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**ANALYSIS OF A TAX INCENTIVE
TO STIMULATE
PRODUCT DEVELOPMENT IN MICHIGAN**
Preliminary Summary Report

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PREFACE

The idea for this investigation originated during studies of the product development activities of individual firms, the main effort of the Industrial Development Research Program of the Institute of Science and Technology. The research incentive study has constituted a small part of the total program. This preliminary summary report has been written in advance of the completion of the investigation in response to requests for general discussion and consideration of the merits and weaknesses of a state tax incentive plan to promote research and development. Discussion is particularly timely at the present because of existing widespread recognition of the need on the part of university, industry, and government to promote economic progress in the state.

The authors would like to acknowledge the constructive comments received from the Ad Hoc Advisory Committee for the Industrial Development Research Program of which Dr. Paul W. McCracken is committee chairman. In considering such a complex matter with so many facets, some omissions are bound to occur. It should be noted, however, that the investigation represents an attempt to evaluate the pros and cons of the issues in an objective manner. Responsibility for the conduct of the investigation and the interpretation of the findings, rests of course, with the authors.

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ABSTRACT

The investigation represents an evaluation of the pros and cons of using a tax incentive to stimulate product development in Michigan. The importance of increased product development to the economic health of the state is discussed. It has been concluded that, among the activities associated with the development of new products, research and development is the most suitable for stimulation. After a study of appropriate literature, it has been concluded further that a practical working definition of research and development is feasible. The use of various tax incentives by other government units is summarized. The extent of research and development in Michigan is estimated from National Science Foundation and census information. Several alternative methods of allowing a deduction or credit of various amounts against existing taxes are illustrated. The various alternatives are evaluated in terms of the possible direct effect on increased product development, and in terms of the possible favorable indirect psychological effect on the attitude of industrialists toward the climate for doing business in Michigan.

1

INTRODUCTION

The Industrial Development Research Program of the Institute of Science and Technology has been developed over the past year to make a careful analysis of ways in which science and technology can be used to accelerate Michigan's economic growth.

Consideration of the fundamental problems facing industry in the state has led to the belief that a critical requirement for the state's future economic health is a substantial acceleration in new product development and diversification by Michigan firms. Six points may be advanced in support of the belief that this acceleration should receive special emphasis now and in the future.

(1) Many firms need new products to replace the loss of business resulting from the decentralization of the automobile industry, the development by the automobile industry of in-house capability to produce many components, and the shifting of defense expenditures from motor vehicles to missiles and electronics.

(2) It is believed that many firms need to increase their capability to develop new products independently. Through long dependence on the automotive industry as the primary product in-

novator and market, many Michigan firms probably have not developed an adequate capability to develop and market new products.

(3) The Michigan economy's greatest strength is its production capability. The Michigan industrial economy still represents one of the world's greatest centers of production know-how, and has the basic production capacity to produce— if suitable products are discovered.

(4) Because the rapid pace of general technological advance over the past decade is resulting in shorter life cycles for products, it is becoming increasingly necessary for competitive survival that firms have greater technical know-how, and the capability to develop and market new products systematically.

(5) It is believed that if the Michigan economy is to be revitalized, it will be done primarily through the growth and diversification of existing firms and through the creation of new firms rather than solely through attracting new firms to the state.

(6) It is believed that accelerated new product development and diversification is feasible in the long run as well as the short run because the state of Michigan has the basic educational institutions to train the needed scientists, engineers, and technicians and has the scientific capability in its institutions of higher learning to support a diversified research-based industrial economy.¹

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THE INDUSTRIAL DEVELOPMENT RESEARCH PROGRAM

Response to industry needs mentioned above led the Institute to establish an Industrial Development Research Program, which is giving primary emphasis to aiding existing firms with product development and diversification. The program has been developed to meet three fundamental objectives. The first is to provide a better understanding about the nature of the product development process, especially the role of product development in a firm's basic product policy. The second is to determine the extent to which Michigan firms in various industries have adequate product development capability. The third is to provide immediate assistance to firms with product development problems and to communicate to industry the results of the scientific research programs of the Institute and the University. A research activity has been developed to study the process of product development and Michigan capabilities, and an Industrial Liaison Office has been established to effect communication with industry.

