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A New Approach To State Corporate Taxation

Swaroop Chary

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Swaroop Chary

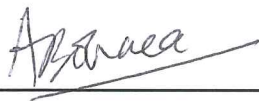
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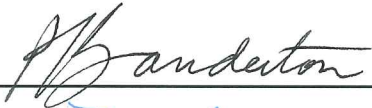
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This dissertation is approved, and it is acceptable in quality and form for publication:

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A NEW APPROACH TO STATE CORPORATE TAXATION

BY

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DISSERTATION

Submitted in Partial Fulfillment of the
Requirements for the Degree of

Doctor of Philosophy

Economics

The University of New Mexico
Albuquerque, New Mexico

December, 2011

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DEDICATION

I dedicate this work to my parents, Dr. S.T. Ramachandra Chary and Mrs. S.T. Swarnalatha Chary as well as my best friend Ms. Michele Markovich for everything they have given me.

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Swaroop R. Chary

Bachelor of Engineering in Civil Engineering

Master of Science in Computer Science

Doctor of Philosophy

ABSTRACT

State Corporate Income Taxes (CIT) generally conform to the basic design and provisions of the federal tax, which results in corporate income being taxed twice, once at the corporate level as it is earned, and again at the individual shareholder level. Most state corporate income taxes also incorporate at least some of the federal provisions that narrow the corporate income tax base, such as bonus depreciation and the domestic production activities deduction. State corporate income taxes also have very high compliance costs relative to revenue, and are a highly volatile source of state revenue. In addition, state corporate income taxes are generally apportioned among states, using at least one of the three traditional factors: property, payroll and sales. Such apportionment results in a highly uneven tax on the apportionment factors that is unrelated to benefits provided to corporations by state and local governments.

I propose replacing the state corporate income tax with a franchise tax using property, payroll and sales above specified threshold levels. The proposal would remove the distortions inherent in the current corporate income tax, substantially reduce

compliance costs, relate corporate taxes more closely with benefits corporations receive from government expenditures and provide a much more stable source of state revenue.

The uncertain incidence of state corporate income tax has been argued for the past few decades, although economists have devoted relatively little attention to the incidence of state franchise taxes. I argue that state corporate franchise taxes are borne by the factors in the traditional three-factor apportionment formula, i.e., property, sales and payroll. I argue that state franchise taxes are likely to be borne by residents of the taxing state as consumers, labor, capital or land owners and a tax would be passed on to the consumers in the taxing state and not exported to consumers throughout the nation. I further argue that the factor(s) that are least likely to escape the tax through migration are taxed. I note that from an economic rents perspective the incidence of state franchise taxes depends on the nature of rents collected, to extent that ideas and not goods are produced by franchise taxpayers; the franchise tax is a tax on labor.

Also, historically, corporate income tax revenues are both volatile and difficult to predict, and increase uncertainty in state budgeting. State corporate income taxes revenues are extremely sensitive to economic cycles and thus are subject to considerable uncertainty. During downturns, state CIT revenues are “pro-cyclical” and exacerbate the drop in state revenues. I argue that a franchise tax based on the three traditional apportionment factors, i.e. property, sales and payroll, would not only generate a higher annual revenue but also would be much more stable, helping to reduce uncertainty from budget forecasting and decision making.

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Chapter 1

Proposal

Introduction

State corporate income taxes generally conform to the basic design and provisions of the federal tax. The federal corporate income tax operates as a separate tax from the federal individual income tax. This means that corporate income is taxed twice: first at the corporate level as it is earned, and again at the individual shareholder level when (after-tax) corporate income is distributed to shareholders as dividends or shareholders realize capital gains on the sale of the corporation's stock.

Three significant economic distortions arise from this “double tax” design. First, because partnerships, LLCs and other non-corporate businesses are only taxed once, at the individual owner level, the corporate income tax discourages forming a business as a corporation. Second, because undistributed corporate income is taxed at a lower rate than distributed corporate income, the corporate income tax distorts the decision away from distributing income in favor of retaining income. Third, because corporate income (the return to equity holders) is generally taxed at a higher rate than interest on loans (the return to lenders, many of which are tax exempt), the corporate income tax distorts the decision away from financing with equity in favor of financing with debt. The federal corporate income tax also contains a number of provisions that narrow, and therefore distort, its base. Most important among these distortions are provisions that result in mistiming of deductions and income, such as the provisions for accelerated forms of cost recovery for investments, including the “bonus depreciation” provisions of the 2008 and 2009 stimulus bills. In addition to understating certain types of

income, these provisions also differentially reduce the effective tax rate on alternative forms of investment, distorting investment choices. Another important distortion arises from the deduction for domestic production activities, which favors certain activities over others.

At the state level the “double tax” issue differs between large and small corporations. For large corporations, the “double tax” primarily arises from the taxes of different states -- the corporate level tax of the state in which the corporation operates, and the individual- level tax of the state(s) in which the shareholders reside. The corporate- level tax imposed on a large corporation by the state in which it operates is necessary to equalize the tax treatment of corporations and non-corporate businesses operating in the state, since the entire income earned in the state by non-corporate businesses is taxed by the state, regardless of where the owners reside. For this reason, a separate corporate- level tax imposed by the state in which a large corporation operates has a separate justification from the federal corporate tax, even if this state tax can be thought of as resulting in a “double tax” because another state or states tax the dividends and capital gains of shareholders. For small corporations, however, both the corporation and the shareholders are likely to be taxed by the same state, so the state can design its tax system to mitigate the “double tax” on the income of small corporations.

In addition to economic distortions due to conformity with the federal tax, other distortions arise from state corporate income tax provisions that determine the appropriate amount of tax to impose on the income of multi-state businesses. These businesses are typically part of a large number of related entities that may have multiple transactions among them. Such transactions include sales, asset transfers, cost sharing arrangements, charges for services and royalties for the use of intangibles. The number and complexity of these transactions make the

determination of the income attributable to each state very difficult. The distortions due to state corporate income taxes affect the level and location of investment and economic activity. Also, these distortions may be exacerbated by effect of special provisions on the actual or perceived “business climate” of a state.

States have introduced special provisions that attempt to properly match the income and expenses of a multi-state corporation to the activities in a state. These special provisions include (a) Mandatory combined reporting, (b) Authority to reallocate income, deductions, and other items between related entities, (c) “Add-back” and “anti-passive investment company” legislation, (d) Minimum taxes, and (e) Significant franchise taxes. These rules tend to be complex, requiring significant compliance resources from both corporations and state tax agencies. They also have generated significant litigation. In addition, the actual or perceived “business climate” of a state may be heavily influenced by presence and nature of such rules. Table 1 (next page) shows the state income tax rates, filing method options, reallocation authority between different parties, alternative minimum tax and franchise tax comparisons between the different states.

State corporate income taxes are “pro-cyclical”, exacerbating the drop in state revenues in downturns. GAO (2002) reports that 32.7 percent of large U.S. corporations reported no tax liability in 1995, and that percentage rose to 45.3 percent by 2000. Nationally, corporate income tax revenues declined 12.2% in the year ending June 2009, after declining 7.3% in the year ending June 2008, a cumulative decline of 19.7%, after growth of 15.4% between June 2006 and June 2007. Auerbach (1984, p. 5) notes that corporate income tax revenues have declined steadily as a fraction of U.S. GNP over the past three decades. He adds that "one reason for the decline in corporate tax collections since 1953 has been a decline in corporate profitability.

Table 1: State Income Tax Rates, Filing Methods, Reallocation Authority between Related Parties, Alternative Minimum Tax and Franchise Tax

State	State Corporate Tax Rates			Combined and Consolidated Reporting				Authority to Reallocate Income & Expenses Among Related Parties	Alternative Minimum Tax	Franchise Tax Base and Rate ⁴
	Top Rate	If Multiple Rates:		Mandatory	State May Require	State May Permit	Taxpayer May Elect			
		Lowest Rate	Number of Brackets							
Alabama	6.5						Consolidated	Yes		Max. of \$100 or graduated percentage of Net Worth
Alaska	9.4	1.0	10	Both				Yes	Tax ("AMT")	\$100
Arizona	6.968			Combined	Consolidated	Consolidated	Consolidated	Yes	Flat \$50	\$45
Arkansas	6.5	1.0	6			Consolidated		Yes		0.3% of Capital Stock
California	8.84			Combined	Combined	Combined	Combined	Yes	6.65% of Alternative Minimum Taxable Income ("AMTI")	8.84% of Taxable Income from business transacted in state
Colorado	4.63			Combined			Consolidated	Yes		
Connecticut	7.5					Consolidated	Combined	Yes	Greater of \$250 or .31% of Capital	
Delaware	8.7							Yes		Graduated amount based on authorized shares
District of Columbia	9.975				Consolidated			NR	\$100	
Florida	5.5						Consolidated	Yes	3.3% of Florida AMTI	
Georgia	6.0				Consolidated	Consolidated		Yes		Graduated amount based on Net Worth
Hawaii	6.4	4.4	3		Both	Consolidated		Yes		
Idaho	7.6			Combined				No	Flat \$20	\$20
Illinois	7.3			Combined				Yes		0.1% of Paid-in Capital
Indiana	8.5				Both	Combined		Yes		
Iowa	12.0	6.0	4		Consolidated		Consolidated	Yes	7.2% of Iowa AMTI	
Kansas	7.1	4.0	2		Combined	Consolidated	Combined	No		
Kentucky	6.0	4.0	3	Consolidated				Yes	.75% of gross profits	\$2.10 per \$1,000 of Total Capital
Louisiana	8.0	4.0	5		Both			Yes		\$3.00 per \$1,000 of Equity and Borrowed Capital
Maine	8.93	3.5	4	Combined				Yes	5.4% of Maine AMTI	
Maryland	8.25							Yes		
Massachusetts ¹	9.5			Combined	Consolidated		Combined	Yes	Flat \$456	
Michigan	4.95				Consolidated	Consolidated		Yes		
Minnesota	9.8			Combined				Yes	5.8% of Minnesota AMTI	
Mississippi	5.0	3.0	3			Combined		Yes		\$2.50 per \$1,000 of Capital
Missouri	6.25					Consolidated		Yes		
Montana	6.75			Combined		Consolidated	Consolidated	No	Flat \$50	
Nebraska	7.81	5.58	2	Both				No		Graduated amount based on Capital
Nevada									----- No Corporate Income Tax -----	\$25 per Employee
New Hampshire	8.5			Combined				No		
New Jersey	9.0	6.5	3		Consolidated			Yes	\$500 plus Assessment at Graduated rates on gross receipts or gross profits	
New Mexico	7.6	4.8	3				Both	No		\$50

State	State Corporate Tax Rates			Combined and Consolidated Reporting				Authority to Reallocate Income & Expenses Among Related Parties	Alternative Minimum Tax	Franchise Tax Base and Rate ⁴
	Top Rate	Lowest Rate	Number of Brackets	Mandatory	State May Require	State May Permit	Taxpayer May Elect			
New York ²	7.1			Combined				Yes	2.5% of minimum taxable base	
North Carolina	6.9				Both			Yes		0.15% of greater of: Capital, Tangible Property or 55% of Tangible Property plus Intangible property
North Dakota	6.5	2.6	5	Combined				No		
Ohio	8.5	5.1	2		Combined	Combined		Yes	\$50 or \$1,000 if gross receipts exceed \$5 million or employment exceeds 300	
Oklahoma	6.0					Consolidated	Consolidated	Yes		Fixed amount of Investment or Employment
Oregon	6.6			Consolidated				Yes	Flat \$10	
Pennsylvania	9.99							Yes		Percentage of Capital
Rhode Island	9.0							No	Flat \$500	Fixed dollar amount of Capital
South Carolina	5.0					Consolidated	Combined	No		\$15 plus 1 mill per \$1 of Capital Stock and Surplus
South Dakota	----- No Corporate Income Tax -----									
Tennessee	6.5				Both	Both		Yes		Fixed amount per dollar of Net Worth
Texas	----- No Corporate Income Tax -----									
Utah	5.0			Combined				No	Flat \$100	
Vermont	8.5	6.0	3	Combined			Consolidated	No	Flat \$250	
Virginia	6.0					Consolidated		Yes		
Washington	----- No Corporate Income Tax -----									
West Virginia ³	8.75			Combined			Consolidated	No		Greater of \$50 or 0.7% of Capital
Wisconsin	7.9							Yes		
Wyoming	----- No Corporate Income Tax -----									

Sources: Federation of Tax Administrators; 2007 Multistate Tax Guide, CCH Inc.; Web sites of State Tax Departments; Tax Foundation.

Notes:

- ¹ Massachusetts Combined Reporting requirement is effective for tax years beginning January 1, 2009.
- ² New York Combined Reporting requirement is effective for tax years beginning January 1, 2007.
- ³ West Virginia's Combined Reporting requirement is effective for tax years beginning January 1, 2009.
- ⁴ Excludes organizational and entrance fees and reporting fees.

Another has been the reduction (from 52 percent to 46 percent) in the corporate tax rate. However, the most important factor has been the introduction of several investment incentives ...". More recently, Gupta, et. al., (2009) document a similar decline in total state corporate income tax collections relative to total state taxes from 1982 until 2002. Fox et. al. (2007) note that state corporate income tax revenues as a share of profits are falling.

Also, the federal corporate income tax is complex, and the provisions states have added also tend to be complex. This complexity results in significant compliance costs for both corporations and state tax agencies. This complexity has also generated significant, expensive litigation. Brunori (2002, p. 47) notes that the state corporate income taxes “consume an inordinate amount of intellectual firepower and economic resources in terms of planning, compliance, and administration.” Slemrod and Blumenthal estimated that in 1993 the average state corporate income tax compliance cost for large (Fortune 500) corporations was 30.5% of total compliance costs of \$2.11 million, or about \$0.64 million. Adjusted for changes in the CPI, state compliance costs today would average nearly \$1 million, or \$21,000 per state for all corporate income tax states. Importantly, Slemrod and Blumenthal found that these costs rose much more slowly than company size and increased significantly if the corporation was in a tax appeal or litigation.

State corporate income taxes are generally the result of apportionment of the total income (or tax on total income) among the states in which the corporation operates. A multi-state business’s corporate income tax liability in a state where it has income tax nexus, is given by the following formula:

$$T = [(P_i/P) * FP + (W_i/W) * FW + (S_i/S) * FS] * t \dots \dots \dots (1)$$

where T is the Corporate income tax in state i , FP is the factor weight on property, FW is the factor weight on payroll, FS is the factor weight on sales, P is the total property of the firm, P_i is the property in state i , W is the total payroll of the firm, W_i is the payroll in state i , S is the total sales of the firm and S_i is the sales in state i , t is the Corporate income tax rate in state i , and π is the Total profits (taxable income) of the corporation.

