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An Overview of California's Manufacturers' Investment Credit

LEGISLATIVE ANALYST'S OFFICE

Prepared for

Assembly Committee on Revenue and Taxation

INTRODUCTION

The Assembly Committee on Revenue and Taxation has requested that the Legislative Analyst's Office (LAO) review and assess the effectiveness and appropriateness of the Manufacturers' Investment Credit (MIC). Specifically, the LAO was requested to provide a report on the MIC that would review and comment on existing information relating to the performance of this tax program, and identify additional information that would be required to more thoroughly evaluate its effectiveness.

This report contains the following sections:

- Background information, including the intent and provisions of the MIC.
- Detailed information about how the MIC works.
- Tax policy issues and rationale for the MIC.
- Descriptive information regarding the utilization of the MIC.
- Existing literature on the effect of taxes, and investment tax credits, including the MIC.
- Alternatives for further analysis of the MIC.

Also provided are the following appendices: (1) comments from industry regarding the MIC; (2) detailed information regarding use of the MIC by industry; (3) research findings of current literature; and (4) investment credits by other states and the federal government.

BACKGROUND ON THE MIC

What Is the MIC?

Tax Program Basics. The MIC is a tax program that allows certain businesses to reduce their personal income tax (PIT) or corporation tax (CT) liabilities by 6 percent of the costs of acquiring and installing manufacturing equipment. The MIC was put into place pursuant to Chapter 881, Statutes of 1993 (SB 671, Alquist). The legislation allowed credits to begin accruing effective January 1, 1994, and to be claimed by businesses during tax years beginning on or after January 1, 1995. The MIC is available only for certain types of equipment and may be used only for the purpose of offsetting current or future tax liabilities. Generally, the MIC is available only to manufacturing firms, although recent legal decisions have resulted in the broadening of its availability to other types of firms.

Additional MIC Features. In addition to the 6 percent tax credit for income tax liabilities discussed above, the tax program provides the following features in lieu of the tax credit:

- Provides "start-up" businesses the option of claiming a 5 percent sales and use tax (SUT) exemption on equipment purchases.
- Allows businesses a refund of the SUT paid equal to the amount of credit that would be allowed under the PIT or CT for the current year.

The first of these SUT-related tax incentive features was intended to assist new businesses which had no income tax liability. The second provision was intended to provide flexibility to businesses in the assignment of tax benefits among their operating units.

Program Restrictions. Once a company receives the MIC, the property that was used for credit eligibility must remain in the state for one year. If the property is removed during the one-year period following the date that the credit was claimed, regulations provide a process for reclaiming a portion or all of the credit. The credit generally may be carried forward for up to eight years and up to ten years for certain small businesses. In addition, the MIC itself is not refundable, may not be used to offset the corporate minimum tax, and may not be used to reduce the alternative minimum tax (AMT). (It may, however, be used to reduce the corporation's regular CT liability to the calculated AMT level.)

Sunset Provisions. Enabling legislation provided that the tax credit would expire on January 1, 2001, if the level of manufacturing employment on that date (excluding aerospace employment) did not exceed by 100,000 jobs the number that existed on January 1, 1994. The sunset provision was later changed such that the MIC would expire during *any* year that the number of these manufacturing jobs did not exceed the 1994 level by at least 100,000. Current data indicates that the state had 1.537 million manufacturing jobs on January 1, 1994 and 1.687 million of such jobs on January 1, 2002. (The 2002 estimate will be revised this February.) In the event that the MIC becomes inoperative under these employment level requirements, the enabling legislation would be automatically repealed. Thus, subsequent action by the Legislature would be required for the program to go into effect again.

Other Program Changes. Certain other alterations to the MIC after its initial adoption made it more generous for certain types of businesses. In 1995, for example, (1) the MIC was expanded to include special buildings for the semiconductor industry, and (2) the preferential treatment of small businesses under the MIC was extended to certain biotechnology and biopharmaceutical business. In 1998, the MIC was further expanded to cover equipment used in the production of computer programming and software.

Intent of the MIC Legislation

Adopted during a period of significant economic uncertainty in the state, the MIC was preceded by several years of negative economic growth. In fact, the California economy—which had outperformed the national economy throughout the late 1980s—suffered greater reductions in economic output, employment, and income than did the nation as a whole during this period. Furthermore, as a consequence of severe reductions in defense spending, corporate downsizing (especially in high-technology sectors), and a real estate slump, the state lagged the nation during the economic recovery period. The recession led to a particularly severe downturn in the manufacturing sector. The state lost approximately 300,000 manufacturing jobs during the period 1989 through 1993, with a 45 percent reduction in the aerospace sector alone.

Based on significant concerns about the state's economy (and in particular, the severe declines in manufacturing), the MIC was adopted by the Legislature and signed into law. The tax program was perceived as a means of compensating for high costs of production as well as other business costs in the state. By reducing the tax burden with respect to certain types of activities, policymakers attempted to make the state's tax environment more favorable for business expansion and as a relocation site for out-of-state firms. Originally proposed as a SUT exemption for certain equipment purchases, the MIC was changed to an income tax credit largely in order to lessen the impact on state revenues.

Additional tax changes favorable to business were also approved during the early 1990s, including (1) more generous treatment of business' net operating losses, (2) reduced taxes for Subchapter S corporations, and (3) elimination of the sunset provision for the research and development (R&D) tax credit.

MIC PROVISIONS IN DETAIL

Eligibility for the MIC

In order to receive the MIC, the eligibility requirements regarding *qualified* taxpayer, *qualified* costs, and *qualified* property must be met. We describe the requirements below and identify issues raised before the Board of Equalization (BOE) for each category.

