REPLICATION PACKAGE: “The Effects of Partial Employment Protection Reforms: Evidence from Italy”

by Diego Daruich (USC), Sabrina Di Addario (Bank of Italy), and Raffaele Saggio (UBC).

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Foreword

This replication package reproduces the figures and tables of Daruich-Di Addario-Saggio "The Effects of Partial Employment Protection Reforms: Evidence from Italy".

Data Availability Statement and Description of Datasets used

This section provides information on each data source, specifies whether the data is confidential or not, and provides the associated data citation. Our primary data source comes from administrative records collected by the Italian Social Security Agency (INPS). These data are confidential and we are not allowed to supply these data publicly.

However, below, we provide details on how to obtain these data and describe the public data on collective bargaining agreements that we have collected and made available in this replication package.

1. **CCNL Data:** These data contain information on Italian collective bargaining agreements (CCNLs) and were provided by CNEL. CNEL is an entity that has the mandate from the Italian constitution to provide information on CCNLs. The history of renewal was obtained by scraping the information on the history of renewals available on the CNEL's website in 2016 (https://www.cnel.it/Archivio-Contratti/Contrattazione-Nazionale/Analisi-Avanzate). We also supply the cross-walk to merge the CCNLS codes created by CNEL with the ones present in INPS data which can be useful for researchers in general, see also: (https://www.cnel.it/Archivio-Contratti).[1]

   These data are provided in this repository.

   References:

   CCNL (2016). "History of Renewals." Available as "cnel_scrape_website.dta"

   CCNL (2019). "Cross-walk of CCNLs codes between INPS and CNEL." Available as "new_cross_walk_CNEL_2019.dta"

[1] We thank Raffaella Ambroso and Larissa Venturini at CNEL for their initial work on this cross-walk which started in 2016 and was fundamental for this project.

2. **INPS-INVIND:** These data (rl1990_2004 and rl2005_2013) contain the worker history of individuals that at some point in time were employed by a firm covered by the INVIND-survey from the period 1990-2013. These data are made available to researchers at the Bank of Italy thanks to a special agreement underwritten by INPS and the Bank of Italy.

   The data are confidential. Researchers interested in accessing the data may contact the Bank of Italy at: sec@pec.bancaditalia.it

   References:

   INPS-INVIND (2016) "Matched Employer-Employee data 1990-2013". Accessed in 2022

   INVIND-Survey "Survey of industrial and service firms" https://www.bancaditalia.it/pubblicazioni/indagine-imprese/index.html?com.dotmarketing.htmlpage.language=1&dotcache=refresh

3. **INPS-ANAGRAFICA:** These data (matr_bitalia_1990_2013) contain information on total employment, wage bill, and other characteristics for the universe of Italian establishments from 1990 to 2013 . These data are made available to researchers at the Bank of Italy thanks to a special agreement underwritten by INPS and the Bank of Italy.

   The data are confidential. Researchers interested in accessing the data may contact the Bank of Italy at: sec@pec.bancaditalia.it

   References:

   INPS-ANAGRAFICA (2016) "Information on the Universe of Italian Establishments 1990-2013". Accessed in 2022

4. **CERVED:** These data (cerved_stacked_all_complete_SOCANA) contain balance-sheet information of all limited liability companies in Italy from 1990 to 2013 . Cerved Group Spa collects these data. These data are made available to researchers at the Bank of Italy thanks to a special agreement underwritten by Cerved Group Spa and the Bank of Italy. Cerved Group Spa is a private company that acquires the data from Infocamere Spa. Infocamere Spa is a legal entity in Italy that collects and administers a Business register of firms and its updating is a legal requirement for all Italian companies.

In order to gain access to the Cerved dataset researchers can subscribe to the data. Many universities and research institutions have such subscriptions. More information on academic data access can be found at https://www.cerved.com/contatti/

References:

Cerved Spa (2016) “Base Dati Centrale dei Bilanci/SIEF Database. Years 1998-2013”, Cerved Spa. Accessed in 2022

Computational Requirements

The software used is Stata, specifically Stata 17.0/MP. The total time required to run the code is about 7 days.