McLure (1980, 1981) uses these factors to show that the apportioned state corporate income tax is equivalent to a tax on the apportionment factors. He concludes (McLure 1980, p. 342), “therefore, any single state would seem to be well-advised at least to replace the corporation income tax with a tax levied directly on corporate sales, payrolls and property...”. Similarly, Gordon (1986, p. 221) concludes, “On efficiency grounds, taxes should be designed to minimize the extent to which economic decisions are made to avoid taxes, for any amount of revenue raised. This report has argued that corporate [income] taxes create greater efficiency costs than would a combination of property, payroll, and sales taxes.”

I use the McLure-Gordon prescription as the basis of a proposal to replace the state corporate income tax with a corporate franchise tax based on the level of in-state apportionment factors (property, payroll and sales) above specified threshold levels. The rationale for this new approach is fourfold: (a) The current state corporate income tax is highly inefficient, (b) the factors provide a reasonable proxy for benefits received, but under a corporate income tax are taxed very unevenly, exacerbating inefficiencies, (c) the franchise tax thresholds remove tax from smaller firms that would incur disproportionate compliance costs and greatly reduce compliance costs for large firms, and (d) revenue from the franchise tax would be much more stable.

This idea to replace or modify corporate income tax is not new. At least six states are or have been considering proposals to replace their state corporate income taxes. Minnesota Governor's 21st century tax reform commission proposed replacing their corporate income tax with a more broad based sales tax. California tax reform commission recently proposed replacing their corporate income tax with a form of subtraction Value Added Tax (VAT). Ohio is repealing its corporate income tax and replacing it partially with a gross receipts tax. Many states are also using double weighted sales factor to attract manufacturing industry as well as establishment of corporate headquarters. California provides the option of a three factor formula with an option to use double weighted sales factor beginning 2011. My proposal provides yet another way of replacing state corporate income taxes.

The remainder of this chapter presents the proposal, provides detailed examples, and discusses empirical results. The second chapter focuses on the benefits and drawbacks of the proposal compared to a standard corporate income tax. The third chapter provides details on the incidence of state corporate income and franchise taxes. Finally, I present a micro-simulation study to analyze the stability and volatility of state corporate franchise taxes before presenting My conclusions in my final chapter.

The Proposal

State corporate income taxes are generally the result of apportionment of the total income (or tax on total income) among the states in which the corporation operates. Historically three factors, property (the ratio of property in the state to total property), payroll (the ratio of payroll in the state to total payroll) and sales (the ratio of sales in the state to total sales), were equally weighted in the apportionment formula, but many states now weight sales more heavily. Using

the historical three factor formula and McLure's notation from above, the state corporate income tax can be expressed as:

$$T = P_i (t\pi/P)/3 + W_i (t\pi/W)/3 + S_i (t\pi/S)/3 \dots\dots\dots(2)$$

where T is the corporate income tax in state i, P is the total property of the corporation, P_i is the property in state i, W is the total payroll for the corporation, W_i is the payroll in state i, S is the total sales for the corporation, S_i is the sales in state i, t is the corporate income tax rate in state i, and π is the total profits (taxable income) of the corporation. The terms in McLure's formula, (tπ/P)/3, (tπ/W)/3, and (tπ/S)/3 are simply the effective rate of tax imposed by state i on P_i, W_i, and S_i, respectively. In practice, the effective rates on factors vary significantly across factors and across companies (see below), distorting input and location choices.

As a case study, I pick the thresholds for each of the apportionment factors and the effective rate such that corporate income tax rates are reduced to zero over a period of 4 years with the tax base remaining unchanged. This new approach is described and analyzed below as it could be implemented in New Mexico, but the essential features could apply to any state with a corporate income tax. The specific implementation would reduce New Mexico corporate income tax rates in steps between 2010 and 2013 and repeal the corporate income tax altogether in 2014, with the revenue in each year replaced by setting the appropriate rate for the new corporate franchise tax.¹

¹ As part of the proposal (not modeled here), related business entities would be defined as corporations and partnerships and LLCs not taxed as corporations in which the corporation holds (directly or indirectly) more than a 20 percent ownership interest. Also, business entities with a common owner (of more than 20 percent) would be deemed related and an ownership of 80 percent or more would be treated as 100 percent ownership. This type of provision is necessary to avoid having corporate activity split into smaller corporate or non-corporate entities to avoid the new franchise tax.

Corporate income tax rates in New Mexico are 4.8% on the first \$500,000 of net (taxable) income, 6.4% on the next \$500,000 of net income, and 7.6% on net income over \$1 million. In My case study, corporate income tax rates would be reduced over the 2010 – 2013 period. In 2010, the rate on the first \$250,000 of net income is reduced to zero. In 2011, the zero rate extends to \$500,000 and the top rate is reduced to 6.9%. In 2012, the rate for net income in excess of \$500,000 is reduced to 5.9%. In 2013, the rate for net income in excess of \$500,000 is reduced to 4.9%. The New Mexico corporate income tax would be repealed for taxable years beginning on or after January 1, 2014. The new franchise tax amount would be based on a corporation's property, payroll and sales (as currently defined for apportionment of corporate income tax) in excess of a property threshold of \$5 million, a payroll threshold of \$1.2 million, and a sales threshold of \$9.3 million. The rate of the new corporate franchise tax would be phased in to maintain revenue neutrality of the proposal. In the first year, 2010, the rate would be 0.04%. In 2011, the rate would be 0.08%, in 2012, 0.14%, and in 2013, 0.17%. Finally, in 2014 and thereafter, with the corporate income tax repealed, the rate would be 0.22%. The tentative franchise tax (New Mexico property, payroll and sales times the applicable rate for the year) would be reduced, but not below zero, by the corporation's (and any related corporations') income tax liability for the year.

Examples

Below are some examples based on hypothetical firms that are composed based on information reported on New Mexico corporate income tax returns filed for 2006.

Table 2: Small New Mexico Corporation in 2010

Firm Characteristics (apply to both Current Law and Proposed Law)

Corporate taxable income: **\$0**

Apportionment factors and ratios:

Factor	In New Mexico	In All States	Ratio
Property	\$300,000	\$300,000	1.0
Payroll	\$90,000	\$90,000	1.0
Sales	\$350,000	\$350,000	1.0
Average Apportionment Ratio			1.0

Current Law

1. Corporate Income Tax (before apportionment) [4.8% on up to \$500,000 of taxable income; 6.4% on \$500,000 to \$1M; 7.6% over \$1M]	\$0
2. Average Apportionment Ratio (from table above)	1.0
3. NM Corporate Income Tax (line 1 x line 2)	\$0
4. Franchise Tax	\$50
5. Total NM Corporate Tax (line 3 + line 4)	\$50

Proposed Law

1. Corporate Income Tax (before apportionment) [0% on up to \$250,000 of taxable income; 4.8% on \$250,000 to \$500,000; 6.4% on \$500,000 to \$1M; 7.6% over \$1M]	\$0
2. Average Apportionment Ratio (from table above)	1.0
3. NM Corporate Income Tax (line 1 x line 2)	\$0
4. Franchise Tax	\$50
4a. Current Law Amount	\$50
4b. New Amount (see calculation below)	\$0
5. Total NM Corporate Tax (line 3 + line 4)	\$50

Factor	Amount in New Mexico (a)	Threshold (b)	Amount Over Threshold [(a)-(b), or 0] (c)	Tax [= amount in (c) x .0004] (d)
1. Property	\$300,000	\$5,000,000	\$0	\$0
2. Payroll	\$90,000	\$1,200,000	\$0	\$0
3. Sales	\$350,000	\$9,300,000	\$0	\$0
4. Total (add amounts in column (d), lines 1-3)				\$0
5. Corporate Income Tax Due				\$0
6. Franchise Tax Due (subtract line 5 from line 4; enter zero if line 5 is greater than line 4)				\$0

Change in Tax

1. Change in NM Corporate Income Tax (Proposed Law Line 3 - Current Law line 3)	\$0
2. Change in Total Franchise Tax (Proposed Law Line 4 - Current Law line 4)	\$0

3. Change in Total NM Corporate Tax (<i>Proposed Law</i> Line 5 - <i>Current Law</i> line 5)	\$0
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Table 3: Small New Mexico Corporation in 2013

Firm Characteristics (apply to both Current Law and Proposed Law)

Corporate taxable income: **\$0**

Apportionment factors and ratios:

Factor	In New Mexico	In All States	Ratio
Property	\$300,000	\$300,000	1.0
Payroll	\$90,000	\$90,000	1.0
Sales	\$350,000	\$350,000	1.0
Average Apportionment Ratio			1.0

Current Law

1. Corporate Income Tax (before apportionment) [4.8% on up to \$500,000 of taxable income; 6.4% on \$500,000 to \$1M; 7.6% over \$1M]	\$0
2. Average Apportionment Ratio (from table above)	1.0
3. NM Corporate Income Tax (line 1 x line 2)	\$0
4. Franchise Tax	\$50
5. Total NM Corporate Tax (line 3 + line 4)	\$50

Proposed Law

1. Corporate Income Tax (before apportionment) [0% on up to \$500,000 of taxable income; 4.9% over \$500,000]	\$0
2. Average Apportionment Ratio (from table above)	1.0
3. NM Corporate Income Tax (line 1 x line 2)	\$0
4. Franchise Tax	\$50
4a. Current Law Amount	\$50
4b. New Amount (see calculation below)	\$0
5. Total NM Corporate Tax (line 3 + line 4)	\$50

Factor	Amount in New Mexico (a)	Threshold (b)	Amount Over Threshold [(a)-(b), or 0] (c)	Tax [= amount in (c) x .0017] (d)
1. Property	\$300,000	\$5,000,000	\$0	\$0
2. Payroll	\$90,000	\$1,200,000	\$0	\$0
3. Sales	\$350,000	\$9,300,000	\$0	\$0
4. Total (add amounts in column (d), lines 1-3)				\$0
5. NM Corporate Income Tax Due (from line 3 in <i>Proposed Law</i>)				\$0
6. Franchise Tax Due (subtract line 5 from line 4; enter zero if line 5 is greater than line 4)				\$0

Change in Tax

1. Change in NM Corporate Income Tax (<i>Proposed Law</i> Line 3 - <i>Current Law</i> line 3)	\$0
2. Change in Total Franchise Tax (<i>Proposed Law</i> Line 4 - <i>Current Law</i> line 4)	\$0
3. Change in Total NM Corporate Tax (<i>Proposed Law</i> Line 5 - <i>Current Law</i> line 5)	\$0

Table 4: Medium-Sized New Mexico Corporation in 2010

Firm Characteristics (apply to both Current Law and Proposed Law)

Corporate taxable income: **\$350,000**

Apportionment factors and ratios:

Factor	In New Mexico	In All States	Ratio
Property	\$3,000,000	\$3,000,000	1.0
Payroll	\$625,000	\$625,000	1.0
Sales	\$3,500,000	\$3,500,000	1.0
Average Apportionment Ratio			1.0

Current Law

1. Corporate Income Tax (before apportionment) [4.8% on up to \$500,000 of taxable income; 6.4% on \$500,000 to \$1M; 7.6% over \$1M]	\$16,800
2. Average Apportionment Ratio (from table above)	1.0
3. NM Corporate Income Tax (line 1 x line 2)	\$16,800
4. Franchise Tax	\$50
5. Total NM Corporate Tax (line 3 + line 4)	\$16,850

Proposed Law

1. Corporate Income Tax (before apportionment) [0% on up to \$250,000 of taxable income; 4.8% on \$250,000 to \$500,000; 6.4% on \$500,000 to \$1M; 7.6% over \$1M]	\$4,800
2. Average Apportionment Ratio (from table above)	1.0
3. NM Corporate Income Tax (line 1 x line 2)	\$4,800
4. Franchise Tax	\$50
4a. Current Law Amount	\$50
4b. New Amount (see calculation below)	\$0
5. Total NM Corporate Tax (line 3 + line 4)	\$4,850

Factor	Amount in New Mexico (a)	Threshold (b)	Amount Over Threshold [(a)-(b), or 0] (c)	Tax [= amount in (c) x .0004] (d)
1. Property	\$3,000,000	\$5,000,000	\$0	\$0
2. Payroll	\$625,000	\$1,200,000	\$0	\$0
3. Sales	\$3,500,000	\$9,300,000	\$0	\$0

4. Total (add amounts in column (d), lines 1-3)	\$0
5. NM Corporate Income Tax Due (from line 3 in <i>Proposed Law</i>)	\$0
6. Franchise Tax Due (subtract line 5 from line 4; enter zero if line 5 is greater than line 4)	\$0

Change in Tax

1. Change in NM Corporate Income Tax (<i>Proposed Law</i> Line 3 - <i>Current Law</i> line 3)	-\$12,000
2. Change in Total Franchise Tax (<i>Proposed Law</i> Line 4 - <i>Current Law</i> line 4)	\$0
3. Change in Total NM Corporate Tax (<i>Proposed Law</i> Line 5 - <i>Current Law</i> line 5)	-\$12,000

Table 5: Medium-Sized New Mexico Corporation in 2013

Firm Characteristics (apply to both Current Law and Proposed Law)

Corporate taxable income: **\$350,000**

Apportionment factors and ratios:

Factor	In New Mexico	In All States	Ratio
Property	\$3,000,000	\$3,000,000	1.0
Payroll	\$625,000	\$625,000	1.0
Sales	\$3,500,000	\$3,500,000	1.0
Average Apportionment Ratio			1.0

Current Law

1. Corporate Income Tax (before apportionment) [4.8% on up to \$500,000 of taxable income; 6.4% on \$500,000 to \$1M; 7.6% over \$1M]	\$16,800
2. Average Apportionment Ratio (from table above)	1.0
3. NM Corporate Income Tax (line 1 x line 2)	\$16,800
4. Franchise Tax	\$50
5. Total NM Corporate Tax (line 3 + line 4)	\$16,850

Proposed Law

1. Corporate Income Tax (before apportionment) [0% on up to \$500,000 of taxable income; 4.9% over \$500,000]	\$0
2. Average Apportionment Ratio (from table above)	1.0
3. NM Corporate Income Tax (line 1 x line 2)	\$0
4. Franchise Tax	\$50
4a. Current Law Amount	\$50
4b. New Amount (see calculation below)	\$0
5. Total NM Corporate Tax (line 3 + line 4)	\$50