The research activity has evolved into two main projects. One is a study of the changing nature of the Michigan economy over the past 10 or 15 years, and an examination of the basic

¹For further discussion of these six points, see "The Role of Creative Research in Michigan's Future," an address given by J. A. Boyd, Director, Institute of Science and Technology, to the Michigan State Chamber of Commerce Annual Meeting, November 29, 1961.

economic locational factors which can serve as broad guidelines in choosing courses of industrial diversification. The second project is a study focused at the firm level designed to determine the adequacy of the product development capability of Michigan firms, considered in all aspects, i.e., research, production, marketing, finance, and to provide further understanding of the product development process and its role in different competitive situations. Since product development and diversification decisions must ultimately be made individually by firms, it is necessary that the basic unit of analysis be the firm itself. It must be realized, however, that such decisions must be made in the context of broader economic location factors, which are being studied in the other research project mentioned above.

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WHERE A TAX INCENTIVE MIGHT BE APPLIED

In the context of the research described above, the question arose as to whether anything could be done through a change in the state tax mechanism to encourage accelerated product development by Michigan firms. If this is to be done, the incentive must be related to one of the four functions associated with product development and market introduction, although the nature and extent of product development differs among industries and individual firms. These functions, together with associated activities, are shown in Figure 1. It will be noted that all activities involve financial considerations.

