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DESIGNING THE TAX STRUCTURE OF MASSACHUSETTS TO PROMOTE ECONOMIC AND SOCIAL DEVELOPMENT

BY

JOHN EDWARD
B.A. UNIVERSITY OF MASSACHUSETTS LOWELL (2003)

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ABSTRACT OF A THESIS SUBMITTED TO THE FACULTY OF THE
DEPARTMENT OF REGIONAL ECONOMIC AND SOCIAL DEVELOPMENT
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ABSTRACT

There is a relationship between taxation and development. Prevailing public policy in Massachusetts equates development with economic growth. Promoting economic growth means creating jobs. To create jobs, incentives are offered to businesses in the form of tax breaks. However, evidence would indicate that such policies are marginally effective at best, and when the loss of services due to decreased revenue is factored in, these policies may very well be detrimental to the growth they seek to promote. Furthermore, a more comprehensive perspective on economic and social development raises serious questions about the appropriateness of a narrow focus on growth. Meanwhile, the tax structure of Massachusetts is very regressive. As such, it effectively represents a system of transfer payments from the poor, to the rich. By promoting already severe inequality, the tax structure is not only unfair, but also detrimental to sustainable development. We can do better, including a better understanding of what we mean by fairness, and what the goals of economic and social development should be. This thesis will offer a design of the tax structure of Massachusetts promoting such goals.

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LIST OF ACRONYMS AND ABBREVIATIONS

AMT	Alternative Minimum Tax
BHI	Beacon Hill Institute
CBP	County Business Patterns
CLTG	Citizens for Limited Taxation and Government
CoM	Commonwealth of Massachusetts
CTJ	Citizens for Tax Justice
DOR	Department of Revenue
EPI	Economic Policy Institute
FICA	Federal Insurance Contributions Act
FTA	Federation of Tax Administrators
GDP	Gross Domestic Product
GNP	Gross National Product
GSP	Gross State Product
HDI	Human Development Index
IRC	Internal Revenue Code
IRS	Internal Revenue Service
ITEP	Institute on Taxation and Economic Policy
LDC	Less Developed Country
LQ	Location Quotient
MA	Massachusetts
MAPC	Metropolitan Area Planning Council
MBPC	Massachusetts Budget and Policy Center
MCHC	Massachusetts Coalition for Healthy Communities
MDED	Massachusetts Department of Economic Development
ME	Maine
MIT	Massachusetts Institute of Technology
NAICS	North Atlantic Industrial Classification System
NBER	National Bureau of Economic Research
NCSL	National Conference of State Legislators
ND	North Dakota

NH	New Hampshire
OFHEO	Office of Federal Housing Enterprise Oversight
OTPA	Office of Tax Policy Analysis
PEL	Pennsylvania Economy League
PERI	Political Economy Research Institute
RESD	Regional Economic and Social Development
SIC	Standard Industrial Classification
TE	Tax Expenditure
TEAM	Tax Equity Alliance of Massachusetts
U.S.	United States
VAT	Value-Added Tax
WB	World Bank

I. INTRODUCTION

Objective

The story I want to tell is one of a state that despite its liberal reputation administers a tax policy that in effect represents a program of transfer payments from the poor to the rich. This story is playing out in a state, a country, and a global society, where inequality is severe and getting worse. The deleterious effect of recent federal policy on inequality is well documented, if not widely understood. The negative impact of state tax structure on many of the citizens of Massachusetts appears to be an issue to which neither the government nor the public is paying attention. The tax structure of Massachusetts is an artifact of an evolution of special interest politics, exhibiting neither a coherent design nor adequate consideration for fairness. We can do better, including a better understanding of what we mean by fairness, and what the goals of economic and social development should be. I intend to offer policy promoting such goals.

Taxation has long been a high profile and contentious issue in Massachusetts. Formally named the *Commonwealth of Massachusetts* and with an official nickname *Bay State*, we have also been widely referred to as "Taxachusetts". The primary focus of debate on the issue of taxes is whether we have a revenue problem, or a spending problem. This in reference to budgetary problems encountered by the state in the wake of the recession that greeted the new millennium. In the recent past various tax rates have been the subject of much debate, and as a result are frequently subject to change.

Meanwhile, as privatization and globalization have achieved ascendance, much attention has been focused on the state's role in promoting economic development. Based

on recent public policy, it is apparent the prevailing view is that the state has an important role to play. Although the details may vary, the focus is on economic growth, typically through business incentives to promote jobs. On the Social Development front, programs that represent the "welfare state" have in general lost favor to an emphasis of reliance on market mechanisms. The theoretical model is that market based incentives promote growth which will, as if a rising tide, lift all boats. Tax policy as a component of transfer payments is anathema to a political rhetoric where "tax relief" is a holy grail and a flat tax is positioned as the true measure of fairness.

Yet, despite free market leanings and libertarian impulses, in Massachusetts we have a tax structure that represents a system of transfer payments that is explicitly designed to interfere in the market. However, in our case the transfer payments go from the poor to the rich, as a direct result of our regressive tax structure. Further, recent tax changes have exacerbated the problem by attempting to promote economic development by intervening in the market in a manner that is arguably both ineffective and fundamentally unfair.

The title of this thesis is "Designing the Tax Structure of Massachusetts to Promote Economic and Social Development". Massachusetts is quite prosperous. Still, much needs to be accomplished to stabilize a volatile economy, enhance opportunities for those with fewer resources, and promote sustainable development. Deciding how a state should invest its resources and fund programs to serve the public interest is both a great responsibility and a great opportunity. This is no less true of the manner in which revenue is collected. My endeavor is to make the argument for a new tax structure, one more fitting with our designation as a Commonwealth.

Conceptual Context

Figure 1 is a diagram of the conceptual framework for this thesis. The basic premise is that there is a relationship between tax **structure** and economic and social development. Circles represent concepts that apply primarily at the individual level, while acknowledging the group dynamics of behavior. These concepts apply to both individual taxpayers/consumers/workers, and individual corporations. Rectangular boxes are used for concepts that relate to aggregate concerns, for example state tax structure, or state programs.

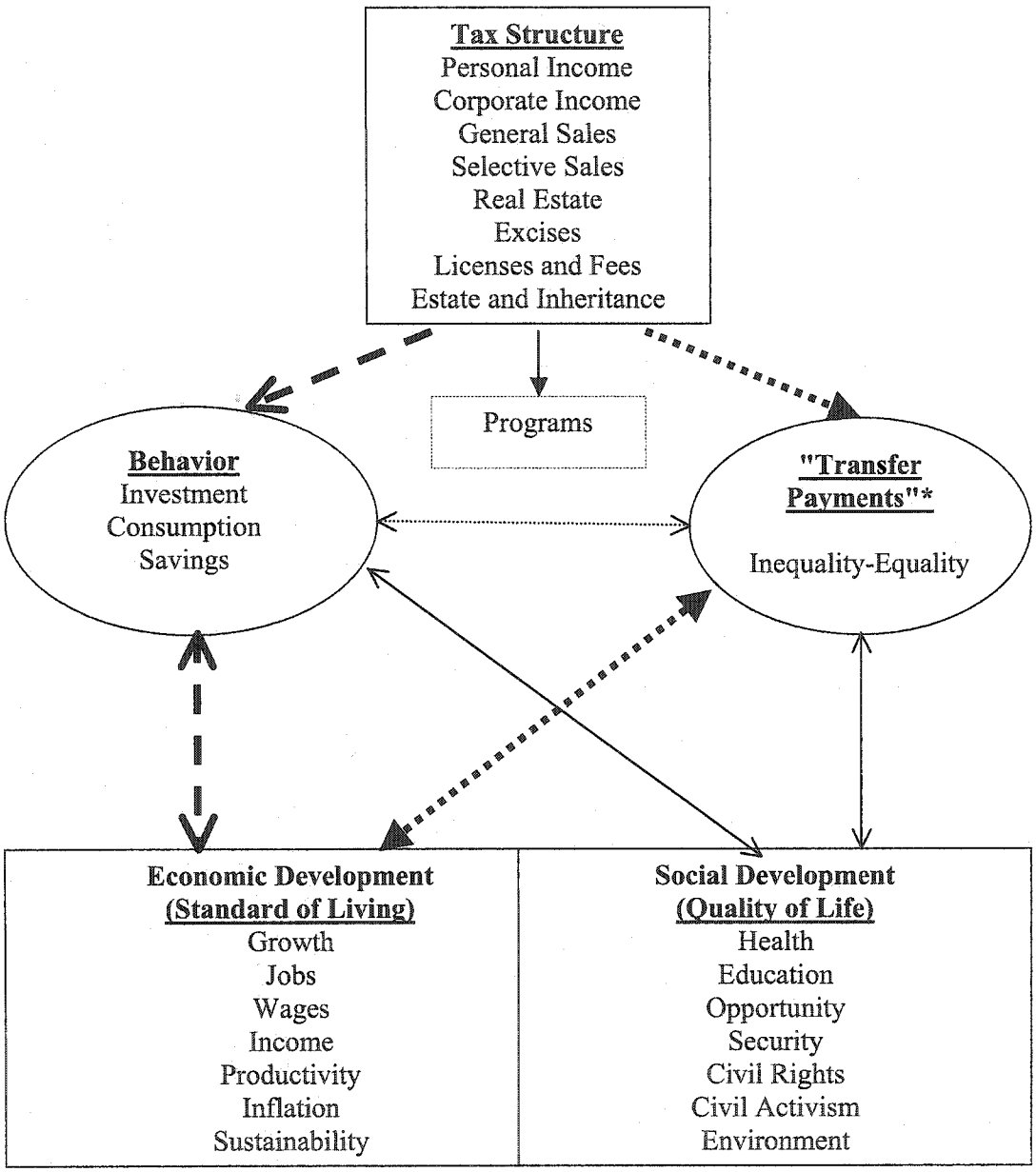

Figure 1: Conceptual Framework

By *tax structure,* I mean the mix of tax mechanisms employed by a state to collect revenue. In this box, I have listed some of the major categories of tax mechanisms.

The tax structure of a state will influence behavior. Many tax policies are specifically designed to encourage or discourage investment, consumption, and savings. Sometimes these policies are targeted, for example a sales tax on tobacco products designed to reduce consumption. In other cases, a more general approach is used, for example reducing the capital gains tax to encourage long-term investment.

Taxes are the primary source of revenue for a state to fund programs. The *Programs* element is drawn with a dashed box to indicate that it is not an integral part of my analysis. Taxes certainly affect the state's ability to fund programs. However, my framework, and the proposals for public policy that evolves from it, assumes revenue neutrality[1]. Therefore, for the policies I will propose, there is no intentional impact on whatever programs the state should choose to fund. In other words, for the purposes of this analysis, I am ignoring the debate over whether the state of Massachusetts has a revenue problem or a spending problem.

Typically, the term "transfer payments" is used to refer to revenue and expenditure programs that result in a transfer of wealth from one class to another. It is often used in a pejorative manner to refer to "tax and spend" policies that "soak the rich" to fund welfare programs. In the context of this framework, the *Transfer Payments* component relates specifically to distribution across income classes as a **direct** result of the tax structure. Such transfer payments have a dramatic impact on the degree of Inequality-Equality in our society.

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[1] The amount of revenue collected via any individual tax source may go up or down, but overall the intent is to balance out changes such that there is no net change in tax revenue collected by state and local government.

Behavior, programs, and transfer payments all have an influence on *Economic Development* (i.e., standard of living) and *Social Development* (i.e., quality of life). Economic Development and Social Development are so closely entwined the boxes are drawn connected. I have listed variables often associated with these concepts. Growth is one of those variables (under Economic Development). Economic growth is a subject that receives extensive treatment in the development literature, and is typically a focus of public policy. Therefore, while the ultimate objective is to promote economic and social development, much of the analysis is in the more specific context of economic growth. This approach should not be inferred as an acceptance of growth as the preferred target of policy. Rather, it is an acknowledgement of the narrow focus of policy-makers, and many who influence public policy.

Not all of the linkages will be accepted as obvious and the precise nature of the linkages can be a source of great controversy. Some relationships will be more contentious than others. For example, the affect taxes have on investment behavior. Certain relationships have been more widely studied than others. The paths between Tax Structure and Economic Development are drawn as thick lines to emphasize that these relationships will be the focus of analysis.

Methodology

This thesis is a case study. Declaring it a case study does not define a methodological choice; rather it declares an object to be studied (Stake 1994, 236). Massachusetts is my case. More precisely, the tax structure and economic and social development environment of the state is the object studied. The research does not require

(or allow) control over behavioral events. Historical context is provided, but the focus is on contemporary issues. Yin defines a *case study* as "an empirical inquiry that: 1) investigates a contemporary phenomenon within its real-life context, when 2) the boundaries between phenomenon and context are not evident, and in which 3) multiple sources of evidence are used" (Yin 1989, 23). This definition accurately describes my research framework and design.

The data required to answer the research questions was a mixture of qualitative and quantitative, with the emphasis on the former. Three distinct methods of collection were used.

The first data collection method was acquiring publicly available information from sources such as the United States Census Bureau, the Massachusetts Department of Revenue, and the World Bank. These sources were used for the majority of quantitative data required to answer relevant research questions. For example, historical patterns for Massachusetts's revenue sources were acquired from the Census Bureau. Some quantitative results were derived to support analysis of trends and relationships.

The second data collection method was an extensive literature review. This information was employed to describe key elements and relationships, at least as generally understood by the research and public policy communities. For example, there is a significant body of work on the relationship between state and local taxes and economic development. A representative survey and analysis of this literature was conducted in an effort to identify consensus, current thinking and research focus, and models that support (or refute) my conceptual framework.

The third data collection method was "expert" interviews. These interviews were

intended to supplement the literature review. In particular, qualitative information was collected in those areas where current analysis, as reflected in the literature review, is less well developed. I considered it important to engage with a variety of viewpoints and a range of political perspectives. The questions asked varied according to role. In general, they were informed by the literature and designed to elicit testimony as to the most recent analysis, political realities, and "real-world" perspectives. Interviews were also treated as an opportunity to obtain feedback on my theories, models, and policy proposals as they evolved.

Collecting data and developing a theory for the relationship between inequality and economic growth was the primary focus of the thesis. Each of the collection methodologies described above was employed to develop this theory and frame an argument supporting it. The argument must be well grounded in the rest of the data and analysis that comprises this thesis effort. For example, the theory that is derived for the relationship between inequality and economic growth must be consistent with and informed by the analysis of the relationship between state and local taxes and economic and social development.

Although Massachusetts is the focus of the overall analysis and specific policy prescriptions, information related to other states and other countries is used to support the case. New Hampshire and Maine are employed as comparison cases, as representing less and more tax progressivity respectively. Data from other states and other countries are used to observe and study the impact of large inequality gaps as well as cases where a more egalitarian approach prevails.

As with the collection effort, multiple analysis techniques were employed. During

the data collection and analysis effort, memos were written to report on findings and capture analytical thinking. These memos have been incorporated into the final thesis report. *Contextualizing strategies* as described by Maxwell (Maxwell 1996, 78-81) were used to observe, review, reveal, and discuss relationships that are essential to answering the research questions. Rather than focusing on coding interview transcripts and categorizing qualitative data in general, the emphasis was on analyzing the links between elements that reveal relationships within my conceptual framework. Evidence as to the nature of these relationships was connected as pieces in a puzzle to generate a conceptual model. Studies that employed regression analysis were reviewed to evaluate the model and the relations embodied in the model. Correlation analysis was employed to assess the relevance of the theorized relationships to the case study at hand.

In pursuit of formulating a persuasive argument in favor of the prescribed policy, the positions, rhetoric, and agendas of potential opposition groups must be anticipated. Standard metrics for evaluating and comparing key concepts such as growth (e.g., GDP) and inequality (e.g., Gini coefficients) are critiqued as appropriate. However, to some extent a strategy of accepting standard measures is employed. While clearly in contention with the neoclassical view of a world guided by free-market rationale and rationing, my analysis works within existing heterodox frameworks inspired by development economics and with what I am calling a *neoprogressive*[2] agenda.

If a case can be made for restructuring tax policy given generally employed assumptions, then the opposition has been defeated at their own game, on their own field. Raising doubt as to the validity of these assumptions can then make the case even more

[2] I am employing the term "neoprogressive" to convey a sense of an agenda for progress and improvement through enlightened reform of our development policies.

compelling. Based on a similar rationale, policy proposals that result from this analysis are revenue neutral. The question as to whether Massachusetts has a spending problem or a revenue problem is an important debate (on which I have a strong opinion). However, digressing into what is an orthogonal issue would only serve to dilute the case I make for a better revenue generation policy.

Limitations

As already stated, revenue neutrality is assumed. The level of tax revenue collected by the state is not an element of the analysis. Tax rates are relevant only in that they can be used to alter the structure of the tax system.

The tax code of Massachusetts is very complex[3]. While complexity itself is an issue that needs to be addressed, the analysis avoids the minutiae of tax code provisions. The emphasis is at a high conceptual level (e.g., how heavily we rely on general and selective sales taxes). The intention is to avoid digressing into the level of detail that would be of interest to a tax preparation specialist (e.g., Title IX, Chapter 63, Section 31E - *Credit for company shuttle van purchase or lease expenses*). Instead, the focus is at a level that should be of interest to policy makers and the taxpayers of Massachusetts.

While Federal tax policies are clearly an important issue in this context, the explicit intent is to perform a case study on the state of Massachusetts, and its tax structure. Federal tax policy is considered only to the extent that it could indirectly offer advantages or disadvantages to specific proposals to alter the state tax structure. The

[3] For evidence, I can site examples such as the instructions for the basic personal income tax (Form 1 – not including schedules), which is 32 pages long, and the Guide to Sales and Use Tax, which is 40 pages long.

assumption is that there will be no changes to the tax structure at the federal level, as inviting as such changes might be.

Generalizability of the results is **not** an explicit goal; that is to say, it is an *intrinsic* case study (Stake 1994 237). However, the conceptual framework, the methods of data collection, the analytical approach, and the general conclusions regarding preferred tax policy should be applicable to other states.

Organization

Chapter I has introduced the topic of tax structure and economic and social development. An assessment of the current climate and the importance of this topic have been offered. The conceptual framework has been laid out, the research methodology described, and limitations of the work have been identified.

Chapter II describes the tax structure of the state. It includes a description of the structure, a quantitative accounting or the results, and historical context. Chapter II also offers an initial look at the issue of transfer payments.

Public finance is a mature field. Some well thought out criteria have been established for evaluating tax policies. Chapter III explores this issue in the context of state taxes, with a specific focus on the structure in place in Massachusetts. It concludes with a consideration of some issues that the standard criteria do not adequately address.

The relationship between taxation and development is explored in Chapter IV. In Figure 1, the wide dashed lines represent this relationship. There is an extensive body of work on which to build here. An emphasis of Chapter IV is to report on studies and

empirical results discussed in the literature. Much of this work assumes certain goals however. Therefore, Chapter IV also considers the appropriateness of such goals.

Chapter V focuses on the relationship between inequality-equality and economic growth. In Figure 1, the wide dotted lines represent this relationship as well as the impact of tax structure on inequality. Here the body of work on which to build is sparser, and tends to be related to economic development in the context of developing countries. In Chapter V, I offer my theory as to how the relationship between inequality and economic growth might be described and applied in the case of Massachusetts. Defining and measuring inequality is a key component of Chapter V.

In Chapter VI, recommendations and conclusions are offered. Chapter VI is where specific changes to the tax structure of Massachusetts are offered, building on the analysis and research represented in the earlier chapters. The prescribed changes represent a long-term view, reflecting the reality that significant changes to the tax structure will take time. Therefore, a shorter-term plan as a transition is offered as well. The arguments and counter-proposals of opposing forces are anticipated and responded to. The chapter concludes with an assessment of the political landscape and the feasibility of the proposals.

All literature directly cited in this work is listed in Chapter VII. Literature that informed the analysis but which is not directly cited is listed in Chapter VIII.

Appendix A provides excerpts from the Constitution of the Commonwealth of Massachusetts that relate to taxes. Appendix B offers a more detailed review of the evolution of the tax structure of Massachusetts than that provided in Chapter II. A timeline of major changes in the tax structure of the state is provided in Appendix C.

II. THE TAX STRUCTURE OF THE COMMONWEALTH OF MASSACHUSETTS

A study related to the economic and social development of a region should consider those characteristics that make a region unique. This chapter starts out by identifying important characteristics of the state of Massachusetts, focusing on demographics and economics. The ultimate objective of this work is to formulate a design of the tax structure of Massachusetts; therefore, there is a section devoted to identifying and quantifying how the state currently generates revenue. Major developments in the state's tax structure over the last half-century are outlined to provide historical context. The chapter will conclude with a discussion of how the tax structure of Massachusetts is, in effect, a system of transfer payments across income groups.

Background

Massachusetts was one of the original 13 colonies. One of the six states of the New England region, it is in the Northeast corner of the United States, with a significant coastline area on the Atlantic Ocean. The land in the eastern part of the state, the most populous area, is considered rocky, often sandy, and not very fertile (Encyclopedia Britannica).

Massachusetts has the three branches of government and a bicameral legislature that is familiar to observers of the United States political structure. The Democratic Party has dominated the Massachusetts legislature for most of the last half century (Hogarty 2002).

Based on data from the United States Census Bureau, Massachusetts ranked 3rd among the 50 states in per-capita income in 2002, and 5th in median household income in 1999[4]. Table 1 lists key economic statistics, and a few more socio-economic characteristics of the state, from the 2000 Decennial Census. Figures for the U.S. as a whole are provided for comparison purposes.

	Massachusetts	United States
Population	6,349,097	281,421,906
Population, % change, 1990 to 2000	5.5%	13.1%
Persons per square mile	810	80
Median Age	36.5	35.3
Persons under 18 years old, percent	23.6%	25.7%
Persons 65 years old and over	13.5%	12.4%
High School Graduate +	84.8%	80.4%
Bachelor's degree +	33.2%	24.4%
Per-capita income	$25,952	$21,587
Median household income	$50,502	$41,994
Persons below poverty line	9.3%	12.4%
Families below poverty line	6.7%	9.2%
% of population w/o health insurance	10.5%	14.6%
Homeownership rate	61.7%	66.2%
Median value of single-family home[5]	$185,700	$119,600

Table 1: Socio-economic Characteristics of Massachusetts[6].

Although Massachusetts is the unit of analysis, it must not be forgotten that the state is not homogeneous. Some areas of the Commonwealth have prospered much more than others. The area where I live now, near Lowell Massachusetts in Middlesex County,

[4] For per-capita income Connecticut was 1st and New Jersey 2nd; for median household income the top four were, in descending order, New Jersey, Connecticut, Maryland, and Alaska.
[5] The Office of Federal Housing Enterprise Oversight reports that for the 5-year period ending on June 30, 2004 house prices in Massachusetts appreciated by 73.38%, compared to a national appreciation of 43.59% (OFHEO 2004). MassINC reports that Massachusetts is the 3rd least affordable state in which to buy a home" (MassINC 2004).
[6] Source: United States Census Bureau, Summary File 1 and Summary File 3.

has experienced a much healthier economy than where I grew up, near Fall River in Bristol County[7]. Table 2 provides selected economic characteristics for each of the 14 counties of Massachusetts to give a flavor for the diversity in economic conditions. This data reveals one of the reasons why the recent state sponsored study *Massachusetts: Toward a New Prosperity – Building Regional Competitiveness Across the Commonwealth* gave the state a poor score on the goal to "broaden economic opportunity" (there are also gender and racial elements as well) (MDED 2002). As with Table 1, the 2000 census is the source of the data. Keep in mind that this is a snapshot from 2000 when economic conditions were relatively healthy.

[7] The director of the University of Massachusetts – Dartmouth Center for Policy Analysis has referred to the Bristol County area as "A region of growth without development" (Barrow 1998).

County	Median Household Income	Poverty Rate[8,9,10]	Unemployment Rate[11]
Barnstable	$45,933	9.8%	5.2%
Berkshire	$39,047	18.1%	5.1%
Bristol	$43,496	15.0%	5.8%
Dukes	$45,559	11.2%	2.7%
Essex	$51,576	12.4%	4.6%
Franklin	$40,768	13.2%	4.5%
Hampden	$39,718	24.4%	5.7%
Hampshire	$46,098	10.3%	5.1%
Middlesex	$60,821	6.8%	3.4%
Nantucket	$55,522	1.8%	4.3%
Norfolk	$63,432	4.5%	3.2%
Plymouth	$55,615	8.8%	4.1%
Suffolk	$39,355	23.8%	7.1%
Worcester	$47,874	12.0%	4.3%
Massachusetts	$50,502	12.2%	4.6%

Table 2: Economic Characteristics of Massachusetts Counties[12].

Although the median income numbers for Massachusetts are high relative to the rest of the country, recent trends are not encouraging. A recent report by the Massachusetts Budget and Policy Center (MBPC) observes that Massachusetts is one of

[8] The poverty rate cited is the percent of families with related children under 5 years with incomes below the poverty level.
[9] Keep in mind that the official poverty rate is based on a somewhat arbitrary formula which many believe leads to a potentially large understatement of the extent of the problem (Marger 2002, 50-52) (Shipler 2004, 9).
[10] The poverty threshold does not vary by state, if it were adjusted to reflect the cost of living in Massachusetts the numbers cited would be higher.
[11] Unemployment rates reported by the Census Bureau are calculated by dividing the number of "unemployed" by the *labor force*. Unemployed workers are defined as those not working, and looking for work. The labor force is the sum of the unemployed and those working. This leaves out "discouraged workers" who are not working but not looking for work. This is one reason why the official unemployment rate is widely considered to underreport the problem of joblessness. Another is that part time workers are counted as fully employed.
[12] Source: United States Census Bureau.

only ten states that experienced a decrease in median household income over the 2001-2003 period (MBPC 2004b)[13].

The top three industries in Massachusetts as measured by absolute employment are Healthcare, Retail, and Manufacturing (MassINC 2004). However, this does not tell us about the employment picture relative to the rest of the United States. For example, most states have large employment in Healthcare and Retail.

Location Quotients (LQs) are a numerical device intended to indicate the relative importance of an industry to a region. To calculate LQs, employment figures were obtained from a data set called the County Business Patterns (CBP) provided by the United States Census Bureau. In the case of a state within the United States, LQs would measure employment in an industry in that state relative to the entire nation. A value greater than 1.0 means that, as a percentage of employment in the state, Massachusetts has more workers employed in the industry than the proportion of national employment for that same industry. Table 3 provides the LQs for the major industry categories using 2001 CBP data. The percentage of total state employment for each category is also provided to give a sense of the relative size of the industry within Massachusetts.

[13] The same report notes that the number of people without health insurance in Massachusetts has increased to over ten percent.

Industry Code[14]	Industry Code Description	Location Quotient	% of Total Employment
11	Forestry, fishing, hunting, and agriculture	0.35	0.06%
21	Mining	0.13	0.06%
22	Utilities	0.78	0.44%
23	Construction	0.74	4.16%
31	Manufacturing	0.90	12.47%
42	Wholesale trade	0.97	5.17%
44	Retail trade	0.87	11.25%
48	Transportation & warehousing	0.71	2.30%
51	Information	1.28	4.18%
52	Finance & insurance	1.27	6.87%
53	Real estate & rental & leasing	0.86	1.50%
54	Professional, scientific & technical services	1.32	8.23%
55	Management of companies & enterprises	1.01	2.52%
56	Admin, support, waste mgt, remediation serv.	0.86	6.77%
61	Educational services	2.37	5.37%
62	Health care and social assistance	1.15	14.51%
71	Arts, entertainment & recreation	0.94	1.45%
72	Accommodation & food services	0.87	7.55%
81	Other services (except public administration)	0.87	4.04%
99	Unclassified establishments	4.43	0.41%

Table 3: Location Quotients for Major Industry Sectors[15].

More specific sectors of the economy are provided in Table 4. This table enumerates some of the key *export* sectors of the state. Export sectors are those that bring income into the state by selling goods and services outside the state (but not necessarily outside the country, the meaning more typically inferred from the word export). In this context, an export sector is one where the LQ is greater than 1.0.

[14] Industry Codes using the North Atlantic Industrial Classification System (NAICS) - see http://www.census.gov/epcd/www/naics.html.

[15] Source: raw data used to calculate location quotients and percentages of total employment are from the County Business Patterns data set.

Industry Code	Industry Code Description	Location Quotient
523	Security, commodity contracts & like activity	2.84
334	Computer & electronic product mfg	2.37
611	Educational services	2.37
485	Transit & ground passenger transportation	1.82
514	Information & data processing services	1.73
511	Publishing industries	1.71
339	Miscellaneous mfg	1.62
316	Leather & allied product mfg	1.59
712	Museums, historical sites & like institutions	1.38
313	Textile mills	1.35

Table 4: Location Quotients for "Export" Sub-sectors[16].

As for a qualitative perspective (although still based on quantitative analysis), the most highly publicized study of the Massachusetts Economy is probably *The Competitive Advantage of Massachusetts* by Michael Porter of the Harvard Business School. Porter identified four "core clusters" (Porter 1991):

- Health Care
- Information Technology
- Financial Services
- Knowledge Creation Services

Knowledge Sector Powerhouse (Forrant et al. 2001b), written by members of the faculty of the Department of Regional Economic and Social Development at the University of Massachusetts Lowell, and sponsored by the Massachusetts Department of

[16] Source: raw data used to calculate location quotients are from the County Business Patterns data set.

Economic Development, added two more clusters to provide a more complete picture of the important sources of state income:

- Other Manufacturing
- Travel and Tourism

These industry clusters are identified under the premise that any significant fiscal proposals, including changes to the tax structure of the state, must consider the key areas of economic activity in the state.

Employment opportunities and employment trends must also be considered. As we will see in Chapter IV, jobs are very much a focus of prevailing development policies. Realistically, any efforts to promote economic and social development of a region, or state, must consider the employment environment. If that is the case, the news is not good. In a recently released report on *The State of Working Massachusetts 2004*, the Massachusetts Budget and Policy Center paints a disturbing feature. In the two-year period ending in November of 2003, non-farm employment in Massachusetts **decreased** by 3.3%. Only one state experienced a worse decline[17]. Some of the sectors identified above were hardest hit, with business manufacturing jobs falling by 20.3%, and employment in the information sector falling by 24.1% (almost 28,000 jobs)! It is more than just a problem with the number of jobs. The report states "Perhaps even more troubling, the loss of jobs in Massachusetts in the wake of the national recession has resulted in a degradation of job quality". They go on to cite statistics of wage "contraction". They conclude, "to the extent that jobs are being replaced in Massachusetts, they are being replaced by much lower-paying positions" (MBPC 2004d).

[17] The only state to suffer greater losses in non-farm employment was Oklahoma with a 3.9% decline.

The Commonwealth of Massachusetts does not have the ability to run a deficit as the federal government does[18]. According to the state Constitution, fiscal year revenues and expenses must balance (see Appendix A for the precise wording). However, the state can issue "deficit reduction bonds", and in fact, Massachusetts did so during previous fiscal crises[19]. Based on a strong economy in the 1990s, the state increased spending significantly, with revenues not only keeping pace, but with allowance for building up the Massachusetts Commonwealth Stabilization Fund, also known as the "rainy-day fund". A dramatic slowdown in revenues greeted the new millennium. This resulted in a difficult period of cutbacks in expenditures, depletion of the rainy-day fund, and significant controversy as to the proper fiscal course.

State and Local Revenue Sources

Although the subject at hand is taxation, it must be acknowledged that taxes are but one source of revenue generation available to a state. In the year 2000, Massachusetts generated or otherwise acquired 32 billion dollars in total revenue. Note well that these numbers do **not** include revenue generated by local property taxes. Table 5 lists the major sources of state revenue. Note in particular that just barely over 50% (16.15 billion) was from taxes (when local property taxes are factored in the number was closer to 24 billion). The other major sources were "Intergovernmental revenue" (i.e., federal grants and aid), "Insurance trust revenue" (employer and employee assessments for retirement

[18] See Robert Kuttner's Op-Ed piece *Digging out of Bush's tax-cut hole* in the 08/04/2004 edition of the *Boston Globe* for the problems that can arise when the ability to run a deficit is handled irresponsibly (available at http://www.commondreams.org/views04/0804-12.htm).

[19] During the fiscal crisis of the late 1980s and early 1990s, the state issued deficit reduction bonds. At the peak, the Commonwealth in effect borrowed $1.4 billion at a time when the state budget was around $12 billion (Task Force 2003).

and social insurance purposes), and "Miscellaneous general revenue". The miscellaneous category is comprised almost exclusively of lottery sales.

Source	Revenue (in thousands)	Percentage of Total Revenue
Taxes	$16,152,874	50.4%
Intergovernmental revenue	5,786,537	18.0%
Insurance trust revenue	4,497,286	14.0%
Miscellaneous general revenue	3,723,077	11.6%

Table 5: Massachusetts Revenue Sources 2000 (excluding local taxes)[20].

With respect to the tax revenue, the focus of analysis is not on the level of revenue, but rather on the structure of the revenue sources. The mix of tax mechanisms employed by a state to generate revenue is what I mean by *tax structure*. The purpose of this section is first to describe the tax structure of the Commonwealth of Massachusetts as it stands today. Secondly, I quantify the results of this tax structure; that is, the level and proportion of revenue collected via each mechanism. The section that follows addresses the historical context and evolution of this structure.

Before proceeding with the description of the tax structure, a few words on terminology are necessary. Technically the phrase "tax structure" would not be correct usage in Massachusetts for the purpose I intend. **Taxation** in Massachusetts is comprised of two distinct components, **taxes** and **excises** (see Article IV of the Constitution of the Commonwealth of Massachusetts in Appendix A). Legally this distinction is important one, and Massachusetts is rather unique in this regard. Conversationally this distinction

[20] Source: United States Census Bureau

can be confusing, as most people think of excise taxes as one form of taxes to which they are subject. However, as codified in the state Constitution, excises are all levies of state and local governments other than the personal income tax and the local property tax.

Further confusion can arise because **property** is classified as **real** or **personal**, each of which is further partitioned into sub-categories, and may be subject to either taxes or excises. Figure 1 provides a hierarchy diagram of taxation and may prove useful in maintaining proper context in the discussion that follows. Two topics that are closely related to taxation, and which are considered in this analysis, are licenses and fees and the Massachusetts state lottery. These revenue sources are not represented in the diagram because they are technically not part of the taxation system. However, particularly in the case of mandatory license fees, they should be considered as a tax on the public.

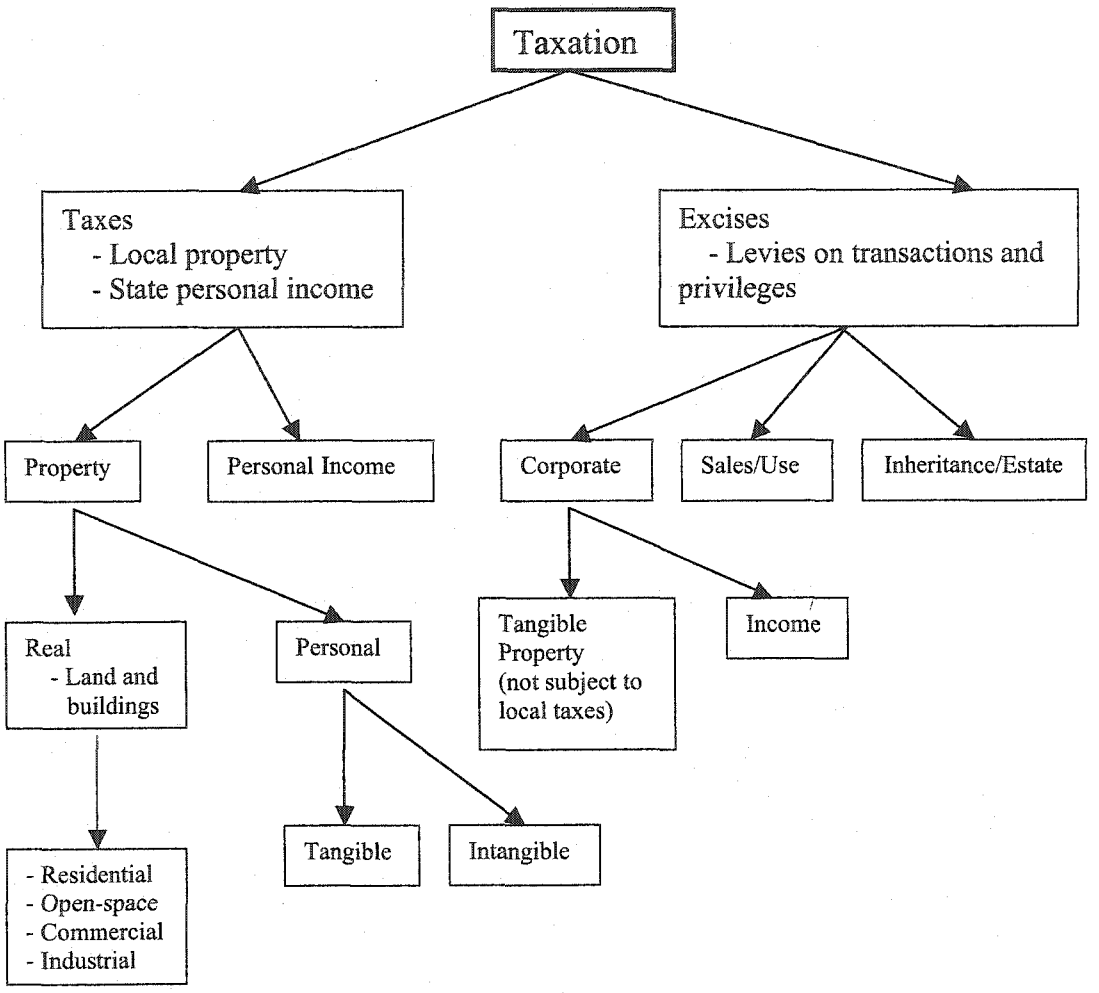

Figure 2: Massachusetts Taxation Hierarchy

The terminology can be a source of confusion, so I will frame the discussion by employing the following taxonomy of tax components that define a concise set of policy alternatives in language familiar to the layperson:

- Personal income tax,
- Corporate income tax,
- General sales tax,

- Selective sales tax,
- Property taxes,
- Excise taxes,
- Licenses and fees,
- Estate and inheritance taxes, and
- The lottery.

