

A better understanding of developments in the numbers claiming disability insurance

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Introduction

During their working life, workers may become sick for varying periods of time. In Belgium, a distinction is made between the first year of sickness (primary incapacity for work) and longer periods of sickness (if the incapacity exceeds one year, it is referred to as invalidity leave).

The INAMI/RIZIV manages and controls compulsory health insurance. In that respect, the Institute is responsible for the payment of benefits to private sector workers declared unfit for work.

An INAMI/RIZIV medical officer acknowledges disability on the basis of a medical examination of the person. In principle, that decision never becomes final. The person may be recalled for another examination after a certain time, or may undergo retraining and return to work. In some cases, disability may be recognised up to the retirement date.

As at 31 December 2016, the INAMI/RIZIV recorded over 390 000 people as disabled workers and in receipt of invalidity benefits, namely 366 000 people covered by the private sector employee scheme and around 24 500 covered by the scheme for the self-employed. That represents over 5 % of the Belgian population in the 15-64 age group.

The number of disabled workers has been rising steadily for twenty years. This article aims to break down that increase

into the proportion that can be explained by such factors as population ageing and changes in the activity rate, and the residue which cannot be attributed to such factors.

In the rest of the article, we shall focus on former private sector employees, because that is the category of claimants that has increased the most. The scheme for self-employed people differs from the employee scheme, in particular as regards the length of the period of sickness during which no benefits are payable, and the amount of the benefits. Public employees granted long-term sick leave or retiring on grounds of disability are also disregarded. They come under a separate scheme specific to the public sector.

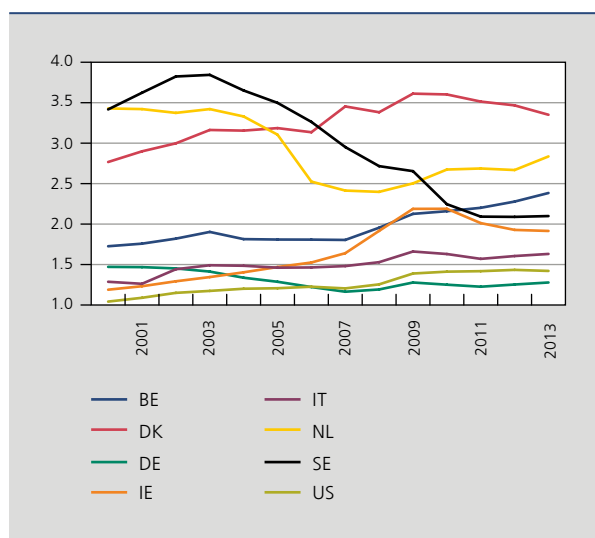
Section 1 describes the current situation regarding disability insurance in Belgium. Section 2 proposes a simple method of examining the importance of the various factors that can be directly observed. It also looks at the changes in the composition of the population of new disability claimants, and the economic and institutional determinants of the system. Section 3 discusses the measures adopted. Finally, the article ends by summing up the main findings of the simulations and the lessons that can be drawn from them.

1. Trend in the numbers claiming disability insurance benefits

Disability insurance is a scheme that guarantees a replacement income in the event of disabling sickness or handicap during working life. For the purposes of international

^(*) The author wishes to thank Tamara Malyster and her colleagues in the Benefits Service – Finance and Statistics Department of the National Institute for Health and Disability Insurance (INAMI/RIZIV).

CHART 1 PUBLIC EXPENDITURE RELATING TO DISABILITY⁽¹⁾
– CASH BENEFITS
(in % of GDP)



Source : OECD.

(1) Government expenditure relating to sickness, handicap and industrial accidents. It consists mainly of cash disability benefits covering payments made on account of the claimant's total or partial incapacity to pursue a remunerated occupation, plus expenditure on compensation for industrial accidents and occupational diseases.

comparison, we use the OECD's statistical data. They make no distinction between primary incapacity (less than one year) and disability (one year or more) and also include expenditure relating to industrial accidents. Expressed as a percentage of GDP, public expenditure on the provision of replacement incomes for the sick and disabled workers has been rising in many European countries and in the United States since the 2008 economic and financial crisis. The Netherlands and Sweden are exceptions: in those countries, the sickness schemes which were used as a means of early withdrawal from the labour market have been fundamentally reformed (see below). These aggregate statistics also illustrate how the Belgian situation has changed.

The number of disabled workers in a population depends on various factors. The figure increases with the inflow of new disability claimants and declines with the outflow (return to work, death or retirement).

The inflow in a given year depends on the population covered by disability insurance and on the disability incidence rate. The population covered varies mainly according to changes in the labour force.

In Belgium, the labour force has expanded in recent decades, notably as a result of the increased participation of women in the labour market and, more recently, the extension of working life.

The statutory retirement age for women was gradually raised between 1997 and 2008, from 60 to 65 years. Obliging women to work for an extra five years also adds five years to the period of disability insurance cover, which may lead to more disability claimants and longer periods of disability for those in that situation. A similar effect will be seen when the statutory retirement age is raised to 66 years in 2025 and 67 years in 2030. Once they attain the statutory retirement age, workers cease to come under the disability scheme and become pensioners; their benefits are then financed by the pension system.

The incidence rate also has a direct impact on the inflow. That rate varies, more particularly, according to personal characteristics. There is a steadily increasing correlation between the incidence of disability and age (see section 2.1). In other words, even if the incidence rate were constant over time, an ageing labour force would result in a higher number of disability claimants, all other things being equal.

The disability incidence rate also depends on other factors. American studies (see Case and Deaton, 2017) show that the household's level of income and level of education have a statistically significant influence on the probability of being on invalidity benefits, even if age is taken into account. However, the direction of the causality between health (or, in a narrower sense, disability) and income or level of education is ambiguous. On average, people with a higher level of education tend to have a healthier life style and be better informed about how their behaviour affects their health (physical activity, healthy diet, moderate consumption of tobacco or alcohol, etc.). The direction of the causality may also be the opposite: those who are less healthy often encounter problems at school or at work. These differences in health according to the level of education are a major source of inequality because they persist throughout life and are reflected in many spheres: career prospects and income, but sometimes also marriage and family situation.

