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# APPLY WITH CAUTION: INTRODUCING UK-STYLE IN-WORK SUPPORT IN GERMANY

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### Abstract

Estimates of the labour supply effects of recent UK reforms in the area of direct taxes and benefits show that policy can have a significant influence on the level of employment. We confirm this in a simulation of an in-work support system introduced into the German tax and benefit system. Our simulation results suggest that introducing in-work tax credits in Germany would increase the employment of single individuals by over 100,000 but it would simultaneously reduce the labour supply of individuals in couples by about 70,000. We find that tax credits would cause significant declines of labour supply among both women and men in two-earner couples. The outcome derived for men in this study is especially important as it is markedly different from all results found for the UK, where the overall response for men has always been positive. Our estimation results call for a high degree of caution insofar as 'importing' UK-style tax credits into Germany is concerned. In-work support based on family income would reinforce the existing work disincentives for secondary earners through joint income taxation, reducing the employment levels of both men and women living in couples.

**Keywords**: tax-benefit system, in-work benefits, microsimulation, household labour supply

**JEL Classification**: C25, C52, H31, J22

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# Contents

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## 1.    Introduction

This paper is a contribution confirming that financial incentives are of great importance for individual labour-supply behaviour, and that careful changes in the design of the tax and benefit system may be an effective way to increase employment levels. We demonstrate this using a detailed comparison of employment statistics for Germany and the UK, which reflects a high degree of heterogeneity in the differences in employment rates between the two countries for various types of families. Since people in each country face the same labour market conditions (concerning labour demand and labour market regulations) regardless of individual family status, these findings stress the importance of financial incentives in determining the individual employment status. The role of financial incentives is also confirmed in the changes in employment status of certain family types in the UK (especially among lone parents and fathers of young children) following a series of reforms to the tax and benefit system during the years of the Labour government.

We also demonstrate that insofar as the generosity of the income support (social assistance) system is concerned, the 'popular belief' that support at the lower end of the income-distribution scale is significantly higher in Germany does not hold. We show this for a number of stylised households using two microsimulation models: TAXBEN for the UK and STSM for Germany. What we find is in fact that it is often the case that the tax and benefit system is more generous in Germany than in the UK at *higher* levels of income but not at the *lowest* ones. This conclusion implies that if one were to use the UK as a 'role model' for adjustments in the generosity of benefits in Germany, there is actually little room for manoeuvre at the lower end of income distribution.

Finally, our analysis of budget constraints in Germany and the UK clearly reflects the two most important differences between the tax and benefit systems: the joint taxation of couples (in Germany) and the in-work support (in the UK). The move from joint to individual taxation in the UK was completed in 1999 with the abolition of joint taxation and its replacement with a child-related tax credit in April 2000. In Germany couples can still file a joint tax claim. In a recent analysis, Steiner & Wrohlich (2004) show that the employment rate of secondary earners in Germany would markedly increase when moving from joint taxation to individual taxation.

The main part of our analysis focuses on the second difference between the tax and benefit systems in the two countries, namely in-work support. This fiscal instrument, which aims at subsidising low-paid employment, has been operational in several countries (e.g. the US, Canada and the UK) and there have been suggestions that in-work support could be used to make employment more attractive in Germany as well. We use a discrete choice labour-supply model to estimate the labour market implications of introducing UK-style in-work support in Germany. Our model follows the analysis of Blundell et al. (2000), who estimate the labour supply effects of the Working Families' Tax Credit (WFTC) in the UK. In a similar study for France, Germany and Finland, Bargain & Orsini (2004) simulate the effects of in-work credits

on the labour supply of women. We extend their analysis by allowing both men and women to respond to changes in financial incentives. This analytical extension turns out to be of decisive importance as far as policy suggestions are concerned. Our estimates show that because of important income effects on secondary earners, the policies would have highly negative implications for the employment of individuals in couples – both men and women. These negative effects nearly outweigh the positive effects on lone parents; the total employment impact of introducing UK-style in-work support in Germany is positive but modest given the cost of the reform (in the range of about 40,000 individuals). This result together with more detailed analysis of the differences in employment rates between the UK and Germany leads us to conclude that changing the structure of financial incentives in Germany could certainly be used to encourage employment. Nevertheless, given the strong negative employment response among couples, we conclude that in-work support based on total family incomes would not be an effective way of encouraging employment in Germany. A solution could come in the form of an individual tax credit integrated with some kind of childcare subsidy. Simply 'importing' the in-work support system from the UK will not 'do the trick'.

This paper is structured as follows: in section 2 we present a comparison of employment statistics between the UK and Germany. This is followed by a comparison of budget constraints for several stylised family types in section 3. In section 4 we describe our approach to modelling labour supply in Germany and present details of how we model UK-style new tax credits (NTCs) in the German tax and benefit system. The results of simulating the introduction of the NTCs in Germany are presented in section 5. In section 6 we return to the comparison of employment statistics and budget constraints to identify welfare reforms that may be better suited to Germany than a UK-style in-work support system. Section 7 concludes.