Note that property taxes collected at the local level, specifically real estate taxes, are included as a component of state taxation. The rationale is two fold. First, real estate taxes often comprise a significant portion of a state's revenue sources. Second, public policy at the state level can have a strong influence on local real estate taxation. Massachusetts represents a good example of that, as shall be apparent in the discussion that follows.

When the issue is state taxes, in Massachusetts the discussion often focuses on the personal income tax. Each April as taxpayers file their federal tax returns, Massachusetts residents with income, as well as individuals who earn income in Massachusetts, must file a state income tax return. The Massachusetts personal income tax is, with important exceptions, a proportional[21] tax. A flat rate, currently 5.3%, is paid on most taxable income. Personal exemptions ($3,300 for single, $6,600 for married filing jointly, $5,100 for head of household), various deductions (e.g., self-employed health insurance, college tuition), and credits (e.g., economic opportunity areas) complicate the process. In addition, certain "unearned" income from investments is taxed at a higher rate of 12%. For several years leading up to the 2003 tax year, capital gains were taxed on a sliding

[21] A tax is *proportional* if taxes paid as a percentage of income does not vary with income.

scale designed to favor long-term investment. For 2003, capital gains were taxed at the 5.3% rate. Analysis conducted by the Institute on Taxation and Economic Policy (ITEP) shows that the Massachusetts personal income tax is **slightly** progressive[22] when all this complexity plays itself out. Actually, ITEP shined a spotlight on Massachusetts as one of "7 States with Little or No Personal Income Tax Progressivity" (ITEP 2003).

The *corporate income tax* is currently set at a rate of 9.5%. However, as with the personal income tax, the complete story is much more complicated. A combination of corporate tax breaks and tax avoidance has led to a dramatic decrease in effective rates and relative revenue generation in the last 10-15 years. The most significant tax break was creation of the *single sales factor apportionment* formula, which was designed to promote employment levels at companies like Raytheon and Fidelity[23]. The Massachusetts Budget and Policy Center identifies the lack of a *combined reporting*[24] mechanism is Massachusetts as another major factor enabling corporations to avoid taxes (MBPC 2004c).

Assessing the progressivity of corporate taxes is very difficult, as the true tax incidence is not at all clear. The extent to which corporations can shift tax incidence backward to workers, or forward to customers, depends on elasticities[25] of supply and demand in the labor and product markets.

The Massachusetts *general sales tax* is set at 5%. This tax is applied to retail sales

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[22] A tax is *progressive* if taxes paid as a percentage of income increase with higher income.
[23] The single sales factor apportionment formula "taxes corporate profits based on the proportion of their sales that take place in Massachusetts" (Braunstein 2003). A company like Fidelity, which is based in Massachusetts, has a large in-state payroll, has large real estate and capital investments located in the state, but only a relatively small proportion of their sales within the state, is now subject to much lower state corporate income taxes.
[24] In states that employ combined reporting, companies are "required to report the income of all subsidiaries that are part of a unitary business" (MBPC 2004d).
[25] The concept of elasticity is discussed in more detail in Chapter III, but it is a measure of responsiveness of an entity to a change in another, for example the change in demand in response to a change in price.

of tangible personal property. However, it is not applied universally. Exempt are certain items such as food (but not restaurant or take-out meals) and clothing (up to a limit of $175). Theoretically, MA residents cannot escape the sales tax by heading over the border to New Hampshire where there is no general sales tax. Massachusetts has a *use tax* of 5% on tangible property purchased outside the state for consumption within the state (collection of this tax is notoriously difficult). There is currently no general sales tax on services, although a tax on telecommunications services is an exception (just check your telephone bill). Internet sales are excluded from sales taxes. The sales tax is clearly regressive[26] as lower income consumers, on average, spend a higher percentage of their income on taxable goods.

The *selective sales taxes* are for the most part effectively "sin taxes". These taxes are applied to retail items for which it is considered desirable to discourage consumption. For example, Massachusetts places a $.21 per gallon tax on gasoline, and a $1.51 per pack tax on cigarettes[27]. Some of the selective sales taxes generate revenue that is theoretically targeted for specific purposes. For example, some of the revenue from the tax on cigarettes is used to fund tobacco education and control programs.

Property taxes are often a subject of great controversy, in Massachusetts and in other states[28]. In Massachusetts, individual cities and towns administer and collect taxes on real estate, but under restrictions established at the state level. Within limits, cities and towns can set their own tax rates, which are based on assessed values. The assessed values are determined at the local level, are subject to dramatic changes (and variance

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[26] A tax is *regressive* if taxes paid as a percentage of income decrease with higher income.
[27] The tax on cigarettes was doubled from $.76 per pack in 2002 to the current rate of $1.51.
[28] See Rosen for a perspective on why property taxes tend to be so controversial, including why many "hate the property tax so much" (Rosen 1995, 525-535).

from market values), and have a significant impact on the tax bills received by property owners. Cities and towns are allowed to tax different types of property based on a classification system, but with state restrictions. For example, commercial and industrial property can be taxed at a rate up to 1.75 times as high as residential property[29]. For the past quarter century Proposition $2^{1/2}$ has capped increases in property taxes. In doing so it puts cities and towns in a situation where if local revenue needs to be increased, the two most viable options are seeking an override, and resorting to certain types of real estate development. In general, affluent communities are more successful with the override approach, while less well off communities often resort to "new growth" strategies that are seen as promoting suburban sprawl, which is anathema to "smart growth" (MAPC 2001).

Recent "circuit breaker" provisions in the tax code provide income tax credits for real estate taxes paid by low-income seniors. There are many exemptions from real estate taxes, including government buildings, and property owned by charities and religious organizations. The *Final Report of the Task Force on Local State & Federal Revenues* for the Commonwealth of Massachusetts characterized the state's local property tax as "the most regressive of all major taxes in the state" (Task Force 2003). Other sources grant this designation to the sales tax. Analysis performed in support of the New Hampshire Commission on Education Funding concluded that property taxes were actually somewhat progressive at low-income levels, but quite regressive at high-income levels, and that increasing property taxes "would hit low income homeowners hard" (NH 2001). In an interview with the research director of this commission, he confirmed that this assessment is consistent with his more recent analysis (Tannenwald interview 2004).

[29] Chapter 3 of the Massachusetts Legislative Acts of 2004 has modified the tax classification formula, temporarily allowing ratios to be higher, with a maximum of 2.00 in 2004, and decreasing annually until it reverts to 1.75 in 2008.

Although small in comparison as measured both by rate (0.26%) and by revenue, the state of Massachusetts also reserves the right to tax property directly. However, these *excise* taxes are applied unevenly. In particular, real estate is exempt. Note that in the language employed by the Massachusetts Constitution and described above (see the Taxation Hierarchy in Figure 2), the term "excises" refers to all levies imposed by the state other than the income tax.

Licenses and fees are also relatively small in terms of "tax" collection (however they are growing larger). Examples of licenses and fees collected by the state include motor vehicle registration, driver's license fees, and the recently introduced $10 annual fee for a certificate of blindness. As another example of how the state is avoiding an increase in tax rates, since the 2000 academic year, tuition and fees at the University of Massachusetts Lowell for in-state undergraduate students has increased by almost 275%.

Currently, the state of Massachusetts has an estate tax that is essentially a revenue-sharing plan with the federal government (commonly referred to as a "sponge tax"). Massachusetts can collect a state tax based on credits on the federal estate tax return. However, recent federal tax legislation is phasing out the estate tax (although there is a "sunset" provision that will bring it back in 2011), and the credit allowed to states is being phased out even faster. In response, state legislation declared that the Massachusetts estate tax would be based on federal law before the above-mentioned federal legislation. Estate planning has become more important than ever in Massachusetts. Fortunately, the small percentage of people who need to worry about it should be able to afford the accounting and legal help they need to minimize the impact.

Some states have what are called *severance taxes*. This type of tax is imposed by

a state for the extraction of natural resources to be used in another state (or country). For example, Alaska has a severance tax on oil. Massachusetts does not currently have any severance taxes.

A *Value-Added Tax* (VAT) is a tax imposed on the incremental value added by producers of goods and services. The basis for the tax is therefore the output of the producer less the cost of their inputs. While the tax is collected on businesses, the VAT is considered equivalent to a comprehensive uniform sales tax (Stiglitz 2000, 502) (keep in mind that the Massachusetts sales tax is not comprehensive, many goods and almost all services are exempt). While common in Europe, the United States does not have a federal VAT, and only two states, Michigan and New Hampshire, employ a VAT (Ettlinger et al. 1998). An analysis of the applicability of a VAT to states by the Institute on Taxation and Economic Policy characterizes the system as regressive, lacking transparency, and difficult to enforce (ITEP 2004c).

While not technically a tax, as participation is voluntary, the Massachusetts state lottery is an important revenue source. It could be considered as a "hidden" tax, and as such would be seen as very regressive (Kuttner 1999).

The tax rates cited above (e.g., 5.3% for the personal income tax, 9.5% for the corporate income tax) are *marginal* rates. They apply only to income over certain thresholds based on exemptions and deductions. When assessing the impact of taxes the more relevant measure is the *effective* tax rate, the tax paid divided by the total income. In a 2003 report issued by the Political Economy Research Institute (PERI), state tax revenue data was used to calculate effective tax rates for personal income, corporate income, and the capital gains tax for each year in the period 1990 to 2002. The effective

tax rate for the personal income tax was relatively stable over this period, falling below 3% only in the final year of the period. On the other hand, the effective rates on corporate income and capital gains fell dramatically in percentage terms. The PERI numbers are reproduced in the table below, and go a long way in explaining why the tax structure of Massachusetts has become even more regressive (Braunstein 2003).

Year	Personal Income	Capital Gains	Corporate Income
1990	3.38%	6.63%	0.11%
1991	3.58%	6.63%	0.09%
1992	3.46%	6.63%	0.09%
1993	3.44%	6.63%	0.10%
1994	3.39%	6.63%	0.10%
1995	3.58%	6.63%	0.11%
1996	3.61%	5.62%	0.10%
1997	3.59%	4.95%	0.09%
1998	3.70%	4.33%	0.08%
1999	3.49%	3.85%	0.08%
2000	3.52%	3.04%	0.07%
2001	3.39%	1.97%	0.07%
2002	2.90%	1.97%	0.06%

Table 6: Massachusetts Effective Tax Rates 1990-2002[30].

Table 7 provides a breakdown of the 16.15 billion dollars collected in state taxes in 2000 (see Table 5), using the categories employed by the United States Census Bureau (the source of the data). The figures represent percentages of tax revenue.

[30] Source: Political Economy Research Institute (PERI) (Braunstein 2003).

Source	Percentage of Total
Personal income	56%
General sales	22%
Selective sales	9%
Corporate income	8%
Licenses	3%
Other taxes	2%

Table 7: State Tax Revenue Sources for Fiscal Year 2000[31].

The major components of the approximately 1.5 billion dollars collected in selective sales taxes in 2000 were (as percentages of selective sales taxes):

- Motor fuels 44%,
- Insurance Premiums 22%,
- Tobacco products 19%,
- Other selective sales 10%,
- Alcoholic beverages 4%.

The 450 million dollars in License taxes were primarily comprised of motor vehicle related fees, and business/occupation fees. Falling under the "Other taxes" category are "Death and gift" taxes and "Documentary and stock transfer" taxes.

As mentioned above, the 16.15 billion dollars collected in state taxes cited by the Census Bureau for 2000 does not include local real estate taxes. When local real estate taxes are factored in, the revenue total is $24 billion and we get a distribution of tax revenue that is provided in Table 8. This Table also provides data that are more recent

[31] Source: United States Census Bureau.

from the Federation of Tax Administrators (http://www.taxadmin.org/), who recently made available 2002 data on state and local revenue sources. In this context, licenses are included in the category "Other".

Source	Percentage of Total - 2000	Rank among States[32]	Percentage of Total - 2002	Rank among States
Personal income	37.6%	3	33.1%	4
Property	31.8%	16	36.5%	12
General sales	14.8%	43	15.5%	43
Selective sales	6.6%	50	7.0%	47
Corporate income	5.4%	10	3.4%	11
Other	3.7%	49	4.5%	46

Table 8: State and Local Tax Revenue Sources for Fiscal Years 2000, 2002[33].

Note that from these two recent snapshots some trends are apparent. In particular, Massachusetts is becoming more dependent on property taxes and less dependent on the personal income tax. However, keep in mind that these results reflect both tax policy and macroeconomic conditions. The recent recession, including a significant decrease in capital gains, goes a long way in explaining the lower percentage of revenue generated via the personal income tax.

In essence, these numbers quantify the tax structure of the state. As the discussion continues, we will see that the extent to which a state relies on specific tax mechanisms will have an effect on economic and social development. Figure 3 reproduces the 2002

[32] The rank refers to how Massachusetts compares to other states in terms of the percentage of revenue generated from each source. For example, a rank of 3 for personal income means only 2 states generated a larger percentage of their state and local revenue from the personal income tax.
[33] Source: United States Census Bureau for the 2000 data, and the Federation of Tax Administrators (FTA) for the 2002 data.

data in Table 8 as a pie chart.

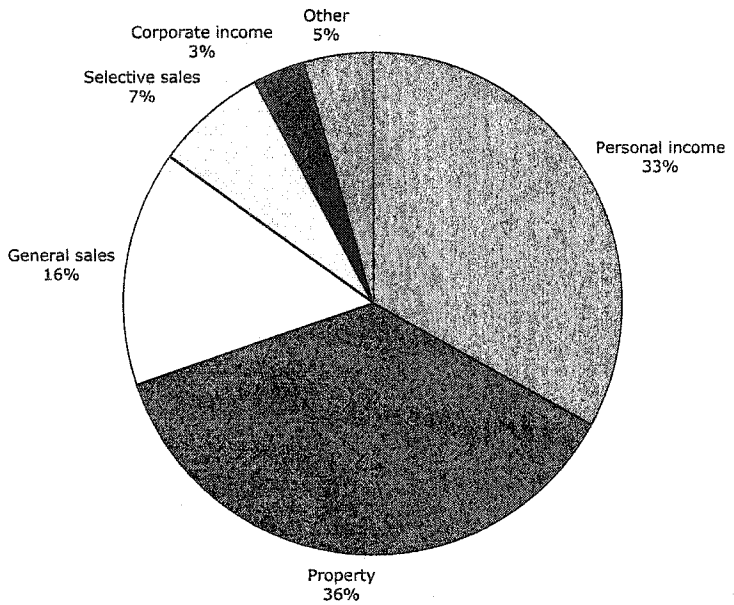

Figure 3: State and Local Tax Revenue Sources for Fiscal Year 2002[34].

On a comparative note, the Massachusetts percentage from the Individual income tax is one of the highest in the country (exceeded only by Oregon, Maryland and in 2002 New York). Table 8 also shows where we rank in all the categories when ordering states by the percentage of state and local taxes by source, with 1 being the highest and 50 the lowest (omitting the District of Columbia).

Our next door neighbors in New Hampshire not only rank highest in the

[34] Source: Federation of Tax Administrators (FTA).

percentage of taxes from property (62%), they are also near the top on selective sales[35]. Compared to Massachusetts, the state of Maine relies considerably less on the personal income tax and places more emphasis on property, general sales, and selective sales taxes.

The tax structure of Massachusetts, or for that matter any of the 50 states, has become more important to taxpayers. This shift is due to the process of devolution. Primarily under Republican administrations, the national government has gradually relinquished more power, and responsibility, to the states. At the same time, federal tax rates have been cut. The need to provide government services at the state and local level has required, in many cases, an increase in state tax revenues to compensate for lack of federal funding. Based on state revenue data from the United States Census Bureau and Federal tax revenue data from the Internal Revenue Service, in 2001 state tax revenues (for all 50 states combined, but **not** including local taxes) were 26.3% of federal tax revenues. By 2003, the ratio had increased to 28.0%. A 2001 analysis by the Federal Reserve Bank, which projected out to 2006, indicates devolution is a long-term trend (Tannenwald 2001). The point this study emphasizes is that state tax structures are becoming more important due to devolution.

Historical Context

The goal of this section is to briefly give a sense of how the tax structure has changed in the state, in particular over the past 40 years. The intention is not to identify all the major changes in Massachusetts tax law. Appendix B provides a more detailed

[35] Based on 2000 data, more recent revenue data shows a shift away from property taxes.

survey of the evolution of the Massachusetts tax structure and a time line in Appendix C provides a chronology of major tax policy events.

The description that follows will mention changes in particular elements of the tax structure. The basis for comparison is the percentages of tax revenue by type, such as presented in Table 8 above[36]. The United States Census Bureau provided all data that is cited.

Before 1966, a representation of the tax structure looks different in that there were no Sales and Use taxes. The state sales tax was introduced as a temporary tax in 1966. It was made permanent the following year, at a rate of 3%. The rate was increased to the current 5% in 1975. Since that time, any variation in the percentage of tax revenue generated via those sources is likely due to macroeconomic conditions. For example, very high inflation, as experienced in the late 1970s, leads to an increase in the sales tax proportion (all other things being equal).

Another major trend change in the tax structure commenced in 1979 with the passage of Proposition $2^{1/2}$, which put limits on property tax increases. As a percentage of overall tax revenue, property taxes decreased from 51.22% in 1972, to 31.01% in 1986.

Over the same period, 1972 to 1986, the Individual Income tax increased from 19.91% to 32.10% of total tax revenue. This very dramatic change, occurring over a short period, is certainly in large part a result of proposition $2^{1/2}$ (if real estate tax revenue is going down and overall revenue is to remain constant (or rise) than the revenue difference has to come from somewhere). Rising incomes, including during the inflationary period at the end of the 1970s, were most likely another factor in the increase

[36] The categorization of tax revenue sources changes slightly when employing historical data provided by the U.S. Census Bureau.

of the personal income portion. The percentage of revenue collected via the personal income tax leveled off in the late 1980s, but then jumped again in 1990, most likely due to the increase in the 5% tax rate to 5.95%.

Corporate income taxes trended upward in the 1970s, and through 1986. Then they dropped back down, quite significantly, during the Weld/Cellucci administrations of the 1990s, as shown in Table 6. In 1989, the year before Weld was first elected Governor; corporate income taxes represented 8.72% of total taxes collected. By the time this period is over, in 2000, this percentage is down to 5.43%. During the 1990s, Massachusetts passed investment tax credits, research and development credits, and the "Single Sales Factor Apportionment" formula for manufacturers (e.g., Raytheon) and mutual fund companies (e.g., Fidelity).

The percentage of the tax revenue generated via Death and Gift taxes is quite small. However, in the late 1980s there was actually a dramatic increase in the percentage, and then a sharp decrease in the 1990s. The increase was probably due to macroeconomic conditions. Economic growth and inflation increased estate values over the threshold of tax liability. The decrease in the 1990s was due to legislation, specifically the phase out of the state estate tax, which was replaced by a "sponge" tax as discussed earlier.

Figure 4 represents all of these trends, and more, in graphical form. Based on the historical data provided by the Census Bureau it shows the percentages of tax revenue generated via seven tax mechanisms for the years 1972 through 2000. Please note two minor anomalies in the graph. First, there is a jump from year 1972 to 1977 that is not indicated in the horizontal scale (no data was provided for the intervening years). Second,

the data for 2000 is from the Census web site rather than the historical data set. On the web site, there were no entries for Licenses and Death and Gift. These tax revenues did not really drop to zero, as the graph would indicate.

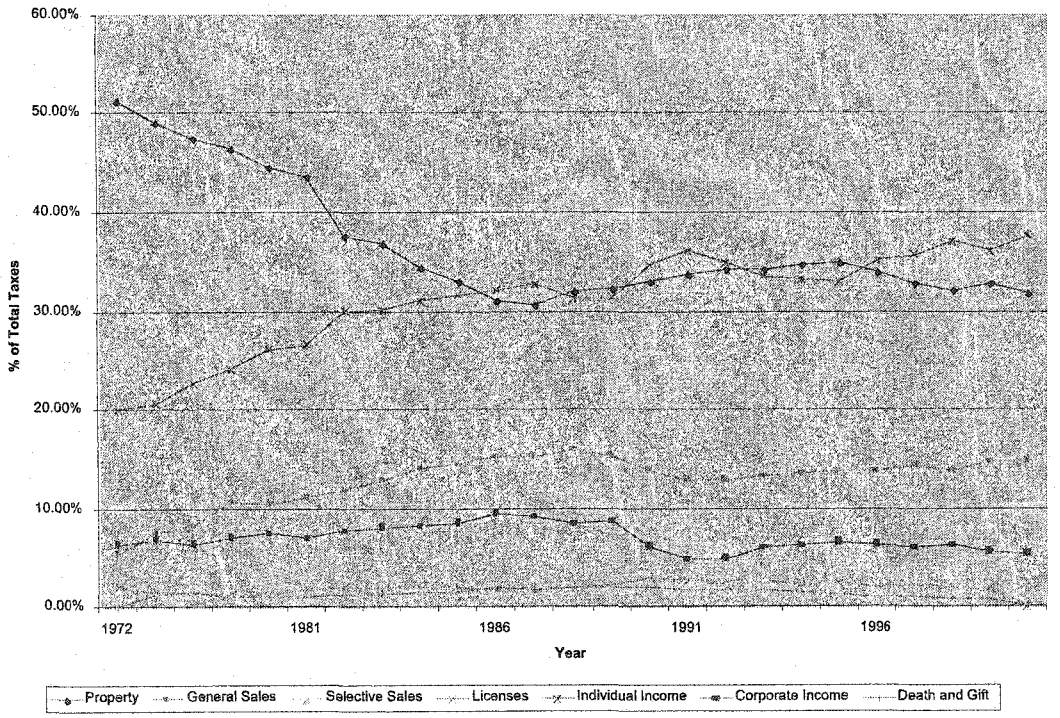

Figure 4: Massachusetts Tax Sources[37].

Tax Incidence as Transfer Payments

Up to this point the discussion of the Massachusetts tax structure has focused on

[37] Source: United States Census Bureau.

the sources of revenue. Now I want to introduce a topic that reflects the impact of these taxes on Massachusetts's taxpayers.

Chapter III will address the issues of tax incidence and tax fairness in terms that are more general. A specific issue in this context is tax incidence across income levels. This defines how progressive or regressive a tax system is, a critical aspect of the fairness of a tax system. The Massachusetts personal income tax applies a flat rate (currently 5.3%) to most income. This naturally leads people to assume we have a proportional tax system, or a progressive system when deductions and exemptions are factored in. However, the entire tax structure needs to be considered when assessing tax incidence across income levels. Individual taxpayers and families bear the burden of other taxes as well.

A study performed by the *Institute on Taxation and Economic Policy* (ITEP) provides an assessment of this issue. ITEP uses a sophisticated model to estimate the effective tax rate paid by segments of the income level spectrum. They generated a study, titled *Who Pays? A Distributional Analysis of the Tax System in all 50 states* (ITEP 2003). In this study, ITEP analyzed overall tax incidence taking into account all the major tax mechanisms, including local real estate taxes. The table below shows the results of the most recent ITEP analysis based on Massachusetts tax law in 2002. The figures quantify tax incidence as a percentage of total income (using 2000 income levels). The income ranges for each group is provided in the last row. Figure 5 presents the tax incidence data from Table 9 in graphical form.

Lowest 20%	Next 20%	Middle 20%	Next 20%	Next 15%	Next 4%	Top 1%
9.3%	9.1%	8.6%	8.2%	7.3%	6.2%	4.6%
Less than $19,000	19,000 – 34,000	34,000 - 56,000	56,000 – 90,000	90,000 - 182,000	182,000– 413,000	413,000 or more

Table 9: Tax Incidence Based on Income Levels - 2002[38,39,40].

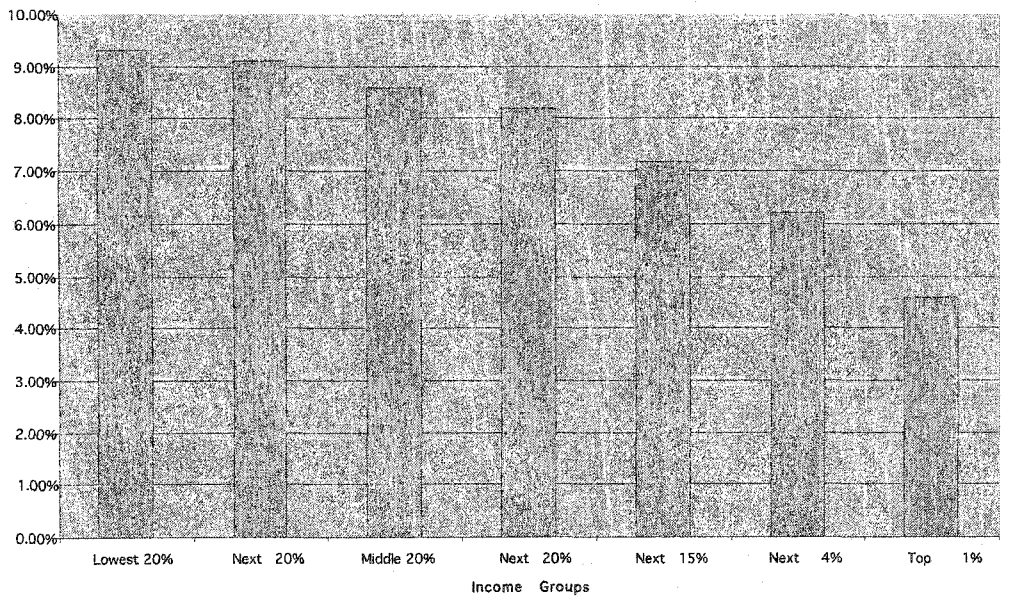

Figure 5: Tax Incidence Based on Income Levels – 2002[41].

Note how **regressive** the existing Massachusetts tax structure is. For example,

[38] Source: Institute on Taxation and Economic Policy (ITEP 2003).
[39] Tax rates as a percentage of income.
[40] Tax incidence is reported after the federal deduction offset (state taxes are deductible on the federal income tax return).
[41] Source: Institute on Taxation and Economic Policy (ITEP 2003).

observe that the lowest 20% of income earners, who according to ITEP earn less than $19,000, pay at a rate almost exactly twice that of the top 1% of income earners, who earn more than $413,000! The impact of this reality on socio-economic conditions is one of the key issues to be considered in assessing the impact of tax structure on economic and social development of the region.

In interviews with senior economists from academia and the government, the ITEP tax models were assessed to be quite credible, although there were some cautions offered. Robert Tannenwald, Assistant Vice President and Economist at the Federal Reserve Bank of Boston was critical of earlier ITEP models[42], but was quite comfortable with the 2002 results (Tannenwald interview 2004). Analysts in the Massachusetts Department of Revenue Office of Tax Policy Analysis had not conducted a detailed assessment of the ITEP model, but based on their intimate knowledge of state tax revenue streams, they are not at all surprised by the results (OTPA interview 2004). Economics Professor Howard Chernick from Hunter College at City of New York University has employed the ITEP results in his research on state fiscal policy. In an interview, Professor Chernick noted that the latest models still apply some simplifying assumptions regarding family structure and consistency of property tax rates. While these assumptions may not completely reflect real world conditions, in his opinion these assumptions are, if anything, likely to understate regressivity (Chernick interview 2004). Professor Chernick is a member of the Board of Directors for ITEP, although he is not directly involved with their tax incidence models[43]. The ITEP report that provides the results cited here also

[42] For this reason I have omitted the ITEP results for 1995.

[43] Professor Chernick, along with Andrew Reschovsky, did develop models of Federal, State and Local taxes in the late 1980s under the auspices of the Tax Equity Alliance of Massachusetts (TEAM). Their results showed significant tax burdens on Massachusetts families in poverty and near-poverty. State sales

includes a description of their methodology.

Detailed ITEP results partition tax burden based on the tax categories discussed earlier in this chapter (see Tables 7 and 8). These results reflect assessments offered on the relative progressivity or regressivity of the major components of state and local taxation. Massachusetts income taxes (personal and corporate) are progressive, but their impact is overwhelmed by moderately regressive property taxes (in particular at the high end, as predicted by Robert Tannenwald at the Boston Federal Reserve Bank) and very regressive sales and excise taxes.

ITEP also provides a perspective on trends in the distributional impact of state and local taxes. During the period 1989-2002 the bottom 60 percent of income earners experienced a slight increase in their tax burden, again measured by taxes as a share of income. For the top 20 percent, and in particular the top 1 percent, there was a significant **decrease** in their tax burden. Table 10 reproduces these ITEP figures. The primary cause of this trend, as cited by ITEP, was cuts in the long-term capital gains tax.

	Lowest 20%	Next 20%	Middle 20%	Next 20%	Next 15%	Next 4%	Top 1%
Change	+0.2%	+0.1%	+0.1%	-0.2%	-0.6%	-0.7%	-1.5%

Table 10: Changes in Taxes as Shares of Income, 1989 – 2002[44].

In a separate ITEP report, *Pennies From Heaven?: The Distributional Impact of the*

taxes and local property taxes were identified as the major sources of this "unfair burden" (Chernick and Reschovsky 1988). TEAM is now the Massachusetts Budget and Policy Center (MBPC).

[44] Source: Institute on Taxation and Economic Policy (ITEP).

Massachusetts Tax Cuts in the 1990s, the story behind this trend is further explored. They enumerate Massachusetts tax cuts of the 1990s, some of which were mentioned earlier in this chapter. They estimate that these measures resulted in $1.7 billion in permanent tax cuts (recall that in fiscal year 2000 the state collected a little over $16 billion in tax revenue – see Table 5). The most striking facts are with respect to the distribution of these cuts. Seventy one percent went to the highest 20% of income earners, over half to the highest 5%, and thirty two percent to the highest 1% - people who on average make over a million dollars a year! Their tax break, based on legislation passed through 1998, is estimated to average $16,400 per year. The amount of this tax break provided by the state of Massachusetts for the wealthiest 1% is greater than the average **income** of the poorest 20% of families, which decreased from $16,930 in 1989 to $15,740 in 1999 (EPI 2002). For the lowest 20% the tax break is $7 per year. For those who could most use the extra money, and who are most likely to spend it (in particular within the state), the tax cuts work out to about 2 cents a day. Now you see what motivated the title "Pennies from Heaven". Figure 6 depicts the distributional impact of these tax cuts[45] (St. George 1999).

[45] The 1% share figure for the lowest 20% of income is actually a generous rounding up. The actual share is closer to 0%.

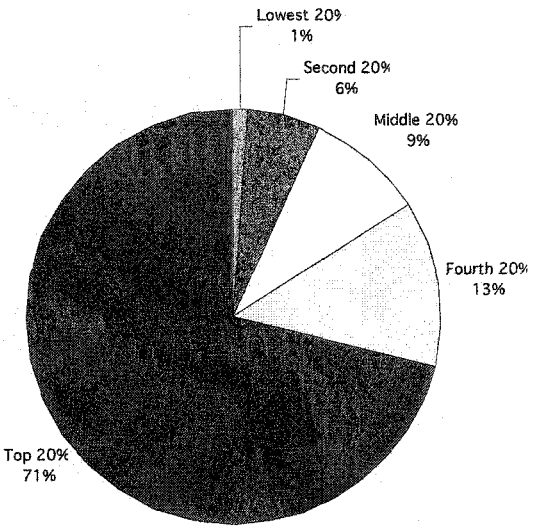

Figure 6: Distributional Impact of Massachusetts Tax Cuts – 1990s[46].

A pattern of "distributional equilibrium" was observed in the late 1980s and 1990s. As the Federal tax became more progressive, state and local tax systems responded by increasing regressive consumption and property taxes (Chernick 1992). In Chapter IV (see Table 12), data will be presented that dramatically illustrates the regressivity of more recent Federal tax policy. However, while the Federal tax structure has reversed course from the enhanced progressivity observed earlier, the Massachusetts tax structure has not reversed in kind. In fact, the ITEP analysis illustrated above (see Table 10) indicates the Massachusetts tax structure became more regressive through 2002. State and local tax policy changes since the turn of the century provide little reason to expect that this trend has, or will, change. Significant structural changes are necessary

[46] Source: Institute on Taxation and Economic Policy (ITEP 2003).

if we are to achieve the modest goal of distributional equilibrium.

For comparison purposes, Table 11 repeats the data from Table 9, with the corresponding figures for the states of New Hampshire and Maine, and the average for all 50 states. These numbers show that New Hampshire is considerably more regressive than Massachusetts, and Maine is remarkably less regressive. Also, note that the average for all 50 states indicates that the regressivity of state and local taxes is a prevalent phenomenon. In a ranking of states on their regressivity[47], Massachusetts falls right in the middle (24th most regressive), New Hampshire is 6th most regressive, Maine is 5th least regressive. Social Science Professor Martin Marger identifies "an increasingly greater dependence on regressive state and local taxes" as a major contributor to the growing inequality that is discussed in Chapter V (Marger 2002, 179).

	Lowest 20%	Next 20%	Middle 20%	Next 20%	Next 15%	Next 4%	Top 1%
Mass.	9.3%	9.1%	8.6%	8.2%	7.3%	6.2%	4.6%
N.H.	8.1%	5.6%	5.4%	4.8%	4.1%	3.1%	1.9%
Maine	10.0%	10.2%	9.9%	10.0%	9.5%	8.5%	6.8%
50 State Avg.	11.4%	10.3%	9.6%	8.8%	7.7%	6.5%	5.2%

Table 11: Tax Incidence Based on Income Levels – Comparative[48].

In *Growing Public: Social Spending and Economic Growth Since the Eighteenth Century,* author Peter Lindert refers to "The Robin Hood Paradox" where he finds "redistribution from rich to poor is least present when and where it seems most needed"

[47] The ranking was performed using the ratio of the effective tax rate on the lowest 20% to the rate on the top 1%.
[48] Source: Institute on Taxation and Economic Policy (ITEP 2003).

(Lindert 2004, 15). Here is Massachusetts we have an even more puzzling, and disturbing "Reverse Robin Hood Paradox". These tax incidence results firmly illustrate that the Massachusetts tax structure is in effect a system of transfer payments, from the poor to the rich. This important issue will be revisited with respect both to the criterion of fairness (Chapter III) and the potential impact on development (Chapter V).

The data above partitions income groups into quintiles, the lowest 20% of income earners, the next 20%, and so on. It is worth noting that the top quintile is further partitioned to isolate the very highest of high-income earners. This presentation format is not unique to ITEP data, and there is a good reason for this approach. As you can see from this presentation, and as will be exhibited again in this thesis, not only is there a wide disparity across income levels, but there is also a wide disparity within the highest income levels. Some studies even break it down further and isolate the top 0.1% because, as it turns out, there is a big difference in incomes between being at the 99.5 percentile and the 99.9 percentile.

This chapter has established a context for the discussion and analysis to follow. Key characteristics of the state's economy and existing tax structure have been described. To make a critical assessment of the state's tax structure we must first consider how systems of taxation are typically evaluated. That is the topic of the next chapter.

III. EVALUATING TAX STRUCTURE

The purpose of this chapter is to discuss how systems of taxation are, and should be, evaluated. First, we start with the criteria that economists and policy makers typically employ. This framework is used to offer one perspective on how well the tax structure of Massachusetts is designed. Then, some alternative views on evaluating taxes are offered. Those discussions will serve as a basis for the analysis in the chapters that will follow.

The "Standard" Criteria

When most of us consider the impact of a tax, the issue is how much are we paying. Within the Office of Tax Policy Analysis of the Massachusetts Department of Revenue, analysis primarily means how much revenue a tax will generate. They also consider the cost of administering that tax. Although those are obvious concerns, evaluation of tax structure must consider other factors as well. This section will explore the standard criteria employed by economists when assessing the merits of a specific tax. There will also be a brief discussion of the political perspective.

The primary source for the discussion that follows is the public finance text *Economics of the Public Sector* by Nobel Prize recipient Joseph Stiglitz (Stiglitz 2000). Most public finance texts offer a similar taxonomy and analysis[49]. Stiglitz offers "Five Desirable Characteristics of Any Tax System":

1. Economic efficiency
2. Administrative simplicity
3. Flexibility

[49] For example, see *Public Finance* by Harvey Rosen (Rosen 1995, 344-355).

4. Political responsibility
5. Fairness

Economic Efficiency

Economic efficiency is perhaps the most complex of the criteria. It is a very broad, and in some treatments a somewhat arcane, concept. However, the basic premise is simple enough. Taxes influence behavior. In particular, we can expect taxpayers to change their behavior in an effort to reduce their tax liability. For example, if a selective sales tax on cigarettes is introduced, at some point some people will give up or reduce their tobacco consumption (or purchase out of state, or on the black market). You may consider this behavior to be a good thing, and indeed this may in part be the intent of the tax. However, from a pure economic point of view, this influence is a distortion of a market system that would otherwise automatically allocate resources efficiently. This type of value-free analysis is referred to as *positive economics*. On the other hand, when consideration is given to a more inclusive cost-benefit analysis; it is referred to as *normative economics*.

Theoretically, the efficiency of a tax can be measured. Assuming a certain amount of revenue is to be generated, the tax is compared against a non-distortionary or *lump-sum* tax, one that does not influence behavior. Economist consider a lump-sum tax, for example a tax everyone pays regardless of their situation, to be non-distortionary because there is nothing you can do to avoid the tax. One could argue that such a tax might still influence behavior by reducing available funds. Nobel prize winning economist Amartya Sen offered such an argument in *On Economic Inequality* when he referred to the "fable"

of non-distortionary lump-sum taxes (Sen 1973, 91-94). In some Public Finance texts efficiency analysis is referred to as differential tax incidence. It shares a fundamental premise with an explicit policy position of this thesis – revenue neutrality.