The disability incidence rate also varies according to the context of people's lives. A safer working environment, a lower proportion of heavy manual labour, and the switch to a services economy all help to reduce the incidence of many causes of disability (particularly physical injuries at work). Although these social changes may have created new risks (stress, hyperconnectivity, etc.), they should not necessarily result in a permanent deterioration in mental and physical capacity for gainful employment.

A greater outflow from disability contributes to a reduction in the number of disabled people. There are three

types of outflow from disability: rehabilitation permitting a return to the labour market, switch to the pension system, and death. The policies and measures taken are intended to help restore fitness for work. Owing to the nature of the disability insurance and the selection to enter the scheme, the rate of return to work is low (see OECD, 2010 and HCE, 2014).

2. Contributions of the various factors to the rise in the number of people on disability benefits in Belgium

In Belgium, the number of disabled workers under the employee scheme increased from 164 751 in 1993 to 366 293 in 2016. The starting point for our analysis (1993) is arbitrary: it is dictated by the availability INAMI/RIZIV data.

The first factor here is the growth of the population in the 15-64 age group. However, over those 23 years, that growth – at 9 % in total – was far outpaced by the number of persons on invalidity benefits, which more than doubled, rising by 122 %.

The major part of the increase is therefore not attributable solely to the growth of the population. If the number of people on invalidity benefits is compared to the population in the 15-64 age group, it is clear that the disability rate is rising over time. It is particularly women who have

contributed to that rise. The increase in the number of claimants over the observation period was much steeper among women (it tripled) than among men (+47 %). That difference is not due to the growth rates of the male and female population, which were similar during that period. The rising female participation rate over the past twenty years and alignment of the statutory retirement age are undeniably factors which have greatly influenced the increase in the number of women registered as incapacitated over the period.

In addition, if we look at the male population on its own, we also see a rise in the disability rate, particularly from the start of the 2008 economic and financial crisis.

We shall demonstrate the respective contributions of the changes regarding the age group distribution, the population eligible for benefits, and health to explain the rise in disability in Belgium, on the basis of the simple approach developed by Duggan and Imberman (2009).

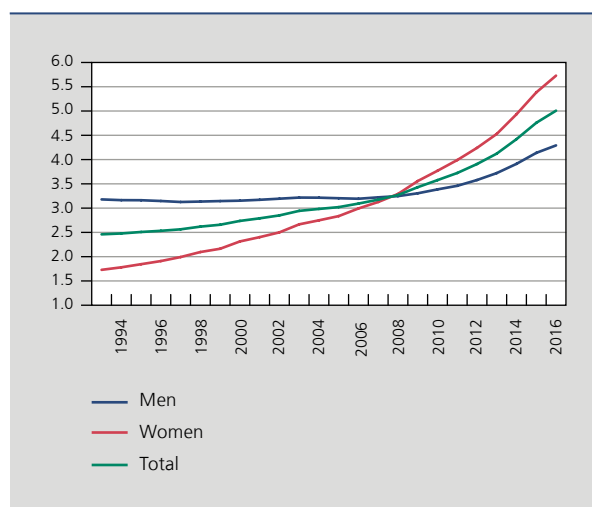
2.1 Change in the age structure

The disability rate, measured here as the number of disabled workers in an age group in relation to the corresponding population, goes up with age. The ratio rises very steeply; thus, the prevalence of disability among men is almost six times higher in the over-55 age group than in the 30-34 age group. It is not surprising that disability is age-dependent, given that many health indicators likewise vary according to age. The right-hand panel of chart 3 shows subjective health in Belgium according to the latest health survey⁽¹⁾. The female disability rate is currently slightly higher than the male rate, whereas in the past it was men who had the higher disability rate.

To quantify the impact of population ageing on the rise in disability, we conduct a counter-factual analysis. “Counterfactual” means scenarios such as “What would have happened if a particular observed characteristic had differed from the one prevailing at that time?”. The results of the scenario are then compared with what actually happened to estimate the impact of the variable considered.

The results of the comparison are presented in table 1 for men and women respectively. The first columns show the number of persons on invalidity benefits in 1993 (base year). By taking the number of instances of disability in a given age group and dividing it by the size of that age

CHART 2 PROPORTION OF THE POPULATION IN THE 15-64 AGE GROUP ON INVALIDITY BENEFITS⁽¹⁾
(in %, Belgium)

