ohio against the same information for the corporate tax in Connecticut.[17] (It is noteworthy that the Ohio CAT return is smaller than a

[17] See http://revenue.nh.gov/forms/business-tax.htm, http://www.tax.ohio.gov/commercial_activities.aspx and http://www.tax.ohio.gov/portals/0/forms/CAT/2012/CAT_CAT12_FI.pdf, and http://www.ct.gov/drs/cwp/view.asp?a=1509&q=449532

single page.) Both systems produce a more stable tax base by relying on value added or gross receipts instead of profits, in part because profits reflect the reporting decisions of businesses. And both systems appear to have a stronger underlying elasticity than the corporate income tax because they are less prone to tax planning. Perceptions of fairness may be enhanced by including a larger set of firms in the tax base and treating firms with similar receipts similarly. A stronger business tax-public service (i.e. benefit tax) linkage would be established through a measure of the base that aligns more closely with public service benefits than profits.[18] Both instruments are more transparent as business taxes due to the clarity of their respective bases. Finally, VATs and GRTs, by virtue of their large base, can support lower rates and thus reduce tax-induced distortions. The rate of the Ohio commercial activity tax was phased in over five years and reached 0.26 percent in April, 2009; the rate has not since changed. The New Hampshire business enterprise tax rate is 0.75 percent.

Of course, each alternative tax instrument also has weaknesses. Unfortunately, some of the criticisms levied against these alternatives are often presented in a vacuum that ignores the inherent weaknesses of the corporate income tax.

One weakness of the VAT is lack of taxpayer familiarity and association of the tax with the high-rate consumption VATs in Europe. While production and consumption VATs are conceptually similar, the production VAT proposal presented here has modest revenue objectives and can support very low rates compared to the traditional corporate income tax and the VATs that are in place abroad.

A common criticism of gross receipts taxes is that they can lead to tax pyramiding across the production chain that can in turn distort business choices. This is the most vocal argument presented against the GRT. However, sales taxes, which have much higher rates and fall on a significant share of business input purchases, can in principle have the same effect. Yet there is no empirical evidence suggesting that the sales tax or existing gross receipts taxes induce vertical integration. Evidence from New Mexico's gross receipts tax—which is a broad-based sales tax with a relatively high rate—suggests that 32 percent of revenues came from pyramiding (del Valle, 2005). A study of Washington's business and occupations tax, which has much lower rates, indicates that on average taxes pyramided 2.5 times (i.e. applied to an average of 2.5 transactions), with significant variation across industries (Washington, 2002). Significant variation currently exists in corporate tax liabilities across sectors of the Connecticut

[18] Gugl and Zodrow (2015) show that production taxes like an origin VAT or a GRT with deductions for the cost of purchased inputs are superior benefit tax instruments produce fewer distortion than capital (i.e. net income) taxes.

economy. With a low rate GRT, this pyramiding would not be expected to create significant distortions.

A criticism of both alternative structures is that businesses without a profit must nonetheless remit tax. However, this is already the case with the Connecticut corporate tax structure—if firms owe no tax under the net income method, then the capital base alternative or the minimum tax applies. Moreover, Connecticut businesses must remit property taxes, sales taxes and fees regardless of their profitability. Firms without a profit nonetheless benefit from public services provided by the state.

The production VAT can be criticized as an origin-based tax, but its intent is to serve as a benefit tax. A GRT would also impose tax on inputs used in production and as a result exports from the state would potentially have tax embedded in their price. (Sales delivered out of state would not be subject to gross receipts taxation.) Elements of origin-based taxation already exist under the current corporate income, property and sales taxes. Low VAT and GRT tax rates would help minimize these possible distortions.

Only the VAT would require interstate apportionment. The apportionment rules could be very straightforward. For a production VAT, this would require apportionment of Connecticut's share of total value-added that accrues across a firm's market states. Apportionment of profits, wages and salaries would be straightforward since these can be relatively easily assigned to the state of production. However, other forms of value added like interest and dividends may be derived from both in-state and out-of-state activities of a multistate firm. In these instances, alternative rules could be established. New Hampshire, for example, pragmatically apportions interest income using a property factor and apportions dividends using a sales factor.

