Recall Expectations and Duration Dependence

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In all countries where data is available, temporary layoffs make up a considerable share of unemployment. This share has been stable over time, despite significant changes in the industry composition. Its importance has been pointed out in the context of unemployment insurance design and the efficiency of the labor market matching process. However, the lack of data has been an obstacle in further analysis.1

This paper sheds some new light on the nature of temporary layoffs and recalls, and implications for our understanding of unemployment duration dependence. Novel administrative data from Austria provides us with detailed records of ex ante hiring expectations and expected hiring dates, as well as ex post outcomes such as recalls or new job characteristics.

We first document the pattern of temporary layoffs and recalls. 42% of all separations into unemployment are temporary layoffs. 58% of temporary layoffs, as well as 19% of permanent layoffs, are in fact recalled ex post. This implies a 35% recall rate of all separations into unemployment. The order of magnitude of these numbers is comparable to evidence from the U.S.2

Temporary layoffs expect to be hired on average 9 weeks after separation. The majority of recalls are hired by their previous employer during a four-week window around the expected hiring date. We find that, on average, jobs ending in temporary layoffs lasted a shorter period but paid higher wages. Temporary layoffs are present in all sectors but are most common in construction and tourism. Moreover, temporarily and permanently laid-off workers who are recalled experience shorter jobless periods relative to job switchers, and do not experience any wage loss.

Negative duration dependence of unemployment only appears once recall exits are excluded. This is true for temporary and permanent layoffs. However, for temporary layoffs, the aggregate pattern masks a significant amount of heterogeneity by pre-unemployment job tenure. We discuss additional survey evidence matched with administrative records to show that temporarily laid-off workers are less likely to search for a job, and search less intensely if searching.

I. Data

Similarly to the U.S., unemployed workers in Austria are explicitly asked about their expectation to be hired upon arrival at the employment office. They are encouraged to bring an informal notice of hiring intention and hiring date by any prospective employer. This document is not binding for either party, but it is aimed to better target job search assistance resources at the employment office. We use data on hiring promises and expected hiring dates recorded by the employment office for all job separations that occurred between 2004 - 2013. The records can be matched to the Austrian Social Security Database (ASSD) and the unemployment registers, which contain information on daily employment, unemployment, and UI receipt for the universe of individuals employed in the private sector.

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1 See Feldstein (1976), Katz (1986), and Fujita and Moscarini (2013).

2 See Katz and Meyer (1990), and Fujita and Moscarini (2013). Relatedly, Stiglauer et al. (2003) document similarities between the two labor markets in terms of job turnover and unemployment rates.
We start by selecting all individuals aged 20 - 60 who enter unemployment within 40 days after a job separation from the ASSD. To define types of layoffs, we merge UI records and hiring promise records to the starting dates of the unemployment spells. Each unemployment spell with a matched hiring promise is defined as a temporary layoff, while the remaining spells are labeled as permanent layoffs. Our final sample includes a total of 3,882,584 unemployment spells, of which 1,613,599 or 42% are temporary layoffs.

Two remarks concerning our definition of temporary layoffs are in order. First, we measure hiring expectations at the start of the unemployment spell. This is similar to Katz and Meyer (1990). In contrast, evidence based on surveys measures hiring expectations at the survey date (at some point during the unemployment period). As recall expectations evolve over unemployment spells, it is valuable that our data measures the initial hiring expectation. Second, we do not observe the identity of the employer in the hiring notice. However, strong evidence indicates that, in most cases, it is the pre-unemployment employer to which the worker on temporary layoff expects to be recalled. For example, in a narrow window around the expected hiring date, temporary layoffs are at least twice more likely to be recalled to their previous employer than to start a job with a new employer. In terms of job search behavior, a hiring promise from any prospective employer should have a similar effect.

Table 1 Preferably around HERE

3 For separations from jobs with a tenure shorter than three months this procedure leads to imprecise matches because of repeated and overlapping spells. Therefore, we exclude those from our analysis.

4 For comparison, CPS asks an unemployed worker at the time of the interview whether he/she "expects to be recalled to his/her last job", whereas the Continuous Wage and Benefit History questionnaire that is conducted when an individual files for unemployment insurance asks "do you expect to be called back to work by any of your past employers?".