	Amount in		Amount Over Threshold	Tax [= amount in
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Factor	New Mexico (a)	Threshold (b)	[(a)-(b), or 0] (c)	(c) x .0017] (d)
1. Property	\$3,000,000	\$5,000,000	\$0	\$0
2. Payroll	\$625,000	\$1,200,000	\$0	\$0
3. Sales	\$3,500,000	\$9,300,000	\$0	\$0
4. Total (add amounts in column (d), lines 1-3)				\$0
5. NM Corporate Income Tax Due (from line 3 in <i>Proposed Law</i>)				\$0
6. Franchise Tax Due (subtract line 5 from line 4; enter zero if line 5 is greater than line 4)				\$0

Change in Tax

1. Change in NM Corporate Income Tax (<i>Proposed Law</i> Line 3 - <i>Current Law</i> line 3)	-\$16,800
2. Change in Total Franchise Tax (<i>Proposed Law</i> Line 4 - <i>Current Law</i> line 4)	\$0
3. Change in Total NM Corporate Tax (<i>Proposed Law</i> Line 5 - <i>Current Law</i> line 5)	-\$16,800

Table 6: Large Multi-State Manufacturing Corporation in 2010

Firm Characteristics (apply to both Current Law and Proposed Law)

Corporate taxable income (U.S. total reported to New Mexico): **\$25,000,000**

Apportionment factors and ratios:

Factor	In New Mexico	In All States	Ratio
Property	\$120,000,000	\$171,500,000	0.70
Payroll	\$25,000,000	\$56,000,000	0.45
Sales	\$140,000,000	\$200,000,000	0.70
Average Apportionment Ratio			0.62

Current Law

1. Corporate Income Tax (before apportionment) [4.8% on up to \$500,000 of taxable income; 6.4% on \$500,000 to \$1M; 7.6% over \$1M]	\$1,880,000
2. Average Apportionment Ratio (from table above)	0.62
3. NM Corporate Income Tax (line 1 x line 2)	\$1,156,913
4. Franchise Tax	\$50
5. Total NM Corporate Tax (line 3 + line 4)	\$1,156,963

Proposed Law

1. Corporate Income Tax (before apportionment) [0% on up to \$250,000 of taxable income; 4.8% on \$250,000 to \$500,000; 6.4% on \$500,000 to \$1M; 7.6% over \$1M]	\$1,868,000
2. Average Apportionment Ratio (from table above)	0.62
3. NM Corporate Income Tax (line 1 x line 2)	\$1,149,528
4. Franchise Tax	\$50

4a. Current Law Amount	\$50	
4b. New Amount (see calculation below)	\$0	
5. Total NM Corporate Tax (line 3 + line 4)		\$1,149,578

Factor	Amount in New Mexico (a)	Threshold (b)	Amount Over Threshold [(a)-(b), or 0] (c)	Tax [= amount in (c) x .0004] (d)
1. Property	\$120,000,000	\$5,000,000	\$115,000,000	\$46,000
2. Payroll	\$25,000,000	\$1,200,000	\$23,800,000	\$9,520
3. Sales	\$140,000,000	\$9,300,000	\$130,700,000	\$52,280
4. Total (add amounts in column (d), lines 1-3)				\$107,800
5. NM Corporate Income Tax Due (from line 3 in <i>Proposed Law</i>)				\$1,149,528
6. Franchise Tax Due (subtract line 5 from line 4; enter zero if line 5 is greater than line 4)				\$0

Change in Tax

1. Change in NM Corporate Income Tax (<i>Proposed Law</i> Line 3 - <i>Current Law</i> line 3)	-\$7,385
2. Change in Total Franchise Tax (<i>Proposed Law</i> Line 4 - <i>Current Law</i> line 4)	\$0
3. Change in Total NM Corporate Tax (<i>Proposed Law</i> Line 5 - <i>Current Law</i> line 5)	-\$7,385

Table 7: Large Multi-State Manufacturing Corporation in 2013

Firm Characteristics (apply to both Current Law and Proposed Law)

Corporate taxable income (total reported to New Mexico): **\$25,000,000**

Apportionment factors and ratios:

Factor	In New Mexico	In All States	Ratio
Property	\$120,000,000	\$171,500,000	0.70
Payroll	\$25,000,000	\$56,000,000	0.45
Sales	\$140,000,000	\$200,000,000	0.70
Average Apportionment Ratio			0.62

Current Law

1. Corporate Income Tax (before apportionment) [4.8% on up to \$500,000 of taxable income; 6.4% on \$500,000 to \$1M; 7.6% over \$1M]	\$1,880,000
2. Average Apportionment Ratio (from table above)	0.62
3. NM Corporate Income Tax (line 1 x line 2)	\$1,156,913
4. Franchise Tax	\$50
5. Total NM Corporate Tax (line 3 + line 4)	\$1,156,963

Proposed Law

1. Corporate Income Tax (before apportionment) [0% on up to \$500,000 of taxable income; 4.9% over \$500,000]		\$1,200,500
2. Average Apportionment Ratio (from table above)		0.62
3. NM Corporate Income Tax (line 1 x line 2)		\$738,763
4. Franchise Tax		\$50
4a. Current Law Amount	\$50	
4b. New Amount (see calculation below)	\$0	
5. Total NM Corporate Tax (line 3 + line 4)		\$738,813

Factor	Amount in New Mexico (a)	Threshold (b)	Amount Over Threshold [(a)-(b), or 0] (c)	Tax [= amount in (c) x .0017] (d)
1. Property	\$120,000,000	\$5,000,000	\$115,000,000	\$195,500
2. Payroll	\$25,000,000	\$1,200,000	\$23,800,000	\$40,460
3. Sales	\$140,000,000	\$9,300,000	\$130,700,000	\$222,190
4. Total (add amounts in column (d), lines 1-3)				\$458,150
5. NM Corporate Income Tax Due (from line 3 in <i>Proposed Law</i>)				\$738,763
6. Franchise Tax Due (subtract line 5 from line 4; enter zero if line 5 is greater than line 4)				\$0

Change in Tax

1. Change in NM Corporate Income Tax (<i>Proposed Law</i> Line 3 - <i>Current Law</i> line 3)	-\$418,150
2. Change in Total Franchise Tax (<i>Proposed Law</i> Line 4 - <i>Current Law</i> line 4)	\$0
3. Change in Total NM Corporate Tax (<i>Proposed Law</i> Line 5 - <i>Current Law</i> line 5)	-\$418,150

Table 8: Large Multi-State Big-Box Retail Corporation in 2010

Firm Characteristics (apply to both Current Law and Proposed Law)

Corporate taxable income (total reported to New Mexico): **\$14,000,000**

Apportionment factors and ratios:

Factor	In New Mexico	In All States	Ratio
Property	\$160,000,000	\$240,000,000	0.67
Payroll	\$25,000,000	\$48,000,000	0.52
Sales	\$370,000,000	\$560,000,000	0.66
Average Apportionment Ratio			0.62

Current Law

1. Corporate Income Tax (before apportionment) [4.8% on up to \$500,000 of taxable income; 6.4% on \$500,000 to \$1M; 7.6% over \$1M]	\$1,044,000
2. Average Apportionment Ratio (from table above)	0.62

3. NM Corporate Income Tax (line 1 x line 2)	\$643,179
4. Franchise Tax	\$50
5. Total NM Corporate Tax (line 3 + line 4)	\$643,229

Proposed Law

1. Corporate Income Tax (before apportionment) [0% on up to \$250,000 of taxable income; 4.8% on \$250,000 to \$500,000; 6.4% on \$500,000 to \$1M; 7.6% over \$1M]	\$1,032,000
2. Average Apportionment Ratio (from table above)	0.62
3. NM Corporate Income Tax (line 1 x line 2)	\$635,786
4. Franchise Tax	\$50
4a. Current Law Amount	\$50
4b. New Amount (see calculation below)	\$0
5. Total NM Corporate Tax (line 3 + line 4)	\$635,836

Factor	Amount in New Mexico (a)	Threshold (b)	Amount Over Threshold [(a)-(b), or 0] (c)	Tax [= amount in (c) x .0004] (d)
1. Property	\$160,000,000	\$5,000,000	\$155,000,000	\$62,000
2. Payroll	\$25,000,000	\$1,200,000	\$23,800,000	\$9,520
3. Sales	\$370,000,000	\$9,300,000	\$360,700,000	\$144,280
4. Total (add amounts in column (d), lines 1-3)				\$215,800
5. NM Corporate Income Tax Due (from line 3 in <i>Proposed Law</i>)				\$635,786
6. Franchise Tax Due (subtract line 5 from line 4; enter zero if line 5 is greater than line 4)				\$0

Change in Tax

1. Change in NM Corporate Income Tax (<i>Proposed Law</i> Line 3 - <i>Current Law</i> line 3)	-\$7,393
2. Change in Total Franchise Tax (<i>Proposed Law</i> Line 4 - <i>Current Law</i> line 4)	\$0
3. Change in Total NM Corporate Tax (<i>Proposed Law</i> Line 5 - <i>Current Law</i> line 5)	-\$7,393

Table 9: Large Multi-State Big-Box Retail Corporation in 2013

Firm Characteristics (apply to both Current Law and Proposed Law)

Corporate taxable income (total reported to New Mexico): **\$14,000,000**

Apportionment factors and ratios:

Factor	In New Mexico	In All States	Ratio
Property	\$160,000,000	\$240,000,000	0.67
Payroll	\$25,000,000	\$48,000,000	0.52
Sales	\$370,000,000	\$560,000,000	0.66

Average Apportionment Ratio	0.62
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Current Law

1. Corporate Income Tax (before apportionment) [4.8% on up to \$500,000 of taxable income; 6.4% on \$500,000 to \$1M; 7.6% over \$1M]	\$1,044,000
2. Average Apportionment Ratio (from table above)	0.62
3. NM Corporate Income Tax (line 1 x line 2)	\$643,179
4. Franchise Tax	\$50
5. Total NM Corporate Tax (line 3 + line 4)	\$643,229

Proposed Law

1. Corporate Income Tax (before apportionment) [0% on up to \$500,000 of taxable income; 4.9% over \$500,000]	\$661,500
2. Average Apportionment Ratio (from table above)	0.62
3. NM Corporate Income Tax (line 1 x line 2)	\$407,531
4. Franchise Tax	\$509,619
4a. Current Law Amount	\$50
4b. New Amount (see calculation below)	\$509,619
5. Total NM Corporate Tax (line 3 + line 4)	\$917,150

Factor	Amount in New Mexico (a)	Threshold (b)	Amount Over Threshold [(a)-(b), or 0] (c)	Tax [= amount in (c) x .0017] (d)
1. Property	\$160,000,000	\$5,000,000	\$155,000,000	\$263,500
2. Payroll	\$25,000,000	\$1,200,000	\$23,800,000	\$40,460
3. Sales	\$370,000,000	\$9,300,000	\$360,700,000	\$613,190
4. Total (add amounts in column (d), lines 1-3)				\$917,150
5. NM Corporate Income Tax Due (from line 3 in <i>Proposed Law</i>)				\$407,531
6. Franchise Tax Due (subtract line 5 from line 4; enter zero if line 5 is greater than line 4)				\$509,619

Change in Tax

1. Change in NM Corporate Income Tax (<i>Proposed Law</i> Line 3 - <i>Current Law</i> line 3)	-\$235,648
2. Change in Total Franchise Tax (<i>Proposed Law</i> Line 4 - <i>Current Law</i> line 4)	\$509,569
3. Change in Total NM Corporate Tax (<i>Proposed Law</i> Line 5 - <i>Current Law</i> line 5)	\$273,921

Summary of the Examples

Table 10: Examples for 2010

Example	Current Law Tax	Proposed Law Tax	Change in Tax
Table 2: Small NM Company	\$50	\$50	\$0
Table 4: Medium-Sized NM Company	\$16,850	\$4,850	-\$12,000
Table 6: Large Multi-State Manufacturer	\$1,156,963	\$1,149,578	-\$7,385
Table 8: Large Multi-State Big-Box Retailer	\$643,229	\$635,836	-\$7,393

Table 11: Examples for 2013

Example	Current Law Tax	Proposed Law Tax	Change in Tax
Table 3: Small NM Company	\$50	\$50	\$0
Table 5: Medium-Sized NM Company	\$16,850	\$50	-\$16,800
Table 7: Large Multi-State Manufacturer	\$1,156,963	\$783,813	-\$418,150
Table 9: Large Multi-State Big-Box Retailer	\$643,229	\$917,150	+\$273,921

Empirical Results

The following tables show the impact of the new approach by industry in 2014, when the corporate income tax has been repealed. These tables are based on New Mexico corporate income tax returns filed in 2006, extrapolated to 2014. Table 12 below shows the impact by industry for all corporations operating in New Mexico, Table 13 shows the impact on companies with a tax reduction and Table 14 shows the impact on companies with a tax increase.

