

tax notes



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Special Report / Viewpoint

Analysis of New York's Business Tax Competitiveness

by Policy Economics Group, KPMG Peat Marwick

This is an excerpt from a study performed by the Policy Economics Group of KPMG Peat Marwick, Washington, for Niagara Mohawk Power and the State of New York.

Executive Summary

The purpose of this study is to provide an objective and comprehensive measure for comparing New York's overall business taxes on selected industries with those of competitor jurisdictions. The report includes a summary description of the major features of federal, state, provincial, and local business taxes for 10 U.S. states and two Canadian provinces. In addition, the Policy Economics Group Business Tax Competitiveness Model, which has been provided to Niagara Mohawk Power Corporation and the state of New York, can be used to simulate the effects of tax policy changes on business tax burdens. Thus, the Business Tax Competitiveness Model is an ongoing analytical tool for evaluating the effects of tax policy alternatives on New York's competitive business tax position.

Scope and Methodology

The study includes 16 industries that were selected because of their significance to the economic development of the state of New York. Four subnational business taxes are included in the study: corporate income taxes, property taxes, sales taxes on business purchases, and franchise taxes. The Model also calculates federal corporate income taxes and their interaction with state and provincial taxes.

The Business Tax Competitiveness Model calculates before- and after-tax rates of return on a prototype investment by a representative firm in each industry. Balance sheets and income statements for the representative firms are based on actual financial data for each industry. The Model projects income and taxes over a 30-year period. Effective tax rates are calculated as the measure of overall tax burdens on investment. The effective tax rate is the difference between pretax and after-tax rates of return divided by the pretax rate of return on investment. The effective tax rate is the widely accepted measure of business tax burdens since it accounts for the time value of money over the life of an investment. The impacts of tax law provisions that are sensitive to timing, such as tax depreciation rules and temporary property tax abatements, are properly measured.

The calculation of the effective tax rate can be illustrated by the following example. The pretax rate of return on total assets for the printing and publishing industry is 13.25 percent.

Federal, state, and local taxes in upstate New York (excluding New York City) result in an after-tax rate of return of 9.37 percent. The difference between the before- and after-tax return is 3.88 percent. The effective tax rate of 29.31 percent is calculated by dividing 3.88 percent by 13.25 percent.

Major Findings

The analysis in this study relates only to upstate New York, excluding New York City. The Business Tax Competitiveness Model, which has been delivered to Niagara Mohawk Power Corporation and the state of New York, also has the capability to estimate business tax burdens for specific jurisdictions, including New York City. The major findings of this study are as follows:

New York's Position Relative to Competitor States

- In comparison with the 10 states included in the study, upstate New York has the lowest overall tax burden on investment, on average, for the 16 study industries. In general, business property taxes and corporate income taxes in New York are below-average and sales taxes on business purchases are above average.

In comparison with the 10 states included in the study, upstate New York has the lowest overall tax burden on investment, on average.

- New York's relatively low corporate income taxes on investment are largely due to the impact of the investment tax credit. The New York investment tax credit is equal to 5 percent of the first \$350 million of qualifying investment and 4 percent on amounts over \$350 million. A credit of 9 percent is available for capital expenditures on research and development and an additional employment investment credit may be claimed when an investment results in employment increases that meet specified conditions.
- Business property taxes in New York are competitive because of the 10-year partial business investment exemption. Unlike states that offer property tax abatement on a discretionary basis, the New York business investment exemption is broadly available and can be counted on when business

decisionmakers evaluate the impact of taxes at alternative sites.

- Sales taxes on business purchases are above-average in New York because of a relatively high combined state-local sales tax rate, which is typically 8 percent in upstate New York. Unlike the sales tax on final sales to consumers, the sales tax on business purchases is a tax cost which firms selling in national or global markets may have to absorb.

New York's Position Relative to Ontario and Quebec

- New York's state and local business tax burden is significantly lower than the provincial tax burden in Ontario and is competitive with the provincial tax burden in Quebec. However, overall effective tax rates on investment for the industries included in the study are lower in the two Canadian provinces when federal taxes are taken into account. This finding reflects the favorable treatment of manufacturing under the Canadian corporate income tax. Thirteen of the 16 industries in this study are in the manufacturing sector and are subject to a lower tax rate than nonmanufacturing businesses under the Canadian corporate income tax.
- Ontario has a relatively high top corporate income tax rate of 15.5 percent, relatively high property taxes, and an 8-percent sales tax rate.
- The use of a value added tax rather than a general sales and use tax is a contributing factor to Quebec's favorable business tax position. The Quebec goods and services tax provides a credit for most business purchases and thus minimizes the cascading or multiple taxation that is common to the general sales taxes imposed by Ontario and the U.S. states.
- The statutory tax rate under the Canadian federal corporate income tax is 28.8 percent generally and 22.8 percent on manufacturing and processing (after allowance for a 10-percent rebate applied to income earned in a Canadian province or territory). The top U.S. federal statutory income tax rate is 34 percent.

Factors Affecting Business Tax Differential Among Jurisdictions and Industries

- Massachusetts and New Jersey, along with New York, have the lowest business tax burdens on investment of the 10 competitor states. These two states have kept all three of the major state-local business taxes — corporate income, property, and sales — in line with competitor states.
- Michigan has the highest business tax burdens on investment of the 10 states in the study. Michigan has the highest business property taxes and a relatively high effective tax rate related to the Single Business Tax (SBT). The SBT is a modified form of value added tax which includes compensation in the tax base. The design of the Michigan SBT includes expensing of capital, which is a significant investment incentive. However, the level of the tax is usually high — equivalent to a statutory corporate income tax rate of 19 percent.
- A complex set of interacting factors account for the variations in effective tax rates across industries in

each state. For example, industries that have high proportions of depreciable assets (structures and equipment) will tend to have above-average property taxes in states that include equipment in the property tax base. This factor applies to the paper industry and transportation equipment industry in Ohio, Michigan, and Vermont. Industries with below-average rates of return, such as electronic equipment, transportation equipment, and computer manufacturing, will generally have high effective tax rates because the ratio of depreciable assets to income will tend to be relatively high.

Long-Term Analysis Capability

The analysis in this report demonstrates the powerful capabilities of the Policy Economics Group Business Tax Competitiveness Model that has been delivered to Niagara Mohawk Power Corporation and the state of New York. The menu-driven Model software enables the user to analyze the impact of tax policy options on New York's competitive position. In addition, the Model can be used to analyze the impact of state and local tax differentials on businesses that are evaluating potential investments in New York versus alternative locations in other states or provinces. Thus the Business Tax Competitiveness Model is a valuable tool that can be used to enhance the economic development of the state of New York.

Chapter I Introduction

Tax policy is one of many factors that can affect the economic development of states. The location of investment is the consequence of a complex decisionmaking process that involves a variety of factors. Availability and cost of labor, proximity to markets, relative energy costs, presence of research-oriented academic institutions, quality of transportation systems, quality of educational systems, cost of living, quality of life, and climate are all factors that may influence decisions to locate manufacturing plants, research and development facilities, company headquarters, or other investments in particular communities.

Michigan has the highest business tax burdens on investment of the 10 states in the study.

The criterion of competitiveness deals with how a revenue system compares or is perceived to compare to that of other states with which New York competes in attracting businesses and residents. It should be noted that there is debate over whether interstate tax competition is a good thing. Many use the market analogy to argue that tax competition promotes efficiency and the location of businesses in the states and regions that are best able to support those businesses, resulting in an improved allocation of resources for the country as a whole. Others argue that interstate tax competition depletes state resources without significantly increasing national employment because tax incentives in one state may be countered by similar tax reductions in other states. While any state that imposes a tax burden significantly higher than that of its competing states runs the risk of hurting its economy, many

businesses are equally concerned with the quality and scope of public services including education, transportation, and water supplies.

Nonetheless, providing a competitive business environment is important to states and taxes can be a significant element in defining the business environment. A state with substantially higher business taxes runs a risk of becoming a less attractive business location. Most states do not wish to be too far out of line with the tax systems of their potential competitors.

A number of factors may influence the way in which business taxes relate to investment location decisions. In the short run, market conditions can be important. If the economy is weak, sellers will have difficulty passing higher tax (or nontax) costs through as higher prices in a buyer's market. In the long term, the nature of the product may be important. If a product is highly "price inelastic," a change in price will have little effect on demand. Sellers may more easily shift taxes to consumers of such products in the form of higher prices. If a product is highly price elastic, then consumer demand will be very sensitive to increase in price. Sellers will have more difficulty shifting tax costs to consumers through higher prices. Products that are sold in local markets also may be treated differently than products sold in national or global markets. If producers in a given state who are competing in national or global markets are unable to increase prices in response to higher state business tax costs, they may absorb the cost and experience lower rates of return in the short term. However, capital is assumed to be mobile and will flow to locations with superior returns unless nontax costs are reduced in order to maintain the profitability of operations in the state. Thus, in the long run, above-average state business taxes will tend to have negative effects on investment and employment.

The 'Representative Firm' Concept

The "representative firm" is a key concept in the methodology of the Policy Economics Group Business Tax Competitiveness Model. Balance sheets and income statements are constructed using financial ratios that, on average, reflect the actual experience of each industry that is included in the study. The primary data source is the Corporation Source Book, which is published by the United States Internal Revenue Service. Thus, the characteristics of the representative firms reflect observed facts rather than hypothetical assumptions. A limited number of adjustments are made to address issues such as the difference between historical costs (on balance sheets) and current market values.

Industries Included in the Study

It is important to recognize that the average tax burdens that are presented reflect the specific industries that are included in the study. Tax burdens by industry will vary to the extent that balance sheets and income statements — and the tax bases that correspond to financial statement items — vary by industry. For example, industries that have unusually high proportions of depreciable assets (i.e., machinery and equipment) will tend to have relatively high property tax burdens in those jurisdictions that include personal property in the base. Thus, average burdens will change with the mix of industries.