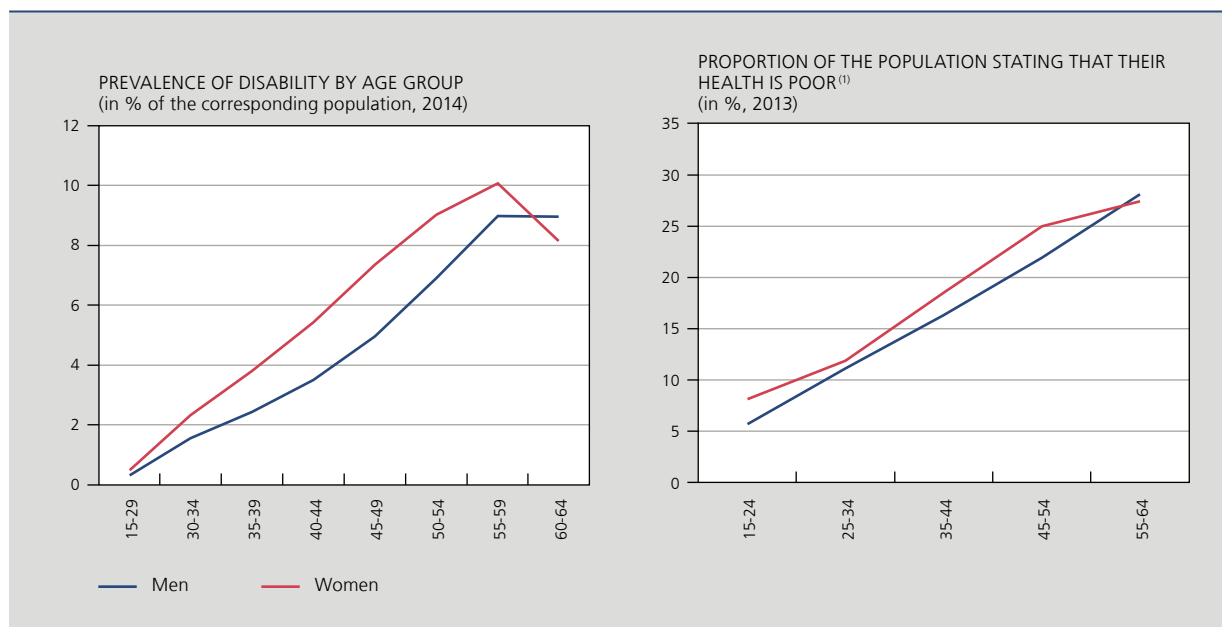


Sources: DGS, INAMI/RIZIV.

(1) Disabled workers under the private sector employee scheme.

(1) That survey conducted every five years by the Scientific Institute of Public Health aims to describe the state of health of the population resident in Belgium and to determine their health care needs.

CHART 3 DISABILITY, SUBJECTIVE HEALTH AND AGE IN BELGIUM



Sources : DGS, INAMI/RIZIV, WIV-ISP (Scientific Institute of Public Health).
(1) State of health considered average, poor or very poor.

group within the corresponding population, we obtain the disability prevalence rate. We find that, in 1993, the prevalence was higher overall for men. The breakdown by age group shows higher prevalence rates for women up to the age of 40 years, after which the rates are much higher for men. For example, in the 55-59 age group, the disability rate for male workers (over 9%) was almost twice the figure for female workers (4.6%).

The next columns relate to the population broken down by age. Between 1993 and 2016, there was a substantial shift within the working-age population towards the older age groups for all categories below 45 years of age, for both men and women. This unbalanced demographic structure is due to the sharp rise in the birth rate after the Second World War. Most members of the baby-boom generation were between 30 and 45 years of age in 1993.

The counterfactual number of disabled workers is calculated by taking the prevalence by age in 1993 and multiplying it by the number recorded in the population in 2016. We thus obtain the expected number of disabled workers.

(1) To test the robustness of this order of magnitude, other simulations were carried out by changing the observation window. Thus, over the period from 1993 to 2014, the change in prevalence due to ageing came to 68%, compared to 54% over the period from 1993 to 2015. It is only from 2016 onwards that the proportion drops below 50%. The results of the breakdown are inevitably affected by the choice of base year.

(2) If we modify the observation window, that percentage remains in the same region, namely between 6 and 8%.

For men, the simulated number comes to 136 000 persons, whereas in reality there were over 157 000 claimants.

To calculate the impact of the change in the age structure within the male population, we compare the expected change in the prevalence, namely 0.53% ($\Delta_{sim} = 3.70-3.17$), with the actual change in the prevalence, namely 1.11% ($\Delta = 4.28-3.17$). Thus, ageing accounts for almost half of the observed increase in the number of persons on invalidity benefits ($\Delta_{sim}/\Delta = 48\%$) among male workers between 1993 and 2016⁽¹⁾.

For women, there is the additional problem of the change in the statutory retirement age. In 1993, the retirement age was still set at 60 years, so that the number of women on invalidity benefits in the 60-64 age group was virtually zero. We therefore imputed a notional prevalence rate for that age group based on the prevalence rate for the preceding age group and the age-related increase in disability. The result obtained for women is very different from that calculated for their male counterparts. In fact, the expected change in prevalence is barely 0.22% ($\Delta_{sim} = 2.39-2.17$), whereas the observed change is considerable, at 3.6% ($\Delta = 5.72-2.17$). The share attributable solely to the change in the age structure is therefore 6%⁽²⁾ for women.

A more significant difference between men and women is the change in the rate of disability insurance cover; we shall examine that in the next section.

TABLE 1 SHARE OF GROWTH IN THE NUMBER OF WORKERS ON DISABILITY INSURANCE (DI) AMONG MEN AND AMONG WOMEN ATTRIBUTABLE TO THE CHANGE IN THE AGE STRUCTURE

	Prevalence of disability in 1993		Population in 1993		Population in 2016		Expected number of persons on DI in 2016		Actual number of persons on DI in 2016		Difference between the observed and simulated numbers
	Number	In % of the population	Number	In %	Number	In %	Prevalence rate in 1993	Simulated number	Number	In % of the population	
Men											
From 15 to 29 years	2 958	0.28	1 065 371	31.6	1 032 615	28.1	0.28	2 867	3 549	0.34	682
From 30 to 34 years	4 362	1.06	412 104	12.2	362 449	9.9	1.06	3 836	6 192	1.71	2 356
From 35 to 39 years	6 640	1.69	391 794	11.6	373 898	10.2	1.69	6 337	10 421	2.79	4 084
From 40 to 44 years	9 248	2.54	364 372	10.8	372 133	10.1	2.54	9 445	14 647	3.94	5 202
From 45 to 49 years	13 070	3.86	338 189	10.0	397 836	10.8	3.86	15 375	21 595	5.43	6 220
From 50 to 54 years	16 780	6.41	261 875	7.8	412 524	11.2	6.41	26 433	31 528	7.64	5 095
From 55 to 59 years	25 563	9.44	270 794	8.0	385 494	10.5	9.44	36 391	37 605	9.76	1 214
From 60 to 64 years	28 294	10.45	270 747	8.0	337 933	9.2	10.45	35 315	31 745	9.39	-3 570
Total	106 915	3.17	3 375 246	100.0	3 674 882	100.0	3.70	135 999	157 282	4.28	21 283
Women											
From 15 to 29 years	2 818	0.28	1 024 073	30.8	1 013 656	27.8	0.28	2 789	5 827	0.57	3 038
From 30 to 34 years	4 616	1.16	397 822	12.0	363 135	10.0	1.16	4 214	10 199	2.81	5 985
From 35 to 39 years	7 022	1.85	379 664	11.4	371 398	10.2	1.85	6 869	16 387	4.41	9 518
From 40 to 44 years	8 743	2.49	351 625	10.6	364 132	10.0	2.49	9 054	22 482	6.17	13 428
From 45 to 49 years	10 615	3.22	330 171	9.9	387 875	10.7	3.22	12 470	32 247	8.31	19 777
From 50 to 54 years	10 617	4.04	262 843	7.9	404 432	11.1	4.04	16 336	42 420	10.49	26 084
From 55 to 59 years	12 825	4.56	281 156	8.5	387 578	10.6	4.56	17 679	45 150	11.65	27 471
From 60 to 64 years	14 925 ⁽¹⁾	5.05 ⁽²⁾	295 552	8.9	348 704	9.6	5.05	17 609	33 458	9.59	15 849
Total	72 181	2.17	3 322 906	100.0	3 640 910	100.0	2.39	87 020	208 170	5.72	121 150

