

## 4 Disability benefits receipt across the financial crisis

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- ▶ In a recession, disability benefits are often used as earnings replacements, resulting in increased benefit rolls
  - ▶ Older working-age Europeans have not followed this trend after the onset of the recent financial crisis
  - ▶ Benefit participation has been driven by the tighter access rules recently enforced in various European countries
  - ▶ Sickness and disability benefits are especially used when in less favourable economic circumstances
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### 4.1 Work disability and benefit receipt – the issues at stake

Contemporary European societies share the view that individuals of working age should be protected against the risk of losing their capacity to earn labour income due to a disability or chronic health condition. This view has long been reflected in national social security institutions, which provide for compensatory cash programmes targeted to individuals in such circumstances (Bound & Burkhauser 1999). Although each country differs with respect to the detailed features of specific programmes, a common structure of public disability insurance schemes can be outlined. First, after the onset of the disabling condition, a ‘sickness’ benefit is provided for a limited period of time, typically less than two years. After this period, if the disabling condition is expected to last for longer, potentially compromising the individual capacity to *ever* return to work, the sickness payment is replaced by a ‘disability’ benefit. Receipt of a disability benefit in cash is often regarded as a so-called ‘absorbing state’: typically, once in, recipients stay on benefits until they reach retirement age and the benefit is subsumed into the old-age pension.

Since these programmes’ inception, the number of people receiving disability benefits has increased remarkably throughout Western countries. Although the increase was mostly driven by older workers’ usage of these programmes (OECD 2010), demographic factors, such as population ageing, or disability prevalence and intensity, seem to have played a minor role in explaining the trend.

More credit is given instead to explanations arising from the economic, social and institutional contexts. For example, the coverage of impairments deemed worth of compensation has widened over time, with claims motivated by mental health problems having registered a striking increase in the past two decades. Also, benefit receipt rates have tended to increase more in times of economic recessions, and to remain on structurally higher levels afterwards. The institutional features of programmes themselves, such as the length of awards, the amounts receivable and the administrative rigour in assessing cases, have been identified as the main drivers of the observed growth and fluctuations in benefit rolls both in Europe and the United States (Burkhauser & Daly 2012).

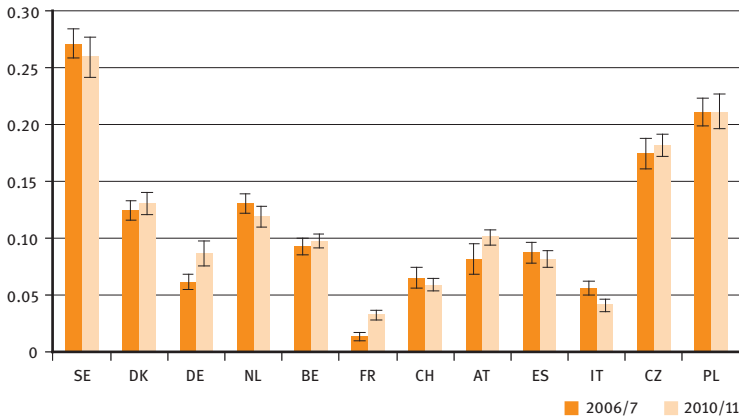
Currently, policy attention in the area of disability has shifted from the original aim of ensuring an earnings replacement to disabled individuals, thus protecting them from the risk of income poverty. The concern that the fiscal cost of public disability insurance might become unsustainable, felt on both sides of the Atlantic (Autor 2011), has moved the policy focus on improving disabled individuals' incentives to return to the labour market (possibility also favoured by current technological progress), encouraging their employment inclusion and, one way or another, limiting the number of people claiming disability benefits. In Europe the past two decades have witnessed a lively sequence of policy reforms aimed at tightening access to cash support for disabled individuals, especially in Northern European countries that were running the most generous programmes.