- ***Qualified taxpayers*** are defined as those engaged in specified activities as described in the Standard Industrial Classification (SIC) Manual. Eligible activities include those that the U.S. Department of Labor considers "manufacturing," in addition to those activities related to computer programming, computer software design, and biotechnology.

Issues With Eligibility Requirements
Qualified Taxpayer. A recent BOE ruling declared that a taxpayer need only be engaged in a specified activity to be eligible for the MIC. This decision reverses Franchise Tax Board (FTB) regulations that required a taxpayer's primary business be classified under the proper SIC codes in order to qualify.

- ***Qualified costs*** are defined as either (1) capital acquisitions on which the SUT was paid or (2) capitalized labor costs. Capital acquisitions are property that qualifies for depreciation, such as office furniture, computers, transportation equipment, and buildings (including leased property). Capitalized labor costs are costs directly related to the construction or modification of qualified property, as defined under federal uniform capitalization rules.

Issues With Eligibility Requirements
Qualified Costs. There are currently two cases before the BOE regarding what type of capitalized labor costs qualify for the MIC. This issue is particularly contentious when dealing with payments made to third-party contractors.

- ***Qualified property*** is defined as either (1) depreciable tangible personal property, which includes all property contained in or attached to a building but excludes land, buildings, and other inherently permanent structures; or (2) computer software used primarily in manufacturing, research, pollution control, recycling, or in maintaining, repairing, measuring, or testing property used in such activities. It also includes, for certain activities, special-purpose buildings and foundations that are primarily used in connection with manufacturing, refining, processing, fabricating, or research and storage.

Issues With Eligibility Requirements
Qualified Property. A recent BOE decision found against the FTB, ruling that the MIC statute did not allow for the bifurcation of property. A second, unresolved, issue is whether FTB regulations have made the definition of inherently permanent structures too narrow, thereby limiting the types of property that are eligible for the MIC.

How Does the MIC Work?

For both PIT and CT filers, the MIC acts as a credit against computed tax liabilities. California PIT liabilities are based on California resident or nonresident income earned in California. California CT liabilities are based on income attributable to California, which, for multistate and multinational corporations, is the share apportioned to California, based on the state's share of the firm's total property, payroll, and sales.

Example of MIC Tax Effects

State Tax Liability Only. Figure 1 shows a hypothetical firm with gross revenue of $1,000,000, costs of $850,000 (including capital expenditures of $150,000), and net income apportioned to California of $150,000. Without the MIC, the company has a state corporate tax liability of $13,260. Assuming the company can claim the MIC on $50,000 of its qualified capital expenditures, this translates into a tax credit of $3,000, reducing the company's final tax liability to $10,260.

The corporation's tax liability cannot fall below the AMT, which is equal to 6.64 percent of California net income, disregarding exemptions and credits. If a firm's tax liability is higher under the AMT than the CT, the firm would be required to pay the difference. In the example shown in Figure 1, the AMT results in a lower tax liability than the regular tax ($9,960 versus $10,260, respectively), and is therefore not applicable.

State and Federal Tax Interaction. Due to the interaction between state and federal corporate taxes, the actual value of the credit to a company will be less than the amount by which its California tax is reduced. Since state taxes are deducted from federal taxable income, the *reduction* in state taxes will result in an *increase* in federal tax liability. As shown in Figure 2, the company's federal taxable income, and therefore its federal tax liability, is higher under the credit. The company's total tax liability remains lower with the credit, but by $1,830, as opposed to $3,000. This means that the state loses more in forgone revenues than companies receive in reduced taxes through the MIC program.

Figure 1

Hypothetical California Firm
California Corporate Tax Liability

Revenues	$1,000,000
Costs	
Payroll	$300,000
Materials	400,000
Capital expenditures:	
Qualified	50,000
Other	100,000
Subtotal, Costs	$850,000
Taxable Income	**$150,000**
Pre-Credit State Corporate Tax Liability (8.84 percent)	$13,260
Less MIC (6 percent of $50,000)	-$3,000
Total State Corporate Tax Liability	**$10,260**

Figure 2

Hypothetical California Firm
California and Federal Tax Liability

Tax Liability Without MIC	
State taxable income	$150,000
State tax liability without MIC	13,260
Federal taxable income	136,740
Federal tax liability[a]	36,579
Total State and Federal Corporate Tax Liability	**$49,839**
Tax Liability With MIC	
State taxable income	$150,000
State tax liability after MIC	10,260
Federal taxable income	139,740
Federal tax liability[a]	37,749
Total State and Federal Corporate Tax Liability	**$48,009**
Value of Credit	
Additional federal taxes	$1,170
Decreased state revenues	-$3,000
Reduced taxes for firm	$1,830

[a] Federal corporate tax liabilities are based on marginal tax rates varying from 15 percent to 39 percent.

TAX POLICY ISSUES REGARDING THE MIC

A targeted tax program such as the MIC raises important tax policy issues for policymakers. For example, there are legitimate arguments both in favor of and opposed to the basic MIC program. In addition, the administration of the program and its governing regulations raise other issues for policymakers.