The magnitude of the distortionary effects of a tax, which economists refer to as a *deadweight loss*, is dependent on the *substitution effect* and the tax rate. The substitution effect refers to the change in price of a commodity causing a change in consumption because consumption of some other commodity can be substituted. For example, an increase in the tax on cigarettes will induce some consumers to lower consumption in favor of chewing tobacco or gum. The substitution effect is closely related to the concept of elasticity[50]. The *income effect* of the tax captures the impact of the tax on available funds. Higher cigarette taxes mean less disposable income, which will also result in a reduction in consumption of something else.

The greater the substitution effect (other things being equal), the greater will be the deadweight loss, and the lower the efficiency of the tax. This makes sense given how efficiency is defined. Greater ability to substitute naturally leads to behavioral changes, and changes in behavior in response to taxes are by this definition inefficient. The square of the tax rate is one factor that determines the deadweight loss[51]. In practical terms this means that in theory high tax rates are much more distortionary than low rates.

In any case, the measurement of economic efficiency is based on certain simplifying assumptions of the market that are not representative of reality. However, the concept is still an important one to consider when evaluating taxes; how much weight to

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[50] Elasticity is the measure of responsiveness of one entity (e.g., quantity demanded) to change in another entity (e.g., price). A larger magnitude of elasticity indicates more responsiveness.

[51] The formula for deadweight loss is $(t^2pQ\eta)/2$ where t is the tax rate, p is the price, Q the quantity and η the elasticity of demand with respect to price. (Stiglitz 2000, 527)

give this consideration is certainly open for debate[52]. The salient point for the purpose of this discussion is that when evaluating the merits of a specific tax proposal we have to weigh both the benefits (i.e., revenue generated) and the costs (i.e., a reduction in taxpayer utility). Alternatively, we must be aware that at the same level of revenue generation the costs may vary significantly among various tax policies.

Administrative simplicity

Administrative simplicity is a much more straightforward concept. The personal income tax of Massachusetts comes immediately to mind. Consider how much time taxpayers spend on filling out forms (or paying accountants to do so), and how much money the Department of Revenue spends on processing the forms and attempting to encourage compliance. In an interview with staff members of the Office of Tax Policy Analysis, they offered another illustration. They were asked to estimate the revenue that would be generated by a particular adjustment to the state sales tax. They generated the requested revenue numbers, but also estimated how much it would cost to administer the change, as a lot of paperwork would be required. Their analysis showed that the cost would be prohibitive relative to the revenue generated (OTPA interview 2004). Administrative simplicity is one of the rationales offered by advocates of a flat tax at the national level. It is not the flatness of a tax system that determines simplicity. A progressive tax with a rate schedule is not significantly more complex than a flat tax. The simplicity is introduced when we eliminate the credits, deductions, and exemptions that permeate the system. The bottom line is that all other things being equal, simple is

[52] Rosen quotes Chief Justice of the Supreme Court Warren Burger's remark that "Convenience and efficiency are not the primary objectives – or the hallmarks – of democratic government" (Rosen 1995, 323).

preferred. Not only because it reduces costs, but also because it enhances the ability to assess the other criteria.

Flexibility

Flexibility refers to the responsiveness of a tax to changes in the economy, the speed with which economic conditions will respond to a change in tax policy, and the ability to change course when needs dictate. For example, during the recent recession the reduction in economic activity hindered the ability of every state to generate revenue. However, some were hit harder than others. The state of Oregon, highly dependent on a personal income tax, saw their revenues drop dramatically. As another example, politicians are frequently promoting "stimulus packages". How effective these might be is a question I will discuss in the next Chapter. However, even if we assume stimulus effects exist, how long it takes their impact to be felt is an issue of flexibility. In fact, Alan Clayton-Matthews, an economist at UMass-Boston, recently offered that "In the short run there is really nothing a governor can do to make an impact on the economy" (Stein 2004).

In some sense flexibility, and its flipside - volatility, are particularly important at the state level because of the need to balance the budget. Changes in economic conditions may require changes in rates, and some rates will inherently be more difficult to modify than others. Whether it is more difficult to modify the personal income tax rate, the corporate tax rate, the sales tax rate or local real estate tax rates is primarily a political consideration. The ability to change the rate in a timely fashion will vary from state to state, and can be restrained by state constitutional provisions. For example,

Massachusetts could respond to revenue shortfalls by introducing a higher personal income tax on high-income earners. However, this would require an amendment to the state constitution, which currently does not allow for a graduated personal income tax (see Appendix A for the precise language). It is much easier to increase fees for service, a tactic that Massachusetts has resorted to extensively of late[53].

More relevant at the federal level is the concept of *automatic stabilization*. A graduated tax is the classic example here. When the economy is growing strongly, taxpayers will tend to earn more income and some will move into a higher tax bracket. The increase in tax liability will introduce somewhat of a dampener on what could otherwise become an overheated economy – a condition where inflation becomes a problem. A slow down in the economy will exhibit the reverse effect. Assuming tax brackets are adjusted for inflation, as they are now at the federal level, lower incomes will mean lower tax brackets for some. This will provide a needed stimulus effect that should contribute to a recovery.

Political responsibility

Political responsibility refers to a government that does not try to misrepresent policy. The key issue with respect to tax policy is *transparency*. A transparent tax is one where it is relatively clear as to who bears the burden of a tax. Assessing who bears the burden is referred to as *tax incidence*. The classic example here is the social security tax. By law, employers pay half of this tax. Employers, to the extent possible, are going to pass as much of this tax as they can onto employees via lower wages. The law was

[53] For an insightful analysis of tax revenue volatility in Massachusetts see *Revenues: Why They Have Been So Erratic, What Path Will They Take, and How Should They Be Stabilized?* (Tannenwald 1990).

constructed as it is because it is more acceptable politically, but it is less responsible. There are plenty of examples at the state level as well. Who bears the burden of the corporate income tax, the workers, the customers, or the owners/stockholders? With respect to a sales tax, how much of the increase in price at the cash register is truly paid by the consumer, and how much does the merchant effectively pay by needing to lower the price?

The key to assessing tax incidence, and therefore political responsibility, is a concept economists refer to as *elasticity*. Elasticity is a measure of the responsiveness of an entity to a change in some other entity. Most commonly measured is the change in demand (or supply) when prices change. An example will illustrate the point. Recently, the Massachusetts legislature introduced a $3 surcharge on prescriptions. Legislators disingenuously declared that it was their intention for pharmacies, not consumers, to bear the burden of this surcharge. I say disingenuous because they knew very well that the demand for prescription medication is very inelastic, that is to say a $3 increase in the price will not stop many people from making the purchase. Although the answer will not always be this clear cut, an assessment of elasticity will reveal much about the incidence of a tax.

Fairness

Fairness is probably the most well known, and most controversial, of the criteria. We can all agree that taxes should be fair, but what constitutes fair is a topic of great contention.

Fairness can be assessed in two dimensions. *Horizontal equity* refers to the concept that taxpayers in similar situations or with similar conditions should pay approximately the same tax. If two people make $100,000/year they should be taxed the same. However, what if one consumes while the other saves. Alternatively, what if one has a net worth ten times greater than the other? Or, if one person earns the money via wages for work, while for another the money represents a return on capital? Defining the basis of taxation is a key question in determining what we mean by horizontal equity.

Vertical equity is the concept that those with greater ability to pay bear a greater burden of taxation. Here again we have similar questions. Do we measure ability to pay by income, by wealth, by consumption, or by some vague sense of benefits accrued? If we agree, for example, that those with higher incomes pay higher taxes, how much more? Is it enough that they pay more in absolute dollars? Should they pay at the same rate? Alternatively, should they pay at a higher rate? A *proportional* tax means that everyone pays at the same percentage of income, regardless of the income level. In a *progressive* tax structure, as income increases the taxes paid as a percentage of income increases. If taxes as a percentage of income decrease with higher income, the tax structure is *regressive*. Table 9 in Chapter II illustrated that the tax structure of Massachusetts is very regressive. These terms typically refer to the *average* tax rate paid. This is not to be confused with the *marginal* tax rate, the change in taxes paid for a change in income. A *flat-rate* tax, like the Massachusetts personal income tax, can still be a progressive tax (and in the case of Massachusetts is considered to be slightly progressive) even though the marginal tax rate is constant (at 5.3%), because the average tax rate will be lower for low-income earners because of exemptions and deductions from income.

Very closely related to the fairness issue is a basic issue of how taxes should be distributed. In the context of vertical equity, in particular when favoring a progressive tax, there is a premise of taxing based upon *ability to pay*. An alternative view is that taxes should not be applied based on how much you earn, but instead on how much you consume. This is the *benefits received* perspective. Ability to pay proponents tend to favor income taxes, both personal and corporate. Benefits received advocates are much more likely to favor a sales tax.

Although fairness is a difficult criterion to precisely define, it is still a very important criterion because there are situations where a tax structure can clearly be characterized as unfair. As we have seen already, this is the case in Massachusetts (see *Tax Incidence as Transfer Payments* in the previous Chapter). Moreover, it will be argued that the situation is not merely unfair; inequality promoted via the tax structure can be a detriment to economic development.

Related Issues

Two issues related to these desirable characteristics of a system of taxation are *tax avoidance* and *tax evasion*. Tax avoidance refers to legal methods of not paying taxes, evasion to illegal methods (although there are gray areas when it comes to legality). David Cay Johnston, Pulitzer prize-winning reporter for *The New York Times* recently published a book titled *Perfectly Legal: The Covert Campaign to Rig Our Tax System To Benefit the Super Rich – and Cheat Everybody Else* (Johnston 2003). Perfectly Legal

explores the issue of tax avoidance in detail[54]. For more on tax evasion, see *The Cheating of America: How Tax Avoidance and Evasion by the Super Rich are Costing the Country Billions, and What You Can Do About It* (Lewis and Allison 2001)[55]. These issues are important considerations with respect to tax structure. Lewis cites an Internal Revenue Service Commissioner testifying in 1998 that tax avoidance and evasion (at the federal level) costs each taxpayer an estimated $1,600 per year (Lewis and Allison 2001, 6).

Any serious consideration of these criteria will involve conflicts and tradeoffs. For example, making a system of taxation more efficient (economically) may negatively impact the fairness of the system. Recently President Bush has offered that a National Sales Tax should be considered as a replacement for the federal income tax (Gavin 2004). Such a policy would be advocated based on a desire to make the tax system simpler and more efficient (it is open for debate whether the absurdly high level needed to generate the same revenue as the income tax would truly be more efficient). However, a consumption-based sales tax would clearly fall most heavily on lower income taxpayers, putting the fairness of such a system in serious jeopardy[56].

The National Conference of State Legislators issues a publication titled *Tax Policy Handbook for State Legislators* (NCSL 2003). One section of this handbook is titled *Principles for Evaluating State Tax Sources*. While their terminology is somewhat different from the five criteria I have presented, the concepts underlying their six

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[54] As you could easily infer from the title, Johnston stakes a position that tax avoidance greatly exacerbates problems with vertical equity as identified in the tax incidence data in Tables 8, 9, and 10 at the end of Chapter II.

[55] The title of this book gives away the author's view of which segment of society is the primary source of problems with tax evasion

[56] The *Boston Globe* responded with an editorial warning voters not to be fooled by such proposals for tax simplification and to consider the obvious regressivity of a national sales tax (Boston Globe 2004a).

principles are the same. The point is that these criteria are pervasive, not just in public finance texts, but in the minds of policy makers.

Confirmation of this pervasiveness can be found in state tax structure studies such as *A Study of North Dakota's Tax Structure* (ND 2001). This was a "citizens study", funded by the Governor of North Dakota, and carried out by a Tax Study Committee formed by the legislature (of the 12 members of the Committee only 1 was a sitting legislator). The study enumerates 10 characteristics for evaluating taxes that they pulled from public finance literature:

1. Equitable
2. Efficient
3. Minimal shifting (see the earlier discussion of political responsibility)
4. Neutral (taxes should not distort decision-making)
5. Adequate (in terms of revenue generation)
6. Reliable (in terms of consistently generating revenue)
7. Understandable
8. Low compliance costs
9. Low administrative costs
10. Stable (i.e., tax laws that are predictable and are not changed frequently)

Their list is longer, but these characteristics are effectively subsumed by the "Five Desirable Characteristics of Any Tax System" offered by Stiglitz and discussed above.

Applying the Standard Criteria to Massachusetts

The intent of this section is not to perform an extensive evaluation of the Massachusetts tax structure based on the standard criteria (economic efficiency, administrative simplicity, flexibility, political responsibility, and fairness). However, when proposing any new tax policy some consideration for these issues must be accounted for. Even if we question the merit of any particular criterion, given that policy analyst will apply it, we have plenty of motivation to offer an assessment of specific policy proposals based on these criteria. New policies will naturally be compared to existing policies, so it is important to have a basis from which to work. Also, keep in mind that an evaluation of the tax structure will be incomplete until we consider some non-standard criteria, a topic to be discussed in the following section.

Economic Efficiency

At first glance we might grade Massachusetts poorly on economic efficiency, based on an observation of how complicated the tax structure is. However, recall that one determinant of efficiency is the tax rate, and that lower tax rates are in general more efficient than higher rates. Therefore, if we simplified the tax system but in doing so had to raise rates to generate the same revenue, we would actually be reducing efficiency (given the standard definition of this criterion). Having said that, the extent to which the tax code offers exemptions and credits is clearly going to, and in fact is designed to, result in behavioral modification. Some of these "distortions" may be a good thing, but in economic efficiency terms, it is an undesirable quality.

Another perspective on efficiency relates to the previous presentation on the ITEP study of tax burden across income levels (see Table 9 in Chapter II). As quantified in the ITEP results, the Massachusetts tax structure represents a system of transfer payments from the poor to the rich. This transfer can only exacerbate the degree of inequality in the state. Promoting inequality may be unfair (more on fairness later) but it is not really an issue of efficiency. However, this situation will lead to an increased need for spending on programs designed to ameliorate the impoverishment that the tax structure is promoting. While I am definitely not making a case against such spending, a tax structure that increases the need for such spending is clearly inefficient.

Administrative simplicity

With respect to administrative simplicity, one perspective is to consider how difficult compliance is for taxpayers. The Sales Tax alone has a 40-page guide on the Department of Revenue (DoR) web site[57]. The *Personal Income Tax Guide* is 69 pages in length. The list of forms and schedules provided at the DoR web site is formidable, and lengthy[58]. From personal experience, I can attest that it takes approximately as long to file a Massachusetts personal income tax return as it does the Federal return (even after the Federal return has been completed).

Another perspective is gained by observing how much the state spends to collect revenue. Recall from Chapter 2 that the state collected a little over $16 billion in 2000. The Department Of Revenue - Tax Administration Division was allocated roughly $125 million in that year's budget (Source: Massachusetts Government web site). That works

[57] See http://www.dor.state.ma.us/publ/pdfs/sls_use.pdf.
[58] See http://www.dor.state.ma.us/Forms/formlist.htm.

out to a dollar spent for every 128 dollars collected. A study of how this compares to other states would be interesting, although a more meaningful comparison might be to observe how the state has changed over time. A comprehensive 50-state study of state tax systems cited inadequate funding for tax collections and lengthy processing time, but gave Massachusetts credit for advances in electronic filing and a successful (in terms of revenue generation) tax amnesty program (Barrett and Greene 2003).

Flexibility

Recall that flexibility refers to the ability of the tax structure to respond to changes in conditions, and the speed with which changes in tax policy achieve their desired effect. The conditions of interest to this analysis are primarily economic in nature. Ability to implement change is primarily a political issue. However, the determinants of reaction time are economic factors.

Based on how often tax rates change in this state, we could be excused for thinking the tax structure is very flexible. It seems like every year either the personal income tax rate, or the capital gains rate, or both, changes. In addition, if you look at the plethora of individual pieces of tax legislation processed by the State Legislatures Joint Committee on Taxation, it might appear that a lot is happening. I argue that these observations are **not** representative of flexibility in our tax structure, on two grounds.

First, consider that most of the legislation considered by the Committee, and enacted into law, is routine in nature. This view was confirmed in interviews with state legislators and in correspondence with members of the Joint Committee on Taxation. Second, many of the changes are in response to political considerations as much as they

are to economic considerations, although that will seldom if ever be admitted to in public discourse.

A better assessment of flexibility can be gained by observing the Massachusetts budget over time. In 2001, State Government tax collections totaled a little over 17.2 billion dollars. Just one year later tax proceeds had plummeted to 14.8 billion (United States Census Bureau). At the start of 2002, the Massachusetts Commonwealth Stabilization Fund (a.k.a. the rainy day fund) had a balance of 1.7 billion dollars. To compensate for revenue shortfalls, transfers to Massachusetts General Funds were made in 2002, 2003, and 2004. As of the start of 2004 the Stabilization Fund balance was down to a little over 0.6 billion dollars, only 4.3% of the previous years state tax revenue (not including local tax revenue) (MBPC 2004b). The tax structure of Massachusetts is clearly having difficulty responding to economic conditions that should be expected to occur periodically (rainy days do happen).

Political Responsibility

Political responsibility as a criterion refers not to how irresponsible a policy may be with respect to economic logic or social justice, but rather to how responsible the government is in making the incidence of taxation transparent. On that score, the Massachusetts tax structure is probably not considerably more or less responsible than most other states. Keep in mind that the issue here is the transparency of the system not the political rhetoric of our government officials.

In general, the personal income tax would be considered more transparent relative to sales taxes and real estate taxes, with the corporate income tax generally considered

the least transparent of all (Stiglitz 2000; NCSL 2003). Since Massachusetts relies on all of them, it is difficult to make a definitive statement. However, to the extent the state relies more on the personal income tax the system would tend to be more transparent. However, the extent to which the personal income tax is permeated with credits, deductions and exemptions will certainly reduce the degree of transparency. Relative to other states the Massachusetts tax structure **does** rely heavily on the personal income tax for revenue (refer back to Table 8 and Figure 3 in Chapter II). In 2000, we ranked third in the nation in percentage of revenue collected via the personal income tax. However, we also ranked high, tenth for the corporate income tax, and we were dead last on the selective sales tax. Therefore, the story is very much a mixed bag.

The current administration could be given some credit here with respect to transparency, even if the political responsibility in more general terms is questionable. A reluctance to raise "taxes" has incurred a significant increase in "licenses and fees" (which are technically not taxes). Licenses and fees are very transparent. They are fees for service. The service receiver pays; for example, the blind person who now has to pay $10 for a certificate of blindness[59].

There is one aspect of the Massachusetts tax policy that significantly impairs our transparency. Recall the ITEP study cited at the end of the previous chapter. This type of tax incidence study, that considers the burden of taxation across income levels, is vitally important. Such an assessment should be required annually by the state. Other states require such a study by law. For example, the state of Maine requires that a tax incidence study be performed every even-numbered year. At one time, the state of Massachusetts

[59] The $10 fee for a certificate of blindness was instituted via Outside Section 11 of the fiscal year 2004 budget.

performed distributional impact studies, but they were discontinued in the early 1990s. In an interview with staff of the Office of Tax Policy Analysis, the opinion was offered that recent administrations prefer this information not be publicized (OTPA interview 2004). To me this is a classic example of political irresponsibility. My proposals will include a requirement that such studies be performed annually.

Fairness

In the discussion of the fairness criterion, it was stressed that fairness is difficult to define, or perhaps more to the point, come to an agreement on. Given that, grading the state tax structure based on fairness is guaranteed to initiate political and economic debate. Nevertheless, I can assert with conviction that the Massachusetts tax structure scores poorly on this criterion.

Considering horizontal equity, the tax structure is much too complex to make an accurate assessment. The complication is in part due to the variety of methods of taxation employed. However, on this score we do not differ from most other states. Beyond that, some of our tax systems are fraught with special provisions. Any taxpayer who has filled out the long form for the personal income tax, or any business owner who prepares (or pays attention to) a corporate tax filing, would be aware of this. To the extent such special provisions reflect actual differences in conditions that merit variation in tax treatment, horizontal equity is not disturbed. However, the more complicated the tax structure, in general the more likely this objective is to be violated.

Dramatic problems exist with respect to vertical equity. Vertical equity says that those with greater ability to pay should pay more in taxes, with it left open for argument

how much more. This is exactly the opposite of what we experience in Massachusetts. The ITEP (see Table 9 in Chapter II) study shows that when using income as a proxy for ability to pay, those with more ability to pay are paying at a significantly lower rate. Income is the standard metric here, both because it is a reasonable, if not complete, indicator of equality and because it is relatively easy to measure. If we were to insist that wealth be the metric, measurement would be much more difficult, but given a high correlation between income and wealth (Marger 2002, 40; Augustin and Sanga 2002), there is no reason to believe the results would be dramatically different[60]. Chapter V will have more to say on the issue of defining and measuring inequality.

Grading the Commonwealth

A recent study published in Governing Magazine, and discussed in a Commonwealth Magazine article, applied criteria similar to those discussed above to the tax structure of all 50 states. They graded each state in three categories:

1. Adequacy of Revenues
2. Fairness to Taxpayers
3. Management of System

In each category, states were given from 1 to 4 stars, 4 stars being the best. Massachusetts was awarded two stars for adequacy of revenues, two for fairness, and three for management. Our relatively low score on adequacy was due in large part to a heavy reliance on the personal income tax. As reported in Chapter II we rank third among

[60] The maldistribution of wealth is considered to be worse than maldistribution of income, see (Marger 2002, 38) and (Seligson and Passe-Smith 2003, 79).

all states in the percentage of state and local revenue generated via the personal income tax. This can cause wide swings in revenue in response to macroeconomic conditions (Tannenwald 1990). The low score on fairness can be easily explained by the tax incidence results highlighted at the end of Chapter II. Our relatively better score on management is credited to the states system of electronic filing and electronic transfer of payments (Barrett and Greene 2003; Commonwealth 2003).

The Governing Magazine piece discussed the issue of revenue volatility in a section called irrational exuberance. What they had to say was particularly relevant to Massachusetts. Two "fundamental rules of basic finance" were cited:

1. Do not pay for ongoing expenses with one-time revenues, and
2. Do not cut taxes in response to a transitory surge in revenues.

In fact, they listed Massachusetts as one of the states that broke these rules (Barrett and Greene 2003).

The Non-standard Criteria

The standard criteria have to be considered in any evaluation of tax structure. They clearly have political relevance; tax policy analysts will assess any proposals for change on this basis. These criteria also have some economic relevance as they are based on sound economic theory. However, there is an urgent need to caution against taking the theories too literally. Economic realities have a way of diverging from theoretical models in critical ways.

The standard criteria are not the only issues to be considered when evaluating tax structure. This section will briefly discuss other considerations. The next two chapters will elaborate on two specific issues of import and interest.

The title of this thesis and the conceptual framework presented in the Introduction make clear what one of the issues is. Tax structure needs to be evaluated with respect to its impact on economic and social development. In fact it often is. When President Bush or Massachusetts Governor Romney promote a specific tax measure they will often offer a rationale that the proposal will be good for economic growth, or that it will facilitate economic development. Typically, these proposed measures are in the form of "tax relief". Ignoring for the moment the merits of this specific approach, suffice it to say the entire tax structure of the state needs to be assessed with economic and social development in mind. This will be addressed in Chapters IV and VI.

The conceptual framework of this thesis also emphasizes the issue of inequality, in particular how it is affected by the tax structure. This issue is already covered in part by the fairness criteria. Promoting inequality via the tax structure is more than an issue of fairness (or a lack thereof). Chapter V will present the argument that equality is a factor in promoting economic and social development, and that inequality can be a detriment to economic growth.

Another criterion for evaluating an overall tax structure is relevance. By relevance, I mean the extent to which the tax structure reflects the economic, political, and social times we live in. The United States was well into the 20th century before the Federal tax structure was changed from a reliance on tariffs and duties that reflected 19th century protectionism and elitism (Weisman 2002; Ratner et al. 1993). The issue now is

how relevant a 20th century tax structure is in the 21st century economy where services are a much larger component of consumer transactions, goods are purchased over the Internet, and forms of wealth formation and tax avoidance have become much more sophisticated.

In the section on the standard criteria, I referred to a tax structure study performed in the state of North Dakota (ND 2001). In addition to the list of standard characteristics, the North Dakota Tax Study Committee offered three non-standard characteristics that "are common in economic development literature and campaign rhetoric":

1. Exportable
2. Competitive
3. Balanced

Exportable refers to "getting nonresidents to finance local government". For example, New Hampshire residents have to pay Massachusetts income taxes because they work in the state. A tax structure is competitive to the extent it does not encourage "individuals and businesses to vote with their feet and leave for a better 'tax climate'". That topic will be discussed in Chapter IV. Being balanced means giving appropriate weight to **all** of the desirable characteristics. Of course determining the appropriate weights is certain to be controversial.

During his acceptance speech at the Democratic National Convention, eventual Presidential Election winner Jimmy Carter declared that the federal tax code was a disgrace to the human race. He was referring to the vast complexity of the tax code. He was right then, and it is still true now. The Massachusetts tax code is not much better.

Some individual taxpayers might feel it is worse than the Federal code. Although related to some of the standard criteria, I want to highlight simplicity as an explicit goal for the tax structure of the state. Complexity in the tax code is more than just an inconvenience. Complexity reduces transparency. Complexity contributes to an increase in non-compliance. Complexity adds a burden to taxpayers; most disturbingly, those who can little afford it. In *The Working Poor: Invisible in America,* the author offers testimony to the monetary consequences of a tax system that is too complicated for many low-income earners to deal with (Shipler 2004).

Finally, although complex, the Federal system does offer opportunities for leverage at the state level. This advantage applies with respect to simplicity, and with respect to revenue generation. The personal income tax makes occasional reference to items already calculated in the Federal tax forms. Recently the state of Massachusetts phased out an estate tax, leaving behind a "sponge tax", so called because it allows the state to reclaim credits made for state taxes on the Federal estate tax. The state government, with the full support of our congressional delegation, is always looking for ways to leverage Federal funding. We should consider this with respect to taxation as well.

Much needs to be considered when evaluating or designing a tax structure at the state level. This chapter has identified criteria that are employed, and should be employed, in evaluating the tax structure of Massachusetts. Two key considerations that have been identified are the impact of taxes on economic and social development, and the manner in which a tax structure can manifest itself as a system of transfer payments

across income levels; which itself will have ramifications for development. These two issues are the focus of the chapters to follow.

IV. TAXATION AND ECONOMIC AND SOCIAL DEVELOPMENT

The **existence** of a relation between taxation and economic and social development is not a particularly controversial proposition. The **nature** of this relationship, and the implications for public policy, is an area of substantial contention. This chapter will explore the prevailing public policy approach to promoting development. Following that will be a survey of empirical studies on the effectiveness of typical development policies. The chapter concludes with alternative perspectives on development goals that might be more appropriate for promoting our Commonwealth.

The "Conventional" Wisdom

In November of 2003 Massachusetts Governor Mitt Romney signed an "Economic Stimulus Package" that he claimed "contains a number of smart investments that will create jobs and help put the Massachusetts economy on the road to long-term economic growth" (while also noting the need to "reduce spending to a level that is immediately necessary"). Highlights (the administration's term) of the package include:

- Making the Investment Tax Credit permanent,
- Providing a tax rebate for manufacturing jobs in biotechnology and related areas,
- A one-day sales tax holiday, and
- Legalizing Sunday liquor sales (New Bedford Standard Times, 2003).

On April 8, 2004, the Governor announced he was appointing Ranch Kimball as the new secretary of economic development (only days after he was criticized for leaving this position vacant for months). In announcing the appointment, he was very clear about

what the new secretary's priority would be – jobs (Boston Globe 2004a). Governor Romney's approach to economic development does not represent a significant departure from his predecessors: Weld, Cellucci and Swift[61]. A Romney administration press release touting his "Tapping Our Potential" initiative was quite specific regarding his priorities. The first three items in Romney's wish list were more jobs, lower taxes, and curbing business costs. The Governor wants to "Preserve the investment tax credit and single sales factor for businesses"[62], and has promised to hold the line on any new or increased taxes (http://www.mass.gov/portal/).

How much should we expect of our state government with respect to promoting business in Massachusetts? In 2003, the Tax Foundation issued a background paper titled *State Business Tax Climate Index* (Hodge et al. 2003). They analyzed the tax structure of all 50 states. The motivation for the Tax Foundation is their conviction that "taxes matter a great deal to business". They looked at factors that they believe influence the decision to do business in a state. These factors include:

- Corporate and individual tax rates,
- Sales taxes,
- "State fiscal balance" (i.e., overall state and local taxes as a percentage of income), and
- Tax base conformity (i.e., how closely the tax code of a state conforms to the federal tax code, and other state tax codes).

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[61] See *Tax Cuts and the Recession in the Massachusetts Fiscal Crisis* by Elissa Braunstein of the Political Economy Research Institute for an enlightening perspective on the fiscal impact of these policies (Braunstein 2003).

[62] The *single sales factor apportionment* formula provides preferential treatment to companies that sell outside the state. See (Mazerov 2001) for a detailed discussion of this topic, including the ramifications for economic development.

Based on their system of ranking, Massachusetts has the 12th most favorable business tax climate in the nation. Still, our state government emphasizes the need to promote economic growth by using the tax structure to lower the cost of doing business.

Business interests will certainly advocate the position that lower taxes are good for business. It is only natural that business management would seek to lower costs. Taxes may represent a very small component of their cost structure. However, it is an item on their balance sheet that can potentially be lowered though community action. Tax incentives in this context have been referred to as "table stakes". They are a highly visible factor in economic development programs and businesses have come to expect them to be part of the package (Cohen 2000).

Political support for offering incentives for business activity in the form of lower taxes is not unique to Massachusetts. Other states and certainly the federal government have pursued similar strategies.

Governor Craig Benson of New Hampshire has been heavily promoting his "Living Within Our Means" initiative. The centerpiece of this is the "New Hampshire Taxpayer Bill of Rights" that calls for:

- A constitutional amendment requiring a balanced budget (which is already law in the state)
- Limiting spending growth to the inflation rate, and
- Requiring a two-thirds majority of the legislature to approve any new tax increase[63].

[63] For more information on the New Hampshire Taxpayer Bill of Rights, go to http://www.state.nh.us/governor/billofrights_form.html.

The basic premise is, lower taxes will naturally lead to a healthier economy; this in a state where the tax system is very regressive, even more so than Massachusetts (see Table 11 in Chapter II).

In the state of Maine, the economic strategy embraces four "fundamental economic drivers". The first of these is a "fair and stable business environment" which means controlling costs, primarily via "a more competitive position in terms of taxes". The other drivers are perhaps more progressive, calling for an "investment in people", "a clear focus on key sectors of the state's economy", and "building infrastructure"[64].

At the Federal level, the emphasis of tax policy during the current administration has been reducing the income tax (as well as eliminating the estate tax). Tax cuts pushed through Congress by President Bush heavily favor the wealthy. Over a third of the benefit accrued by Massachusetts taxpayers in 2003 was gained by the wealthiest 1%. Their average tax cut was over $87,000, more than the average **income** of even the upper middle class as represented by the second highest quintile of income earners, and almost 9 times the average income of the lowest quintile. In 2006, the benefit to the wealthiest 1% will increase to a share that is almost half the total tax cut. Meanwhile the poorest 20% of Massachusetts's taxpayers will collect an average tax cut of $98, less than 1% of the total. If we take into account the poorest 60%, we are still only talking about less than 13% of the benefit (CTJ 2003). Table 12 reproduces the Citizens for Tax Justice data on the impact of the Bush tax cuts in Massachusetts for 2004. The percentages represent the portion of the total tax cut awarded to each income group.

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[64] A full report on Maine's economic strategy is available at http://www.econdevmaine.com/GOVeconomicStrategyJan212004.htm.

Income Group	Average Income[65]	Average Tax Cut	Percent of Tax Cut
Lowest 20%	$10,000	$104	0.8%
Second 20%	26,000	526	4.0%
Middle 20%	44,000	987	7.5%
Fourth 20%	69,000	1,971	14.9%
Next 15%	118,000	4,114	23.4%
Next 4%	255,000	7,690	11.8%
Top 1%	1,392,000	99,353	37.7%
All	**$71,00**	**$2,619**	**100.0%**

Table 12: Impact of Bush Tax Cuts in Massachusetts – 2004[66].

Economist, Op-Ed Columnist for *The New York Times*, and noted book author Paul Krugman has pointed out that while President Bush has not been as successful in passing laws to reduce corporate taxes, there is more than one way to achieve his objective. He cites a "series of little-noticed executive orders… that will provide corporations with billions of dollars in tax relief without the consent of Congress" (Krugman 2003b, 182).

There is no reason to believe a second Bush term would offer anything different. The Bush agenda for the next four years includes "tax relief" to promote jobs and growth. Specifically the administration promotes their "Jobs and Growth Act of 2003" which accelerated the tax cuts passed in 2001 and "Encouraging job-creating investment in America's businesses by providing dividend and capital gains tax relief and giving small businesses incentives to grow" (http://georgewbush.com/Economy/Brief.aspx).

There is certainly a theoretical basis for reducing taxes. Support for such policies

[65] Average income figures are based on 2003 data.
[66] Source: Citizens for Tax Justice (CTJ).

and the goals to which they aspire can be found in the standard criteria for evaluating taxes (see the first section of Chapter III). The National Conference of State Legislators (NCSL) publication *Tax Policy Handbook for State Legislators* identifies six principles for evaluating state taxes. One of these is "*Responsiveness to Interstate and International Competition*". Here they caution "Businesses that sell in a national or global marketplace can relocate if state business taxes are too burdensome" (NCSL 2003). Most Public Finance texts provide support for this warning. In *Economics of the Public Sector,* Joseph Stiglitz offers his own five Principles of Taxation. One of these is "economic efficiency". As discussed in Chapter III, the basic issue is that we expect taxes to influence behavior. As Stiglitz notes "Taxation affects risk taking, the allocation of resources to research and development, and the long-run rate of growth of the economy". He does offer the caveat that "efficiency effects of taxation are far more subtle and difficult to assess". However, if one accepts the standard assumptions of a market-based economy, predicting the effect of taxes is within the grasp of economic analysis (Stiglitz 2000).

If we accept the development goals offered to us, a question that needs to be asked is whether tax incentives for businesses represent an effective development strategy. How representative are the assumptions of economic reality? What are the magnitudes of the changes we would expect? What are the confounding factors that might influence or distort our analysis? The next section will address these issues.

Beyond that, we need to consider whether we are targeting the right goals. That topic will be discussed in the concluding section of this Chapter, which will offer a more comprehensive definition of development that strongly implies a different set of objectives for public policy to promote development.

The Empirical Evidence

In July of 2004, just days before he was to leave office, I interviewed Colin McNiece, the Director of Economic Development for the city of Lowell Massachusetts. When I asked him how often taxes came up as an issue when he dealt with businesses considering Lowell, his immediate response was "rarely". He then backed off and indicated taxes did come up in the context of incentives that could be offered via state programs, and that taxes were occasionally used as a "negotiating ploy". However, Mr. McNiece could not recall a single case where a decision on where to locate a business was based on taxes. Even before my raising of the issue of taxes, when I questioned him on the primary motivators for doing business in Lowell he volunteered that "tax incentives are not decision makers". Instead, the workforce, both skilled and unskilled, important clusters such as medical devices, and a "pro-development attitude"[67] were cited. Mr. McNiece later went on to say that he did **not** consider tax incentives such as the Michigan Renaissance Zones[68] to be good public policy (McNiece interview 2004).

I also interviewed the Republican candidate for my State Senate seat, John Thibault. Mr. Thibault made it clear that his perspective on tax policy is that of the small business owner. He was an entrepreneur and business owner himself, and declared his opposition to the current "tax and spend" legislature and a tax burden that, in his mind, is clearly too high. On the issue of employing state tax policy to promote business development, he was just as adamant. He declared such tax incentives as "not a model for

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[67] As examples of a pro-development attitude, Mr. McNiece discussed Lowell's proactive policies toward working with businesses to identify real estate, buildings, and financing.
[68] See http://medc.michigan.org/ for more information on the Michigan Renaissance Zones economic development incentives.

growth" and tantamount to "bribes". Although he did not offer his positions as an agenda for development, he did cite an educated workforce, affordable housing, and "hidden taxes as a cost of doing business in Massachusetts"[69] as being the key business development issues. He also raised the issue of fairness in this context citing tax breaks that a Fidelity Investments or Raytheon Corporation might get that a small business owner does not enjoy (Thibault interview 2004).

Why would the experience of the Director of Economic Development for a city like Lowell, and the opinion of a fiscally conservative Republican candidate and former business owner differ from the conventional wisdom? After all, the economic reasoning behind the idea that lower taxes would encourage more investment seems quite logical. However, there are a number of assumptions built into the basic market analysis that are not reflective of the real world. Among these assumptions are:

- Competition restrains market power,
- Buyers and sellers have perfect information, and
- There are no *externalities* (i.e., transactions in the market do not have impacts outside the market).

Once you relax the assumptions and try to account for other variables in the mix, predicting or assessing the impact of taxes on behavior is difficult at best. The responsiveness of economic activity to taxes is typically measured in terms of elasticity[70]. In a Federal Reserve Bank of Boston study on *The Effects of State and Local Public*

[69] As examples of "hidden taxes", he cited above average unemployment costs, growing health insurance costs, and increased property taxes based on high valuations.
[70] Recall from chapter III (see the discussion of political responsibility) that elasticity is a measure of responsiveness, for example, how much does business investment increase (a positive elasticity) or decrease (a negative elasticity) in response to an increase in taxes.

Policies on Economic Development, the authors cite a wide range of estimates for elasticity related to business investment responsiveness to state and local taxes (Bradbury, Kodrzycki, and Tannenwald). While these elasticity estimates are negative, as predicted by standard public finance (and general economic) theory, the magnitudes tend to be small, indicating the impact is not as large as policy advocates (e.g., Romney) would lead us to believe. The authors also note that the "positive" (i.e., economic activity inducing) effects of tax cuts might easily be offset by the negative impact of the associated cutback in services; more on that later.