Sources: DGS, INAMI/RZIV.

(1) In 1993, the statutory retirement age for women was 60 years. The observed number of women on DI in the 60-64 age group was almost zero (187 persons), as most of them already came under the pension system. The number of women on DI is therefore calculated on the basis of the female population aged between 60 and 64 years and an imputed prevalence rate.

(2) The disability prevalence rate for women aged between 60 and 64 years in 1993 was imputed at 5.05% (i.e. 4.56% x the observed rate of increase in prevalence between the 55-59 age group and the 60-64 age group for men).

2.2 Change in the proportion of people eligible for insurance

Even if there are no changes in the regulatory framework, the disability insurance cover rate may vary if, as is generally the case, there are eligibility conditions, such as the fact of having (had) a paid occupation. The scheme is in fact designed as social insurance; in other words, it is necessary to have contributed (i.e. to have (had) income from an activity of which part was deducted in the form of social contributions) in order to be entitled to insurance benefits.

The large increase in the activity rate of women therefore had a very substantial influence on the rise in the number of disabled workers. According to the labour force surveys (LFSs), that rate increased from 50.4 % in 1993 to 62.9 % in 2016, representing a rise of almost 13 percentage points, whereas the rate for men displayed only a very small increase over that same period, rising from 70.8 % in 1993 to 72.3 % in 2016.

According to the administrative statistics on the INAMI/RIZIV employee scheme, the persons entitled to benefits (namely those covered by disability insurance) are paid employees in the private sector and unemployed job-seekers, minus pre-pensioners who, in principle, owing to the top-up paid by their former employer, never

have anything to gain from claiming disabled status and are therefore not considered eligible for benefits.

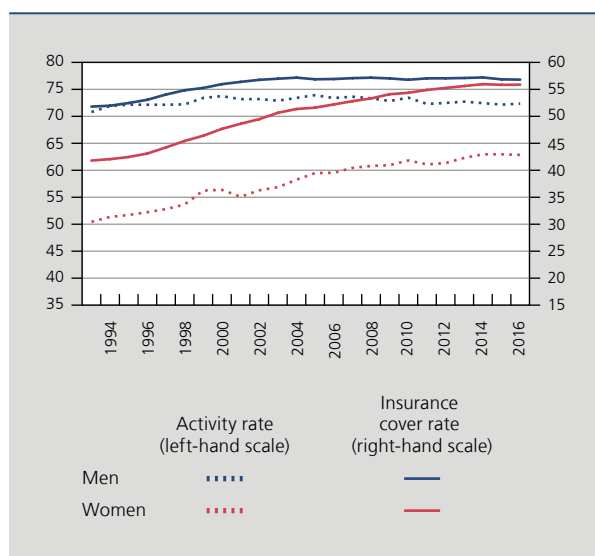
We use these administrative data to perform a new simulation, based on the same principles as before (see table 2). We find that the percentage of men eligible for benefits increased slightly overall between 1993 and 2016, in line with the movement in the male activity rate. Conversely, for women, we find that the percentage eligible for benefits increased very considerably for all age groups except the youngest (15-29 years).

The simulated numbers are calculated by using the 1993 prevalence rates for 2016 and adjusting them to take account of the growth of the population eligible for benefits. The simulation therefore adjusts for both the change in the age structure and the change in the insurance cover rate.

For men, the increase in the simulated number of disabled persons exceeds the actual increase. That is due to the strong rise in the activity rate in the last two age groups, so that the increase in the prevalence rate is substantial. The simulation therefore explains the whole of the increase in the number of men on invalidity benefits.

For women, the expected change in the prevalence is 3.0 % ($\Delta_{sim} = 5.21 - 2.17$), whereas the observed change is larger at 3.6 % ($\Delta = 5.72 - 2.17$). The share explained solely by the increase in the population eligible for benefits represents almost 80 % of the rise in the number of women on invalidity benefits.

CHART 4 CHANGE IN THE ACTIVITY RATE AND DISABILITY INSURANCE COVER⁽¹⁾
(in % of the corresponding working-age population)



Sources: DGS, INAMI/RIZIV.

(1) The disability insurance cover rate is the ratio between the population (potentially) eligible for benefits according to the INAMI/RIZIV definition and the corresponding age group.

2.3 Change in the average state of health of the population

We have demonstrated that population ageing and increased participation in the labour market can explain the whole of the rise in the number of disabled men and more than 86 % of the rise recorded among women. However, these simulations take no account of another factor which has also changed, namely medical progress over this 23-year period.

The probability of remaining in good health during working life undeniably increased during the observation period. Here, we present the recorded mortality rates, namely the number of deaths in relation to the size of the corresponding population.