The 16 industries that are included in the study were selected because of their economic development significance in the

state of New York. The industries (by two-digit Standard Industrial Classifications) are:

#20 — Food Processing	#34 — Fabricated Metals
#23 — Apparel/Textile	#35 — Machinery/Computer Equipment
#24 — Wood Products	#36 — Electronic/Electrical Equipment
#25 — Furniture	#37 — Transportation Equipment
#26 — Paper	#38 — Measuring Instruments
#27 — Printing/Publishing	#48 — Communications
#28 — Chemicals & Allied Products	#60 — Depository Institution
#30 — Rubber/Plastics	#62 — Security & Commodity Brokers

Business Taxes Included in the Study

The four business taxes that are included in the study are: (1) the corporate income tax; (2) the property tax; (3) the sales and use tax on business purchases; and (4) the franchise tax.

The corporate income tax includes all federal, state, or provincial taxes that are measured by net income. This category includes taxes measured by net income including those referred to by other names, such as the New York franchise tax. The Business Tax Competitiveness Model incorporates apportionment formulas (including the sales throwback rule) and depreciation methods, as well as credits that are broadly available. In addition, the Model includes the Michigan single business tax, which is a modified value added tax and is the major general business tax in that state.

The property tax base reflects exemption or taxation of machinery and equipment, inventory, motor vehicles, and real estate. Property tax rates reflect assessment to market value ratios as well as local mill rates in determining full value tax rates (taxes as a percentage of full market value).

The sales and use tax covers major business purchase categories such as building materials, machinery and equipment, services, and motor vehicles. Local governments in many jurisdictions impose the sales tax and the Business Tax Competitiveness Model reflects combined state/provincial and local rates for each location. The sales tax on the products sold by each industry are not included in this analysis since they are assumed to be passed through to customers.

The franchise tax includes taxes imposed on capital stock or net worth as measured by a balance sheet definition of assets.

State and Provinces Included in the Study

Ten U.S. states and two Canadian provinces are covered by this study. In addition to New York, the states of California, Connecticut, Massachusetts, Michigan, New Jersey, North Carolina, Ohio, Pennsylvania, and Vermont are included. The two Canadian provinces are Ontario and Quebec. Because property and sales tax rates vary among localities, specific locations were selected for each jurisdiction. Three criteria were used to select the locations: (1) the current tax base includes industrial property; (2) sufficient undeveloped land is available for a major business expansion; and (3) property tax rates are at neither extreme of the range of rate within the jurisdiction. These criteria generally lead to the selection of suburbs within large metropolitan areas or central cities in smaller metropolitan areas. In the case of New York, the average effective tax rate for all property (excluding New York City) were used. The Model has the capability to

simulate taxes for specific localities in New York, including New York City.

Chapter II Overview of Method of Analysis

The primary tool used in the analysis is the Policy Economics Group Business Tax Competitiveness Model (the Model). The Model simulates the tax environment facing firms when considering an expansion in their operations. The Model provides specific measurements of tax differentials across industries and tax jurisdictions. Industry "profiles" are used to capture relevant characteristics of representative firms in each industry.

Data Sources

Industry profiles use balance sheet and income statement information for an "average" firm in each industry. These profiles are included in Appendix B. The primary data source for the profiles is the annual series of *Corporation Source Books* (1986-1989), published by the U.S. Internal Revenue Service. The *Source Book* provides detailed and accurate information on the operating income and costs of U.S. corporations as well as detailed balance sheet information. Where the *Source Book* does not have sufficient data (for example, some wages and salaries are included in costs of sales), it is supplemented with information from the U.S. Input-Output Accounts, produced by the U.S. Bureau of Economic Analysis. I-O Accounts provide detail on costs as a share of total output. Income statement data included in industry profiles are:

Wages and Salaries	Other Utilities	Repairs
Advertising	Rents	Insurance
Computer Services	Materials	Other Expenses
Equipment Rental	Professional Services	
Telephone Expense	Other Business Services	

Deductions for depreciation, interest expense, and taxes are calculated in the Model to more accurately capture the tax effects of the new investment.

The *Source Book* includes balance sheet data on total assets, depreciable assets, depletable assets, land, and financial assets. This information is enhanced using U.S. Bureau of Economic Analysis data on wealth by industry. Wealth data provide detailed information on physical asset holdings by industry and type of asset. Using these data, depreciable assets are disaggregated into major components (e.g., furniture, motor vehicles, machinery, equipment, and buildings).

Balance sheet information is reported at book value in the *Source Book*, while the property tax is assessed in relation to the market value. Therefore, an adjustment is made to the book value of land, and depreciable assets to estimate the market value of property. This adjustment is based on an analysis of financial data reported in Standard & Poor's Compustat database.

A market value to book value adjustment factor is computed using information from more than 4,000 publicly traded companies. The market-to-book ratio is estimated by adjusting each firm's market valuation, as reflected in its stock price, to remove assets not subject to the property tax, and dividing this by the book value of these same assets. The computed adjust-

ment factor used in the model equals 1.15.¹ This same adjustment factor is applied to all industries.

Methodology

The effective tax rate reflects the difference between pretax and after-tax rates of return. This is a useful measure for comparing relative tax impacts because it focuses on the tax impact of investment decisions, and it can be compared with other cost differentials.²

The representative firm for each industry is assumed to make a new investment to expand its current operations, i.e., an investment in the same line of business. This investment requires both physical and financial assets in proportion to each industry's current mix. Pretax Net Income is generated over a 30-year period by this new investment at a rate consistent with industry experience. The firm is assumed to invest in subsequent years only to the extent necessary to replace physically depreciating and depleting property, plant, and equipment. The residual value of the investment is added to the fiscal year's stream of economic income. Statutory tax rules are applied to the appropriate tax bases generated by the investment.

Pretax and after-tax internal rates of return are calculated on future income flows generated by this investment. An internal rate of return is the discount rate which equates the present discounted value of the net economic income stream generated by an investment to the initial cost of the investment.

Five categories of taxes are analyzed: the federal corporate income tax, state and provincial corporate income taxes, franchise taxes, state/provincial and local sales taxes, and local property taxes. A more detailed technical description of the methodology is present in Appendix A.

Chapter III Major Tax Law Provisions

This section provides a summary description of the major tax law provisions of the 12 jurisdictions included in the study.

State and Provincial Corporate Income and Franchise Taxes

All but 1 of the 12 jurisdictions impose a corporate tax based on net income. New York's corporate income tax rate is 10.35 percent, reflecting a regular 9.0 tax rate plus a 15 percent surcharge in 1993. Corporate income tax rates for the U.S. states included in the study range from 7.75 percent in North Carolina to 12.25 percent in Pennsylvania.

Corporate tax liabilities are determined by the definition of the tax base as well as the nominal tax rates. Three tax base features that are of particular importance are the provision of tax credits, the apportionment formula and the depreciation method. The New York investment tax credit (ITC) has a

(Text continued on p. 167.)

¹The market-to-book ratio is used to adjust book values for each company's land, depreciable, and depletable assets. This estimate is computed using the year-end stock price multiplied by the number of shares outstanding, adding total liabilities, subtracting assets assumed to be reported at market value (e.g., financial assets, inventories, net receivables), and subtracting an estimate of the value of intangible assets not on the balance sheet. This figure is divided by book assets less the assets assumed to be reported at market value.

²Assume a pretax return on assets equal to 15 percent and an after-tax rate of 10 percent. The effective tax rate will equal the difference between the two rates (5 percent), divided by the pretax rate (15 percent), multiplied by 100, or 33 percent.

Table 1
Corporate Income Tax Characteristics of Selected Jurisdictions 1993

(1) Jurisdiction	(1) Income Tax Rate	(2) Depreciation Method	(3) Apportionment Formula	(4) Major Credits	(5) Franchise Tax Rate	Is Franchise Tax Additional or Alternative?
New York	10.35%	MACRS	Sales — 50% Property — 25% Payroll — 25%	Investment — 5% of first \$350 M and 4% thereafter Research & Development — 9% of costs of ITC capital expenditures	2.047 mills	Alternative
New Jersey	9.00%	ADR	Sales — 33% Property — 33% Payroll — 33%	N.A.	N.A.	N.A.
Pennsylvania	12.25 %	MACRS	Sales — 33% Property — 33% Payroll — 33%	N.A.	12.75 mills	Additional
Connecticut	11.50%	MACRS	Sales — 50% Property — 25% Payroll — 25%	Research & Development — 10% of increase over prior year; 20% after 1/1/94	3.1 mills	Alternative
Massachusetts	9.50%	MACRS	Sales — 50% Property — 25% Payroll — 25%	Investment — 1% of the cost used for federal purposes Research & Development — 10% of excess qualified research expenses for the year over the base year + 15% of the basic research payments	2.6 mills	Additional
Vermont	5.5-8.25%	MACRS	Sales — 33% Property — 33% Payroll — 33%	Employers who create jobs in R&D are eligible for a credit of \$1,500 for each job up to 50% of liability	N.A.	N.A.
Ohio	7.1-10.9%	MACRS	Sales — 50% Property — 25% Payroll — 25%	N.A.	5.82 mills	Alternative
Michigan*	2.35%	Expense	Sales — 50% Property — 25% Payroll — 25%	Enterprise zone — credit based on enterprise zone property as a share of all Michigan property	N.A.	N.A.
North Carolina	7.75%	MACRS	Sales — 50% Property — 25% Payroll — 25%	A credit is allowed to companies that create jobs in distressed N.C. counties	N.A.	N.A.
California	9.30%	MACRS	Sales — 33% Property — 33% Payroll — 33%	Research & Development — 12% of basic research + 8% of increase in qualified research A credit is allowed for sales tax paid on machinery used in enterprise zones	N.A.	N.A.
Ontario	9.5-15.5%	CCA	Sales — 50% Payroll — 50%	Foreign Tax Credit	3 mills	Additional
Quebec	5.75-8.9%	CCA	Sales — 50% Payroll — 50%	Foreign Tax Credit Research & Development — 10% of wages	5.6 mills	Additional

*Single Business Tax.