A wide range of studies have been performed that estimate elasticity of response to state and local taxes. For the vast majority of studies, the reported values are small in magnitude. Michael Wasylenko, a Syracuse University Professor of Economics, authored an article for the New England Economic Review - *Taxation and Economic Development: The State of the Economic Literature.* Wasylenko's bottom line is that "taxes do not appear to have a substantial effect on economic activity among states" (Wasylenko 1997)[71]. In the Federal Reserve piece, the authors call into question not just the efficacy of state tax policy, but state policies in general. The rationale is that the factors that influence business location decisions and economics growth are beyond their control. These factors include labor costs, the quality of the labor force, energy costs, climate, and availability of natural resources (Bradbury et al. 1997).

In a 1987 article on the *Major Factors in Industrial Location,* the authors (Blair and Premus) speak directly to location decisions by businesses. They conclude, "The effectiveness of specific subsidies or locational incentives has not been shown to be a

[71] Wasylenko also devotes much of his analysis to describing the difficulties of measuring variables, and developing robust econometric models.

particularly significant variable". They also note the contrast between the general opinion of policy makers (e.g., Governor Romney) and econometric and survey evidence (Blair and Premus 1987). Surveys of locational consultants offer more evidence that tax incentives are "relatively unimportant to the basic decision [of location]"; at best, they are "tie breakers" (Cohen 2000). In *Measuring the Incentive Effects of State Tax Policies Toward Capital Investment*, George Plesko from MIT and Robert Tannenwald from the Federal Reserve conclude similarly that state and local taxes do not appear to be a statistically significant determinant in locational or investment decisions of businesses (Plesko and Tannenwald 2001).

As for where people choose to live, *Massachusetts: Toward a New Prosperity – Building Regional Competitiveness Across the Commonwealth* cites research "that demonstrates environmental quality and lifestyle amenities are becoming more critical than living costs in attracting and retaining knowledge workers" (MDED 2002). This view was confirmed by my interview with Lowell's outgoing Economic Development Director, although he did note the city's cost of living advantage vis-à-vis Boston (McNiece interview 2004).

When the tax system is used to provide incentives for economic growth (or behavior in general), it is referred to as *tax expenditure*. The Massachusetts Budget and Policy Center (MBPC) recently released a report titled *Tax Expenditures and Economic Development*. This report describes the various forms of tax expenditures offered by the state, concentrating on those directed towards economic development. They also provide interesting and useful data on expenditure levels. For example, they show that the state spends more on tax expenditures for economic development than it does on appropriated

spending for the same purpose (MBPC 2004a). As to how effective these tax expenditures are, the MBPC report cites frequently a just published book, titled *Rethinking Growth Strategies: How State and Local Taxes and Services Affect Economic Development* (Lynch 2004).

In *Rethinking Growth Strategies* the lack of evidence for the effectiveness of tax cuts to promote economic development is emphasized. In the executive summary the author (Robert G. Lynch, Chair of the Economics department at Washington College) states "**An analysis of the relevant research literature finds little grounds to support tax cuts and incentives - especially when they occur at the expense of public investment - as the best means to expand employment and spur growth**" (author's emphasis). Note that the author makes it clear in his title that state and local services are a major variable in the equation. He goes on to say "**In the end, any jobs that might be gained by cutting taxes can be *more than* offset by the jobs lost as a result of cuts in public services**". Again, author's emphasis, but I have further emphasized the ***more than***. Lynch concludes, "**The bottom line is that state and local taxes, at their current low levels, may be largely irrelevant to business investment decisions**" (once more, author's emphasis).

In another Federal Reserve Bank of Boston study, *Are State and Local Revenue Systems Becoming Obsolete* (Tannenwald 2001), Tannenwald is a little less damning in calling for state and local policy makers to be "more selective" in advocating business tax incentives that sacrifice revenue that could be used for other tax policy goals. This position offers a good segue into another issue that I would like to raise, the appropriateness of economic growth as the goal of development policies.

The Unconventional Wisdom - Redefining Development

When I was first exposed to the field of development economics[72] it became apparent to me that the goals and methods of development that characterize the "globalization regime" of the past half century are a reflection of domestic economic policies. It is somewhat ironic then, although not a surprise, that rethinking what development means for Massachusetts should be based on the lessons being learned in developing countries. Arguments against the current globalization agenda are not anti-trade or isolationist. Likewise, arguments against the development policies of our state and federal administrations are not anti-business or anti-growth. The emphasis is on a more inclusive and more comprehensive definition of development. The ideas being promoted by some prominent development economists are generally applicable to development, and very relevant to our situation in Massachusetts.

John Kenneth Galbraith, one of the most respected economists of the 20th century, published a book titled *Economic Development* 40 years ago (Galbraith 1964). At that time, he recognized maximizing economic growth as the prevailing development goal, in particular for developing countries. He associated this goal with "Western economic thought". Galbraith warned of the dangers of a focus on growth as a target for economic development. Dangers cited include a lack of certainty with respect to

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[72] In his text Economic Development author Michael Todaro characterizes Development Economics, as distinct from traditional economics as follows. "In addition to being concerned with the inefficient allocation of existing scarce (or idle) resources and with sustained growth over time, [development economics] must also deal with the *economic*, *social*, *political*, and *institutional* mechanisms, both public and private, necessary to bring about rapid (at least by historical standards) and *large-scale improvements* in levels of living for the masses of poverty stricken, malnourished and illiterate people" (author's emphasis) (Todaro 2000).

addressing poverty, extremes of wealth, conspicuous consumption, and the distortions on demand inherent in such an environment. In short a "sense that economic development is not for the many but for the few". He also warned of a tendency for taxation in developing countries to fall on the poor. They may be resource poor, but as Galbraith put it, "[they] are available in the most abundant supply", and therefore an attractive source of tax revenue. Galbraith offers an alternative he calls "selective growth". Growth is promoted based on its ability to benefit those most in need; "Resources so painfully conscripted from the people must return benefit to the same people". He speaks of organizing development around the needs of the "modal consumer" (i.e., those that are resource poor but in abundant supply).

Of more recent vintage is another book with the title *Economic Development.* Authored by Michael P. Todaro, professor of Economics at New York University, the book is used as a textbook in economic development courses. Todaro early on identifies growth, in particular as measured by Gross National Product (GNP), as a "traditional economic measure" of development. He then immediately raises issues with this measure. Todaro contends that in the globalization context, growth was the prevailing paradigm in the 1950s and 60s but that during the 1970s "economic development came to be redefined in terms of the reduction or elimination of poverty, inequality and unemployment within the context of a growing economy" (Todaro 2000, 14). Todaro identifies what he believes should be the three objectives of development. The first is to meet basic life-sustaining needs. The second is to raise *levels* of living, not just standards of living (income, jobs), but more generally, quality of life. The third is to expand economic and social choices.

Todaro describes differences between *development economics* and *traditional economics* by noting, "In the less developed countries (LDCs), most commodity and resource markets are highly imperfect, consumers and producers have limited information, major structural changes are taking place in both the society and the economy, and disequilibria situations often prevail" (Todaro 2000, 8). While I agree with his contention that these issues are more prevalent in LDCs, I argue that imperfect markets, imperfect information, and disequilibria conditions are very much evident in our economy as well. Thus when Todaro claims that "Many of the failures of development policies have occurred precisely because non-economic variables were intentionally or unintentionally excluded from the analysis" he could be speaking about Massachusetts as well.

Economic growth is considered important because it enables increases in human welfare. In a view that goes back at least as far as Adam Smith, human welfare, or more generally "the wealth of nations", is determined by the availability of goods and services (Van den Berg 2001, 10). However, as offered by Nobel Prize winning economist Amartya Sen, **choice** is an important component of human welfare (Sen 1999)[73].

Growth should then be considered as, at best, a necessary but not sufficient indicator of development. As Todaro points out, who benefits from the growth is a critical question. Recent United States history exhibits strong economic growth, despite periodic recessions. However, we are not all benefiting from the growth. From 1979 to 1997, average family income grew by 28% (adjusted for inflation). However, the median family income increased by only 10%. This increase in median income averages to an annual rate of roughly 0.5% per year, and indications are that longer hours were the

[73] In another context, Sen explores how high levels of inequality can impair choice (Sen 73).

cause, not higher wages. For the poor the story is even worse, for the bottom 20% of income earners the results were slightly negative; their incomes decreased (Krugman 2002)! In a recent study of inequality in Massachusetts, MassINC reported that over the 20-year period between 1979 and 1999 inequality worsened on all five measures of inequality that they computed based on household incomes[74]. They further observe that Massachusetts exhibits above average inequality on all five of these measures when compared against the other 49 states (Sum et al. 2000).

Important debates over these issues are playing out in the development economics arena. As a counter-weight to a focus on growth, Todaro notes the important role of **values** in development economics (Todaro 2000)[75]. In *Development and Social Change: A Global Perspective* (McMichael 2000), Philip McMichael calls for a "fundamental 'unthinking' of development as a linear process and a rethinking of social and ecological priorities to sustain human existence in the long run". He sees the two sides (to the extent it can be characterized as a two-sided argument) of the development debate as follows. "Advocates of the project of globalization believe in the rationality of an open world economy, but the level playing field that is supposed to drive this operation is a fiction at best and an assertion of power at worst. By contrast, opponents of the project of globalization begin from the position that the logic of market rule is at odds with the sustainability of local knowledge, cultures, and biodiversity, and with the idea of social equality." (McMichael 2000, 298) McMichael is rethinking development in the context of LDCs. While there are certainly differences in degree, the same debates should be

[74] The five measures were all ratios of household incomes at various percentiles of income distribution: 90/10, 90/20, 90/50, 80/20, and 50/10.
[75] A recent Wall Street Journal article reported on a study that showed there is a weak correlation between monetary wealth and personal perceptions of satisfaction or happiness (Begley 2004).

playing out domestically as well. In *Development as Freedom*, Sen argues, "development analysis is relevant for richer countries" (Sen 1999, 6). However, presumably in large part due to our relative affluence, the domestic development agenda appears to be firmly entrenched in the focused pursuit of economic growth.

There is an old expression you cannot fix what you cannot measure. Metrics are important both as a statement of values and as indicator of progress toward achieving goals. Todaro suggests that in addition to the traditional economic measures such as Gross National Product (GNP), GNP per capita, and growth rates in GNP[76], we also consider social indicators. He identifies literacy, school participation, health conditions, provision of health services and housing as important areas of concern. A number of indicators of development have been proposed. Todaro provides an Appendix that identifies some of these (Todaro 2000).

The Human Development Index (HDI), published by the United Nations, is perhaps the most widely known indicator of development (Cypher and Dietz 1997, 43-49; Todaro 2000, 72-76; Van den Berg 2001, 66-67). The HDI is a composite index that measures "average deprivation" based on metrics such as life expectancy, literacy rates, and school enrollment. In 2004, the United States ranked 8th among all countries covered (Norway was number 1). A footnote in Cypher (Cypher and Dietz 1997, 59) observes the "interesting, but economically justifiable" manner in which income is factored into the HDI. Income matters, but the index factors in significant diminishing returns to higher

[76] At the state level comparable measures are Gross State Product (GSP), GSP per capita, and growth rates in GSP. However, if the focus is on the economic well being of individuals, growth rates in per-capita income is a more appropriate measure (Chernick 1997, 3).

marginal income levels. Another way of saying this is that a person requires only a certain amount of income[77].

Below I have reproduced the *United Nations Research Institute on Social Development: List of Core Indicators of Socioeconomic Development*. The intent is not to offer this list as **the** set of indicators (in fact I raise issues with, among other things, the sustainability implications of some of these indicators), but rather to give a sense of the breadth of concerns that should imbue our concept of development.

- Expectation of life at birth
- Percentage of population in localities of 20,000 and over
- Consumption of animal protein per capita per day
- Combined primary and secondary enrollment
- Vocational enrollment ratio
- Average number of persons per [residential] room
- Newspaper circulation per 1,000 population
- Percentage of economically active population with electricity, gas, water, etc.
- Agricultural production per male agricultural worker
- Percentage of adult male labor in agriculture
- Electricity consumption, kw per capita
- Steel consumption, kg per capita
- Energy consumption, kg of coal equivalent per capita
- Percentage GDP derived from manufacturing
- Foreign trade per capita

[77] The specific amount cited as the global average income, based on Purchasing Power Parity in 1992 dollars, is $5,120.

- Percentage of salaried and wage earners to total economically active population

The International Human Suffering Index, which Todaro describes as a "more controversial attempt to measure the quality of life in LDCs" (Todaro 2000, 76), offers what I think is a concise set of measures. The measures are compiled and then consolidated into a single figure designed to measure differences in living conditions. The 10 metrics are:

1. Income
2. Inflation
3. Demand for new jobs
4. Urban population pressures
5. Infant mortality
6. Nutrition
7. Clean water
8. Energy use
9. Adult illiteracy
10. Personal freedom

Individual metrics, in particular Personal freedom, raise their own issues regarding measurability.

I have mentioned sustainability as an important consideration with regard to development. The most widely recognized definition of sustainable development was offered by the United Nations. The World Commission on Environment and Development (a.k.a. The Bruntland Commission) in a 1987 report title "Our Common

Future" defined *Sustainable Development* as *Development that meets the needs of the present without compromising the ability of future generations to meet their own needs.*

Sustainability is more than just another metric to be considered. In *Approaches to Sustainable Development*, sustainability is described as a concept that was "developed as a critique of the 'tunnel vision' of economists and advocates of economic growth" (Forrant et al 2001, 5). If this tunnel vision is evidenced in our state policies on development as well, the question is then what **should** our vision be.

The United Nations Commission on Sustainable Development has developed a Theme Indicator Framework[78]. This rather extensive set of indicators is partitioned into the categories, Social, Environmental, Economic and Institutional. As with the previous lists, the Sustainability Indicators serve as examples of what Economic and Social Development should encompass rather than a clear concise statement. For that I offer the following as a definition of Economic and Social Development.

> ***The pursuit of enhanced standard of living and quality of life for the community as a whole while taking ethical, fiscal, and generational responsibility for our finite resources and emphasizing enhancement of human capabilities[79].***

This conception of Economic and Social Development is reflected in the conceptual framework and concept map presented in Chapter I. It implies investment in social assets such as education, health care, and affordable housing. More relevant to this

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[78] See http://www.un.org/esa/sustdev/natlinfo/indicators/isdms2001/table_4.htm for more details.

[79] For an interesting discussion on the difference between a focus on *human capability* and a focus on *human capital,* see *Development as Freedom* (Sen 1999, 292-297). Given the title of the book, it should not be surprising to learn that freedom is key to a human capability orientation. See also The Human Development Capability Association, of which Sen is a Founder, at http://www.hd-ca.org/about.php?page_builder=hdca.

thesis, it requires a new approach to generating revenue to fund whatever programs the state decides to promote. This is the form of development that I intend to promote via the Massachusetts tax structure.

This chapter started by discussing the conventional wisdom on how taxes can be used to promote development. These strategies were then called into question based on a review of empirical studies that raise serious doubt as to their effectiveness. This section has offered some ideas on how we could redefine development to be more than just a focus on economic performance.

The development principles discussed in this section are most frequently offered in the context of developing economies of the world. I argue that many of the developmental issues, and the goals of sustainable economic and social development, have relevance here in the state of Massachusetts. I argue further that an excessive focus on growth could actually be detrimental to the development of a region by exacerbating inequality, which in the long run can diminish prospects for growth. Indeed, equity is the theme of the indicators at the top of the United Nations Sustainable Development Framework. Inequality, and its relationship with economic growth, will be the focus of the next Chapter.

V. INEQUALITY AND ECONOMIC GROWTH

This chapter is about the relationship between inequality and economic growth. Inequality can mean many things, so this chapter starts with a discussion of the dimensions of inequality. This leads into a presentation of a theory on how inequality can influence the economic growth that is the focus of prevailing development policy. A combination of qualitative and quantitative analysis is then offered to support this theory. Theory and evidence from the development economics perspective is offered, as is empirical evidence of development at the state level. Given the basic premise is that inequality is a determinant of economic growth, an assessment of the magnitude of inequality in Massachusetts is in order. The concluding section of this chapter provides such an assessment.

Dimensions of Inequality

At the end of the last chapter the concept of equity, or more specifically inequality, was introduced as having relevance in the context of economic and social development. In fact, the definition of Economic and Social Development I offered strongly implies a concern for equality. In the section to follow, I will offer reasoning beyond just a concern for fairness that motivates a focus on inequality. The purpose of this section is to take a step back and discuss various dimensions of inequality. It is not practical to consider all these dimensions in the analysis that will follow, but some discussion is merited.

When the term inequality is used in an economic development context, typically *income inequality* is being discussed. This is not because economists believe income

inequality is the best metric, it is an issue of practicality; economists like to quantify, and income data is relatively easy to acquire. Even then, a caution is in order. The term income is itself not simply or consistently defined. For example, both *before tax* and *after tax* income could be used. In the United States, income after accounting for federal taxes will show a little less inequality due to the progressive nature of the federal income tax (although this has become less true over the past quarter century). In all but at most four states[80], income after accounting for state and local taxes will be more unequal due to their regressive nature (see Table 11 in Chapter II where even a relatively progressive state such as Maine has a regressive tax structure). There is often a differentiation between *earned income* (e.g., wages) and *unearned income* (e.g., interest, dividends, and capital gains)[81]. Since higher income earners tend to have more disposable income to invest, they tend to have much more unearned income, so accounting for it increases the measure of inequality.

The Gini index is often used as a composite measure of distribution of income. A Gini coefficient[82] of zero represents absolute **equality** (i.e., everyone has the same income); a value of 100 represents absolute **inequality** (i.e., one individual gets all the income)[83]. While the Gini coefficient is the most prevalent summary measure of inequality, it is considered by some to understate the degree of inequality because it is most sensitive to changes in the middle of the income distribution whereas we probably

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[80] The Institute on Taxation and Economic Policy (ITEP) review of all 50 states shows that based on 2002 data, only 4 states, Delaware, Montana, Vermont and California had what could be considered progressive tax systems – ITEP actually refers to them as the least regressive (ITEP 2003).

[81] For a more detailed discussion on measuring inequality, see *Income Inequality in America* (Ryscavage 1999, 25-40).

[82] In some of the literature the terms Gini *index* and Gini *coefficient* are used interchangeably. I have adopted standard usage referring to the **concept** as the index and **specific values** as coefficients.

[83] Technically, Gini coefficients represent percentages, and are sometimes presented as decimal values ranging between 0.0 and 1.0.

should be most concerned with changes at the extremes (Census Bureau 2000; Chernick 2004; Ryscavage 1999).

Discussions of income inequality most often relate to the *size distribution of income*, that is how income is distributed among people. Size distribution is the focus of the inequality analysis in this work. It must be differentiated from the *functional distribution of income*, which refers to the distribution of income among capitalists, laborers, and landowners (itself an important topic and not unrelated to the size distribution) (Rosen 1995, 274-275; Zweimuller 2000).

It is generally accepted that while income inequality is quite pronounced[84], *wealth inequality* is even more pronounced (Kopczuk and Saez 2004; Marger 2002, 38; Seligson 2003, 79). Income inequality measures flows, typically how much money a person makes in one year. Wealth inequality measures a stock, how much a person has accumulated over years of income (plus whatever "endowment" they started off with) minus expenditures. In perhaps the most comprehensive assessment on wealth inequality in the United States, the authors note that "wealth tends to be much more concentrated than income because of life cycle savings and because it can be transmitted from generation to generation" (Kopczuk and Saez 2004).

Wealth is not at all a precise measure, it depends both on what assets you decide to count, and in what manner those assets are valued. When candidates for public office declare their wealth or "net worth", they do so within a range of values that can vary considerably from the low estimate to the high estimate. For example, Vice President Cheney reported income of $1.3 million in 2003. The estimate he (legally) submitted for

[84] See the last section of this Chapter.

the value of his stock and bond holdings was somewhere between $17 million and $85 million (Associated Press).

To provide a sense for the extent of wealth inequality, in particular relative to income inequality, I will use data provided by Marger in *Social Inequality* (Marger 2002). Marger cites data from the United States Census Bureau for 1999 that shows the highest 20% of income earners (by family) receiving 47% of income. He illustrates the distribution of wealth by observing that the same percentage (47%) of *net financial assets* is owned by just the top 1% (referred to as the "super rich" for obvious reasons)! Net financial assets are defined as net worth minus owner-occupied housing. If we consider net worth, the super rich own **only** 38% of wealth in the United States. In 2002, the median net worth for the top 10% of wealthy families was $833,600, for the bottom 20% median net worth was $7,900 (Johnston 2003). This is a ratio of over 100 to 1! Ratios start to lose meaning when you consider that for many at the bottom net worth is a negative value (Anderson 1999). These are just snapshots, but Marger notes that the vast gap in wealth inequality has "grown enormously in the past two decades" (Marger 2002, 38-44). In a recent talk on *Inequality and Politics: What's Going On*, Paul Krugman offered the opinion that when data is available it will undoubtedly show that the pace of this increasing divergence accelerated in the last 5 years.

Inequality is also about more than just money. In *Social Inequality* Marger offers three dimensions of "social stratification" that he credits to Max Weber. The three dimensions are wealth, prestige, and power. While sociologists use these terms for explanatory purposes, it is also noted that there is a high correlation among the dimensions. For example, those with more wealth **tend** to have more power. Marger also

notes that inequality is structured, which is to say the forms of stratification are not random. We are not talking about predestination here. However, ethnicity, gender, and other social characteristics, can influence position in the hierarchy. While the United States is promoted as the "land of opportunity, "life chances" (Weber's term), that is access to education and health services, place of residence, and experiences in acquiring "justice for all"; are in part determined by birth right. This life chance is also referred to as *inequality of opportunity*, as compared to *inequality of condition,* which refers to the social resources you actually acquire (Marger 2002).

Another issue that Marger raises is Equity **versus** Liberty (my emphasis) (Marger 2002, 22). He describes those as "conflicting forces" that capitalist democracies struggle with. If liberty is defined as the ability to pursue one's own best interest, then how is that definition reconciled with equity as defined as a just distribution of society's resources? In *Policy Paradox: The Art of Political Decision Making* (Stone 2002), the author refers to this concept of liberty as a **negative** view – the absence of restraint. She contrasts it with the **positive** view of liberty "as the availability of meaningful choice and the capacity to exercise it" (Stone 2002, 128). Over the past quarter century the resolution to this conflict seems to tend toward the negative view where free-market capitalism wins out and the result, to some, is inherently fair (if not equitable, and certainly not equal).

Nobel Prize economist Amartya Sen offers a perspective that is reflective of the positive view of liberty. In *Development as Freedom* (Sen 1999), he speaks of a world where there is "unprecedented opulence", but at the same time "remarkable deprivation, destitution, and oppression". Sen sees development as essential in overcoming these problems. He sees poverty as "capability deprivation", and inequality (he refers to

relative deprivation in terms of income) as a major factor in depriving capabilities[85]. For Sen the emphasis is not on a conflict between equity and liberty (freedom). His primary thesis is that freedom is both an ends and a means of development, ergo "Development as Freedom". Sen also authored the book *On Economic Inequality*, in which he discussed the idea that inequality impairs choice, or freedom (Sen 1973). The intersection of these perspectives implies a conception of development as fairness.

Inequality, in all its dimensions, has a real world impact[86]. It has an impact on poverty (Lindert 2004, 187), test scores (Lindert 2004, 136-137) and life expectancy (Lindert 2004, 259)[87]. While not as critical an issue here in the United States as it is in developing countries, inequality is closely related to access to capital, which itself is an essential consideration with respect to capability deprivation[88].

Volatility in capital markets has increased significantly in recent years (Soros 2002). While lower income earners are in general not as heavily invested in these markets in absolute terms, they and their families are most vulnerable to significant loss. This recent increase in market volatility has therefore magnified problems associated with inequality.

In the sections that follow, the term inequality will be used in a general sense, but at times will be quantified as income inequality. In particular, in the concluding section of this chapter I will cite statistics that illustrate the severity and worsening of income inequality. Keep in mind that income inequality is generally considered to understate the

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[85] Note that Sen is not alone in attributing much of this thinking to Adam Smith in *The Wealth of Nations*.
[86] For compelling testimony on the real-world impact of being on the wrong end of the equality spectrum, see *The Working Poor: Invisible in America* (Shipler 2004).
[87] In fact as a course project in statistics, I performed a study using World Bank data for countries, which demonstrated a statistically significant relationship between Gini indices and female life expectancy.
[88] See *The Mystery of Capital: Why Capitalism Triumphs in the West and Fails Everywhere Else*, by Hernando DeSoto for a very interesting and detailed discussion of this issue, which the author refers to as "economic apartheid" (DeSoto 2000).

degree of inequality in our society. Where Gini coefficients are used to measure income inequality, they may represent understatements as well.

A Theory of the Impact of Inequality on Economic Growth

Given the definition of Economic and Social Development I have offered, or for that matter any reasonable consideration of the topic, equity will be an important element. Even for those who decide to make economic growth the focus of development policy, inequality should be treated as a potential inhibitor to success.

Simon Kuznets pioneered work on the relationship between growth (measured as changes in GNP per capita) and inequality (measured by Gini coefficients). His conceptual relationship, based on analysis of the growth patterns of developed countries, is an inverted U-shaped curve, with growth on the horizontal axis, and inequality on the vertical axis. At first, growth leads to increases in inequality. Essentially the rationale is that the growth is derived primarily from new sectors, representing a structural change in the economy. New, innovative sectors typically exhibit higher inequality. As the new sectors mature, the trends reverse. Note well that this relationship has been studied extensively, but without consensus as to its validity. As Todaro states, "the empirical validity of the phenomenon remains open to question" (Todaro 2000, 177). A review of the literature on inequality and growth by Josef Zweimuller addresses this question. Zweimuller's survey reports that up until about 30 years ago the Kuznets curve "was accepted as a empirical stylized fact". However, more recent data "shows that there is no universal trend" and that "there is significant variation across countries" (Zweimuller 2000). Another review, this one published under the auspices of the World Bank, is more

definitive in stating that "On the basis of the much more plentiful information available to today's empirical researchers, there seems to be no support for the Kuznets hypothesis (Ferreira 1999). Aghion and Williamson (Aghion and Williamson 1998), Cypher and Dietz (Cypher and Dietz 1997), Van den Berg (Van den Berg 2001) and others have assessed Kuznets' hypothesis without being able to find recent empirical evidence to support his theory.

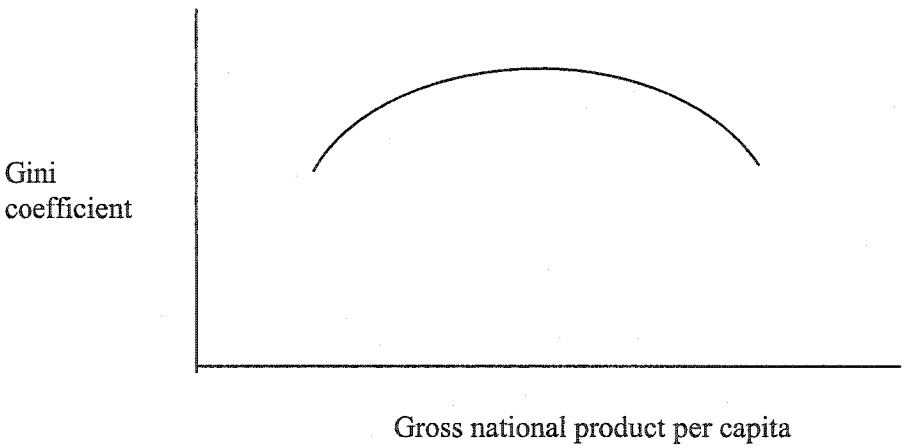

Figure 7: The Kuznets Curve.

While the Kuznets hypothesis is an important consideration, this Chapter offers an analysis of the inverse relationship: the impact of inequality on economic growth. If the level of, or a change in equality does influence economic growth, and considering the direct impact that the tax structure can have on equality, then tax policy must consider this causal chain.

The relationship I conceive, with the Kuznets axes reversed, is also somewhat U-shaped, except it is skewed to the left. See Figure 8 for a graph of the hypothesized relationship. The upward sloping segment starting from the extreme left represents the prevailing orthodox theory that at extremely low levels of inequality (i.e., almost perfect equality) there is little economic incentive to promote growth. Others would argue non-monetary incentives might suffice. In any case, this issue is largely irrelevant, as such low levels of inequality are virtually non-existent in modern societies.

Most principles of economics textbooks will offer the theory that as inequality increases there is an increase in economic growth[89]. Even if we accept the belief that some inequality is necessary to promote growth, my conception of the relationship is that the impact diminishes as inequality increases (i.e., the slope decreases). This continues for a while, but eventually the trend changes, and inequality becomes a deterrent to growth. Then at some point, inequality becomes so extreme that it causes a severe fall off in economic growth (i.e., graphically, at the inflection point there is **a sharp** drop-off).

Note that the exact contour of the curve is not to be taken too literally (the lack of units on either axis is intentional). The exact shape of the curve will vary from economy to economy, and can be altered by public policy. For example, the sharp drop-off may be deferred further out the horizontal axis for economies with higher levels of income[90]. However, my contention is that the gradual decline in "return on inequality", and the

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[89] One text used in college courses states "The basic argument for income inequality is that it is essential to maintain incentives to produce output and income" (McConnell 1987, 775).

[90] An example where policy could come into play is a situation where inequality is **decreasing** and we are moving from right to left along the segment of the curve where economic growth is increasing. An extended period of economic growth could be encountered beyond where the current curve would start trending downward by increasing investment in education.

eventual dramatic fall in economic growth as inequality becomes too severe, are generally applicable.

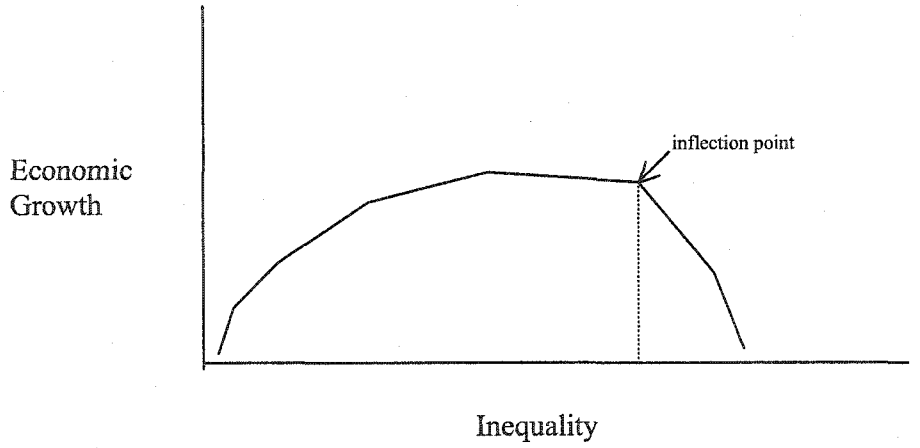

Figure 8: Conceptual Relationship between Inequality and Economic Growth.

What causes growth to diminish with rising inequality, and then the sharp drop-off? It could be a combination of factors. Labor has less incentive to offer themselves as a factor in production because the income gap has become so wide as to discourage the investment in work. Producers will cut back in investment because their markets have diminished - many consumers can no longer afford their products. Societal problems may be exacerbated to the point of social unrest, disrupting economic activity. The illusion of social mobility may become all too apparent to those without equal opportunity. It is not hard to imagine that once such a scenario is in place; things could deteriorate very quickly, and be difficult to reverse (or reversal could be difficult to resist - depending upon your position).

Supporting Analysis – Development Economics

While the relationship between inequality and economic growth has long been considered, historically it was the impact of economic growth on inequality that received the most attention. In the past few decades however, there has been an emergence of thoughtful consideration on the inverse relationship, how inequality influences economic growth. The vast majority of this has come from the field of development economics (see the section "The Unconventional Wisdom - Redefining Development" of Chapter IV for more on development economics). While still a relatively understudied phenomenon, there is a growing body of work on which to build.

This section will offer a survey of this body of work. I will introduce the topic by looking at what Economic Development texts have to say on the matter. Then I will review a series of quantitative studies, most of which support the contention that income inequality has or can have a negative relationship with economic growth. However, other researchers have offered cautions as to the accuracy or validity of such studies, and some of the most critical concerns will be presented. Next I will discuss studies, some of which have elements of quantitative analysis, which offer interesting and hopefully insightful qualitative analysis in the form of rationale for observed results of a negative relationship between inequality and growth. I will then report on some studies that, at first glance anyway, would appear to contradict such a conclusion, and therefore my hypothesis. I will conclude this section with a reflection on what all this means with respect to the hypothesis I offered in the preceding section.

The Textbook Answer

If you open up a standard textbook on Economics, Macroeconomics, or Public Finance you are not likely to find much, if any discussion at all on the relationship between inequality and economic growth. Thankfully, the field of Development Economics has more incentive, and perhaps more insight, with respect to pursuing this topic.

In *Economic Development* (Todaro 2000), Todaro states that development community has been "strangely silent" on the relationship between inequality and economic growth. However, the "traditional argument" is that inequality is a necessary condition for growth. Todaro then proceeds to offer the counterarguments, reasons why "greater equality in developing countries may in fact be a condition for self-sustaining economic growth". To summarize his counterarguments:

1. Inequality, poverty, and lack of access to credit leads to high birth rates and lack of investment in education for children.
2. The wealthy do not save and invest as much as necessary to promote growth, instead consuming in ways that deplete resources.
3. Lower incomes lead to poor health and nutrition and therefore lower productivity.
4. Lower income levels lead to less demand for locally produced goods.
5. Wide income gaps act as a psychological barrier to public participation in the development process (or in the democratic process).

Aghion and Williamson offer similar arguments and cite empirical evidence in *Growth Inequality and Globalization: Theory History and Policy* (Aghion and

Williamson 1998). They refer to the conventional wisdom that inequality provides incentives for growth as a fallacy. While the authors show respect for, and claim to work within the framework of neoclassical economics[91], they introduce influencing factors such as credit-market imperfections, moral hazard, labor-market institutions, and market volatility. Their conclusion is that excessive inequality is detrimental to growth, and that these factors can help explain this relationship and at the same time be reconciled with prevailing microeconomic theories.

In *The Process of Economic Development*, California Economics professors Cypher and Dietz identify "inequalities in the existing distributions of income and wealth" as their first "potential internal barrier to development" (Cypher and Dietz 1997 18). They also offer a side panel discussion of "Inequality as a Constraint on Growth". Their conclusion is that not only is inequality a constraint on growth, it is a "quite substantial" constraint. They cite "recent research that would suggest that, *ceteris paribus*[92], after twenty-five years, GDP per capita would be 8.2 per cent higher in a country with low inequality than in a country with inequality one standard deviation higher" (Cypher and Dietz 1997 51). The authors later revisit this issue and cite a National Bureau of Economic Research study that essentially confirmed previous findings, but emphasized that forms of inequality other than income inequality, in particular inequality in land distribution, are significant determinants of economic performance (Cypher and Dietz 1997 253).

In Hendrik Van den Berg's text *Economic Growth and Development* there is

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[91] Neoclassical economics encompasses a number of assumptions that promote the advantages of the reliance on market mechanisms and the pursuit of maximizing individual satisfaction, with corresponding implications for a bias against government interference that (according to the theory) inherently introduces inefficiencies.

[92] This is a Latin term economists frequently employ, which translates into "other things being equal".

general agreement with Cypher and Dietz (Van den Berg 2001, 497-509). A Professor from the University of Nebraska, he starts by responding to the "wild (mis)interpretations of early empirical results". Empirical studies that show a statistically significant negative relation between inequality and growth are cited. One rationale that Van den Berg offers for explaining this relationship is that healthy economies require a large middle class as consumers[93]. Rather than inequality being a sign of free-market incentives at work, Van den Berg stakes out the position that "a high degree of inequality is a clear sign that institutions are not providing the proper incentives for economic growth" (Van den Berg 2001, 508). He finds it particularly troublesome when market barriers or market intervention are the cause of inequality. In such cases he feels that redistribution is not the answer, fixing the institutions is. Since the Massachusetts tax structure is an institution that is contributing to inequality, and generating redistribution in the wrong direction, it needs to be fixed.

Quantitative Analysis

In addition to receiving increasing coverage in Economic Development texts, academic research on the relationship between inequality and growth is becoming more prevalent. Most studies seem to concentrate on attempting to use quantitative analysis to find empirical evidence of a relationship between inequality and growth.

The Development Research Group of the World Bank produced a 2001 report titled *Inequality **does** cause underdevelopment* (their emphasis) (Easterly 2001). The author cites three principal mechanisms that have been offered for explaining why high

[93] In *Social Inequality* Marger offers an interesting take on middle-class consciousness versus "the reality of class in the United States", which is much more stratified than people like to think (Marger 2002, 27-34).

levels of inequality hinder economic development. Again summarizing:

1. The poor, who represent the majority of people, will vote for redistributive policies rather than growth policies.
2. The rich will suppress democracy to preserve their position (perhaps anticipating mechanism number 1).
3. Capital markets favor the rich, diminishing investment in human capital (i.e., the poor majority).

The report refers to the concept of an inverse relationship between inequality and growth as "hotly contested". Their literature review finds quantitative studies that both confirm and refute the theory (Easterly 2001).

The model developed by the Development Research Group uses commodity endowments as an instrument for inequality, and introduces three intermediate determinants of development: institutions, openness, and schooling. They report the empirical results show a "very strong" association between inequality and income levels. The middle class (i.e., middle three quintiles) share of income was used as a proxy for equality. A cross-sectional study of countries exhibits a strong relationship between where countries fall when ranked by middle class share and where they fall when ranked by per capita income (in both cases countries are grouped into three ranks - high, medium and low). The bottom line conclusion offered is that "The amount by which inequality hinders development is economically meaningful as well as statistically significant" (Easterly 2001).