Of the 19,380 corporations operating in New Mexico, 7,776 (40%) would pay corporate income tax under current law in 2014. Under the proposal, corporate taxes would be reduced for

7,103 corporations, over 91% of all corporations that would pay corporate income tax under current law in 2014. The new franchise tax would apply only to 1,653 very large corporations. Nearly one-third of these corporations (538) would still have a net tax reduction because their corporate income tax reduction is larger than their franchise tax. The remaining 1,115 corporations paying the new franchise tax would have net tax increases. Only 410, or about one-

Table 12: Effect on All Corporations Operating in New Mexico by Industry, 2014

Industry	Number of Companies	Under Current Law ⁴		Change in Corporate Tax Liability		
		Number of Returns	Amount (\$ millions)	Income Tax	Franchise Tax	Total
Oil and Gas	185	110	81.5	(81.5)	93.6	12.1
Other Mining	694	410	55.7	(55.7)	24.4	(31.4)
Utilities ¹	101	38	10.5	(10.5)	24.6	14.2
Manufacturing	1,605	699	73.9	(73.9)	70.6	(3.3)
Retail Trade	1,536	715	18.4	(18.4)	46.7	28.3
Information ²	614	207	46.6	(46.6)	19.0	(27.6)
Finance and Insurance	1,819	505	15.8	(15.8)	16.5	0.7
Professional, Scientific & Technical Services ³	2,319	878	6.4	(6.4)	13.6	7.2
All Other Industries	<u>10,507</u>	<u>4,214</u>	<u>85.8</u>	<u>(85.8)</u>	<u>85.5</u>	<u>(0.2)</u>
Total	19,380	7,776	394.6	(394.6)	394.6	0.0

Industry	Corporate Tax Liability Under Proposal					
	Corporate Income Tax		Franchise Tax ⁵		Total	
	Number of Returns	Amount (\$ millions)	Number of Returns	Amount (\$ millions)	Number of Returns	Amount (\$ millions)
Oil and Gas	0	0.0	42	93.6	42	93.6
Other Mining	0	0.0	93	24.4	93	24.4
Utilities ¹	0	0.0	14	24.6	14	24.6
Manufacturing	0	0.0	275	70.6	275	70.6
Retail Trade	0	0.0	139	46.7	139	46.7
Information ²	0	0.0	67	19.0	67	19.0
Finance and Insurance	0	0.0	106	16.5	106	16.5
Professional, Scientific & Technical Services ³	0	0.0	137	13.6	137	13.6
All Other Industries	<u>0</u>	<u>0.0</u>	<u>780</u>	<u>85.5</u>	<u>780</u>	<u>85.5</u>
Total	0	0.0	1,653	394.6	1,653	394.6

Table 13: Effect on All Corporations Operating in New Mexico with a Tax Reduction by Industry, 2014

Industry	Number of Companies	Under Current Law ⁴		Change in Corporate Tax Liability		
		Number of Returns	Amount (\$ millions)	Income Tax	Franchise Tax	Total
Oil and Gas	94	94	66.3	(66.3)	46.4	(19.9)
Other Mining	376	376	54.1	(54.1)	15.7	(38.4)
Utilities ¹	31	31	4.6	(4.6)	1.0	(3.6)
Manufacturing	616	616	50.6	(50.6)	27.3	(23.3)
Retail Trade	650	650	7.0	(7.0)	2.5	(4.5)
Information ²	188	188	45.9	(45.9)	4.1	(41.7)
Finance and Insurance	457	457	12.5	(12.5)	2.0	(10.5)
Professional, Scientific & Technical Services ³	810	810	4.5	(4.5)	1.4	(3.2)
All Other Industries	<u>3,881</u>	<u>3,881</u>	<u>59.1</u>	<u>(59.1)</u>	<u>15.6</u>	<u>(43.5)</u>
Total	7,103	7,103	304.6	(304.6)	116.0	(188.6)

Industry	Corporate Tax Liability Under Proposal					
	Corporate Income Tax		Franchise Tax ⁵		Total	
	Number of Returns	Amount (\$ millions)	Number of Returns	Amount (\$ millions)	Number of Returns	Amount (\$ millions)
Oil and Gas	0	0.0	12	46.4	12	46.4
Other Mining	0	0.0	53	15.7	53	15.7
Utilities ¹	0	0.0	3	1.0	3	1.0
Manufacturing	0	0.0	95	27.3	95	27.3
Retail Trade	0	0.0	34	2.5	34	2.5
Information ²	0	0.0	21	4.1	21	4.1
Finance and Insurance	0	0.0	33	2.0	33	2.0
Professional, Scientific & Technical Services ³	0	0.0	56	1.4	56	1.4
All Other Industries	<u>0</u>	<u>0.0</u>	<u>231</u>	<u>15.6</u>	<u>231</u>	<u>15.6</u>
Total	0	0.0	538	116.0	538	116.0

Table 14: Effect on All Corporations Operating in New Mexico with a Tax Increase by Industry, 2014

Industry	Number of Companies	Under Current Law ⁴		Change in Corporate Tax Liability		
		Number of Returns	Amount (\$ millions)	Income Tax	Franchise Tax	Total
Oil and Gas	30	14	15.1	(15.1)	47.1	32.0
Other Mining	40	18	1.6	(1.6)	8.6	7.0
Utilities ¹	11	7	5.9	(5.9)	23.7	17.8
Manufacturing	180	63	23.3	(23.3)	43.3	20.0
Retail Trade	105	56	11.4	(11.4)	44.2	32.7
Information ²	46	8	0.7	(0.7)	14.8	14.2
Finance and Insurance	73	19	3.3	(3.3)	14.5	11.2
Professional, Scientific & Technical Services ³	81	24	1.9	(1.9)	12.3	10.4
All Other Industries	<u>549</u>	<u>201</u>	<u>26.7</u>	<u>(26.7)</u>	<u>70.0</u>	<u>43.3</u>
Total	1,115	410	90.0	(90.0)	278.6	188.6

Industry	Corporate Tax Liability Under Proposal					
	Corporate Income Tax		Franchise Tax ⁵		Total	
	Number of Returns	Amount (\$ millions)	Number of Returns	Amount (\$ millions)	Number of Returns	Amount (\$ millions)
Oil and Gas	0	0.0	30	47.1	30	47.1
Other Mining	0	0.0	40	8.6	40	8.6
Utilities ¹	0	0.0	11	23.7	11	23.7
Manufacturing	0	0.0	180	43.3	180	43.3
Retail Trade	0	0.0	105	44.2	105	44.2
Information ²	0	0.0	46	14.8	46	14.8
Finance and Insurance	0	0.0	73	14.5	73	14.5
Professional, Scientific & Technical Services ³	0	0.0	81	12.3	81	12.3
All Other Industries	<u>0</u>	<u>0.0</u>	<u>549</u>	<u>70.0</u>	<u>549</u>	<u>70.0</u>
Total	0	0.0	1,115	278.6	1,115	278.6

Notes for Tables 11 –13:

¹ Utilities include electrical generation, electrical transmission, natural gas distribution and water supply.

² Information includes telecommunications (telephone, mobile phone, internet providers, cable and satellite), radio and television broadcasting and newspaper and magazine publishing.

³ Professional services include legal services, architectural services, accounting and business consulting; scientific and technical services include research, computer hardware and software services, and repair services for appliances and technical equipment.

⁴ Corporate income tax liability before credits. Excludes current \$50 franchise tax.

⁵ Franchise Tax Thresholds: \$5 Million for Property, \$1.2 Million for Payroll and \$9.3 Million for Sales; Franchise Tax Rate in 2014 is 0.0022 (0.22%).

third, of these corporations would pay corporate income tax under current law. By industry, retail Trade would have the largest tax increase, followed by utilities and oil and gas; other mining would have the largest tax reduction, followed by information.

Figure 1: Effective Property Tax Rate for Franchise Tax Payers in New Mexico for the year 2014 (based on 2006 data)

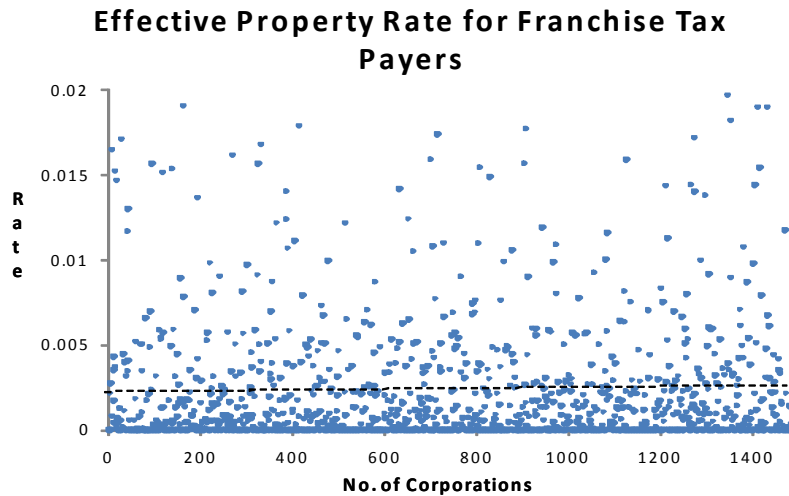


Figure 2: Effective Wage Tax Rate for Franchise Tax Payers in New Mexico for the year 2014 (based on 2006 data)

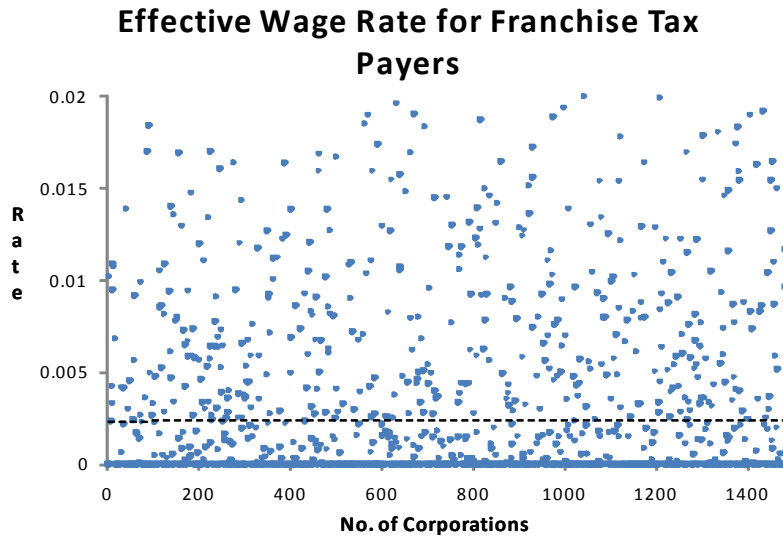
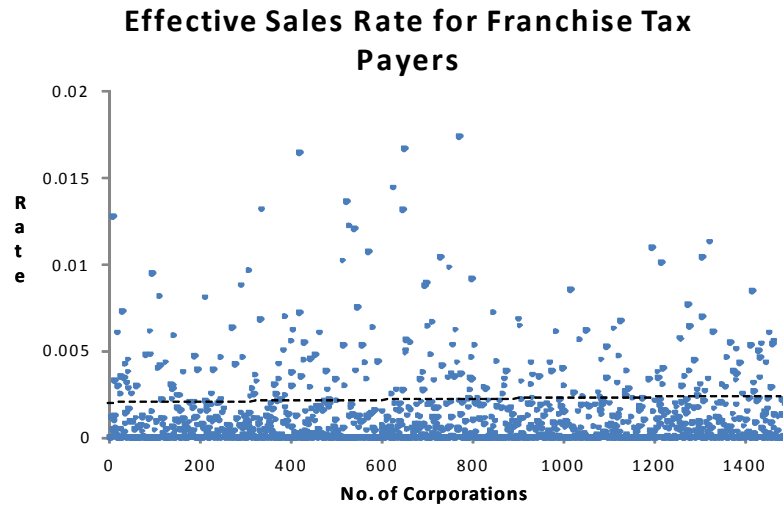


Figure 3: Effective Sales Tax Rate for Franchise Tax Payers in New Mexico for the year 2014 (based on 2006 data)



The previous discussion of McLure’s analysis indicated that there is significant variation in the effective tax rate on each apportionment factor under current corporate income taxes. This variation is illustrated in the scatter plots in figures 1 - 3, which show the effective rate on each

factor in New Mexico for large corporations. Note that New Mexico uses even weights for all three factors, with the exception that manufacturers can elect to use a double-weighted sales factor. The dashed line in each scatter plot is the (uniform) franchise tax rate (.22%) that would apply in 2014.

Thus, I argue that replacing the state corporate income tax with a factor-based franchise tax would significantly improve state taxation of corporations. The proposed change would remove the distortions inherent in the current corporate income tax, including the highly uneven effective rates on apportionment factors, and reasonably relate corporate tax liabilities to benefits received. The compliance cost of the new franchise tax would also be an order of magnitude less than the corporate income tax, in part because the franchise tax thresholds would remove from tax smaller corporations, which have disproportionate current compliance costs. The factor-based franchise tax would have a much more stable base, helping to remove uncertainty from budget forecasting and decision making.

Chapter 2

Benefits and Drawbacks

During the first half of the twentieth century the states used a wide variety of formulas to apportion business income tax. States strove to uncover a formula that would reflect the geographic source of the income, while fairly dividing income among the states. With time, states adopted the standard practice of using a formula with three, equally weighted factors of property, payroll, and sales. Eventually, a consensus emerged that supported the widespread adoption of the equally-weighted, three-factor formula. The formula captured the traditional understanding of "sourcing" in the weight accorded to capital (property) and labor (payroll), while also reflecting an equitable claim of the "market" state to a share of the income tax base, as determined by sales transacted in the state. In 1957 the National Conference of Commissioners on Uniform State Laws (NCCUSL) approved a model law which provided the foundation for uniform state taxation of corporate income and was called the Uniform Division of Income for Tax Purposes Act (UDITPA). Incorporated into the Multistate Tax Compact, UDITPA codified the generally accepted equally weighted three-factor formula. For the formula in the previous section, UDITPA can also be applied to its three factors.

Adopting the franchise tax is a way to develop a stable source of revenue tied to corporate income and thus, reduce fluctuations in budget forecasting and decision making. Once adopted, barring changes to the franchise tax's thresholds or rates, revenue generated from the franchise tax would increase in proportion to increases in the three factors of corporations paying the tax.

While smoothing out year-over-year corporate income tax collections, the franchise tax also has the ability to increase revenues without adversely affecting smaller companies. Once established, the franchise tax can generate more state revenue by implementing only minimal rate increases. Another way to increase revenue year-over-year using the franchise tax is to hold constant threshold levels. When the franchise tax is adopted, if thresholds are mandated to be held constant in future years, then this can serve as a way to increase revenues without passing future tax legislation..

The following sections compare and contrast corporate income tax with the new franchise tax using the principles of good tax policy as well as other criteria.

Economic Growth and Efficiency

The general ideal here is that a tax system should not impede or reduce the growth of the economy. In Johansson's, et. al., (2008) international study focusing on the effect of tax structure on productivity and growth, corporate taxes were determined to be the most harmful for growth. In particular, lowering the corporate tax rate seems to be particularly stimulating for the total factor production growth of more innovative and dynamic firms. Djankov et. al. (2008) review the economic performance of 85 countries in light of corporate taxes. Their findings suggest —The effective corporate tax rate has a negative effect on entrepreneurial activity, aggregate investment, as well as foreign direct investment. George Zodrow (1999) notices as he critically reviews state and local taxes that specifically, for a corporation that has most of all of its operations within a state, a state income tax (that is based on the federal tax) increases the total

effective corporate tax rate applied to income generated by the corporation. The distortions of the state corporate tax thus simply compound the distortions of the federal tax.

However in the case of franchise taxes, efficiency is higher than corporate income taxes due to several reasons: (1) franchise tax is based more on benefits received (through the use of factors) and not as uneven as a corporate tax, (2) franchise tax rates tend to be lower than corporate income tax rates for the same amount of revenue raised due to higher factor bases used instead of profits, (3) it causes less distortion due to lower compliance costs on smaller firms especially the ones below the factor thresholds, (4) even for larger corporations the dead-weight losses are lower, (5) franchise taxes are inherently simple and simpler to administer resulting in lower dead-weight losses also, and (6) they give the smaller firms the ability to pay lower taxes till they are well established and become large enough to fall under the higher franchise tax rate scheme based on the size of their factors.

