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UNITED STATES GENERAL ACCOUNTING OFFICE
WASHINGTON, D.C. 20548

PROGRAM ANALYSIS DIVISION

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The Honorable Sam M. Gibbons
Chairman, Subcommittee on Oversight
Committee on Ways and Means
House of Representatives

Dear Mr. Chairman:

As you requested in your letter of October 19, 1979, we have reviewed the Department of Treasury report concerning the effect of the investment tax credit on competition in the automobile industry. It is our opinion that the report is responsive to your request and that the analysis it contains is an adequate effort to use data from company tax returns to clarify the effect of the credit on competition. The fact that its conclusions are so guarded reflects the intrinsic difficulty of the subject material.

Notwithstanding this difficulty, we believe that if more time and effort were given to the task, potentially useful analyses of data from tax returns, supplemented by public data, could be conducted. Although there is no certainty that the results would be conclusive, such analyses might help elucidate the impact of the investment tax credit on industry competition. The unique structure of the automobile industry and the recent financial problems of the Chrysler Corporation, however, caution against generalizing any findings to other industries. The soundest way to determine what effect the investment tax credit has had on competition generally may be to examine several other industries.

General Observations

On the surface, one cannot tell whether the investment tax credit stimulates or depresses competition. We do know that the benefits of the credit are not equally available to all firms. Firms that have no tax liability or too small a liability to take advantage of the full credit to which they are entitled benefit less from the credit than firms with larger liabilities. At least one automobile manufacturer has recently been unable to claim its full credit. In general,

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[REVIEW of REPORT CONCERNING INVESTMENT TAX CREDIT healthy firms earning good profits can benefit more from the investment tax credit than financially troubled firms or firms that are beginning business. The credit therefore may help successful firms expand their share of the market by allowing them to enlarge their productive capacity or to replace old equipment at a lower cost.

The investment tax credit may provide different benefits to firms that prefer using different relative amounts of capital and labor. For example, if the production techniques favored by larger firms require more capital per unit of output than the techniques favored by smaller firms, the investment tax credit reduces the cost of expanding capacity or replacing equipment proportionately more for larger firms than for relatively labor-intensive, smaller firms. We do not know, however, whether capital intensity differs systematically between large and small firms in the automobile industry.

<u>The Automobile Industry and the Investment Tax Credit</u>

The automobile industry is so distinctive that any conclusions reached concerning the effects of the investment tax credit upon competition within the industry cannot be readily generalized to other industries. Four manufacturers have accounted for 99 percent by value of the automobiles produced in the United States since the credit was introduced. One company, General Motors, dominates the industry, while another, Ford, plays a major, though secondary, role. American Motors and Chrysler have suffered financial reverses during the past ten years. Automobile manufacture is thus an oligopolistic industry containing two healthy and two weak firms. This fact has to be considered in judging the competitive impact of the investment tax credit. While the high concentration was noted in the Treasury study, there was no discussion of how concentration may have been affected by the investment tax credit.

Other, less concentrated industries might provide a better basis for deciding how the credit has affected competition. If the industries are more competitive than the automobile industry, the results of the analysis may be generalized more readily.

The success of imported cars in the U.S. market was not explicitly considered in the Treasury report. For several years imports have captured a large share of domestic sales. That share may increase as a result of the energy crisis, which has increased demand for fuel-efficient autos, a segment of the market that imports dominate. Since imports are important and their share of the market is growing (22 percent of the cars sold in the first three quarters of 1979 were imports), they have altered the competitive balance among domestic manufacturers at the same time as the investment tax credit has been having its effect. Imports may compete more directly with one manufacturer's product line than with another's. Consequently, changes in market shares of domestic firms may provide a better measure of changes in competition than variations in the concentration ratio. In addition, the opening of assembly plants by foreign firms within the United States also affects industry competition, since foreign firms with U.S. plants may take advantage of the investment tax credit.

The Treasury notes that it did not consider the effect of different degrees of vertical integration on competition. The automakers vary significantly in the degree to which they manufacture automobile components themselves or use component parts manufactured by other firms. Highly integrated firms will have a higher ratio of capital assets to sales than firms that purchase components. As the Treasury study notes, however, there may not be a satisfactory way to take account of these differences without adding a great deal of complexity to the analysis.

Alternative Study Approaches

Regardless of what industry is selected for an examination of the competitive impact of the investment tax credit, several approaches of investigation are available. One approach is to observe how competition in the industry changes over time, using as a measure of competition either a concentration ratio or the market shares of firms in the industry. Since there has been no change in the four-firm concentration ratio of the automobile industry since 1962, it would be preferable to use the share of the total market (including imports) held by each company. Market shares can be obtained from public sources.

Another approach would be to determine how the investment tax credit affects investment decisions by businesses and then how differences in investment behavior affect industry competition. Presumably firms that invest more can improve their competitive standing by lowering production costs and product prices. The analysis should show to what extent investment spending is affected by the investment tax credit instead of, for example, by changes in demand for the industry's products or general economic conditions. A fairly simple economic model may form the basis for this work. This approach requires data on investment spending by firms for various years, data that can be obtained from income tax returns.

Industry models are likely to be more helpful if they simulate the decision-making process within the industry. Accordingly, they should include those variables that affect decisions. In the case of automobile manufacturers, a model might include variables to measure changes in market demand, such as the shift to smaller cars, requirements imposed by Government environmental and safety regulations, and changes in the business cycle. In addition, the model should be able to estimate changes in industry behavior and performance that were attributable to the suspension of the investment tax credit between 1969 and 1971 and for five months in 1966 and 1967.

Although the design of elaborate industry models may be prohibitively time-consuming and expensive, less elaborate models of competition and investment may shed light on the relationship between competition and the investment tax credit if they are used carefully with a full awareness of their inherent limitations and weaknesses.

As an example, a reasonably simple model of the automobile industry might include equations that relate market shares and investment spending of different firms to explanatory variables. These variables should include one denoting the periods when the investment tax credit was suspended, another denoting the period following the Arab oil embargo (to detect structural changes in the automobile market), and general economic and industry variables (such as National income and average vehicle price). Data to test these models are available from published sources and public documents, such as SEC filings, as well as from confidential tax returns.

While urging that the competitive impact of the investment tax credit be analyzed using an economic model, we recognize that the model will not answer all questions. But it can provide a framework for any detailed analysis undertaken by the Treasury. We also realize that this work may require devoting more time to the study.

Tax Policy and Competition

As previously noted, an unequal distribution of benefits from the investment tax credit may be inherent in the law, the structure of the industry, and in differences among firms within an industry. While this unequal distribution of benefits may adversely affect industry competition, it may also be an essential feature of a credit that stimulates the most productive investments. Changes in the investment tax credit that are intended to foster competition may weaken the investment stimulus, a loss that policymakers may be unwilling to accept. Methods other than tax policy may offer more appropriate means of encouraging competition.

This letter supplements a briefing for the staff of the Subcommittee on Oversight that was held on November 14, 1979. If you would like any further information on this subject, we shall be happy to furnish it.

Sincerely,

H S Havens

Harry S. Havens
Director

cc: Mr. Staats
Mr. Keller
Mr. Fitzgerald (OCR)
Mr. Anderson (OP)
Mr. Voss (GGD)
Mr. Myers (PAD)
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