Wages, Layoffs and Hirings in Recessions

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Morten Bennedsen

University of Copenhagen

Antoine Bertheau

University of Copenhagen

Birthe Larsen

Copenhagen Business School

Project description

What determines the level and the fluctuation of aggregate unemployment? Recent research has found that worker entry to unemployment and the exit from unemployment are essential channels for understanding unemployment fluctuations (Elsby et al., 2013). While the findings that both channels matter is well-established, there is a lack of evidence on the underlying reasons behind firms' firing and hiring decisions. We will provide novel and direct empirical evidence on firms' firing and hiring decisions to fill this gap. We believe that the findings we will generate will benefit academic researchers and policymakers alike.

This project is designed to produce two academic papers on firms' employment adjustment. In a first paper, we plan to elicit how – and why – firms adjust their labor input following negative shocks. In this part, we seek to shed light on the extent of – employment versus wage adjustment – and the reasons behind the prevailing adjustment. In a second paper, we elicit how firms and workers form employment relationships. The main goal of this paper is to shed light on firms' recruiting policies and the determinants of hiring costs. To do so, we field an innovative and newly-designed online survey administered to all Danish firms with at least five employees in May 2021, paid fully by existing funds (150k DKK). The questionnaire contains self-contained parts on compensation, downsizing, and hiring policies. We will combine our survey with administrative datasets to explain how firms' labor adjustment differs by firm size, profitability, and financial constraints. We believe that the policy relevance of these projects is high and covers different stakeholders. First, we will provide new evidence on how wages adjust following adverse shocks. Evidence on price stickiness is central for central banks (e.g., *Danmarks Nationalbank*). Second, eliciting firms' hiring and firing behaviors will help to improve the matching of unemployed to new jobs, a key objective to public employment services (e.g., STAR *Styrelsen for Arbejdsmarked og Rekruttering*).

For the first project, we directly ask the role of different strategies to reduce the number of employees (hiring freeze, layoffs, quits, retirement), the main reasons for layoffs (cost reduction,

reorganization, technological change, etc.), –or not layoff – despite negative sales or other cost pressures. Our set of questions on payments shed light on the extent of pay reduction, and the underlying reasons for using –or not– base pay and variable pay reduction to employees. The questionnaire follows the groundbreaking work of Bewley (1999) but extends it in many important directions. For instance, we ask business owners the role of labor market policies (furlough schemes, etc.) and different institutions (worker representation) to mitigate negative shocks. Labor market institutions can explain diverging labor market performance across countries following a similar shock (e.g., Covid 2019), but there is little evidence related to their impacts (Jäger et al., 2021; Bennedsen et al., 2020; OECD, 2018).

For the second project, we ask business owners how they have adapted new employees' entry (hiring) following the 2020 crisis. We directly ask whether firms adapt their hiring standards (wages, qualification, etc.), the pool of applicants (employed workers versus unemployed workers), and the determinants of hiring costs. Our evidence has important implications for theoretical frameworks in the "macro-labor" literature (Shimer, 2010; Moscarini and Postel-Vinay, 2018; Hall and Kudlyak, 2020), but also for the literature that evaluates labor market policies. Recent evidence shows that active labor market policies targeted *to firms* significantly increased labor demand (Algan et al., 2020).

No work has been performed recently using survey data to uncover the underlying mechanisms that drive employment adjustment, i.e., hiring and firing decisions. The closest work is Bewley (1999)[1], but the sample is very small and outdated. Recent research combines survey and administrative data, but the research interests are different (e.g., Hvidberg et al., 2020). Given the importance of the research questions and the promising mix of administrative and survey data, we believe that our papers can be published in leading economic journals. Although Antoine Bertheau exploited some of the administrative datasets we plan to use, the data work is highly time-consuming. Therefore, our application for financial support primarily concerns working with a research assistant with some experience manipulating complex datasets. With this financial support, we can have drafts for our papers by Spring 2022. We believe that our research can have concrete implications for the Danish society, and can be conveyed to other countries. Apart from the two aforementioned journal articles we will produce a Danish version paper aiming at publishing in e.g. Samfundsøkonomen and/or other relevant Danish outlets, highlighting the relevant insights for Danish firms and economy.