Neutrality

Corporate income taxes may violate the principle of tax neutrality in multiple ways. First, they can affect corporate leadership decisions on how much to save given that they are placed on income from capital. Therefore, they can play a deciding role in determining overall capital investment and economic growth. Second, a corporate income tax often influences decision-makers on how to organize and structure their businesses, given that the tax is often imposed on only certain types of business profits. This skews investment and production towards those business structures which are not obligated to pay corporate income tax. In the United States the business profits of partnerships and sole proprietorships are often untaxed, while those of

corporations with shareholders are taxed. Third, it favors debt over equity as a corporate financing tool, given that it is not imposed on the return to debt-financed investments, but rather on income from equity-financed investments. Fourth, because a corporation is legally viewed as a separate taxable entity from which shareholders receive income dividends, there is a bias towards capital gains over dividends given its favorable treatment under the individual income tax. Fifth, investment and production are biased towards more lightly taxed assets and sectors in light of the fact that the United States imposes different effective rates on different assets and industries as well as bases its depreciation schedules not necessarily on economic depreciation. Lastly, the corporate income tax can have a distortive effect on corporate resource allocation by costly tax compliance work and by adding additional attention to tax planning. However, in case of the proposed franchise taxes, all businesses are taxed whether they are a corporation or not. Also, related entities' apportionment factors are combined for the purposes of imposing franchise taxes. Business and non-business income is not treated differently in case of franchise taxes. Neither does debt on equity considerations play a role in determining the franchise tax burden. Also, different assets are not taxed differently in this proposal as generally are in the case of corporate income taxes. Hence in general, franchise taxes are far more neutral than corporate income taxes.

Equity and Fairness

The general idea is that similarly situated taxpayers should be taxed similarly. Corporate franchise taxes are more equitable and fair as they do not have as many provisions to influence decisions as in the case of corporate income taxes. There are also significant economic distortions

in the current federal corporate income tax base. Most important among these distortions are provisions that result in mistiming of deductions and income, which generally result in an understatement of net income. The largest of these mistiming provisions are those for accelerated forms of cost recovery for investments, including the “bonus depreciation” provisions of the 2008 and 2009 stimulus bills. In addition to understating certain types of income, these provisions also differentially reduce the effective tax rate on alternative forms of investment, distorting investment choices. Another important economic distortion in the current federal income tax is the deduction for domestic production activities, which favors certain activities over others, distorting business decisions. All tax payers with similar apportionment factors are taxed similarly.

Stability of Revenues

Considered both volatile and somewhat unpredictable, state corporate income tax revenues add uncertainty to state budgeting. Also, state corporate income taxes are “pro-cyclical” and hence, in downturns further intensify declines in state revenues. According to GAO (2004), there has been an increase in large United States corporations reporting no tax liability; in 1995, 32.7 percent of these corporations reported no tax liability and in 2000 45.3 percent reported no tax liability. In the year ending June 2009 corporate income tax revenues dropped 12.2% nationally, after experiencing a drop of 7.3% in the year ending June 2008; this marks a cumulative decline of 19.7%., after experiencing a surge of 15.4% in the year ending in June 2007. Auerbach (1984) notes that over the past thirty years, corporate income tax revenues have steadily decreased as a fraction of U.S. GNP. Auerbach comments that "one reason for the decline in corporate tax collections since 1953 has been a decline in corporate profitability. Another has been the reduction (from 52 percent to 46 percent) in

the corporate tax rate. However, the most important factor has been the introduction of several investment incentives ...". In 2009, Gupta, et. al. note a similar negative trend in total state CIT collections relative to total state taxes from 1982 until 2002. Fox et. al. (2007) comment that as a share of profits, CIT revenues are declining.

One of the key arguments in favor of a franchise tax is that the factor-based franchise tax would have a much more stable base, helping to remove uncertainty from budget forecasting and decision making. Since, historically the factors of the firms do not fluctuate as much as profits, the franchise taxes tend to be much more stable and much less volatile compared to state corporate income taxes.

Simplicity, Ease of Administration

According to the Minnesota Department of Revenue, corporate income tax is costly to administer and is considered one of the most expensive tax programs to administer. For the same level of collected revenue the cost of administering the program is twice as expensive. According to the department, for a near peak revenue fiscal year the administrative costs within the Revenue Department were 1.5¢ per dollar of CIT revenue. However, this sum does not account for all of the administrative burden that the tax imposes on the government as well as the business. Additionally, there is significant compliance, judicial, legal and other administrative costs tied to imposing this tax on involved parties. Businesses are typically part of a large number of related entities that may have multiple transactions among them, including sales, asset transfers, cost sharing arrangements, charges for services, and royalties for the use of intangibles. The number and complexity of these transactions make the determination of the income attributable to each state very difficult, giving rise to the multiple state income tax provisions that attempt to properly

match the income and expenses of a multi-state corporation to the activities in a state. These provisions include mandatory combined reporting; authority to reallocate income, deductions, and other items between related entities; “add-back” and “anti-passive investment company” legislation; minimum taxes; and significant franchise taxes.

Franchise taxes are much simpler and easier to administer since they rely on the factors instead of profits. They also do not have as many provisions and differential treatments of capital, income etc. as in the case of corporate income taxes and do not inherently allow for as many tax planning strategies.

Compliance

Federal corporate income tax is considered to be complicated for businesses. Largely, following federal tax design, state provisions often further complicate the filings for businesses. Brunori (2002, p. 47) comments that the state corporate income taxes “consume an inordinate amount of intellectual firepower and economic resources in terms of planning, compliance, and administration.” The imposition of the tax adds significantly to compliance and litigation costs for both businesses and state tax departments. Slemrod and Blumenthal estimated that average state corporate income tax compliance costs in 1993 accounted for 30.5% of total compliance costs for large (Fortune 500) corporations, or roughly, \$0.64 of \$2.11 million in compliance costs. If I adjust for CPI, today state compliance costs would average almost \$1 million, or for all corporate income tax states roughly \$21,000 per state.

The franchise tax thresholds remove tax from smaller firms that would incur disproportionate compliance costs and greatly reduce compliance costs for large firms as they are taxed directly based on apportionment factors.

Transparency and Visibility

Similar to other types of business taxes, corporate income tax lacks transparency. It is primarily passed onto people and in particular, employees and consumers. From a political perspective, the very lack of transparency is often attractive to policy makers, given that particular constituent groups are not singled out and anti-corporate rhetoric supports business taxation, regardless of the realistic tax incidence. However, lack of transparency and visibility is considered bad tax policy. The proposed franchise tax system is an inherently simpler system allowing it to be far more transparent than the current state and federal corporate income tax design.

Tax Shelters

Companies maintain two different sets of books, one for reporting to shareholders and one for corporate purposes (Desai, 2005). Graetz (2007) states that corporate tax-shelter deductions, credits, and losses reduce tax liability without reducing the income reported. In this way, tax shelters give a company the best of both worlds as lower taxes are paid to the government while higher profits are reported to shareholders.

To the degree that the franchise tax does not provide for differential tax treatment and enhances the consistency between book and tax accounting, it further supports the use of this tax form over a corporate income tax.

Double-taxation

As a rule, state corporate income taxes follow the federal corporate income tax's design and provisions. The federal corporate income tax is distinct from the federal individual income tax. As a result, corporate income is taxed twice. First, it is taxed at the corporate level, where it is earned. Then, it is taxed at the individual shareholder level when it is distributed after-tax as dividends or realized as capital gains on the sale of shares.

Three notable economic effects occur as a result of this "double tax" design. First, as previously mentioned, the imposition of corporate income tax encourages businesses to become partnerships, LLCs and other non-corporate businesses over corporations, given that the former are taxed once, while the latter is taxed twice.. Second, a corporate income tax encourages corporations not to distribute income, given that undistributed corporate income is taxed at a lower rate than distributed corporate income. Lastly, the tax rate on corporate income tax is higher on corporate income (the return to equity holders) in most cases than it is on the interest on loans (the return to lenders, some of which are tax exempt) and hence, corporate income tax favors financing decision-making towards debt and away from equity. One of the most significant distortions that often occur as a result of particular corporate income tax provisions is that there is a mistiming of deductions and income, which often leads to an understatement of net income. One such provision that often results in the understatement of net income is the accelerated schedules for cost recovery for investments. The "bonus depreciation" provisions of the 2008 and 2009 stimulus bills are examples of these provisions. While understating income, these provisions also lower the effective tax rate on other forms of investment, and hence, skew investment decisions. Corporate income tax deductions for domestic production activities serve as a second factor that provides a bias in decision making by favoring certain production

activities over others. While imposed on a federal level, many states follow the design of this provision and hence, further the economic distortion.

Multiple studies, the U.S. Department of Treasury (1992) and American Law Institute (Warren, 1993; Graetz and Warren, 1998), were performed on the subject of how best to integrate corporate and individual income taxes in order to address the issue of double taxation. One suggested option is to offer shareholders a credit for any corporate tax income paid on received dividends. A second option is to exclude dividends either fully or partially from the calculation of personal income tax. Another option is to allow the deduction of dividends; this is the least preferred option. I suggest that the imposition of a franchise tax is yet another option and perhaps a better one in addressing the issue of double taxation.

The “Nexus Penalty”

The State apportionment formula coupled with restrictions on state’s taxing authority imposed by Public-Law 86-272 result in extremely high and distortionary effective state corporate income tax rates on a multi-state firm’s first physical investment into a state where it has sales. This effective tax rate, which is greater than the statutory rate, only occurs when a multi-state firm already making sales into a state was previously shielded CIT liability in that state by Public Law 86-272. This nexus penalty is the result of imposing a state corporate income tax in the presence of Public Law 86-272. The nexus penalty distorts the firm’s deployment of capital by rewarding firms that carefully manage their nexus triggering presence in states imposing corporate income taxes.

Since the proposed franchise tax is levied on firms that have met the threshold for property, sales or payroll, this design significantly reduces if not mostly eliminates the nexus penalty that exists in the case of corporate income taxes.

Combined Reporting

Combined reporting requires that business entities, engaged in a unitary business, file a combined state corporate income tax return instead of each separate business entity filing separately. According to Mazerov (2009), the six states, Massachusetts, Michigan, New York, Vermont, West Virginia, and Wisconsin that have adopted combined reporting since 2004 have often linked the adoption to a drop in the overall CIT rate. When Vermont began to require combined reporting in 2004, it also phased in a gradual drop in its statutory CIT rate from 9.75% to 8.5%. Similarly, when Massachusetts adopted combined reporting, it phased in a reduction of its CIT rate from 9.5% to 8.05% through 2012. Like these two other states, when West Virginia adopted combined reporting in 2009, it correspondingly lowered its CIT rate from 8.75% to 6.5% phased in through 2014.

The proponents of combined reporting argue that combined reporting is needed to offset erosion in the corporate income tax base attributed to tax planning strategies available to multistate corporations. The proponents of combined reporting also argue that it provides increased uniformity in the effective tax rates paid by companies that operate as multiple divisions rather than multiple corporations. However, combined reporting has uncertain effects on a state's revenues, making it very difficult to predict the revenue effect of adopting combined reporting. As part of the 2009 Governor's Budget Balancing Task Force Report in New Mexico, I discuss the revenue effects of combined reporting in New Mexico while noting that the although there is a net revenue increase in the case of New Mexico, the estimate is highly uncertain, both because of the uncertainty of the underlying forecast of corporate income tax

revenues and the varying experiences of other states with mandatory combined reporting. Also the report notes that "the estimate assumes that mandatory combined reporting would initially increase corporate income tax revenues before credits by 10% and that the effect would decline fairly rapidly over time, to zero after four years, as corporations adjust their operations to avoid the impact of the change. The assumed decline in revenues over time to zero is consistent with recent econometric research using multiple years of data across states, which indicates that mandatory combined reporting has no effect on state corporate income tax revenue.

While perhaps mitigating the effect of tax planning on reported taxable income, combined reporting fosters new distortions. For businesses with no tax planning, the averaging effect occurs for a large number of taxpayers with different profitability across businesses. Combined reporting also raises overall compliance costs for businesses and increases state implementation. Again the franchise tax is an effective means to replace and often increase corporate income tax revenues, without promoting distortions in business decision-making and raising compliance and administrative costs.

Internationalization

Since 1985 the flow of both direct and portfolio investments into and out of the United States has significantly increased. Like other countries, the United States has tried to pursue tax strategies that prevent the taxation of corporate income earned abroad from being taxed both by the United States and the foreign country. However, correspondingly, the United States does not want American businesses to move their income to their related foreign companies in order

to lower their taxes on their domestic earnings. Congress addressed the issue of limiting benefits for income earned by related foreign companies in the Tax Reform Act of 1986. One result of the Act was that foreign income was categorized into nine separate baskets; these baskets then determined the eligibility for receiving tax credits. In this way, the act restricted companies from offsetting United States taxes with foreign taxes on unrelated income. Additionally, the Act limited interest deductions for companies making investments abroad. With increasing internationalization of business, many OECD countries have lowered their corporate tax rates, while widening their corporate tax bases (CBO, 2005; Sullivan, 2006). In general, countries are striving for low corporate income taxes to attract foreign and domestic investments as well as lower the risk of domestic companies shifting their income abroad. Hence, internationalization has served as a means to cap corporate income tax rates. The use of a corporate franchise tax can not only serve to broaden the corporate tax base by appropriately imposing the three apportionment factors, but it can also serve to supplement corporate income tax revenue in response to the downward pressure in rates.

Chapter 3

The Incidence of State Franchise Taxes

Tax incidence studies are based on the fundamental fact that the person who makes the tax payment might not be the person whose welfare is reduced, i.e., legal incidence or obligation to pay often does not correspond to economic incidence. The economic incidence of corporate tax at both the federal and state levels has been unresolved, although many conclusions pertaining to federal and state corporate income taxes also apply to state franchise taxes. I argue that in the very short run, corporate franchise tax incidence falls on corporate shareholders in proportion to their ownership. However, I also argue that in the long run, the corporate franchise tax incidence falls not only on the shareholders but also on capital and labor.