The survey by Zweimuller referenced in the previous section also addressed the

impact of inequality on economic growth. The paper notes that the study of empirical evidence on this relationship is much less extensive or mature when compared to research on the Kuznets hypothesis. However, Zweimuller does report on a couple of 1994 studies that show "higher inequality *at the beginning* of a longer-term period has a negative impact on the growth rate during the subsequent period". It is important to note the author's emphasis on inequality being observed at the beginning of the period. In addition, note that the inequality under study in these cases was income inequality (Zweimuller 2000).

A later report performed by the World Bank repeated these studies with more recent data. They found the same negative relationship (i.e., higher inequality and lower growth) although the results were not always statistically significant. However, when the inequality under study was asset inequality rather than income inequality they found a "significant and robust negative effect on subsequent growth" (Deininger and Squire 1998).

The previously cited study by Ferreira tells a slightly different story than Zweimuller, but is in full agreement with the World Bank report. While Ferreira is less conclusive on the impact of **initial income** inequality, he contends it "does proxy for more fundamental inequalities of growth". His conclusion is that **asset** inequality is a determinant of growth, and the relationship is negative (Ferreira 1999).

Most of these studies are econometric in nature. There are some compelling challenges to this body of work. A 1999 paper by Lundberg and Squire argues that inequality and growth are jointly determined (in econometric terms inequality would be an *endogenous variable*). Any models that do not account for this (typically with

simultaneous equation models) would be suspect at best (Lundberg and Squire 1999). A 2002 study from the Inter-American Development Bank that employed evidence from United States data "finds some evidence of a negative relationship between inequality and growth" but strongly cautions that the relationship "is not robust to small changes in the data or econometric specification. In particular, the study notes "small differences in the source of data used to measure inequality can make a big difference in the observed relationship between inequality and growth" (Panizza 2002). A 2003 study by Banerjee and Duflo offers cautionary analysis under the clever title *Inequality and Growth: What **Can** the Data Say?* (my emphasis). One point they make is that analysis routinely imposes a linear relationship, which they feel is clearly inappropriate, and can lead to "serious misinterpretations" (a quick peek back at Figure 8 shows that my theory clearly assumes the relationship is **not** linear). The authors also mention that despite advances in data collection (they cite in particular the work of Deininger and Squire) there is still plenty of room for measurement error. Their conclusion is that "while some interesting evidence is beginning to trickle in, we are only at the beginning of an enormous enterprise" (Banerjee and Duflo 2003).

A paper from Gerald Scully from the University of Texas addresses the "widely recognized trade-off between equity and economic growth". Not interested much at all in how inequality can influence growth, the author seeks to find the optimal or growth-maximizing **level** of taxation, as well as the "optimal or growth-maximizing income inequality for the United States". His estimate of the growth-maximizing level of inequality is represented by a Gini coefficient of 35.9 (Scully 2003). Keep this number in mind when in the concluding section of this chapter we see the historical data on income

inequality in the United States, and Massachusetts.

Qualitative Analysis

Some studies concentrate more on a qualitative analysis of why inequality may be a detriment to growth. Zweimuller cites some possible explanations for such findings, and he identifies areas where he feels future research should focus. The rationale offered for a negative inequality growth relationship includes political instability, lack of social capital and imperfect capital markets (e.g., liquidity constraints). An interesting variation on the income distribution issue is explored and offered as an issue in need of further study. This is the *functional distribution* of income, that is, the distribution between wages and profits. Another area of interest is the impact of capital taxation on growth, a relationship on which the author is skeptical (Zweimuller 2000). Ample evidence to support such skepticism was offered in Chapter IV.

Professor Chris Tilly of the Department of Regional Economic and Social Development at University of Massachusetts Lowell recently authored an article for *Dollars & Sense* magazine on the relationship between inequality and growth. He offers rationale for how equality can boost growth. "Match effects" refers to the premise that skilled workers are more productive when there are other skilled workers to collaborate with, a condition much more likely to occur with higher levels of equality. "Pressure effects" refer to the pressure put on "economic elites" to boost productivity when they cannot count on exploiting low-wage workers. Also mentioned is the social conflict fueled by inequality, and the inefficient allocation of resources that results if large investments in security are necessary (Tilly 2004).

Ferreira discusses an explanation that has been offered for the negative relationship between inequality and growth that is very relevant to both this discussion and that of the previous chapter. This is the *median voter theorem*. The conjecture here is based on the observation that as income inequality increases, the spread between the mean income and the median income will widen (i.e., the distribution will become more skewed to the right). The median voter theorem posits that the preferences of the median voter will prevail. In general, so the theory goes, we expect voters with a lower income to be more in favor of higher proportional tax rate, or to support a more progressive tax schedule. The theory goes on to suggest that the "distortionary effect of taxation" will introduce disincentives to work and save, and therefore growth is diminished. The theory would clearly be in dispute with the analysis offered in Chapter IV. Given the multitude of issues the electorate must consider, the inordinate influence of those above the median (Marger 2002), and that those below the median often do not vote in their own best interests (Bartels 2004; Shea 2004); it is not clear how much relevance the median voter theorem holds. In fact, after offering an explanation of the median voter theorem, Ferreira goes on to say "the empirical evidence on the intermediate role of distortionary taxation as the channel linking higher inequality to lower growth is not particularly supportive". Explanations that Ferreira, and I, would prefer to rely on are market imperfections and social conflict (Ferreira 1999).

A 1996 Inter-American Development Bank analysis does not refute Ferreira's findings. Their study, based on the period 1960 – 1985, finds the impact of income inequality on GDP growth to be less than the impact of secondary school enrollment, yet

still substantial[94]. Neither do they refute the explanations offered by Ferreira based on political alienation of the median voter theory. However, the Inter-American Development Bank prefers to concentrate on economic rationale. In particular they offer that the "micro-economic behavior of the poor" could explain a relation where lower inequality leads to higher aggregate savings and investments rates, which in turn lead to greater growth (Birdsall et al. 1996).

A survey and study conducted in 1996 on inequality and growth reports that 23 recent studies "deliver a consistent message: initial inequality is detrimental to long-run growth". However, the author offers "It is not income inequality per se that matters, however, but inequality in the relative distribution of earnings and political power" (Benabou 1996). Hernando DeSoto's book on *The Mystery of Capital* is based on the observation that for capitalism to succeed we need a system of capital, and for many people of the world access to capital is not available (DeSoto 2000). DeSoto was concentrating his thoughts on underdeveloped regions of the world where, for example, people cannot even assume ownership of the structure in which they live, and certainly cannot take out a mortgage on it. While access to capital is much more abundant in the United States, the relative ability to access capital is one of the manifestations of inequality in our society.

Access to capital is a major component of the analysis offered by Persson and Tabelline in their paper *Is Inequality Harmful for Growth?* (Persson and Tabellini 1994). Their "tentative conclusion" is that inequality is indeed harmful to growth. Most interesting is their rationale, which is:

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[94] They estimate that (other things being equal) "after 25 years, GDP per capita would be 8.2 percent higher in a country with low inequality than in a country with inequality one standard deviation higher" (Birdsall 1996).

> *The arguments that lead us to this conclusion run as follows. Economic Growth is largely determined by the accumulation of capital, human capital, and knowledge usable in production. The incentives for such productive accumulation hinge on the ability of individuals to appropriate privately the fruits of their efforts, which in turn crucially hinges on what tax policies and regulatory policies are adopted. In a society where distributional conflict is more important, political decisions are likely to result in policies that allow less private appropriation and therefore less accumulation and less growth. But the growth rate also depends on political institutions, for it is through the political process that conflicting interests ultimately are aggregated into public-policy decisions.* (Persson and Tabellini 1994, 1)

This rationale is a variation on the median voter theorem. In some sense it could be interpreted as saying if tax (and other) policies lead to too much inequality then a reactionary force will result that will in turn lead to tax (and other) policies that will suppress growth. My argument is that we do not have to wait that long to see the negative impact of inequality on growth. Before the "distributional conflict" manifests itself in "reactionary" public policy it will manifest itself directly in the economy in the form of disincentives to work, spend, and invest; and more generally social unrest that one way or another will disrupt economic activity.

Contradictions?

Some studies, at first glance, might appear to contradict a finding that higher inequality leads to slower growth. In *A Reassessment of the Relationship Between Inequality and Growth* (Forbes 2000), the author comes right to the point. The very first sentence of the abstract states: "This paper challenges the current belief that income inequality has a negative relationship with economic growth". Indeed, an econometric model using, what is claimed to be, improved inequality statistics and panel data (i.e.,

cross-sectional units, in this case countries, collected over time, in this case over six, 5-year periods[95]) results in a statistically significant positive relationship between inequality and growth. Some caveats are in order, some of which are offered by the author. In fact, in the conclusion, the author explicitly states, "these estimates do not directly contradict the previously reported negative relationship between inequality and growth". One reason is that the positive relationship reported was over the short run, 5 years. Other studies tend to study longer periods, and in a development context I think the long run is more relevant. In any case, the author admits the long run relationship between inequality and growth might very well be negative. The author also admits the small number of countries (45) covered in the study might not be representative.

What was most interesting for me was that earlier studies on this topic (in the late 20th century) tend to be written as "minority reports" (my wording) offering contradictory evidence to a prevailing belief that inequality is necessary for growth. Now (in 2000), along comes a study that attempts to offer a "reassessment" of a negative relationship that is viewed as "so widely accepted" that it has "motivated a series of papers" attempting to **explain** the relationship. Speaking of explanations, as for a conjectured positive relationship between inequality and growth, the author offers the median voter theory that says with large inequality voters will elect to institute higher rates of taxation "to finance public education, which will increase aggregate human capital". It is interesting to consider that the theoretical response to a regressive tax structure that promotes inequality is higher taxes that (right now) most voters appear to be strongly opposed to.

Another study reports statistics that would indicate a positive relationship between inequality and growth. The title is *Are Inequality and Poverty Harmful for Economic*

[95] See (Gujarati 2003) for a more detailed explanation of using panel data in econometric models.

Growth: Evidence from the Metropolitan Areas of the United States (Bhatta 2001). As you can tell from the title, this study was conducted within the United States only, and applies to Metropolitan Statistical Areas (MSA). Greater Boston would be an example of an MSA. Correlation and regression model results show a statistically significant positive relation between inequality in 1980 (employing the Gini index), and growth between 1980 and 1996 (as measured by per-capita personal income). One limitation of this study is that it only covers one period of economic growth. Also, note that the results relate, as the author explicitly says, to **initial** inequality. It says nothing about changes in inequality over time. In my framework, it is changes in inequality over time (i.e., the magnitude and direction along the horizontal axis in the conceptual diagram in Figure 8) that is of primary concern. Banerjee and Duflo's work cited earlier is one example of a study that offers evidence that it is changes in inequality over time that is most likely to exert influence on growth. Despite these issues, the study does offer some evidence that there can be a positive relationship between inequality and growth[96,97].

Reflections

Which answer is correct? At one time, it was assumed that inequality was necessary to promote growth. Then came literature, primarily from the economic development community, which would indicate inequality is likely to hinder growth over the long run. Now we are starting to get some studies that purport to offer empirical results of a positive relationship, higher inequality leading to higher growth. There is

[96] The author states that even if we accept a positive relationship, it "does not necessarily mean that redistributive policies are undesirable" – however I suspect he was not referring to redistributive policies that transfer from the poor to the rich.
[97] The author also found strong evidence that higher levels of poverty lead to lower economic growth.

rationale that can and has been offered to support each view. My answer should be apparent from looking at Figure 8. The theory I have offered is that they all might be correct! Whether or not the relationship is positive or negative, that is, whether the line in the graph has a positive or negative slope, depends on:

- Where you are on the horizontal axis (i.e., the degree of inequality),
- What direction you are heading in (i.e., is inequality getting better, or worse), and
- What time horizon you are interested in (i.e., is 5 years out enough or is a longer term "generational" perspective more appropriate).

Although the precise contour of the curve in Figure 8 is conceptual, the general shape would appear to be supported by studies and evidence that have emerged from the development community in the past quarter century. Another way of looking at this is to consider that in addition to the importance (if not always the reality) of the poor being beneficiaries of the growth process, as one paper cited above offered, "they can be an engine of growth as well" (Birdsall et al. 1996).

That leaves the question, how relevant is this relationship to Massachusetts? I will turn to this topic in the next section.

Supporting Analysis – Massachusetts

In the book *Development and Underdevelopment: The Political Economy of Global Inequality* (Seligson and Passe-Smith 2003), a very interesting graph is presented on page 450. The World Bank originally produced the graph, which has income inequality on the horizontal axis, and economic growth on the vertical axis, as in Figure 8

in this thesis. Instead of a line showing a relationship over time, they have positioned points as snapshots of the experiences of eight Latin American countries and seven East Asian countries over the period 1965-1989. The results are dramatic, and are reproduced in Figure 9 below. All the Latin American countries are in the lower-right quadrant, with high inequality and low economic growth. The East Asian countries are all in the upper-left quadrant, with lower inequality and high growth[98]. The authors do not extrapolate from this and say it proves inequality is a constraint on growth. They concede that more work is necessary but at a minimum, these results should be "sufficient to reject the conventional wisdom of a necessary link between high income inequality and rapid growth".

Massachusetts is of course not part of these analyses, but the study might still have relevance to the case. Using 1999 income inequality data from MassINC, I calculated the same metric used for the horizontal axis in the World Bank graph, the ratio of the income share of the top 40% to the bottom 20%. For Massachusetts, this number was 25.6 (for 1989 it would have been 19.5 – another indication that inequality is getting significantly worse). The Massachusetts experience is depicted in Figure 9. The level of income inequality in Massachusetts is just to the right of Peru, and left of only Columbia, Mexico, and Brazil (i.e., Massachusetts inequality is worse than Peru, but not as bad as Columbia, Mexico, and Brazil). Then, using U.S. Census Bureau data, I calculated an economic growth factor, analogous to that in the graph, based on per-capita gross state product. The result was an average annual growth rate of 4.99%, on a par with some of

[98] In their Economic Development text, Cypher and Dietz discuss an econometric model that attributed around 90% of growth in Southeast Asian countries to "exceptionally high levels of primary school enrollment and equality". They refer to equality as a component of *social infrastructure*, which they claim is just as important as physical infrastructure to economic growth (Cypher 1997).

the East Asian countries but less than some of them. The dot for Massachusetts on the graph in Figure 9 is in the upper right quadrant, high inequality and relatively high economic growth.

Comparing Massachusetts to a Latin American county (or an East Asian country) is of course fraught with danger. That is not my intention. There are clearly factors that allow Massachusetts to withstand higher levels of inequality. The question is: do we really think that Massachusetts can have inequality approaching the levels of Columbia and Mexico, and still maintain growth comparable to Japan, Singapore and Hong Kong? Looking at this another way, if we accept economic growth as an objective, are we not better off modeling ourselves on East Asian countries rather than Latin American countries when it comes to inequality? Efforts to promote equality in the United States must consider the socio-political dynamics of our system. However, promoting inequality via the tax structure should not be accepted.

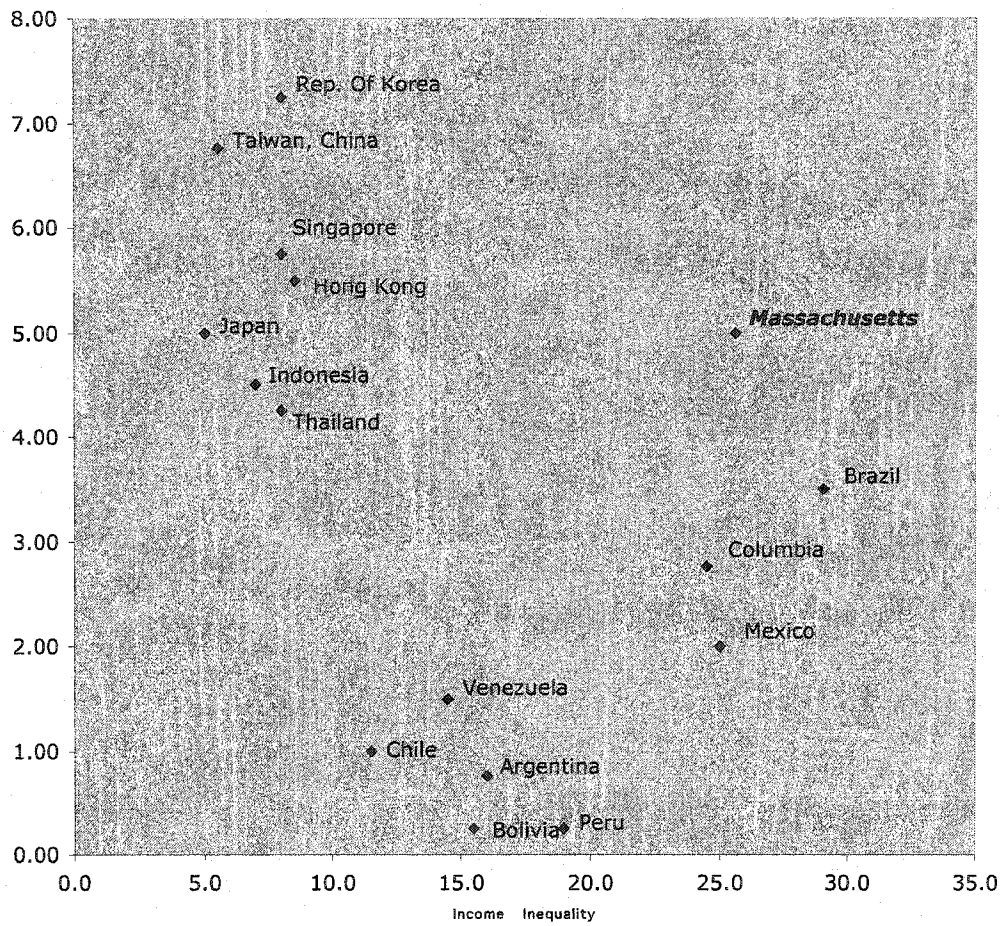

Figure 9: Inequality vs. Growth in Latin America, the Far East, and Massachusetts[99].

An international comparison that might hit closer to home is with Great Britain. Great Britain shares certain commonalities with the United States, including Massachusetts, not the least of which are conservative economic policies (in particular in

[99] Source: data for countries obtained from *Development and Underdevelopment: The Political Economy of Global Inequality* (Seligson 2003 - which cited the World Bank as the their source). Massachusetts's inequality derived from MassINC data. Massachusetts's economic growth derived from United States Census Bureau data.

the Reagan-Thatcher eras) and severe inequality. Respected British economist and writer Will Hutton observed that the bottom 10% in the United States are actually poorer than the bottom 10% in most other industrialized nations, only the poorest 10% in Britain are worse off (Hutton 2003, 130).

Great Britain came to my attention while examining Gini coefficients and historical GDP data from the World Bank. I calculated changes in Gini coefficients between 1965 and 2000, and then sorted countries in descending order. The United Kingdom was number four. That is, it had the fourth highest increase in inequality. Then I noticed that annual GDP rates had fallen from 3.2% in the 1980s, to 2.2% in the 1990s. Hutton observes that although the British economy has exhibited some improvement "after decades in which Britain was unambiguously the worse-performing economy in Europe", recent results are "profoundly disappointing" (Hutton 2003, 200). While not a fundamental element of his analysis, Hutton has concluded, "inequality is not a source of economic and social strength" (Hutton 2003, 19).

A paper published by the Bristol Business School of the University of the West of England on Primer Minister Thatcher's tax policies (in the years 1979 to 1990) comes to the conclusion that tax "expenditures" to promote the "enterprise economy" may have had some short-run impact, but lack evidence of a long-run economic benefit. They also observed "the most salient side effect of all the TEs (Tax Expenditures) was their promotion of greater inequalities between the rich and the poor" (Collier and Luther 2002). Subsequent decreases in economic growth, as quantified in the World Bank data, have not been directly tied to these policies and their impact on inequality. However, if

there is a cause-effect relationship, it does not bode well for the state of Massachusetts where a similar story is playing out.

That still leaves open the question as to whether or not a state like Massachusetts exhibits any meaningful and discernable relation between inequality and economic growth. A definitive study on this issue would require extensive data collection and a very thorough econometric model, and is beyond the scope of this thesis. However, a look at simple correlations for the 50 states indicates that just such a relationship might exist. Since the conceptual relationship illustrated in Figure 8 is related to changes in inequality, I calculated changes in inequality (using Gini coefficients) over 10-year periods, for each state. I then calculated growth rates using personal income per-capita data for 1 year trailing 10-year periods. Finally, I calculated correlation coefficients, which are presented in the table that follows.

Time Periods Compared	Correlation Coefficient	Statistically Significant[100]
1959 to 1969 Inequality – 1960 to 1970 Growth	-0.57	Yes
1969 to 1979 Inequality – 1970 to 1980 Growth	-0.54	Yes
1979 to 1989 Inequality – 1980 to 1990 Growth	-0.25	Yes
1979 to 1999 Inequality – 1990 to 2000 Growth	0.05	No
1979 to 1999 Inequality – 1990 to 2000 Growth (Alaska omitted[101])	-0.12	No

Table 13: Correlation of Income Inequality to Economic Growth in the U.S.[102].

[100] Statistically significant at the .05 critical value level.
[101] Alaska was omitted as an outlier due to extreme values for changes in inequality (where it was one of only two states with a negative value – that is income became **more** equal) and changes in personal income per-capita (where Alaska's growth was 3 standard deviations lower than all other states). Alaska is frequently omitted from econometric studies (for example, see Chernick, 1997), including those related to taxes, due to unique economic issues, in particular a heavy reliance on severance taxes (i.e., oil and natural gas). A study of the Minnesota tax structure referred to this as the "Alaska problem" (Ettlinger et al. 1998).
[102] Source: United States Census Bureau.

For the first three periods, there is a statistically significant correlation with a fairly large negative relationship (i.e., higher inequality – lower growth). For the last period, the relationship is almost statistically significant at the 0.10 level of significance once Alaska is dropped as an outlier[103]. A correlation does not prove a cause effect relationship. However, it does offer encouragement that a more extensive study could establish one.

Fortunately, economists at the Hunter College Department of Economics concluded just such a study. In a paper titled "*Redistribution at the State and Local Level: Causes and Consequences*" (Chernick and Sturm 2004) the authors describe empirical models they developed to investigate the effects of state redistribution on economic performance. They defined regression models with various measures of economic growth as the dependent variable. In addition to income distribution, the model controlled for explanatory variables such as:

- Tax progressivity,
- Progressivity of neighbor states,
- Level of state welfare benefits,
- State share of educational expenditures, and
- Spending on higher education.

The results of their work are compelling. In particular, they report:

> "*Through all these variations of the growth regression, income inequality showed a consistently negative and highly significant coefficient. The policy implications that inordinate income polarization is bad for growth should not be lost.*"

[103] See the note above for the justification of dropping Alaska as an outlier.

Gerald Scully, Professor of Economics from the University of Texas, authored a 2003 study of *Optimal Taxation, Economic Growth, and Income Inequality* (Scully 2003). Directed toward tax policy in the United States, he set out to establish the existence of a distribution of income that maximizes the growth rate (other things being equal, of course). Scully then proceeded to contend there should be an optimal level of taxation that will maximize the growth rate. His position was basically that "non-productive" government expenditures lower the growth rate, so he was arguing against taxation as transfer payments, a position in agreement with the premise of this thesis (except he was almost certainly not considering transfer payments from the poor to the rich).

The most interesting and relevant result produced is the author's derivation of the growth maximizing level of inequality. The number he derived was a Gini coefficient of 35.9. If you look ahead to Figure 10 later in this Chapter, you can see that Massachusetts crossed that level in the early 1980s and has continued on an upward path to a value of 42.5 in 1999. If Scully's work is to be taken seriously, we are already well within the range where economic growth is sloping downward in Figure 8 - presented earlier in this Chapter as the Conceptual Relationship between Inequality and Economic Growth. Even if he is off by a substantial amount, the levels and trend of the Gini coefficients for Massachusetts have to be disturbing for those who focus on economic growth as the key to development.

Is Massachusetts unique among the 50 states in this regard? Perhaps not unique, but we are arguably one of the handful of states most likely to face these troubles. The most recent Gini coefficients available, for 1999, show only 16 states with worse

inequality. Moreover, the trend is not good. The Economic Policy Institute published a study of widening income gaps over the past 20 years. They rank states using income ratios for top and bottom income quintiles over 3 periods covering the 1970s, 1980s, and 1990s. In all three lists, Massachusetts is in the "top" 5; that is with the highest trends in worsening income inequality (New York is the only other state also in the top 5 on all three lists) (EPI 2002a).

In the previous section, a number of rationales to explain the negative impact of inequality on growth from the field of development economics were offered. Some of these might be relevant to and observable in the state of Massachusetts.

Todaro suggests wide income gaps act as a psychological barrier to public participation. Public participation in the democratic process, or lack thereof, can be quantified via voter participation rates. In the 1960 Presidential Election 75.61% of registered voters[104] turned out for the election. In 2000, the rate had fallen to 57.60%. Voter turnout in non-Presidential Elections has followed a similar trend. While this fall off in voter participation in Massachusetts mirrors the rest of the country, it is nevertheless an indicator of low public participation. Commonwealth Magazine, as cited by Common Cause Massachusetts, ranks the state 49th on competition because one party dominates legislative seats (Allen 2003). That could both help explain low turnout and suggest Massachusetts may suffer more than other states going forward. Further, as previously noted, voter participation among the lower income groups has been historically much lower. The widening gap in incomes we are seeing is quite likely

[104] In 2000 only 76.4% of people eligible to vote had registered, a rate that actually puts Massachusetts in the top 10.

contributing to the voting trends, which may in turn lead to a negative impact on growth (and, more generally, development)[105].

The Development Research Group of the World Bank observed that capital markets favor the rich, diminishing investment in human capital (Easterly 2001). In the case of Massachusetts, our recent record of spending on education demonstrates the lack of investment in human capital. Andrew Reschovsky is a professor of applied economics and public affairs at the University of Wisconsin. The Massachusetts Budget and Policy Center (MBPC) refers to Reschovsky as "one of the nation's leading experts on the financing of state and local governments". In a recently published paper on *The Impact of State Government Fiscal Crises on Local Governments and School* professor Reschovsky calculates "real" per-pupil state funding of K-12 public education. Real spending factors in changes in enrollment, as well as inflation, in the cost of educating students. His numbers show that over the two year period ending in fiscal year 2004 Massachusetts cut state aid for K-12 public education more than any other state, by 14.3% (the national average was a 4% reduction) (Reschovsky 2003). The MBPC refers to this data in a report comparing the Commonwealth's public school funding to the rest of the nation. They also note that as a percentage of personal income, Massachusetts ranks 44th in state and local spending on public education. Factoring in income levels and cost-of-living differences is important because the provision of educational services costs more in Massachusetts than most other states (as would be true for other goods and services). Education is more than just a service though. In terms of promoting economic growth one study of business location decisions listed the top three reasons for choosing a location as

[105] Since 1990, Massachusetts has experienced a net out migration among states, but due to a large international immigration, the state's labor force has increased (Nakosteen 2003). Migration patterns could be a factor in both voter participation and income inequality.

education, education, and education (Cohen 2000). The MBPC further observes the burden state policies are having on cities and towns. In Massachusetts, local communities provide 63.5% of the funding for K-12 education; the national average is only 47% (Greenberg 2004). Potentially complicating matters is the aging population of Massachusetts, which Commonwealth Magazine recently conjectured could lead to erosion of support for local school systems (e.g., Proposition $2^{1/2}$ overrides) (Sullivan and Leiserson 2004).

In an interview with Eliot Winer, the Chief Economist in the Massachusetts Economic Analysis Office, he offered the opinion that if inequality became severe enough, that it certainly could be a detriment to economic growth. Mr. Winer was not willing to concede, however, that inequality in Massachusetts had reached such proportions (Winer interview 2004). An assessment of how well the state is distributing the "common wealth" is the topic of the next section.

Common Wealth?

If the relationship between inequality and growth exists as I have conceptualized in figure 8, then what we need to know is, where we are on the curve, in what direction we are headed, and how close we are to the inflection point where the steep drop-off occurs. As documented by so many observers (e.g., Krugman, Piketty and Saez, Danziger and Gottschalk, the Institute for Research on Poverty) in the United States (as is true for most of the rest of the world) we are clearly moving along the horizontal axis to the right. There is no conclusive evidence that in Massachusetts we have reached the inflection

point. However, I will cite ample evidence that we are heading towards the edge of what could be a proverbial cliff.

The World Bank publication *World Development Report 2000/2001: Attacking Poverty* presented dramatic and disturbing figures on trends in worldwide inequality. For example, "In 1960 the per capita GDP in the richest 20 countries was 18 times that in the poorest 20 countries. By 1995 this gap had widened to 37 times". At the level of individuals, the report shows income inequality on the rise since the early 19th century. The best news they can report is that the increase in inequality was at a slower rate in the 20th century than in the 19th century.

World Development Reports provide snapshots of inequality at the country level. The 2004 report provides Gini coefficients, based on data from the late 1990s to early 2000s, for over 100 countries. These Gini coefficients range from about 20 to 60. The fact that the United States falls just about in the middle of that range should not provide comfort. We have a higher Gini coefficient (i.e., higher inequality), than the vast majority of the world, including every country among the original members of the European Union. Table 14 provides a representative sample of country Gini coefficients, just to give a sense of where we stand.

Country	Gini Coefficient
Japan	24.9
Norway	25.8
Germany	28.3
France	32.7
Canada	33.1
United Kingdom	36.0
United States	40.8
China	44.7
Mexico	54.6
Brazil	59.1

Table 14: Gini coefficients by Country[106].

Within the United States we would like to know more about the relatively high Gini coefficient of 40.8 (that value is as reported by the World Bank for 2000, United States Census Bureau figures are significantly higher, and have been increasing for the past 35 years – see Figure 10 later in this section). I have reproduced a portion of Table 2-3 from *Social Inequality* (Marger 2002). Using United States Census Bureau data, this table shows the percentage of income received by each quintile of income earners ranked from highest income earners to lowest. Note in particular that in 1970 the ratio between the highest and poorest was "only" 7.57, but by 1999 that had increased to 10.98[107].

[106] Source: World Bank - *World Development Report 2004: Cultural Liberty in Today's Diverse World*, Table 14.

[107] As discussed in the introductory section of this chapter, Marger stresses that inequality is more than just income inequality, and that there is more to the inequality of income (e.g., race, ethnicity, age, gender).

Category	1950	1960	1970	1980	1990	1999
Highest 20%	42.7	41.3	40.9	41.1	44.3	47.2
Fourth 20%	23.4	24.0	23.8	24.4	23.8	23.0
Middle 20%	17.4	17.8	17.6	17.6	16.6	15.6
Second 20%	12.0	12.2	12.2	11.6	10.8	9.9
Poorest 20%	4.5	4.8	5.4	5.3	4.6	4.3

Table 15: Income Shares by Quintile[108].

Thomas Piketty and Emmanuel Saez have authored a comprehensive study of the situation in the United States titled *Income Inequality in the United States 1913 – 1998* (Piketty and Saez 2001). Their data shows that high-income earners have "recovered" from the "shock" of World War II and now have shares of income higher than the pre-war period. They report that in the 1960s the top 10% of income earners had approximately a 30 percent share of income. By the end of the century, the share had increased to over 40 percent! They proceed to note that we are approaching levels of income inequality not seen since the "Gilded Age" of the late 19th century. In what may have been a prescient observation, they caution that with the decline in tax progressivity a repeal of the estate tax may enable us to achieve levels of wealth concentration last witnessed in that Gilded Age[109].

Paul Krugman references the Piketty and Saez data often in his compelling writings on the state of the United States economy and the policies behind it (for

[108] Source: *Social Inequality* by Martin N. Marger (Marger 2002, 37).
[109] Johnston cites this data extensively but offers a persuasive argument that they "understate the chasm between rich and poor" because they use pretax income but changes in the tax system and "perfectly legal" methods of tax avoidance greatly favor the rich (Johnston 2003, 40).

examples see Krugman 2003b). In *For Richer: How the Permissive Capitalism of the Boom Destroyed American Equality* (Krugman 2002) he notes emphatically that "The 13,000 richest families in America now have almost as much income as the 20 million poorest. And those 13,000 families have incomes 300 times that of the average families". Krugman is careful to point out that the Piketty and Saez data reveals it is not just the top 20 percent, top 10 percent, or even just the top 1 percent that are benefiting from larger shares of income. Even within the top 1 percent, the top 0.1 percent are benefiting much more than the rest of the top percentile. He also cites data from the Congressional Budget Office to confirm increasing divergence in recent years. "Between 1979 and 1997 the **after-tax** incomes of the top 1 percent of families rose 157 percent, compared with only a 10 percent gain for families near the middle of the distribution" (my emphasis).

MassINC recently released a report titled *The Rise in Income Inequality in Massachusetts and New England* (Sum 2000). Their analysis is based on ranking income earners and measuring the change over time of the income level at various percentiles. They then use ratios of one percentile to another as metrics of inequality. For example, in 1979 the Massachusetts taxpayer at the 90th percentile (meaning they earned more income than 90 percent of all income earners) earned a little over nine times as much as the taxpayer at the 10th percentile. By 1999, this ratio had increased to 11.5 percent, a 25 percent increase! Table 16 below reproduces the MassINC data for all five income inequality measures.

Income Inequality Measure	1979	1989	1999	% Change 1979 - 1999
$90^{th}/10^{th}$	9.2	11.2	11.5	+25%
$90^{th}/20^{th}$	5.6	6.2	6.8	+21%
$90^{th}/50^{th}$	2.3	2.4	2.7	+17%
$80^{th}/20^{th}$	4.4	4.8	4.9	+11%
$50^{th}/10^{th}$	4.0	4.7	4.2	+5%

Table 16: Household Income Inequality in Massachusetts, 1979/1989/1999[110].

Looking at the results from a different perspective, MassINC observes that over the period 1989 to 1999, in real[111] dollars, a larger fraction of households had incomes under $25,000. I think this justifies MassINC's characterization of these findings as "disturbing for the Commonwealth and raising many important public policy questions" (MassINC 2004).

Using similar data, the Mass Budget and Policy Center (MBPC) reached similar conclusions in a report titled *The State of Working Massachusetts in 2002: As Good As It Gets?* (McLynch and St. George 2002). They note that in the 1990s that "Massachusetts was one of only two states in which the poor truly got poorer and the rich truly got richer"[112]. To illustrate this in real world numbers, MBPC states "Between 1989 and 2001, wages at the 20^{th} percentile went down 2.0 percent, falling from $9.31 to $9.12 per hour". No wonder, as the MBPC report also notes, that Massachusetts had the third largest increase in the poverty rate in the country during this period. The official poverty rate is the percentage of the population with income levels below a threshold established

[110] Source: MassINC, who in turn cite the Current Population Survey as their source.
[111] Adjusted for inflation, in 1999 dollars.
[112] Connecticut was the other state for which this was true.

by the government. The fact that before-tax income is considered is only one factor that calls into the question the degree to which this statistic understates the magnitude of the problem of poverty. See *Social Inequality* (Marger 2002, 50-52) and *Asset Poverty in the United States: It's Persistence in an Expansionary Economy* (Wolff and Caner 2004) for discussions that are more detailed.

Analysts at the Massachusetts Department of Revenue Office of Tax Policy Analysis are not surprised by these results. They closely observe revenue streams and in the 1990s, they witnessed significant increases in high-end incomes. No such increases were apparent at the low end of the income scale (OTPA interview 2004).

A quick illustration of the worsening inequality problem is provided in figure 10. This graph presents historical Gini coefficients for both the United States and Massachusetts. The data was acquired from the United States Census Bureau. The data, and the graph generated from it, show both the United States and Massachusetts exhibiting a steadily increasing level of inequality. The Massachusetts levels are not as bad as the nation as a whole, but we are closing the gap!

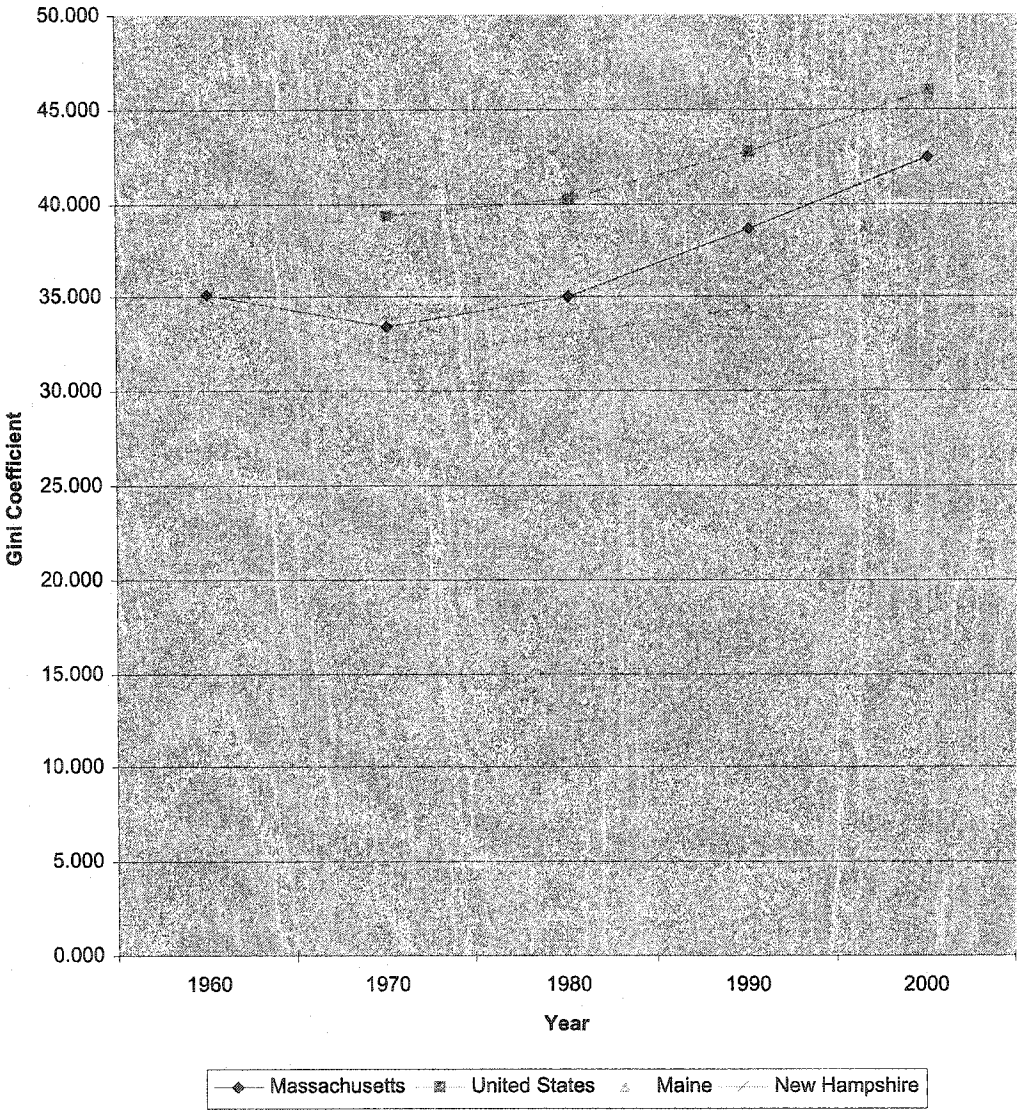

Figure 10: Historical Gini Coefficients[113].