Over the observation period, the mortality rates by age and sex declined on average. The reduction in male mortality in the oldest age groups in the working-age

TABLE 2 SHARE OF GROWTH IN THE NUMBER OF WORKERS ON DISABILITY INSURANCE (DI) AMONG MEN AND AMONG WOMEN EXPLAINED BY THE CHANGE IN THE POPULATION ELIGIBLE FOR BENEFITS

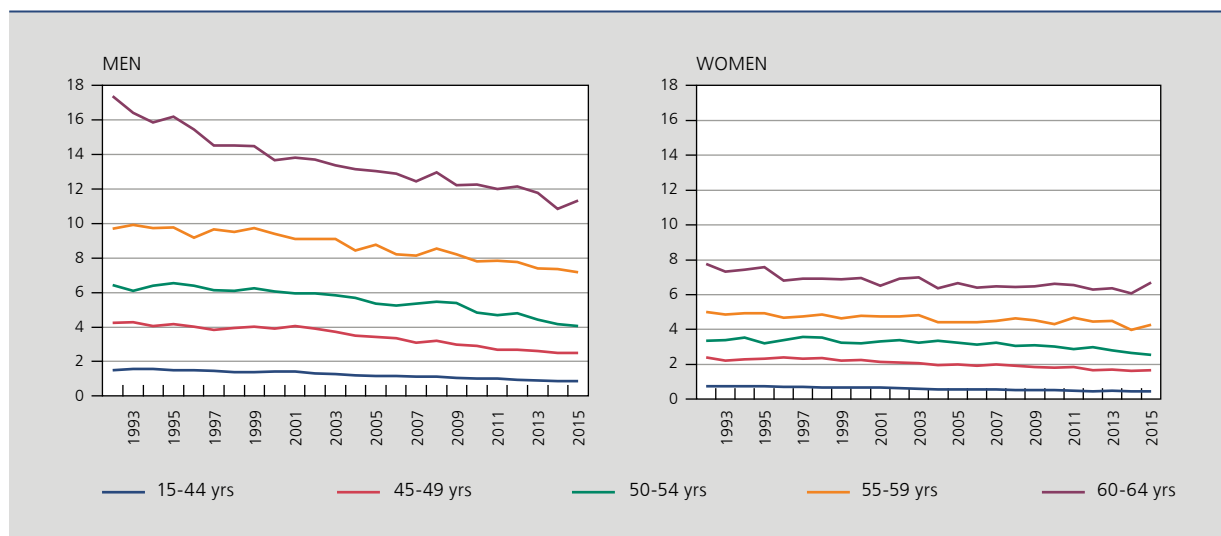
	Disability in 1993		Population in 1993		Population in 2016		Number of persons on DI in 2016 (simulated)		Number of persons on DI in 2016 (observed)		Difference between actual and simulated numbers
	Disability rate (in % of the total population)	Number of persons on DI	Number of persons insured	Percentage of persons insured	Number	Number of persons insured	Simulated disability rate	Number of persons on DI	Disability rate	Number of persons on DI	
Men											
From 15 to 29 years	0.28	2 958	1 065 371	45.1	1 032 615	403 969	0.24	2 489	0.34	3 549	1 060
From 30 to 34 years	1.06	4 362	412 104	66.3	362 449	269 642	1.19	4 303	1.71	6 192	1 889
From 35 to 39 years	1.69	6 640	391 794	61.3	373 898	268 941	1.99	7 432	2.79	10 421	2 989
From 40 to 44 years	2.54	9 248	364 372	60.1	372 133	258 540	2.93	10 920	3.94	14 647	3 727
From 45 to 49 years	3.86	6 41	338 189	60.3	397 836	271 752	4.38	17 418	5.43	21 595	4 177
From 50 to 54 years	6.41	16 780	261 875	56.7	412 524	275 849	7.56	31 196	7.64	31 528	332
From 55 to 59 years	9.44	21 07	270 794	44.8	385 494	228 961	12.51	48 235	9.76	37 605	-10 630
From 60 to 64 years	10.45	28 294	270 747	23.0	337 933	109 721	14.74	49 808	9.39	31 745	-18 063
Total	3.17	106 915	3 375 246	51.8	3 674 882	2 087 375	4.67	171 800	4.28	157 282	-14 518
Women											
From 15 to 29 years	0.28	2 818	1 024 073	47.9	1 013 656	392 880	0.22	2 259	0.57	5 827	3 568
From 30 to 34 years	1.16	4 616	397 822	65.4	363 135	269 237	1.32	4 779	2.81	10 199	5 420
From 35 to 39 years	1.85	7 022	379 664	55.2	371 398	264 283	2.38	8 857	4.41	16 387	7 530
From 40 to 44 years	2.49	8 743	351 625	46.5	364 132	252 753	3.71	13 517	6.17	22 482	8 965
From 45 to 49 years	3.22	10 615	330 171	38.1	387 875	264 972	5.77	22 388	8.31	32 247	9 859
From 50 to 54 years	4.04	13 66	262 843	29.6	404 432	261 781	8.84	35 754	10.49	42 420	6 666
From 55 to 59 years	4.56	22 12	281 156	20.6	387 578	222 469	12.70	49 214	11.65	45 150	-4 064
From 60 to 64 years	5.05 ⁽¹⁾	14 925 ⁽²⁾	295 552	10.1 ⁽²⁾	348 704	105 558	15.14	52 777	9.59	33 458	-19 319
Total	2.17	72 181	3 322 906	42.6	3 640 910	2 033 933	5.21	189 545	5.72	208 170	18 625

Sources: DGS, INAMI/RZIV.

(1) The disability prevalence rate for women aged between 60 and 64 years in 1993 was imputed at 5.05 %, as in the previous simulation.

(2) To neutralise the effect of the increase in the female retirement age, the size of the population eligible for benefits was also imputed for women aged between 60 and 64 years.

CHART 5 MORTALITY RATES RECORDED IN BELGIUM
(annual number of deaths per thousand of the corresponding population)



Source: DGS.

population⁽¹⁾ is considerable. For women, too, these rates continued to fall, albeit to a lesser degree.