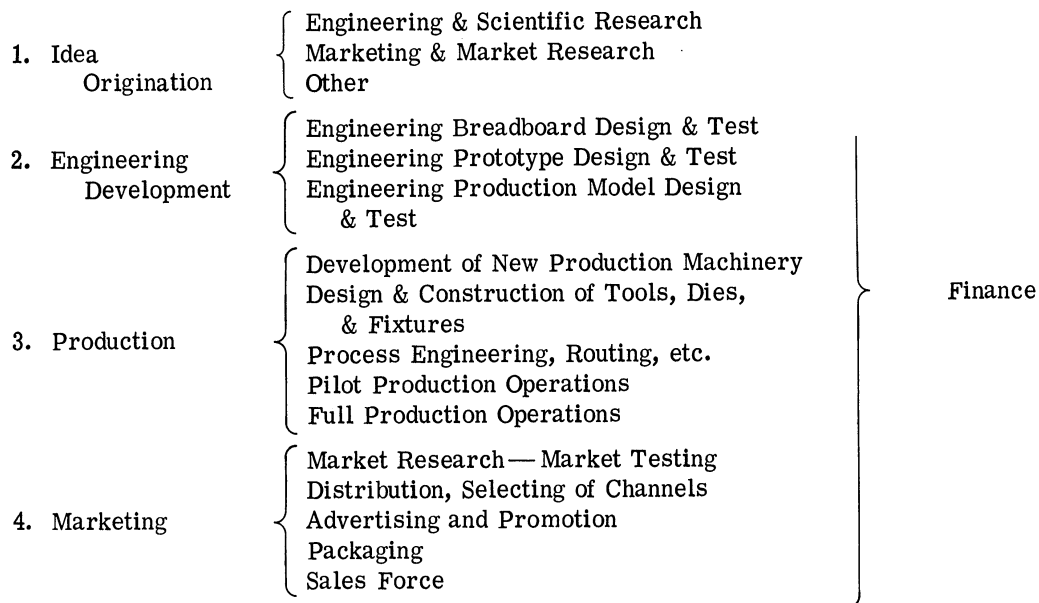


FIGURE 1. NEW PRODUCT DEVELOPMENT FUNCTIONS AND ACTIVITIES

The question which then arises is, given the general economic situation in Michigan today, which of these functions (and their related activities), if stimulated through a tax incentive, might be most effective in increasing the rate of new product development. As pointed out above, production capability is considered to be our main strength at this time. It is believed that the principal areas of weakness of firms—outside the automobile industry (with which we are not here mainly concerned)—are idea origination, development, and marketing. An incentive directed at strengthening these functions would likely have the most durable effect in stimulating economic growth, although it cannot be denied that a general investment incentive to encourage replacement of obsolete equipment might also have a significant effect. Of course, the existence of a need does not mean that a tax incentive could be used to help the situation. For a tax incentive to be effective in stimulating a particular activity, the activity must first be amenable to definition. Furthermore, if the objective is to stimulate new product development it must be possible to distinguish between activities performed relating to new products and those performed on existing products.

This latter requirement becomes more troublesome the farther one proceeds down the list of functions in Figure 1, particularly with respect to the marketing function and unfortunately, also, the market research activities which might be associated with the idea origination function. This leaves the engineering and scientific research activity of the idea origination function and the activities of the engineering development function along with, possibly, the development of new production equipment as the most reasonable areas to explore for effective application of a tax incentive. This group of activities quite closely represents those activities generally considered as "Research and Development" (R & D) by the National Science Foundation. The investigation of a tax incentive for R & D activity in light of the existing tax structure in Michigan is described in Section 4, and the findings of this investigation are summarized in Section 5.

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SCOPE OF STUDY

The scope of the investigation was determined by questions which arose in considering the use of a tax incentive to stimulate scientific and technical research in the state. The first question, an important one, was whether R & D could be defined and categorized in such a way that periodic reports could be compiled from the accounting records of industrial firms without substantial hardship for the taxpayer or the Department of Revenue. The problem of definition and measurement naturally led to the question of what specific items should be included: basic research, applied and developmental research, new product research, process research, modification of old products, etc. Expenses incidental to these areas were then studied. Specific atten-

tion was given to distinguishing between expenditures for technological activities and nontechnological and technical services, and to whether market research, patent costs, and overhead should be included in the definition of research and development.

The next question investigated was whether tax incentives have been used by governmental units to stimulate research and development. This led to the study of considerable literature on investment incentives and the relationships between taxes, economic growth, and plant location.

Interest was then focused on the amount of R & D currently being done in Michigan by each industry, and the relationship of the amount of R & D to the size of the firm. Substantial data on R & D expenditures, type of research, industry outlays, and related information are available on the national level, but essentially none is available at the state or firm level. Consequently, it was necessary to rely extensively on national statistics published by the National Science Foundation, McGraw-Hill, and others to arrive at estimates for Michigan.

Next, taxes levied on industry in Michigan were examined in light of the possibility of allowing a tax deduction or a tax credit for research expenditures. Property taxes on inventories, machinery and equipment, and realty were ruled out since they are levied and administered almost entirely by local governmental units. Sales taxes, which are levied on consumers and nonbusiness entities as well as industrial taxpayers, were not deemed suitable for this particular purpose.

The business activities tax (BAT) was then studied to see if it afforded an appropriate basis for deducting a research credit. The study included the general impact of the business activities tax on type and size of firms and an analysis of the burden falling on manufacturing. An analysis was made of the results of deducting all R & D expenditures from gross receipts of firms before applying the BAT rate of 7 3/4 mills. The cost to the state or loss in revenue from adding this measure was estimated. This was compared with an alternative approach of a tax credit, determined as a percentage of R & D outlays with a maximum limit. The cost of each method and the varying impact on different firms were contrasted.

The other important state tax paid by Michigan industry, the corporate franchise tax (CFT) was examined in a manner similar to the study of the BAT and considered as a possible means of granting a research incentive.

In view of the amount of discussion throughout the state concerning changing the tax structure, several of the possible changes were explored in connection with the introduction of a research stimulant in the proposed revenue measures. In this regard, the "nuisance taxes" were studied as to their coverage and revenue productivity. In addition, the possibility of a state tax

on corporate income led to an exploration of the extent of its use in other states, amount of revenue produced, experience of other states in providing incentives to industrial progress in connection with state corporate income tax, and the proposals for such a tax in Michigan.

