

# Financial work incentives and the long-term unemployed

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## Executive Summary

This note highlights the importance of considering the potential in-work compensation for people unemployed between 12 and 24 months if one wanted to increase their out-of-work benefits. We show that between 2005 and 2012 the year-to-year likelihood of transitioning to employment was reduced when the same happened to the difference between in- and out-of-work incomes.

That some people are sensitive to these changes implies that reducing poverty would be more costly than just lifting out-of-work incomes. If one wanted to increase the latter while not affecting employment chances, increasing compensations for workers would be necessary. Such a measure could be done in a targeted way to reduce costs, which would come at the expense of increasing effective marginal tax rates (EMTRs) for workers. In this regard, this note also provides evidence showing that part-timers did not change their hours of work in response to changes in EMTRs (although these changes were small). This might leave some room to compensate increases in out-of-work transfers with increases in the progressivity of in-work tax-benefit policies.

## Introduction

Whereas high out-of-work incomes can help people to avoid social exclusion, they can also affect their decisions to join the labour market. In this way, social inclusion and employment, two of the core objectives of governments, can be in conflict with each other (Adam, Brewer, & Shephard, 2006; Blundell, 2002). If governments wanted to increase out-of-work transfers for the long-term unemployed (LTU) – defined as at least 12 months unemployed – it becomes relevant to know whether changes in financial work incentives affect their likelihood of taking up work. Accordingly, this note makes reference to research studying whether changes in work incentives affected these employment transitions during the seven two-year episodes that took place between 2005 and 2012.

If LTU were sensitive to work incentives and governments wanted to increase out-of-work incomes while not reducing the likelihood of taking up work, augmenting in-work transfers would be necessary. To offset these surges in expenditure, the targeting of current social contribution (SC) could be increased, which would come at the expense of augmenting effective marginal tax rates (EMTRs) for workers. For this reason, it is also relevant to study whether changes in work incentives have affected the number of hours worked by people in work. The research described in this note focuses on part-timers because relevant policy changes tended to increase the financial reward to work more hours.

Compared to other North-western EU welfare states, Belgium presents one of the highest (and in some years the highest) long-term unemployment rates. For many households with LTU members, incomes are below the at-risk-of-poverty threshold and if those members came back to the labour

market, work would pay relatively little compared to staying unemployed. Cross-country studies using microdata to calculate participation incentives usually rank Belgium among the countries with the narrower wedges between in- and out-of-work incomes (Collado, Cantillon, Van den Bosch, Goedemé, & Vandelannoote, 2017; Immervoll, Kleven, Kreiner, & Saez, 2007, using 1998 data; Jara Tamayo, Gasior, & Makovec, 2017). During the last two decades in Belgium and most North-western EU countries, ‘make work pay’ policies generally increased the take-home pay of low wage workers (see e.g. Immervoll, 2007; Marx, Marchal, & Nolan, 2013). In relation to the out-of-work incomes of Belgians we can mention that, for instance, the drop in unemployment benefits after the first year of a spell tended to become sharper, particularly for some categories. Or that the maximum benefits for singles after that first year and therefore already in the flat part of their benefits, was substantially increased in 2008. These events have affected the evolution financial work incentives over time (Decoster, Perelman, Vandelannoote, Vanheukelom, & Verbist, 2015; Kalíšková, 2015) and potentially also employment decisions.

## Approach and Results

We utilise data from the European Union Statistics on Income and Living Conditions (EU-SILC) and operationalise work incentives utilising Participation Tax Rates (PTRs) and Effective Marginal Tax Rates (EMTR). PTRs measure the proportion of household earnings taken in (effective) tax and withdrawn benefits if a household member moved from unemployment to employment. This is equivalent to one minus the difference between in- and out-of-work household net incomes in relation to the potential gross earnings of that household member (equation 1). Then an increase in the PTR reflects a reduction in how much work pays. EMTR measure the same but when a household member increases her hours of work.

$$\begin{aligned}
 PTR &= \frac{(hh. tax - hh. ben.)^{in} + (hh. ben. - hh. tax)^{out}}{gross\ earnings} \\
 &= 1 - \frac{hh. inc.^{in} - hh. inc.^{out}}{gross\ earnings}
 \end{aligned}
 \tag{1}$$

To calculate PTRs and EMTRs, we predict gross earnings for LTU and increase them in 5 per cent for part-timers to subsequently simulate net income in these hypothetical states with the tax-benefit micro-simulation model EUROMOD G3.0+ (Figari, Paulus, & Sutherland, 2015; Sutherland & Figari, 2013). As we wish to follow incentive measures over time, we generate EUROMOD input files based on the longitudinal component of EU-SILC. For the same reason, we also add to EUROMOD the simulation of UBs after the first year of unemployment.