Literature on Corporate Tax Incidence

In one of the early works on corporate income tax incidence, Domar and Musgrave (1944) argue that taxes on capital income provide insurance as well as impose burdens. Some of the early analysis on economic incidence was also done by Musgrave (1959). However, the seminal paper that deals with the economic incidence of corporate income taxes is a paper by Harberger (1962) that employs general equilibrium analysis. He models the corporate income tax as a single factor tax in one sector. Harberger finds that owners of capital ultimately bear the corporate income tax. He concludes that all owners of capital bear the incidence of corporate income taxes, including owners of corporate and non-corporate capital. He assumes perfectly competitive markets, no risk, fixed factor supplies, perfect mobility of factors, constant returns to

scale, incremental tax changes etc. among the major ones to prove the above result. He argues that capital moves from corporate to non-corporate sectors until the returns in each sector are equal in the long run. I note here that Harberger's approach has been used to analyze a wide array of taxes. Mieszkowski's work on property tax incidence is an example. Krzyzaniak and Musgrave (1963) followed up on Harberger's work with an econometric analysis and demonstrate that taxes could shift over a 100 percent. They argued that corporate profits actually increase with an increase in taxes as firms shift the tax to consumers through price increases. In 1968, Bishop argued that ad valorem and unit taxes have different equilibrium under imperfect competition than under monopoly market structures'. Upon further analysis Krzyzaniak and Musgrave (1970), argued that Harberger correctly concluded that capital bears approximately the full burden of the tax. Diamond (1970) concluded that in certain cases capital declines by a large amount causing the after tax return on capital to actually increase while the tax burden is shifted to labor.

In 1973, Stiglitz argued that corporate income tax does not apply to the return of marginal investment under certain circumstances and hence would not have the distortionary effects on prices as argued by Harberger. Stiglitz also argued that corporate revenues are a result of economic rents. This implies that the incidence could depend on the nature of the rents collected. If the rents are collected as a return to ideas, the tax could be a tax on labor. In a monopoly model, he suggested that corporate rents do not lead to distortions in production choices. However in the case of oligopoly, corporate rents would distort production choices. Stiglitz also argues that corporations use debt as opposed to equities for financing investment as debt related interest payments are tax deductible. Therefore, a tax on profits, or for that matter

dividend, does not distort investment decisions due to corporations using debt to finance their investment.

Another key paper that explains the tax incidence using a graphical analysis is that of McLure (1974). He provided a graphical analysis to Harberger's model that has made it easier to understand and McLure's 1974 paper has now become standard in the literature showing that tax burden is borne by capital. Also in 1974, Feldstein developed a neoclassical growth model that analyzes the long run incidence of capital income tax and argues that most of the burden of the tax is shifted to labor due to a decrease in the capital-labor ratio. Feldstein (1974) also uses a Solow growth model to demonstrate that labor would bear the burden of corporate tax because it reduces capital accumulation.

McLure and Thirsk (1975) provide a simplified back-of-the-envelope calculation of the Harberger's model's incidence by applying functional forms to Harberger's equations and allowing large tax changes. Vandendorpe and Friedlaender (1976) extend Harberger's analysis by relaxing some of his restrictive assumptions and make their analysis applicable to any large, pre-existing tax changes. Shoven (1976) uses twelve sectors to show the response to a large corporate tax. However, he shows that Harberger's results hold for a two sector model. Feldstein (1977) argues that land not only serves as a factor of production but also as an asset. Therefore a tax on land allows investors to increase other assets and as a result causes physical capital to increase. This causes wages to go up due to a higher capital-labor ratio. Also in 1977, Miller argues that firms would use equity to finance only the portion of the value in excess of invested capital. He also argues that under a progressive tax system, there may be investors that are in a high enough tax brackets that the extra taxation at the corporate level is more than offset by

preferential treatment of individual equity income. According to the Miller model, corporate tax is largely borne by corporate shareholders. He argues that taxpayers hold specialized portfolios according to their tax brackets and status. He also argues that people with high income tax rates would therefore face a different tax burden on equities than bonds.

Bradford (1978) uses an international version of the Harberger's model. He assumes that United States is the corporate sector in the world-wide closed economy. He argues that if the United States were very small relative to the rest of the world, the world rate of return on capital would decline by only a small amount. He demonstrates that foreign labor would gain because of the outflow of capital from the United States. Ballentine (1978) uses a Solow growth model to mimic the incidence of a corporate income tax. His approach specifies plausible values to the interest elasticity of labor to find that in the long run capital bears between 20 and 98 percent of corporate income taxes. Broadway (1979) uses a model where capital tax revenue replaces wage tax revenue. He argues that in the transition period, labor when corporate income taxes are imposed benefit from a higher after tax wages. He argues, however, that in the long run the tax would indeed harm labor.

In a key paper, Feldstein and Horioka (1980) argue that in a closed economy, national investment and savings are necessarily identical. However, if international capital is mobile, national saving and investment are not identical due to cross-border capital flows that equate the net international rate of return to capital among trading nations. Bernheim (1981) provides a model to think about analyze welfare changes that result from imposing corporate income taxes as the economic system moves to a new general equilibrium. Also in 1981, Summers adds capital income tax to the standard life-cycle model to argue that interest elasticity of savings is

seriously understated. He also argues that demand for non-corporate capital will temporarily increase the cost of installed capital in that sector as corporate income taxes are imposed. Kay and Keen (1983) analyze oligopolistic markets to conclude that consumer welfare or utility can be affected by product variety, price and quantity changes caused by corporate income taxes. Also, Auerbach (1983) build an overlapping generations computable general equilibrium model with a representative agent in each group and use consumer preferences to calculate the changes in savings behavior due to a change in tax.

In 1985, Katz and Rosen demonstrate that the results of corporate income taxes in oligopolistic markets do not lie between those of perfect competition and monopoly. Gordon (1985) argues that most of the corporate tax revenue is attributable to the return to risk. He argues that the return to capital is close to zero without risk which leads to the conclusion that corporate income tax would not be much of a burden. However, since the corporate income tax does not produce full offset to losses, the corporate income tax does impose a net burden on the shareholders. Also, Pechman (1985), provided scenarios of corporate tax incidence under varying assumptions reflecting on the fact that it was uncertain which assumption was the best. Judd (1985) uses a capitalist and worker model to argue that the burden of the corporate tax is shifted entirely to labor. He argues that in the long run, the net return to capital remains constant in spite of taxation by assuming that people are infinitely lived and have a perfect foresight. Using his model he argues that capital goes down to compensate for a tax increase causing the burden to be shifted entirely to labor due to lower productivity. Mutti and Grubert (1985) argue that foreign and domestic assets do not have to be very substitutable for labor to bear most of the burden of corporate income tax. Kotlikoff and Summers (1987) use a time period model to argue

that while savings increase after the first period after a corporate income tax is imposed, it is not possible to clearly demonstrate that labor will bear the net burden of the tax. They argue that the total burden of corporate income tax on capital need not fall with the ability of the US to affect the international rate of return.

Auerbach (1989) looks at the effects of distinguishing between old and new capital and estimates the impact of the Tax Reform Act of 1986 on the value of equipment and structures. Also in 1989, Gravelle and Kotlikoff model the corporate-non-corporate distinction and argue that production will balance between the two sectors when the non-corporate advantage is offset by the economies of scale. Gordon and Mackie-Mason (1997) and Goolsbee (1998) find smaller changes in response to changes in taxation and argue that the deadweight losses might be smaller.

Auten and Kalambokidis (2000) argue that a cash-flow tax is in essence a value-added tax because wages are deducted from the corporate tax base. Devereux and Griffith (2003) argue that corporate shareholders can shift not only a tax on capital but also on rents which strengthens the impact of a corporate tax rate. Auerbach (2006) argues that an increase in cash-flow tax does not distort investment decisions as associated with new capital purchases. He thus argues that shareholders bear the corporate tax burden because a change in cash flow would cause a proportional change in share prices. Gravelle and Smetters (2006) find that the percentage of the burden that falls on domestic labor in the long run declines from 71 percent to 38 percent when the product substitution elasticity is reduced from 100 to 3 even when foreign and domestic capital are near perfect substitutes. Randolph (2006) uses arithmetic examples to argue that labor bears about 70 percent of the corporate income tax while capital bears only 30 percent.

However, in spite of the vast literature and varying arguments, most tax economists would probably agree that in the very short run, the corporate income tax is likely to be borne by the shareholders. In the short to long run, the burden is shifted to labor and capital including the owners of non-corporate capital. The following section looks into the incidence of the corporate franchise tax based on the arguments made regarding the corporate income tax.

Incidence of State Corporate Franchise Taxes

State corporate income tax obligations are generally thought to be determined by the apportionment of total income (or tax on total income) among the states in which the corporations operate. A multi-state business's corporate income tax liability in a state where it has income tax nexus, is typically determined by the traditional three-factor apportionment formula:

$$T = [(P_i/P) * F^P + (W_i/W) * F^W + (S_i/S) * F^S] * t * \pi, \dots\dots\dots(3)$$

where T is the Corporate income tax in state i, F^P is the factor weight on property, F^W is the factor weight on payroll, F^S is the factor weight on sales, P is the total property of the firm, P_i is the property in state i, W is the total payroll of the firm, W_i is the payroll in state i, S is the total sales of the firm and S_i is the sales in state i, t is the Corporate income tax rate in state i, and π is the Total profits (taxable income) of the corporation. I note here that many variants on the formula exist including the double-weighted sales factor approach.

McLure (1980, 1981) uses these factors to show that apportioned state corporate income tax is equivalent to a tax on the apportionment factors. He concludes (McLure (1980)), “... therefore, any single state would seem to be well-advised at least to replace the corporation income tax with a tax levied directly on corporate sales, payrolls and property...”. McLure's approach may be employed to suggest that state corporate *franchise* taxes can be generally expressed as a measure of a firm's overall economic activity in the state in which a corporate franchise tax is imposed. As in the case of state corporate income taxes, overall economic activity associated with state corporate franchise may be gauged by a firm's property, payroll and sales in the state. Therefore, the state franchise tax can be generally expressed as

$$T_{fr} = (S_i - S_{th}) * t_s + (P_i - P_{th}) * t_p + (W_i - W_{th}) * t_w \dots\dots\dots(4)$$

Where T_{fr} is the state franchise tax levied, S_i is the sales generated in the given state, S_{th} is the sales threshold above with the franchise tax is levied on the sales factor, t_s is the franchise tax rate as applied to sales, P_i is the property in the given state, P_{th} is the property threshold above with the franchise tax is levied on the property factor, t_p is the franchise tax rate as applied to property, W_i are the wages paid in the given state, W_{th} is the wage threshold above with the franchise tax is levied on the payroll factor and t_w is the franchise tax rate as applied to wages. For the purposes of understanding the incidence of state corporate franchise taxes, the above equation can be simplified by removing the thresholds from the equation because they are generally considered to be constants and applying the same tax rate to the three factors, sales, property and payroll. The equation would thus be reduced to:

$$T_{fr} = [(S_i + P_i + W_i) * t_{fr}] / 3 \dots\dots\dots(5)$$

where t_{fr} is the franchise tax rate in that state.

The above equation can be employed to explain the incidence of state franchise taxes. Understanding, the incidence of state taxes requires understanding how the taxes are levied. If all the states levied a standard corporate franchise tax, it might be possible to understand the tax by studying it at a national or even international level. But since tax systems vary widely, it is necessary to understand the incidence at the state level. The portion of state franchise tax that is exported to residents and nonresidents of the taxing state is determined by the extent to which the burden of the tax is borne by consumers and capital owners. This can be understood by considering each of the terms in the above equation.

Sales Factor Incidence

The incidence of the first factor in equation (5) above -- sales -- is likely to be similar to the incidence of a gross receipts or standard sales tax. Determining how much of the burden is carried by the sales factor requires understanding how sales are defined in the state that imposes the tax. If the sales are attributable to the destination state, the incidence of the sales portion should be generally considered to be the same as that of a standard sales tax. This implies consumers of products in the given state pay for this portion of the franchise tax. This argument is similar to analysis of McLure (1981) implies that the sales portion of the tax cannot be generally shifted to consumers in national or global markets. In other words, to the extent that

corporations operating in the taxing state sell in national markets, it is likely that the tax would be passed on to the consumers in the taxing state and not throughout the nation. This is consistent with the argument that the tax burden is borne by those who can least avoid it i.e., it is regressive by nature, as are sales taxes.

Labor Factor Incidence

If labor is immobile between states, it is likely that labor will absorb the part of the tax that relates to payroll or wages. If labor is used in the state to make products that are exported, the incidence of a franchise tax falls on labor that is unable to avoid the tax through migration. If labor is mobile between the states, the portion of the labor that is unable to migrate would be bearing the payroll-related portion of the corporate franchise tax.

Property Factor Incidence

Since property is generally considered to be immobile, it is likely that the property portion of the franchise tax is generally similar to that of a standard property tax on commercial property. If the property is used to produce products that are exported outside the producing state, the incidence is borne by the portion of the property that is unable to avoid the tax through migration.

Incidence on Capital and Labor

Because firms operating in a given state usually compete for capital and labor in national markets, state franchise tax burdens are unlikely to be borne by capital except in the short run. In

the very short run, the franchise tax burden may fall on shareholders. According to the Miller model, federal corporate tax is largely borne by corporate shareholders. Miller argues that taxpayers hold specialized portfolios based on their tax brackets and filing status. This applies to franchise taxation as well. Beyond the short run, the tax is then shifted to capital and labor in the proportion that labor and capital are used in producing the goods to be sold in the given state. Labor and capital rates of return shift until rate of return comes to equilibrium. In an open economy, capital and labor rates shift till the domestic rate of return equals the world rate of return. Similarly, in the case of a closed economy, the rate of return to capital and wages between the states would come to a new equilibrium, after the introduction of the franchise tax in a given state. In this sense, open and closed economy arguments are very similar. Also, Feldstein's (1977) argument that land not only serves as a factor of production but also as an asset holds in the case of the corporate franchise tax. Therefore, it can be argued that a tax on land allows investors to increase other assets and as a result causes physical capital to increase. This causes wages to go up due to a higher capital-labor ratio in the long run. Also, even in the long run, some of the burden is borne by the shareholders. The burden cannot be entirely shifted off of the shareholders to labor and capital alone.

From an economic rents perspective, the incidence of state franchise taxes depends on the nature of rents collected. To the extent that ideas and not goods are produced, the franchise tax is a tax on labor. If goods are also being sold, the tax is passed on to the goods to the extent that goods are sold in the local markets. But in case of the services industry, the tax can be considered as a tax on labor for the most part. To the extent that property is involved in generating the economic activity, it is taxed. The 1973 Stiglitz's argument that corporate income

tax does not apply to the return of marginal investment under certain circumstances and hence would not have the distortionary effects on prices as argued by Harberger holds in the case of corporate franchise taxes also. His argument that in a monopoly model, corporate rents do not lead to distortions is also true. However in the case of oligopoly, corporate rents would distort production choices. Stiglitz also argues that corporations use debt as opposed to equities for financing investment as debt related interest payments are tax deductible. Therefore, a tax on profits or for that matter dividend does not distort investment decisions due to corporations using debt to finance their investment.

