

Response to referees

Thank you very much for the constructive comments. They are very useful to us when revising the paper. In general, we think most of the remarks can be addressed by carefully go through the presentation and outline of the paper. It seems to us that both referees find the paper original and with potential implications for understanding how institutions affect inflation and unemployment. At least this is the aim of the paper. Our challenge when revising the paper is to communicate this point accurately.

Response to Referee Report 1

1. Our aim is exactly what the referee states; provide a theoretical argumentation in favour of coordination on the price markup and then provide the empirical evidence. We will look at how this objective is presented once more.
2. It is not important whether the effect of coordination on real wages is monotonic or not. We will moderate the statement.
3. We will clarify our theoretical arguments for including coordination as a separate explanatory variable for the markup. The first argument claimed that the time span between wage increases and price increases could depend on coordination. In macro, changes in this time span will change the markup. The referee has a note on the effect of coordination on wages. In this context, we talk about wage increases within a coordination regime, not about the effect on wages when we increase coordination, as the referee seems to have understood. We believe that our three arguments do show why coordination may affect price markup, and not only through wages. Reasons might be that higher coordination (1) decreases the time span from increases in wages to increases in prices, (2) cause higher entry barriers and lower competition because of unions' power, and (3) cause higher entry barriers and lower competition from for example tariff agreements. We will clarify these arguments further in a revised version.
4. Good advice
5. Our original dataset consists of 20 OECD-countries. However, we did not have coordination data for Portugal and Spain, and for Switzerland, New Zealand and Germany the data set was too short, with less data points than the number of parameters to estimate. Therefore, we ended up with estimating price equations for only 15 OECD-countries. We will include this information in a revised paper.
6. Since we include wages (unit labour cost, *ulc*) as a separate explanatory variable, we believe that we do estimate the effect of coordination on the markup. Note that the markup is an unobserved variable and has to be estimated from a consumer price equation, controlling for wages among other things.
7. Obviously, as Baltagi (1995) points out, there is a tradeoff between heterogeneous coefficients with inefficient estimates (because of few observations) and homogeneous coefficients efficiently estimated, but potentially with a bias. This choice is apparent in macro-panels like ours, where the number of observations in the time dimension is limited. We believe that if our pooled estimate were biased, we would expect deviations from single-country studies. Since our results are very similar to single-country studies, we take it as a signal of little bias. The referee fears that both single-country studies and our study have a similar bias. However, this cannot be so, since this particular bias potentially comes from pooling across countries and single-country studies does not pool across countries. We appreciate the referee's compromise to assume homogeneity in the long run only. However, we do believe that we obtain even more efficient estimates without serious bias by pooling all coefficients.
8. The standard errors are robust. We will point that out in a revised version.

9. OK, this might be so. We have used the standard errors reported by the software, and we are aware that the tests have low power. That being said, we do not feel the results of the unit root test are very important when designing the model, they are meant as a description of the data. The model design is quite standard for price equations.
10. Coordination is defined in the appendix. The referee is correct, also coordination between employers are covered. We shall be aware to point this out in the paper. However, we do not think it changes the theoretical arguments for why coordination should affect the markup. On the contrary, coordination across employers would probably also increase entry barriers. After all, they would want to keep competitors out of the market.
11. I think we have been very thorough in analyzing endogeneity and choice of instruments, and conducting the Durbin-Wu-Hausman test, although finding good instruments is always hard and is easily questionable. We recognize that the question of endogeneity and valid instruments is important, that is why we have given it much space and conducted the tests thoroughly. In our case, we did not only included lags of variables (which in the absence of autocorrelation should be exogenous), but we also included the degree of employment protection (EP) for example. EP is found to significantly affect wages, and not to affect consumer prices. Again, our results are in line with most other studies, so we believe we have found relatively good instruments or at least followed the best practice.
12. See 11.
13. This can be done in the revised version.
14. We will check this carefully in the revised version.
15. We will organize the comments on figure 1 better in the revised version.

Response to Referee Report 2

1. It seems like a good idea to provide a short presentation of the theoretical literature on the wage and price setting equations as the referee suggests. We will do that in the revised version.
2. We will go through this carefully. The section ends with equation 7, which is the long-run part of the error-correction model (the econometric specification) in equation 8. We believe that this exercise potentially is valuable to the reader, so we will try to make it more informative.
- 3.a Yes, we do use many pages to explain and address econometric issues. We believe it is an important part of the documentation. However, we can easily put some of it in an appendix and spend more space for example on discussing further implications.
- 3.b It is not the aim of the paper to estimate the effect of coordination on wage setting. We believe this has been well documented in other papers. The originality of this paper is in documenting an effect of coordination on the markup in price setting. Taken together these two results have interesting implications, and they can explain some observed puzzles.
- 3.c There should be no need to specify explicitly the four models we estimate, because we have estimated the same model four times. They only differ in estimation techniques. The model specifications are identical in M1, M2 and M4. M3 deviates from M1 only in assuming non-linearity in the CO-variable.
4. We believe that with the revisions explained above, we can accomplish option number 2.