A GRT requires the sourcing of receipts from the sale of tangible goods and services. This could simply be based on the Connecticut share of multistate receipts. Decisions would have to be made on how to treat some receipts like interest and dividends.

Major structural reform would lead to transitional issues, especially for the treatment of net-operating losses and corporate tax credits. One option would be to allow taxpayers the opportunity to carryforward the credits and net-operating losses until they are gone. In Ohio, taxpayers were allowed to carry their credits forward under the commercial activity tax and NOLs were converted to credits for many firms.

Estimates of a revenue-neutral GRT and VAT have been developed for Connecticut with each instrument serving as a potential replacement for the current corporate tax structure. The revenue neutral estimates presented here should be viewed as suggestive rather than definitive. Pre-credit corporate tax revenue is the reference point for these estimates.

Data from Ohio's commercial activity tax are used as a foundation for estimation of the base and rate of a GRT for Connecticut.[19] The starting point is taxable gross receipts by industry for the Ohio tax commercial activity tax. This is a policy neutral measure of the base in the sense that it does not reflect anything other than the measure of potentially taxable gross receipts situsued in the state. In practice, Ohio excludes some business activity from the commercial activity tax, notably insurance companies and financial institutions. These and other exemptions mean that net taxable receipts in 2014 were 87.9 percent of taxable gross receipts. Note that exemptions from the base will necessitate a higher tax rate unless the exempt activity is subject to an alternative tax instrument.

Gross domestic product data by industry sector for each state are used to calculate ratios of Connecticut-to-Ohio gross domestic product. These ratios are applied to Ohio taxable gross receipts yielding a proxy for the sectoral tax bases of a Connecticut GRT. A revenue neutral tax rate is then determined that produces a yield commensurate with Connecticut corporation business tax revenues due before application of credits.

For the VAT, the starting point is a recent study evaluating a federal VAT for the U.S. (Toder, Nunns and Rosenburg, 2012). While the study considers a consumption VAT, the conceptual similarities to a production VAT allow application to Connecticut. The broad base of the VAT is estimated to be 39.8 percent of U.S. GDP. This figure is applied to Connecticut's GDP to arrive at an estimate of the state production VAT base.

Table 12 shows the pre-credit revenue neutral tax rates as well as the Connecticut corporate income tax rate inclusive of the corporate surcharge for 2006-2012. The revenue neutral GRT rate in 2012 is estimated to be 0.22 percent and the VAT rate is estimated to be 0.64 percent. Both of these rates compare very favorably to the 9.0 percent corporate income tax rate. It is important to note that the variability of the VAT and GRT rates reflects the variability of corporate income tax collections since these are constructed as revenue-neutral rates.

The estimated distribution of the 2012 GRT tax liability across industry sectors is presented in Table 13, along with the 2012 distribution of pre-credit corporate tax liability. Some sectors, like wholesale and retail trade, are estimated to have significantly larger tax liabilities under the GRT than the current corporate income tax. Other sectors, including finance and insurance and the management of companies and enterprises would see falling liabilities.

While it has not proven possible to provide a detailed breakdown of estimated sectoral liabilities under the VAT alternative, suggestive evidence based on GDP data is presented in Table 14. The government sector would not be taxed under either alternative and thus is

[19] See http://www.tax.ohio.gov/tax_analysis/tax_data_series/cat/publications_tds_cat.aspx

omitted. Similarly, the education, health and social assistance sector has been removed from the state GDP data since most of this sector would presumably be exempt. Together the remaining sectors represent about 80 percent of GDP, which is much larger than the simulated VAT at 39.8 percent of GDP.

An important question is whether the bases of the VAT and GRT alternatives are more or less responsive to economic growth than the corporate income tax. This question cannot be answered definitively since a measure of the corporate income tax base is not available. However, corporate income tax collections had a -0.2 percent compound annual growth rate between 2007 and 2012. In contrast, the GRT base grew 1.5 percent and the VAT base grew 0.4 percent over this same time period. (As measured here, the VAT base is total GDP minus government and minus education, health and social assistance. Simply using 39.8 percent of GDP would produce growth rates commensurate with GDP growth.)