## 2.    The UK and Germany compared – Employment rates

International comparisons of economic indicators and statistics are complicated by, among other things, differences in institutional frameworks. The UK and Germany, for example, have very different education and pension systems and both of these strongly influence the resulting labour market statistics. Although we limit our analysis in this paper to individuals aged between 25 and 59, important differences in labour market outcomes owing to institutional design exist between the two countries, which are presented below. Subsequently, we focus on detailed comparisons of *employment rates,* defined as the share of dependently employed and self-employed persons over the whole population in this age group.[1] The institutional factors will obviously carry through to affect employment rate comparisons, but we believe that limiting the scope of analysis by further narrowing the age criteria would risk making the analysis uninteresting from a policy point of view, especially given that the population groups where we see the highest differences in employment rates are unlikely to be either students or retired persons.

*Labour market status*

Our analysis is based on the Family Resources Survey (FRS) for the UK and the Socio-Economic Panel (GSOEP) for Germany. The FRS is an annual cross-sectional survey that contains information on about 25,000 households, representing a total of 24.5 million British households. The GSOEP is a representative sample of private households in Germany and

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[1] The comparison of labour markets focuses on employment rates, rather than on unemployment or participation rates, which are the two most obvious other measures, to limit the definitional and institutional differences existing between the UK and Germany concerning the unemployed.

includes detailed data about the socio-economic situation of over 11,000 households (representing about 38.8 million households in Germany). Both surveys contain detailed information on household incomes, hours worked and household structure.[2]

We compare data for the two countries for 2002-03.[3] Table 1 contains the basic breakdown by labour market status for Germany and the UK and is a starting point for our analysis.

*Table 1. Labour market status: UK and Germany (2002-03)*

|  | **Breakdown (in %)** | | | |
|  | **UK** | | **Germany** | |
|  | **Men** | **Women** | **Men** | **Women** |
| Employees | 70.09 | 64.7 | 68.46 | 61.54 |
| Self-employed | 12.74 | 5.07 | 10.86 | 5.20 |
| Students | 0.34 | 0.36 | 6.90 | 5.60 |
| Retired | 0.21 | 0.55 | 2.88 | 2.27 |
| Unoccupied | 16.63 | 29.32 | 10.90 | 25.39 |

*Source:* FRS (2002-03) and GSOEP (2003).

The overall employment rate in the UK (counting both the employees and the self-employed) is 3.5 percentage points higher for men and 3 percentage points higher for women in the UK than in Germany. At the same time, however, the proportion of students and early retirees is much higher in Germany, which leads to lower proportion of individuals classified as 'unoccupied'.[4] Bearing in mind the differences in the student and retiree status between the two countries, in our chosen age group below we present employment rates separately for lone persons and individuals living in couples (married and cohabiting).

*Employment rates*

The employment rates are presented for different family types, distinguished by the presence of children younger than 17 years old. The picture that emerges from Tables 2-4 is (unsurprisingly) that the patterns of employment are strongly related to family structure. What is striking though is that there are important differences in employment conditional on these characteristics between the UK and Germany.

The overall employment rate in Germany for single persons is slightly higher than in the UK (see Table 2), a difference that stems from much higher employment rates of single women in Germany (a 4.3 percentage point difference).[5] Disaggregating employment statistics for single

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[2] A description of the GSOEP can be downloaded from www.diw.de/soep; see also Haisken–De New & Frick (2001).

[3] For Germany, we use the data collected in 2003 as they contain information about the fiscal year 2002. The FRS data is collected to overlap with the government budget calendar, i.e. from April to March. When we refer to a dataset as that for 2002-03, it covers the period of April 2002 to March 2003.

[4] These levels are consistent with OECD statistics on employment for the two countries (see OECD, 2005).

[5] This is mainly related to the higher labour market participation of women in East Germany. As documented in previous literature, owing to the diverse histories of the two labour markets, the behaviour of women from East and West Germany is still quite different, see e.g. (Haan & Steiner, 2005).

adults depending on whether or not they have children (below 17 years old) also gives higher employment rates for Germany, this time by over 10 percentage points. This could seem at odds with the existing in-work support system, which increases incentives for the labour market employment of lone parents. Yet, as Table A1 in the Appendix shows, the employment rate for lone parents in the UK prior to the introduction of the Labour government's package of reforms was as low as 38.7%. From this starting level, a remarkable rise is indicated in the employment of this group of persons of about 14 percentage points in the space of six years.

*Table 2. Employment rates of single individuals – UK and Germany, 2002-03*

|  | Employment rate (in %) | |
|---|---|---|
|  | **UK** | **Germany** |
| All singles | 67.91 | 68.17 |
| Male singles | 71.69 | 68.20 |
| Female singles | 63.84 | 68.14 |
| Singles without children <17 | 71.48 | 69.11 |
| Singles with children <17 | 52.43 | 62.74 |

*Source*: FRS (2002-03) and GSOEP (2003).