Arguments Against the MIC

Critics of the MIC argue that it is an inequitable, inefficient, and ineffective means by which to encourage investment. Their criticisms fall into the following broad categories:

- ***Inequitable Taxation—The MIC results in giving a tax advantage to manufacturing over other business activities, as well as providing an advantage to capital investment over labor.*** This view holds that since only one type of industry (and production factor) benefits from the tax credit, the remaining industries face relatively higher costs, and are therefore at a competitive disadvantage. Such preferential treatment can also result in inefficient resource allocation according to this view.
- ***Relocation Rather Than Creation—The MIC results in few new jobs, but rather pits states against each other in competing for jobs.*** The argument here is that corporate tax breaks are no more than a transfer of government funds to private businesses, and in the end, the national economy is unaffected. In this view the competition among states in offering various tax incentives represents a form of "prisoners' dilemma"—in which each state would be better off if none offered such incentives. If one state does offer them, however, it is in the interest of other states to do the same.
- ***Inefficient Development Policy—Tax incentives have a negligible impact on economic growth, and any job creation that does occur does so at a substantial cost per job.*** Proponents of this view also hold that some of the tax credits will go to companies which would have made the same investments, regardless of the tax incentive. That is, the tax credit did not induce the investment, yet the company receives "windfall benefits" in the form of reduced taxes.
- ***Ineffective Development Policy—Taxes are a very small percentage of overall business costs and thus have little effect on business decisions.*** Labor, transportation, land, and other factors typically constitute much more significant proportions of total costs than do taxes. Therefore, according to those who hold this view, tinkering with this particular cost is unlikely to result in a large shift or expansion of business compared to the adverse fiscal effects that such measures can have on the state.

Arguments Supporting the MIC

Supporters of the MIC generally view it as an effective means to assist particular businesses suffering from financial difficulties and a means to assist the state's economy at the same time. Their arguments typically fall into the following categories:

- ***Investment Incentive—The MIC effectively reduces the price of new capital, and leads to greater investment.*** Adherents of this view suggest that a firm considering a capital investment is much more likely to undertake such investment with the MIC in place. Proponents argue that this marginal cost reduction can have a significant positive impact on investment decisions.
- ***Relocation Incentive—California has become a more attractive place relative to other states for business since the credit has been in place.*** The argument here is that tax credits *do* influence corporate location decisions and dissuade businesses from moving their activities out of California. Manufacturing industry representatives stated and continue to state that the MIC plays an important role in both expansion and business location decisions.
- ***Efficient Job Allocator—Competition for business among states is an efficient job allocator.*** This argument holds that the nation benefits from the redistribution of jobs that may occur due to the use of investment tax credits. This is based on the notion that jobs are worth more in areas with higher unemployment, and that such areas are likely to have relatively aggressive tax credit programs. These areas will be able to attract businesses away from regions that do not value the jobs as highly.
- ***Other Arguments.*** Advocates of the MIC also emphasize that the MIC offers significant indirect benefits to the state in terms of investment and job growth that result in additional state revenues. They also point out the importance of manufacturing to the overall state economy in terms of economic stability and the high value-added nature of the employment in this sector.

Other Issues Regarding the MIC

A number of issues have been raised by industry regarding the administration and compliance costs of the MIC. For example, some firms have found the program to be more restrictive than necessary. Others cited difficult and expensive compliance issues. In addition, there has been some discussion of changing the nature of the tax credit by allowing the sale and purchase of credits between firms, or eliminating the MIC in favor of SUT exemption for purchased equipment. Appendix A presents additional material regarding some of these issues.

In addition to concerns raised by industry, some who favor the MIC raise objections regarding its implementation and design. One common suggestion is that the MIC be redesigned to restrict—as much as possible—its availability to investment that would not have been undertaken without the MIC. For example, a base level of annual capital equipment investment could be established, with only investment in excess of this level eligible for the MIC. A similar approach is used with respect to California's R&D tax credit.

HOW IMPORTANT IS THE MIC?

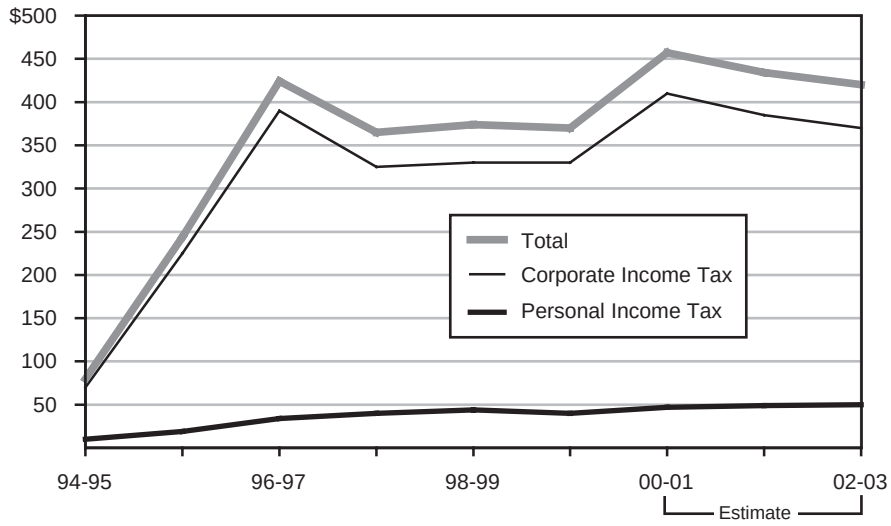
Revenue Impacts of the MIC

The MIC is one of the most significant tax programs in the state in terms of the amount of foregone revenues from the PIT and CT. Figure 3 indicates the amount of revenue foregone beginning in the year that credits were first available through 2002-03. These estimates are based on *direct* revenue impacts due to reduced taxes from MIC claims. These may be partially offset by *indirect* revenue increases due to additional economic activity generated by the credit. The amount of credits claimed is expected to drop from the peak of approximately $460 million in 2000-01 to an estimated $420 million for 2002-03. The Department of Finance (DOF) indicates that the MIC generally results in indirect additional revenues to the state of approximately 30 percent of the credits' direct revenue loss. Thus, MIC revenue losses of $420 million would be offset by an increase in revenues of approximately $126 million, for a net revenue loss of $294 million. The amount of MIC claims for any year include those due to current-year investment, as well as credits that were not used in prior years and have been carried forward.

