Reactivating health impaired persons using stricter disability benefit rules

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Motivation

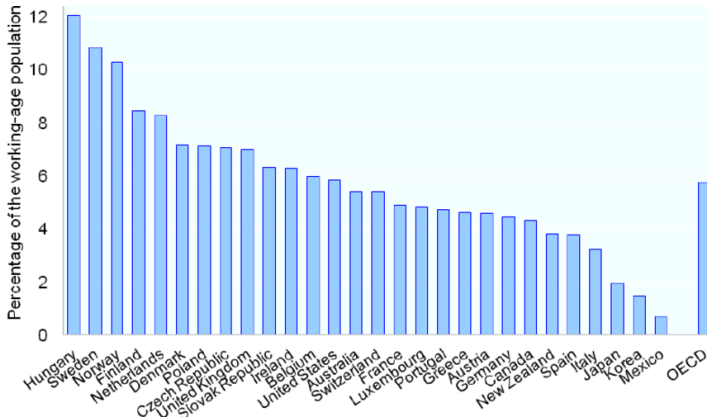
- High share of working-age individuals receiving disability benefits in OECD countries (6,4 %, OECD,2018)
- In addition, very few DI benefit recipients return to the labor market
- Consensus: the more generous the disability insurance (DI), the more likely it is for workers to exit the labor market (e.g. Autor and Duggan, 2003; Maestas and Mueller, 2014)
- What is the impact of the disability benefit system on the probability and patterns of re-employment of beneficiaries?

This project

- Can a drastic cut in DI access be successful in reactivating DI recipients?
- We look at a drastic and large scale DI reform in 2012 in Hungary
- Measure consequences of reactivating the inactive on the labour market (and health) outcomes

Background:outstanding DI recipiency rate after the transition

Figure: Share of DI recipients in the working age population,2001



- Lenient DI system absorbed many unemployed after the labour market shock of transition.

The DI reform in 2012

- All DI benefits and the assessment process was transformed starting from Jan 2012

- Unique element: the reform prescribed a health revision for a large group of beneficiaries already in care (cca 200,000 persons)
- As a result, many beneficiaries lost their benefit
- And others saw their benefits curtailed (Szikra 2018)

- In the meantime, early retirement was abolished and the duration of unemployment benefit cut from 9 to 3 months
- Expelled beneficiaries have not received help or rehabilitation in returning to the labour market

Research questions

1. General impact of the reassessed population: employment, total earnings, total income
2. Impact on quality of work
   - Wage level, type of work, quality of firms
   - Hypothesis: abrupt loss of benefit after a long period of inactivity leads to lower quality employment
     - Depreciation of human capital (Bryngelson 2009; Svensson et al. 2010)
     - Need to hurry to find a job because of the income loss (Nekoei – Weber (2017))
     - Working capacity has not restored (Kostas G. Mavromaras et al.)
3. Plan: Impact on health indicators

Data

- **Linked monthly panel of administrative data 2003–2017, individual level**
  - 50% sample (based on DOB) of 2003 population aged 0-74
  - Links employment, earnings, pension, benefit and health expenditure records

The DI reform details

- Beneficiaries faced a health revision (200 thousand people):
  - Age below 57 years at 31 Dec 2011
  - Receives DI benefit for partial disabled
- Affected persons had to apply for the revision by March 31 2012, or lost their eligibility
- Reassessment went underway in 2012-2015
- Problem: we see only exits from DI, but not the reason

Estimation strategy 1: general effects of the reforms

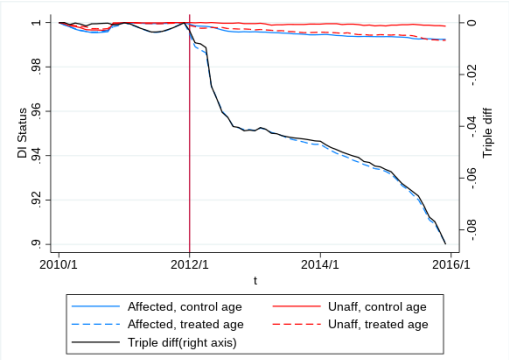
Triple difference: compare

- Treated age category (30-56 year) vs Control age category (57-60) at Dec 2011
- Affected DI (DI pension III and RSA) vs Unaffected DI (DI pension I-II).
- Before (2010-2011) an after (2012-2016) the reform

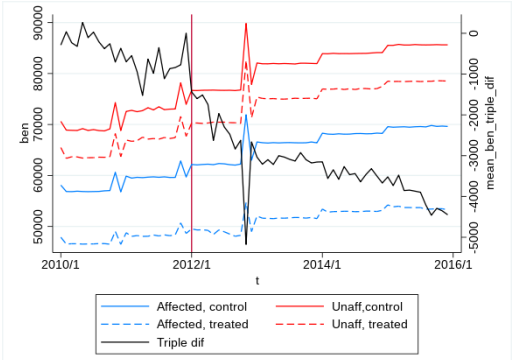
$$Y_{it} = \sum_{\substack{t=2008 \\ t \neq 2011}}^{2016} \{\beta_t AGE_i \times CAT_i \times YEAR_t + \gamma_t AGE_i \times YEAR_t + \delta_t CAT_i \times YEAR_t + \theta_t YEAR_t\} + \mu_i + \varepsilon_{it} \quad (1)$$

where the $YEAR_t$ are year dummies such that, e.g., $YEAR_{2012}$ takes value 1 for observation in year 2012 and 0 otherwise. Reference year:2011. The first-year reform effect, relative to the reference year, is then captured by β_{2012}, the second-year effect by β_{2013}, and so on.