New York. (1)&(5) The tax rates include a 15-percent surtax in tax year 1993. For tax years 1994 and after, the surtax is 10 percent. The corporate income tax rate, without surtax, is 9 percent.

Pennsylvania. (5) Entities organized for manufacturing, processing, research, or development are exempt from the franchise tax, but they still have to pay the minimum tax of \$300.

Massachusetts. (1)&(5) The tax rates include a 14-percent surtax.

Ontario and Quebec. CCA, or Capital Cost Allowances, is a system of classifications of depreciable assets into categories, where a maximum allowance is allowed, varying from 4 to 100 percent depending on the asset. The allowance is applied to the "undepreciated capital cost."

Table 2
Sales Tax Characteristics of Selected Jurisdictions 1993

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Jurisdiction	Tax Rate	Local Tax	Office Machinery	Motor Vehicles	Manufacturing Machinery	Non-Manufacturing Machinery	Utility Services	Telecommunications Services	Data Processing	Repairs	Other Services
New York	4.00%	4.00%	T	T	X	T	P	P	P	T	X
New Jersey	6.00%	N.A.	T	T	X	T	X	X	X	T	X
Pennsylvania	6.00%	N.A.	T	T	X	T	P	P	X	T	P
Connecticut	6.00%	N.A.	T	T	X	T	X	T	T	T	P
Massachusetts	5.00%	N.A.	X	T	X	T	X	T	X	P	X
Vermont	5.00%	N.A.	T	T	X	T	P	X	X	P	X
Ohio	5.00%	1.00%	T	T	X	T	P	P	T	T	X
Michigan	4.00%	N.A.	T	T	X	T	P	P	X	P	X
North Carolina	4.00%	2.00%	T	3.00%	1.00%	T	3.00%	T	X	P	X
California	6.00%	1.75%	T	T	T	T	X	X	X	T	X
Ontario	8.00%	N.A.	T	T	X	T	X	T	X	T	X
Quebec	8.00%	N.A.	X	T	X	X	X	T	X	X	X

T — Taxable X — Exempt P — Partially Taxed

New York

- (2) The local tax rate ranges from 3 percent to a high of 4.5 percent in Nassau County.
- (7) Utilities and fuel are exempt when used predominantly in production, although this exemption does not apply to the NYC local tax.
- (8) All intrastate phone charges are taxable.
- (9) While data processing is taxed, custom software design services are exempt.
- (10) Repair of manufacturing machinery is exempt (except in NYC).

New Jersey

- (11) Equipment rental is taxed.

Pennsylvania

- (2) The city of Philadelphia imposes a 1-percent sales tax.
- (7) If used directly in manufacturing, farming, or utilities, exempt, others are taxed.
- (8) Only business intrastate charges are taxed.
- (10) Real estate repairs are exempt.
- (11) Commercial art, photocopying, and printing are taxed.

Connecticut

- (7) Manufacturing use is exempt; otherwise, \$150 per month is exempt.
- (11) Consulting, employment, public relations, lobbying, business analysis, tax preparation, and landscaping services are all taxed.

Massachusetts

- (3) Office and computer machinery is exempt if used directly in manufacturing.
- (7) Utilities are exempt in manufacturing and businesses with five or fewer employees.
- (10) Parts are taxable.
- (11) Equipment rental is taxed.

North Carolina

- (1) The rate varies according to the type of purchase.
- (4) The minimum tax is \$40 and the maximum is \$1,000.
- (6) The tax rates vary.
- (7) Fuel sold for manufacturing is taxed at 1 percent.
- (8) Local telecommunications are taxed at 3 percent. Toll or private services that originate and terminate in North Carolina are taxed at 6.5 percent.
- (10) Parts are taxable.

California

- (2) All cities levy the 1.25-percent tax. In certain transit districts, voters have approved total rates of up to 8.5 percent.
- (10) Parts are taxable.

Michigan

- (3) Office equipment used for industrial processing purposes is exempt.
- (7) Exempt when used in industrial processing.
- (8) Tax is on all intrastate phone services.
- (10) Parts are taxable.

Ohio

- (3) Used to support or control machinery is exempt.
- (7) When used in manufacturing operation, is exempt.
- (8) Local and nontoll services are exempt.

Vermont

- (5) Machinery is exempt if used directly in manufacturing.
- (7) Water services are not taxed.
- (10) Parts are taxable.

Quebec

- The Quebec Sales Tax mirrors the federal Goods and Services Tax (GST) and tax paid on business inputs is refunded. There is an exception to this for purchases of motor vehicles and utilities by businesses.

(Continued from p. 164.)

substantial impact in reducing state corporate income taxes on investment. The New York ITC is equal to 5 percent of the first \$350 million of investment and 4 percent of investment over \$350 million. Massachusetts is the only other study state that provides an investment tax credit, at a rate of 1 percent. New York is one of four study states that allow a research and development tax credit.

The apportionment formula is important because it determines the proportion of income from an investment that is allocated to the state in which the investment is made. Four states equally weight property, payroll, and sales while six states, including New York, double weight the sales factor. The double weighting of the sales factor in the apportionment formula has the effect of reducing the tax liability on an investment in New York.

The method of depreciation used by 8 of the 10 U.S. states is the federal Modified Accelerated Cost Recovery System

(MACRS). New Jersey is the only state that uses the pre-1981 federal Asset Depreciation Range (ADR) method. The Asset Depreciation Range system generally involves longer asset lifetimes and slower depreciation rates with the result that effective tax rates on investment are higher than under MACRS.

The state of Michigan imposes a modified value added tax (termed the Single Business Tax) as its major general business tax. The Single Business Tax includes compensation paid in the tax base. Thus the much broader tax base enables a relatively low 2.35-percent tax rate. Michigan allows expensing of capital purchases in place of depreciation.

Provincial corporate income tax rates in Canada range from 7.5 to 17 percent. The Provinces of Ontario and Quebec have graduated rate structures with top tax rates of 15.5 and 8.9 percent respectively. In addition, it is important to note that the federal corporate income tax rate in Canada is reduced by a 10-percent rebate applied to income earned in a Canadian province or territory.

Table 3
Property Tax Characteristics of Selected Jurisdictions 1993
Effective Rates by Class of Property (All rates are per \$100)

Jurisdiction	Industrial & Commercial Real Property	Land	Manufacturing Equipment	Nonmanufacturing Equipment	Inventories	Motor Vehicles
New York						
Upstate average	\$2.798	\$2.798	X	X	X	X
New York City	\$4.814	\$4.814	X	X	X	X
New Jersey	\$3.083	\$3.083	X	X	X	X
Pennsylvania	\$2.179	\$2.179	X	X	X	X
Connecticut	\$1.858	\$1.858	\$2.438	\$2.438	X	\$2.438
Massachusetts	\$2.630	\$2.630	X	X	X	\$2.500
Vermont	\$1.815	\$1.815	\$3.025	\$3.025	X	X
Ohio	\$1.939	\$1.939	\$1.801	\$1.801	\$1.801	X
Michigan	\$3.166	\$3.166	\$3.166	\$3.166	X	X
North Carolina	\$1.414	\$1.414	\$1.884	\$1.884	X	\$1.884
California	\$1.030	\$1.040	\$1.040	\$1.040	X	\$1.040
Ontario	\$4.990	\$4.990	X	X	X	X
Quebec	\$3.030	\$3.030	X	X	X	X

X — Not Taxed

New York

New York allows a partial exemption for the construction, alteration, or improvement of business property. The exemption is calculated as a percentage of the increase in assessed value due to the improvement. The amount of the exemption decreases by 5 percent each year and is 50 percent in the first year. The exemption does not apply in New York City.

Connecticut

Connecticut allows a four year exemption of property taxes paid on new manufacturing machinery and equipment.

Ohio

Ohio grants a \$10,000 exemption for property taxes paid on business personal property. This exemption does not apply to inventories.

Michigan

Personal property owned by finance companies is exempt.

California

Banks and financial organizations are not subject to personal property taxes on assets.

Ontario

The rate for Ontario includes both the basic rate of \$3.119 and the business occupancy tax rate, which is 60 percent of the basic rate.

Quebec

The rate for Quebec includes both the basic rate of \$1.53 and an additional surtax of \$1.50 on nonresidential real property.

Table 4
The U.S. and Canadian Federal Corporate Income Tax Systems

U.S. Corporate Income Tax

- Taxable income includes gross profits, dividends, interest income, rents and royalties, net gain on sales, and other income.
- Deductions include compensation, salaries, wages, repairs, bad debts, rent paid, taxes, interest, ordinary losses on sales, contributions, amortization, depreciation (MACRS) and depletion, advertising, pension and profit-sharing plans, casualty losses, and research and experimental costs. Special deductions include net operating losses, dividends received deductions, and organizational expense amortization.
- Tax rates are:

Income Bracket	Rate
First \$50,000	15%
\$50,000 to \$75,000	25%
\$75,000 to \$100,000	34%
\$100,000 to \$335,000	39%
Over \$335,000	34%

Canadian Corporate Income Tax

- Taxable income in Canada includes many of the same items as in the U.S. except intercorporate dividends are totally exempt and capital gains realized are only 3/4 taxable.
- Property taxes are deductible but income taxes are not deductible in Canada. Other deductions are for depreciation (CCA) and amortization, net operating losses, interest, current operating expenses, and scientific research for business.
- The basic tax rate in Canada is 38 percent. The federal government provides a rebate of 10 percent applied to income earned in a Canadian province or territory. Reduced rates are applied to manufacturing and processing firms and small business income (up to \$200,000). The statutory tax rates (after the rebate and including a 3-percent surtax) are:

General Business	28.8%
Manufacturing & Processing	22.8%
Small Business	12.8%

Seven of the 12 jurisdictions impose a franchise tax on capital. The capital-based franchise tax is an alternative to the net-income-based tax in three states, including New York. Two states and the two Canadian provinces impose a franchise tax in addition to the corporate income tax. Table 1 provides a summary of major state and provincial corporate income and franchise tax provisions. (See p. 165.)