The recent financial crisis put even more policy pressure on reducing disability benefits rolls. An aspect that deserves special attention in this respect is *benefit targeting*, that is ensuring that payments are received by truly deserving cases, and those only (Zantomio 2013). Efficient benefit targeting allows minimising the fiscal cost of these programmes, without compromising their effectiveness. On the one hand, in times of rising unemployment, finding a job might prove more difficult for a disabled individual, than a non disabled one; an effective disability insurance system should then succeed in offering adequate income protection to disabled individuals, who are likely to be more severely hit by the economic downturn and for whom benefits often represent the primary source of income.

On the other hand though, the crisis has revived a long-standing concern that, especially in times of adverse economic conditions, disability benefits might be improperly used by undeserving individuals as earnings replacement, as a form of early retirement or hidden unemployment benefit (Bound 1989; Parsons 1996; Börsch-Supan 2008), compromising target efficiency. Empirical evidence has shown that in fact disability benefit rolls typically tend to increase after the onset of a recession. This chapter looks at older working age individuals' participation in disability benefit programmes, and investigate how benefit participation and the pattern of benefit receipt has evolved across the latest crisis experienced in Europe.

## 4.2 Benefit receipt rates of older working age Europeans across the crisis

Twelve European countries were covered in both the second wave (with interviews held before the financial crisis, that is in 2006/7) and the fourth wave (with interviews held after the crisis inception, that is in 2010/11) of SHARE. These include two Scandinavian countries (Sweden, Denmark), two Mediterranean countries (Italy and Spain), six Central European countries (Austria, Germany, Netherlands, Belgium, France and Switzerland) and two transition countries (Czech Republic and Poland). The analysis focused on older workers aged between 50 and the statutory retirement age (which varies across countries, spanning from 56 for Czech women to 65 for both genders in most countries). Figure 4.1 represents sickness and disability benefits participation rates, that is the population-weighted proportion of recipients in the selected age range, in each country as observed before and after the beginning of the economic crisis.



**Figure 4.1:** Benefits participation rates

Notes: 30,485 observations

Source: SHARE Wave 2 release 2.5.0, Wave 4 release 1

At each point in time, participation rates show a remarkable degree of heterogeneity across countries, reflecting the variation in sickness and disability benefits expenditure (ranging from more than three per cent of GDP in Scandinavian countries to 1.2 per cent of GDP in the least generous ones, such as Italy).

Before the crisis, Scandinavian and transition countries, plus Netherlands, displayed the highest rates of receipt (more than one in ten individuals, and more than one in four in Sweden); participation rates spanned between five and ten

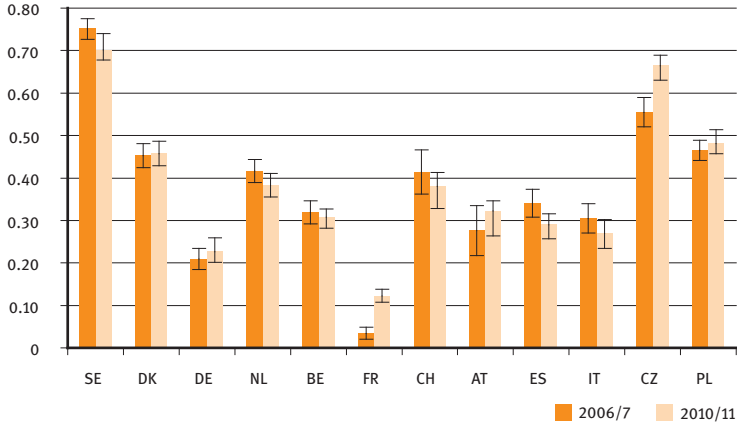
per cent in Germany, Belgium, Austria, Switzerland, Spain and Italy, while in France less than two per cent received either a sickness or a disability benefit. The observed cross-countries' diversity in participation rates was maintained in 2010/11, after the crisis onset.

