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Volume Author/Editor: Ilse Mintz

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Chapter Author: Ilse Mintz

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The definition of the business cycle revisited

In April 1967 an international conference of economists was held in London to discuss the topic: "Is the Business Cycle Obsolete?" One of the participants, Geoffrey H. Moore, answered: "The question posed by this conference may be obsolete, the problem of booms and recessions is not."[1] This view, that business cycles are not extinct, should receive strong support from the findings of the present paper as a glance at the German cycles in Chart 1 will show.

The reason for suspecting the demise of the business cycle is the mildness of most recent business recessions in most countries. In the words of Arthur F. Burns: "the business cycle has become milder as a result of a favorable conjuncture of structural changes and of both better and wider understanding of the requirements of business cycle policy. . . . Even before World War II, the business cycle was a milder type of fluctuation in western Europe than in the United States, and the difference has persisted in the postwar period."[2] Periods regarded as downswings by business and policy makers in Europe and Japan have not usually been characterized by declines in aggregate output, income or employment. Rather they are periods of retardation in the rate of growth of the economy.

Since recent economic fluctuations are, in some respects, unlike earlier ones, it is not surprising that views on the persistence or disappearance of business cycles vary with the importance an observer attaches to these contrasts as opposed to the equally undeniable likenesses.

Those who regard an absolute decline in the main economic activities as an essential feature of business cycles, see a deep gap between earlier and recent economic fluctuations. A mere retardation in output growth is, in their opinion, entirely different in nature from a fall in output. Retardations, they argue, have been observed at all times, but have not previously been put into the same class as declines in activity and this distinction should quite definitely be retained. These adherents of the classical business cycle must conclude either that business cycles are more or less a thing of the past in

[1] "Is the Business Cycle Obsolete?" Conference organized by the Social Science Research Council and held in London, England, April 1967 (referred to below as "London conference"). Geoffrey H. Moore's discussion of R. A. Gordon's paper, mimeographed, p. 1.

[2] Arthur F. Burns, *The Business Cycle in a Changing World.*

many countries; or that the last two decades were exceptional and that the classical business cycle will reappear.

A second group of economists takes a somewhat different position. They agree with the first group that absolute rises and declines are essential, but they compromise by accepting declines in selected activities in lieu of declines in aggregate activity as a criterion for business cycle recessions. Absolute declines may occur in certain economic indicators even in periods of rising total income, output and employment. These will be indicators which, for one reason or another, do not reflect the general upward trend or indicators which experience cyclical swings with amplitudes so large that absolute falls occur despite such a trend. A period of decline in such indicators can, in this view, be defined as a period of recession despite the continued growth in the rest of the economy.

The switch from decline in aggregate activity to decline in selected activities involves a more radical change in concept than may appear at first. The revised concept can be defended only on one of two assumptions: either the activities selected for their absolute declines are more significant than those not declining; or else the absolute decline in selected activities coincides with reduced growth in the rest of the economy and is significant for this reason. Even if this last assumption should be warranted, the criterion for recession is actually shifted from absolute decline to slow growth.

The concept of the business cycle described above has not been explicitly stated and advocated, as far as I know. Nor have the underlying assumptions been spelled out and investigated. Yet empirical business cycle research in some countries is based on it. The reason is probably that it retains the classical direction-of-change criterion and requires no revision of statistical methods in contrast to the modified concept discussed below. However, this simplicity is more apparent than real in view of the crucial unanswered questions mentioned above.

The third business cycle concept, which is widely accepted today and which is the basis of the present paper, sees the crucial aspect of the business cycle in the *difference* between the behavior of the economy in two types of periods. The nature and significance of this difference are essentially the same, it claims, whether the rates of change are positive in both phases - as they may be in a rapidly growing economy - or whether the rates of change have alternate signs as is likely in a more slowly growing economy. There is no good reason why alternations between periods of, say, 2-per cent rises and of l-per cent falls (which could qualify as a classical business cycle) should be entirely different in nature from alternations between periods of, say, 4-per cent rises and l-per cent rises.