Sales and Use Taxes

State and provincial sales and use tax rates range from 4 to 8 percent for the jurisdictions in the study. New York has a 4-percent state sales tax rate and local sales tax rates of up to 4.25 percent, depending on the jurisdiction. The Model simulations reflect an 8-percent combined state-local tax rate such as is typically found in upstate New York.

The definition of the sales tax base also is important in determining sales tax liability on business purchases. All but two of the jurisdictions exempt manufacturing machines and equipment. California taxes manufacturing equipment at the full rate while North Carolina applies a reduced 1-percent tax rate.

The sales tax treatment of services has become a major business tax policy issue in recent years. New York applies the

sales tax to some but not all business purchases of utility and telecommunications services and also applies the tax to many data processing services.

The Province of Quebec is noteworthy because it imposes a value added tax as its form of consumption tax. The value added tax generally avoids the multiple taxation that occurs under the sales and use tax. The sales and use tax is often applied to many business purchases as well as the final sales of goods and services that incorporate the previously taxed inputs. With limited exceptions, the Quebec value added tax provides a credit for tax paid on inputs at earlier states of the production and distribution process.

Table 2 provides a summary of major sales tax characteristics. (See p. 166.)

Property Taxes

Effective property tax rates on business property range from 1.04 percent in California to 4.99 percent in Ontario. Effective tax rates are calculated by multiplying local tax rates times the assessment-to-sales ratio for each class of property in each jurisdiction. In the case of New York, the upstate average (excluding New York City) at 2.798 percent has been used in the Model.

Table 5
Effective Tax Rates — 16 Industry Average
State, Provincial and Local

Jurisdiction	Income & Franchise	Property	Sales	Total: State, Provincial, & Local
New York	1.40%	1.63%	3.12%	6.16%
New Jersey	2.87%	2.13%	1.49%	6.49%
Pennsylvania	4.85%	1.51%	2.26%	8.61%
Connecticut	2.36%	3.69%	2.42%	8.47%
Massachusetts	2.44%	2.10%	1.85%	6.38%
Vermont	2.56%	4.47%	1.81%	8.83%
Ohio	2.78%	5.14%	2.34%	10.25%
Michigan	4.44%	5.20%	1.20%	10.83%
North Carolina	2.10%	3.26%	1.80%	7.16%
California	2.89%	1.76%	2.20%	6.85%
Ontario	4.37%	3.65%	2.46%	10.47%
Quebec	3.15%	2.19%	0.69%	6.04%

Source: KPMG Peat Marwick/Policy Economics Group Business Tax Competitiveness Model.

The treatment of business personal property is of particular importance in determining comparative property tax burdens. New York is one of six of the study jurisdictions that exempts business equipment. All of the jurisdictions, except Ohio, exempt inventories.

Table 3 describes the major property tax characteristics. (See p. 167.)

U.S. and Canadian Corporate Income Taxes

The overall impact of taxes on investment returns reflects federal as well as state, provincial, and local taxes. Table 4 presents a summary description of the features of the U.S. and Canadian federal corporate income taxes that are important in modeling after-tax investment returns. (See p. 168.) The most important difference relates to the statutory tax rates. In the United States, the corporate income tax rate on income over \$335,000 is 34 percent. In Canada, the basic federal tax rate is 38 percent. However, the federal government provides a 10-percent rebate for income earned in a Canadian province or territory. Thus, the general business tax rate (after the rebate and including a 3-percent surtax) is 28.8 percent. The federal rate on manufacturing and processing (after the rebate and including a 3-percent surtax) is 22.8 percent. In addition, Canada allows a reduced rate of 12.8 percent on the first \$200,000 of net income which is not subject to recapture. The Canadian system of depreciation (CCA) generally provides faster write-offs for capital outlays than the U.S. system (MACRS). This more favorable depreciation treatment reduces the effective tax rate on capital-intensive industries, such as manufacturing.

Chapter IV

Analysis of Results

Overall Subnational Effective Tax Rates

The Business Tax Competitiveness Model analysis indicates that upstate New York has the second lowest overall

subnational tax burden on investment of the 12 states and provinces. Quebec has slightly lower subnational business taxes.

Table 5 presents effective tax rates, by type of tax, for the 16-industry average. The total state-local effective tax rate on investment in upstate New York is 6.16 percent. (It should be noted that the state-local effective tax rate incorporates an offset for the deduction of state and local taxes against the federal corporate income tax). Corporate income taxes and property taxes are relatively low in New York, while sales taxes are relatively high.

New York's state corporate income tax burden on investment is the lowest of the 10 states. Statutory income tax top rates range from 7.75 to 12.25 percent for the nine other U.S. study states with corporate income taxes. The New York income tax rate of 10.35 percent (including the 15-percent surtax) is near the middle of the range. The low New York effective income tax rate on investment is due primarily to the impact of the investment tax credit. The double-weighting of the sales factor in

the corporate apportionment formula also reduces the effective tax rate on in-state investment, compared with an equally weighted three factor formula. Pennsylvania has the highest corporate income and franchise tax burden of the 12 jurisdictions. Pennsylvania has the highest state statutory income tax rate and also imposes a substantial franchise tax based on net worth.

The property tax burden on investment in upstate New York is second lowest after Pennsylvania. The favorable effect of the 10-year partial business investment exemption largely offsets the relatively high average full value rate in New York. Michigan and Ohio have the highest effective property tax rates on investment.

New York has the highest sales tax burden on investment, reflecting the combined state-local tax rate of 8 percent and the relatively broad sales tax treatment of data processing, utility and telecommunications services. Michigan and New Jersey have the lowest effective sales tax rates of the U.S. states. Quebec has the lowest consumption tax effective rate since its value added tax exempts most business inputs through use of an input tax credit.

Michigan, Ontario, and Ohio have the highest subnational business tax burdens on investment of the 12 jurisdictions included in the analysis. Michigan's business tax position is due to high business property taxes and the Single Business Tax (in lieu of a corporate income tax). The design of the Michigan Single Business Tax includes expensing of capital, which is a significant investment incentive. However, the level of the tax is unusually high — equivalent to a statutory corporate income tax rate of 19 percent. Ontario is relatively high with respect to all three provincial and local taxes. Ohio has high property taxes reflecting the inclusion of inventory and equipment in the property tax base.

Subnational Effective Tax Rates by Industry

Table 6 presents subnational effective tax rates on investment for each of the 16 industries. (See p. 170.) A complex set

Table 6
Effective Tax Rates: State, Provincial, and Local Only

Jurisdiction	Food Processing	Apparel/ Textiles	Wood Products	Furniture	Paper	Printing/ Publishing	Chemicals/ Drugs	Rubber/ Plastics	Fabricated Metals	Machines/ Computers	Electronic Equipment	Transport Equipment	Measuring Instruments	Communications	Depository (Banks)	Securities Brokers
New York	6.03%	5.77%	5.99%	5.60%	6.12%	5.37%	5.81%	5.54%	5.62%	5.49%	5.61%	5.76%	5.48%	9.57%	9.06%	5.67%
New Jersey	6.89%	5.73%	6.24%	6.27%	6.12%	5.91%	5.82%	5.89%	5.93%	6.27%	5.98%	7.12%	6.23%	10.78%	8.24%	4.39%
Pennsylvania	7.75%	6.97%	7.26%	7.25%	7.87%	6.48%	7.41%	7.05%	7.06%	6.99%	6.65%	7.52%	6.96%	18.04%	15.14%	11.41%
Connecticut	7.98%	6.79%	7.46%	7.87%	8.54%	8.03%	6.58%	7.91%	8.25%	8.15%	7.38%	8.92%	7.00%	14.89%	12.01%	7.68%
Massachusetts	6.73%	6.20%	6.47%	6.24%	6.44%	5.70%	5.77%	6.07%	6.35%	5.68%	5.41%	6.31%	5.62%	9.10%	8.80%	5.23%
Vermont	8.66%	6.15%	7.50%	7.01%	11.65%	7.00%	9.22%	9.07%	8.04%	8.34%	8.22%	9.80%	7.50%	14.72%	13.73%	4.70%
Ohio	9.22%	9.96%	8.80%	8.88%	11.20%	7.63%	9.26%	9.68%	9.53%	10.80%	10.96%	12.14%	9.82%	13.69%	16.30%	6.15%
Michigan	9.33%	9.84%	9.27%	10.43%	12.42%	9.78%	8.88%	11.34%	10.96%	12.19%	13.88%	14.27%	10.54%	16.75%	5.83%	7.60%
North Carolina	6.90%	5.44%	6.29%	5.92%	8.66%	6.17%	7.04%	7.35%	7.04%	7.13%	7.36%	7.84%	6.62%	10.84%	9.39%	4.62%
California	7.12%	5.81%	6.71%	6.21%	7.90%	6.21%	6.50%	6.94%	6.87%	6.80%	6.20%	7.70%	6.31%	10.79%	6.84%	4.66%
Ontario	10.16%	8.64%	9.01%	8.58%	9.75%	10.02%	9.18%	8.34%	9.45%	8.93%	9.12%	9.72%	8.57%	15.78%	22.47%	9.86%
Quebec	6.13%	5.68%	5.64%	5.31%	5.62%	5.50%	5.60%	4.76%	5.63%	4.94%	5.15%	5.69%	5.19%	7.45%	11.96%	6.32%

Source: KMPG Peat Marwick/Policy Economics Group Business Tax Competitiveness Model.

of interacting factors account for the variations in effective tax rates across industries in each state. For example, industries that have high proportions of depreciable assets (structures and equipment) will tend to have above-average property taxes in states that include equipment in the property tax base. This factor applies to the paper industry and transportation equipment industry in Ohio, Michigan, and Vermont. Industries with below-average rates of return such as electronic equipment, transportation equipment, and computer manufacturing will generally have high effective tax rates because the ratio of depreciable assets to income will tend to be relatively high.