If we look at how participation rates varied through this period comparing the two points in time, the concern that disability benefits rolls were used more (i. e. as earnings replacements) after the crisis began seems groundless: on the contrary, participation rates even decreased in some countries (Sweden, Netherlands, Italy, Spain, Switzerland) and remained almost unchanged in many others. This cross-sectional evidence is consistent with the analysis by Meschi et al. in this volume who found a decline in labour market status transitions from employment into disability after the crisis.

Benefit participation rates reflect not only the probability of pursuing a claim, but first and foremost, country-specific institutional features, both in terms of formal eligibility rules and in terms of assessment practices (i. e. the probability of being judged as a deserving case, once a claim is pursued). These were extensively reformed in a less generous direction both before and throughout the time span we considered in most countries, especially with respect to the first sickness absence phase. Such a common trend in institutional reforms is likely to explain the observed time pattern (OECD 2010). For example, broad reforms recently enforced in the very generous systems of Sweden (2008), Netherlands (2006) and Denmark (2005), tightened the rules for benefits access (i. e. shortening benefits durations), affected the amount of payments, and also entailed a more stringent application of assessment criteria.

It might be argued that variations in benefit rolls could be explained by changes in the underlying health and disability population structure. Börsch-Supan (2008) found no evidence in this sense, when comparing the first and second wave of SHARE; however this could be true in our case, given the longer time span considered. Figure 4.2 presents a focus on the possibly eligible population: the proportion of recipients among those (in the same age range) who reported to have 'any health problem or disability that limits the kind or amount of paid work' they can do. Conditioning on this indicator of benefit eligibility, the decrease in benefit receipt observed in Sweden, Netherlands, Italy, Spain, Switzerland was confirmed. A sizeable increase in benefit participation, among those experiencing a disability related work limitation, was observed instead only in France and in the Czech Republic, while Germany and Austria now did not show a significant increase in benefit rolls.

Using self-reported disability related work limitation as indicator of benefit eligibility might result in biased participation rates if recipients are, other things equal, more likely to report experiencing such limitation in order to 'justify' their status of recipients (the so called 'justification bias'). For this reason, Figure 4.3



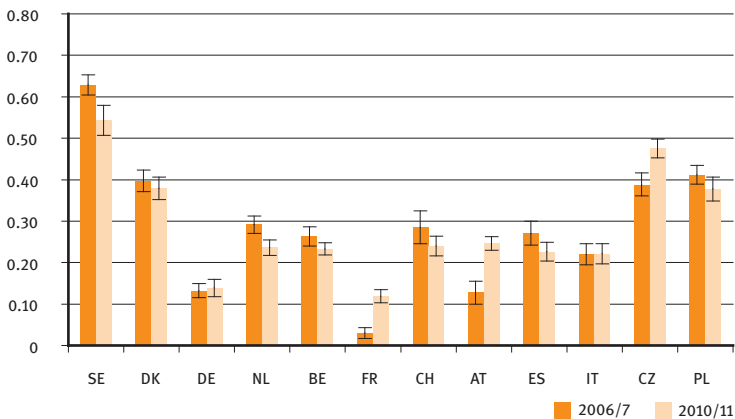
**Figure 4.2:** Receipt rates for those whose health/disability limits the kind or amount of work they can do

Notes: 6,570 observations

Source: SHARE Wave 2 release 2.5.0, Wave 4 release 1

presents receipt rates computed using an alternative indicator of benefit eligibility, that is a long standing illness/disability which limited ‘activities people normally do’ (rather than amount or type of work) at least in the last six months.

Except for Austria, which appeared to join France and the Czech Republic in registering a significant increase in benefit participation, the overall picture of



**Figure 4.3:** Receipt rates for those whose health/disability limits activities people normally do

Notes: 8,793 observations

Source: SHARE Wave 2 release 2.5.0, Wave 4 release 1

participation in disability benefits remained substantially unaltered in clashing with the hypothesis that disability benefits rolls increased for older workers after the onset of the crisis.