In general, if the mortality rate is a good way of measuring the (opposing) trend in health, that decline probably contributed to the reduction in the incidence of disability over time. However, the dynamics of the disability insurance system are complex, and one might speculate that the fall in the mortality rate may have resulted in an increase in the number of people on invalidity benefits.

Nevertheless, it seems likely that the downward trend in the mortality rate is at least partly reflected in a decline in the morbidity rate and an improvement in the functional capabilities of the population of working age.

In line with our overlapping simulations, and taking the trend in recorded mortality rates – at first sight – as an indicator of the improvement in the average state of health, we performed a new simulation in which the 1993 disability rates were adjusted for both the change in the cover rate and the changes in the sickness figures. For men, the expected number of disabled workers was smaller than the observed number, and the unexplained residue is 13%. For women, this new simulation explains 81% of the increase, leaving 19% unexplained.

(1) Disability insurance concerns persons aged between 15 and 64 years. The health situation during retirement has no direct influence on the system's dynamics.
(2) In 2016, many of the reasons were not classified.

2.4 Emergence of new risks and reasons for disability

The INAMI/RIZIV breaks down the reasons for claiming disability into groups of illnesses. Two categories gained in importance during the period from 1995 to 2016: diseases of the musculoskeletal system (e.g. back pain and related problems) and mental health and behavioural disorders.

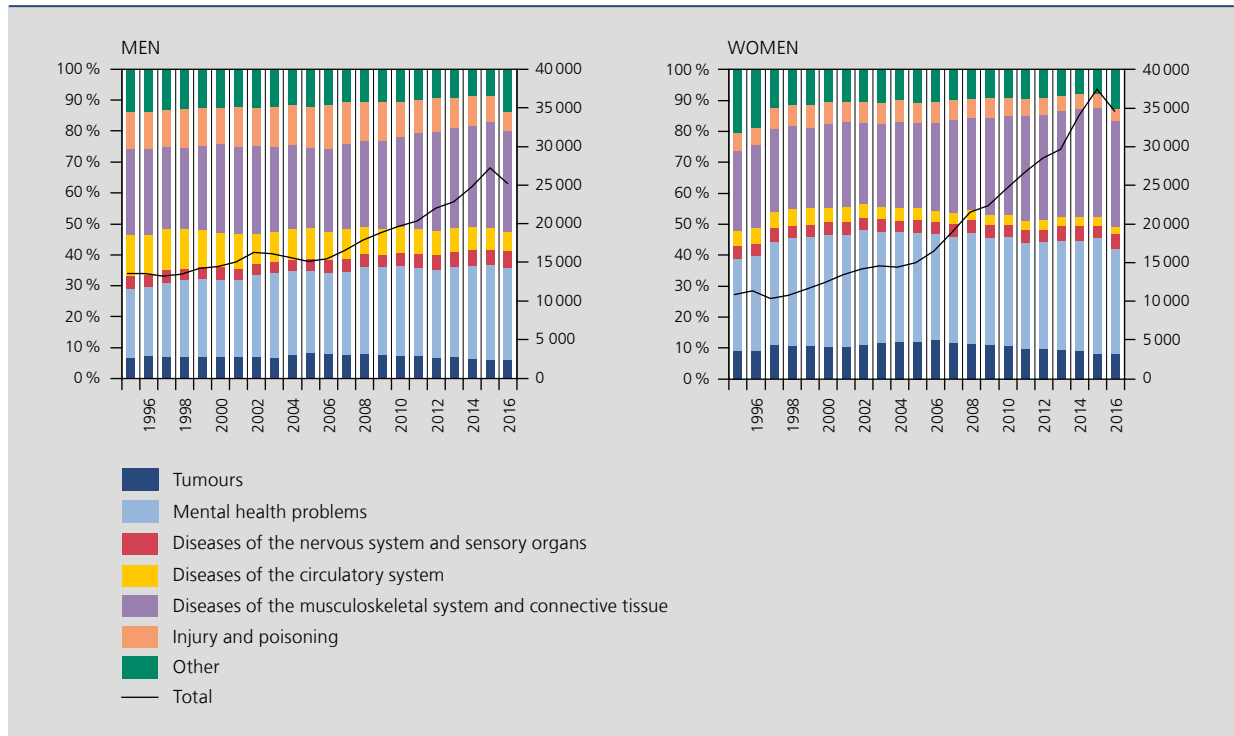
The percentage claiming disability on account of diseases of the musculoskeletal system thus increased from 28% in 1995 to 33% in 2016 for men, and from 26% to 34% for women. In the case of mental health problems, the increase was almost 8 percentage points for men (from 22% of the inflow in 1995 to 30% in 2016) and over 4 points for women (from 30% in 1995 to 34% in 2016)⁽²⁾.

Conversely, the proportion of injuries and poisoning as reasons for disability declined over the period: for male employees, they accounted for over 12% of cases in 1995, compared to the current figure of 6%. That is due to the lesser weight of industry in employment in Belgium, but also to the safer working conditions that workers enjoy, compared to the early 1990s.

Advances in medical science and public health measures (against smoking, for example) have helped to reduce the number of disability cases due to cardiovascular disease and cancer, and that is also reflected in the mortality rates.

CHART 6 DISABILITY INFLOW AND REASONS

(number of persons claiming disability, right-hand scale; in % of the total inflow, left-hand scale)



Source: INAMI/RIZIV.