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[1] This work received more than 2,200 citations (source: Google Scholar, May 2021).

Budget

Our budget is summarized in the table below. We will use our financial support to update and order Denmark Statistic's administrative and survey datasets. Especially for this project we need: IDA(P-N-S), AKU, FIKS, FIRE, and FIRM datasets. We will also order datasets from *STAR*: the recruitment survey and layoff notifications datasets. Given the high number of administrative datasets, and the need to combine them with our newly-designed survey, we plan to hire a *full time Research Assistant for nine months.* This is a full time Master in Economics (pre-doc) and thus require a *full time salary* during the nine months. The research assistant will work under supervision of the three applicants and be responsible for data management and project execution.

Table 1: Budget for the project: *Wages, Layoffs and Hirings in Recessions*

	2021	2022	Total
Research Assistant	220.160	110.080	330.240
Data	40.000	25.000	65.000
Subtotal	260.160	135.080	395.240
Overhead	52.032	27.016	79.048
Total incl. overhead	312.192	162.096	474.288

Timeline and work distribution

Timeline. During summer 2021, we will start the empirical analysis. We will complete the data analysis during the Fall semester of 2021 and present our findings in conferences and seminars. We will have our preliminary drafts by the end of Fall 2021. Journal submission will be in Spring 2022.

Work distribution. These projects are cooperative efforts in which we exploit the competencies of the entire team. Antoine Bertheau will be in charge of the data work and pinpoint the key results for the literature. Birthe Larsen adds the Danish institutional context, the experience with a previous Danish Covid-survey and secures the anchor to assimilation into a Danish context. Morten Bennedsen executes the survey and adds an applied microeconomic approach to both papers, and will also secure that the results are assimilated into a Danish economic policy context.

References

Algan, Yann, Bruno Crépon, and Dylan Glover, "Are Active Labor Market Policies Directed at Firms Effective? Evidence from a Randomized Evaluation with Local Employment Agencies." *Working Paper*, 2020. [Cited on page 2.]

Bennedsen, Morten, Birthe Larsen, Ian Schmutte, and Daniela Scur, "Preserving job matches during the COVID-19 pandemic: firm-level evidence on the role of government aid," 2020. [Cited on page 2.]

Bewley, Truman, *Why wages don't fall during a recession*, Harvard university press, 1999. [Cited on page 2.]

Elsby, Michael, Bart Hobijn, and Ayşegül Şahin, "Unemployment dynamics in the OECD," *Review of Economics and Statistics*, 2013, *95* (2), 530–548. [Cited on page 1.]

Hall, Robert and Marianna Kudlyak, "Why Has the US Economy Recovered So Consistently from Every Recession in the Past 70 Years?," *NBER Working Paper*, 2020, (w27234). [Cited on page 2.]

Hvidberg, Kristoffer B, Claus Kreiner, and Stefanie Stantcheva, "Social Position and Fairness Views," 2020. [Cited on page 2.]

Jäger, Simon, Benjamin Schoefer, and Jörg Heining, "Labor in the Boardroom," *The Quarterly Journal of Economics*, 2021. [Cited on page 2.]

Moscarini, Giuseppe and Fabien Postel-Vinay, "The Cyclical Job Ladder," *Annual Review of Economics*, 2018, *10* (1). [Cited on page 2.]

OECD, "Back to work: Lessons from nine country case studies of policies to assist displaced workers," *OECD Employment Outlook (Chapter 4)*, 2018. [Cited on page 2.]

Shimer, Robert, "Labor markets and business cycles," 2010. [Cited on page 2.]