This however does not exclude the possibility that, other things equal, the propensity to claim increased after the onset of the crisis: a higher propensity to claim might in fact have been balanced by more stringent benefit rules and assessment practices motivated also by fiscal consolidation needs.

### 4.3 The pattern of receipt across the crisis: disability and income gradients

Besides computing participation rates, SHARE data allowed to deepen the analysis and to investigate the pattern of benefit receipt, with respect to a large set of individuals' characteristics. In particular, we focussed on the disability and income gradient in benefit receipt, as they both provide indications about the effectiveness of benefit targeting. Disability is the main determinant of eligibility; effective targeting implies a significant positive relationship between disability and benefit receipt. On the other hand, sickness and disability benefit typically are not means tested, i. e. household income does not affect eligibility; therefore, any significant relationship between household income and benefit receipt would rather reflect a behavioural aspect of benefit claiming.

Table 4.1 reports estimates from a probit model of benefit receipt run on the 2006/7 cross section (first two columns) of SHARE data and on the 2010/11 one (last two columns). Reassuringly, in both years benefit receipt appeared significantly related to disability indicators.

Before the crisis benefit receipt generally decreased with per capita household income. After the crisis onset, a significantly higher negative income gradient in receipt both at lower and, even more so, at higher income levels was registered. This suggests that, after the onset of the crisis, claiming behaviour became more tightly related to the amount of financial means otherwise available, at all income levels. Such evidence hints at the possibility that older workers below retirement age might have been 'insuring' against income poverty and unemployment by claiming benefits. This appeared significantly more likely for male individuals, for those having more years ahead before reaching statutory retirement age, for the less educated and for those relying less on family support (because living without a partner or living with a lower number of household members). Such evidence complements the income risk protection of retirement found by Brugiavini, Pasini, Trevisan and Weber in this volume.

**Table 4.1:** Multivariate analysis of benefit receipt

| Variables                             | Probit estimates 2006/7 |                |         | Probit estimates 2010/11 |                |         |
|---------------------------------------|-------------------------|----------------|---------|--------------------------|----------------|---------|
|                                       | Marginal effect         | Standard error |         | Marginal effect          | Standard error |         |
| <b>DISABILITY</b>                     |                         |                |         |                          |                |         |
| ladls (#)                             | 0.010                   | ***            | (0.003) | 0.007                    | **             | (0.003) |
| Difficulties in mobility(#)           | 0.014                   | ***            | (0.001) | 0.015                    | ***            | (0.001) |
| Symphoms(#)                           | 0.011                   | ***            | (0.002) | 0.005                    | ***            | (0.001) |
| Chronich_diseases(#)                  | 0.020                   | ***            | (0.002) | 0.018                    | ***            | (0.002) |
| <b>FINANCIAL MEANS</b>                |                         |                |         |                          |                |         |
| Log Income <sup>a</sup>               | -0.004                  | **             | (0.002) | -0.010                   | ***            | (0.001) |
| Log Income *above median <sup>b</sup> | 0.000                   |                | (0.001) | -0.002                   | ***            | (0.001) |
| Assets                                | -0.002                  | **             | (0.001) | -0.000                   |                | (0.001) |
| <b>OTHER CONTROLS</b>                 |                         |                |         |                          |                |         |
| Age                                   | -0.003                  | ***            | (0.001) | -0.002                   | ***            | (0.001) |
| Male                                  | 0.049                   | ***            | (0.005) | 0.034                    | ***            | (0.004) |
| Cohabiting partner                    | -0.019                  | ***            | (0.007) | -0.011                   | *              | (0.006) |
| Household size                        | -0.005                  | *              | (0.003) | -0.006                   | ***            | (0.002) |
| Education                             | -0.006                  | ***            | (0.002) | -0.003                   | *              | (0.002) |
| In work                               | -0.108                  | ***            | (0.006) | -0.090                   | ***            | (0.005) |
| SE <sup>c</sup>                       | 0.202                   | ***            | (0.013) | 0.175                    | ***            | (0.012) |
| DK                                    | 0.102                   | ***            | (0.014) | 0.98                     | ***            | (0.011) |
| DE                                    | 0.014                   | ***            | (0.014) | 0.017                    | ***            | (0.015) |
| NL                                    | 0.078                   | ***            | (0.012) | 0.080                    | ***            | (0.010) |
| BE                                    | 0.023                   | *              | (0.012) | 0.045                    | ***            | (0.009) |
| FR                                    | -0.105                  | ***            | (0.021) | -0.001                   |                | (0.011) |
| CH                                    | 0.059                   | ***            | (0.016) | 0.058                    | ***            | (0.011) |
| AT                                    | -0.006                  |                | (0.017) | 0.041                    | ***            | (0.010) |
| IT                                    | -0.039                  | ***            | (0.013) | -0.026                   | **             | (0.011) |
| CZ                                    | 0.102                   | ***            | (0.014) | 0.095                    | ***            | (0.010) |
| PL                                    | 0.080                   | ***            | (0.012) | 0.076                    | ***            | (0.011) |