As discussed in the opening section of this chapter, there is more to inequality than income inequality, and more to income inequality than the increasing divergence

[113] Source: United States Census Bureau.

across income levels the data and graph above so dramatically illustrate. Income inequality is also large, and getting worse, across geographical boundaries within the state, and by gender and race.

The tables below use United States Census Bureau data from the decennial census of 1990 and 2000 to illustrate that different regions of the state experience very different levels of development. Note first that while the state was experiencing a healthy increase in income levels, the benefit was being felt unevenly across the state. Hampden County, a relatively poor county became even poorer relative to Norfolk County, one of the more affluent counties in Massachusetts (see Table 2 in Chapter II for a comparison of all the counties of the state in 2000). Second, note that even though incomes were rising, poverty rates increased as well, and again Hampden County was the hardest hit.

	1990	2000	% Change
Massachusetts	$17,224	$25,952	51%
Norfolk County	$21,091	$32,484	54%
Hampden County	$14,029	$19,541	39%

Table 17: Per-Capita Income in Massachusetts/Norfolk/Hampden, 1990/2000[114].

	1990	2000
Massachusetts	8.9%	9.3%
Norfolk County	4.5%	4.6%
Hampden County	13.0%	14.7%

Table 18: Individual Poverty Rates in Massachusetts/Norfolk/Hampden, 1990/2000[115].

[114] Source: United States Census Bureau.

Randy Albelda, a professor of economics at the University of Massachusetts Boston, coauthored a survey of this topic in a 2001 issue of *Massachusetts Benchmarks*. They looked at the persistence of poverty in Massachusetts in the 1990s. Their analysis shows **widening** divergence across not just income levels (as we have already seen), but also based on age, family structure, gender, and race (Albelda and Friedman 2001). Table 19 reproduces data from this Massachusetts Benchmarks report and dramatically illustrates inequality across demographic groups in Massachusetts. The numbers give the percentage of people in various demographic groups that are classified as "very poor" by the United States Census Bureau.

Demographic Group	Percent Classified as Very Poor
All families	3.7%
White families	2.2%
Black families	21.4%
Latino families	12.7%
All persons	4.7%
All children	9.6%
Families with children	6.4%
Married-couple families with children	0.7%
Female-headed families with children	23.5%

Table 19: The Very Poor in Massachusetts, 1997-1999[116].

The categories involving children are particularly disturbing. A recent *Boston Globe* column on *The Hidden Boston* reports that in a city where the downtown median house price is well over a million dollars, "a third of Boston households with children live below or near the poverty line" (Allis 2004).

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[115] Source: United States Census Bureau.
[116] Source: *Massachusetts Benchmarks* (Albelda and Friedman 2001).

Howard Chernick, a professor of economics at City University of New York observes that economic theory would lead one to expect inequality to naturally lead to a more progressive tax system. That is because the marginal cost of raising revenue by taxing lower income taxpayers rises relative to the marginal cost of raising revenue by taxing higher income taxpayers. However, he also notes the evidence that "an increase in income inequality may lead to a reduction in voting rates" (Chernick 2004, 9). Certainly there is evidence for this in voting statistics. United States Census Bureau statistics show that for all income strata below $35,000 the voter participation rate in the 2002 election was less than 40%. For the lowest levels of income, under $10,000 the voting rate was close to 20%. For those with incomes over $75,000, 56.6% voted in the same election.

Referring back to the conceptual relationship between inequality and growth depicted in Figure 8, being aware of how close are we to the precarious fall is a vital matter. It is impossible to say definitively. However, the evidence cited in this section is cause for concern. Beyond that, could not the argument be made that we should apply the precautionary principle[117] in the face of uncertainty? If the hypothesis is that we are approaching the inflection point, the risk-reward ratio becomes untenable for committing a Type I error (i.e., rejecting a hypothesis that happens to be true). Adding another element of concern for avoiding the sharp drop-off depicted in Figure 8, is the possibility that reversing direction may be difficult once on the down slide. In *Why Inequality is Bad for the Economy: Geese, Golden Eggs, and Traps*, the trap referred to in the title is just this problem. The author refers to it as the "inequality trap" where "the notion is that as the gap between the rich and everybody else grows wider, the wealthy become more

[117] The *Wingspread Statement on the Precautionary Principle* states "Where an activity raises threats of harm to the environment or human health, precautionary measures should be taken even if some cause and effect relationships are not fully established scientifically." (http://www.gdrc.org/u-gov/precaution-3.html).

willing to give up overall growth in return for the larger share they're getting for themselves" (Tilly 2004). Essentially the wealthy reach a point where they feel they have too much to lose. Not only are the poor discouraged by the wide gap, but also the wealthy are discouraged from investing their resources in a manner that might improve the productivity of the poor.

While a focus on economic growth has been called into question as a development strategy, the reality is that it is likely to continue to be a focus of public policy. Based on that premise, this chapter has proposed a theory for how inequality, in all its dimensions, but in particular with respect to income inequality, can have a negative impact on economic growth. The conceptual relationship contends that if inequality becomes extreme enough, a much more dramatic and severe fall off in economic growth will be encountered. All evidence leads to the conclusion that inequality in Massachusetts is at very high levels, and progressively getting worse.

If we are indeed approaching the inflection point then we must act. If fairness alone is not enough to compel public policy toward a more equitable tax structure, then the fear of a significant reduction in the rate of economic growth should provide the impetus we need. The next chapter will consider the policy implications of the analysis presented in this and preceding chapters. The objective of public policy should not be to ensure perfect equality. The problem is that existing policy, as manifested in the tax structure, exacerbates already high levels of inequality. This policy needs to change.

VI. RECOMMENDATIONS AND CONCLUSIONS

The recommendations offered herein represent a new design for the tax structure of Massachusetts. First, however, this chapter reviews the logic of the conventional and prevailing mechanisms for promoting development via the tax structure; and then discusses how this logic can be unraveled to expose its serious flaws. These flaws, I argue, render existing public policy ineffective and perhaps even counter-productive. Next, I offer a quick survey of some proposals that have been offered to "reform" the tax structure of Massachusetts. This survey is followed by the recommendations: my proposal for designing the tax structure of Massachusetts to promote economic and social development. Since these recommendations represent a long term, sustainable agenda, some intermediate transition goals are identified. In anticipation of criticisms likely to be raised in opposition to my proposals, I endeavor to preemptively counter these arguments. I conclude with some thoughts on the existing political reality of this issue, including strategies and prospects for realizing the public policy I prescribe.

The Great Unraveling

In 2003, Paul Krugman, Economist and Op-Ed Columnist for *The New York Times*, released his latest book, *The Great Unraveling: Losing Our Way in the New Century* (Krugman 2003b). Krugman's unraveling is the collapse of the "boom economy" of the 1990s. More to the point, it is about market failures and federal policies that exacerbated if not caused the unraveling of the "good times". One policy area that Krugman focuses on is tax policy. He makes a compelling case that changes to the

Federal tax structure introduced by the Bush administration that overwhelmingly favor the wealthy and led to a return to large structural deficits in the name of "tax relief".

In Massachusetts, we have our own version of the great unraveling, despite a rebound in the economy. What is unraveling is the logic behind the prevailing public policy for promoting development through our system of taxation. The unraveling scenario is as follows.

Economic growth is promoted as the key to economic and social development. Growth is to be achieved via market-based incentives that will lead to increased business activity and therefore the creation of new jobs. Tax "expenditures", and reductions in tax rates, are introduced to further stimulate the economy. It is acknowledged, although not widely advertised, that the benefit of these tax policies tend to accrue to those better off; and this bias is not only inherent to our system of free-market capitalism, but also a reflection of a prescription for development that relies on capital investment. Besides, the personal income tax is where most of the state revenue comes from, and it features a flat rate – what could be fairer than that? If we accept the premise that taxes should be more progressive, it is argued that state tax policy is not the place where redistribution is most efficiently introduced in a federal system (Stiglitz 2000, 740-742).

However, as chronicled by Krugman (Krugman 2003b), and many others (Johnston 2004; Kuttner 2004c; CTJ 2003) the federal tax structure has become significantly **less** progressive in the last three decades, and the Massachusetts tax structure is disturbingly **regressive**[118]. While some degree of inequality is to be expected, accepted, perhaps even desirable, inequality in Massachusetts is **very high and getting**

[118] See the last section of Chapter II, in particular Table 9.

worse[119]. The deterioration in equality is caused, in part, by tax expenditures, more commonly and accurately referred to as reductions in corporate taxes that form the backbone of prevailing public policy[120]. This strategy for promoting growth via state tax policy represents a distortion of the market mechanism and is largely **ineffective**[121]. Even when economic growth is achieved, the redistribution of wealth that occurs under current policies means that the growth may come at the expense of **social** development[122]. Furthermore, the high and increasing levels of inequality exacerbated by the Massachusetts tax structure may in the end **diminish** prospects for growth[123]. Finally, if efficiency is a concern, a regressive tax structure that redistributes from the poor to the rich, and thereby increases the need for redistributive expenditures, does not make any sense.

We have a decision to make in Massachusetts. We can maintain the status quo where we argue about the level of revenue required and merely adjust rates accordingly depending on which political constituency exerts the most influence. Alternatively, we can re-evaluate the tax structure in an effort to promote a sustainable form of economic and social development.

Figure 11 illustrates the decision making process based on the analysis presented. Even if we accept the "standard" development goals, metrics, and criteria, the existing tax structure is not getting the job done. Tax incentives to promote business investment

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[119] See the last section of Chapter V, in particular Table 15 and Figure 7.
[120] See the first section on the "conventional" wisdom in Chapter IV.
[121] Refer to the empirical evidence offered in Chapter IV on the ineffectiveness of these market interventions. Also, note that governments often intervene in the marketplace in other fashions, including, but not limited to, demand creation and expenditure priorities (e.g., highways vs. mass transit).
[122] This consideration has not been explored in depth here, but is a cause for serious misgivings with regard to a focus on **economic** development.
[123] A reference to the theory of the relationship between inequality and economic growth offered in Chapter V.

appear to be largely ineffective. If we adopt a more comprehensive definition of development, the existing tax structure is doing more harm than good. It contributes to a widening disparity between the haves and have-nots, and lack of investment in human capabilities. I argue the tax structure of Massachusetts must be designed instead in "*The pursuit of enhanced standard of living and quality of life for the community as a whole while taking ethical, fiscal, and generational responsibility for our finite resources and emphasizing enhancement of human capabilities*" (from Chapter IV).

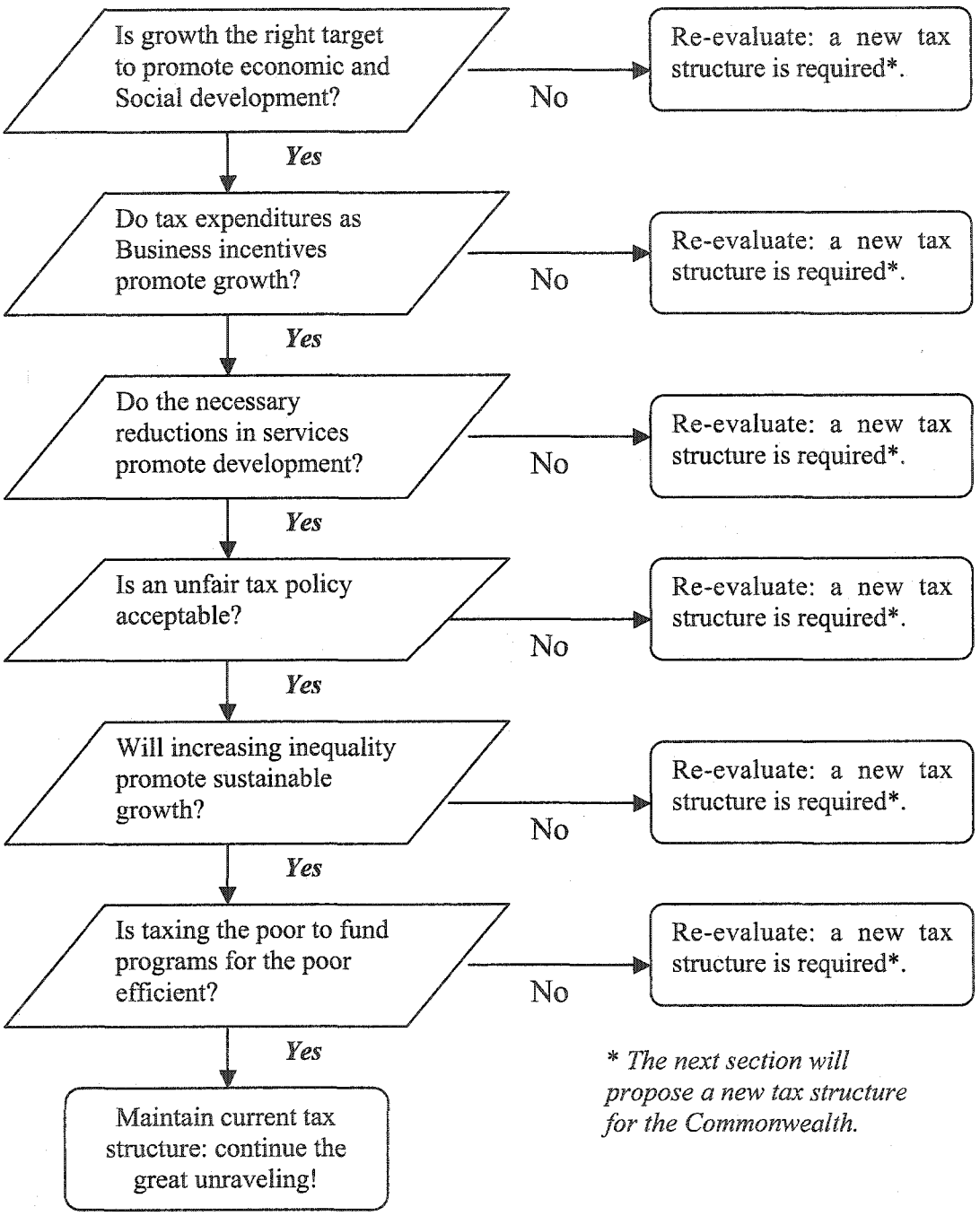

Figure 11: Deciding If We Need to Design a New Tax Structure for Massachusetts

The next section will briefly review existing proposals to modify tax policy in Massachusetts. That will be followed by my recommendations for a new tax structure for Massachusetts.

Current Proposals

Before I describe my design of the Massachusetts tax structure, this section identifies active proposals of prominence for changing taxes in Massachusetts. Some of the proposals discussed have received quite a bit of attention in the press, others are being seriously considered among policy makers or policy advocates. Most of the proposals address issues with respect to revenue generation. That is, they are designed primarily to either decrease the size of government or to raise more revenue to fund state programs. With the possible exception of the ideas contributed by the Massachusetts Coalition for Healthy Communities, none of these proposals constitute a comprehensive redesign of the Massachusetts tax structure.

The proposed tax change with the highest degree of visibility is the attempt to rollback the personal income tax rate to 5.0%[124]. Governor Romney advocates this position, and it is a focal point for organizations like Citizens for Limited Taxation and Government. In opposition to this position, the Massachusetts Budget and Policy Center (MBPC) issued a paper in July of 2004 that examined four questions:

1. Can Massachusetts afford to reduce the personal income tax rate?
2. Should reducing the personal income tax rate be the Commonwealth's top public policy priority?

[124] See Appendix B for a history of the increases, and decreases, to the personal income tax rate.

3. Who would benefit from a reduction in the personal income tax rate?
4. Is a reduction in the personal income tax rate an effective means of stimulating the Massachusetts economy?

They make a compelling case that the answers are No, No, the wealthy, and No (MBPC 2004a).

For some, decreasing the personal income tax rate does not go far enough. They would prefer to see the Massachusetts personal income tax disappear! In fact, just such a proposal was included on the 2002 statewide ballot as an initiative petition. It failed, but not by a wide margin. Of those who voted on this petition, 45% voted yes.

There are advocates for increasing the rate, at least while here is a budget crunch. For example, the Massachusetts Budget and Policy Center proposed such an increase as a fair solution to the budget crisis in *The Massachusetts Budget Crisis: Sources and Solutions*[125] (MBPC 2003). Nobel Prize winning economist Joseph Stiglitz (his text on Public Finance was the foundation for much of the material in Chapter III) co-authored an Opinion Editorial in the *Boston Globe* in April of 2003 offering the position that "raising taxes is the least painful way out of the state's fiscal crisis" (Stiglitz 2003b). However, proposals to increase tax rates tend to get less publicity.

The personal income tax tends to get a lot more publicity, and attention from the voting public (i.e., taxpayers) than corporate income taxes. However there are proposals to make substantive changes there as well. Most of these involve closing corporate loopholes. State Senator Creem, co chair of the Joint Committee on Taxation, has

[125] To illustrate how a restoration of the personal income tax rate to 5.95% would enhance fairness the MBPC notes that the top 20% of income earners would feel most of the burden of such a tax. The Institute on Taxation and Economic Policy study notes that this income quintile pays the lowest rate of overall state and local taxes as a percentage of income.

proposed a corporate version of the Alternative Minimum Tax (AMT) for Massachusetts. There is an AMT currently in place at the Federal level for personal income tax. The intent is to catch taxpayers who take advantage of large deductions and exemptions to avoid paying taxes. Many corporations in Massachusetts pay little or no taxes. In fact, 5,000 companies with revenues of $10 million dollars or more paid only the minimum $456 dollars. The Massachusetts Department of Revenue estimates that an AMT such as that proposed by Senator Creem would generate between $130 million and $190 million a year (Bailey 2004).

More generally, cracking down on tax avoidance is advocated as a strategy for both generating more revenue, and enhancing fairness. In an email exchange with former Governor Michael Dukakis, he expressed the opinion that "the degree and amount of tax evasion is massive" and he called for "eliminating special interest loopholes" and "vigorous revenue enforcement". Even current Governor Mitt Romney has jumped on this bandwagon. He has approved pending legislation designed to raise $70 million by disallowing certain tax avoidance schemes[126].

However, recent trends have been toward a reduction in the corporate income taxes, at least as paid by some companies. I refer in particular to the "Single Sales Factor Apportionment" formula that has lowered taxes significantly for manufacturers that sell extensively outside the state (Fidelity and Raytheon have been the high profile cases). In an interview with Robert Tannenwald of the Federal Reserve Bank of Boston, he identified repeal of this tax break as a proposal under consideration (Tannenwald interview 2003). The Massachusetts Department of Revenue estimates that in 2003 this

[126] Of course, the Governor has insisted that this is neither a new tax nor an increase in taxes, and therefore he has not violated his no new taxes pledge.

tax break cost the state $150 million in revenue. Governor Romney supports the tax break as an economic development tool (Klein 2003).

Tannenwald also mentioned expanding the sales tax to include services, and an Internet sales tax. In fact the chairmen of Staples, the large office supply chain based in Massachusetts, went to Washington last year to lobby for federal legislation that would allow states to begin collecting taxes on internet sales[127]. He cited a study that estimated the state is losing $200 million in revenue by not taxing Internet transactions. The estimate for 2006 from the same study was $700 million (Bray 2003).

Based on the Location Quotients presented in Chapter II it should be clear that much of the business activity in Massachusetts is based on the service economy. Using data from the Bureau of Economic Analysis for 1977, the Services component of Gross State Product was 16.5% of Total Gross State Product. By 2001, Services comprised 27.8% of the total. Employment in the Services sector comprised 26.4% of nonagricultural employment in 1984. By 1999, Services employment had increased to 35.9% (Forrant et al. 2001b). Looking at wages, in 1960, 42% of wages and salaries were earned in goods-producing sectors, 15% in services producing sectors. By 2000, this had shifted to 24% for goods, 37% for services (Tannenwald 2001). Personal consumption patterns exhibit the same trend. In 1960, 41% of U.S. household consumption was on services. By 2000, the consumption allocation had increased to 58% (Tannenwald 2001). Based on this shift from goods to services, it should be clear why opening up this revenue source has appeal to some. Fear of putting ourselves at a competitive disadvantage is a serious deterrent for others.

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[127] To dispel any notion that the Staples chairperson had completely altruistic public policy interests, it should be noted that Staples is in competition with online office supply providers.

In July of 2004, the state held a "Sales Tax Holiday"[128]. It was considered a great success, at least in terms of the volume of retail sales. The call for more tax holidays is already being issued (although interestingly enough, not by Citizens for Limited Taxation and Government – their focus is on the more progressive income tax)[129].

Real estate taxes are not being ignored. While proposals to repeal Proposition $2^{1/2}$ are not likely to gain any traction, every election cycle finds some Massachusetts cities and towns seeking overrides. Lately the proposal garnering the most publicity is to expand an existing tax break for seniors who have experienced large increases in their property values, and therefore in their property taxes. I spoke recently with a candidate for State Representative who would like to represent my district and this property tax break was one of his focal points. A current State Representative I interviewed proposed making such tax breaks means tested rather than strictly based on age (Kaufman interview 2003). The most recent measure working its way through the legislature added infirmity and poverty as considerations for eligibility for the "circuit breaker" tax credit. Governor Romney, at the urging of Citizens for Limited Taxation and Government, vowed to veto such a measure as undermining Proposition $2^{1/2}$.

In February of 2003, Dr. Jill Stein, then president of the Massachusetts Coalition for Healthy Communities, and former Massachusetts Gubernatorial candidate of the Green party, coauthored an Op-Ed piece for the *Boston Globe*[130]. The editorial called for

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[128] Massachusetts was one of twelve states to offer tax holidays during the summer of 2004 (http://www.taxadmin.org/fta/rate/sales_holiday.html#chart).

[129] At the federal level, President Bush has recently suggested consideration of a national sales tax to replace most federal taxes currently in place (in particular the income tax). The Institute on Taxation and Economic Policy has responded with a study that shows how such a plan would dramatically decrease the tax burden on the top 20% of income earners (especially the top 1%) and increase the burden on everyone else (ITEP 2004Dd).

[130] Dr. Stein's Op-Ed piece, and the data generated by the Institute on Taxation and Economic Policy, was a large part of the inspiration for me to take on this thesis.

an increase in revenue to fund vital services, to make the tax system fairer, and to improve efficiency of both revenue collection and service provision. There were three revenue generation proposals. The first two were closing loopholes and expanding the base for the sales tax, issues I have already mentioned. The third was the use of "smart taxes". These smart taxes (i.e., pollution taxes) would be designed to generate revenue, "discourage harmful practices" and "encourage more efficient, cleaner production and urgently needed independence from fossil fuels" (Stein 2003). The Massachusetts Coalition for Healthy Communities published a more detailed version of these recommendations in April of 2003 in a report titled *Better Ways To Fund Vital Services: Options for Fair Tax Reform in Massachusetts* (MCHC 2003a).

State Representative Philip Travis is a member of the Committees on Ways and Means, and Taxation. He was also a member of a *Task Force on Local State & Federal Revenues*. This Task Force produced a Final Report in April of 2003, which Representative Travis provided to me. The charter of the Task Force was to analyze the appropriations bill submitted by the Governor, and offer options for generating the revenue they felt would be necessary to address fiscal problems, in particular providing adequate general municipal aid to cities and towns. Most of the options they offered did not represent significant changes to the tax structure of the state. The options included:

- Tapping reserves,
- A Tax Amnesty program,
- Issuance of deficit reduction bonds, and
- Allowing cities and towns to increase fees and fines.

The one major tax option they offered that I would consider to represent a significant structural change, was to give expanded authority to local communities to adopt "local-option" taxes. Examples of such taxes that they listed include:

- Local option sales/meals tax of up to 3%,
- Local option room occupancy tax increase of up to 2%,
- Local option entertainment/ticket fees,
- Local option parking fees, and
- Local option tax on billboards.

They also suggested an adjustment to Proposition $2^{1/2}$ that would allow communities to increase real estate property taxes beyond 2.5% based on increases in public school attendance and/or senior populations (without seeking an override from the voters) (COM 2003a).

Three months later a House-Senate Conference Committee on Municipal Relief reached agreement on a "compromise relief initiative for municipalities" (from the press release). Representative Travis provided a summary of the agreement to me. The agreement included nothing of substance with respect to the tax structure of the state (General Court 2003).

A New Tax Structure for Massachusetts

Figure 12 is a reproduction of Figure 3 from Chapter 2. Based on data for fiscal year 2002, it partitions all the revenue collected via state and local taxes into the major

tax categories. The percentage of total state and local tax revenue is indicated for each category. At a high level, this pie chart represents the tax structure of Massachusetts.

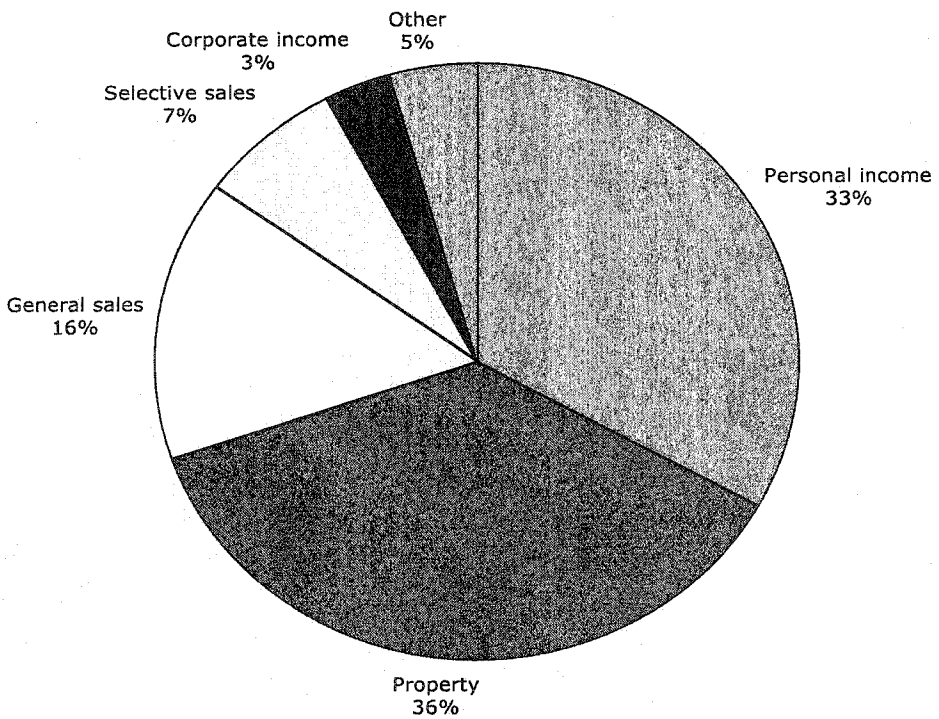

Figure 12: State and Local Tax Revenue Sources for Fiscal Year 2002[131].

Designing a new tax structure is, in some sense, indicating how the pie **should** be sliced. That is, which tax mechanisms should be relied on, more or less, for generating

[131] Source: Federation of Tax Administrators.

revenue. Keep in mind that revenue neutrality is assumed. The amount of revenue collected via any individual tax source may go up or down, but overall the intent is to balance out changes such that there is no net change in tax revenue collected by state and local governments.

However, a new tax structure can be much more than slicing the pie differently. Within each category there are significant structural changes that can be adopted which will promote the stated goal of economic and social development. Through my analysis I have concluded that these "secondary" level structural changes are more important than adjusting the major categories of state and local revenue. At the end of this section, I will say more about the high level redistribution of revenue sources, but that perspective will evolve from the more detailed proposals that I will now discuss. The recommendations that follow are arranged according to the major tax categories.

Category 1: Personal Income Tax

It should be apparent at this point that I see the lack of fairness in the Massachusetts tax structure as the vital problem to be resolved. The striking regressivity of the state's tax structure is well established (see the concluding section of Chapter II, in particular Table 9). Beyond the fairness issue, I have made the argument that a tax structure that promotes inequality is a detriment to sustainable economic and social development. It is also inherently inefficient, given that there are transaction costs associated with the tax policies that distribute from the poor to the rich, and the state funded programs that attempt to ameliorate inequalities. The most practical solution is a graduated income tax. This policy is designed to fix the problem of unequal burden of taxation based on income levels quantified in Table 9. The following rationale is offered for this particular policy:

1. It is relatively simple to implement and monitor.
2. It is familiar to and generally accepted by federal taxpayers.
3. Of 42 states with a personal income tax, 36 already include a graduated system.
4. The nature of a graduated tax makes it easy to apply to the immediate problem.
5. The tax schedule can be adjusted in subsequent tax years as necessary to meet the stated objective.

The claim that a graduated income tax is relatively simple to implement is based on the experience of the Federal income tax and other states (see item 3). With respect to the filing process, it merely requires a multiplication to be replaced by a table look-up (or a simple formula for high income earners). However, there is a major legal hurdle, which will be discussed in the section on the transitional implementation of my proposed policies.

Regarding item 3, I am not blindly advocating we follow the lead of other states. We can leverage the experience of these "laboratories of democracy" as case studies that demonstrate the viability of a state level graduated income tax.

If the tax burden is unfair across income levels (item 4), then a tax structure that considers income levels is the most direct approach to addressing the problem. It could be considered affirmative action in the best sense of the word, an attempt to promote equal opportunity (tax burden) **not** achieve universal equality of income.

There is an extra benefit to be realized from the introduction of a graduated income tax - increased state tax deductions on Federal tax returns. To provide a feel for the magnitude of this benefit I refer to an article titled *State Graduated Income Taxes – A State-Initiated Form of Federal Revenue Sharing* (Moscovitch 1972). This article was authored by Edward Moscovitch, then an economist with the Federal Reserve, and was published in the National Tax Journal (Volume 25, Issue 1, March 1972, pages 53-64). Based on then prevailing Federal tax rates (which were higher in 1972 than they are now) and the author's conceptual progressive tax structure for Massachusetts, the estimate of

the Federal "revenue sharing" benefit was $104 million[132]. I contacted Mr. Moscovitch for an update and he indicated quite firmly, "nothing has changed" in the last 30 years to dissuade him from the merits of a graduated income tax. A 1998 study of the Minnesota tax structure highlights the "notable advantage" of the Federal deduction offset, observing that "Minnesotan's pay about a billion dollars less in federal personal income taxes" because of the Minnesota personal income tax[133]. Minnesota takes fuller advantage of this "rebate effect" with a progressive tax schedule with marginal rates of 6%, 8%, and 8.5% (Ettlinger et al. 1998).

The specifics of a Massachusetts graduated tax schedule are beyond the scope of this thesis. However, under my plan, most income in Massachusetts would be subject to marginal rates lower than Minnesota, and even lower than the current 5.3% rate.

The explicit objective of the graduated income tax, in association with other recommendations to change the tax structure to follow, will be a flat **effective** tax rate. In other words, after all state and local taxes are accounted for, taxes paid as a percentage of income, should be the same (or reasonably close), at all income levels. This should be considered the minimally acceptable level for a fair tax system – vertical equity. Graphically this concept/objective can be viewed as in Figure 13. In Figure 13, the current tax incidence across income levels is displayed as a bar graph (a duplication of Figure 5 in Chapter II). A line is drawn at 8.4%, a level I estimated as the constant

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[132] More recently, a 2004 policy statement from the Massachusetts Budget and Policy Center estimated that if the state's personal income tax rate were to be cut from 5.3% to 5%, state taxpayers would lose $119 million due to lower Federal deductions (MBPC 2004c).

[133] The magnitude of the Federal deduction offset may be limited going forward as more Federal taxpayers become subject to the Alternative Minimum Tax.

incidence level that would be required to achieve revenue neutrality[134]. This representation also makes it clear who the "winners and losers" would be in terms of overall tax liability. How progressive the personal income tax needs to be to achieve this objective is very much influenced by other structural changes that I will recommend.

[134] This estimate is calculated by assuming a constant rate of income within each of the income intervals and applying the overall rate reported for that interval. Each rate is multiplied by the percentage of income earners represented in the interval. The products are summed and divided by 100.

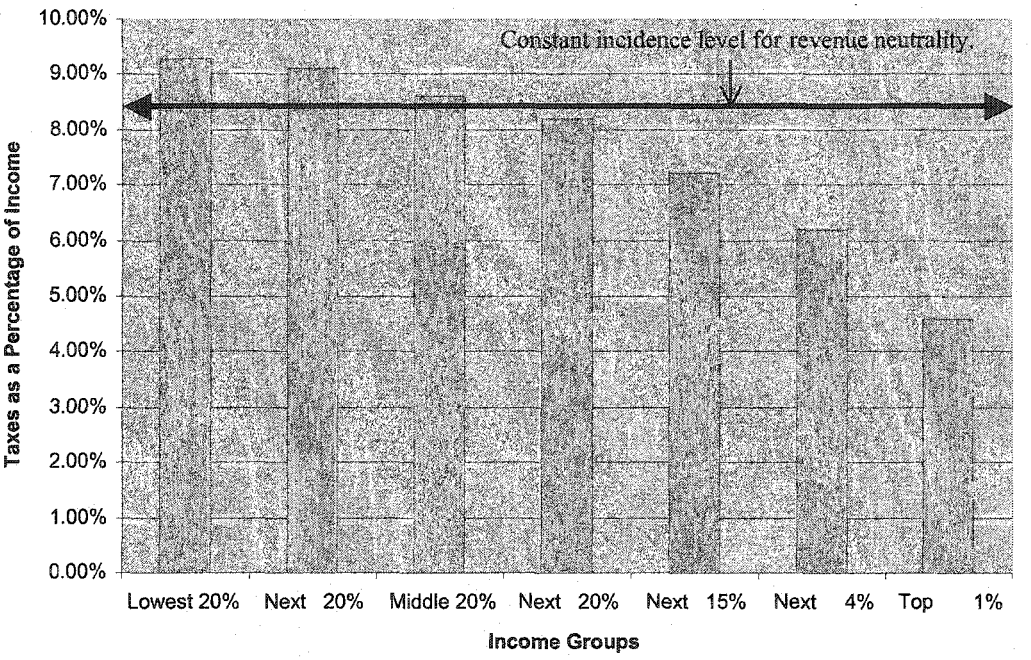

Figure 13: Desired Tax Incidence (With 2002 Results for Comparison[135]).

Category 2: General Sales Tax

The second major structural change I am recommending is a reduction in, and a broadening of, the general sales tax. The Massachusetts sales tax is currently set at 5%, applies to certain goods, and, with one exception, does not apply to services. The 5% rate is representative of sales tax rates in other states[136]. My recommendation is to decrease the sales tax on goods to 3%; and to extend the sales tax to services up to a rate equivalent with goods.

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[135] Source: Institution on Taxation and Economic Policy.
[136] When local sales taxes are factored in, the 5% rate in Massachusetts is at the low end of the ranking by sales tax rate.

In 1990, a Massachusetts law was passed extending the sales tax to twenty listed services. Services covered in this legislation included telecommunications, photography, security, auto repair, surveying, and landscaping. Later that same year all but the tax on telecommunications was repealed. A Federation of Tax Administrators (FTA) survey[137] identifies 164 distinct services that are potentially taxable (at least three states tax over 140 of these services each). The FTA information shows that while Massachusetts is one of many states that exempt most services from taxation, there is also considerable precedent for taxing services at the state level (FTA 1997).

My recommendation is to extend the sales tax to a broad list of services in an effort to promote neutrality (i.e., avoiding distortion of behavior) and fairness (i.e., different types of businesses and economic activity being taxed the same). To the extent that the sales tax can be broadened, the rate can be reduced, without a dramatic decrease in revenue levels.

As analyzed in *Economic Aspects of Taxing Services* (Fox and Murray 1988), the evaluation criterion that raises the most concern with respect to taxing services is administrative simplicity. In an interview with a Senior Economist at the Federal Reserve Bank, this view was echoed. However, it was also noted that some states have successfully implemented taxes on service transactions, it has become less of an administrative burden in the "information age" (Tannenwald interview 2004).

Putting service providers on an even footing with providers of tangible goods would promote a fairer tax code. That has become more relevant in recent years as the service economy has grown and the distinction between goods and services has become, in some cases, less apparent (Ferleger and Lazonick 2001). In an interview with

[137] The FTA survey is available at http://www.taxadmin.org/fta/pub/services/rr147srv.pdf.

