

indicative for the future, it is impossible to say with certainty.⁹ In both of these cases controversy in Congress was not widespread, and the substance of the changes was less complicated than might be the case at other times.

We can be sure, in any event, that unless special procedures are set up for the legislative processing of contracyclical tax actions (several of which have been suggested, but none accepted), a substantial legislative lag will be added to the recognition lag, the two together entailing a serious retardation of timing.

RESPONSE LAG

The object of contracyclical tax action is to restrain or stimulate the economy by varying the after-tax income of the affected taxpayers. It is assumed that reductions in such income will curtail demand for goods and services, hence will ease pressures on production, and that increases will expand demand, with stimulative effect.

This assumption may be correct, but it tells us nothing about the *timing* of the production response to the tax action. This can vary widely. It can be immediate, slightly delayed, or long delayed, depending on a number of factors, chief of which is the length of the production period or, as it is commonly called, production lead time. When this period is very short, as with directly consumed services (haircuts, for example), the response of production to changes in demand can be virtually instantaneous. For most nondurable commodities, the period is short enough for a substantial, if not a complete, response in a matter of days or weeks. But when lead time runs to months, or even years, as it often does for capital goods, the response develops very gradually.

Suppose, for example, we have an item with a production period of one year. Suppose further that orders have been running 1,000 units a month and that there are 12,000 units in process. Suppose finally that as a result of restrictive tax action demand is reduced by 10 percent, to 900 units a month. If productive activity is applied to individual items evenly over the one-year period, the overall production response in successive months after the reduction will be the following fractions of the reduction itself: $\frac{1}{12}$, $\frac{2}{12}$, $\frac{3}{12}$, $\frac{4}{12}$, $\frac{5}{12}$, $\frac{6}{12}$, etc.¹⁰ Thus it will take six months to curtail total activity by one-half of the reduction in demand and an entire year (the production period itself) to develop a full response.¹¹ For *stimulative* tax action, the lag is similar, but in reverse.

When we consider the substantial volume of long-lead-time production in the economy, it is evident that the response lag can have a significant bearing on the effectiveness of contracyclical tax action.

3. COMPARATIVE RESPONSE LAGS

Since the response lag is so important, it is pertinent to compare the principal instruments of tax action—the corporate income tax, the personal income tax, and the investment credit—with respect to their associated lags.

Since the last-named instrument, the investment credit, was considered in the preceding *Review*, we need not discuss it here. Suffice it to say that the long response lag to changes in the credit (suspension and restoration) was one of the principal factors in the negative conclusion reached in that analysis:

“The moral of this discussion is clear. The investment credit is not suited to manipulative application. It is not, therefore, an appropriate device for economic control purposes. It was not intended for this use in the first place and should not be so employed.”

With this verdict on the contracyclical use of the investment credit, we turn to the other instruments of tax action, corporate and personal income taxes.

CORPORATE INCOME TAX

Contracyclical changes in the corporate income tax are intended to generate a production response through their effect on after-tax profits. If profits are

⁹ As noted earlier, there have been three *procyclical* tax adjustments during the present cycle, the investment credit of 1962, the income tax reduction of 1964, and the excise reduction of 1965. The legislative lags were 18 months, 13 months, and 1 month, respectively. Since timing is less important for such adjustments than for the *contracyclical* variety, these lags are probably not indicative of what to expect for the latter.

¹⁰ Assuming each month's orders are placed in full at the beginning of the month. On the more realistic assumption that they flow through the month, the progression becomes $\frac{1}{24}$, $\frac{3}{24}$, $\frac{5}{24}$, $\frac{7}{24}$, $\frac{9}{24}$, $\frac{11}{24}$, $\frac{13}{24}$, etc.

¹¹ If, as usual, production is applied more heavily around the middle of the period, the overall response will be even slower at the start.