The employment rates for persons in couples (Table 3) are higher in the UK for both men and women, which is the case for couples with and without children. An interesting similarity between the two countries is that the difference in employment rates between those with and without children is the same for both countries: about 5-6% for men and 11-12% for women.

*Table 3. Employment rates of individuals in couples – UK and Germany, 2002-03*

|  | Employment rate (in %) | | | |
|---|---|---|---|---|
|  | **UK** | | **Germany** | |
|  | **Men** | **Women** | **Men** | **Women** |
| All couples | 87.90 | 72.36 | 83.32 | 66.60 |
| Couples without children <17 | 85.35 | 77.99 | 79.73 | 72.83 |
| Couples with children <17 | 90.32 | 67.03 | 86.83 | 60.51 |

*Source:* FRS (2002-03) and GSOEP (2003).

In Table 4 we break down these employment rates at the level of couples, by dividing couples into two-earner, one-earner (where either the woman or the man works) and no-earner couples. This approach sheds more light on the differences between the two countries. As we can see above, the proportion of two-earner couples is lower in Germany for all couples, regardless of whether or not they have children. The overall proportion of no-earner couples is very similar at about 7%. It is interesting to note that the proportion of couples in which only the woman works is almost twice as high in Germany as it is in the UK.

The breakdown of employment rates by family type shows that the differences between the two labour markets are far from uniform. There are important population groups in which employment rates are either almost identical or are even higher in Germany than in the UK. This variation raises important questions related to the labour-market policy response in both countries. We think that it would be difficult to explain these differences in terms of labour demand factors. The latter could either be considered to be the same for all individuals

regardless of their marital or family status, or at least to be the same for specific types of families. One could argue, for example, that employers would be less willing to employ individuals with parental obligations (for example because of the cost of child-related leave). This argument should, however, apply equally strongly to lone parents and parents living in couples. In this case the employment rates we present show that while lone parents are more likely to be employed in Germany (an employment rate of 62.7% versus 52.4%) the rates for parents in couples are higher in the UK for men (90.3% versus 86.8%) and especially for women (67.0% versus 60.5%).

*Table 4. Employment rates of individuals in couples for the UK and Germany, 2002-03 (in %)*

| Proportion by employment status: | All couples | No child aged <17 in family | Child aged <17 in family |
|---|---|---|---|
| UK | | | |
|   Two-earner | 67.17 | 71.08 | 63.46 |
|   Single-earner – man employed | 20.73 | 14.27 | 26.86 |
|   Single-earner – woman employed | 5.20 | 6.91 | 3.57 |
|   No-earner | 6.90 | 7.74 | 6.11 |
| Germany | | | |
|   Two-earner | 56.80 | 59.75 | 53.91 |
|   Single-earner – man employed | 26.52 | 19.99 | 32.91 |
|   Single-earner – woman employed | 9.81 | 13.08 | 6.60 |
|   No-earner | 6.88 | 7.19 | 6.57 |

*Source:* FRS (2002-03) and GSOEP (2003).

The above finding implies that differences in the tax and social security burdens between Germany and the UK and the institutional arrangements that affect demand for labour are insufficient to explain the differences in employment patterns between the two countries. An explanation of the differences between employment rates among various family types must largely relate to the supply side of the labour market. Here the common approach is to argue that the high generosity of the German benefit system is to blame for its lower employment rates. Below we look at some details of the financial incentives that various types of families encounter in a range of employment scenarios.

## 3.    The UK and Germany compared – Incentives to work

In this section we look at examples of the budget constraints that different types of families face in Germany and the UK. We focus on the tax and benefit system of the year 2002-03 as the above-mentioned statistics represent the population during that year. The analysis sheds some doubt on the popular belief that the levels of social assistance in Germany are significantly higher. We show that disposable incomes at various levels of employment intensity are very similar between the two countries.[6] The only noticeable differences in the 'shape' of the budget constraint are for secondary earners in couples and at the points of highest generosity of in-work support in the UK. We return to this issue at the end of this section. Note, however, that this

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[6] The monetary values used for comparative purposes are expressed in euros using the exchange rate of €/£ = 0.6821. To express weekly values of net incomes and benefits (as is standard practice in the UK) in monthly terms (as is standard in Germany) we multiply weekly values by a factor of 4.35 – the average number of weeks in a month (=365.25/12/7).

comparison needs to be interpreted carefully as we focus only on the tax and benefit system but leave out a comparison of important institutions, such as labour market institutions, the educational system, the generosity and quality of public healthcare and other types of public expenditure. For better comparison, we assume in all examples for Germany that individuals are not eligible for the insurance-based unemployment benefit (*arbeitslosengeld*) as this is not a permanent transfer. Instead, households receive means-tested social benefits that are the equivalent to the UK's income support.

