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Robustness and real consequences of nominal wage rigidity ☆

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Abstract

Nominal wage rigidity has been shown to exist in periods of high inflation, while reduction in nominal pay has been hypothesized to occur in times of low inflation. Nominal wage rigidity would therefore become irrelevant because there is little need to cut nominal pay under high inflation, while the necessary cuts would occur under low inflation. We test this hypothesis by examining Swiss data in the 1990s, where wage inflation was low. *Nominal wage rigidity proves robust in a low inflation environment, constituting a considerable obstacle to real wage adjustments*. Real wages would indeed respond to unemployment without downward nominal rigidity. Moreover, wage sweep-ups caused by nominal rigidity correlate strongly to unemployment, suggesting *downward nominal wage rigidity fuels unemployment.*

JEL classification: J30; E31; E52

Keywords: Wages; Nominal rigidity; Inflation; Unemployment

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1. Introduction

The extent and the nature of downward nominal wage rigidity are likely to have strong implications for the functioning of the labor market and for questions of monetary policy. There are several reasons why firms may be reluctant to cut nominal wages; they may be constrained by efficient nominal wage contracts (MacLeod and Malcomson, 1993; Holden, 1999), the existence of nominal loss aversion (Kahneman and Tversky, 1979; Genesove and Mayer, 1998), or nominal fairness standards (Kahneman et al., 1986; Campbell and Kamlani, 1997; Bewley, 1999; Fehr and Falk, 1999).

We examine two important unresolved questions in the empirical literature on nominal wage rigidity in this paper. First, there is no information to our knowledge regarding the rigidity of nominal wages in an *environment of low nominal wage growth*. This question is important because there is little need to cut nominal wages in an environment with high wage inflation and, hence, nominal wage rigidity—if it exists—probably has no major real effects. In contrast, wage rigidity may well be a binding constraint on wage setting for large segments of the work force in a low inflation environment. Hence, non-negligible real effects of nominally rigid wages are far more likely in an environment with low nominal wage growth. However, little is known about wage behavior in this situation.

Second, there is little empirical support for the claim that nominal wage rigidity affects the real side of the economy. This knowledge is important, however, because even if nominal rigidity frequently inhibits wage cuts, the real effects which it causes cannot be taken for granted. Many labor relations are long-term; the employer could, in principle, smooth the time path of individual wages without affecting the expected marginal costs of labor. For example, a worker in a long-run employment relation could pay for the absence of wage cuts in this year with lower wage increases in future years, leaving the present value of his labor costs constant. Applications of the theory of repeated games to long run labor relations show, however, that these relations are characterized by infinitely many equilibria (MacLeod and Malcolmson, 1989). Therefore, it is far from obvious that the wage smoothing equilibria are relevant. Thus, whether real effects are associated with widespread nominal wage rigidity is ultimately an empirical question.

The lack of data forced previous studies to examine the existence of nominal wage rigidity in an environment with relatively high rates of wage inflation. The early studies by McLaughlin (1994) and Lebow et al. (1995) found little evidence. Further studies by Akerlof et al. (1996), Card and Hyslop (1996) and Kahn (1997) report more favorable evidence and two recent papers found quite strong evidence for downward rigidity (Altonji and Devereux, 1999; Lebow et al., 1999). However, since all these studies used US data from the last four decades and since inflation was quite high during this time period, it is difficult, if not impossible, to draw reliable inferences about the behavior of nominal wages in a low inflation environment from these studies.[1] The average rate of wage inflation in these studies ranged from 3.4 percent in Lebow et al. (1999) to 7.4

[1]The most prominent low inflation episode is probably the Great Depression, for which to our knowledge no micro-level data on individual wage changes exists. Aggregate evidence suggests that