Overall Effective Tax Rates Including Federal Taxes

Overall effective tax rates on investment reflect the imposition of taxes by all levels of government — federal, state, provincial, and local. Tables 5 and 6 indicate the impacts of the taxes imposed by state, provincial, and local governments. Table 7 presents the overall effective tax rate on investment, including federal corporate income taxes. (It should be noted that the effect of the deductibility of state and local taxes against the federal income tax is incorporated in the effective tax rate for each state-local tax source.)

In general, the average effective tax rate on investment is lower for Quebec and Ontario than for the U.S. states, including New York, for the 16 industries included in the study. Canadian taxes are lower because of the lower effective federal corporate income tax rate of 11.91 percent compared with a 24.58-percent effective U.S. federal corporate income tax rate. The statutory tax rate under the Canadian federal corporate income tax is 28.8 percent generally and 22.8 percent on manufacturing and processing (after allowance for a 10-percent rebate applied to income earned in a Canadian province or territory). The top U.S. federal statutory income tax rate is 34 percent.

Table 7
Effective Tax Rates — 16 Industry Average
All Taxes

Jurisdiction	Total: State, Provincial, & Local	Federal Income	Total
New York	6.16%	24.60%	30.75%
New Jersey	6.49%	24.60%	31.09%
Pennsylvania	8.61%	24.60%	33.21%
Connecticut	8.47%	24.60%	33.06%
Massachusetts	6.38%	24.60%	30.98%
Vermont	8.83%	24.60%	33.43%
Ohio	10.25%	24.60%	34.85%
Michigan	10.83%	24.60%	35.43%
North Carolina	7.16%	24.60%	31.76%
California	6.85%	24.60%	31.45%
Ontario	10.47%	11.91%	22.39%
Quebec	6.04%	11.91%	17.95%

Source: KPMG Peat Marwick/Policy Economics Group Business Tax Competitiveness Model.

It is important to note that the favorable Canadian business tax result is affected by the selection of industries included in the study. Thirteen of the 16 industries are manufacturing

industries that benefit from the lower Canadian statutory tax rate on manufacturing and processing as well as the impact of faster depreciation write-offs. Table 8 presents overall effective tax rates by industry. (See p. 172.)

Appendix A

Technical Description of Methodology

The Business Tax Competitiveness Model provides a means of measuring the differentials in the corporate tax treatment of various industries or firms across jurisdictions. The model uses representative industry profiles meant to capture the relevant characteristics of representative firms in each industry.

In any industry there are significant variations across firms that affect the effective tax treatment of each firm. The default or base case model results presented here are for "average" U.S. corporations with and without net income whose assets total less than \$250 million as reported in the Internal Revenue Service's *Corporation Source Book*, 1986 through 1989.

The measure calculated by the model to quantify interstate tax differentials is the "after-tax rate of return." This measure for comparing states tax laws is appropriate because it measures tax rates in the context of the investment decision, because it is easily comparable to other cost differentials, and because it is comparable across jurisdictions.

The investment decision is made in a long-term context. Investment in physical capital is, in effect, the purchase of an expected income stream. Just as the investor considers the level, pattern, and duration of the income stream, he or she also will consider the level, pattern and duration of the tax liability stream.

A single year's estimate of the income and taxes is not sufficient to make a rational investment choice. The after-tax rate of return calculated by the model accounts for the level, pattern, and duration of income and tax streams over a period of up to 30 years.

The model runs can be used to calculate the effective tax rates faced by firms with differing characteristics and location parameters. The effective tax rate is the percent differences between the before- and after-tax rates of return. The pretax rate of return calculated by the model differs from the after-tax rate of return by the taxes covered, which include:

- federal income taxes;
- state income and franchise taxes;
- state and local property taxes; and
- state and local sales taxes.

The effective tax rate is a marginal tax rate on the change in cash flows of the firm that undertakes a new investment.

The model simulates the economic activities of the representative firms over a period of up to 30 years. The firms make investments, sell output, incur operating expenses and depreciation costs, and pay taxes. The model simulates the effects of firms making an initial investment, and investing after that only to replace assets that suffer physical (economic) depreciation.

For each simulation, the model performs the following steps:

1. creates detailed balance sheets and income statements for the model firms for each year in the analysis;
2. applies the tax law parameters to the stocks and flows generated; and

Table 8
Overall Effective Tax Rates: National and Subnational

Jurisdiction	Food Processing	Apparel/ Textiles	Wood Products	Furniture	Paper	Printing/ Publishing	Chemicals/ Drugs	Rubber/ Plastics	Fabricated Metals	Machines/ Computers	Electronic Equipment	Transport Equipment	Measuring Instruments	Communications	Depository (Banks)	Securities Brokers
New York	28.30%	35.87%	32.49%	32.36%	26.82%	29.31%	30.54%	28.38%	31.18%	31.14%	26.95%	28.35%	32.31%	26.59%	32.93%	38.53%
New Jersey	29.16%	35.83%	32.745%	33.03%	26.82%	29.85%	30.55%	28.73%	31.49%	31.92%	27.32%	29.71%	33.06%	27.80%	32.11%	37.25%
Pennsylvania	30.02%	37.07%	33.76%	34.01%	28.57%	30.42%	32.14%	29.89%	32.62%	32.645	27.99%	30.11%	33.79%	35.06%	39.01%	44.27%
Connecticut	30.25%	36.89%	33.96%	34.63%	29.24%	31.97%	31.31%	30.75%	33.81%	33.80%	28.72%	31.51%	33.83%	31.91%	35.88%	40.54%
Massachusetts	29.00%	36.30%	32.97%	33.00%	27.14%	29.64%	30.50%	28.91%	31.91%	31.33%	26.75%	28.90%	32.45%	26.12%	32.67%	38.09%
Vermont	30.93%	36.25%	34.00%	33.77%	32.35%	30.94%	33.95%	31.91%	33.60%	33.99%	29.56%	32.39%	34.33%	31.74%	37.60%	37.56%
Ohio	31.49%	40.06%	35.30%	35.64%	31.90%	31.57%	33.99%	32.52%	35.09%	36.45%	32.30%	34.73%	36.65%	30.71%	40.17%	39.01%
Michigan	31.60%	39.94%	35.77%	37.19%	33.12%	33.72%	33.61%	34.18%	36.52%	37.84%	35.22%	36.86%	37.37%	33.77%	29.70%	40.46%
North Carolina	29.17%	35.54%	32.79%	32.68%	29.36%	30.11%	31.77%	30.19%	32.60%	32.78%	28.70%	30.43%	33.45%	27.86%	33.26%	37.48%
California	29.39%	35.91%	33.21%	32.97%	28.60%	30.15%	31.23%	29.78%	32.43%	32.45%	27.54%	30.29%	33.14%	27.81%	30.71%	37.52%
Ontario	22.67%	22.00%	20.64%	21.50%	21.78%	17.59%	23.50%	20.23%	21.18%	20.39%	17.82%	20.84%	22.06%	24.90%	41.90%	19.19%
Quebec	18.64%	19.04%	17.27%	18.23%	17.65%	13.07%	19.92%	16.65%	17.36%	16.40%	13.85%	16.81%	18.68%	16.57%	31.39%	15.65%

Source: KPMG Peat Marwick/Policy Economics Group Business Tax Competitiveness Model.

3. compares cash flows over time and calculates before- and after-tax rates of return.

For each firm and jurisdiction, taxes depend on:

1. tax laws of the various jurisdictions;
2. geographic location of facilities and sales (for apportionment);
3. asset mix (for depreciation and property tax);
4. cost structure of the model firms (for income and sales taxes);
5. financial ratios of the model firms; and
6. pretax rates of return (the base over which effective tax rates are calculated).

The factor location shares used to calculate the apportionment factors for the representative firms are hypothetical. The model user can reset them to any reasonable values. We have assumed that 20 percent of sales and all property and payroll are located within the home state.

The model calculates the tax for multi-jurisdictional, multi-entity corporations operating in the 12 model states and provinces. An unspecified 13th state referred to as the Hypothetical State can be included in the system at the user's option.

The model calculates economic profits and taxes and the difference in the profit and tax streams with and without the expansion of the firm. Firm expansion increases firm income because its new assets generate receipts. The increase in the apportionment factor for the state of expansion is automatically calculated by the model. All the property and payroll due to the expansion are assumed to be located in the state of expansion. The user may select the share of in-state sales due exclusively to the expansion. We have assumed the 20 percent of sales generated by the new investment are made in the expansion state.

The sales tax base is made up of purchases of new durable investment goods due both to the firm's expansion and to the replacement of worn out capital due to normal economic depreciation, and other nondurable goods and services that are purchased as part of the cost of doing business.

For each category of purchases, the model calculates sales tax using both a tax rate and a variable designed to reflect the share of each purchase type that is included in the tax base. For example, the portion of utilities purchased for use directly in the manufacturing process are not subject to sales tax in most states, while the remainder are taxed. The portions may vary according to the state tax law.

The property tax is based on the stock of real and personal property held by the firms. The property tax laws simulated are from specific "representative" jurisdictions within each state. Three parameters are used to calculate the property tax liability for each type of property held by the firms: an assessment-to-value ratio, a statutory tax rate, and an abatement schedule.