The computing environment was a Shared Server running on either of two machines: (i) Intel (R) Xeon (R) CPU E5-2665 0 @ 2.40GHz; (ii) Intel (R) Xeon (R) CPU E5-2630 v4 @ 2.20GHz. They all have 256GB of ram and see the lustre file system which is 92TB large.

Additional packages required:

- todummy
- reghdfe
- egenmore
- tsspell
- winsor2
- distinct
- estout

Structure of the replication package

The “master.do” lists all the do-files needed for replication. The do-files under the section “Build” in “master.do” are scripts that read the raw data and combine them to produce the files needed for the analysis. Under the section “Analysis”, we list the do-files that produce the exhibits in the paper. The user should run the do-files in the order listed in “master.do,” by modifying the local “array_id” sequentially between 1 and 27.

All the do-files are stored in the folder “codes.” The folders “tables” and “figures” represent the folders where the exhibits are going to be saved. The folder “logs” contains the log files associated with each do-file.

The folder “src” contains the raw data; the .dta Files saved by the codes of this replication package are all saved in the folder “intermediate.”

Instructions to build analysis files

The table below lists and describes all the scripts that build the analysis files

Script Name	Description
build_spell	This reads and cleans the raw data “INPS-INVIND” and merges on the information contained in the raw data “INPS-ANAGRAFICA”
build_ccnl	This file reads the raw files on “CCNLs” and outputs a file “src/2019_cnel_scrape_website_to_merge_back_aug” (uploaded to this repository) that tells for each CCNL what is the year of implementation of the reform
build_py	Reads information from build_spell and constructs a person-year panel
build_py_merge	Reads information from build_py and merges on information on the year of implementation of the reform created by build_ccnl. It then extracts a file for the analysis on incumbents
build_py_MARKOV	Reads information from build_py_merge and constructs transition matrix of workers
build_py_LLM	Reads information from build_py_merge and extracts a file for LLM analysis
build_LLM_creat_destr	Combines information from build_py_merge and build_py_MARKOV to extract a file for LLM analysis on job creation/destruction
build_firm	Reads information from build_py_merge, merges information on balance sheet variables from “CERVED” and saves a file for firm-level analysis
build_entrants	Reads information from build_py_merge and extracts a file for analysis on entrants

Instructions to reproduce tables, figures, and statistics of the paper

The table below lists and describes all the analysis scripts and specifies the exhibit that is created by each do-file. The script “add_stats” replicates statistics that are described in the manuscript text, see for instance the end of Section 5.

Script Name	Description	Exhibit
summary	Summary statistics	**Table 1**

summary_reform	Summary statistics on the reform	**Figure 1**
baseline_effects	Effects of the reform	**Figure 2**
firms	Effects of the reform on firms	**Table 2 + Figure 3**
firms_het	Heterogenous effects of the reform on firms	**Table 3**
incumbents	Effects of the reform on incumbent workers	**Table 4 + Figure 4**
entrants	Effects of the reform on new entrants workers	**Table 5**
rent_sharing	Rent-sharing estimates of being on a temporary contract	**Figure 5, Table 6**
add_stats	Additional statistics reported in the body of the paper	**See paper**
summary_firms	Summary statistics on firms	**Table A1**
case_study	Evolution of temporary contracts in three large CCNLs	**Figure B1, B2, B3**
robust_event_study	Robustness analysis	**Figure C1, C2**
additional_robustness	Additional robustness analysis	**Figure C3**
ccnl_placebo	Placebo Analysis	**Figure C4**
destruction_decomposition	Decomposition of the increased churn rates caused by reform	**Figure D1, Table D1**
transition_descriptive	Summary statistics on transition rates	**Figure D2**
entryEntrants	Effects on the entry of new workers	**Figure D3**

rent_sharing_zero_surplus	Robustness on rent-sharing estimates	**Table D2**