

Hidden Labor Market and Active Labor Market Policies

Many European countries exhibit a relatively high prevalence of a shadow sector, i.e., a part of the economy that is neither taxed nor monitored by the government. Estimates vary from around 6.5 in Switzerland to over 30 percent in a few middle-income European countries. This in turn implies that a part of the labor force is engaged in hidden or uncontracted work which creates tax collection and workers' protection issues. In order to mitigate these matters, European Union members and neighboring nations are increasingly trying to reduce hidden employment in their economies.

Previous research has focused mostly on optimizing unemployment insurance benefits to avoid creating incentives to collect the benefits and engage in under-the-table employment without much regard to who those informal workers were. To better understand who these informal or uncontracted workers are, I study a large European Social Survey data set which covers most European countries from 2004 to 2020. A thorough analysis reveals multiple stylized facts about informal workers across European countries. First, I find that informal work is concentrated in industries such as agriculture, forestry, fishing, construction, hospitality (restaurant and hotels). Second, the informal employment age pattern is U-shaped. In other words, most hidden or uncontracted employment occurs among the workers under 25 and workers above 50. This finding is consistent across all survey waves indicating that the young seem to eventually transition to formal employment. Hidden employment of the old may point to barriers for workers after job-separation at an older age to regain formal employment. Third, I find that informal or uncontracted workers typically have experienced more recent and longer unemployment spells in the past compared to similar formal workers. Fourth, for the same education, experience, job and industry, and other characteristics, informal workers receive 8 to 18 percent lower pay. Fifth, I confirm that informal workers are not likely to be voluntary. Informal workers do not indicate that they prefer having more work flexibility or using their own initiative, or care less about job security. These findings suggest that a fraction of older workers are informal due to exclusion from the formal labor market.

Based on the empirical observations, I build an age-segmented search and matching model. In the model, unemployed agents split their time between hidden employment and formal job search. The firm posts vacancies for the unemployed of each age group. I calibrate the model to match the employment by age in the United Kingdom, one of the Western European countries with rela-

tively high levels of informal work. I show that the model captures the hidden employment U-shape pattern found in most European countries quite well. Then, I test two age-targeted active labor market policies – hiring subsidies and firing taxes – that protect workers above age 50, many of whom work informally.

Simulations show that hiring subsidies increase labor demand for workers of age 50 which increases formal employment and reduces hidden employment. However, there are significant substitution and deadweight effects. Under this policy, there is a decrease in labor demand for workers under the policy-protected age (substitution). The firm also receives subsidies for workers it would have hired even without the subsidies (deadweight). Moreover, the same policy increases the firing rate of younger and older workers. The firm finds it optimal to increase turnover to collect more hiring subsidies. A higher firing rate increases unemployment and informal work activities. Due to the labor demand shift towards older workers and higher turnover, I find hiring subsidies to decrease formal and increase informal employment. Moreover, to cover hiring subsidies government would require substantial tax revenue by either increasing one of the existing or introducing a new tax.

Firing taxes levied on firms for letting go workers over age 50 increase older labor turnover costs. Firms respond by decreasing the firing of older workers even when if become less productive. However, firms also reduce hiring of workers above and slightly below age 50. When hiring a worker over the age of 50, firms take into account that firing such a worker would be expensive. Similarly, when hiring a worker close to age but under the age of 50, the firms take into account that the worker will soon be protected by this policy. The hiring rate of younger workers is unaffected as young workers will not be protected by the firing tax for many years. Since the hiring of the youth is unaffected and the firing rate of older workers is reduced, I find that the firing tax may indeed increase formal and decrease informal employment. However, those who are just under the policy-protected age (45 to 50 years old) are left worse off.

While most previous research has focused on unemployment insurance benefits, I show that middle-aged workers are less likely to be informal, and suggest that targeting age-specific groups may be more effective. Policy simulations of hiring subsidies and firing taxes targeting older workers indicate large distortionary effects but firing tax targeting older workers appears to be more effective at reducing hidden employment.