Figure 1 presents comparisons of budget constraints for two types of families: a single woman without children and a single woman with two children. The budget lines are drawn under the assumption that the woman is earning the 25th percentile wage for women (specific for each country: €7.76 in the UK and €9.92 in Germany). Similar budget lines are drafted for one-earner couples (Figure 2) and two-earner couples (Figure 3). Here we assume that the man is working at a country-specific median wage for men (€14.75 in the UK and €16.81 in Germany) and once more we present the budget lines for families without children and with two children.

*Figure 1. Budget constraints in 2002 for a single woman (renting) with and without children*
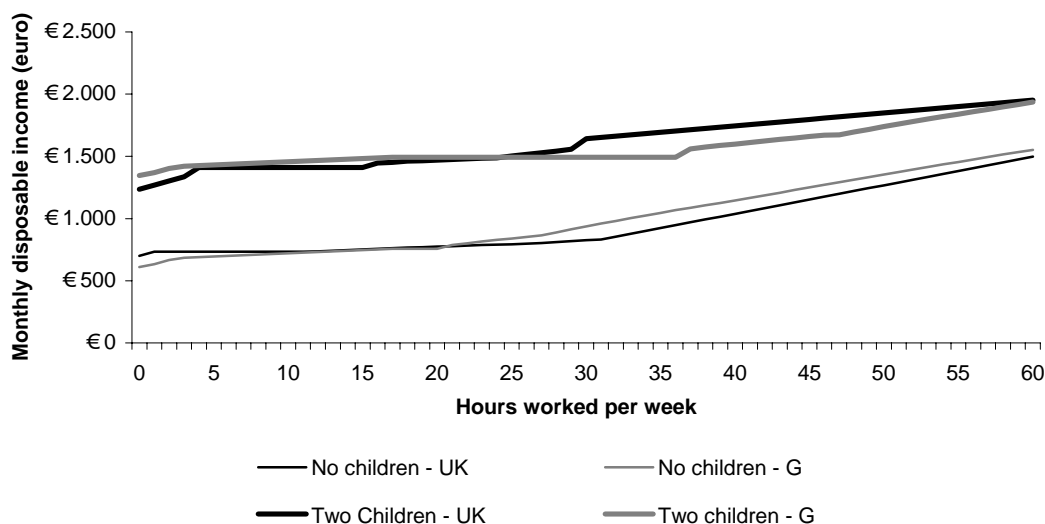


*Notes:* For each country we consider a single woman working at the 25th percentile hourly wage, renting at the cost of median rent. The 25th percentile wage for women in the UK is €7.76 and in Germany is €9.92.

Figures 2 and 3 show that at the lowest levels of earnings, i.e. in scenarios where the families qualify for the basic means-tested support, the disposable incomes of families in Germany and the UK (conditional on family type) is almost identical. Differences become apparent only at hours levels beyond 20 per week.

For single persons without children the difference in disposable income beyond 20 hours of work results primarily because of the higher nominal hourly wage in Germany. Given the variations in the tax burden between the two countries, this difference falls as income rises. It is interesting to note that in the UK the incomes of lone parents with two children are higher in the hours range between 26 and 60 working hours.[7] This is the result of the generous in-work

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[7] The same applies to lone parent families with one child (not shown in Figure 2) in the hours range between 16 and 54.

support that these families are eligible for in the form of the WFTC. The difference is highest (€212 per month) at the level of 36 hours of work per week.

*Figure 2. Budget constraints in 2002 for a one-earner couple (renting) with and without children*
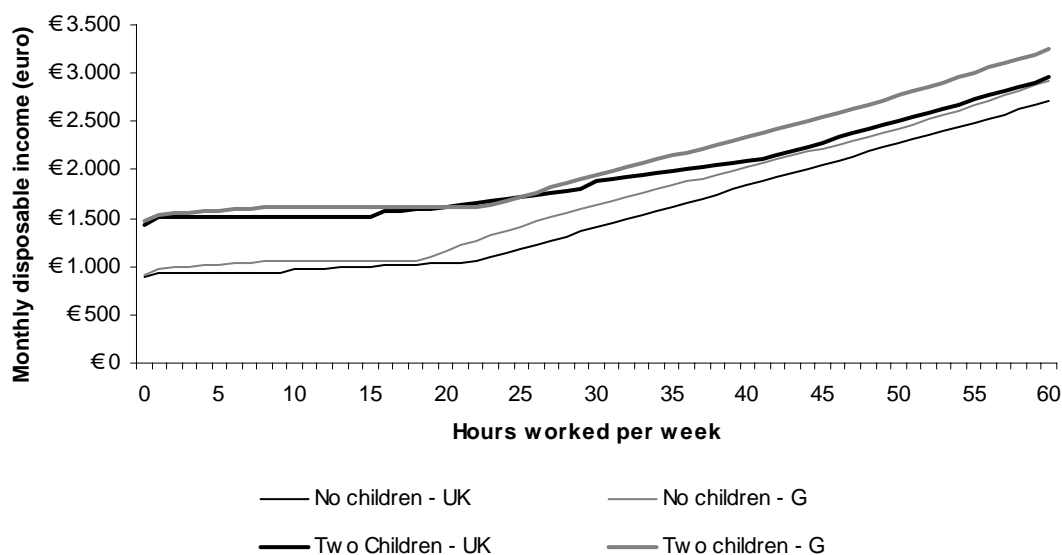


*Notes:* For each country we consider a one-earner couple to be one in which a man is working at the mean hourly wage, renting at the cost of median rent. The median wage for men in the UK is €14.75 and €16.81 in Germany.

