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Chapter Title: Average Hourly Earnings as Indicators of Turning Points in Wage Rates

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As already noted, the brief wage rate record available for analysis fails to support completely the expectation of longer lags in British wage rates, for the lags at the 2 peaks in both series are of about the same length. Only at the 2 troughs does it confirm this expectation in some degree. And here, we must repeat, the unusually short lag of United States factory wage rates at the 1933 trough is attributable to the direct intervention of the federal government through the NRA.

Despite some differences, all 3 samples of wage rate data have a common pattern in the timing of cyclical change: typically wage rates lagged behind business activity by a substantial number of months.

6 *Average Hourly Earnings as Indicators of Turning Points in Wage Rates*

Two aspects of cyclical fluctuations are of special interest, their timing and amplitude. We investigate the former first. Average hourly earnings in all manufactures traced as many cycles between 1920 and 1935 as our composite index of wage rates, and the cycles in the two series correspond whether we use the standard method of selecting turning points or our alternate method. To find out whether the turning points in the 2 series occurred at about the same time we use the alternate turns whenever turns compete. For it is more meaningful to compare the dates that mark appreciable changes in rates and earnings than the dates that mark reversals in direction without regard to the magnitude of the change. Turning points in a series 2 months before or after the corresponding turning points in the other are considered roughly coincident. Of the 5 major turning points only 4 can be determined precisely and at all 4 the timing is roughly coincident.²⁰ At the minor turning points, however, there was not even rough coincidence.

We may conclude that in aggregate manufactures the major turning points of average hourly earnings are a reliable indicator of major turns in wage rates and these will usually correspond, with a lag, to major reversals in business activity. This should be a help-

²⁰ Turning points cannot be determined precisely from January through June 1922 because we do not have any data on average hourly earnings. However, since in aggregate manufactures the standing at July 1922 is the lowest recorded near the turn, the turn had to occur between December 1921 and July 1922. Were the precise turn known, it would probably coincide roughly with the turn in wage rates.

ful guide in analyzing the past since in retrospect it is possible to distinguish between minor and major reversals in average hourly earnings. For current series this distinction is much more difficult to draw although it may be somewhat easier in this area of analysis since typically average hourly earnings do not turn until 9 months after business activity, an interval that may be sufficient to permit a firm judgment on whether a current reversal is major or minor.

The behavior of wage rates in all manufacturing at the peak of business in May 1937 and at the trough in June 1938 must be inferred, for our index could not be computed after July 1935. Average hourly earnings suggest that wage rates ceased to rise and entered upon a plateau in the autumn of 1937. Thus wage rates continued to rise for about 5 months after business began to recede. They continued at the October 1937 level, 22 percent above the 1929 level, with only minor changes until the first quarter of 1939, when the plateau-like movement ended. That is, they did not rise until about 8 months after business had begun to revive. The large number joining trade unions in the mass production industries after 1935 apparently had not yet caused any lengthening in the lag of wage rates in the technical sense in which we measure lags by our alternate method. However, this is the first major contraction in business activity during the 2 interwar decades when wage rates did not decline. The rise in trade union membership and the continuing drive for members were probably the chief reasons for maintaining the level of wage rates throughout the 1937-38 contraction in the face of sharp curtailments in production and employment.

For some analytical purposes it is necessary to work with subgroups of total manufactures; it would be useful therefore to know the degree to which wage rates and average hourly earnings have had roughly coincident turning points in each of the 9 groups of manufacturing industries. If we restrict ourselves to major turning points selected by our alternate method, the 9 industry groups passed through 23 turns, and at 17 turning points, 74 percent, wage rates and average hourly earnings roughly coincided. Rates and earnings had only 4 corresponding turns at minor turning points, and at only 1 did they roughly coincide. Moreover, the predominance of rough coincidence at the major turning points in business activity characterized all the subgroups except electrical goods and rubber tires and tubes. However, since we did not have more than

3 observations in any subgroup, the basis for this conclusion is rather tenuous.

INDUSTRY GROUP	CORRESPONDING TURNS OF RATES & EARNINGS AT MAJOR TURNING POINTS IN	
	BUSINESS	ROUGH COINCIDENCES
	(number)	
All manufactures	4	4
Automobiles	3	2
Boots and shoes	3	2
Electrical goods	1	0
Iron and steel	3	2
Paper and pulp	3	3
Rubber tires and tubes	2	1
Silk and rayon	3	2
Slaughtering and meat packing	2	2
Woolens and worsteds	3	3

The timing of cyclical turns in average hourly earnings at major turning points in business activity seems to be a somewhat less reliable indicator of the timing of cyclical turns in wage rates for individual branches than for aggregate manufactures. In the railroad industry, however, they seem to have been a reliable guide. For example, all turning points in wage rates and in average hourly earnings either coincided or differed by no more than 2 months (Chart 4). That is, every substantial change in average hourly earnings coincided with a similar change in wage rates.

Although the movement of hourly earnings reflects various adjustments made by management to changes in the level of production, at the major turning points our materials on manufactures and railroads indicate that the main determinant of the reversal in the movement of hourly earnings seems to be the reversal in the movement of wage rates themselves.

7 *Cyclical Amplitudes of Wage Rates and Average Hourly Earnings*

Our data have little to say positively about the similarity in the amplitude of cyclical fluctuations in wage rates and average hourly earnings. Charts 1 and 2 suggest that the relative changes in average hourly earnings in manufacturing are substantially larger than in wage rates during corresponding cyclical phases. Unfortunately, the assumption required in constructing our indexes of wage rates in manufacturing—that the establishments that did not report a change in wage rates in a given month made no change—causes the index to understate seriously the actual magnitude of changes in wage rates. The series on average hourly earnings are not sub-