Figure 3

The MIC Represents a Substantial Loss in Revenues

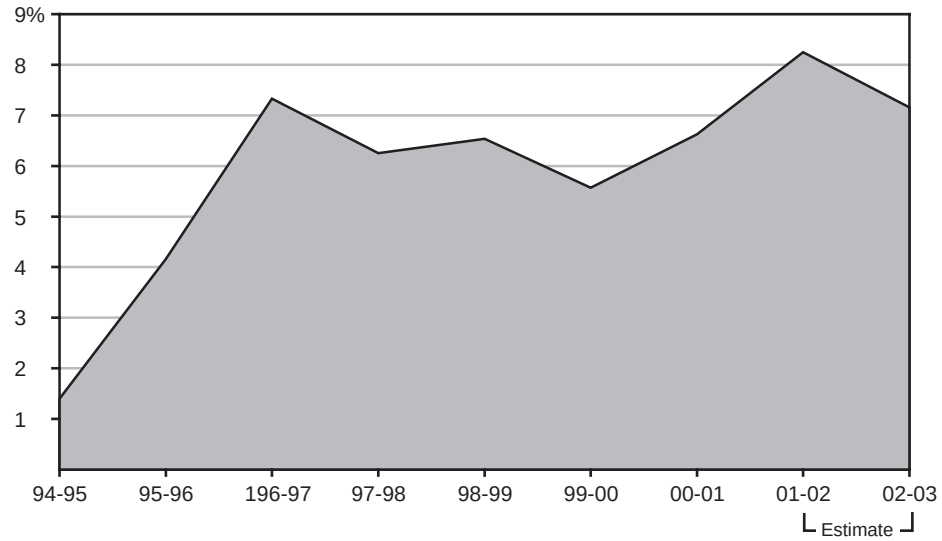
(Dollars in Millions)



As a percentage of total foregone revenues, MIC claims under the CT are currently estimated to be about 7 percent, as shown in Figure 4. This represents a decline from the estimated 7.3 percent in 2000-01. MIC claims under the PIT are a relatively minor portion of total MIC claims, and represent a small percentage of PIT revenues.

Figure 4

Total MIC Claims are About Seven Percent Of Corporate Tax Revenues



MIC Claims by Sector and Industry

The use of the MIC by CT taxpayers is concentrated in particular sectors, as shown in Figure 5. The largest dollar amount of MIC claims is concentrated in electrical and electronics businesses (including computer and related industries), which is responsible for over 40 percent of the dollar value. However, the largest number of returns with MIC claims is in other (miscellaneous) manufacturing, which represents about 57 percent of these returns. Additional detail regarding industry distribution of the MIC is provided in Appendix B.

Figure 5

MIC Returns and MIC Claims are Distributed Differently 2000 Income Year

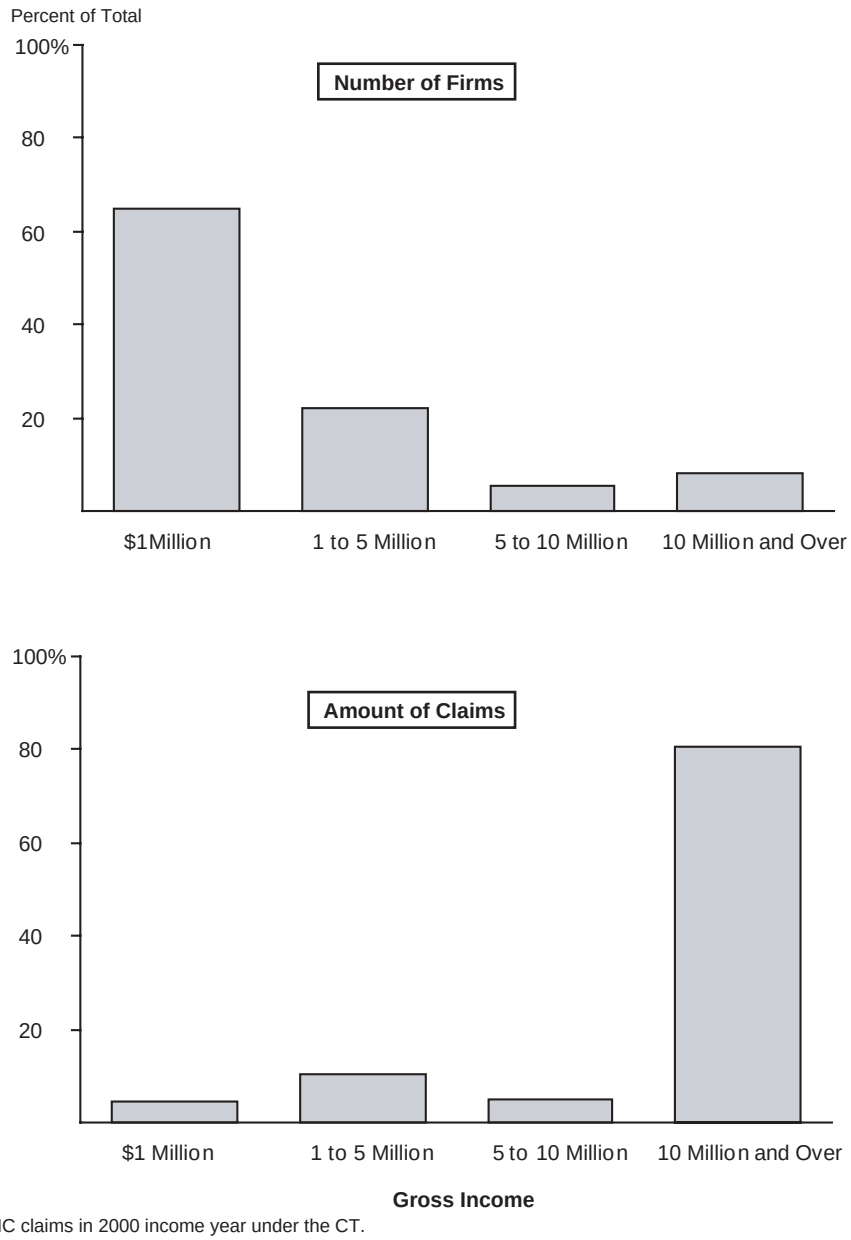
	Tax Returns with MIC Claims		Amount of MIC Claimed	
	Number	Percent of Total	Value	Percent of Total
Food and kindred products	420	8.5%	$32,938	8.1%
Chemicals and allied products	129	2.6	7,786	1.9
Pharmaceuticals	37	0.8	15,188	3.7
Oil and gas and related industries	12	0.2	35,510	8.7
Electrical and electronic equipment	640	13.0	170,057	41.6
Other manufacturing	2,783	56.6	98,857	24.2
Other	895	18.2	48,234	11.8
Totals	**4,916**	**100.0%**	**$408,570**	**100.0%**