Beyond the level of about 20 hours of work one-earner couples in Germany are better off than in the UK in our examples. This finding is especially strongly evident for couples with two children when the earner in the couple works more than 50 hours per week. From about this point onwards the UK example family no longer receives in-work support. At hours above 40 the example UK family with children has a very similar disposable income to the German childless couple.

There are significant differences between Germany and the UK for one-earner families without children. At 26 hours of work the UK one-earner couple receives €236 less per month than the couple in Germany and the difference remains at above €150 per month for higher levels of hours. The factor responsible for it is only partly the difference in the underlying nominal gross wages (we do not see a divergence in disposable income for higher levels of hours worked). The most important determinant of these differences is the income-splitting for individuals in married couples. As we see below this also has important consequences for the financial incentives of secondary earners in couples (see Figure 3). The higher disposable incomes of families with children in Germany relate primarily to the receipt of the universal *Kindergeld* (which in 2002 was €154 for every child per month).

*Figure 3. Budget constraints in 2002 for a secondary earner in a couple with and without children*
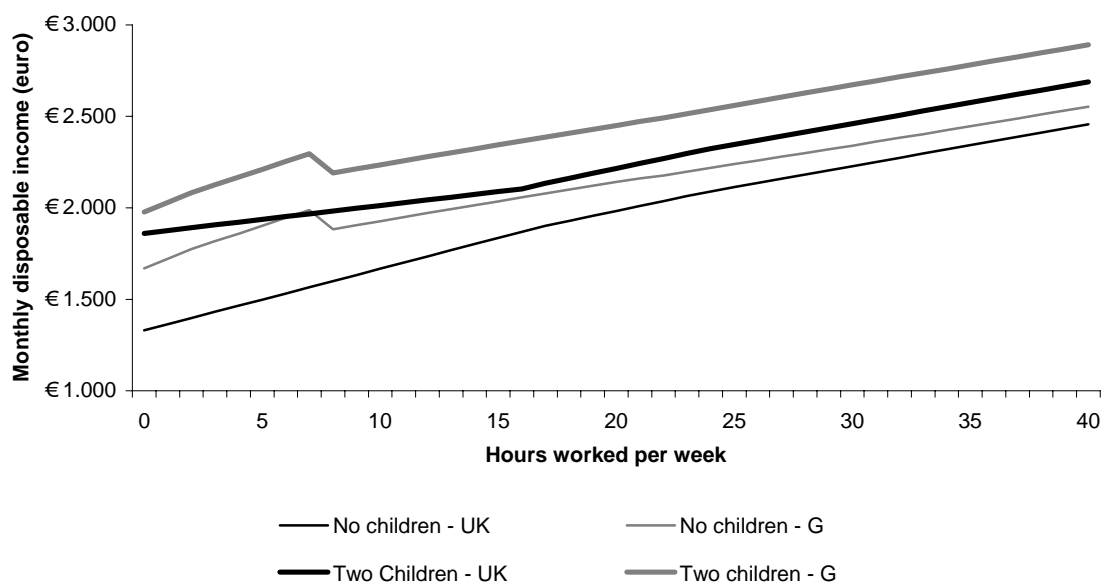


*Notes:* For each country we consider a one-earner couple to be one in which a man is working at the mean hourly wage, renting at the cost of median rent. The median wage for men in the UK is €14.75 and €16.81 in Germany.

For two-earner couples we find strong differences between the two countries, which are mainly owing to the income-splitting for couples and the exemption from social security contributions and income taxation up to a certain threshold of individual gross earnings in Germany. This threshold was €325 per month in 2002. After this threshold all earnings are subject to social security contributions and to income taxation. At this point, marginal tax rates for the secondary earner are relatively high because of the income-splitting. Therefore, we observe the kink in the budget line of the secondary earner for Germany. This provides strong disincentives for the secondary earner to take up work beyond €325. When considered against comparable households in the UK, households in Germany have a higher disposable income. This difference decreases with the number of working hours of the secondary earner as the advantage of the income-splitting vanishes. The advantage of income-splitting is dependent on the wage difference of both spouses (Steiner & Wrohlich, 2004).

## 4.   'Importing' the new tax credits to Germany

*New tax credits*

We saw in section 3 that one of the main differences in terms of the tax and benefit systems between the UK and Germany is the system of in-work support. This section begins with a brief outline of the current (2005) system of in-work support in the UK. This discussion is followed by a review of recent tax and benefit changes in Germany and how we integrate the elements of the UK system with the current German one. The section ends with some (non-behavioural) estimates of the costs of the reform and its distributional consequences.

