How Dangerous is Godfather?

Job-to-Job Transitions and Wage Cuts

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1   Motivation

A surprisingly large fraction of workers that make a job-to-job transition experience a wage cut.[1,2] This phenomenon is a challenge for search models. They are several competing explanations. The goal of this project is to empirically investigate which explanations are plausible, and to assess their relative importance in generating the phenomenon.

One explanation is based on the idea that JTJWC workers move to avoid even worse outcomes. This can happen if workers receive an advance notice of a lay-off and accept a lower wage to avoid unemployment, their valuation of the current job decreases or there is an unobserved negative shock to match productivity. A common practice in the literature is the introduction of exogenous job-to-job reallocation shocks, nicknamed "Godfather shocks": sometimes workers receive randomly drawn offers they cannot refuse.

Workers might make a JTJWC transition for non-pecuniary reasons, moving to a job that they value more despite worse pay. Fujita (2010) finds that in the UK workers who are unsatisfied with non-pecuniary aspects of their job are roughly half of workers who search on the job because they are unsatisfied with their current job. The workers unsatisfied for non-pecuniary reasons obtain on average lower wages conditional on moving than workers

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[1]Jolivet et al. (2006) use the data from the ECHP for Europe and the PSID for the US, concluding that in the 1990 the fraction of such transition ranged from 20% in Belgium to 36% in Germany, and was 23% in the US. Tjaden and Wellschmied (2014) find that the fraction to 34% in the PSID data from the 1990s, with the average wage cut of 20%. Other papers find similar values for the fraction of wage-decreasing wage cuts.

[2]I refer to these workers and transitions as JTJWC workers and transitions.

who search on the job due to low pay. Hall and Mueller (2018) find that non-wage value of a job plays an important role for the job-acceptance decisions of unemployed jobseekers in the US.

Another explanation is that workers make JTJWC transitions in hopes of higher wages in the future. This motive arises if firms offer an increasing wage-tenure profile, as in Coles and Burdett (2010) extension of the Burdett-Mortensen wage posting model, and in the Bertrand competition framework introduced in Robin and Postel-Vinay (2002). In this framework, workers have no bargaining power, receiving take-it-or-leave-it offers from firms. Wage growth results from the Bertrand competition in which firms engage when a worker receives an outside offer, within the limit given by marginal productivity in the current job. A worker might make a JTJWC transition because of the option value of working for a more productive firm with higher wage ceiling. JTJWC transitions also happen if some firms offer opportunities for accumulation of firm-specific or general human capital that are attractive enough that workers are willing to accept a temporary wage cut.

Finally, the observed JTJWC transitions might be an artifact of measurement error, which was investigated in Canon and Pavan (2014).

Clearly, these explanations are not mutually exclusive. Their merits and relative contributions are ultimately an empirical issue. To date, it was investigated in Lopes de Melo (2007), Connolly and Gottschalk (2008), Canon and Pavan (2014), and Tjaden and Wellschmied (2014).

Lopes de Melo (2007) compares the wage dynamics for JTJWC workers and job stayers who later make a transition. He concludes that there is scant evidence that JTJWC workers obtain higher pay in the future. However, the data and methodology he uses make finding no evidence for pecuniary job value improving JTJWC transitions possible even if they happen.

First, the considered period is similar in length to median job duration. He uses the SIPP data with information on 4 years of employment history. The median job tenure in the considered period was 3.6-3.8 years (BLS data). Since realizing wage gains from moving takes time, regardless of the underlying mechanism, the shortness of the considered period relative to job durations might prevent observing some of eventually realized wage gains.

Second, his test for the presence of JTJWC transitions that improve pecuniary job value is flawed. He checks whether the wage growth for JTJWC workers stochastically dominates the wage growth for job stayers who later make a transition. If some of JTJWC workers are workers hit by reallocation shocks, his test can miss the presence of value-improving wage cuts.[3]

Connolly and Gottschalk (2008) use a simple structural model and the SIPP data. They concluded that around a one-third of wage-decreasing transitions for women and one-fifth of such transitions for men lead to higher subsequent wages.

Tjaden and Wellschmied (2014) attribute all JTJWC transitions to reallocation shocks. Their argument against the presence of pecuniary value improving wage cuts is the observed relationship between the wage cut and subsequent wage growth. They find no evidence that workers accepting larger initial wage cuts enjoy average higher wage growth. However, wage growth has to be an increasing function of the initial wage cut only under an extreme assumption that all wage-cut transitions improve pecuniary job value. Like Lopes de Melo (2007), they use the SIPP data that allow them to track wage growth for no more than 4 years and for even shorter period on average.

2   Methodology

I use German administrative microdata to investigate competing explanations for wage-decreasing job-to-job transitions. These data have a few advantages over the commonly used SIPP data: (1) sample is very large, (2) measurement errors are reduced to almost zero, (3) workers are observed over long periods (from the labor market entry to 2010), (4) in the matched employee-employer version, it is possible to compare the wage dynamics of a worker making a job-to-job transition with his former coworkers, (5) information on unemployment registration is provided and workers can, and do, register as unemployed

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[3]Denote job stayers who later made a transition as group A and JTJWC workers as group B. Supose that the fraction of workers that improved pecuniary job value by moving is lower in group B than in group A, but larger than zero. If group B contains a sizable fraction of workers that worsened pecuniary job value by moving, accepting both low initial wage and low wage growth, then the wage growth for B is stochastically dominated by the wage growth for A, despite the presence of pecuniary value improving wage cuts.

before, or just after, their current job ends.