University of Wisconsin Professor Andrew Reschovsky (identified in Chapter V as a leading expert on the financing of state and local governments), he indicated that taxing services is justifiable under a *sufficiency* argument (i.e., the ability to generate required revenue out into the future) (Reschovsky interview 2004). As for the argument that a tax on services will hinder growth, much of the analysis in Chapter IV on the ineffectiveness of tax expenditures in promoting growth applies here as well (see also Fox, 1988). As one senior economist I interviewed put it, "if we paid more attention to neutrality and fairness perhaps competitiveness would take care of itself" (Tannenwald interview 2004).

Reducing the sales tax on goods may also encourage "internal" retail transactions, as a lower sales tax rate would reduce the incentive of going over the border to shop in (sales) tax-free New Hampshire. However, that is not an essential rationale for justifying the reduction.

With respect to "external" retail transactions, I am recommending we take some steps towards improving the revenue generation capability of the Use tax. Consumers who purchase in "tax free" New Hampshire, purchase through mail order catalogs, or buy merchandise over the internet, are asked to pay a Use tax. I use the term asked because the state does not make a concerted effort to collect these sales taxes on out-of-state purchases.

Collecting Use taxes would be much more practical if the state could compel vendors to collect them, as with the in-state sales tax. The Supreme Court has ruled that states do not currently have legal authority to require out-of-state vendors to collect sales taxes. However, they have also ruled that Congress could approve such authority for the states under the interstate commerce clause (Swaine and Tannenwald 2000). The court

further ruled that state sales tax systems would have to be brought into a higher level of conformance with consistent tax bases so that imposing a requirement to collect sales taxes for all states with a Use tax would not be an unreasonable burden on vendors. Toward that end, a number of states have signed on to draft a *Streamlined Sales and Use Tax Agreement*. There is legislation currently pending in Massachusetts that would have us join the *Multistate Tax Commission* working toward this objective. I recommend this legislation be passed so we can pave the way to greatly enhance compliance with the Use tax. As Internet sales become more prevalent, this will become an important issue with respect to adequacy of sales tax revenue. It also represents another step toward enhancing the neutrality of the tax structure, and has the added benefit of exporting some of the tax burden to out-of-state vendors.

Category 3: Selective Sales Tax

A third recommendation is to increase the selective sales tax. Chapter II provided a breakdown of the revenue generated by selective sales taxes in Massachusetts. At the top of the list, with 44% of the selective sales revenue, is motor fuels; tobacco and alcohol make up almost another 20%. Selective sales taxes are frequently referred to as "sin taxes". I am not advocating changes to the tax structure strictly as social policy. However, if we are looking to redistribute revenue sources as a structural change, why not generate more revenue with a side benefit of encouraging certain behaviors that will promote sustainable development. Rather than representing an "inefficiency", reducing consumption of non-renewable energy sources, or reducing consumption of products that increase health care costs, are examples of *internalizing externalities* and thereby

bringing *private costs* (or market prices) more in line with *social costs* (Harris 2002). The regressive nature of this tax is cause for concern, but the lowering of the general sales tax on goods should compensate for any regressivity introduced. Further, the graduated personal income tax is designed to eliminate the regressivity of the entire tax structure.

The Massachusetts State Excise Tax on Cigarettes is one of the highest in the country at $1.51 per pack, so there is not much room for raising that tax (the same is true for other tobacco products). The Motor Fuel Excise Tax is $.21 in Massachusetts, which is about average. We could increase that by 10% and still not be among the top 10 states, and still have a rate lower than Connecticut and Rhode Island. The following table presents the excise tax rates for classifications of alcohol. The data indicate that, as with cigarettes, there is room for increasing the rate while still avoiding the distinction of having one of the highest rates[138]. In fact, the current tax rates for beer and wine are well below the median for all states. All excise tax rates cited were obtained from the Federation of Tax Administrators web site at www.taxadmin.org.

Excise Tax	Tax Rate (per gallon)	U.S. Median
Liquor	$4.05	$3.75
Wine	$0.55	$0.64
Beer	$0.11	$0.19

Table 20: Massachusetts Excise Tax Rates on Alcoholic Beverages[139].

[138] In some states, including both New Hampshire and Maine, the state government directly controls the sale of liquors, making a comparison more difficult.
[139] Source: Federation of Tax Administrators.

Category 4: Corporate Income Tax

My fourth recommendation is to increase the revenue generated via the corporate income tax, without changing the corporate tax rate. In general, I propose to:

- Repeal single sales factor apportionment,
- Introduce combined reporting,
- Close other corporate tax loopholes,
- Consider an Alternative Minimum Tax for corporations, and
- Expand the budget and authority (to the extent necessary) of the Department of Revenue to reduce corporate tax avoidance.

Under the single sales factor apportionment formula, "the share of a corporation's total profits that a particular state would tax would be based solely on the share of the corporation's nationwide sales occurring in the state" (Mazerov 2001). This formula is compared to the "traditional three factor formula" that also takes into account in-state property and payroll. This tax break, which is actually a combination of measures to apply the single sales factor apportionment formula to specific industries, was designed to preserve jobs in Massachusetts, in particular at large employers like Raytheon and Fidelity. As should be no surprise to anyone who has read Chapter IV, these tax breaks have been ineffective, and in fact, both companies have subverted the spirit of the law. My State Senator, Susan Fargo, has referred to these measures as "payoffs for layoffs". Her opponent in the 2004 election, John Thibault, referred to them in an interview with me as "bribes" (Thibault interview 2004).

Current state law in Massachusetts does not require companies and their subsidiaries to report all profits earned when they also conduct business outside the state. The rationale behind this is that not all profit will be taxable in Massachusetts, some of it will be taxed by other states; and since companies should be allowed to avoid "double taxation", they should be able to apportion their profits accordingly. This system leaves open generous opportunities for corporations to avoid taxes through accounting practices. Combined reporting does not alter the apportionment formula, or repeal any tax exemptions. It merely adds transparency and rigidity to the reporting process, thereby closing (or at least significantly restricting) an obvious tax avoidance mechanism. Sixteen other states have already closed this tax loophole; Massachusetts should as well (MBPC 2003; MCHC 2003b).

Fixing the apportionment formula and implementing combined reporting, are just two of the changes that can help restore fairness to the corporate income tax. The Center on Budget and Policy Priorities has suggested closing some "common corporate tax loopholes" in state tax systems. Some of these are identified as being relevant to Massachusetts (Mazerov 2002). This is an initiative that even the Governor and the Legislature can get behind, as witnessed by the recent "loophole-closing bill" passed and signed into law (Mohl 2004).

I also recommend we introduce an Alternative Minimum Tax for corporations. As discussed in the section on current proposals, a corporate AMT would have the same objective as the Federal AMT on personal income. That is, to ensure that corporations (in this case) cannot totally avoid taxes via excessive deductions and exemptions. Senator Creem, Co-Chair of the Joint Committee on Taxation, has voiced support for this idea

(Bailey 2003). In an interview with Sean Kealy, a member of Senator Creem's staff, he verified her support, noting she would be presenting her case to business community leaders in early December. Mr. Kealy noted that closing the identified loopholes would still leave significant levels of corporate tax avoidance through "clever bookkeeping" (Kealy interview 2004).

The state Inspector General has estimated that "for every dollar invested in tax enforcement ten dollars of revenue could be generated" (MBPC 2004f). The Department of Revenue has estimated that for each auditor they add to the staff between 1 and 1.5 million dollars in revenue would be generated by cracking down on tax evasion (MBPC 2004f). Investing more state dollars in corporate tax enforcement would be a sound investment.

Given the analysis presented in preceding chapters, some may wonder why I am not recommending an increase in the *marginal* corporate tax rate of 9.5%. As illustrated in Figure 4 of Chapter II, the percentage of revenue collected via the corporate tax has varied significantly over the last three decades. In 2002, we were well below the peak in the later 1980s. In addition, the data in Table 6 of the same Chapter shows that the *effective* tax rate for corporations is low and has decreased significantly in just the last decade. The rationale for not raising the marginal rate is that these trends can be reversed, in a more effective and neutral manner by eliminating tax breaks that render the corporate tax system distortionary and unfair.

Based on estimates in the Massachusetts Tax Expenditure Budget (CoM 2004) and the Massachusetts Coalition for Healthy Communities (MCHC 2003a), the recommendations offered above will raise substantial revenue. Enough revenue should be

generated to significantly increase the slice of the tax revenue pie that comes from corporate taxes[140]. Also to be considered is that although Chapter IV provided ample support for the contention that tax breaks at the margin have little or no impact on economic development, dramatic increases implemented all at once could provide a shock to the system with unwanted consequences. Finally, given the difficulty in assessing the incidence of corporate taxes, it is not at all clear that increasing marginal rates will help with respect to the goal of improving the distributional impact of the tax structure. Having said all that, the tax structure must be closely monitored going forward to make sure corporations pay their fair share.

Category 5: Property Tax

My fifth and final major recommendation, or set of recommendations, will be focused on property taxes. To protect low-income homeowners from excessive property taxes in an overheated housing market[141], I recommend expanding the current circuit breakers, and extending eligibility to renters. These circuit breakers, which are implemented as part of the personal income tax, should be means tested rather than directed at a certain age demographic.

The recently passed measure to allow a property classification differential of up to 2.0 should be made permanent. As approved by the legislature, this law (see Chapter 3 of the Acts of 2004 in Appendix A) allows cities and towns to tax commercial property at a

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[140] Also note that other recommendations, in particular with respect to the taxing of services, and the following set of recommendations regarding property, will also tend to increase the share of the burden falling on corporations.

[141] Press release from the Office of Federal Housing Enterprise Oversight (OFHEO) reports house price appreciation in Massachusetts of 9.79% for the year ending June 30, 2004. The 5-year increase was 73% and since 1980, house prices have increased in Massachusetts by 528%. The comparable figures for the entire nation are 9.36%, 44%, and 218% (1 and 5 year, and since 1980) (OFHEO 2004).

rate up to twice the rate on residential property (previously the maximum ratio was 1.75). This was an appropriate response to a divergence in property valuations that caused business property taxes to fall considerably relative to residential property taxes. In the community that I live, the Town of Chelmsford, in the last 10 years the average residential tax bill has increased by 53%, while commercial and industrial tax bills have fallen by 6% (Spoth 2004). The problem with the new law is that the increase from 1.75 to 2.0 is gradually reversed in subsequent years, reverting to 1.75 by 2008. In the interest of fairness and stability, the "sunset" clause should be removed.

As noted in Chapter II, the state has the ability to impose an excise tax on property (not to be confused with **local** property taxes). The current rate is 0.26% but all real estate subject to tax at the local level is exempt. I am recommending that the exemption for corporate real estate holdings be repealed. Proposition $2^{1/2}$ has placed significant restrictions on the ability of local communities to increase their revenue base. Local property tax revenue generated from commercial property has decreased significantly relative to residential property tax revenue. The adjustments to the property classification differential will help alleviate that problem. This recommendation will further that cause, with the side benefit of providing a statewide revenue stream that can be used to promote equality across communities[142].

Additional Recommendations

6: Preserving the Massachusetts Estate Tax

Recall from Chapter II that the Massachusetts estate tax now takes the form of a "sponge tax" where Massachusetts collects a state tax based on credits in the federal

[142] Refer back to Table 2 in Chapter II for an illustration of inequality across regions of the state.

estate tax return. Recent Federal law[143] gradually reduces the estate tax rates, increases the exemptions, and quickly phases out the credit available to states. Massachusetts has responded with state legislation that fixes the reference point on which the estate tax would be based to federal law prior to the Federal legislation. The exemption level for estates in Massachusetts is gradually increased to $1 million, which is less than the Federal exemption (which increases to a maximum of $3.5 million), but matches the Federal level when the "sunset " provisions of the Federal law restore the estate tax in 2011. Massachusetts has established reasonable and sensible exemption levels that protect the vast majority of estates from being subject to the tax, while maintaining a tax revenue stream based on accumulated wealth.

7: Fixed Capital Gains Tax Rate

Recent fluctuations in the tax rates applied to capital gains and dividends have made tax planning difficult, tax preparation more complicated, and has reduced the amount of revenue generated via the personal income tax. While encouraging long-term investment has certain merits, the tax rates have at times reduced the rate on capital gains down to 0%, greatly favoring the most wealthy, while at times taxing other income at rates as high as 12%. Taxing all income subject to the personal income tax at the same rate is recommended to promote neutrality and stability.

8: Reduce Fees

While not all fees are technically considered taxes, avoiding tax increases by increasing fees is disingenuous, and in most cases regressive. Even more condemning is

[143] The Federal law in question is the so-called *Economic Growth and Tax Reconciliation Act* of 2001.

the impact that fees such as tuition for state colleges can have on economic and social development.

9: De-emphasize the Lottery

The lottery is also not a tax, but it is clearly regressive, and in some cases takes advantage of and promotes addictive behavior. I am not recommending elimination of the program. The revenue source would be difficult to replace and people will find a way to gamble anyway (in some cases in more destructive fashion). However I am recommending that the state discontinue promotion of gambling through advertising, stop offering live television coverage of lottery drawings, and remove links on the state government web site that feature the lottery.

10: Replenish the Stabilization Fund

During the most recent fiscal crisis, the state was fortunate to have a stabilization funds available to weather some rainy days. Now that the economy is more stable, the state should plan for the next economic downturn and fully fund the stabilization account[144], in the hopes of avoiding or mitigating the next potential crisis.

11: Simplification

The Commonwealth of Massachusetts Executive Office for Administration and Finance annually published a *Tax Expenditure Budget* for the fiscal year. The expenditure

[144] Current law caps the account at 10% of expenditures, which is double the 5% rule of thumb recommended by Wall Street. As experience has shown, the extra cushion is necessary (Quigley 2003).

budget provides some sense of the complexity of the state tax system[145]. Taking the personal income tax as an example, the budget enumerates the following categories of expenditures:

- 29 exclusions from gross income
- 6 deferrals of gross income
- 4 deductions from gross income
- 12 accelerated deductions
- 15 deductions from adjusted gross income, and
- 10 credits.

The introduction to the budget also cautions that distinguishing an expenditure from a provision that is part of the "basic tax structure" is not always clear. Therefore, this list is far from complete in terms of the rules for calculating tax liability. The expenditure items and rules for the corporate income tax and for sales taxes are likewise extensive. As stated in Chapter III, complexity in the tax code is more than just an inconvenience. It reduces transparency, encourages non-compliance, and in general adds a disproportionate burden to the taxpayers in the lower end income groups. Well thought out tax simplification strategies would go a long way in improving the tax structure of the state.

12: Distributional Impact Studies

An essential objective of my recommendations is to promote equality of tax burden across income groups (measured, of course, as a percentage of income). The only way to measure the success of the recommendations with respect to this goal is to perform annual tax incidence studies. The state should require these studies by law.

[145] It also provides revenue estimates for how much these tax "expenditures" cost the state in lost revenue.

In summary, the five major recommendations for restructuring the tax system of Massachusetts are:

1. Implementing a graduated personal income tax,
2. Reducing the general sales tax, broadening the sales tax base to include services, and supporting the *Streamlined Sales and Use Tax Agreement* to enhance the state's ability to collect Use taxes,
3. Increasing certain selective sales taxes,
4. Increasing revenue generation via the corporate income tax by eliminating tax breaks and reducing tax avoidance,
5. Providing safety nets for low-income homeowners and renters, and repealing the exemption of business real estate from the property excise tax.

Additional recommendations offered are:

6. Preserving the current Massachusetts estate tax,
7. Taxing all capital gains at the same rate as other earned income, and maintain a constant rate year over year (i.e., discontinue recent practice of changing the rate virtually every year),
8. Decreasing or eliminating certain recently enacted fee increases (e.g., state college tuition, and "services" such as the $10 required to obtain a certificate of blindness).
9. De-emphasizing the lottery by discontinuing all promotional activities,
10. Temporarily allocating annual revenue to replenish the general stabilization (a.k.a. rainy day) fund,

11. Establishing independent commissions to propose tax simplification strategies for the personal income tax, the corporate income tax, and the general sales tax, and
12. Requiring the Department of Revenue to perform annual distributional impact studies so that we do not have to rely on outside organizations (e.g., the Institute on Taxation and Economic Policy) to tell us whether we have met the goal of a flat effective tax rate.

When these recommendations are fully implemented, with the explicit objective of revenue neutrality, they will cause a shift in the distribution of revenue across tax mechanisms. Table 21 provides an estimate of the expected shift, with the 2002 data (see Figure 12 above) used as a baseline[146]. The estimates are based on revenue projections from various sources (see the footnote for more details), and should not be taken too literally. The mix of tax revenue sources presented is not the objective of the policy recommendations. Rather, it represents (an estimate of) the high-level tax structure that will result from recommendations offered, with an objective of promoting development and a focus on equality of tax burden.

[146] Keep in mind that the distribution of tax revenue is significantly influenced by macroeconomic conditions. Table 8 in Chapter II illustrated how in just two years the numbers can change significantly. For example, if the current economic expansion, which is considered mild, continues, we would expect the percentage of tax revenue derived from the corporate tax to increase.

Source	Current Percentage of Total (2002)	Estimated Percentages
Personal income	33.1%	31%
Property	36.5%	38%
General sales	15.5%	13%
Selective sales	7.0%	8%
Corporate income	3.4%	5%
Other	4.5%	5%

Table 21: Current and Estimated Massachusetts Tax Structure[147].

The result of these structural changes would be a state and local tax system that is fairer, more efficient, more stable, that exhibits greater neutrality, and ultimately will better promote economic and social development. A cautionary note however. These recommendations do not address, and should not be used to mask, structural deficits in the state's budget.

The Transition from Here to There

In the concluding section of this Chapter, I will discuss current political realities. The real political reality is that it will take at least two or three years to introduce a graduated income tax. That is because it requires that the state Constitution be amended.

[147] Source of the data from which the current percentages are derived is the Federation of Tax Administrators. The estimate for the personal income tax merely reflects what is left over after other estimates are derived. The key recommendation regarding the personal income tax is to achieve equality of tax burden, while preserving overall revenue neutrality. The small increase in reliance on the property tax reflects a loss in revenue due to extending circuit breakers, that is more than offset by increasing the property classification differential, and repealing the exemption of business property from the state excise tax. The increase in the sales tax portion reflects the reduction of the sales tax on goods to 3%, which will partially be offset by broadening the base to cover services. The recommendation of increasing certain selective sales taxes results in an increase in its contribution to revenue. While the corporate income tax rate will not change, revenue estimates of the impact of closing the identified loopholes is considerable, and thus results in an increase in the portion of revenue deriving from corporate taxes. The Other category includes estate taxes, which based on current law will generate more revenue going forward.

There is language in the Constitution that requires all income from the "same class of property" to be taxed at the same rate (see Article XLIV of the Constitution of the Commonwealth of Massachusetts in Appendix A for the full text; Amendment CXII, also included in Appendix A made an exception for property taxes based on use).

The amendment process, whether initiated by the legislature or through an initiative petition (the citizen referenda process), will simply take a couple of years. The fact that modifying the state Constitution cannot be expedited is, on balance, a good thing. We should not pass amendments gratuitously. The time the process takes should be looked at as an opportunity to educate the voting public on the merit of redressing our regressive system.

Even though the graduated income tax is the key provision of my tax structure proposal, we can move ahead with other provisions while the amendment process is underway. In fact, it may be possible to introduce some of the progressivity without having the graduated rate schedule that would require the Constitutional amendment. The state tax code already has provisions for exempting a certain amount of income from taxes. These exemptions can be extended to cover more income, which in effect adds some limited progressivity to the personal income tax. In an idea proposed to me by Professor Andrew Reschovsky (see earlier references), we might be able to implement a "vanishing exemption" (Reschovsky interview 2004). The exemption works much like a standard exemption, with the added feature that the exemption is reduced at higher levels of income and at a certain income level disappears. For example, if the exemption were $15,000, someone earning $25,000 would only be taxed on $10,000 of income. Someone making $75,000 might have their exemption reduced to $7,500 and be taxed on $67,750.

Finally, someone reporting income of $150,000 would get no exemption and be taxed on the full amount (note: these numbers are being used for illustration purposes only). Legal issues may present a challenge, as it is not certain this provision would survive challenges of constitutionality.

Reducing the sales tax and broadening it to services can proceed as soon as appropriate legislation is passed. The state has been through all this before. The sales tax has not always been 5% (see the history of the progression in either Appendix B or C). A sales tax on services was briefly introduced in the early 1990s, and then quickly repealed by the new Republican administration. There are obviously details to be worked out, including the list of services to be taxed, but there are no constitutional obstacles to carrying out this recommendation with all deliberate speed.

There are no significant transitional issues with respect to increasing the selective sales tax. The same is true for the provisions related to corporate income taxes. Legislation is required (or for legislation to be reversed), but there are no constitutional roadblocks. Reducing tax avoidance, beyond the legislative initiatives discussed above, will be an on-going process.

The provision for repealing Proposition $2^{1/2}$ involves the same constitutional restraint as the graduated income tax. This is not essential though to the overall recommendations for modifying the real estate taxes. Tax relief to low-income homeowners via expanded circuit breakers and a statewide property tax to equalize spending on education can proceed.

Assuming macroeconomic conditions do not regress significantly, we should start immediately with replenishing the rainy day fund. Other miscellaneous recommendations do not have significant transitional issues.

Countering the Counter-arguments

The tax policies I have proposed will certainly meet with opposition. The purpose of this section is to anticipate some of the arguments that will be used to refute my position, discredit the proposed public policy, or obfuscate the issue.

We need jobs, which means we need to improve the business climate of Massachusetts.

It would seem the business climate of Massachusetts is quite healthy as it is. In Chapter IV, I cited the analysis performed by the Tax Foundation in a report titled *State Business Tax Climate Index* (Hodge et al. 2003). This report ranked the business tax climate in Massachusetts as the 12th most favorable among the 50 states. A Beacon Hill Institute State Competitiveness Report issued in 2001 gave Massachusetts the second highest score for overall state competitiveness[148]. The Corporation for Enterprise Development, a nonprofit nonpartisan organization promoting economic development, gives Massachusetts a grade of A for both Business Vitality and Development Capacity (http://drc.cfed.org/)[149]. Still, opponents of my proposals will say we need to maintain or

[148] Massachusetts earned such a high ranking from the Beacon Hill Institute by outscoring all other states on human resources, technology, and finance. However, we ranked a dismal 47th on Government & fiscal policy (BHI 2001)!

[149] The Corporation for Enterprise Development ranked Massachusetts at or near the top on measures such as science and engineering graduate students and University R & D, but near the bottom on Income

improve on this ranking by offering incentives to attract business to the state. That perspective is a reflection of the "conventional wisdom" discussed in Chapter IV, where the reader will also find a number of citations offering empirical evidence that lower taxes are not the path to economic development.

Redistribution should not be pursued at the state level.

If we accept for the sake of argument that inequality hinders development at the state level, is it really a state problem? Conventional public policy theory for a federal system would argue that redistributive problems are best addressed as the national level. Rationale include (see *State and Local Government Choices in Fiscal Redistribution* from the Andrew Young School of Policy Studies at Georgia State University - Bahl et al. 2000):

1. Redistribution benefits will spill over across state borders.
2. In-migration of poor families and out-migration of rich families.
3. Compensating wage differentials will nullify or diminish redistribution.

While these arguments have a sound basis in normative economic theory, the reality of experience offers counter arguments. First, we need to consider that the issue is not a proposal to redistribute from the rich to the poor. The problem is that in the Commonwealth we have a tax structure that results in redistribution **from the poor to the rich**! Further, if we follow the normative principles of fiscal federalism and market mechanisms to their logical conclusion, we would expect states to compete, and for

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Distribution (which they identified as a weakness but apparently did not weigh to heavily in their grading) (http://drc.cfed.org/grades/massachusetts.html).

redistribution policies to equalize. Yet, we see some states with less regressive tax structures (e.g., Maine) and others with tax structures even more regressive than Massachusetts (e.g., New Hampshire). While migration among New England states is high, and there has lately been an out-migration from Massachusetts to New Hampshire[150], there are reasons other than taxes to explain this (e.g., housing costs, sprawl). As for the wage adjustment hypothesis, a study by Howard Chernick of the City University of New York (*Tax Progressivity and the Distribution of Income in States: Which Causes Which?*) failed to find support for such an adjustment. He concludes, "The lack of effect suggests that labor mobility is sufficiently inelastic across states that states can choose different degrees of progressivity in their tax structures, and that some redistribution is possible" (Chernick 2003). In other words, we do not have to take the low road and compete with New Hampshire by being (nearly) as regressive as they are.

We have to compete against other states and higher taxes will put us at a competitive disadvantage.

First, the restructuring I have advocated is revenue neutral. Taken as a complete package it does not raise taxes. Having said that, some taxpayers will see their taxes go up.

The issue of competition among states (or, more generally, communities) is the focus of the *Tiebout hypothesis* in public finance theory. Tiebout's hypothesis was that communities compete against each other. Residents (including businesses) of a community are the customers and they express their preferences by the way they vote,

[150] See Mass.migration from MassINC, http://www.massinc.org, for details.

and by "voting with their feet" (i.e., relocating) (Stiglitz 2000). In an interview with Howard Chernick, an Economics Professor from Hunter College[151], he stated that the Tiebout hypothesis is "taken very seriously in the academic community" (Chernick interview 2004).

Opponents will use this line of thought to argue that Massachusetts businesses and residents will vote with their feet and move out of the state. However, if you look at what Tiebout was talking about, the focus was more on the provision of public goods than it was on tax competition. That is, the focus of competition among communities was based on services provided (e.g., education, security, utilities, open-space). Chernick reiterated this position, as did Colin McNiece, the Director of Economic Development for the city of Lowell Massachusetts (McNiece interview 2004).

In *Economics of the Public Sector* by Nobel Prize recipient Joseph Stiglitz, two qualifications to the Tiebout hypothesis are offered. The first is what economists refer to as *market failures*. One form of market failure is *externalities*; the policies and actions of one community may have leakage (both figuratively and literally) on other communities. Another form of market failure is lack of (perfect) competition. The cities or towns one can reasonably choose to live in are limited, and exiting one town to enter another is far from free. Stiglitz specifically identifies "tax competition" to attract business as a negative side effect of a literal interpretation of Tiebout, along with the reality of market failures. The second qualification is "dissatisfaction with the distribution of income". If communities compete and migration is free, these forces will serve to exacerbate inequality (Stiglitz 2000, 735-742). Stiglitz also co-authored an Opinion Editorial in the

[151] Professor Chernick's biography states that he "specializes in the economics of the public sector, with special attention to the distributional impacts of government spending and taxation". A number of his papers have been cited in this thesis.

Boston Globe in April of 2003 dispelling the "myth" that increasing taxes will cause the economy more harm (as compared to other potential budget balancing measures) (Stiglitz 2003b).

If we make the tax structure more progressive, it will lead to lower growth.

In previous responses, I referred to the work of Howard Chernick. He addressed the issue of progressivity and growth in a 1997 paper on *Tax Progressivity and State Economic Performance* (Chernick 1997). In this paper, he developed a model that found that "the degree of progressivity has no effect on the rate of growth of state personal income per capita" and concluded "there is considerable scope for differences in tax incidence across states". Chernick offers three possible explanations for the lack of effect of progressivity on economic growth:

1. "Higher taxes on high-income households are offset by higher expenditures directed toward high-income families",
2. "Differences in the preference for redistribution in different states", and
3. "The notion of perfect factor mobility in response to fiscal differentials is simply overstated" (see also the Tiebout hypothesis and market failures).

In fact, his more recent study, cited in Chapter V, indicates that higher levels of inequality tend to lead to lower growth. Therefore, a more progressive tax structure may very well have the opposite effect, and lead to higher levels of growth (Chernick 2004). Or, as economic historian Professor Peter Lindert of the University of California stated, "It is well known that higher taxes and transfers reduce productivity. Well known – but unsupported by statistics and history." (MBPC 2004b)

In 2004 the Institute on Taxation and Economic Policy (ITEP) issued a report *Does Personal Income Tax Progressivity Inhibit Economic Growth?* (ITEP 2004a). They did not set out to develop a model and make a claim one way or another. Rather they were responding to a study published in 2003 by the Oklahoma Council of Public Affairs, which purported to show income tax progressivity as a hindrance to economic growth. The ITEP report makes the compelling case that the Oklahoma study used flawed measures of progressivity and that their "selective use of regression analysis yields misleading results". They also criticized the model, appropriately enough, for not including (or controlling for in econometric terms) other factors that affect economic growth. The ITEP take, based on a more thorough review of the results, was that they revealed nothing conclusive.

Beyond that, the tax incidence results I have presented (see Table 9 in Chapter II) should make it abundantly clear that the objective is not a more progressive tax structure for Massachusetts, but rather one that is less regressive! I have further argued that by making the tax structure less regressive we will be addressing public policy that is contributing to disturbing increases in inequality, and that by doing so we will, in the long run have a positive influence on economic growth. In fact, we may hope to avoid a serious downfall in economic growth at some point in the future.

If we raise taxes or make the system more progressive, people will just move to New Hampshire.

This objection is really just a variation on other arguments, with the specific threat of competition from our neighbors to our north where the tax burden is perceived to be

much lower. I have already noted that migration from Massachusetts to New Hampshire has been underway for a while, but it is not clear how much tax burden has to do with that. A more likely factor is high housing costs as reported in Chapter II (see Table 1). It is certainly not clear whether making the Massachusetts tax structure less regressive would contribute to migration[152]. A recent study by Howard Chernick titled *On the Determinants of Sub-National Tax Progressivity in the U.S.* addressed this specific issue. His finding was that contrary to the expectations, it is not uncommon to find that states that are more progressive are geographically contiguous with more regressive states (Chernick 2004). My response to the redistribution at the state level issue, again supported by research by Chernick, is also relevant here.

The tax burden in Massachusetts is already too high.

This argument could be quickly dismissed because my proposals are explicitly designed to be revenue neutral. However, since this argument is employed so frequently it merits a response.

When I discussed the regressivity of the Massachusetts tax structure with Barbara Anderson, chief spokesperson for Citizens for Limited Taxation and Government, she stated she was not in principle opposed to making the system less regressive. However, she was very direct in stating that she and the organization she represents would be opposed to any tax changes that raise taxes for anyone. They will most often start their argument by noting that Massachusetts has one of the highest tax burdens in the country.

[152] Perhaps if we pointed out how very regressive the tax structure of New Hampshire is (see Table 11 in Chapter II) we might attract the more enlightened egalitarian electorate to Massachusetts.

This supposed high burden is based on taxes paid per-capita. It conveniently ignores the fact that Massachusetts also ranks near the top in income per-capita. Therefore, it does not take into account ability to pay, the high cost of living, and the high cost of providing government services[153]. Measuring taxes as a percentage of income is more appropriate. When you do so, a different story emerges.

Each April the Tax Foundation issues a report comparing the 50 states combined state and local tax burden. The figures for 2004 (see http://www.taxfoundation.org/statelocal04.html), released this past April show that the Massachusetts burden, as a percentage of income, is lower than average and ranks 36th among all states. Maine ranks 2nd, and New Hampshire ranks 49th. The Tax Foundation has also released data for the period 1982 – 1992, which shows Massachusetts ranked 40th for average annual "growth" of taxes relative to income. I put growth in quotation marks because we actually had an annualized **decrease** in taxes of -1.15%. For the last two years of that period our "growth" rate was –15.13%, which had us ranking 47th. Finally, the United States Census Bureau has released data for the year 2000 which shows that with respect to *own source revenue*[154] as a percent of personal income, Massachusetts ranked 45th. **If** the tax burden in Massachusetts were ever too high, these statistics would belie the argument that they are now.

We could actually maintain current spending and perhaps even raise more revenue to fund programs if we lowered taxes.

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[153] In a study of the Minnesota tax structure factors attributed to their higher than average spending include "Better-off states like Minnesota face higher costs" and "with higher standard of living, there is a high demand for quality public service" (Ettlinger et al. 1998).

[154] See Chapter II for a discussion of state revenue sources in addition to taxes.

This is the "supply-side" argument, sometimes referred to as "trickle down" economics. The theory is that by lowering taxes we improve incentives to invest, which would spur the economy, and thereby increase the tax base. *Supply* side comes from the incentives to work, save, and invest that lower taxes offer to people who can enhance the capacity of the economy to supply goods and services. Proponents of this argument typically concentrate their tax cut proposals on the higher tax brackets, in direct opposition to the policies I am advocating. However, they will offer that the benefits of the growth promoted by their policies will benefit (*trickle down* to) the lower income groups. Such policies gained favor nationally during the administration of Ronald Reagan. These policies were arguably the biggest contributor to the widening inequality that has been so well documented, and reported on in Chapter V[155].

Noted economist and author Paul Krugman has addressed this issue head on. In a *New York Times* magazine piece titled *The Tax-Cut Con* (Krugman 2003a), Krugman characterizes the supply-side argument as "political doctrine" rather than a school of economic thought. He states that even tax cut advocates are often dismissive of supply-side theory. The true objective of most professional economists who advocate tax cuts is to "starve the beast", that is reduce the size of government. Krugman notes that in an economic principles text authored by Gregory Mankiw (who is now President Bush's chief economic advisor) the supply-side advisors are described as "charlatans and cranks".

In Nobel Prize winner Joseph Stiglitz's text on Public Finance, he offers "The myth that lower taxes would unleash huge increases in savings and work effort has

[155] These policies also lead to a tremendous growth in our national debt; a burden which standard economic theory would argue is a significant deterrent to growth (Krugman 2003a) (Marger 2002, 195).

proven remarkably resistant to evidence. Reagan lowered taxes markedly, but neither saving nor work effort increased, and indeed, productivity hardly budged. Clinton raised taxes on the rich, and dire consequences did not emerge" (Stiglitz 2000). To my knowledge neither Krugman nor Stiglitz have mentioned this explicitly, but one explanation for the empirical evidence is that Clinton's more responsible approach to reducing the deficit increased investor confidence and therefore had more of a positive effect on levels of investment and productivity than a tax cut would produce.

With respect to the "trickle-down" theory, that was "debunked" long ago. Professor Chris Tilly of the Department of Regional Economic and Social Development at University of Massachusetts Lowell made a compelling case for this debunking. In a recently authored article for *Dollars & Sense* magazine, Tilly gives credit for this to John Maynard Keynes back in 1936 in his classic *General Theory of Employment, Interest and Money*. Trickle-down is based on the premise that increased savings (by the rich) will drive investment. However, Keynes showed that it more often works the other way - investment drives savings. The best way to encourage investment (and growth) is to put more money in the hands of those more likely to spend, that is the less wealthy (Tilly 2004).

The bottom line is that there is a lack of evidence to support the supply-side argument. More relevant to the case of the Massachusetts tax structure, there is plenty of empirical evidence (see Chapter IV) to show that putting the "theory" into practice is ineffective.

Lowering taxes for low-income people does not make sense because many of them do not pay taxes anyway.

Conservative commentators have bandied about this fallacious argument. It is used in the context of the federal income tax where some very low-income earners are exempt from paying **income taxes**. These "lucky duckies" (so labeled by the Wall Street Journal) do not pay taxes only if they avoid paying payroll taxes (FICA: Social Security and Medicare – notoriously a very regressive tax), do not purchase anything with a sales or excise tax, and somehow avoid paying all state and local taxes (Schatz 2003). The fact of the matter is that as discussed in Chapter II, at the state and local level, in most states these lucky duckies pay a higher tax rate. In Massachusetts the bottom 20% of income earners pay taxes at a rate a little over twice that of the top 1%!

People need to take personal responsibility.

This is an argument (to the extent it can really be called an argument) used by those who oppose government intervention, including Libertarians. In their view, it is not the Government's job to ensure equality or to be proactive in support of those with fewer resources.

While I would relish the opportunity to debate Libertarianism on its merits (or lack thereof), it is not necessary. Rather I simply need to stress that my proposals are not about increasing the size of government, about increasing taxes, or a program of redistribution. The proposals are designed to fix a system of redistribution that is already in place, resulting in a tax structure that is both fairer and more likely to promote economic and social development.

As for responsibility, Nobel Prize Economist Amartya Sen has argued that the economic justice I am advocating is a prerequisite for responsibility. People cannot take responsibility unless they realistically have the (economic) freedom to do so (Sen 1999, 282-289).

We should get out of the way and let the invisible hand work its wonders.

This argument is the economic variation on the libertarian argument. Anyone who has studied economics, and even many who have not, have heard of the doctrine of laissez faire[156]. This doctrine is sometimes pushed to such extremes that some observers refer to it as "market fundamentalism" – the belief that the market is always right (Soros 2002).

All that I had to say in response to the Libertarian view holds here as well. When you also consider the unrealistic assumptions on which the invisible hand is based, and the reality of market failures, a laissez faire approach is, at best irrelevant, and at worst potentially dangerous. Dangerous at least to those who are not benefiting from a market driven economy, and are being penalized by a state tax structure that distributes even more benefit from them to those with higher incomes. In the long run, as I have argued, this approach is perhaps dangerous to the economic growth of the state. In any case, what we have currently is the result of state intervention. In a very real sense what my policies prescribe, in particular that everyone pay at the same rate as a percentage of income, represents a reduction in intervention via the promotion of fairness and neutrality.

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[156] Literally translated, "to let do", as in to let the people do as they choose.

The benefits of state spending go predominately to lower income people, so what is wrong if they pay more in taxes.

It is not at all clear how much more lower income citizens of Massachusetts benefit from state spending. In fiscal year 2000, Social Services comprised only 23% of state and local spending[157]. The largest expenditure category was education, 30% of spending. Transportation and public safety were other large spending categories. The poor do not benefit disproportionately from most of the state expenditures. In some areas, for example transportation and public safety, they probably gain less than wealthier segments, in particular business owners. In justifying his proposal for a graduated income tax, President Franklin Roosevelt stated "[the wealthy man has] a peculiar obligation to the State because he derives special advantages from the mere existence of government" (Weisman 2002, 202). Chernick notes, "there are substantial obstacles, both theoretical and empirical, to measuring the benefits of state and local spending by income class" (Chernick 1997).