The similarity of the classical and the revised concepts may appear even more clearly when alternations of high and low growth rates are viewed as cycles in trend adjusted economic activities. In their fundamental work on business cycles, Burns and Mitchell stated that ideally business cycle analysis should rest on two sets of measures - with and without secular trends. The high cost of double analysis (in precomputer times) prevented them from undertaking it.[3] The analysis of trend adjusted data may thus be regarded as a continuation of the analysis initiated in *Measuring Business Cycles.*

The widened concept requires only a minor amendment of the Burns and Mitchell definition of business cycles which underlies the National Bureau's cycle analysis. The definition speaks of "expansions occurring at about the same time in many economic activities followed by similarly general .,. . contractions . . . ."[4] Here the words "adjusted for their long-run trends," have to be inserted. When long-run trends are horizontal, there will, of course, be no difference between the two versions of the concept. The view that there is close resemblance in duration, pervasiveness and other aspects, between classical business cycles and cycles in trend adjusted data will be supported by the findings of this study.

This view is shared by some of the foremost experts in the field. For instance, in the paper he presented at the aforementioned London conference R. A. Gordon asked: "Can we say that business cycles exist if a country experiences 'recurring alternations' of acceleration and retardation in the rate of growth of output and employment rather than alternating expansions and contractions in the absolute level of these and other important variables?"

And he answered: "I should answer this question in the affirmative. If we find regular (but not necessarily periodic) swings in rates of growth and if these swings are of roughly the same duration and are associated with many of the same phenomena (such as cyclical changes in interest rates, the balance of trade, cost-price relations, and unemployment) as was the case with past fluctuations that we did call business cycles, then I should be inclined to say that these 'growth cycles' should be called 'business cycles'."[5]

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[3] "Doubtless the ideal procedure would be to make two sets of measures for each series: one set based on the original data adjusted only for seasonal variations, as is our present practice, the other based on the best attainable isolation of the 'cyclical component' of the data. But the resources at our disposal place grave obstacles to the realization of this ideal." Arthur F. Burns and Wesley C. Mitchell, *Measuring Business Cycles,* NBER, 1946.

[4] The full definition is: "Business cycles are a type of fluctuation found in the aggregate economic activity of nations that organize their work mainly in business enterprises: a cycle consists of expansions occurring at about the same time in many economic activities, followed by similarly general recessions, contractions, and revivals which merge into the expansion phase of the next cycle; this sequence of changes is recurrent but not periodic; in duration business cycles vary from more than one year to ten or twelve years; they are not divisible into shorter cycles of similar character with amplitudes approximating their own." *Ibid.,* p. 3.

[5] R. A. Gordon, "The Stability of the American Economy," London conference, mimeographed, pp. 1, 2.

A similar view was expressed by R. C. O. Matthews reporting on Britain: "Cyclical movements in the British economy in the postwar period have been at least as clear-cut and regular as they were in earlier times . . . . But . . . no postwar year has shown a significant decline in real GDP. Fluctuations have taken the form of fluctuations in the growth rate."[6]

The German literature on business cycles also regards this definition as valid. In the words of Erich Preiser: For "the trade cycle policy maker of the old school there were upswings and downswings, peaks and troughs, and the statistician measured the amplitude of fluctuations as the distance from a horizontal datum line. Nowadays the very terminology makes it clear that the trade cycle is regarded as the motion pattern of a growing economy."[7]

The following statements by experts of the International Monetary Fund, are further examples of the indicated views. Says Rudolf R. Rhomberg: "Declines in economic activity in industrial countries have been rare, and business cycle analysts have had to direct their attention to periodic advances and retardations of growth rates - or periods of expansions and of pause - rather than to actual booms and recessions of the old-fashioned kind." And David Williams writes: "Indeed, the European economy as a whole - i.e., the economy of the 19 European countries which comprise the Organization for Economic Cooperation and Development (OECD) - has been virtually free of the regular cyclical behavior that has characterized the U.S. economy and, even more strikingly, the interwar period of 1919-39 . . . . There have been six recessions in economic activity in the European economy . . . of which only three . . . have shown marked retardations in the rate of growth, and declines in industrial production. During the other three recessions . . . the decline in the rate of growth of output and demand was very slight." It is noteworthy that Williams designates as recessions even periods with fairly rapid growth in aggregate output and demand.[8]

Casual references to periods of low growth as "recessions" abound in the literature. For one example: the British National Institute's *Economic Review* speaks of "France . . . recovering from a recession" with reference to an increase in the rate of growth of French industrial production from 2 per cent to 7 per cent.[9]

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[6]R.C.O. Matthews, "Postwar Business Cycles in the United Kingdom," London conference, mimeographed, p. 1.