Age group DiD charts: affected vs unaffected population

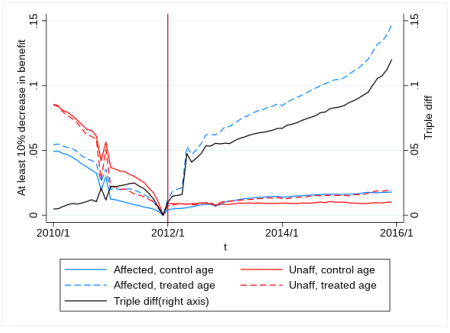


(a) DI beneficiary rate

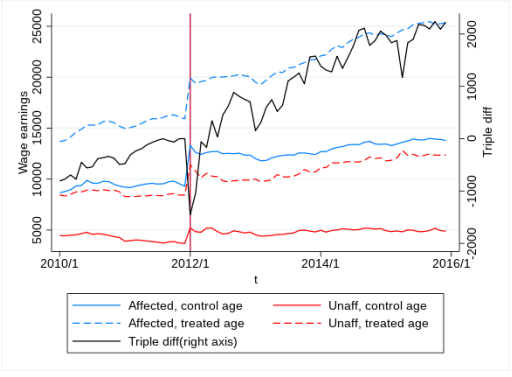


(b) Benefit amount (HUF)

Age group DiD charts: affected vs unaffected population

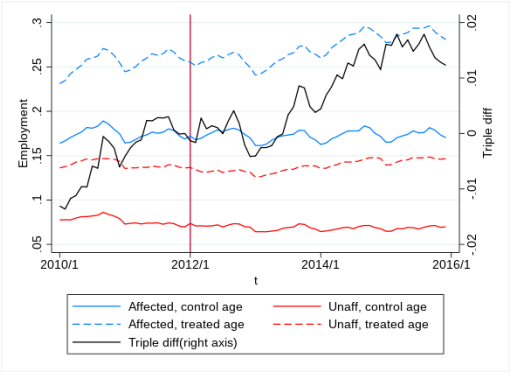


(c) A least 10% decrease in benefit

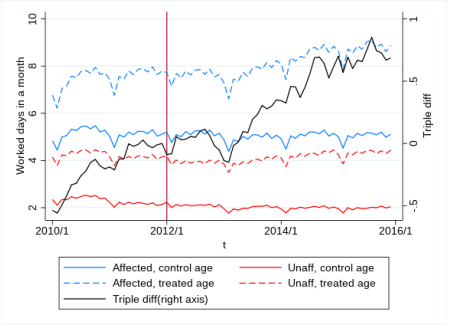


(d) Earnings

Age group DiD charts: affected vs unaffected population

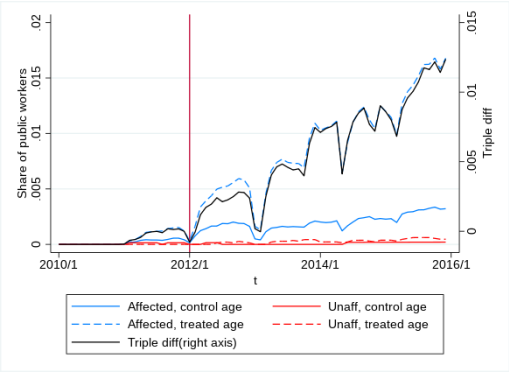


(e) Employment

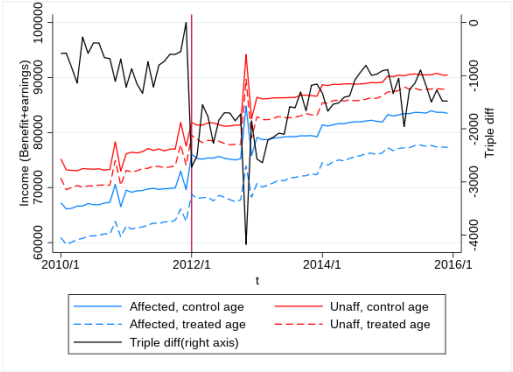


(f) Worked days per a month

Age group DiD charts: affected vs unaffected population



(g) Public Work



(h) Income

Estimation strategy 2: Impact of exit on labour market outcomes

Sample:

- Treatment group:
  - Aged 42-56 in December 2011,
  - Affected DI categories,
  - Receives DI benefit in December 2011,
  - No DI benefit until December 2007,
  - We include in our analytic sample only those periods when the individual does not receive DI benefit.
- Control group:
  - Aged 42-56 in December 2011,
  - No DI benefit ever in our sample.