The federal income tax and state income taxes are calculated in conceptually similar ways. The appropriate income sources are aggregated, the adjustments, expenses, and deductions, including depreciation are totaled and subtracted to get taxable income, which is then multiplied by the tax rate. In the case of the U.S. federal tax and appropriate states, the net income is applied to a progressive tax schedule. All parameters can be set by the user.

State taxes are calculated first for the states, so that the federal deduction for state income taxes paid is accurate. The

state tax is calculated for the states based on the appropriate apportionment factors.

The state tax calculator has the appropriate minimum taxes and taxes on capital or net worth programmed. However, the representative firms are industry averages, and are all profitable firms, and therefore are generally not subject to the minimum or alternative state taxes on capital or net worth. However, those taxes would "kick in" if less profitable firms were simulated.

The tax for depository institutions on the banking industry is simulated (to the extent possibly with the industry profile data) and is included in the state income tax estimate for that industry.

Calculation of After-Tax Rates of Return (ATTR) and Effective Tax Rates

The model calculates the rate of return on an investment by first calculating the annual stream of net cash flow of the representative firm for a set period of years (30 was chosen for this analysis). Annual net cash flow is the income earned by the firm each year after deducting all costs including economic depreciation and state and local property, sales, franchise, and income taxes, and the federal income tax.

Next, the annual stream of net cash flow is recalculated, this time with an expanded firm. The absolute size of the firm expansion is less important than the location, asset mix and cost distribution attributable to the expansion. Gross income increases, as do expenses and taxes. The annual stream of net cash flow will be somewhat higher. The increase in the annual net cash flow is the return the firm enjoys from its expansion investment. It is this increase that is the annual stream of benefits upon which the rate of return is calculated.

The model calculates the rate of return on the investment, or more specifically the "internal rate of return." The internal rate of return on an investment is its effective yield.

The cost of the investment is the value of all the new assets in the expansion including both physical and financial assets, and without regard to whether they are borrowed or are equity assets. The rate of return is calculated in the model with an algorithm known as the Newton-Raphson iterative method. See F.B. Hildebrand, *Introduction to Numerical Analysis*, McGraw-Hill, 1956 or J.B. Scarborough, *Numerical Mathematical Analysis*, Johns Hopkins Press, 1962.

The effective tax rate is defined as the percent change in going from the pretax rate of return to the after-tax rate of return. To determine the effective tax rate, the model must calculate the pretax rate of return. The pretax rate of return is calculated in the same manner as the after-tax rate of return except that taxes are not deducted in determining the annual stream of net cash flows.

The pretax rate of return is the same regardless of the expansion state. In reality there would be significant variations in the pretax rates of return between states because of differentials in wages, property values, transportation and utility costs, and a whole range of other cost factors not directly related to sale, property, and income taxes.

These variations could outweigh tax differentials in a firm's location decision process. However, one of the objectives of this model is to isolate the tax differentials between the states. Therefore it is appropriate to control for the nontax factors by

allowing the pretax rates of return to be the same between jurisdictions.

cost structure for each industry. Also included are the pretax rate of return, after-tax rate of return, levels of tax liability in the first year after the investment is made, and the overall effective tax rate for each industry in New York.

Appendix B Industry Profiles

The following tables show the industry profiles used in this study. The profiles include the asset mix, income sources, and

Industry Profile Table Profile for Year Number 1 Before Firm Expansion

State: New York

Industry: Food Processing

Asset Mix (in \$Thousands)			
Furniture & Fixtures	9.9	Financial	476.7
Office Equipment, Cmp.	7.9	Land	69.9
Motor Vehicles	43.7	Inventories	517.6
Other Machine & Equipment	423.5	Other Non Depr.	862.7
Industry Struct.	371.1		
Commercial Struct.	34.9	Total Assets	2,817.8
Income Sources (in \$Thousands)			
Business Receipts	7,521.2		
Financial Receipts	96.8		
Other Receipts	55.0		
Total Receipts	7,673.1		
Cost Structure (in \$Thousands)			
Employee Compensation	1,019.1	Data Processing/Computer	5.3
Rent	45.9	Equipment Rental	15.0
Material/Goods	4,825.6	Professional Services	27.1
Telephone	18.1	Other Business Services	15.0
Other Utilities	137.6	Repairs	42.1
Building Services	1.5	Insurance	6.0
Advertising	112.8	Other Costs	814.5
Interest	81.9	Federal Depreciation	166.0
Economic Depr.	69.6	Total Costs	7,237.2
Total Profit	435.9		
Taxes (in \$Thousands)			
Federal Tax	101.0	State Income Tax	16.5
Property Tax	7.7	Sales Tax	13.4
Total Taxes	138.6	Post-Tax Profit	297.3
Before-Tax Rate of Return	13.97%		
After-Tax Rate of Return	10.02%		
Effective Tax Rate:	28.30%		

Source: KPMG Peat Marwick/Policy Economics Group

State Tax Notes, July 18, 1994

Industry Profile Table
Profile for Year Number 1 Before Firm Expansion

Industry: Apparel/Textiles

State: New York

Asset Mix (in \$Thousands)

Furniture & Fixtures	11.1	Financial	202.9
Office Equipment, Cmp.	.6	Land	10.7
Motor Vehicles	20.9	Inventories	522.0
Other Machine & Equipment	49.1	Other Non Depr.	529.3
Industry Struct.	100.2		
Commercial Struct.	14.0	Total Assets	1,460.8

Income Sources (in \$Thousands)

Business Receipts	3,103.0
Financial Receipts	26.3
Other Receipts	24.2
Total Receipts	3,153.5

Cost Structure (in \$Thousands)

Employee Compensation	917.9	Data Processing/Computer	2.8
Rent	45.9	Equipment Rental	6.5
Material/Goods	1,679.9	Professional Services	14.3
Telephone	16.1	Other Business Services	7.1
Other Utilities	41.3	Repairs	7.8
Building Services	.6	Insurance	2.8
Advertising	33.5	Other Costs	152.0
Interest	44.5	Federal Depreciation	42.3
Economic Depr.	15.9	Total Costs	2,989.0
Total Profit	164.5		

Taxes (in \$Thousands)

Federal Tax	31.7	State Income Tax	7.7
Property Tax	2.0	Sales Tax	4.3
Total Taxes	45.7	Post-Tax Profit	118.9
Before-Tax Rate of Return	10.37%		
After-Tax Rate of Return	6.65%		
Effective Tax Rate:	35.87%		

Source: KPMG Peat Marwick/Policy Economics Group

Industry Profile Table
Profile for Year Number 1 Before Firm Expansion

Industry: Wood Products

State: New York

Asset Mix (in \$Thousands)

Furniture & Fixtures	2.6	Financial	192.3
Office Equipment, Cmp.	1.5	Land	43.8
Motor Vehicles	28.1	Inventories	261.2
Other Machine & Equipment	111.0	Other Non Depr.	332.3
Industry Struct.	132.8		
Commercial Struct.	24.3	Total Assets	1,129.9

Income Sources (in \$Thousands)

Business Receipts	2,444.5
Financial Receipts	38.2
Other Receipts	24.1
Total Receipts	2,506.8

Cost Structure (in \$Thousands)

Employee Compensation	625.0	Data Processing/Computer	1.2
Rent	19.6	Equipment Rental	6.6
Material/Goods	1,387.5	Professional Services	10.5
Telephone	7.6	Other Business Services	3.7
Other Utilities	57.0	Repairs	17.8
Building Services	.5	Insurance	2.9
Advertising	9.8	Other Costs	118.8
Interest	32.3	Federal Depreciation	64.9
Economic Depr.	24.9	Total Costs	2,325.7
Total Profit	181.0		

Taxes (in \$Thousands)

Federal Tax	31.9	State Income Tax	7.3
Property Tax	3.2	Sales Tax	5.7
Total Taxes	48.2	Post-Tax Profit	132.9
Before-Tax Rate of Return	14.02%		
After-Tax Rate of Return	9.46%		
Effective Tax Rate:	32.49%		

Source: KPMG Peat Marwick/Policy Economics Group

Industry Profile Table
Profile for Year Number 1 Before Firm Expansion

Industry: Furniture

State: New York

Asset Mix (in \$Thousands)

Furniture & Fixtures	7.4	Financial	196.2
Office Equipment, Cmp.	8.4	Land	22.4
Motor Vehicles	20.3	Inventories	409.7
Other Machine & Equipment	93.2	Other Non Depr.	496.5
Industry Struct.	206.2		
Commercial Struct.	10.3	Total Assets	1,470.5

Income Sources (in \$Thousands)

Business Receipts	3,100.5
Financial Receipts	28.2
Other Receipts	23.4
Total Receipts	3,152.1

Cost Structure (in \$Thousands)

Employee Compensation	1,017.6	Data Processing/Computer	2.8
Rent	37.5	Equipment Rental	9.3
Material/Goods	1,332.0	Professional Services	54.3
Telephone	12.1	Other Business Services	48.7
Other Utilities	48.7	Repairs	9.3
Building Services	.9	Insurance	2.8
Advertising	40.6	Other Costs	265.7
Interest	37.3	Federal Depreciation	68.0
Economic Depr.	23.9	Total Costs	2,943.4
Total Profit	208.7		

Taxes (in \$Thousands)

Federal Tax	40.6	State Income Tax	8.7
Property Tax	3.8	Sales Tax	5.0
Total Taxes	58.2	Post-Tax Profit	150.5
Before-Tax Rate of Return	12.82%		
After-Tax Rate of Return	8.67%		
Effective Tax Rate:	32.36%		

Source: KPMG Peat Marwick/Policy Economics Group

Industry Profile Table
Profile for Year Number 1 Before Firm Expansion

Industry: Paper

State: New York

Asset Mix (in \$Thousands)

