Optimal Combination of Wage Cuts and Layoffs —The Unexpected Side Effect of a Performance-based Payment System—*

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Abstract

In this paper, we theoretically and empirically analyze the optimal combination of wage cuts and layoffs, and the unexpected effect of introducing a performance-based payment system. First, we theoretically show that with the increase in the parameter representing a firm's estimate of the degree to which nominal wage cuts damage worker morale, the firm becomes less likely to impose wage cuts; instead, it implements layoffs. Empirically, we show that there is a trend that a firm under a performance-based payment system is unlikely to implement wage cuts, because the system acts as a device for strengthening the relationship between wages and worker morale. Given this first-order regression, the status of a performance-based payment system is employed as an instrumental variable (IV) for wage cuts in a layoff regression model, and the IV estimate for the impact of wage cuts on layoffs becomes significantly negative. This supports the theoretical implication that implementing wage cuts can be a potential device to reduce layoffs. At the same time, we find another potential problem: an unexpected side effect of the increasing use of a performance-based payment system in Japan is that layoffs will increase, because companies will become less likely to impose wage cuts. This in turn may lead to a high unemployment rate in Japan, where the fluidity of the labor market is not as advanced as that in the United States.

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