Preliminary results- Comparison with non-beneficaries

Beneficiaries exited between 2012-2016

- Experienced lower employment rate
- Found a job in lower-wage firms
- Had a lower probability to work in white collar jobs

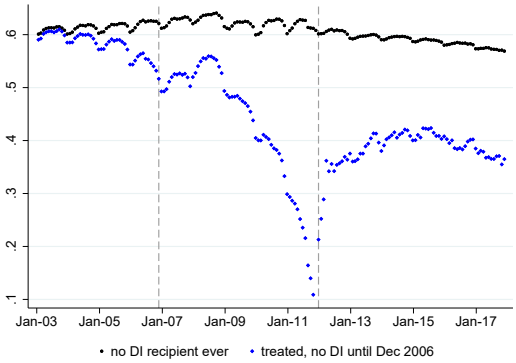
Than they would have had without going to DI benefit

Discussion

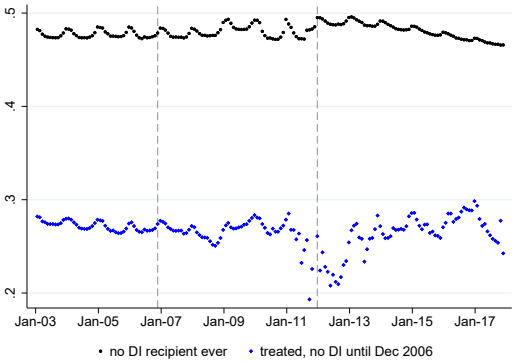
- Loss of benefit results in an increase of employment and earnings
- But higher labour market activity could not fully compensate the loss in benefit
- Early results indicate that enforced activation lowers the quality of work
- Next steps :
  - What factors influence the success (length of DI status, labour market environment, role of rehab services, etc.)
  - Health consequences of the reform

Thank you for your attention!

Descriptive plots: exiters vs non DI recipients

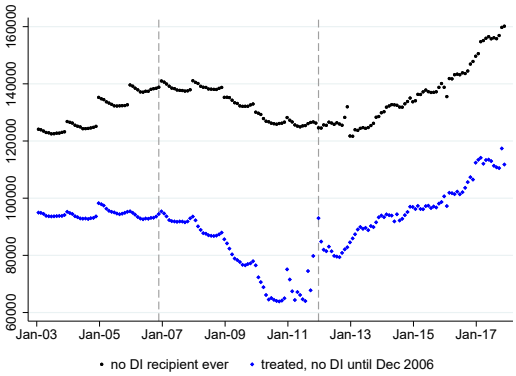


((i)) Employment

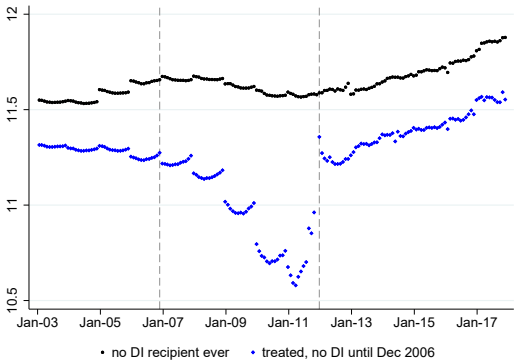


((j)) White collar job

Descriptive plots: exiters vs non DI recipients



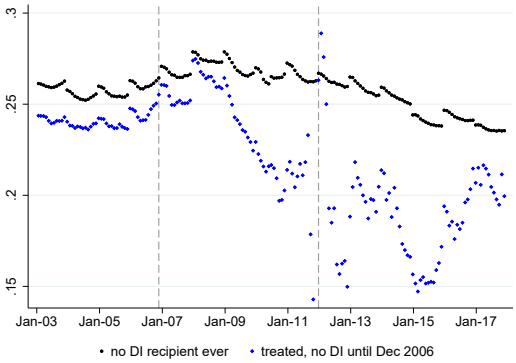
((k)) Wage



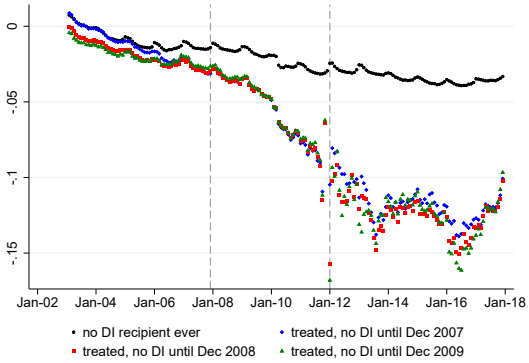
((l)) Log wage

Note: ...

Descriptive plots: exiters vs non DI recipients



((m)) Foreign owned firm



((n)) Firm AKM fixed effect