One other question remained unanswered. What would be the effect of a tax incentive for research on the Michigan economy? In an attempt to answer this, attention was directed first toward the direct economic benefits expected to accrue, and second, toward the indirect psychological impact, both on businessmen in the state and business and key leaders outside. An objective attempt was made to assess the pros and cons of a tax deduction or credit in terms of the amount of incentive which would be effective, yet would be feasible under the present Michigan tax structure and fiscal situation in the state today.

The preliminary findings from the investigation of these questions is presented in the following section.

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PRELIMINARY FINDINGS

5.1. THE FEASIBILITY OF DEFINING RESEARCH AND DEVELOPMENT

The definitions of R & D used by three organizations were investigated. These included the McGraw-Hill Publishing Company, the National Science Foundation, and the Internal Revenue Service of the federal government. Based on an examination of the definitions used by these organizations and of the practice of the Internal Revenue Service since 1954, in which R & D has been allowed as a deduction in computing corporate income tax, it is concluded that it is feasible to define and categorize R & D with sufficient rigor to allow equitable administration of the associated tax legislation, and to prevent undue hardship on the taxpayer in determining the amount of deduction or credit.

5.2. GENERAL EXPERIENCE WITH TAX INCENTIVE

After resolving the definitional problem, it is logical to ask what has been the experience of other governmental units with tax incentives. Three types of tax incentives were investigated: (1) a tax incentive to encourage R & D; (2) a general tax incentive to encourage investment; (3) tax incentives to encourage location of industry.

5.2.1. USE OF TAX INCENTIVES TO ENCOURAGE R & D. No evidence has been found of any state explicitly singling out this activity for special emphasis, although 15 of the 36 states which have state corporate income taxes have adopted the Federal Internal Revenue Code in determining income inclusions and deductions. Since the Federal Code allows a specific deduction

for R & D activities, these states also allow the deduction in arriving at the base for the state income tax. In addition to these states, Minnesota, which has not adopted the Federal Code, does specifically provide that research expenses can be deducted in arriving at the income tax base.

In the United Kingdom, additional special investment allowances over and above normal depreciation rates on certain types of investments were introduced in 1959, and explicitly include expenditures on scientific research.

5.2.2. GENERAL INVESTMENT INCENTIVES. Twenty-four states which have corporate income taxes offer an incentive for new investment through accelerated deductions for capital consumption. In addition, a number of foreign countries, notably the United Kingdom and Sweden, among the more mature industrialized nations, and a number of underdeveloped countries have used accelerated depreciation allowances to encourage investment in plant and equipment.

In addition, President Kennedy, in his message on taxation, transmitted to the Congress on April 20, 1961, recommended "enactment of an investment tax incentive in the form of a tax credit of 15% of all new plant and equipment investment expenditures in excess of current depreciation allowances, 6% of such expenditures below this level, but in excess of 50% of depreciation allowances; with 10% on the first \$5000 of new investment as a minimum credit. This credit would be taken as an offset against the firm's tax liability, up to an over-all limitation of 30% in the reduction of that liability in any one year." If enacted, this investment incentive would, of course, be available to Michigan firms, and would represent a stimulus primarily in terms of the "production" area (see Figure 1).

5.2.3. TAX INCENTIVES TO ENCOURAGE LOCATION. Tax incentives have been widely used to encourage the flow of foreign capital into economically underdeveloped countries. More pertinent to this investigation, however, is the attempt on the part of states (particularly southern states) to use such incentives to encourage location of plants within their borders. Several studies which have considered the impact of these incentives have all reached the general conclusion that, objectively considered, such incentives do not appear to have been more than a minor factor in location decisions. (State and local taxes generally account for 1% to 3% of a firm's total variable costs.) On the other hand, the recent study entitled Location Decisions and Industrial Mobility in Michigan by the Survey Research Center, a study co-sponsored by the Institute of Science and Technology, indicates that taxes in Michigan are a major source of concern among Michigan industrialists. This seemingly contradictory evidence suggests to the authors that industrialists may view the nature and level of state taxes as an important indicator of the future

climate for doing business in Michigan, and as such, place greater emphasis on state taxes than the cost would warrant if simply considered as another element of variable cost. If this is true, it may be that changes in the tax level or structure which would be considered favorable to business might have a favorable effect considerably beyond the dollar cost involved.