Incidence of State Franchise Taxes on Non-Corporate Business Forms

Market forces tend to equalize the return to capital on corporate and non-corporate forms of business. Depending on the nature and the extent of taxes on labor, labor shifts between corporate and non-corporate sectors until the net or effective wage rates are equalized. From this standpoint, franchise tax is a tax on labor as well as capital. Kotlikoff and Summers (1987) time period model applies to franchise tax in that while savings increase after the first period, it is not possible to clearly demonstrate that labor will bear the net burden of the tax. Their argument that the total burden on capital need not fall with the ability of the US to affect the international rate of return still holds in the case of a franchise tax.

Looking at the corporate tax in terms of risk, the return to a risky asset can be separated into two components, the safe rate of return plus the excess return that comes from risk. If t represents the tax rate on the risk-free return and t^* represents the tax rate on the excess return, the taxpayer is indifferent to the value of t^* , as the taxpayer can undo taxation of the excess

return by shifting to a portfolio with a greater share of the risky asset. This appears to be true more in case of the state corporate tax rather than the state franchise tax since the franchise tax is not a tax on income. It can be argued that the tax payer would have already shifted to the riskier portfolio if it was to give a greater rate of return, even in the absence of a franchise tax.

Summary

State corporate franchise tax generally reflect a firm's overall economic activity in a particular state which is, in turn, commonly measured by the firm's property, payroll and sales in the state. I argue along the lines of McLure (1980, 1981) to show that the apportioned state corporate franchise tax is equivalent to a tax on the apportionment factors. The incidence of the first factor in the above formula, sales is considered to be along the lines of a gross receipts or a standard sales tax. To the extent that the corporations operating in the taxing state, sell in national markets, it is likely that the tax would be passed on to the consumers in the taxing state and not throughout the nation. The property portion of the franchise tax can be considered to be generally similar to that of a standard property tax. Finally, if labor is mobile between the states, then the argument would be that the portion of the labor that is unable to migrate would be bearing the payroll related portion of the corporate franchise tax.

From an economic rents argument, the incidence depends on the nature of rents collected. To the extent that ideas and not goods are being produced, the franchise tax is a tax on labor. Also, in the very short run, the franchise tax burden may fall on the shareholders. According to the Miller model, corporate tax is largely borne by corporate shareholders. He argues that taxpayers hold specialized portfolios according to their tax brackets and status. This applies to

franchise taxation as well. Beyond the short run, the tax is then shifted to capital and labor in the proportion that labor and capital are used in producing the goods to be sold in the given state.

Understanding who bears the burden of corporate franchise tax provides taxpayers and policymakers with information on how equitably the tax is distributed. I highlight the need for further study and research on the subject to better understand the incidence to propose changes in tax on business or for that matter even change in tax rates.

Chapter 4

Reliability and Volatility

Introduction

The relative contribution of corporate tax revenues at the federal level is currently at about the same level that it was in the early 1970s. At the state level, corporate income tax revenues are both volatile and difficult to predict, and add uncertainty to state budgeting. State corporate income taxes are “pro-cyclical”, exacerbating the drop in state revenues in downturns. GAO (2004) reports that 32.7 percent of large U.S. corporations reported no tax liability in 1995 and that percentage rose to 45.3 percent by 2000. Nationally, corporate income tax revenues declined 12.2% in the year ending June 2009, after declining 7.3% in the year ending June 2008, a cumulative decline of 19.7%, after growth of 15.4% between June 2006 and June 2007.

It is generally known that the corporate tax structure in most states begins with federal corporate taxable income and then allows for certain additions and subtractions. Thus a decrease in the federal base also decreases the state corporate tax base. Auerbach (1984) notes that corporate income tax revenues have declined steadily as a fraction of U.S. GNP over the past three decades. He adds that "one reason for the decline in corporate tax collections since 1953 has been a decline in corporate profitability.

More recently, the State Corporate Income Tax (CIT) revenues have dropped dramatically. State CIT revenues are extremely sensitive to economic cycles and thus are subject to considerable uncertainty. Shrinkage of the base appears to explain the general tendency over the last decade, although multiple causes for the deterioration of revenues can be identified.

Cyclical declines in corporate profits, aggressive corporate tax planning by corporations and

federal and state decisions to reduce the corporate tax base and tax burdens. Gupta, et. al., (2009) document a decline in total state CIT collections relative to total state taxes from 1982 until 2002. Fox et al (2007) note that even before the recession state CIT revenue was falling as a share of profits.

Therefore, it is also generally agreed by tax economists that CIT revenues are difficult to forecast. In fact, CIT revenues are an order of magnitude more volatile than for example personal income tax revenues. As a result, the one of the things the States are moving towards is increasing the use of the sales factor to apportion corporate income. More over, at least six states are considering proposals to repeal their state corporate income tax (CIT). Ohio is completing the repeal of its corporate income tax which was partially replaced by a gross receipts tax. California’s tax reform commission proposed replacing the California CIT and sales tax with a subtraction VAT. Minnesota Governor’s 21st Century Tax Reform Commission proposed replacing the corporate income tax with a broader sales tax base including more consumer purchases of goods and services.

Another proposed replacement of the state corporate income tax is the introduction of a state corporate franchise tax. The State corporate franchise tax is a measure of the firms overall economic activity in the state which is calculated commonly by assessing the firms property, payroll and sales in the state. Therefore, the state franchise tax can be expressed as

$$T_{fr} = (S_i - S_{th}) * t_s + (P_i - P_{th}) * t_p + (W_i - W_{th}) * t_w \dots\dots\dots(6)$$

$$S_{i,n} = f(S_{i,n-1}, TGR_{n-1}, TGR_n) \dots\dots\dots(7)$$

$$P_{i,n} = f(P_{i,n-1}, POP_{n-1}, POP_n) \dots\dots\dots(8)$$

$$W_{i,n} = f (W_{i,n-1} , PWS_{n-1}, PWS_n) \dots\dots\dots(9)$$

Where T_{fr} is the state franchise tax levied, S_i is the sales generated in the given state, S_{th} is the sales threshold above which the franchise tax is levied on the sales factor, t_s is the franchise tax rate as applied to sales, P_i is the property in the given state, TGR_{n-1} , TGR_n are the New Mexico taxable gross receipts forecast using the consensus revenue process for years n-1 and n, POP_{n-1} , POP_n are the New Mexico population forecast from New Mexico Bureau of Business and Economic Research (BBER) for years n-1 and n, PWS_{n-1} , PWS_n are the New Mexico private wage and salary forecasts from the For-UNM forecast produced by BBER for years n-1 and n, P_{th} is the property threshold above which the franchise tax is levied on the property factor, t_p is the franchise tax rate as applied to property, W_i are the wages paid in the given state, W_{th} is the wage threshold above which the franchise tax is levied on the payroll factor and t_w is the franchise tax rate as applied to wages. One of the key arguments in favor of a franchise tax is that the factor-based franchise tax would have a much more stable base, helping to remove uncertainty from budget forecasting and decision making.

I use micro-simulation techniques to analyze the stability and volatility of state franchise tax as compared to the state corporate income tax. The chapter is organized as follows. Section II covers the methodology and related techniques used in estimating the revenues, Section III lists the hypotheses to be tested, Section IV describes the analysis and results, and Section V details the conclusions and policy implications.

Methodology

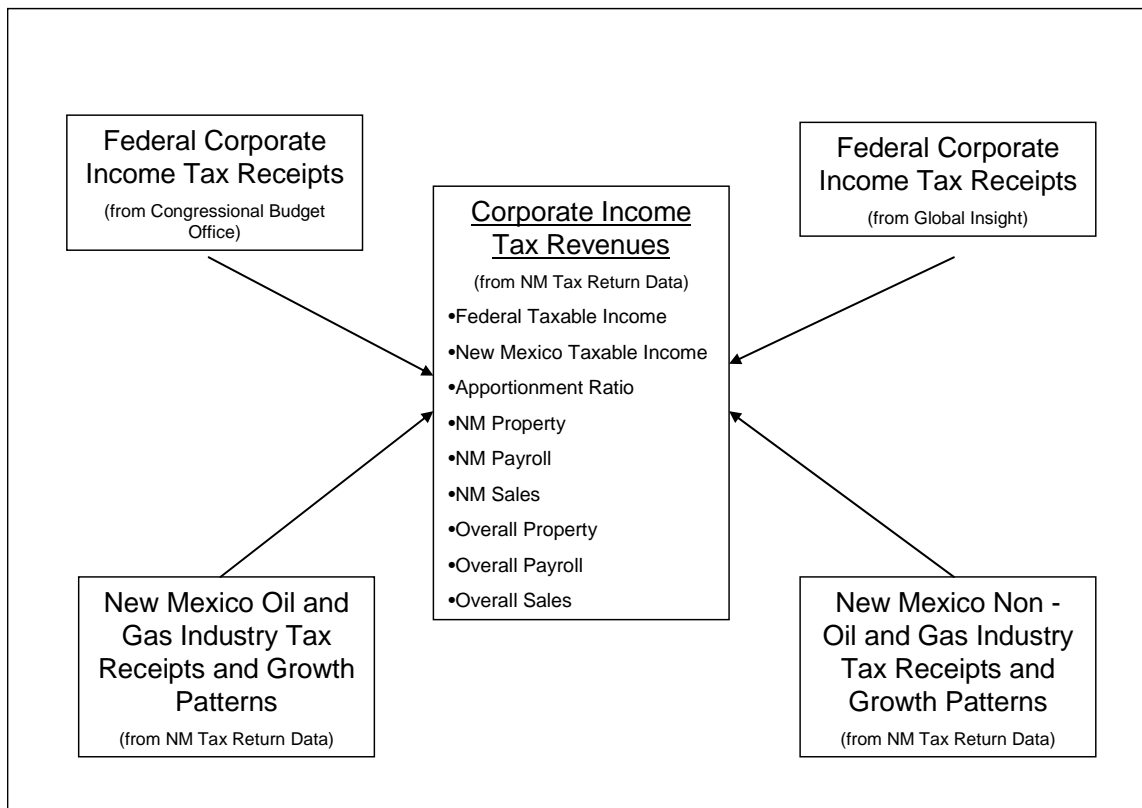
Our analysis of the steadiness and volatility of corporate and franchise tax revenues is carried out in three distinct steps. First I estimate the past and present gross corporate income tax revenues. Second, I carry out a micro-simulation analysis of corporate income tax data (from 2006 tax year) using standard estimates and economic predictions provided by Bureau of Business and Economic Research as well as General Insight to estimate the federal corporate franchise tax revenues. Thirdly, I compare the two to determine which of the revenues is more reliable and less volatile.

For the purpose of my analysis, corporate income tax revenues from 2006 through 2014 are collected from two sources. The past corporate income tax revenues are obtained from the Taxation and Revenue department of the State of New Mexico. Future corporate income tax revenues are estimated for the State of New Mexico using a consensus revenue forecast process. In this chapter I use the corporate income tax revenue estimates from the July 2010 consensus revenue forecast as the estimated future corporate revenues.

Corporate income tax rates in New Mexico are 4.8% on the first \$500,000 of net (taxable) income, 6.4% on the next \$500,000 of net income, and 7.6% on net income over \$1 million. The gross New Mexico corporate income tax revenues are forecasted (by applying the appropriate rates and ratios) based on estimates of federal corporate profits and federal corporate tax receipts from Congressional Budget Office (CBO) and Global Insight (GI), cash flow model using corporate receipt patterns over the past several years along with a model that estimates New Mexico CIT revenues based on estimating two components industry groups i.e. oil and gas and other industries by utilizing their respective growth patterns. Results from the

different models are compared and analyzed to determine the consensus corporate income tax revenues. The same is illustrated in the following figure.

Figure 4: Estimating New Mexico Corporate Income Tax Revenues by the Consensus Forecast Process



To determine the franchise tax revenues for the period of time under consideration, a more detailed analysis to what the revenues would be if the franchise tax proposal was already implemented is necessary. In order to do this, it is necessary to carry out micro level economic analysis and determine the behavior of individuals or corporations (read agents) due to the change in public policy. Micro-level data is needed to understand the individual and aggregate changes in behavior over the life-course. One of the standard ways in determining the behavior

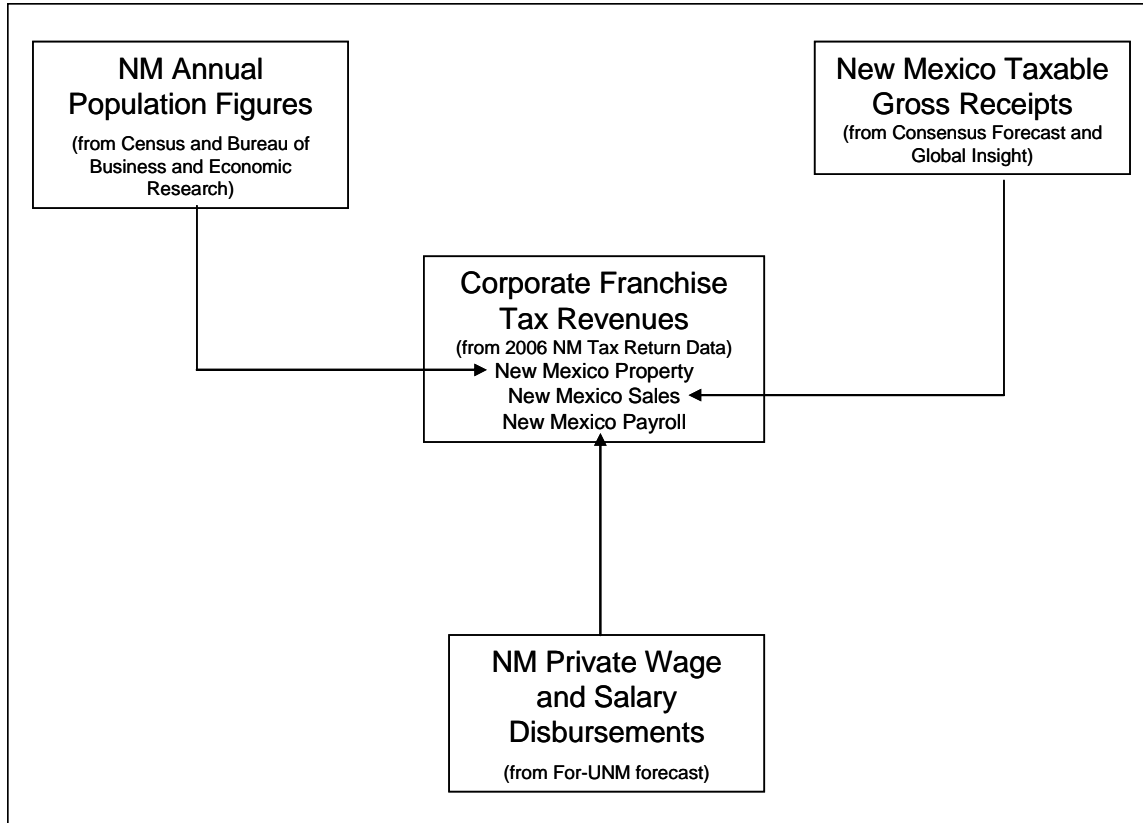
of agents over time is by using microsimulation techniques. A microsimulation model is a model which uses simulation techniques and takes micro level units as the basic units of analysis when investigating the effects of social and economic policies. The differences before and after the change, can be analyzed at the micro level or aggregated to show the overall effect of the change. Micro simulation analysis can be either static or dynamic. Static microsimulation analysis is conducted when the behavior or attributes of the individuals or agents does not change over time i.e. there is no ageing. When their behavior changes over time, dynamic microsimulation models are used i.e. the characteristics of the agents change in response to accumulated experience or the passage of time. In this method, as the agents get older, stochastic and deterministic methods are used to predict the changes in behavior of the agents. In this way, dynamic models generate long-term or life-time data about agents.

