

## Referee Report

“Wage-Productivity Gap in OECD Economies”

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**Summary.** This paper empirically investigates the link between the wage-productivity gap and various labor market outcomes—such as the rate of unemployment, the extent of unionization, inflation, and taxation—in OECD countries. This is a potentially useful exercise, because it enhances our understanding of the empirical nature of the labor market frictions that generate a gap between wages and productivity. The authors find that the gap is positively correlated with the rate of unemployment and negatively correlated with the degree of unionization.

I think the paper is interesting and the findings are important. The technical part seems correct. But the following issues are question begging and, therefore, need further clarification. I believe that the paper will become suitable for publication after these issues are addressed by the authors.

1. The analysis in the paper can be linked to various other literatures. For example, [Blanchard and Gali \(2010\)](#) show that, under the assumption that preferences are in log consumption and of constant Frisch elasticity form (which is standard in the macro-labor literature), shocks to labor productivity do not lead to a change in the rate of unemployment; but, they generate proportional increases in wages (page 9, equation 17). The positive constant defining the proportional change is a function of five structural parameters at the steady state: (1) the subjective discount factor, (2) separation rate (i.e., job exit rate), (3) labor market tightness, (4) the degree of labor market frictions, and (5) markups. So, they suggest that the correlation between the wage-productivity gap and the rate of unemployment is practically zero. See also [Shimer \(2009\)](#) for a result along the lines of [Blanchard and Gali \(2010\)](#). I suggest the authors to look carefully at these papers and link their work to these papers in their Section 2.
2. The authors explain in Section 2 that the Mortensen-Pissarides model predicts a positive correlation between the wage-productivity gap and the rate of unemployment, which I agree. However, they should also note that this theoretical positive correlation becomes very small when the model is calibrated to reflect the U.S. economy, which is subject to Shimer’s critique (see below).
3. On a related, but distinct, issue, this paper is also closely related to the so-called “Shimer puzzle” (see [Shimer \(2005\)](#)). As a result, a careful assessment of the magnitude of the

positive correlation between the gap and unemployment is required. Under standard assumptions (as in the Mortensen-Pissarides model or under preferences described above), the theoretical correlation between the wage-productivity gap and the rate of unemployment is zero (or positive but close to zero). The reason is the Nash bargaining assumption. If wages are sticky ([Hall \(2005\)](#)) or if there are information frictions in the labor market ([Kennan \(2010\)](#)), then it is possible to get large positive correlations, because the rate of unemployment moves more significantly as a response to productivity shocks. The authors should take a more careful look at the magnitudes of the correlations they report and assess whether they think these positive correlations are empirically small (to support the Mortensen-Pissarides stance) or they are large (to support the Shimer and Hall views).

4. The findings related to unionization may also be assessed within the same context.

**Minor comment.** I see a reference to [Burdett and Mortensen \(1998\)](#) at the back of the paper, but actually the paper is not cited in the text as far as I can see.

## References

- BLANCHARD, O. AND J. GALI (2010): “Labor Markets and Monetary Policy: A New Keynesian Model with Unemployment,” *American Economic Journal: Macroeconomics*, 2, 1–30.
- BURDETT, K. AND D. T. MORTENSEN (1998): “Wage Differentials, Employer Size, and Unemployment,” *International Economic Review*, 39, 257–273.
- HALL, R. E. (2005): “Employment Fluctuations with Equilibrium Wage Stickiness,” *American Economic Review*, 95, 50–65.
- KENNAN, J. (2010): “Private Information, Wage Bargaining, and Employment Fluctuations,” *Review of Economic Studies*, 77, 633–664.
- SHIMER, R. (2005): “The Cyclical Behavior of Equilibrium Unemployment and Vacancies,” *American Economic Review*, 95, 25–49.
- (2009): “Convergence in Macroeconomics: The Labor Wedge,” *American Economic Journal: Macroeconomics*, 1, 280–297.