MIC Claims by Size of Firm

Most tax returns with MIC claims are filed by small- and medium-sized businesses, in terms of income. As shown in Figure 6, roughly 90 percent of the returns with MIC claims are filed by businesses with incomes of under $1 million. In terms of the actual amount of credit awarded, however, this is largely attributable to larger businesses with incomes in excess of $10 million. This suggests that most of the benefit goes to larger businesses although the data does not address the relative importance of the MIC to small and large businesses based on income or operating expenses.

Figure 6

Distribution of MIC Usage Varies by Income Group[a]



[a]MIC claims in 2000 income year under the CT.

MEASURING THE EFFECT OF THE MIC

Perhaps the most crucial issues for the Legislature to address are whether or not the MIC is *effective* and *efficient* based on particular measurement criteria. Two of the most common measures of effectiveness that have been used are (1) the amount of new investment caused by the MIC and (2) the number of jobs that have been generated by the MIC. Criteria regarding efficiency might include (1) the revenue loss to the state in generating a given level of investment, and (2) the revenue loss incurred per job created.

While there are numerous criteria upon which to judge the value of the MIC, carrying out such evaluations is costly and resource intensive. In addition, all such studies require numerous behavioral assumptions that can add a great deal of uncertainty to any conclusions that might be drawn from such analyses. Nevertheless, some relevant studies have been conducted for other states, regions, and at the federal level that can provide some useful background. Most have been conducted by academic or other independent researchers. Although tax credits are viewed favorably by many policymakers, there is general consensus among economists that such policies are neither particularly effective nor efficient. ***In general, the empirical evidence suggests that while taxes do influence economic activity, state-level investment tax credits have little impact on business decisions relative to other factors.***

Studies relating to the effectiveness of investment tax credits have centered on three major areas:

- Measuring the overall impact of taxes generally on economic activity.
- Gauging the impact specifically of investment tax credits on investment.
- Estimating the cost of job creation through tax incentives.

Impact of Taxes on Economic Activity

Recent literature has primarily focused on estimating how responsive employment, investment, gross state product, and plant start-ups are to overall taxes. These studies have typically shown that if overall taxes were lowered by 10 percent, economic activity would increase between 1 percent and 6 percent. (Additional information regarding the findings of these studies is presented in Appendix C.) The studies also indicate that:

- Capital intensive industries, such as manufacturing, appear to be more sensitive to business tax reductions than other industries.
- Taxes appear to play a significantly larger role in intraregional business decisions than in interregional ones. Since factors such as proximity to market, labor supply, and production costs tend to be similar intraregionally, the importance of taxes is likely to increase.
- The lower taxes are in relation to total production costs for a firm, the less of an impact tax reductions tend to have. If taxes are a relatively small component of firms' overall cost, then even steep reductions may have only a small

or insignificant effect. Their impact can be further weakened by federal deductibility issues and the impermanent nature of tax laws.

- Factors other than taxes tend to have a more significant impact on the economy. This result accords with business climate survey results—which tend to rank taxes lower in importance than such factors as proximity to market, labor supply, and the cost and availability of facilities.

The research that looks at the general effect of tax levels suffers from two major weaknesses:

- ***Assumption of Constant Public Expenditures.*** Many studies do not accurately account for government services and thus may overestimate the effect of taxes. Given that the level of government services can be an important factor in business decisions, a decline in service levels resulting from lower revenues means that tax reductions can have both positive and negative effects on economic activity.
- ***Wide Variability Around Findings.*** An additional problem with the studies, as can be seen in the figure in Appendix C, is that results vary widely. This can be seen not only in the broad range of estimates, but also in the direction (positive or negative) of the estimates. This inconsistency makes it difficult to put a large amount of confidence in any one result.