The choice of using a static or dynamic microsimulation model and whether to include ageing depends on the data available and the problem being addressed. A static micro-simulation is generally employed when only cross sectional data is used to answer a question for example the understanding the change in revenues due to a change in tax policy. That is to say that static microsimulation helps us understand the first round effects. However, dynamic methods are used when a set of repeated cross sections are needed and the agents change their behavior in response to a change in either tax policy or tax rate. By analyzing the changes in behavior which might occur over a period of time, they help us understand not only the first term effects but also the full effects. However, the introduction of the behavior component introduces an additional degree of uncertainty generated by the parameters assumed. As such, all microsimulation models are subject to a certain degree of error. Also, the steps involved in performing microsimulation

like inputting or imputing values, updating parameters, reweighting variables, as well as estimating – involve some degree of approximation and therefore also introduce an element of error. Pudney and Sutherland (1994) calculate the degree of sampling error in a range of static models. It is often the situation that a choice is needed to be made between not introducing behavioral effects or changes or introducing additional uncertainty due to imperfect estimating procedures. In this paper, I utilize the static microsimulation technique to estimate the aggregate franchise tax revenues from 2006 through 2014 while assuming that the behavior of the corporations (or agents) is not altered due to the change in law to levy franchise taxes instead of a corporate income tax. I believe that this assumption is valid as the franchise tax rate for the base year (2006) is calculated by assuming equal revenues from franchise and corporate income taxes and thereafter, the rate is kept constant for the period under consideration using three different proposals.

Under Proposal 1, the franchise tax amount was calculated based on a corporation's property, payroll and sales (as currently defined for apportionment of corporate income tax) in excess of a property threshold of \$5 million, a payroll threshold of \$1.2 million, and a sales threshold of \$9.3 million. The rate of the new corporate franchise tax was calculated to maintain revenue neutrality of the proposal in the first year (i.e.2006). In the first year, 2006, the franchise tax rate was estimated to be 0.293%. This rate was maintained throughout the estimating period from 2006 through 2014. Population growth, growth in New Mexico private wage and salaries, taxable gross receipts revenues (adjusted for

Figure 5: Data Sources used in simulating corporate franchise taxes from 2006 through 2014



changes in tax law / rates) and historical property growth rates were used to calculate franchise tax year revenues for the subsequent years. The previous figure illustrates the different data sources used in the simulation.

Under Proposal 2, the thresholds for property, payroll and sales were reduced by 10% each to \$4.5 million, \$1.08 million and \$8.37 million respectively. The rate of the new corporate franchise tax was calculated to maintain revenue neutrality of the proposal in the first year (i.e.2006). In the first year, 2006, the franchise tax rate was estimated to be 0.2913%. This rate was maintained throughout the estimating period from 2006 through 2014. Population growth,

growth New Mexico private wage and salaries, taxable gross receipts revenues (adjusted for changes in tax law / rates) and historical property growth rates were used to calculate franchise tax year revenues for the subsequent years.

Under Proposal3, the thresholds for property, payroll and sales were increased by 10% from proposal 1 each to \$5.5 million, \$1.32 million and \$10.23 million respectively. The rate of the new corporate franchise tax was calculated to maintain revenue neutrality of the proposal in the first year (i.e.2006). In the first year, 2006, the franchise tax rate was estimated to be 0.296%. This rate was maintained throughout the estimating period from 2006 through 2014. Population growth, growth in New Mexico private wage and salaries, taxable gross receipts revenues (adjusted for changes in tax law / rates) and historical property growth rates were used to calculate franchise tax year revenues for the subsequent years.

Hypotheses

Using the micro level corporate income tax data from the Taxation and Revenue Department of the State of New Mexico which contains over 19,000 individual corporation data, I test the following hypotheses.

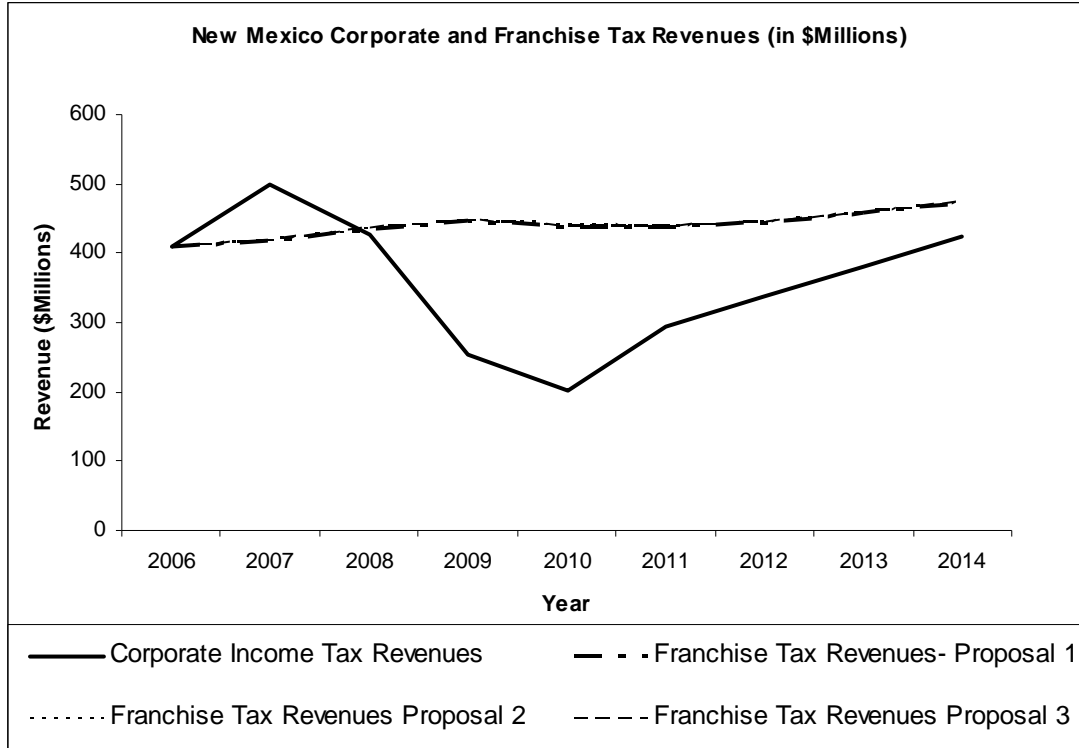
H1: Franchise tax generates higher aggregate revenue under all three proposals than the corporate income tax from 2006 through 2014.

H2: The variance of franchise tax revenues under all three proposals is smaller than the variance of corporate income tax revenues between 2006 and 2014.

Analysis and Empirical Results

Figure 1 below shows the New Mexico Corporate and Franchise Tax revenues from 2006 through 2014. As seen easily from the figure, corporate franchise tax revenues are far less volatile and far more stable than the corporate income tax revenues. I note here that during this period (from 2006 through 2014), the economy has gone through an initial expansionary phase and thereafter a recession before starting recovery. Analysis indicates that during this period, the total corporate income tax revenues (past and projected) are \$3,229.5 million whereas the total corporate franchise tax revenues calculated were \$3,961.2 million under proposal 1, \$3,969.8 million under proposal 2, and \$3,962.1 million under proposal 3 indicating that switching to a franchise tax system based on a 2006 revenue neutral rate would have resulted in the state earning over \$700 million in corporate revenue over the period under consideration under all three proposals. Also, except in year 2007, franchise tax revenues were more than corporate income tax revenues in every year under all three proposals. The mean corporate income tax revenue per year was \$358.8 million where as the mean corporate franchise tax revenue was substantially higher at \$440.1 million under proposal 1, \$441.1 million under proposal 2 and \$440.2 million under proposal 3. The observed standard deviation in case of corporate income tax revenue was 89.5 where as the observed (calculated) standard deviation in the case of corporate franchise tax revenue was substantially lower at 17.6 under proposal 1, 17.8 under proposal 2 and 17.7 under proposal 3. This analysis led to the conclusion that both hypothesis 1 and 2 did hold in case of corporate franchise

Figure 6: New Mexico Corporate Income and Corporate Franchise Tax Revenues (in \$ millions)



and income taxes. I then perform a simple f-test on the three proposals to determine if the variance is statistically significant. The f-test values in the three proposals were 0.000123, 0.000133 and 0.000127 respectively which indicates that the variance between corporate income tax and corporate franchise tax under all three proposals is statistically significant.

Summary

At the state level, corporate income tax revenues are volatile and difficult to predict, adding uncertainty to state budgeting. Also, state corporate income taxes are “pro-cyclical”, exacerbating the drop in state revenues in downturns. This chapter used micro-simulation techniques to analyze the stability and volatility of state franchise tax as compared to the state

corporate income tax and My analysis indicates that switching to a franchise tax system based on a 2006 revenue neutral rate would have resulted in the state earning over \$700 million in corporate revenue over the period under consideration. Also, the mean corporate income tax revenue per year was \$358.8 million where as the mean corporate franchise tax revenue was substantially higher at \$440.1 million. I also show that corporate franchise tax revenues are less volatile than corporate income tax revenues. Hence I argue that switching to a franchise tax system is not only beneficial in terms of higher revenues with less volatility but also is a fairer and efficient way of imposing taxes based on economic activity of corporations in the state. I wish to note here that other options including adjusting the rates to make the franchise tax revenues revenue neutral over a period of time (instead of it being revenue neutral just for the 2006 year), adjusting rates annually to minimize significantly increasing revenues etc. exist and could be employed based on the objective being considered I also note that this proposal would cause one of the advantages of the corporate income tax to be lost, namely distribution out of net earnings i.e., when companies do well, they pay more and when they do poorly they pay less.

Chapter 5

Conclusions

It is well known that state corporate income taxes are distortionary, have high compliance costs, and are an unreliable source of revenue; they need to be replaced by other forms of taxation. I argue that replacing the state corporate income tax with a factor-based franchise tax would significantly improve state taxation of corporations. The proposed change would remove the distortions inherent in the current corporate income tax, including the highly uneven effective rates on apportionment factors, and reasonably relate corporate tax liabilities to benefits received. The compliance cost of the new franchise tax would also be an order of magnitude less than the corporate income tax, in part because the franchise tax thresholds would remove from tax smaller corporations, which have disproportionate current compliance costs. The factor-based franchise tax would have a much more stable base, helping to remove uncertainty from state budget forecasting and decision making.

Also, state corporate franchise taxes generally reflect a firm's overall economic activity in a particular state, which, in turn is commonly measured by the firm's property, payroll and sales in the state. I argue along the lines of McLure (1980, 1981) that the apportioned state corporate franchise tax is equivalent to a tax on the apportionment factors. The incidence of the first factor in the above formula, sales is considered to be along the lines of a gross receipts or a standard sales tax. To the extent that the corporations operating in the taxing state sell in national markets, it is likely that the tax would be passed on to the consumers in the taxing state and not throughout the nation. The property portion of the franchise tax can be considered to be generally similar to that of a standard property tax. Finally, if the labor is mobile between the

states, then the argument would be that the portion of the labor that is unable to migrate would be bearing the payroll related portion of the corporate franchise tax.

From an economic rents argument, the incidence depends on the nature of rents collected. To the extent that ideas and not goods are being produced, the franchise tax is a tax on labor. Also, in the very short run, the franchise tax burden may fall on the shareholders. According to the Miller model, corporate tax is largely borne by corporate shareholders. He argues that taxpayers hold specialized portfolios according to their tax brackets and status. This applies to franchise taxation as well. Beyond the short run, the tax is then shifted to capital and labor in the proportion that labor and capital are used in producing the goods to be sold in the given state.

Understanding who bears the burden of corporate franchise tax provides taxpayers and policymakers with information on how equitably the tax is distributed. I highlight the need for further study and research on the subject to better understand the incidence to propose changes in tax on business or for that matter even change in tax rates.

I use micro-simulation techniques to analyze the stability and volatility of state franchise tax as compared to the state corporate income tax and my analysis indicates that switching to a franchise tax system based on a 2006 revenue neutral rate would have resulted in the state earning over \$700 million in corporate revenue over the period under consideration. Also, the mean corporate income tax revenue per year was \$358.8 million where as the mean corporate franchise tax revenue was substantially higher at \$440.1 million. I also show that corporate franchise tax revenues are less volatile than corporate income tax revenues. Hence I argue that switching to a franchise tax system is not only beneficial in terms of higher revenues with less volatility, but also is a fairer and more efficient way of imposing taxes based on economic

activity of corporations in the state. I further argue that this proposal can be adopted in most other state that levy corporate income taxes with changes to rate, thresholds and structure based on the corporate structure that exists in that state. While further research and investigation is needed in the state that intends to adopt this proposal, I feel that similar results could be achieved in terms of making this a more benefits based tax.

I wish to note here that since this proposal alters the composition of tax across the different sectors differently, general equilibrium analysis using tools like IMPLAN could be undertaken to better understand the secondary effects of the introduction of this new tax scheme into the economy including understanding total employment (number) as well as wage and salary implications.

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