5.3. RESEARCH AND DEVELOPMENT IN MICHIGAN

Data explicitly outlining the amount of research and development performed by different industries in Michigan have not been obtained at the present stage of the investigation, but estimates can be made from amounts spent nationally for R & D as reported by the National Science Foundation. Estimating conservatively that 50% of the research in the motor vehicle sector is performed in Michigan, and that the expenditure for R & D by other Michigan industries is proportional to the 1958 percentage of total national value added contributed by these industries in Michigan, it is estimated that the total R & D expenditure in Michigan in 1961 would be in the range of \$500-\$750 million. (This total amount appears consistent with the recent Armour Research Foundation Industrial Research & Development Study, Interim Report, September 1961, wherein an estimate of \$2.6 billion was made for the total R & D performed by industry in the East North Central region out of an estimated national total of \$10.5 billion during fiscal 1960-61.) It is further estimated that two-thirds of the \$500-\$750 million research expenditure is performed by the motor vehicle industry. This would indicate that only \$167-\$250 million of R & D is performed by the remainder of the industry in Michigan.

5.4. POSSIBILITIES OF DEDUCTIONS OR TAX CREDITS FOR R & D WITHIN THE MICHIGAN TAX STRUCTURE

Within the present tax structure, two taxes are currently levied on business which might be considered. These are the business activities tax (BAT) and the annual corporation privilege fee or corporate franchise tax (CFT). In fiscal 1960 the revenue collected from the two taxes was about the same, \$72.3 million from the BAT and \$68.5 million from the CFT. Of the two taxes, the BAT is better suited for a deduction for R & D expenses since it represents an approach toward taxing the value added (sales less value purchased from others) by corporations and unincorporated business. Expenditures on R & D conceivably could be included in determining the base for the BAT. On the other hand, the CFT is essentially a tax on the net worth of corporations and is consequently based upon the wealth, or stock of net assets, used for doing business in Michigan. It therefore does not appear feasible to include R & D expenditures as a deduction in computing the CFT tax base. However, if a tax credit was given for R & D activity, it presumably could be given against the CFT. It should also be pointed out that a deduction or

credit for R & D expenditures could, of course, be incorporated in a state corporate income tax, if such were enacted at some time in the future.

5.5. ESTIMATED REVENUE LOSS

The revenue loss (or cost) with three alternatives was considered. These are: (1) allowing a deduction for R & D in computing the BAT base; (2) allowing a tax credit for R & D expenditures applied against the BAT; (3) allowing a tax credit for R & D expenditures against the CFT.

5.5.1. A DEDUCTION IN COMPUTING BAT BASE. Assuming that the total expenditures on R & D in Michigan are greater than \$500 million but less than \$750 million, and that 25% of the current R & D expenditure is currently deductible under the BAT, it is estimated that the loss in revenue would be between \$2.9 million and \$4.4 million. This is based on the current BAT rate of 7 3/4 mills.

5.5.2. A CREDIT AGAINST THE BAT. The cost of a credit against either the BAT or CFT will depend, of course, on the amount of incentive given. It seems reasonable that the amount of credit be computed as a percentage of R & D expenditure, with perhaps some maximum dollar amount specified. Lacking information concerning the actual expenditures on R & D by different sizes of firms in various industries in Michigan, it is difficult to estimate the cost of various alternatives. However, by making several broad assumptions, estimates have been made as shown in Table I. These estimates illustrate the magnitude of the estimated revenue loss if 10% of the R & D expenditures of firms were allowed as a credit against the BAT, with maximum limits of \$1000, \$5000, \$10,000, and \$25,000. Estimates using other percentages and limits could also be made. These estimates are maximum figures, assuming that all firms paying would conduct enough research to obtain full credit to the extent of the limit or of the amount of tax currently paid, if such were less than the credit limit.