[7]Erich Preiser, "Economic Growth as a Fetish and a Necessity," *German Economic Review,* 1967, no. 4.

[8]Rudolf R. Rhomberg, "Transmission of Business Fluctuations from Developed to Developing Countries," *International Monetary Fund Staff Papers,*March 1968, p. 1. David Williams, "What's Left of the Business Cycle in Europe?" International Monetary Fund and International Bank for Reconstruction and Development, *Finance and Development,*Washington, D.C., March 1968, p. 42.

[9]National Institute of Economic and Social Research, *Economic Review,* August 1966, p. 27.

As to business, policy makers and the general public, aspirations have risen with achievements here as in other fields. Once used to greater stability, people pay as much attention to fluctuations in growth rates as they previously bestowed on classical business cycles. Periods of low growth are, in Europe at least, commonly referred to as "recessions." When, for instance, the growth of industrial production and GNP had slowed down but not yet turned into decline, in the autumn of 1966, the German press spoke of a "deep descent." The German Economic Institute commented: "At present, at any rate, deep pessimism prevails," and it referred to generally "disastrous reports from businesses and regions."[10]

In sum, it seems to me that the question of where to draw the line between the phases of the business cycle is a matter of classification, and as in all such matters there is no right or wrong answer but only a more or less useful one. Distinguishing between two types of periods of differing economic experience, i.e., between business cycle phases, has proved eminently useful for the analysis of economic change. But this usefulness is diminished when one of the two phases occurs quite rarely and briefly. As long as absolute declines are frequent, drawing the line between absolute rises and falls is a most fruitful distinction. But when absolute declines are an exception, a different dividing line becomes more useful.

However, in accepting the concept of alternating higher and lower growth rates one must be fully aware of its important implications for economic policies. In fact, such policy implications may be an important reason for arguing that cycles around a horizontal trend are fundamentally different from those around a rising trend. "A cycle defined as an alternation of algebraically higher and lower rates of growth does not have simple implications for policy. For instance, mere reduction in the rate of growth of aggregate economic activity may not warrant an anti-recession policy."[11] Undoubtedly, considerable disagreement among experts is to be expected in regard to cycles around a rising trend. Should policies aim at some particular growth rate? And if so, at which one? Expressions such as "easing of pressures," "cooling-off periods," and so on, suggest that it is not always the highest possible rate which is considered the most desirable. Designating the aim as the highest rate compatible with price stability also is not likely to lead to uncontroversial classification of the actual situations. But, experts differ just as well in their positions on classical business cycles. Those favoring rapid growth even at the cost of inflation recommend expansive policies, not only

[10]"Zur Zeit jedenfalls herrscht tiefer Pessimismus." " . . . Hiobsbotschaften von Unternehmen und Regionen . . . ," Deutsches Institut fuer Wirtschaftsforschung, *Vierteljahrshefte zur Wirtschaftsforschung,* Berlin, 1966, Drittes Heft, pp. 255, 258.

[11]Moore, discussion of R.A. Gordon's paper, p. 4.

during recessions but also during slow expansions. On the other hand, those who consider inflation a greater evil than slow growth regard an occasional mild recession favorably.

These differences in viewpoint are similar to those found when declines are relative instead of absolute. The anti-inflationist view which regards boom periods with disfavor may, of course, be more prevalent with the greater frequency of such periods. Thus some German experts reserve their favorable adjectives for the slowdown when the economy is "on the way to the recovery of internal and external economic stability," while high growth phases are periods of "imbalance" and "overstraining." But such attitudes are not new and whether they are more or less frequent is again a matter of degree.

It would thus be desirable to introduce entirely value-free terms for the phases of business cycles. One might, for instance, speak of the x-phase and the y-phase. To avoid such strange language, I will use the terms speedup and slowdown for periods of above and below average growth. These terms will, I hope, be understood as implying no judgment on the desirability of one phase over the other.

Before closing the introductory comments, another disclaimer may be in order. The present paper does not deal with the causes of business cycles. Determining turning points does not any more conflict with the view that cycles are "managed," i.e., caused by government policies, than it conflicts with the view that these fluctuations are endogenous.