To study the effect of changes in PTRs ( $\Delta$ PTRs) on the likelihood of taking up work we utilise a first difference logit model. This means analysing the effect of changes in incentives on this likelihood. The binary dependant variable is whether or not a LTU transitioned to more than half a year of employment over two consecutive years. We also include other variables in the model to attempt controlling for time-variant elements or their initial levels (e.g. demographic variables, changes in education-age-region employment rates, and year indicators to capture common shocks). We also separate the effects for people unemployed between 12 and 24 months and for more than 24 months. To study the effect of  $\Delta$ EMTRs on weekly hours of work we utilise a similar first difference linear regression. To avoid the mechanical reverse causality between these variables due to progressivity,  $\Delta$ EMTRs are calculated ‘freezing’ the behaviour of people in the first year. Then these  $\Delta$ EMTRs do not reflect changes in the behaviour of the person.

As mentioned in the introduction, the main policy changes affecting the evolution of PTRs and EMTRs were changes in unemployment benefits and social contribution rebates. We present in Table 1 the mean of the changes in PTRs and EMTRs broken down by the categories that defined these policy changes. We see that, for instance, in 2006 there was one of the largest decreases in PTRs for people potentially eligible for the SC rebate which is consistent with its largest expansion as after the reform work paid more (the decrease in 2012 is mainly due to composition effects). Similarly, for part-timers SC rebates generally contributed to increasing the marginal gain from work.

Table 1. PTRs and EMTRs mean changes broken down by the categories of the main policies changes (in percentage points)

	05-06	06-07	07-08	08-09	09-10	10-11	11-12
LTU							
<b>Mean ΔPTR single LTU≤2</b>	-2.8	0.0	1.6	-2.8	-3.3	-2.2	-4.2
<b>Mean ΔPTR head LTU≤2</b>	-0.8	6.5	2.5	5.8	0.2	1.8	-4.7
<b>Mean ΔPTR cohabitee LTU≤2</b>	-7.3	-6.9	-4.0	-7.9	-14.3	-1.2	-8.8
<b>Mean ΔPTR single LTU&gt;2</b>	0.3	0.5	0.8	0.3	2.1	0.6	-5.4
<b>Mean ΔPTR head LTU&gt;2</b>	0.3	1.3	0.6	1.2	3.2	2.2	1.2
<b>Mean ΔPTR cohabitee LTU&gt;2</b>	-1.4	-0.1	1.3	0.0	-1.4	0.3	-1.5
<b>Mean ΔPTR non-elig SC rebate</b>	-0.2	-0.1	0.4	-0.4	-0.1	1.0	-1.8
<b>Mean ΔPTR elig SC rebate</b>	-2.5	2.7	0.4	1.9	1.9	-1.1	-12.6
Part-timers							
<b>Mean ΔEMTR non-elig SC rebate</b>	0.1	0.1	0.1	-0.4	0.5	-0.6	-0.7
<b>Mean ΔEMTR elig SC rebate</b>	-1.8	-2.1	-1.4	-0.6	-0.4	-1.9	2.0

Note: U≤2 and U>2: unemployed for less and more than two years at the end of the first year of observation, respectively. Elig. = eligible.

The results of the analysis show that a 10 percentage points increase in the PTR (e.g. due to an equivalent decrease in replacement rates or increase in tax rates) reduced the likelihood of transitioning to more than half a year of employment by 3.7 percentage points. This is sizable taking into account that the baseline probability of transitioning from unemployment to more than half a year of employment was nine percent (it was 13 per cent when including transitions to six or less months). The effects were mainly driven by people not unemployed the whole year before the transitions analysed (i.e. unemployed between 12 and 24 months). With respect to part-timers, the effect of changes in EMTRs on their hours of work was not statistically significant. Although the literature on hours worked have tended to find similar results, it is important to bear in mind that changes in EMTRs were small (see Table 1).

## Conclusion

This policy note made reference to research studying the effect of changes in financial work incentives on the likelihood of transitioning from long-term unemployment to more than half a year of employment. It was shown that during the seven two-year episodes that took place between 2005 and 2012 the likelihood of taking up work was reduced when the same happened to the difference between in- and out-of-work incomes. The effects were mainly driven by people unemployed between 12 and 24 months, while people unemployed for longer were not sensitive to these effects. This research also showed that changes in effective marginal tax rates (EMTRs) did not have a statistically significant effect on the hours worked by part-timers (although changes in EMTRs were small).

That some long-term unemployed people respond to these changes imply that increasing out-of-work incomes would require augmenting in-work compensations if governments do not want to

reduce the likelihood of taking up work. To offset these surges in expenditure, in-work compensations could be increased in a progressive way, which would come at the expense of augmenting EMTRs of some workers. As changes in EMTRs for part-timers did not have an effect on hours worked, there might be some room to do so.

## Implications and Recommendations

- We recommend establishing a closer link between changes in out-of-work benefits and in-work compensations. If the out-of-work benefits of relatively new long-term unemployed wanted to be increased, their in-work compensations should rise similarly.
- To offset these surges in expenditure, the targeting of current in-work compensations based on full-time equivalent earnings could be increased, or progressive tax credits based on actual earnings – as they exist in other developed countries – could be raised. Although this would increase the effective marginal tax rates (EMTRs) of some people, this might have less of an effect in hours worked as it was shown for the case of part-timers.
- Future research could study making individually-based social contribution rebates more targeted to low income households. This would require taking into account the trade-off with respect to incentives for (potential) second earners (Vandelannoote & Verbist, 2016).

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