Impact of Investment Tax Credits on Investment

Although fewer studies exist on the direct impact of investment tax credits on investment, there have been a variety of econometric and statistical techniques used in these investigations. Generally, these studies concluded that investment tax credits have only small or undetectable effects on investment. One reason why tax credits are found to have little impact may result from the benefits of such credits being passed "up" to producers of inputs and "down" to employees, as opposed to showing up as increasing investment. In fact, evidence has shown that investment tax credits *can* lead to higher input prices and wages, at least in a short or intermediate term. The following study approaches and results bear mentioning:

- ***Tax Credits and the "User Cost of Capital."*** A number of studies attempt to assess the effectiveness of tax credits by looking at the impact of tax credits on the "user cost of capital." One recent study concluded that (in line with previous cost of capital studies) it was unlikely that state and local tax policies have had a substantial effect on the variation in state-specific levels of investment.
- ***After-Tax Rate of Return on Capital.*** Other studies have looked at representative manufacturing, communications, retail, and business services firms. One study of six Midwestern states found investment tax credits had only a small impact on the rate of return. Since business investment decisions are often based on rates of return, this result would suggest that tax credits may have little impact on investment.

- ***Tax Credits and Business Location.*** Another recent study looked at investment decisions in 22 northeastern states by representative firms in various industries. The study concluded that the business tax structure of a state exerts a small or negligible effect on capital expenditures, with other economic and demographic characteristics of states exerting a larger influence.
- ***Ratio of Capital to Labor.*** Economic theory suggests that a decrease in the cost of capital—relative to labor costs—would generally result in an increase in the capital/labor ratio. The capital/labor ratio approach is based on the assumption that if tax credits aimed at investment in equipment and machinery are effective, the capital/labor ratio will increase in the presence of such credits. However, a 1995 study of the federal investment tax credit found the ratio to be unaffected by tax credits.
- ***Tax Comparisons.*** This approach is based on comparing the effect of changes in various types of business taxes. One study found that sales tax exemptions and changes to income tax apportionment formulas had a greater impact on investment than reductions in other tax changes that result in decreased corporate tax burdens (such as accelerated depreciation or reduced tax rates). This suggests that tax changes are not equal in their ability to stimulate economic activity.

Estimating the Cost of Job Creation

A substantial amount of economic development research has attempted to measure the public cost per job created. Most studies have shown these costs to be significant, with evidence generally consistent with the belief that economic development subsidies are likely to be associated with substantial net costs per job.

One recent study estimated the average public cost per manufacturing job generated by a tax incentive in 17 states, including California. The states were chosen based on high levels of manufacturing production and a decline in effective corporate tax rates from 1990 through 1998. The loss in state and local revenue per job, over a 20-year period, was estimated to equal $46,000 on a net present value basis. The study also looked at the impact of the increased economic activity on state revenues, and concluded that over the same 20-year period, additional revenues of $18,000 in net present-value terms would be collected. In each year, revenue reductions were greater than revenue increases.

Other studies have reached similar conclusions regarding job costs. It should be noted that even with such costs associated with job creation, policymakers may decide that a job-creation policy is appropriate. This may be due to the perceived advantages of making overall employment larger even at the expense of state revenues.

ALTERNATIVES FOR FURTHER STUDY

Should the Legislature wish to pursue further specific investigation into the effects of the MIC, there are several different options, each with its own set of advantages and disadvantages. With each of the approaches, attempts would have to be made to sepa-

rate the effect of the MIC from other factors that have an effect on economic activity. Such independent measurement of the MIC impact is essential in estimating its effectiveness. In many cases, a particular approach would require the collection and analysis of substantial amounts of data. Possible data collection options would include voluntary filings by individual firms or collection of investment and other data by FTB in conjunction with businesses' tax filings.

The principal approaches to studying the impact of tax incentives are:

- ***Survey Methodology.*** This approach involves surveying executives regarding business location decisions. The principal advantages are that it (1) provides direct information regarding important factors in investment decision making, and (2) avoids the complex statistical assumptions that plague data intensive analysis. The disadvantages of this approach include: (1) the difficulty in locating the individual(s) responsible for site location or investment, (2) the quality and completeness of responses, and (3) the lack of precise measures of the impact of the various factors influencing investment decisions.
- ***Case Study Technique.*** This approach examines the effect of specific tax incentives on individual firms. The principal advantage of this method is that it allows the investigative technique to be tailored to specific economic situations and the circumstances of individual firms. The major drawback of this approach is that it is difficult to separate other factors in assessing the effects of any incentive measure. In addition, there are the added issues of establishing a basis of comparison for assessing the tax incentive's effect and the difficulty in applying any specific findings to more general circumstances.
- ***"Hypothetical" Firm Methodology.*** In this technique, hypothetical firms of varying sizes, profitability, and industry are "created" and "placed" in particular locations. Models are then constructed to replicate operating ratios, balance sheets, income, and tax statements for these "make believe" firms. Through these means, the effect of state and local taxes on a firm's performance can be calculated. Although this method measures directly the impact on profit of state and local taxes, it does not measure the incentive effect of changes in state and local taxes.
- ***Econometric Approach.*** This approach represents an attempt to distinguish the impact on nontax factors from tax-related factors. If data are available and the model appropriately constructed, the tax impacts can be isolated from the effect of other factors. Unfortunately, suitable data are frequently neither available nor easily producible, and properly specifying appropriate models can be a difficult undertaking. This means that construction of a model that is sufficiently robust and complex to measure small changes in investment activity can be an expensive and time-consuming activity.
- ***Computable General Equilibrium (CGE) Modeling.*** The use of CGE modeling incorporates many of the estimation techniques and methodologies of the

econometric approach, and therefore suffers from many of the same data concerns and modeling issues. However, the CGE approach does have the advantage of being able to specify structural relationships and interactions between and among economic variables in the model. The DOF has a model that it uses for dynamic estimates of tax changes, which may be suitable as a means of looking at the effect of various tax incentives. The committee may wish to discuss with DOF the potential use of this model to analyze the impact of the MIC.