In April 2003 the Labour government implemented major changes to the structure of the tax and benefit system in the UK.[8] The reform (commonly known as the new tax credit (or NTC) reform) consolidated several elements of support for families with children into the Child Tax Credit,[9] an instrument that specifically relates to having children and is independent of work status. The Child Tax Credit is made up of a family premium (about €60 per month) and credits for every child in the family. The child credits begin to be withdrawn when gross annual family income exceeds €20,400, while the family premium does so when pre-tax income exceeds €73,300. To preserve the financial incentives for low-income families to work the government introduced the Working Tax Credit, which retains the condition for the minimum number of hours worked characteristic of the WFTC from the pre-reform system. To receive the Working Tax Credit one adult in families with children has to work at least 16 hours per week, and there is a full-time 'premium' for those working more than 30 hours per week. The Working Tax Credit is also available for families without children, for which the minimum hours condition is 30 hours per week; it begins to be withdrawn once annual gross family income exceeds €7,650. The generosity of the NTC support system is presented in Figure 4 for a one-earner couple with two, one and without children.[10]

*Figure 4. Generosity of the NTCs in April 2005*
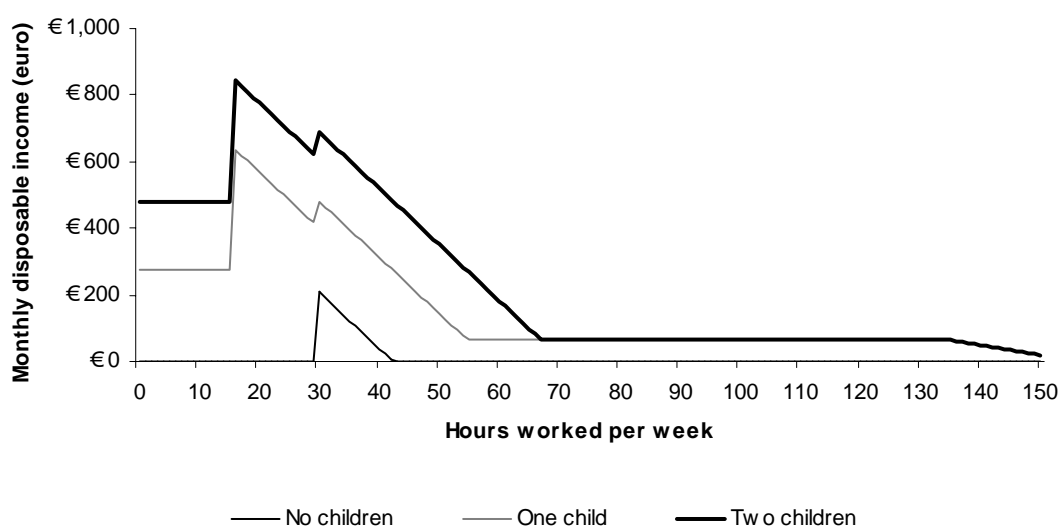


*Note:* The assumed hourly wage is €10.47 (which is the 25th percentile wage for men in the UK).

### Recent reforms in Germany

Since 2002-03, the year for which we show the employment statistics in section 2, Germany has also seen important changes in the design of the tax and benefit system. Both income taxation

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[8] For a detailed discussion of the 2003 reforms see Brewer et al. (2005). The NTCs also include a generous childcare credit, additional premiums for families with newborn babies and for working disabled people. These are not modeled in our paper.

[9] Specifically, it enveloped the family and child premiums in income support, the Child Tax Credits from the WFTC and the Children's Tax Credit (which was part of the PAYE income tax).

[10] As noted above, the NTCs include a generous childcare credit, additional premiums for families with newborn babies and for working disabled people, which are not modeled in our paper.

and the benefit system have been reformed with the aim of improving incentives in the labour market. We think it is important to account for these changes, and therefore we 'import' the UK system of in-work support taking the 2005 system as the baseline for the reform.

On the taxation side, between the years 2000 and 2005 the German government introduced the most ambitious income-tax reform in Germany's post-war history. The main goal of the reform, which was implemented in three steps (2001, 2004 and 2005), was a reduction of the burden and distortions of taxation for both companies and private households. By the beginning of 2005, the top marginal rate of the personal income tax had been reduced to 42%, compared with 51% in 2000. In the same period, the lowest marginal tax rate had been reduced from 22.9% to 15%, and the basic tax allowance had been increased from €6,902 to €7,664. The tax schedule between 2002 and 2005 was only affected by the second and third steps of the reform. The tax relief related to the two last steps amounts to about €20 bn. Haan & Steiner (2005) provide a detailed description of the reform and simulate the labour supply and employment effects of the reform. They show that the reform significantly increased labour supply incentives, especially for households with a relatively high income.