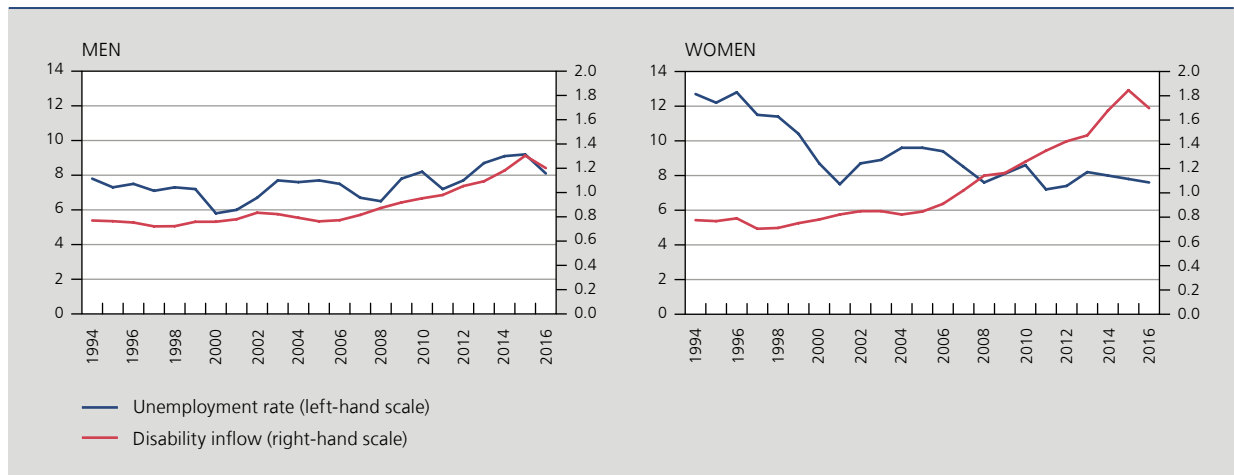
On the other hand, the aggregate statistics from the INAMI/RIZIV do not indicate any downward trend in the age of new disability claimants compared to previous decades. The average age for becoming disabled increased between 2004 and 2016 (from 45 to 46 years for men and from 43 to 45 years for women).

2.5 Business cycle and institutional factors

Since the economic and financial crisis, there has been a closer correlation in some countries between the numbers claiming disability and the deterioration in economic activity. The composition of the inflow could also fluctuate

CHART 7 DISABILITY INFLOW AND UNEMPLOYMENT RATES

(in % of the population eligible for benefits and the labour force in the 15-64 age group respectively)



Sources: DGS, INAMI/RIZIV.

with the cycle; during the last recession, the average age of new disability applicants was lower (Coe and Rutledge, 2013).

Without conducting a formal econometric analysis, we can also see in the Belgian data that the unemployment rate and the disability inflow rate tend to move in parallel, at least for male private sector workers during the most recent period.

Changes in the rules specific to disability insurance can obviously influence its attractiveness, e.g. if the replacement rates are increased. During the observation period, there were no major reforms of the rules on disability under the private sector employee scheme, so that this factor can be excluded *a priori*⁽¹⁾.

On the other hand, the relative attractiveness of disability insurance may also vary as a result of changes in other social security schemes. Belgium is most likely in that situation (Jousten *et al.*, 2012). As was seen in the Netherlands and the United States, in particular, there is a certain “communicating vessels” effect between the

various schemes for early withdrawal from the labour market. Disability insurance is not formally part of those arrangements, but we find that the number of disabled workers has risen in recent years; on the one hand, since the early 2000s, the early retirement schemes and the status of “older unemployed persons” exempt from seeking work have been gradually phased out, and access to time credit for older workers has become more difficult, and on the other hand, the statutory early retirement age will be raised at the same time as the statutory retirement age.

3. Current and future measures

The rise in the number of long-term sick (more than one year) and the associated disability insurance costs prompted the federal government to take a series of measures which, via closer monitoring, aim to improve sickness prevention, facilitate a return to work, and limit the inflow into disability. Thus, the Law of 20 December 2016 containing various labour law provisions concerning incapacity for work was adopted, as were some new measures for monitoring workers’ health, in order to improve the organisation of reintegration processes during periods of incapacity. Such measures can be effective, as the situation in the Netherlands has shown (see box).

(1) Harmonisation of blue-collar and white-collar employee status, which differed in particular as regards the provisions on primary incapacity, would be worth examining.

Disability insurance: the case of the Netherlands

In the Netherlands, the number of disability insurance claimants increased very rapidly between the 1970s and the mid-1990s, after which a number of reforms were implemented to counteract inappropriate use of the scheme.

Disability insurance in the Netherlands has two characteristics. First, the coverage is very wide: all employees can claim disability benefit, whether the cause of the illness or disability is occupational or not. Also, persons with a relatively low degree of disability can receive earned income without that affecting their disability benefits. While this aggregation of income may be a way of avoiding inactivity traps, it did give rise to some abuse in the Netherlands. In most other countries, aggregation is prohibited or is offset by an equivalent loss of benefits; that encourages those with minor disabilities to leave (self-screening), so that only seriously sick people remain in the system.

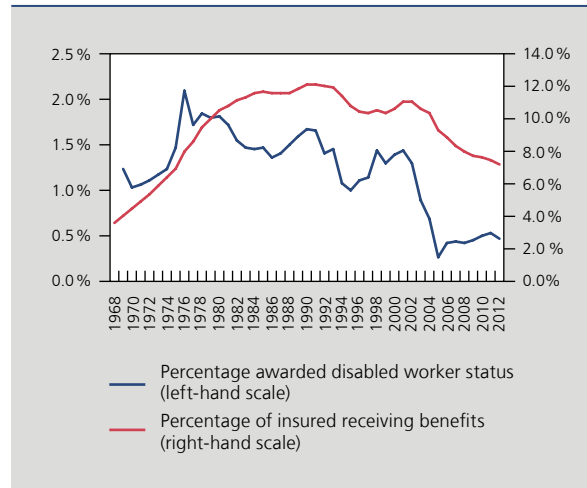
Apart from the institutional characteristics specific to the Dutch scheme, the increase in the number of claimants was due to the relative attractiveness of the scheme compared to unemployment insurance, in the context of a serious downturn in the economy (oil shocks, etc.).

The attraction of the disability scheme compared to the unemployment scheme was due to factors concerning both workers and employers. For the workers, there was no time limit on disability benefits, in contrast to unemployment benefits. Moreover, there were no checks on their efforts to find work. Finally, the amounts received for disability were sometimes considerably higher than the unemployment benefits, at least in certain branches of activity, where collective labour agreements had made provision for top-up payments in the event of sickness. For employers, having

some workers classed as disabled could also be a cheaper solution than redundancy, because it obviated the need to make redundancy payments. Those payments could be substantial, especially in the case of staff with long service. Disability insurance was therefore used as a route to early withdrawal from the labour market.