Furniture & Fixtures	10.8	Financial	682.6
Office Equipment, Cmp.	21.6	Land	76.1
Motor Vehicles	50.1	Inventories	907.3
Other Machine & Equipment	1,260.6	Other Non Depr.	1,429.9
Industry Struct.	420.5		
Commercial Struct.	47.6	Total Assets	4,907.0

Income Sources (in \$Thousands)

Business Receipts	8,892.8
Financial Receipts	119.9
Other Receipts	64.9
Total Receipts	9,077.5

Cost Structure (in \$Thousands)

Employee Compensation	1,998.2	Data Processing/Computer	21.3
Rent	61.4	Equipment Rental	25.8
Material/Goods	4,467.7	Professional Services	28.5
Telephone	30.2	Other Business Services	11.6
Other Utilities	522.9	Repairs	66.7
Building Services	1.8	Insurance	10.7
Advertising	35.6	Other Costs	844.8
Interest	143.5	Federal Depreciation	291.8
Economic Depr.	159.8	Total Costs	8,430.5
Total Profit	647.1		

Taxes (in \$Thousands)

Federal Tax	153.2	State Income Tax	20.9
Property Tax	8.8	Sales Tax	34.9
Total Taxes	217.8	Post-Tax Profit	429.3
Before-Tax Rate of Return	12.22%		
After-Tax Rate of Return	8.94%		
Effective Tax Rate:	26.82%		

Source: KPMG Peat Marwick/Policy Economics Group

Industry Profile Table
Profile for Year Number 1 Before Firm Expansion

Industry: Printing/Publishing

State: New York

Asset Mix (in \$Thousands)

Furniture & Fixtures	7.6	Financial	188.9
Other Equipment, Cmp.	14.5	Land	17.2
Motor Vehicles	14.6	Inventories	94.7
Other Machine & Equipment	105.4	Other Non Depr.	349.1
Industry Struct.	125.2		
Commercial Struct.	12.3	Total Assets	930.6

Income Sources (in \$Thousands)

Business Receipts	1,601.9
Financial Receipts	30.6
Other Receipts	18.8
Total Receipts	1,651.2

Cost Structure (in \$Thousands)

Employee Compensation	536.5	Data Processing/Computer	11.1
Rent	25.5	Equipment Rental	6.6
Material/Goods	558.6	Professional Services	21.1
Telephone	20.2	Other Business Services	16.8
Other Utilities	18.1	Repairs	9.6
Building Services	.3	Insurance	2.1
Advertising	19.5	Other Costs	219.0
Interest	27.8	Federal Depreciation	58.4
Economic Depr.	22.5	Total Costs	1,515.2
Total Profit	136.0		

Taxes (in \$Thousands)

Federal Tax	18.4	State Income Tax	4.8
Property Tax	2.5	Sales Tax	4.2
Total Taxes	29.8	Post-Tax Profit	106.2
Before-Tax Rate of Return	13.25%		
After-Tax Rate of Return	9.37%		
Effective Tax Rate:	29.31%		

Source: KPMG Peat Marwick/Policy Economics Group

Industry Profile Table
Profile for Year Number 1 Before Firm Expansion

Industry: Chemical and Allied Products

State: New York

Asset Mix (in \$Thousands)

Furniture & Fixtures	3.5	Financial	789.9
Office Equipment, Cmp.	4.9	Land	60.5
Motor Vehicles	21.7	Inventories	618.7
Other Machine & Equipment	542.1	Other Non Depr.	1,100.3
Industry Struct.	319.2		
Commercial Struct.	38.8	Total Assets	3,499.6

Income Sources (in \$Thousands)

Business Receipts	5,125.3
Financial Receipts	129.1
Other Receipts	59.7
Total Receipts	5,314.2

Cost Structure (in \$Thousands)

Employee Compensation	1,072.7	Data Processing/Computer	5.1
Rent	52.8	Equipment Rental	17.9
Material/Goods	2,319.7	Professional Services	171.1
Telephone	19.0	Other Business Services	19.0
Other Utilities	303.9	Repairs	27.2
Building Services	1.0	Insurance	4.1
Advertising	117.4	Other Costs	542.8
Interest	78.4	Federal Depreciation	146.6
Economic Depr.	71.7	Total Costs	4,823.9
Total Profit	490.3		

Taxes (in \$Thousands)

Federal Tax	125.8	State Income Tax	19.9
Property Tax	6.7	Sales Tax	18.6
Total Taxes	171.1	Post-Tax Profit	319.1
Before-Tax Rate of Return	12.84%		
After-Tax Rate of Return	8.92%		
Effective Tax Rate:	30.54%		

Source: KPMG Peat Marwick/Policy Economics Group

Industry Profile Table
Profile for Year Number 1 Before Firm Expansion

Industry: Rubber/Plastics**State: New York****Asset Mix (in \$Thousands)**

Furniture & Fixtures	6.7	Financial	257.2
Office Equipment, Cmp.	6.9	Land	30.2
Motor Vehicles	18.4	Inventories	354.0
Other Machine & Equipment	315.1	Other Non Depr.	600.3
Industry Struct.	212.1		
Commercial Struct.	18.2	Total Assets	1,819.0

Income Sources (in \$Thousands)

Business Receipts	3,184.5
Financial Receipts	36.3
Other Receipts	22.8
Total Receipts	3,243.6

Cost Structure (in \$Thousands)

Employee Compensation	934.3	Data Processing/Computer	11.1
Rent	29.6	Equipment Rental	9.9
Material/Goods	1,407.9	Professional Services	24.8
Telephone	32.5	Other Business Services	4.8
Other Utilities	106.4	Repairs	14.0
Building Services	.6	Insurance	2.9
Advertising	23.2	Other Costs	290.4
Interest	55.1	Federal Depreciation	106.8
Economic Depr.	45.4	Total Costs	2,993.0
Total Profit	250.6		

Taxes (in \$Thousands)

Federal Tax	48.5	State Income Tax	8.6
Property Tax	4.2	Sales Tax	9.2
Total Taxes	70.5	Post-Tax Profit	180.1
Before-Tax Rate of Return	12.55%		
After-Tax Rate of Return	8.99%		
Effective Tax Rate:	28.38%		

Source: KPMG Peat Marwick/Policy Economics Group

Industry Profile Table
Profile for Year Number 1 Before Firm Expansion

Industry: Fabricated Metals

State: New York

Asset Mix (in \$Thousands)

Furniture & Fixtures	7.4	Financial	214.6
Office Equipment, Cmp.	5.2	Land	24.8
Motor Vehicles	16.0	Inventories	319.8
Other Machine & Equipment	219.8	Other Non Depr.	459.7
Industry Struct.	119.2		
Commercial Struct.	9.1	Total Assets	1,395.6

Income Sources (in \$Thousands)

Business Receipts	2,466.2
Financial Receipts	27.8
Other Receipts	21.1
Total Receipts	2,515.1

Cost Structure (in \$Thousands)

Employee Compensation	794.1	Data Processing/Computer	4.9
Rent	24.2	Equipment Rental	8.6
Material/Goods	1,197.1	Professional Services	26.1
Telephone	34.0	Other Business Services	7.2
Other Utilities	51.5	Repairs	12.1
Building Services	.5	Insurance	2.2
Advertising	13.8	Other Costs	80.2
Interest	39.4	Federal Depreciation	73.3
Economic Depr.	32.3	Total Costs	2,328.2
Total Profit	186.9		

Taxes (in \$Thousands)

Federal Tax	34.1	State Income Tax	7.0
Property Tax	2.5	Sales Tax	6.1
Total Taxes	49.6	Post-Tax Profit	137.2
Before-Tax Rate of Return	12.03%		
After-Tax Rate of Return	8.28%		
Effective Tax Rate:	31.18%		

Source: KPMG Peat Marwick/Policy Economics Group

Industry Profile Table
Profile for Year Number 1 Before Firm Expansion

Industry: Machinery/Computer Equipment

State: New York

Asset Mix (in \$Thousands)

Furniture & Fixtures	5.2	Financial	370.6
Office Equipment, Cmp.	30.0	Land	32.1
Motor Vehicles	11.0	Inventories	529.4
Other Machine & Equipment	228.0	Other Non Depr.	692.4
Industry Struct.	170.5		
Commercial Struct.	15.0	Total Assets	2,084.2

Income Sources (in \$Thousands)

Business Receipts	2,989.4
Financial Receipts	64.3
Other Receipts	43.2
Total Receipts	3,096.9

Cost Structure (in \$Thousands)

Employee Compensation	1,070.2	Data Processing/Computer	10.8
Rent	33.8	Equipment Rental	11.7
Material/Goods	1,341.7	Professional Services	27.2
Telephone	20.0	Other Business Services	11.7
Other Utilities	44.8	Repairs	13.2
Building Services	.9	Insurance	2.7
Advertising	25.7	Other Costs	166.2
Interest	53.7	Federal Depreciation	90.9
Economic Depr.	37.6	Total Costs	2,871.8
Total Profit	225.1		

Taxes (in \$Thousands)

Federal Tax	43.4	State Income Tax	7.8
Property Tax	3.5	Sales Tax	6.3
Total Taxes	61.0	Post-Tax Profit	164.1
Before-Tax Rate of Return	9.60%		
After-Tax Rate of Return	6.61%		
Effective Tax Rate:	31.14%		

Source: KPMG Peat Marwick/Policy Economics Group

Industry Profile Table
Profile for Year Number 1 Before Firm Expansion

Industry: Electronic/Electrical Equipment**State: New York****Asset Mix (in \$Thousands)**

Furniture & Fixtures	10.1	Financial	514.7
Office Equipment, Cmp.	20.8	Land	35.5
Motor Vehicles	19.2	Inventories	621.4
Other Machine & Equipment	275.7	Other Non Depr.	948.4
Industry Struct.	201.8		
Commercial Struct.	21.6	Total Assets	2,669.4