Fortunately, German workers are legally obliged, and motivated by healthcare insurance considerations, to register as unemployed as soon as they know their job ends. They suffer unemployment benefit reduction if they register more than few days after a job ends.

This allows me to identify workers that make an apparent job-to-job transition, changing jobs with at most 2 weeks in-between, but register as unemployed. I remove such workers from the group of JTJWC workers, if they suffer a wage cut. These workers serve as a control group.

My first test for the presence of JTJWC transitions that improve pecuniary job value in the longer run compares subsequent wages of JTJWC workers and wages in a control group, which is: (1) workers that are out of work for more than 2 weeks but not longer than 4 weeks, (2) workers that are out of work for no more than 2 weeks but register as unemployed. The underlying idea is that, conditional on initial wage and worker's characteristics, the distribution of wage growth for JTJWC workers is a mixture of the distribution of wage growth of workers that make a transition to improve pecuniary job value and the distribution of wage growth for workers those hit by reallocation shocks or moving for other reasons. The latter group should have the same conditional distribution of wage growth as workers who change jobs because they cannot stay, that is workers from comparison groups, and sample jobs from the distribution offered to the unemployed. The former group should enjoy higher subsequent wages.

I use the distributed-lag model borrowed from the literature on post-displacement earnings loss. I consider subsequent wages of JTJWC workers and workers from comparison groups that make a employment-unemployment-employment transition in the same period. The specification, estimated separately for each job change period T is

$$e_{it}^T = \alpha_i^T + \gamma_t^T + \beta^T X_{it} + \tilde{e}_i^T \lambda_i^T + \psi^T \bar{e}_i^T + \sum_{k=-a}^{k=b} \delta_k^T D_{it}^k + \epsilon_{it}^k \tag{1}$$

where e_{it}^T is real wage of worker i in period t, α_i^T and γ_t^T are worker and calendar-year fixed effects and X_{it} is education-specific polynomial in wage, initial after-change wage $\tilde{e}_i^T$ is allowed to have effects differing by period, $\bar{e}_i^T$ is wage before job change, and D_{it}^k are dummy variables equal to 1 in worker's kth period before or after a JTJWC transition. For workers

from an employment-unemployment-employment comparison group, all dummies are equal to zero.

The coefficients of interest are δ_k^T for $k > 0$. They should be positive and significant, if some of wage-decreasing job-to-job transitions are made to improve future wages. The fraction of workers with $\hat{\epsilon}_{it}^k > 0$ among all JTJWC workers could serve as a crude measure for the fraction of JTJWC transitions made to improve future wages.

Additionally, I compare wages of workers who make a JTJWC transition with wages of their former coworkers. The coworker wages serve as a basis for construction of counterfactual future wages for movers. JTJWC workers that achieve higher earnings, adjusting for initial wage cut, than their counterfactual earnings, can be classified as making a pecuniary job value improving JTJWC transition.

References

[1] Burdett, Ken, and Melvyn Coles. 2010. "Wage/tenure contracts with heterogeneous firms." *Journal of Economic Theory* 145(4): 1408-1435.

[2] Canon, Maria, and Ronni Pavan. 2014. "Wage dynamics and labor market transitions: a reassessment through total income and usual wages." Federal Reserve Bank of St. Louis Working Paper Series.

[3] Connolly, Helen, and Peter Gottschalk. 2008. "Wage Cuts as Investment in Future Wage Growth." *Labour* 22(1): 1-22.

[4] Fujita, Shigeru. 2010. "An empirical analysis of on-the-job search and job-to-job transitions." Working Papers 10-34, Federal Reserve Bank of Philadelphia, revised 01 Aug 2012.

[5] Jolivet, Gregory, Fabien Postel-Vinay, and Jean-Marc Robin. 2006. "The empirical content of the job search model: Labor mobility and wage distributions in Europe and the US." *European Economic Review* 50(4): 877-907.

[6] Hall, Robert and Andreas Mueller. 2018. "Wage Dispersion and Search Behavior: The Importance of Nonwage Job Values." *Journal of Political Economy* 126(4): 1594-1637.

[7] Lopes de Melo, Rafael. 2007. "Theories of Wage Determination and Wage Dynamics: An Empirical Assessment." mimeo.

[8] Postel-Vinay, Fabien, and Jean-Marc Robin. 2002. "Equilibrium Wage Dispersion with Worker and Employer Heterogeneity." *Econometrica* 70(6): 2295-2350.

[9] Tjaden, Volker, and Felix Wellschmied. 2014. "Quantifying the Contribution of Search to Wage Inequality." *American Economic Journal: Macroeconomics* 6(1): 134-161.