II. Post-unemployment Outcomes by Layoff Type

Table 1 compares permanent and temporary layoffs in our sample. 58% of temporary layoffs, as well as 19% of permanent layoffs, are recalled within a year after separation. For temporary layoffs, the expected hiring date is on average 9 weeks after separation (with 5 and 95 percentiles of 18 and 121 days). Temporary layoffs are present in all sectors, but disproportionately in construction and tourism, and less frequently in manufacturing and services. Not surprisingly, the vast majority of workers registered as unemployed take up unemployment insurance, although this fraction is slightly higher for temporary layoffs (98% vs. 92%).

Temporarily laid-off workers are recalled around 10 weeks after separation and experience a 2.6% wage increase. Recalls of permanent layoffs occur 3-4 weeks later on average and they experience a lower wage increase. Non-recalled workers experience a 5% wage drop, independently of the layoff type.

Jobs ending in temporary layoffs have considerably shorter tenure on average. Although job stability is lower for all agents after a layoff, workers returning to their previous employer are finding even less stable jobs. In sum, it seems that conditional on layoff type, recalls happen earlier during the unemployment spell, and lead to higher wages but less stable jobs.

How much of the temporary layoff phenomenon is driven by seasonality? We can

5 We follow Katz and Meyer (1990) in censoring the non-employment spells in one year.

6 The wage change is defined as the log difference between the nominal starting wage at the post- and the last wage from the pre-unemployment job, excluding observations of workers recalled within the same calendar year. The observed wage growth of recalls may therefore reflect the collectively bargained wage increases. Under a conservative scenario, we can still conclude that recalls are not experiencing the same kind of wage drops as job switchers (Nekoei and Weber (2015)).

7 The mean difference in the non-employment duration between recalls and job switchers among temporary layoffs is sensitive to censoring, due to the right tail. For instance, the difference is 17 days with two-year censoring.
measure seasonality in the timing of layoffs by focusing on the share of workers laid off at the end of the industry-specific season, e.g. December and January for construction. Temporary layoffs are twice as likely to occur at the end of the season as permanent layoffs (27% vs. 14% on average). In the same vein, 22% (19%) of temporary layoffs (permanent layoffs) are hired at the beginning of the industry-specific season.

Another approach is to measure employment spell (job) seasonality defined by regularly repeated employment patterns over time (Del Bono and Weber (2008)). We offer two simple proxies for job seasonality. According to the first proxy, a job is seasonal if pre- and post-unemployment employment spells start in the same calendar month. This is the case for 23% (13%) of temporary layoffs (permanent layoffs). As a second, more stringent proxy, we define an employer-employee match to be seasonal if it is repeated once a year. Using a time window of three years, we observe that 12% of temporary layoffs were employed with the post-unemployment employer, as opposed to only 3% of permanent layoffs.

In sum, the timing of layoff and hiring is significantly more seasonal for temporary layoffs than for permanent layoffs. However, regular seasonal patterns do not dominate the phenomenon of temporary layoffs and recalls.

III. Job Exit Hazards by Layoff Type

Any non-stationarity in an unemployed agent’s search problem leads to time-varying search effort and selectiveness. The resulting duration dependence plays an important role in understanding cyclical volatility of long-term unemployment and for the design of unemployment insurance. However, the literature has not yet reached a consensus on its pattern.

Figure 1 preferably around HERE

Figure 1 plots the empirical hazard rates for exits to recall or new jobs by layoff type. It is based on the conventional assumption of independent competing risks. Namely, the weekly recall (new job) hazards are defined as the fraction of ongoing non-employment spells at the start of a week that end during that week through recall (the start of a new job). The overall hazard rate to employment is the sum of both exit rates.

Figure 1 illustrates several patterns. First, almost all recalls occur within 6 months from job separation, which is in line with the expected hiring dates. In fact,

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### Table 1—Comparing permanent and temporary layoffs.