Income Sources (in \$Thousands)

Business Receipts	3,741.3
Financial Receipts	74.3
Other Receipts	51.5
Total Receipts	3,867.2

Cost Structure (in \$Thousands)

Employee Compensation	1,463.2	Data Processing/Computer	12.7
Rent	51.6	Equipment Rental	17.6
Material/Goods	1,524.2	Professional Services	31.1
Telephone	41.2	Other Business Services	10.5
Other Utilities	62.9	Repairs	13.8
Building Services	.7	Insurance	3.0
Advertising	49.0	Other Costs	243.9
Interest	62.1	Federal Depreciation	123.3
Economic Depr.	44.7	Total Costs	3,632.3
Total Profit	234.8		

Taxes (in \$Thousands)

Federal Tax	36.7	State Income Tax	6.5
Property Tax	4.2	Sales Tax	8.5
Total Taxes	55.9	Post-Tax Profit	178.9
Before-Tax Rate of Return	8.05%		
After-Tax Rate of Return	5.88%		
Effective Tax Rate:	26.95%		

Source: KPMG Peat Marwick/Policy Economics Group

Industry Profile Table
Profile for Year Number 1 Before Firm Expansion

Industry: Transportation Equipment

State: New York

Asset Mix (in \$Thousands)

Furniture & Fixtures	6.0	Financial	480.2
Office Equipment, Cmp.	14.1	Land	49.6
Motor Vehicles	16.0	Inventories	798.9
Other Machine & Equipment	458.8	Other Non Depr.	986.7
Industry Struct.	286.7		
Commercial Struct.	43.7	Total Assets	3,140.7

Income Sources (in \$Thousands)

Business Receipts	5,014.8
Financial Receipts	72.7
Other Receipts	68.8
Total Receipts	5,156.3

Cost Structure (in \$Thousands)

Employee Compensation	1,445.8	Data Processing/Computer	8.0
Rent	39.1	Equipment Rental	16.5
Material/Goods	2,680.9	Professional Services	26.6
Telephone	17.6	Other Business Services	10.0
Other Utilities	60.7	Repairs	23.6
Building Services	1.0	Insurance	4.5
Advertising	35.6	Other Costs	344.5
Interest	92.0	Federal Depreciation	132.6
Economic Depr.	62.9	Total Costs	4,869.4
Total Profit	287.0		

Taxes (in \$Thousands)

Federal Tax	58.7	State Income Tax	9.2
Property Tax	6.1	Sales Tax	8.4
Total Taxes	82.5	Post-Tax Profit	204.5
Before-Tax Rate of Return	8.49%		
After-Tax Rate of Return	6.08%		
Effective Tax Rate:	28.35%		

Source: KPMG Peat Marwick/Policy Economics Group

Industry Profile Table
Profile for Year Number 1 Before Firm Expansion

State: New York

Industry: Measuring Instruments

Asset Mix (in \$Thousands)			
Furniture & Fixtures	7.2	Financial	549.5
Office Equipment, Cmp.	23.2	Land	27.8
Motor Vehicles	36.9	Inventories	527.3
Other Machine & Equipment	202.8	Other Non Depr.	838.8
Industry Struct.	159.4		
Commercial Struct.	23.5	Total Assets	2,396.4
Income Sources (in \$Thousands)			
Business Receipts	2,902.2		
Financial Receipts	75.5		
Other Receipts	47.7		
Total Receipts	3,025.4		
Cost Structure (in \$Thousands)			
Employee Compensation	1,022.4	Data Processing/Computer	4.6
Rent	43.2	Equipment Rental	11.0
Material/Goods	992.0	Professional Services	37.7
Telephone	21.8	Other Business Services	16.8
Other Utilities	36.9	Repairs	11.3
Building Services	1.5	Insurance	3.2
Advertising	49.0	Other Costs	442.6
Interest	49.7	Federal Depreciation	86.5
Economic Depr.	42.5	Total Costs	2,786.3
Total Profit	239.1		
Taxes (in \$Thousands)			
Federal Tax	51.9	State Income Tax	9.5
Property Tax	3.4	Sales Tax	6.1
Total Taxes	70.9	Post-Tax Profit	168.2
Before-Tax Rate of Return	9.23%		
After-Tax Rate of Return	6.25%		
Effective Tax Rate:	32.31%		

Source: KPMG Peat Marwick/Policy Economics Group

Industry Profile Table
Profile for Year Number 1 Before Firm Expansion

Industry: Communications

State: New York

Asset Mix (in \$Thousands)

Furniture & Fixtures	222.6	Financial	12,789.6
Office Equipment, Cmp.	123.6	Land	301.7
Motor Vehicles	1,073.2	Inventories	776.5
Other Machine & Equipment	12,211.0	Other Non Depr.	11,098.2
Industry Struct.	.0		
Commercial Struct.	10,865.7	Total Assets	49,462.0

Income Sources (in \$Thousands)

Business Receipts	25,377.3
Financial Receipts	927.2
Other Receipts	926.7
Total Receipts	27,231.3

Cost Structure (in \$Thousands)

Employee Compensation	9,645.9	Data Processing/Computer	197.9
Rent	449.2	Equipment Rental	.0
Material/Goods	2,152.0	Professional Services	175.1
Telephone	431.4	Other Business Services	73.6
Other Utilities	195.4	Repairs	1,322.2
Building Services	15.2	Insurance	7.6
Advertising	192.9	Other Costs	4,240.6
Interest	1,102.7	Federal Depreciation	3,375.6
Economic Depr.	1,897.1	Total Costs	22,098.8
Total Profit	5,132.5		

Taxes (in \$Thousands)

Federal Tax	1,038.9	State Income Tax	135.7
Property Tax	179.8	Sales Tax	282.9
Total Taxes	1,637.3	Post-Tax Profit	3,495.2
Before-Tax Rate of Return	8.95%		
After-Tax Rate of Return	6.57%		
Effective Tax Rate:	26.59%		

Source: KPMG Peat Marwick/Policy Economics Group

Industry Profile Table
Profile for Year Number 1 Before Firm Expansion

Industry: Depository Institutions

State: New York

Asset Mix (in \$Thousands)

Furniture & Fixtures	18.0	Financial	19,092.2
Office Equipment, Cmp.	54.0	Land	121.6
Motor Vehicles	27.0	Inventories	9.0
Other Machine & Equipment	337.7	Other Non Depr.	25,094.5
Industry Struct.	.0		
Commercial Struct.	274.7	Total Assets	45,028.7

Income Sources (in \$Thousands)

Business Receipts	623.9
Financial Receipts	7,694.1
Other Receipts	469.3
Total Receipts	8,787.3

Cost Structure (in \$Thousands)

Employee Compensation	272.6	Data Processing/Computer	30.3
Rent	76.7	Equipment Rental	8.7
Material/Goods	28.7	Professional Services	18.9
Telephone	14.2	Other Business Services	5.9
Other Utilities	4.9	Repairs	33.4
Building Services	.9	Insurance	5.4
Advertising	32.4	Other Costs	1,939.3
Interest	6,005.3	Federal Depreciation	131.4
Economic Depr.	62.2	Total Costs	8,539.9
Total Profit	247.4		

Taxes (in \$Thousands)

Federal Tax	41.9	State Income Tax	11.1
Property Tax	6.4	Sales Tax	10.3
Total Taxes	69.7	Post-Tax Profit	177.7
Before-Tax Rate of Return	.48%		
After-Tax Rate of Return	.32%		
Effective Tax Rate:	32.93%		

Source: KPMG Peat Marwick/Policy Economics Group

Industry Profile Table
Profile for Year Number 1 Before Firm Expansion

Industry: Security and Commodity Brokers

State: New York

Asset Mix (in \$Thousands)

Furniture & Fixtures	7.7	Financial	795.4
Office Equipment, Cmp.	10.2	Land	7.2
Motor Vehicles	.9	Inventories	8.0
Other Machine & Equipment	11.8	Other Non Depr.	685.2
Industry Struct.	.0		
Commercial Struct.	43.0	Total Assets	1,569.4

Income Sources (in \$Thousands)

Business Receipts	994.4
Financial Receipts	140.4
Other Receipts	73.0
Total Receipts	1,207.9

Cost Structure (in \$Thousands)

Employee Compensation	456.3	Data Processing/Computer	35.3
Rent	33.7	Equipment Rental	.0
Material/Goods	44.0	Professional Services	39.4
Telephone	24.7	Other Business Services	17.2
Other Utilities	2.8	Repairs	2.3
Building Services	.3	Insurance	1.5
Advertising	9.9	Other Costs	408.7
Interest	32.2	Federal Depreciation	18.7
Economic Depr.	5.4	Total Costs	1,113.6
Total Profit	94.2		

Taxes (in \$Thousands)

Federal Tax	13.0	State Income Tax	4.7
Property Tax	.8	Sales Tax	3.2
Total Taxes	21.7	Post-Tax Profit	72.5
Before-Tax Rate of Return	5.56%		
After-Tax Rate of Return	3.42%		
Effective Tax Rate:	38.53%		

Source: KPMG Peat Marwick/Policy Economics Group

Appendix C List of Representative Cities

State	City	Metropolitan Area
New York	Upstate Average	New York-Northern New Jersey-Long Island
New Jersey	Jersey City	Lancaster
Pennsylvania	Lancaster	Hartford
Connecticut	Manchester	Boston-Lawrence-Salem-Lowell-Brockton
Massachusetts	Waltham	Burlington
Vermont	Burlington	Dayton-Springfield
Ohio	Springfield	Detroit-Ann Arbor
Michigan	Ann Arbor	Raleigh-Durham
North Carolina	Durham	Sacramento
California	Sacramento	Toronto
Ontario	Toronto	Montreal
Quebec	Dorval	

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