Another important consideration is the relative stability of the respective tax instruments. All taxes showed volatility over the 2007-2012 period because of the Great Recession. Connecticut corporate income tax revenue was highly volatile over this time frame with a 32.4 percent contraction in 2008 and a 34.2 percent jump in 2011. The GRT base showed its strongest growth in 2008 (11.2 percent) and sharpest contraction in 2010 (10.6 percent); corporate tax collections were more volatile than the GRT base in five of six years. The VAT base had peak growth of 2.5 percent in 2012 and its largest setback of 2.0 percent in 2009. (Again, the VAT base as measured here is total GDP minus government and minus education, health and social assistance.) The VAT clearly offers the more stable base over this short window of time.

TABLE 12: Corporate Tax Rates and Revenue Neutral VAT and GRT Rates

	2007	2008	2009	2010	2011	2012
VAT Tax Rate	0.589%	0.531%	0.571%	0.633%	0.618%	0.640%
GRT Tax Rate	0.215%	0.172%	0.190%	0.242%	0.226%	0.221%
CIT Tax Rate*	7.500%	7.500%	8.250%	8.250%	8.250%	9.000%

*Includes surcharge tax rate.

Source: Bureau of Economic Analysis.

TABLE 13: Revenue Neutral Gross Receipts Tax: Liabilities by Sector

Industrial Sector	Corporate Income Tax		Gross Receipts Tax	
	Revenues	Share of Total	Revenues	Share of Total
Agriculture, Forestry, Fishing & Hunting	$745,819	0.12%	$1,243,784	0.20%
Mining	767,454	0.13%	734,716	0.12%
Utilities	22,384,245	3.67%	10,004,699	1.64%
Construction	6,149,270	1.01%	29,932,330	4.90%
Manufacturing	129,775,757	21.25%	121,650,730	19.92%
Wholesale Trade	34,191,938	5.60%	96,549,990	15.81%
Retail Trade	58,766,357	9.62%	116,192,148	19.03%
Transporting & Warehousing	9,860,731	1.61%	9,787,274	1.60%
Information	52,987,640	8.68%	46,909,184	7.68%
Finance & Insurance	70,783,394	11.59%	16,385,062	2.68%
Real Estate & Rental & Leasing	11,823,562	1.94%	21,768,065	3.57%
Professional, Scientific & Tech Services	40,406,171	6.62%	44,030,126	7.21%
Management of Companies & Enterprises	60,552,149	9.92%	27,064,636	4.43%
Administrative & Support Services	16,550,669	2.71%	7,791,309	1.28%
Education, Health Care & Social Assistance	7,999,913	1.31%	25,696,653	4.21%
Arts, Entertainment, & Recreation	1,766,568	0.29%	2,277,281	0.37%
Accommodation & Food Services	4,147,938	0.68%	13,634,882	2.23%
Other Services	7,205,434	1.18%	7,312,574	1.20%
Unclassified	73,724,717	12.07%	11,624,282	1.90%
TOTAL	**610,589,725**	**100.00%**	**610,589,725**	**100.00%**

TABLE 14: Connecticut Gross Domestic Product, Distribution of Selected Sectors, 2012 (millions $)

Industry	Amount	Share
Agriculture, Forestry, Fishing, Hunting	332	0.2%
Mining	185	0.1%
Utilities	3,484	1.8%
Construction	7,051	3.7%
Manufacturing	27,126	14.2%
Wholesale Trade	14,229	7.4%
Retail Trade	12,636	6.6%
Transportation & Warehousing	4,318	2.3%
Information	11,080	5.8%
Finance & Insurance	34,708	18.2%
Real Estate & Rental & Leasing	36,529	19.1%
Professional, Scientific, & Technical Services	14,885	7.8%
Management Of Companies & Enterprises	6,499	3.4%
Administrative & Support Services	6,634	3.5%
Arts, Entertainment, Recreation	1,772	0.9%
Accommodation & Food Services	4,894	2.6%
Other Services	4,792	2.5%
Total	**191,154**	**100.0%**

Source: Bureau of Economic Analysis. Excludes the government and education, health and social assistance sectors.

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