On the transfer side the 'Hartz reform', implemented between 2003 and 2005, had an impact on work incentives, particularly for low-income households. For our analysis three policies of the Hartz legislation are of importance: the mini-job reform, the reform of income support and the introduction of a child supplement. The mini-job reform extended the threshold for the subsidies of social security contributions and income taxation to individual gross earnings up to €400 per month. Further, high marginal tax rates on earnings above this threshold were reduced, by introducing a modified subsidy up to €800 per month. This reform is described in detail in Steiner & Wrohlich (2005) and its effects on work incentives have been estimated by, e.g. Steiner & Wrohlich (2005) and Bargain et al. (2005). In the course of the Hartz reform the previous income support '*sozialhilfe*' was combined with '*arbeitslosenhilfe*'. Relative to the year 2002, the income support for those out of work in 2005 was slightly more generous and the withdrawal rate changed.[11] The child supplement is similar to an in-work credit as only working families receive this benefit. Nevertheless, in comparison with the in-work credits implemented in other countries, the child supplement is not a generous transfer. Owing to the withdrawal design of this instrument in combination with the existing income support, the child supplement hardly affects work incentives for families with children.

*Introducing UK in-work support to the German system*

The system from 2005 is used as a baseline for the exercise of importing the UK NTC system (henceforth simply 'tax credits'). The system is implemented maintaining the rules that concern the interaction of the tax credits with other means-tested benefits. Specifically, we assume that income from tax credits is included in the means test for income support, which is withdrawn at the rate of 100%. As far as the generosity of the tax credits is concerned, we have decided to exclude the family premium element of the UK's Child Tax Credit. This is done on the grounds that such extension of child-related support rather far up the income-distribution level in a system with an already high level of universal support (for the first three children, €154 per child per month) would be very costly and therefore unlikely to be implemented. The resulting changes in the budget constraints are demonstrated in Figures 5 and 6, for single persons and couples respectively. Figure 5 shows budget constraints for a single person with and without children, working at the 25th percentile hourly wage (€9.92) for women. In Figure 6 we present budget lines for a couple household with one child. One set of lines shows the budget constraints under the assumption that only one partner is working at the median wage for men

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[11] For more details, see Caliendo & Steiner (2006).

(€16.81), while the other set shows constraints for the secondary earner working at the 25<sup>th</sup> percentile wage (€9.92) for women, under the assumption that the first earner works full-time at the median wage for men (€16.81). For all example families we show budget constraints as they were in 2002, then the constraints associated with the baseline (2005) system and finally the budget constraints that would result from introducing the tax credits in Germany.

*Figure 5. Disposable incomes under three tax and benefit systems: Single persons*
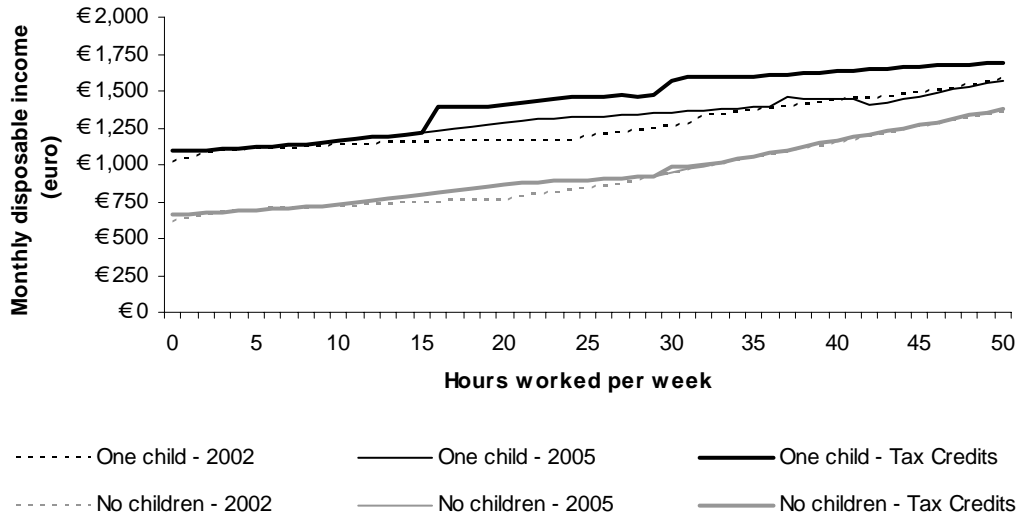


*Notes:* We consider a single woman working at the 25<sup>th</sup> percentile hourly wage, renting at the cost of median rent. The 25<sup>th</sup> percentile wage for a woman in Germany is €9.92.