<table>
<thead>
<tr>
<th>Fraction of total</th>
<th>Temporary Layoffs</th>
<th>Permanent Layoffs</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total</td>
<td>Recall</td>
</tr>
<tr>
<td></td>
<td>100%</td>
<td>58%</td>
</tr>
<tr>
<td>Pre-unemployment</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tenure</td>
<td>1.11</td>
<td>1.10</td>
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<tr>
<td>Long tenure (%)</td>
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<td>16</td>
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<tr>
<td>Monthly Wage</td>
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<td>1824</td>
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<tr>
<td>Time to Next Job</td>
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<td>74</td>
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<tr>
<td>Post-unemployment</td>
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<td></td>
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<tr>
<td>Tenure</td>
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</tr>
<tr>
<td>Long Tenure (%)</td>
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<td>13</td>
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<tr>
<td>Wage Change (%)</td>
<td>-1.3</td>
<td>2.6</td>
</tr>
</tbody>
</table>

Note: The total number of observation is 3,882,584. The sample includes workers entering unemployment within 40 days after leaving a job with at least 90 days of tenure. Jobless spells with a duration longer than 365 days are treated as censored. Tenure in Next Job is censored for 11% of observations at the end of the data. Long (Post-unemployment) Tenure is the percentage of (Post-unemployment) employment spells with tenure above one year. Monthly wage is expressed in real (year 2000) euros. Time to next job is in days, and tenure measures are in years.

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8See Kroft et al. (2014) and Nekoei and Weber (2014), respectively.
it can be shown that recalls are clustered around the expected hiring date (Nekoei and Weber (2015)). Second, the recall hazard has a single peak for both temporary and permanent payoffs; it first displays positive duration dependence, followed by a strong negative duration dependence, and is finally flat in the second six months after job separation. Third, the permanent layoffs' new job hazard rate exhibits a steady negative duration dependence. This pattern would be masked by looking at the total hazard rate. Fourth, there is also a negative duration dependence as well in the new job hazard rate of temporary layoffs.

The patterns of hazard rates presented here reflect a combination of two factors: true duration dependence and dynamic selection. In Nekoei and Weber (2015), we show that for temporary layoffs, the shape of recall and new job hazard rates is strongly related to pre-unemployment tenure. For example, the recall and new job hazard rates both have a single peak for temporary layoffs with pre-unemployment tenure between 6 to 12 months. In fact, for temporary layoffs, the downward sloping new job hazard rate in Figure 1 results from aggregating over different tenure types.

Why is the job hazard rate hump-shaped? An explanation for such a pattern could be that temporarily laid-off agents are waiting for recall, by searching less and being more selective in their search while expecting a recall. In fact, this is the prediction of the Katz (1985) model, where the unemployed update their beliefs about recall in a Bayesian manner. The longer they remain unemployed, the lower will be their subjective recall likelihood. This leads to a decreasing reservation wage and possibly an increasing search intensity and thus, a positive duration dependence in the new job finding rate. In Nekoei and Weber (2015), we provide further evidence for this phenomenon. We show that agents' search behavior patterns change abruptly at the date when there is a change in recall expectations, either at the expected hiring date or at the date when former coworkers are recalled by the previous employer.

IV. Job Search Behavior by Layoff Type

Do temporary layoffs search less for a new job? The existence of match-specific investments and human capital, or a nonzero search cost creates a surplus to be shared between employer and employee, which causes workers to prefer returning to their prior employer. This section provides direct evidence of a lower search effort by temporary layoffs relative to permanent layoffs. This is based on a survey with detailed retrospective and self-reported information on job search strategies of 1,500 workers, which is reported about 6 months after en-
try into unemployment between November 2009 and May 2010 (Eppel, Mahringer and Weber (2014)). Matching the survey data with administrative records allows us to distinguish between temporary and permanent layoffs.

The evidence strongly confirms differences in search strategies by type of layoff: 51% of the temporary layoffs report no job search at all, in contrast to only 14% of the permanent layoffs. Temporarily laid-off workers are less likely to use any of the seven search methods listed in the questionnaire. For example, the most popular method, social contacts, has been used by 71% vs. 28% of permanent and temporary layoffs, respectively. Conditional on searching, the mean number of methods used by temporary layoffs is 3.1, while permanent layoffs on average utilize 4.3 search methods. In sum, job search behavior depends strongly on recall expectations. This result confirms prior empirical findings (Katz and Meyer (1990)).

REFERENCES