TABLE I. ESTIMATED COST IN REVENUE LOSS
OF TAX CREDIT AGAINST THE BAT, BASED ON
10% OF R & D EXPENDITURES

Credit Limit	Estimated Cost
\$ 1,000	\$ 3,500,000
5,000	10,900,000
10,000	13,600,000
25,000	17,400,000

5.5.3. A CREDIT AGAINST THE CFT. Based on the same assumptions in computing the estimated cost of a tax credit against the BAT, it is estimated that the cost of a similar credit against the CFT with a credit limit of \$1000 would be between \$3 and \$4 million. This figure has been more difficult to estimate because of the lack of data comparable with that available for the BAT. Therefore, estimates of the cost with credit limits of \$5000, \$10,000, and \$25,000 were not made. Since the total revenue collected via CFT was only slightly less than the BAT yield in 1960, it is reasonable to expect that the cost of the other credit limits would be moderately less than the figures estimated for the credit against the BAT at the same millage rate used for the CFT in 1960. However, since the temporary increase in millage from 4 to 5 mills which went into effect on January 1, 1960, expired on June 30, 1961, the cost under the CFT would be expected to be somewhat lower. More exact estimates have not been made, however, since the BAT appears to be the more likely tax against which a deduction or credit would be applied.

5.6. EVALUATION OF ALTERNATIVES

Although alternatives other than those considered in Section 5.5 above are conceivable, it is believed that a discussion of the pros and cons of these will cover the major advantages and disadvantages of this general approach. The first question to explore is the desirability of a deduction versus a credit. From the viewpoint of legislative enactment and administration of the tax, it might be simpler to add another deduction in computing the BAT, than to provide for a credit. On the other hand, the use of a credit would likely cause businessmen to be more cognizant of the incentive. In terms of the impact on different sizes of firms, the credit with a fixed limit tends to favor small and medium-size firms, but to some lesser extent, the deduction does also. In general, the smaller the firm, the larger the deduction or credit will be relative to the amount of tax currently paid.

There is some justification for favoring the small and medium-size firms. The large firms with established R & D programs, and sizable research budgets, may derive less marginal benefit from the additional tax incentive funds than smaller firms with smaller research budgets. In addition, these large firms are in a better position to use other forms of research assistance. For instance, companies with their own research staffs can more effectively utilize the scientific and technical resources of universities through establishment of a research division near a university, or by sponsoring contract research. In terms of benefit to the state, when a small firm expands, it is much more likely to locate additional facilities within the state than is a large firm. This fact was brought out in the recent study entitled Location Decisions and Industrial Mobility in Michigan, by the Survey Research Center, which was mentioned earlier.

On the other hand, it can be argued that the larger firms with their present research staffs and facilities could more efficiently utilize the funds gained from such an incentive. The final plan should therefore represent some compromise which provides some stimulation of research in all sizes of firms.

If a deduction were used it would be clearly preferable to allow the deduction in computing the BAT (rather than the CFT). If a credit were allowed, it would also seem more reasonable in view of the basic nature of the two taxes to allow it against the BAT, rather than the CFT, although no strong objection to a credit for the CFT is apparent.

In view of the current state fiscal situation, it is unlikely that any net reduction in tax revenue can be permitted. Any loss in revenue from such a tax reduction would have to be recouped. In this regard, it should be pointed out that, if the loss were recovered by an increase in the millage on the BAT or CFT, the effect essentially would be to place the burden for the cost of the incentive on the larger firms, since the tax liability of most smaller firms would be largely eliminated by any of the alternatives outlined above. It can be argued that this would be equitable since firms which are small now would be encouraged to grow; and when they become larger, they would assume a larger share of the tax load. Alternatively, however, the incentive would likely have a greater effect if the loss in revenue were recovered from another source, such as through re-enactment of some of the "luxury" or nuisance taxes. Shifting the burden partially or totally from businesses can be defended on the grounds that the expenditure by businesses on R & D can be expected to result in the creation of more jobs and incomes in the future.