APPENDIX A
PERSPECTIVES OF INDUSTRY

We held several meetings with various business representatives regarding the use of California's Manufacturers' Investment Credit (MIC). The major points that were raised during these discussions are outlined below.

Tax Credits in General

Role of the Credits in Investment Decisions. Industry representatives stated that the credits do have an impact on investment decisions. Several companies incorporate the credits into their cost models. One firm noted that although they look at the tax ramifications of the credits, they do not quantify the marginal benefit of the credits themselves. Another firm indicated that they help the "bottom line," suggesting that rather than act as an "incentive" they instead serve as a "reward."

Unitary Returns. California generally requires a member of a group of two or more related corporations to file a combined return. A combined or unitary return means that a corporation's taxable income is determined by adding all units' revenues and costs together. However, the MIC can only be applied to that unit which purchased the equipment. Industry noted that this limits the amount of the MIC that can be used. For instance, the credits could not be used to offset a firm's tax liability if the unit that purchased the equipment were unprofitable, even though the corporation as a whole had taxable income.

Available Only to Profitable Firms. Due to the nature of tax credits, they can only be used when a firm has tax liability. In any year a firm is not profitable, the credits go unused. In addition, since a firm's tax liability cannot fall below the alternative minimum tax, firms with many deductions and credits may not be able to utilize the credits in their entirety.

MIC Particulars

MIC Versus Sales Tax Exemption. Industry representatives noted that a sales tax exemption is preferable to a tax credit, since it would be less complicated to calculate, result in less administrative work and auditing, and not be limited only to firms with taxable income. One firm noted that a sales tax exemption of less than 6 percent may be preferable in some respects to the current MIC.

The Audit Process. The MIC audit is generally considered by industry to be one of the longest and most arduous, both for the Franchise Tax Board (FTB) and businesses. Industry is under the impression that the FTB targets businesses using the MIC, and is "aggressively" attempting to disallow many expenses that appear to qualify.

Documentation of Direct/Indirect Labor. The MIC can be applied to certain labor costs, but only those that are direct or "capitalized" into the equipment. In order to

properly document costs, companies must often keep separate and very detailed records of employment time spent on particular projects. Industry also noted that this documentation is particularly difficult when outside contractors have been retained. Firms reported that costs that would qualify had the firm done the work in-house do not always qualify when an outside contractor is hired.

APPENDIX B
DETAIL ON MANUFACTURERS' INVESTMENT CREDIT (MIC) CLAIMS BY INDUSTRY

Additional details regarding the use of the MIC is provided in Figure B-1. The figure indicates the concentration of the credit amounts in computer-related industries, which is responsible for over one-third of total MIC claimed.

Figure B-1

MIC Activity by Industry

2000 Income Year
(Dollars in Thousands)

Industry	Amount of MIC Claims	Percent of Total MIC Claims
Manufacturing		
Computer	$143,624	35.6%
Petroleum refining	38,880	9.6
Other manufacturing	28,844	7.1
Electronic equipment	27,211	6.7
Chemicals	23,825	5.9
Food	19,413	4.8
Transportation equipment	18,128	4.5
Beverage and tobacco	16,125	4.0
Fabricated metal	14,701	3.6
Other	35,339	8.7
Subtotals	($366,090)	(90.6%)
Trade	$14,875	3.7%
Services		
Computer services	$4,751	1.2%
Other	2,365	0.6
Subtotals	($7,116)	(1.8%)
Non bank holding companies	$5,579	1.4%
Information	$3,662	0.9%
Construction	$3,000	0.7%
Agriculture, forestry, and fishing	$1,381	0.3%
Transportation and utilities		
Utilities	$1,286	0.3%
Other	17	0.0
Subtotals	($1,303)	(0.3%)
Mining	$659	0.2%
Finance, insurance, and real estate	$251	0.1%
Totals	**$403,916**	**100.00%**

APPENDIX C
RESULTS OF RECENT RESEARCH ON TAX IMPACTS

Estimates of the impact of taxes on economic activity show broad variations, as shown in Figure C-1. For example, estimates for increased manufacturing investment given a 10 percent decline in *general* taxes (such as personal income taxes and sales use taxes) range from 5.4 percent to 10.2 percent, with a median response of 3 percent. Similarly, estimates for increased manufacturing investment given a 10 percent decline in *business* taxes (such as corporate income taxes and business license taxes) range from 1 percent to 3.6 percent, with a median response of 2 percent. In theory, since the effect of various taxes should be reflected to a greater or lesser extent in a firm's costs, the impact of reductions in general and business taxes should be somewhat similar.

The following figure summarizes the various results from these studies, grouping them by economic indicator:

Figure C-1

Evidence From Recent Studies

Change in Economic Activity Due to 10 Percent Decline in Taxes

Economic Indicator	Number of Studies	Median	Range
Total employment	6	5.8%	0 to 8.5%
Manufacturing	13	1.0	-0.5 to 15.4
Investment in manufacturing	6	3.0	-5.4 to 10.2
Gross state product	12	0.7	-2.7 to 8.8
Manufacturing plant start-ups	3	1.8	0 to 4.0

Change in Economic Activity Due to 10 Percent Decline in Business Taxes

Economic Indicator	Number of Studies	Median	Range
Total employment	3	1.1%	0 to 1.6%
Manufacturing	2	NA	0 to 2.6
Investment in manufacturing	7	2.0	1.0 to 3.6
Gross state product	1	1.4	NA
Manufacturing plant start-ups	19	2.0	-0.6 to 157.0

NA=Not available

APPENDIX D
INVESTMENT TAX CREDITS (ITC) AT THE FEDERAL LEVEL AND IN OTHER STATES

Federal ITC

California's Manufacturers' Investment Credit (MIC) is modeled, in part, on a similar federal program that existed from 1962 through 1986. The federal ITC was originally introduced for the purpose of increasing economic stability by protecting the economy from short-run fluctuations in business investment spending, but was later viewed as a tool to stimulate the economy. Applicable to capital equipment purchases made by any industry, the amount of the ITC was dependent on the depreciable life of the equipment—ranging from 2.33 percent for equipment with a tax life of four to six years to 7 percent for equipment with a tax life greater than eight years.