DISABILITY INSURANCE AWARD AND ENROLMENT RATES PER INSURED WORKER IN THE NETHERLANDS

(in %)



Source: Koning and Lindeboom (2015).

From 1996 onwards, successive Dutch governments began reforming this insurance system. The various packages of measures were phased in and overlapped. However, the reforms can be divided into three main groups.

Changing employer incentives

The idea behind this type of reform was to make employers bear the costs of sick leave for their staff. That was done partly by privatising disability insurance: Dutch employers now finance part of the insurance and may use private insurers to provide this service for them. Also, since 1998, the contributions paid by employers have been adjusted according to the actual claims by their staff on the disability insurance (experience-rating). The idea was that adjusting the employers' social contributions according to the firm's behaviour would ultimately make it possible to reduce the differences between employers. The rules governing that adjustment are often complex (and therefore difficult for employers to understand) because they cannot be uniform and, more particularly, they have to be different for small businesses. In the Netherlands, this system worked up to a certain point: once employers realised the impact of this tariff system on their costs – which took them several years – the experience-rating system was totally revised and drastically trimmed.

These reforms clearly helped to reduce the number of new claimants entering the system, even if the initial effect was considered smaller than expected.

Stricter control of the inflow into the scheme

This reform, introduced in 2002, is considered to have produced the best results. As the chart shows, the inflow declined as soon as it was implemented. The "gate-keeper protocol" stipulates the action that the employer and



the sick worker are expected to take in the initial weeks of absence, without any intervention by the disability insurance scheme, which at this stage acts simply as the “gate-keeper”.

In the first six weeks of sickness, the employer and the worker must provide an initial assessment of the worker’s medical and functional limitations. A reintegration plan is then devised within the firm, comprising a number of steps and specifying a date for returning to work. In the absence of such a plan, there is no entitlement to disability benefits. The waiting period before invalidity benefits could be granted, if appropriate, was originally one year. In 2004, it was extended by an additional year. These stricter arrangements for returning to work make it possible to eliminate from the system any persons who should not be making use of it.

The reduced disability inflow was also reflected to some extent in an increase in unemployment benefit claimants. According to the review of the literature by Koning and Lindeboom (2015), the research findings are not unanimous on that subject.

Tougher eligibility criteria and incentives for returning to work

Irrespective of the success of the reforms limiting the disability insurance inflow, the Dutch law-makers aimed at an even more efficient approach, this time by trying to increase the rate of disability outflow. In 2006, the old Law governing disability (*Wet op de Arbeidsongeschiktheidsverzekering – WAO*) was rescinded and replaced by a Law on work according to capability (*Wet Werk en Inkomen naar Arbeidsvermogen – WIA*). That Law introduced three major changes.

First, a distinction is made between total, permanent disability and other types of disability (temporary and/or partial). For the first group, the replacement rate was raised to 75 % of the wages previously received. In addition, employers are no longer financially responsible for persons in this category. Next, the criteria governing eligibility for disability benefits were tightened up in the case of persons with a low degree of disability (less than 35 %). In fact, those persons are assumed capable of continuing in their job (if necessary, with adjustments) or registering as unemployed. Finally, a system of wage subsidies was introduced to encourage partially disabled persons to make full use of their potential on the labour market.

In Belgium, the new measures concerning reintegration plans aimed at the socio-professional reintegration of sick employees came into force in December 2016. It is therefore too soon to assess the results. The effectiveness of the measures will be assured not only by the texts of the laws and the administrative circulars but also by their implementation in practice.

The regional governments have taken similar measures to increase the likelihood that sick job-seekers will return to employment. An initial assessment was carried out for this particular group (De Coninck *et al.*, 2017). Among those fulfilling their reintegration plan, 14 % found another full-time job. However, the researchers point out that in many cases the reintegration plans are abandoned, so that the overall rate of returning to work is much smaller. This study also shows that older workers and persons on invalidity

benefits are under-represented among the persons fulfilling their plan. It also seems that the success of the scheme requires considerable coordination between the job-seeker, the medical officer and the employer. Supplementary resources should be made available in order to increase the involvement of employers – and even the family doctor – in this type of task.

Conclusion

On the basis of public data obtained from the INAMI/RIZIV, this article has quantified the various factors leading to the growth in the number of disabled workers in Belgium between 1993 and 2016.

We distinguish between men and women because the increase in the activity rate of women and the alignment

of their statutory retirement age had a major impact on that growth.

The simulations show that, over the observation period, population ageing and the rise in activity rates account for 100 % of the growth among men and more than 86 % of the increase for women. However, those percentages take no account of the trend in the average state of health, which has also continued to improve. If we also adjust the historical disability rates to allow for this last factor, we find that just over 10 % of the increase in disabled men and 19 % of the increase in disabled women remains unexplained during the period from 1993 to 2016. The decomposition results are inevitably sensitive to the observation window and the assumptions made.

It therefore appeared that a small proportion of the increase in the number of people on invalidity benefits is due to the greater relative attractiveness of the system or to other unobserved factors. This unexplained part of the increase could be attributable either to disabled worker status being awarded

more readily than before, or more probably to the fact that the characteristics of the applicants have changed.

As regards the reasons for the inflow, in Belgium as in other countries (OECD, 2010), there has been a structural shift towards diseases of the musculoskeletal system and mental health problems. On the other hand, the Belgian aggregate statistics do not show any trend in the age of new claimants. Future developments in disability insurance and analysis of the effects of the measures introduced merit further research.

Disability insurance, like unemployment insurance and social security in general, has to be designed to balance the protection it provides with the economic distortions in terms of labour market participation that it causes. The measures taken to ensure the speedier reintegration of sick workers while restricting the inflow into the disability scheme could improve the well-being of those concerned while at the same time reducing the budgetary costs, making the system more efficient.

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