Within in the category of Social Services, the majority (over half) of spending is appropriated to the Division of Medical Assistance. Without going into the vitally important social services performed via this spending (e.g., programs for the mentally ill, and abused children), note that much of this spending is both mandated by, and matched by, the federal government (i.e., Medicaid).

Even if we were to accept the argument that the distribution of expenditure benefits is weighted toward the poor, we would be left with inefficient policy. Why have a tax structure that contributes to the need for those with fewer resources to "benefit"

[157] Massachusetts spending on Social Services was 3.8% of personal income in 2000, which ranked us 36th among the 50 states (MBPC 2003).

from social service spending by taking money away from them and transferring it to the wealthy.

If the objective is to tax everyone at the same rate, then why not just eliminate everything other than the income tax, and institute a flat tax on all income?

Although this approach may offer visceral appeal to some, there are significant problems with the proposal that render it inappropriate as a solution. Relying on one source of taxation can introduce revenue volatility beyond what a state can be expected to respond to via spending cuts and the Massachusetts Commonwealth Stabilization Fund. State revenue from all tax sources fell by $2.4 billion, or 14%, in fiscal year 2002. Whether you considered the state to have a revenue problem or a spending problem it was generally agreed that this shortfall caused a fiscal crisis. If all of the 2001 revenue had been collected via the income tax, and such revenues fell proportionally, the 2002 shortfall would have been 3.4 billion, or 20.0%.

A second concern is with economic efficiency. Recall from the Chapter on the standard criteria that to avoid "deadweight loss", or the distortionary affect of taxes, that rates should be kept low. The marginal rate on income would have to be quite high - approximately 8.4% as illustrated in Figure 13. We would expect such high rates to modify behavior much more than a 5.3% rate. Behavior modification would come in the form of less willingness to earn marginal income, or more willingness to avoid taxes on such income.

Another advantage of a diverse tax structure is that diverse sources form the basis for taxation. Currently we tax wealth and consumption as well as income. Basing the tax

structure exclusively on income obviates the ability to tax other generally accepted sources. For example, wealth held in property, or consumption of tobacco and alcohol.

Finally, a purely income based tax structure would represent an extreme variation from other states, in particular bordering states. In a federal system with relatively easy mobility between states, such wide disparity in tax structure would encourage significant tax avoidance and economically inefficient activity.

The proposed changes are too "liberal".

The ultimate label of divisiveness and intended to be dismissive, the opposition will certainly refer to my tax policy proposals as liberal. In response, I quote John Fitzgerald Kennedy from a speech he gave while running for President in 1960.

> *If by a "Liberal" they mean someone who looks ahead and not behind, someone who welcomes new ideas without rigid reactions, someone who cares about the welfare of the people – their health, their housing, their schools, their jobs, their civil rights, and their civil liberties... then I'm proud to say I'm a "Liberal".*

If "conservatives" need further incentive to be less rigid, and to welcome some new ideas, then I again quote JFK from his Presidential Inaugural address.

> *If a free society cannot help the many who are poor, it cannot save the few who are rich.*

Political Realities

The cornerstone of my proposal is to introduce a graduated income tax in Massachusetts. As previously noted, this change will require an amendment to the state constitution[158]. There is a long history of attempts to amend the constitution in this regard, going back at least to the 1950s and 1960s (Litt 1965, 182), and as recently as 1994. Each attempt has resulted in defeat, usually by a significant margin. The 1994 initiative petition was defeated with only 28% voting in favor of the graduated income tax. Former Governor Dukakis, and one of his chief economic advisors, both of whom are strong advocates of such a policy, strongly discouraged my pursuit of a graduated income tax based on the prevailing political landscape[159]. Perhaps even more discouraging was the result of the 2002 initiative petition to **eliminate** the state personal income tax. Of those who voted on this question 45% voted in favor of elimination!

As encouragement, I note that the same perceptions existed 100 years ago regarding the prospects for introducing **any** personal income tax in the United States. The Federal personal income tax was actually enacted three times. The first was an emergency response to the Civil War, after which it was dropped. The second time it was in response to an economic emergency in the late 19th century, but it was declared unconstitutional. In the early 20th century, the conventional view was that prospects for a personal income tax were bleak. Passage of an amendment to the United States Constitution was not expected. However, the 16th amendment to the Constitution was

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[158] See Article XLIV of the Constitution of the Commonwealth of Massachusetts in Appendix B for the language that requires all income from the "same class of property" to be taxed at the same rate.

[159] These comments were made in email exchanges with former Governor Dukakis and Ed Moscovitch. Moscovitch, at one time an advisor to Dukakis wrote a paper in 1973 in the National Tax Journal advocating a graduated income tax for Massachusetts (Moscovitch 1973).

passed in 1913[160]. Proponents of the amendment were not seeking redistribution of wealth. Rather their intent was to "soften the edges of the distribution of wealth in the interest of justice and fairness – and among progressives, in the interest of maintaining a certain level of social stability" (Weisman 2002). Perhaps history can repeat itself. While amending the constitution is difficult, an initiative petition from the people can offer both a clear mandate for progressive change, and provide a parliamentary mechanism for bypassing[161] what is perceived by many to be an obstructionist, and certainly non-progressive, legislature[162].

The state of California has a reputation for being a frontrunner on national trends, including tax reform measures. In the 2004 election California voters approved Proposition 63, which introduces a surtax on incomes over $1 million to fund expanded health services. In a recent Op-Ed piece for the *Boston Globe*, Robert Kuttner cited estimates that this measure would raise $770 million while affecting less than 1% of the state's population. Perhaps this could be a sign of a progressive tax reform movement (Kuttner 2004b).

The state of Georgia does not have a reputation for progressive policies. While a Congressman representing the state of Georgia, Bob Riley had a reputation as a strong supporter of President Reagan's tax cuts. However, when he became Governor of

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[160] Prior to the introduction of the personal income tax, the Federal tax structure resulted in almost 50% of revenues coming from customs duties, and close to 50% from selective sales. By 1930, the structure had changed dramatically, with roughly two-thirds of revenue coming from personal and corporate income taxes (Weisman 2002, 345).

[161] The legislature is not completely out of the loop, but their ability to obstruct can be significantly diminished (Hogarty 2002).

[162] There is a very rich and lengthy history to the constitution of Massachusetts. Written in 1780, primarily by John Adams, it is the oldest constitution in the United States still in force. However, it has been amended many times, often during Constitutional Conventions, to the point that the current body of work is sometimes referred to as a rewritten constitution. During the Constitutional Convention of 1917-19 article 48 was added which provides for *initiative petitions*. The process is somewhat involved, but it essentially provides a back door for voters to legislate democratically, including amending the constitution (McCullough 2001; Litt 1965; Hogarty 2002; Constitution of the Commonwealth of Massachusetts).

Georgia he became aware of the regressive nature of the state tax system. His efforts to reform the system and help alleviate the tax burden on the poor were not very successful, and he is no longer in office. However, the fact that a fiscally conservative Congressman could be convinced of the need for action against a regressive tax structure he characterized as "immoral", offers hope for something more positive in Massachusetts (Johnston 2003)[163].

Locally, recent political developments have increased hope for a more open and progressive legislative process. Incoming Speaker of the House Salvatore DiMasi is considered by political observers and colleagues to be more inclined to listen to new ideas and more "socially liberal" than his predecessor Thomas Finneran (Fenn 2004). The *Boston Globe* recently published a *Voter's Guide* for the 2004 election produced by the Massachusetts League of Women Voters (Globe 2004b). The section on State Senate and State House races asked each candidate to respond to the question "Under what circumstances would you support changing the Massachusetts income tax?". Over a dozen candidates submitted answers that either explicitly supported a graduated income tax, or implied support for one (or indicated that their priority was to fix our regressive tax structure). This included Senator Cynthia Creem, cochair of the Joint Committee on Taxation. In an interview with Senator Creem staff member Sean Kealy, he stated she is personally in favor of a graduated income tax, but is not currently promoting such a policy as she does not see it as viable given the current political climate. Instead, she is pushing for significant increases in exemption levels (Kealy interview 2004).

[163] A similar story played out in Virginia, with Governor Mark Warner submitting a "comprehensive tax reform plan" that promised "tax fairness for working families". Unfortunately, the details of his plan reveal that it would actually make the tax system more regressive (McIntyre 2004).

In the town I live in, Chelmsford Massachusetts, a report was just released which provides more hope that we are heading in direction more in sync with my recommendations. The town's Tax Classification Committee has recommended that Chelmsford introduce a split tax rate as allowed, but not mandated, under state law. As previously described, the state allows communities to tax commercial property at a rate up to between 1.75 and 2 times the residential tax rate (as the recent property tax classification law is phased in, and then terminates – see the actual language in Appendix A). The committee has recommended that for the first time Chelmsford tax commercial and industrial property at a higher rate. The justification is that because of diverging property valuations, business properties are assessed, by the committee's estimate, an average of 43% below actual value (Spoth 2004).

Having offered reason for hope, I am not naive regarding the political realities. In addition to a Governor with a venture capital background who ran on a no new taxes pledge, and a tightly controlled legislature with an organizational dynamic that discourages innovative or progressive legislation, we have a voting public that does not always vote in their own self interest. A paper titled *Homer Gets a Tax Cut*, written by Princeton Political Science professor Richard Bartels, supports this last observation. Bartels cites national surveys that show:

a. 74% of people in the U.S. agree the gap between rich and poor is widening,
b. Roughly 2 out of every 3 people surveyed believe government policies favor the wealthy,
c. A majority judge increasing inequality to be a problem, and
d. Fewer than 15% say the rich pay too much in taxes!

Why, then, does a recent *Boston Globe* article reporting these results characterize voters as irrational? Essentially it is the myth of class mobility, the poor expect they might eventually benefit from these policies[164] (Bartels 2004; Shea 2004).

Another political reality is that with respect to reducing the regressivity of the current tax structure there exist a political contest with diffuse benefits and concentrated costs (Stone 2002, 221-227). Under my policy recommendations, the majority of state taxpayers would see their overall effective tax rates go down. However, the amount by which their taxes will decrease is not seen as a substantial amount in absolute dollars[165]. In particular, the amount their taxes will fall is small relative to the amount by which wealthier taxpayers will see their tax rate go up. The benefits are spread over a large segment of taxpayers, while the costs are concentrated among a small (but politically influential) segment of high-income earners. These concentrated costs result in a greater urgency toward political activism. In this case, among a segment of society better equipped to mobilize such activism in preserving the status quo.

A number of retailers have adopted the slogan "An Educated Consumer is Our Best Customer". I would like to think an educated electorate is our best public policy force. The results of Bartel's research provide only limited support for this perspective. Still, it is my hope that any contribution my analysis makes to educating the Massachusetts electorate will promote more enlightened public policy.

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[164] In another *Boston Globe* Op-Ed piece Robert Kuttner offered that the poor do not favor progressive tax policies as much as one might expect for the same reason they play the lottery, the hope, or myth, that they will be rich some day (Kuttner 1999).

[165] This situation is depicted in Figure 13 where the effective tax rates for the bottom three quintiles all fall above the projected new rate, but the difference is small compared to the change in the rate that would be experienced by the upper income groups, both in relative percentages and absolute dollars.

During the Democratic Presidential nomination race, candidate Dennis Kucinich offered his "Progressive Tax Act" for the nation. While he was addressing adequacy of revenue as well, there was a focus on both fairness and economic development. He did not see these objectives as contradictory and neither do I. Kucinich called for "protecting the progressive tax system ... by shifting tax burden from work to accumulated capital, from the working poor to the wealthiest, and from children to corporations" (Kucinich 2003). My goal is much more modest.

As inspired by John Rawls, we should consider what it would mean to design our tax structure with a "veil of ignorance" (Rawls 1999). Lack of a priori awareness of what income group you were to fall within would encourage a state and local tax system with a different distributional impact than what we have today. Only risk lovers would want to roll the dice and accept a regressive tax structure in the hope they end up in the top income earning brackets.

I have proposed a design of the tax structure that will correct the regressive nature of our state tax system. These proposals are offered in contrast to current policies that are ineffective in promoting growth yet very effective in promoting inequality that will in the long run diminish growth. By implementing this new tax structure, we can promote sustainable economic and social development for the Commonwealth.

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APPENDIX A. EXCERPTS FROM THE CONSTITUTION AND LAWS OF THE COMMONWEALTH OF MASSACHUSETTS

Article XXIII. *No subsidy, charge, tax, impost, or duties, ought to be established, fixed, laid, or levied, under any pretext whatsoever, without the consent of the people or their representatives in the legislature.*

Article IV. ... *and to impose and levy proportional and reasonable assessments, rates, and taxes, upon all the inhabitants of, and persons resident, and estates lying, within the said commonwealth; and also to impose and levy, reasonable duties and excises, upon any produce, goods, wares, merchandise, and commodities, whatsoever, brought into, produced, manufactured, or being within the same*; ...

Article XLIV. *Full power and authority are hereby given and granted to the general court to impose and levy a tax on income in the manner hereinafter provided. Such tax may be at different rates upon income derived from different classes of property, but shall be levied at a uniform rate throughout the commonwealth upon incomes derived from the same class of property. The general court may tax income not derived from property at a lower rate than income derived from property, and may grant reasonable exemptions and abatements. Any class of property the income from which is taxed under the provisions of this article may be exempted from the imposition and levying of proportional and reasonable assessments, rates and taxes as at present authorized by the constitution. This article shall not be construed to limit the power of the general court to impose and levy reasonable duties and excises.*

Article CXII. *Article IV of chapter 1 of Part the Second of the Constitution is hereby amended by inserting after the words "and to impose and levy proportional and reasonable assessments, rates and taxes, upon all the inhabitants of, and persons resident, and estates lying, within said Commonwealth" the words: -, except that, in addition to the powers conferred under Articles XLI and XCIX of the Amendments, the general court may classify real property according to its use in no more than four classes and to assess, rate and tax such property differently in the classes so established, but proportionately in the same class, and except that reasonable exemptions may be granted.*

Article LXIII. Section 1. *Collection of Revenue. - All money received on account of the commonwealth from any source whatsoever shall be paid into the treasury thereof.*

Section 2. *The Budget. - Within three weeks after the convening of the general court the governor shall recommend to the general court a budget which shall contain a statement of all proposed expenditures of the commonwealth for the fiscal year, including those already authorized by law, and of all taxes, revenues, loans and other means by which such expenditures shall be defrayed. In the first year of the term of office of a governor who has not served in the preceding year said governor shall recommend such budget within eight weeks after the convening of the general court. The budget shall be arranged in such form as the general court may by law prescribe, or, in default thereof, as the governor shall determine. For the purpose of preparing his budget, the governor shall have the power to require any board, commission, officer or department to furnish him with any information which he may deem necessary.*

Section 3. *The General Appropriation Bill. - All appropriations based upon the budget to be paid from taxes or revenues shall be incorporated in a single bill which shall be called the general appropriation bill. The general court may increase, decrease, add or omit items in the budget. The general court may provide for its salaries, mileage, and expenses and for necessary expenditures in anticipation of appropriations, but before final action on the general appropriation bill it shall not enact any other appropriation bill except on recommendation of the governor. The governor may at any time recommend to the general court supplementary budgets which shall be subject to the same procedures as the original budget.*

Article LXII. Section 1. *The commonwealth may give, loan or pledge its credit only by a vote, taken by the yeas and nays, of two-thirds of each house of the general court present and voting thereon. The credit of the commonwealth shall not in any manner be given or loaned to or in aid of any individual, or of any private association, or of any corporation which is privately owned and managed.*

Section 2. *The commonwealth may borrow money to repel invasion, suppress insurrection, defend the commonwealth, or to assist the United States in case of war, and may also borrow money in anticipation of receipts from taxes or other sources, such loan to be paid out of the revenue of the year in which it is created.*

Section 3. *In addition to the loans which may be contracted as before provided, the commonwealth may borrow money only by a vote, taken by the yeas and nays, of two-thirds of each house of the general court present and voting thereon. The governor shall recommend to the general court the term for which any loan shall be contracted.*

Section 4. *Borrowed money shall not be expended for any other purpose than that for which it was borrowed or for the reduction or discharge of the principal of the loan.*

Chapter V, Section II. The Encouragement of Literature, etc.
Wisdom, and knowledge, as well as virtue, diffused generally among the body of the people, being necessary for the preservation of their rights and liberties; and as these depend on spreading the opportunities and advantages of education in the various parts of the country, and among the different orders of the people, it shall be the duty of legislatures and magistrates, in all future periods of this commonwealth, to cherish the interests of literature and the sciences, and all seminaries of them; especially the university at Cambridge, public schools and grammar schools in the towns; to encourage private societies and public institutions, rewards and immunities, for the promotion of agriculture, arts, sciences, commerce, trades, manufactures, and a natural history of the country; to countenance and inculcate the principles of humanity and general benevolence, public and private charity, industry and frugality, honesty and punctuality in their dealings; sincerity, good humor, and all social affections, and generous sentiments among the people.

Chapter 3 of the Acts of 2004

AN ACT RELATIVE TO PROPERTY TAX CLASSIFICATION IN CITIES AND TOWNS.

Whereas, The deferred operation of this act would tend to defeat its purpose, which is forthwith to regulate the property tax classification limits in certain cities and towns beginning in the current fiscal year, therefore it is hereby declared to be an emergency law, necessary for the immediate preservation of the public convenience.

Be it enacted by the Senate and House of Representatives in General Court assembled, and by the authority of the same, as follows:

SECTION 1. *(a) Notwithstanding section 1A of chapter 58 of the General Laws or any other general or special law to the contrary, the commissioner of revenue shall further adjust the minimum residential factor of any city or town determined under said section 1A of said chapter 58 for fiscal years 2004, 2005, 2006 and 2007, if adoption of such factor for any such year would result in the residential property class bearing a higher percentage of the total property tax levy than the percentage of the total property tax levy imposed on the residential property class than in the prior fiscal year. The new minimum residential factor for such year shall be (i) for fiscal year 2004, 45 per cent subject to such adjustment upward as may be required to provide that the percentage of the total tax levy imposed on any class of real or personal property shall not exceed 200 per cent of the full and fair cash valuation of the taxable property of the class divided by the full and fair cash valuation of all taxable real and personal property in the city or town, (ii) in fiscal year 2005, 47 per cent subject to such adjustment upward as may be required to provide that the percentage of the total tax levy imposed on any class of real or personal property shall not exceed 197 per cent of the full and fair cash valuation of the taxable property of the class divided by the full and fair cash valuation of all taxable real and personal property in the city or town, (iii) in fiscal year 2006, 49 per cent subject to such adjustment upward as may be required to provide that the percentage of the total tax levy imposed on any class of real or personal property shall not exceed 190 per cent of the full and fair cash valuation of the taxable property of the class divided by the full and fair cash valuation of all taxable real and personal property in the city or town, (iv) in fiscal year 2007, 50 per cent subject to such adjustment upward as may be required to provide that the percentage of the total tax levy imposed on any class of real or personal property shall not exceed 183 per cent of the full and fair cash valuation of the taxable property of that class divided by the full and fair cash valuation of all taxable real and personal property in the city or town, (v) in fiscal year 2008, 50 per cent subject to such adjustment upward as may be required to provide that the percentage of the total tax levy imposed on any class of real or personal property shall not exceed 175 per cent of the full and fair cash valuation of the taxable property of that class divided by the full and fair cash valuation of all taxable real and personal property in the city or town, (vi) in fiscal year 2009 and thereafter, in any city or town in which the percentage of the total tax levy imposed on any class of real or personal property exceeded 175 per cent of the full and fair cash valuation of the taxable property of that class divided by the full and fair cash valuation of all taxable real and personal property in the city or town in any of fiscal years 2004, 2005, 2006 or 2007, 50 per cent subject to such adjustment upward as may be required to provide that the percentage of the total tax levy imposed on any class of real or personal property shall not exceed 170 per cent of the full and fair cash valuation of the taxable property of that class divided by the full and fair cash valuation of all taxable real and personal property in the city or town. In no year after the first year in which the commissioner determines a new minimum residential factor for a city or town under this section, however, shall the adoption of such new minimum residential*

factor for such year result in the residential class bearing a lower percentage of the total property tax levy than the percentage imposed in the prior year. Payments made under section 38H of chapter 59 of the General Laws, and similar provisions of special acts, that are included in the tax levy for purposes of determining the minimum residential factor under said section 1A of said chapter 58 shall be so included in the determination of any factor under this section.

(b) Any city or town which makes use of this section shall include a letter from the commissioner of the department of revenue in each tax bill. The letter shall describe the divergent trends in residential and commercial property valuations, and how the general court has mitigated the negative impact of these trends on residential tax bills with this section.

SECTION 2. *(a) The department of revenue, with the assistance of state agencies and political subdivisions that the department deems necessary to complete its charge, shall study the current property tax classification system and to determine sustainable and equitable methods for addressing the current and any future divergence in residential and commercial and industrial property values that result in an abrupt shift of the tax levy onto one class of property taxpayers. The department shall examine ways to provide temporary tax relief to residential ratepayers unable to pay the tax increases resulting from said shifts in the property tax burden, including increasing the residential exemption for people of limited financial means, allowing abatements for the elderly or others who can prove through income tax returns or other documents they do not have the financial resources to pay the tax increases, increasing the income tax deduction for renters, extending the period allowed for payment of property taxes, and other methods of providing targeted tax relief on a temporary basis.*

(b) Each city and town for which the commissioner has determined a minimum residential factor shall provide the department with the following information on a fiscal year basis: the total tax levy of the city or town, the percentage of the total tax levy of each of the classes of property by valuation and dollar amount, the tax rate on each of the classes of property, the number of outstanding tax delinquencies by property class and the dollar amount of those delinquencies, any and all agreements relative to payments in lieu of taxes, any and all agreements pursuant to chapter 121A of the General Laws, any and all tax relief programs offered by the city or town, the efforts used to promote them, the standards for participation, the processes for applying, the number of individuals that applied and the number that were actually accepted into the tax relief program and such other information as the department deems necessary to determine if further changes to the cap are necessary and appropriate.

(c) The department shall report its findings and any recommendations for legislation to the joint committee on taxation and the clerks of the house of representatives and the senate not later than December 1, 2004.

SECTION 3. *The joint committee on taxation shall study and make recommendations for targeted property tax relief to businesses disproportionately impacted by dual tax rates in communities. The committee shall hold at least 1 public hearing to take testimony concerning such relief. The committee shall file a report of its findings and recommendations with the house and senate clerks not later than April 30, 2004.*

SECTION 4. *The joint committee on natural resources and agriculture shall study and make recommendations for the reclassification for property tax purposes of agricultural and horticultural land, and for legislation, if any, carrying out those recommendations. The committee shall hold at least 1 public hearing to take testimony concerning reclassification. The committee shall file a report of its findings and recommendations with the house and senate clerks and the house and senate committees on ways and means not later than April 30, 2004.*

APPENDIX B. EVOLUTION OF THE MASSACHUSETTS TAX STRUCTURE

This appendix provides a more detailed history of the evolution of the tax structure of Massachusetts than that provided in Chapter II. The information is organized by the major categories of taxation. Within each category, the discussion proceeds chronologically. Appendix C provides a time line of major tax related events in Massachusetts.

Property Taxes

Property taxes are the oldest form of taxation in Massachusetts, dating back to colonial times. In current times, property taxes are predominately in the form of local property taxes. However, as noted in previous research papers, the authority to tax property comes from the state, assessment and collection is delegated to the cities and towns.

During colonial times and in the early years of statehood, taxes on persons and property were enacted on an annual basis. That was because these taxes were not only used for local funding, but also to pay the community's share of state property taxes. It was not until 1836 that the system of property taxes as the permanent basis for local taxation was written into law. However, property taxes as a component of state taxation was retained until 1946. The problem with using real property taxes as a component of state taxes was the long history of divergence in local valuations. An exception to property no longer being taxed at the state level is personal (as opposed to real - refer to

Figure 2 in Chapter II) tangible property, which will be discussed as a component of corporate taxes. The tax on persons alluded to earlier was a "poll tax" (which has nothing to do with voting) imposed on citizens. The poll tax was repealed in 1963.

Two major developments in the evolution of property taxes in Massachusetts occurred about a quarter of a century ago. Notice that Article XLIV of the state constitution requires uniform rates for taxes (as compared to excises). However, this rate is qualified as applying to the same "class of property". A 1978 constitutional amendment, which became Article CXII, allows cities and towns to implement a classification system for property tax purposes. Actually, they are required to identify the class of taxed property, and they are allowed, with restrictions, to tax different property classes at different rates. The amendment specified there could be up to four classifications. The four classifications that have been created by the Commissioner of Revenue (a position established in the same year - see the section on Administration) are:

- Residential,
- Open space,
- Commercial, and
- Industrial.

Currently, cities and towns are allowed to set the tax rate for commercial and industrial property at a rate higher than residential property, but only up to a maximum ratio of 1.75. Legislation recently approved by the legislature would raise this limit to 2.0. Proponents do not see this change as a vehicle for imposing more of the burden on businesses. Rather, the rationale is to compensate for the fact that residential taxes have

increased dramatically relative to commercial and industrial taxes due to divergence in valuations. In the last few years, residential property values have increased dramatically, both in absolute terms and relative to commercial property. Please note that this discussion relates strictly to "real property", as distinguished from "personal property". Real property refers to land and buildings.

Another major development occurred in 1979. In that year, voters approved a referendum commonly referred to as Proposition $2^{1/2}$. As modified by the legislature in 1980, the resulting legislation implemented two distinct limitations on property taxes. First, property taxes levied by a community cannot exceed 2.5% of the value of all taxable real and personal property. Second, year-to-year increases in the amount levied cannot exceed 2.5%. There are exceptions. New development, that is if the tax base increases, is exempt from this year-over-year restriction. Voters in local communities have the option to pass overrides or exclusions to the limits. Either method allows the community to raise property taxes above the Proposition $2^{1/2}$ limits. Overrides are permanent; exclusions are temporary over the life of a capital project. At the same time these limitations and exclusions were put into place, steps were also taken to enforce full and fair (and consistent) valuation of real property.

Corporate Taxes

Prior to statehood, and even in the earlier years of our new nation, the corporation as an entity did not have the prominence it does today. The first instance of corporate taxation in Massachusetts was in 1793, and it applied only to banks. It was extended to other forms of corporations in 1805. Initially the tax was applied locally to the

corporations as owners of both real and personal property.

Double taxation is a controversial subject today, used to justify calls for the repeal or reduction of one tax or another. That was true two hundred years ago as well. Corporations complained of double taxation as residents and business owners, so starting in 1813 only real property was the basis for the corporate property tax. Tax avoidance was also an issue back then. Non-residents of the state who owned businesses could avoid taxes because real property taxes were applied to the owner's town of residence. In 1863, the first attempt at taxing dividends failed because as constructed it was ruled unconstitutional, as either a tax or an excise. The response of the legislature in 1864 was to construct an excise that would pass constitutional scrutiny. Historically, excises had been applied to transactions. Now they were applied to corporations for the "privilege" of doing business in the state. A privilege is distinguished from a "natural right", such as the right to own property.

In response to tax fairness issues raised by corporations, the franchise fees, which were referred to as "corporate excess" were reduced in the early 20th century. At the same time, to replace the lost income, the state introduced for the first time a corporate income tax. In 1962, the corporate excess was repealed and replaced with a tax on tangible personal property (which is not subject to local property taxes). During all of this, the state was distributing a portion of corporate taxes, in its various forms to cities and towns. This practice was repealed in 1966.

During the 1990s, Massachusetts provided a significant amount of tax reduction in corporate income taxes. Manufacturing companies, banks and other financial institutions, and defense contractors all benefited from these reductions. More generally,

investment tax credits and research and development credits were introduced or increased in an effort to promote investment and create (or save) jobs.

Personal Income Taxes

Today the personal income tax is a significant method of taxation, both federally and in the state of Massachusetts. Chapter II quantified the share of state and local taxes collected via this method at 38%, the largest share. This is a recent phenomenon, with the personal income tax overtaking property taxes as the largest revenue component of the Massachusetts tax structure in the last couple of decades (they have flip-flopped between first and second place a number of times). As recently as 30 years ago the proportion of state and local taxes collected via the personal income tax was less than half of the property tax.

The personal income tax is actually a relatively recent mechanism for collecting taxes. In 1913, Amendment XVI of the United States Constitution legalized the federal collection of taxes on incomes. There had actually been previous attempts to introduce income taxes at the federal level, but their constitutionality was called into question. Before that, federal taxation primarily took the form of excises on transactions, and import duties.

The experience in Massachusetts is quite similar, and is not to be considered coincidental. Constitutional issues were at play here as well. Unlike the Supreme Court of the United States, the Supreme Judicial Court of the Commonwealth of Massachusetts is allowed to offer advice or opinions on proposed legislation. Their opinion was that a tax on income would be unconstitutional under the uniformity requirement of the state constitution. In 1915, the Massachusetts constitution was amended via Article XLIV,

which enabled a personal income tax for the state. The legislature quickly responded and implemented such a tax in 1916. At the same time, intangible **personal** property was exempted from taxation. The original tax rates were set to replace this lost revenue.

In 1971, the basis for income became tied to the federal gross income as defined by the Internal Revenue Code (IRC). At this time income first became divided into parts, with the now familiar "Part A" income of interest, dividends and capital gains, and Part B income, everything else. In the late 1990s, capital gains were taxed on a sliding scale based on the holding period, to promote long-term investment. For 2003, long-term capital gains have become "Part C" income. Part A/B/C income can be taxed at different rates. Historically, Part A income has been taxed at a rate roughly twice that of Part B income. The rate for part B income was 5% until 1989 when a series of increases were passed, with the rate achieving a high of 6.25% in 1991. In 1992, it was reduced to 5.95% where it stayed until 2000. It has since fallen back to 5.3%. Part C income is currently taxed at the same rate as Part A. As required constitutionally, each of these rates is flat.

As with the federal tax system, but in some ways different, exemptions and deductions from income are applied before computing taxable income. In addition, credits are applied to tax due. A relatively recent credit introduced is a "circuit breaker" that compensates for local real estate taxes paid, with limitations based on age (i.e., you must be 65 years or older) and income. Since the federal tax system is used as the basis for gross income, state tax revenues are dependent on federal laws. To introduce more flexibility to respond to changes in gross income levels and to reduce complexity, the state has frozen the IRC used as the basis for state purposes. In 1998, the state set that year as the current reference point.

Sales Taxes

As with the personal income tax, sales taxes have become an accepted (although not universally) part of our tax structure. As with the personal income tax, the sales tax is a relatively recent phenomenon in our state's history.

The first sales tax in Massachusetts was a selective sales tax on gasoline, introduced in 1928. The next manifestation of a sales tax was a meals tax introduced in the early 1940s, with a targeted purpose of funding old-age assistance. The tax only applied to meals costing $1.00 or more served in restaurants. As you might expect, many restaurants started offering 99-cent specials. Over time, inflation reduced how special a meal you could get for under a dollar. In 1977, this selective sales tax was folded into the general sales tax (discussed in the following paragraph). A cigarette tax was introduced in 1945. In 1951, deeds on the transfers of real property were taxed. Other selective sales taxes followed.

The general sales tax was first introduced in 1966 as a temporary measure in response to state deficits. Applied to retail sales of tangible personal property, it was quickly made permanent as approved by voter referendum. Originally, the rate was 3%. In 1975, the rate was raised to the current 5%. There are exemptions to the sales tax. Some are based on the purchaser of the goods. Classes exempt include the federal and state government and nonprofit organizations. Other exemptions are based on the good being purchased. Such goods include food (other than meals in restaurants), prescription drugs, heating fuel, and clothing up to a specified price (currently $175).

The general sales tax applies not just to goods purchased in the state. Goods purchased outside the state to be used, consumed, or stored in the state are also subject to

this tax. This tax is referred to as the *use tax*. If a sales tax was paid to another state at the point of purchase, a matching credit can be applied. Unlike in-state sales taxes, use taxes cannot be collected at the point of purchase, so payment is largely voluntary, and notoriously hard to collect. The use tax has existed coincident with the sales tax since its inception in 1966. In the last few years it has achieved greater visibility due in part to creation of a line item on the main form of the Massachusetts personal income tax filing package (Form 1, line 33 for the 2003 tax year).

You might notice that the above discussion refers to the purchase of **goods**. In general, **services** are not taxed, although some are. In 1990, a law was passed extending the sales tax to "services performed for consideration" for the public. Specific services, 20 of them, identified via Standard Industrial Classification (SIC) categories, were deemed subject to this new tax. Services subject to this tax included telecommunications, photography, computer maintenance and repair, and security. The tax on services did not last long. That same year another law was passed reducing the list. In 1991, with the position of Governor now filled by a Republican, all but the tax on telecommunications services were repealed (Cobb 1999).

Other Taxes

The 2004 State Tax Handbook identifies 19 distinct taxes in the state of Massachusetts. Most of these taxes fall under the categories already discussed. While the four categories presented thus far represent a large portion of state tax revenues, there are some other taxes, or more generally revenue generators, that merit discussion.

One such category is taxes related to transfers upon death. Technically, in

Massachusetts these levies are excises on the privilege of transferring or receiving property. Massachusetts first introduced an inheritance tax in 1891. It was modified in its early years but essentially was untouched between 1907 and 1976. In 1927, Massachusetts implemented a "sponge tax", so called because it allowed the state to reclaim credits made for state taxes on the federal estate tax. In 1976, the inheritance tax was replaced with an estate tax. The estate tax itself was phased out starting in 1996, leaving us with only the sponge tax.

The list of 19 taxes says nothing about *tax expenditures*. Tax expenditures refer to tax policies that offer "tax relief" to particular classes of taxpayers or on certain classes of transactions. The deductions and credits discussed in the context of the personal income tax would apply here. For example, there is a deduction for college tuition (with qualifying restrictions) designed to promote consumption of higher education. The intent here is not to assess the economic efficiency of such incentives, or to attempt to catalog the history of deductions. The point is that these expenditures do exist, they are an important part of the tax structure, and they have evolved over time. When discussing taxes it is important to keep in mind what is and is **not** taxed.

In the State Tax Handbook, there is an entry for a *Corporation Annual Report Fee*. It is not clear why this is classified as a tax while many other fees are not. There are many "fees for service" that the state charges. While most are not technically taxes, and such fees (as discussed in research Chapter II) make up a small portion of state revenue, the recent trend is for an increase of such fees, including the creation of new fees.

Finally, the Massachusetts lottery is clearly not a tax. Participation is strictly on a volunteer basis (ignoring issues of addiction). However, as documented in Chapter II,

lottery revenues represented approximately 12% of state revenues. The lottery was established in 1971 and opened for business the following year. By fiscal year 1991, it was generating $1.6 billion in revenues. FY 2002 revenue was $4.2 billion.

Administration

The Massachusetts Department of Revenue (http://www.dor.state.ma.us/) is the state government agency currently responsible for administering taxes. Until 1865, there was no central administrator of taxes. The Office of Tax Commissioner was established in that year. Until 1890, that position was filled by the state Treasurer. In 1919, a Commissioner of Corporations and Taxation replaced the Tax Commissioner. The first Commissioner, Henry F. Long, served for 34 years! Upon his retirement, a State Tax Commission was created, effectively giving the new Commissioner two deputies. In 1978 the Commission of Corporations and Taxation was replaced by the current Department of Revenue.

APPENDIX C. TIMELINE OF SIGNIFICANT TAX CHANGES IN MASSACHUSETTS

1780 Massachusetts Constitution adopted

1793 First corporate tax introduced - applied to banks

1805 Corporate tax extended to other forms of business

1813 Corporate taxes restricted to real property

1836 Local taxation of property made permanent

1864 Franchise excise tax applied to corporations for the privilege of doing business in state

1865 Office of Tax Commissioner established

1891 Inheritance tax introduced

1915 Personal income tax enabled via legislation

1916 Personal income tax implemented

1919 Tax Commissioner replaced by Commissioner of Corporations and Taxation

1927 Sponge tax created

1928 First selective sales tax, excise on gasoline

1946 Assessment and apportionment of property taxes for state funding ends

1962 Corporate excess replaced as tax base by tangible personal property

1963 Poll tax repealed

1966 State sharing of corporate taxes ends

1966 Temporary sales tax

1967 Sales tax made permanent at 3%

1971 Federal gross income adopted as basis

1971 State lottery established

1975 Estate tax replaces inheritance tax

1975 Sales tax increased to 5%

1977 Restaurant meal tax folded into general sales tax

1978 Real property classification introduced

1978 Department of Revenue created to replace Department of Corporations and Taxation

1979 Proposition $2^{1/2}$ passed

1980 Property tax classification introduced

1989 First in series of increases to the personal income tax rate, peaks at 6.25% in 1991

1990 Tax on services introduced

1991 Tax on services repealed on all services except for telecommunications

1992 Personal income tax rate reduced to 5.95%

1995 Single sales factor apportionment formula introduced

1996 Estate tax repealed, only sponge tax remains for transfer on death

1998 1998 set as reference year for IRS federal tax code

2000 First in series of rate cuts for personal income tax

2003 Personal income tax rate is 5.3%

BIOGRAPHICAL SKETCH OF AUTHOR

The author earned a B.A. in Math in 1977 at the University of Massachusetts – Dartmouth, and an M.S. in Computer Science in 1984 at Worcester Polytechnic Institute. After nearly a quarter century as a Software Engineer, the author returned to school to pursue a lifelong interest in economics and public policy. He graduated from the University of Massachusetts Lowell in 2003 as class valedictorian with a Bachelors degree in Economics. The author continued on to study for a Masters Degree in Economic and Social Development of Regions, also at UMass Lowell. He worked for the department as a Teaching Assistant, and represented the department's study body as the elected Student Representative. While studying at UMass Lowell the author became aware of the regressive nature of the Massachusetts tax structure, and became better equipped to study the economic and public policy implications, and to offer recommendations for improvement.