This raises the critical question, what effect can be expected from the various amounts of tax incentive which are possible in view of the present tax structure and state fiscal condition? There is no way to reach an absolute answer to this question, but a number of points can shed light on the probable answer.

Two general effects may be expected from such an incentive: a direct economic effect from an increase in research and product development, and an indirect effect in terms of the psychological impact on businessmen's attitude toward the general climate for doing business in Michigan. Both effects are obviously important to the future economic growth of the state. The total amount of the incentive involved with any of the alternatives outlined above would not represent a sizable addition to R & D in terms of the total amount of R & D currently performed in Michigan. The immediate direct effect, therefore, could not be great. However, the special significance of such expenditures must not be underestimated. A relatively small expenditure on research and product development can have a large effect on an increase in jobs and incomes

in the future. Economists have for some time recognized that investment expenditures can result in increases in income much larger than the original investment expenditure. This effect has been named the "investment multiplier."²

President Kennedy in his tax message to Congress of April 20, 1961, stated that an estimated 500,000 jobs would result from the operation for one full year of his proposed investment incentive in the form of a tax credit which would result in a total revenue loss of \$1.7 billion. This is equivalent to a \$3400 increment in investment required per job created under present economic conditions in this country. Such an incentive to modernize and expand plant and equipment is certainly desirable in Michigan today, but in view of the special need for new product development in Michigan it is believed that the multiplier effect on incomes and jobs from increased expenditures on R & D at this time would be substantially greater than a general investment multiplier. The investment multiplier however, would produce a quicker reaction in terms of jobs and income, which is very desirable. The Industrial Development Research Program of the Institute is not yet able to estimate the magnitude of such an "R & D Multiplier," but the reasoning above supports the contention that it is a very significant factor and must not be overlooked in estimating the effect of an even small increase in expenditures on R & D in Michigan at this time.

In terms of the different alternatives outlined, it appears that the direct effect could be roughly proportionate to the amount of incentive allowed within the ranges illustrated, provided that businessmen react accordingly in increasing R & D expenditures. To what extent this would happen remains unknown at this point. The possible problem of getting appropriate reaction might be avoided by making the incentive contingent upon an increase in R & D expenditures above some base amount for each company—somewhat similar to President Kennedy's investment incentive proposal mentioned earlier. The problems of administering the tax, however, would be amplified.

Estimation of the amount of indirect effect from a given amount of tax incentive is even more difficult. In view of the sensitivity of industrialists concerning the tax situation in Michigan, a small change might have a large favorable effect. On the other hand, a very small incentive might have a negative effect—if businessmen felt that only a token incentive was being given, and that nothing really substantial was going to be done. However, it seems likely that,

²A value has been computed for the investment multiplier by Dr. Daniel B. Suits, Professor of Economics, The University of Michigan. In his address, "The Outlook for 1962 as Forecast by an Econometric Model of the United States," at The University of Michigan Conference on the Business Outlook on November 9, 1961, Suits estimated from his model describing the economy that one dollar invested in plant and equipment ultimately increases the value of goods and services produced by approximately two dollars, or a multiplier of about two.

once a "threshold" level had been reached, additional amounts of incentive would have relatively lower marginal benefits. Therefore it seems possible that a significant favorable effect on the attitudes of industrialists toward the business climate might be achieved with relatively small incentives, provided that the amounts were above the "threshold" level. Unfortunately, there is perhaps no sure way of determining what such an amount might be. Public hearings or interviews with industrialists should throw some light on this question and should also provide enlightenment as to the amount of direct effect which will be obtained.

In summary, it should be pointed out that no one approach represents a panacea to correct the economic conditions in Michigan. If some such incentive is deemed worth while when considered in all aspects, it will remain, at most, one of many contributions on the part of government, industry, and universities toward solving the complex problem of revitalizing the Michigan economy.

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