Significance: \*\*\* = 1%; \*\* = 5%; \* = 10%

Notes: 13,033 observations (2006/7); 16,031 observations (2010/11)

<sup>a</sup> Logarithm of household per capita income (net of sickness and disability benefits).

<sup>b</sup> Logarithm of household per capita income (net of sickness and disability benefits) interacted with a dummy identifying individuals whose income is above the population weighted country specific median.

<sup>c</sup> Spain is the omitted country.

Source: SHARE, Cross sections from Wave 2 release 2.5.0, Wave 4 release 1

Probit estimates were also obtained on the pooled cross sections, interacting each regressor with an ‘after crisis onset’ dummy (for those observed in 2010/11) to gauge whether a structural change in the pattern of receipt after the crisis onset could be traced. Overall, a Chow test of structural stability rejected the hypothesis that the multivariate pattern of benefit receipt remained stable across the financial crisis ( $\text{Chi}^2(24) = 87.99$ ;  $\text{P-value} = 0.0000$ ). France, Austria and Belgium systems appeared to have become more generous after the crisis onset, compared to Spain. Looking at the disability indicators, in 2010/11 benefit receipt appeared to be less tightly related to the ‘number of symptoms’, the most subjective among the disability indicators. Paired with the possibly tighter relation of benefit receipt with the reported number of difficulties in mobility (while no significant difference was registered for the number of limitations in instrumental activities of daily living and the number of chronic health conditions), this hints at a change in assessment practices, more strictly tightened to less subjective indicators in 2010/11. While no significant post-crisis-onset change was observed for most personal characteristics (with the only exception of age), a striking difference was found for the income coefficients: at both lower and higher income levels, the negative income gradient in receipt became significantly stronger in the post-crisis-onset year.

## 4.4 Structural changes in the benefit receipt pattern

Previous empirical literature shows that, after the onset of recessions, sickness and disability benefits rolls typically tend to increase and to remain on higher levels afterwards. One explanation is offered by the possibility that individuals make an improper use of these benefits as earnings replacements to protect themselves against the increased risk of unemployment. An analysis of SHARE data, collected before and after the onset of the recent crisis in Europe, showed that generally benefit rolls did not increase after the onset of the great recession. However, this trend did not seem a reflection of individuals’ claiming behaviour, but appeared rather driven by the institutional reforms enforced in the past decade, which restricted access to these programmes. Multivariate analysis showed that a structural change in the benefit receipt pattern could indeed be traced: low income became a more important determinant of the probability of claiming, poor health conditions, if anything, are less important. As these benefits are generally not means-tested, the stronger negative income gradient registered during the crisis should not be attributed to tighter eligibility rules. Rather, this change suggests that, because of stricter access rules, low income increased its relative importance.



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