Unintended consequences of nominal wage equality across regions*

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Abstract

In many European countries wages are negotiated through centralized collective bargaining agreements. One understudied feature of these agreements is that they impose the same nominal wage structure at the national or sectoral level, irrespective of location. In this paper we argue that the resulting lack of geographic dispersion of nominal wages together with large differences in productivity across regions can have serious unintended effects. In particular, it has the potential to create significant regional disparities in terms of unemployment, cost of housing and real wages. We document these consequences empirically juxtaposing Germany and Italy - two countries with large differences of productivity across regions (West-East; North-South) but very different geographical wage structures. We show that Italy's compressed nominal wage structure leads to low employment but high real wages for workers of the South. In the North, on the other hand, house owners benefit from high rents while workers are confronted with a low real wage level. Germany, with much more geographic dispersion in nominal wages has more equal employment levels and housing prices across regions and real wages that are higher in the West.

Keywords: regional inequality, real inequality, collective bargaining.
JEL codes: J61, R23.

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Extended Abstract

In almost all countries, we observe vast regional differences in firm productivity. In the US, where wages are relatively flexible, these differences in productivity translate into substantial differences of salary and wages across regions. In Europe however, this process is often curtailed by collective bargaining. In the majority of Western European countries collective bargaining agreements cover more than 75% of workers . At the same time, the dominant level at which bargaining takes place is either national or sectoral [1]. An understudied feature of this highly centralized wage setting mechanism is that it effectively mandates equal nominal wages across geographical areas. This is often the result of equity considerations but such wage agreements also prevent the adjustment of wages to local differences in productivity.
This paper is dedicated to the analysis of the implications of this arrangement. Both theoretically and empirically we show that a compressed wage structure combined with a dispersed distribution of productivity results in spatial inequality in unemployment rate as well as housing prices and real wages.
We build a model of production and employment in two regions where labor demand is determined by the productivity of factor labor in production. The two regions are differentially productive, but labor is perfectly mobile and housing prices are a function of the population of a geographical area. We show that if wages are forced to be equal in the two regions, but productivity is higher in one of them, higher labor demand and migration pressure will cause housing prices in that region to go up. As real wages in the high productivity area go down, relocation becomes less attractive and is in equilibrium insufficient to ensure full employment. The resulting allocation yields high costs of living in the high productivity area and high real wages but also unemployment in the low productivity area.

We study the validity of the model empirically juxtaposing the local labor markets of Germany and Italy. These are two countries with similarly large differences in productivity across regions (West-East; North-South) but very different geographical wage structures. We use micro data on wages, housing costs, and labor market indicators to construct a cost of living index as well as measures of real wages at the province level of both countries .
Italy is a country in which, wage bargaining institutions allow for little geographical variation

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in wages. This keeps the North-South nominal wage differentials extremely low (4%). Post unification Germany has lived through a period of wage liberalization and strong decrease in union coverage. The percentage of workers covered by sectoral union contracts has decreased significantly from 67% in 1996 to only 49% in 2013. This results in a much larger geographic variation in nominal wages with a 35% gap between West and East.

Consistent with our model we find a substantive relationship between the cost of housing and employment in Italy. Northern regions have a non-employment rate that is on average 20% lower than in the South while housing prices are 26% higher in Northern provinces. We also find that while nominal wages are slightly higher in the North, real wages in Italy are actually 6% higher in the South. The difference in housing prices and employment that we observe between East and West Germany is much lower. The difference in the non-employment rate is only 4% on average between Western and Eastern provinces and only 14% in housing prices. Real wages in Germany - like productivity - are higher in the West.

Our results highlight important consequences of centralized wage setting for inequality both across and within regions. In Italy, wage compression generates real wage inequalities across regions in which somewhat paradoxically workers of the lower productivity regions end up better off than those in the more productive North. In Germany the distribution of real wages mirrors the productivity of labor. It is also interesting to think about inequality within regions. In Italy, southern workers may have a high real income but there is a substantial fraction of the population that is without a job. In East Germany, real income for the working population is lower compared to the West but the fraction of people with zero income is also much lower. As long as house owners in the North of Italy coincide with wage earners in the North people can be "house rich" and "wage poor" - but this is not always the case. So we also have inequality along these lines.

It is interesting that in many places there is much debate around overheated housing markets and affordable living but that it is typically led completely detached from labor market considerations. We show in this paper that labor market institutions such as centralized bargaining that are meant to generate equality across workers can have unintended consequences not only for the spatial inequality of unemployment across regions but also for prices of non-tradable goods and therefore on real wage inequality.