The ITC was modified numerous times after its initial adoption:

- It was temporarily repealed during the economic expansions of 1966-67 and 1969-71.
- The top credit rate was temporarily increased to 10 percent in 1975 in response to several years of negative economic growth. This temporary increase was extended and then made permanent in 1979.
- The credit was expanded in 1981 to include a greater variety of investments and the credit rate was made uniform for all types of equipment.
- The program was eliminated in 1986 as part of attempts to simplify the tax system and in conjunction with other tax changes reduce the overall tax burden.

In 1993, the Clinton Administration proposed a permanent ITC for small businesses and a temporary targeted credit for large corporations. Neither of these proposals was enacted. In 2001, legislation to reinstate an investment tax credit was introduced into the House of Representatives, but stalled in committee.

ITCs in Other States

Although investment tax credits are not currently in place at the federal level, they are numerous at the state level. Currently, 39 of the 46 states that levy taxes on corporations have some type of investment tax credit. Among these states, tax credits are available for a variety of activities, including: expenditures by new businesses; investments in enterprise development zones; expenditures on research and development; and investment in equipment used in either manufacturing or high-technology industries.

At the present time, 19 states (including California) offer statewide manufacturers' ITCs. In addition, 30 states exempt manufacturing equipment from the sales tax, while eight states offer a limited sales tax exemption program (including California). Five of

the top ten manufacturing states offer a MIC (including California). Figure D-1 provides basic information on the various tax programs offered by California and selected manufacturing and high-technology states.

Figure D-1

Investment Incentives of Large Industrial States

State	Percent of U.S. Production	Corporate Tax Rate	Equipment Sales Tax Exemption?	Investment Tax Credit?
California	**10.09%**	**8.8%**	**Limited**	**Y**
Texas	7.50	4.5	Y	N
Ohio	**6.25**	**5.1 to 8.5**	**Y**	**Y**
Michigan	5.78	1.9	Y	N
Illinois	4.98	7.3	Y	N
Pennsylvania	4.34	9.9	Y	N
North Carolina	**4.34**	**6.9**	**Y**	**Y**
Indiana	3.95	7.9	Y	N
New York	**3.69**	**7.5**	**Y**	**Y**
Georgia	**3.31**	**6.0**	**Y**	**Y**
Virginia	2.27	6.0	N	N
Massachusetts	**2.02**	**9.5**	**Y**	**Y**

As indicated in Figure D-1, five states (shown in bold in addition to California) offer an ITC on equipment purchases. Each of these states also exempts from the sales tax the purchase price of most equipment purchases. Only Virginia, among those states surveyed, offers neither a sales tax exemption nor an ITC.

Each of the ITC programs in the five states identified above differs somewhat from California's MIC, as shown in Figure D-2.

Figure D-2

Investment Tax Credits for Selected States

State	MIC Rate	Notable Characteristics
Georgia[a]	• 1 percent to 5 percent for expenditures over $50,000, depending on location of investment; 6 percent to 10 percent for expenditures over $5 million, depending on location and size of investment.	• Eligibility depends on the taxpayer operating a manufacturing facility within the state for the previous three years.
Massachusetts[b]	• 3 percent of all expenditures.	• Credit may be claimed for any depreciable property.
New York[c]	• 5 percent for expenditures up to $350 million; 4 percent for expenditures above $350 million.	• Credit may be claimed for any depreciable property.
North Carolina[d]	• 7 percent of the lower of: (1) the actual cost of new equipment and machinery or (2) the amount by which the value of the companies' equipment and machinery has increased in the previous three years. Credit is only available for expenditures that exceed a given threshold ranging from $0 to $1 million, depending upon the location of the investment.	• Credit is available for all expenditures that exceed the threshold, and must be taken in equal installments over seven years.
Ohio[e]	• 7.5 percent (or 13.5 percent for enterprise zones) of expenditures that exceeds the companies' average annual investment costs over the previous three years.	• Credit is available for all expenditures that are in excess of the three-year average, and must be taken in equal installments over seven years.

a State of Georgia, State Revenue Department.

b Commonwealth of Massachusetts, Department of Revenue.

c State of New York, Department of Taxation and Finance.

d State of North Carolina, Department of Revenue.

e State of Ohio, Department of Revenue.

Although Georgia and North Carolina did not estimate the credit's impact on their state revenues, direct revenue impact estimates were available for New York, Ohio, and Massachusetts, as shown in Figure D-3. While the California MIC resulted in the largest amount of foregone revenues, New York's revenue loss is the highest in relation to both manufacturing output and total tax revenues.

Figure D-3

Revenue Impacts of Investment Tax Credits

1999
(Dollars in Millions)

State	Revenue Impact	Percent of	
		Total Revenues	Manufacturing Production Value
California	-$385	0.42%	0.22%
New York	-208	0.46	0.26
Ohio	-53	0.27	0.06
Massachusetts	-39	0.22	0.11