*Figure 6. Disposable incomes under three tax and benefit systems: Couples*
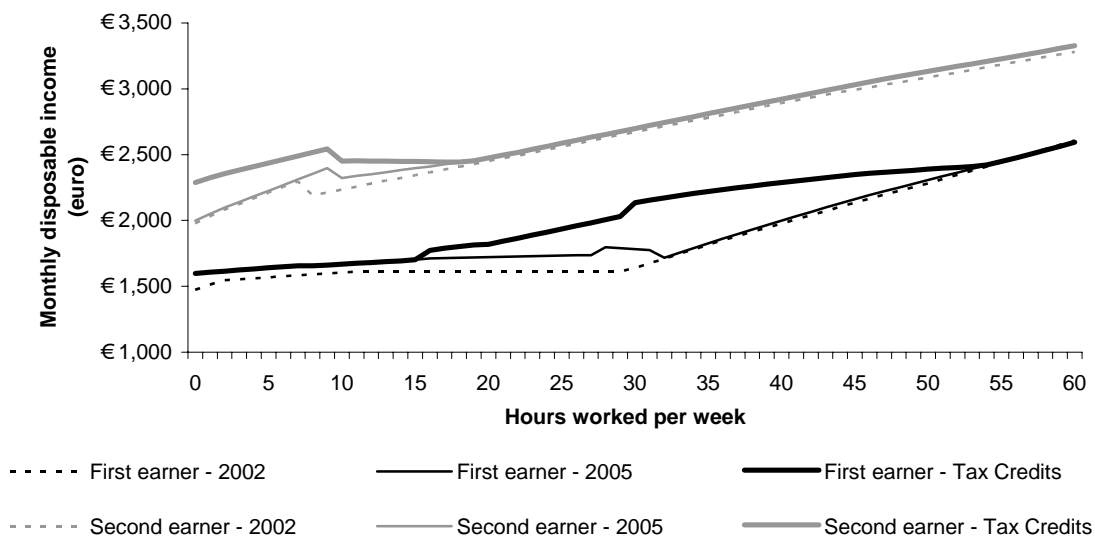


*Notes:* For each country we consider a one-earner couple to be one in which the man is working at the mean hourly wage, renting at the cost of median rent. The median wage for men in the UK is €14.75 and €16.81 for Germany.

We can see that single individuals without children would be only marginally affected by the introduction of tax credits – as is represented by a small increase in disposable income at 30 hours of work relative to the 2005 system. The same is true for childless couples who would not be affected at all if the earner receives the median hourly wage for men (we therefore do not present budget constraints for childless couples in the figures). The tax credits, however, lead to important income increases for lone parents and couples with children. A lone parent earning the 25th percentile hourly wage for women would see her/his income rise by €152.40 per month at 16 hours of work and by €236.70 at 34 hours of work. A one-earner couple, on the other hand, could see their income rise by as much as €456 per month (at 32 hours of work). An interesting point to note is that the combination of the withdrawal of subsidies of social security contributions and the tax credits implies that the difference in family disposable income arising from the work of the secondary earner falls from €441.70 to €155.06 per month as a result of introducing the tax credits. As we see below this type of income effect would lead to important withdrawals from employment among two-earner couples.

Disregarding the behavioural effects of such a reform, the overall net cost of introducing tax credits in Germany is about €11 bn. The government would need to spend about €19 bn on the tax credits, but the cost of the means-tested income benefits (ALG II) would fall by about €8 bn. The reforms would have a rather clear distributional effect – with families in the second and third decile gaining most (respectively €52.10 (4.0%) and €60.00 (3.7%) per month on average) and the gains falling for households higher up the income scale. Families in the first decile would gain on average only about €25.80 (3.4%), which is principally because there are fewer families with children in the first decile, and secondly because many of the poorest families do not meet the hours condition to be eligible for tax credits.[12]

## 5.    Tax credits and labour supply

In order to evaluate the behavioural effects of introducing tax credits in Germany we estimate the labour supply responses of households. We follow the method of Blundell et al. (2000) by simulating the changes in working hours and labour market participation on the basis of a discrete choice labour-supply model. The main advantage of the discrete-choice approach compared with continuous specifications of labour supply derives from the possibility to model nonlinearities in budget functions.[13] Furthermore, the modelling allows us to assess the labour supply effects on the household level rather than the individual level, by specifying a joint labour-supply model for cohabiting and married couples. A detailed specification of the model can be found in the Appendix; for further information with descriptive statistics and a discussion of the main results, see Bargain et al. (2005). Note, we follow Blundell et al. (2000) and assume that households can freely choose their working hours and are not restricted by labour demand constraints. We estimate the model on a restricted sample of households in which both spouses are aged between 25 and 59, not in education and not self-employed.[14] The

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[12] We do not present full distributional and reform cost details here. These are available from the authors.

[13] We assume that working hours can be described by a distribution with 6 discrete points. We define hours intervals as (0, [0,12], [12,20], [20,34], [34,40], >40) according to the empirical distribution in the data (GSOEP, 2003). The empirical mean of the distribution describes the discrete hours point. For couples we assume a joint labour-supply model and specify 6x6 discrete points. For more details, see Bargain et al. (2005).

[14] We have estimated the effect of tax credits on couples in which one spouse is either self-employed, in education or retired, or older than 59. We find that the effects for both men and women are negligible. The simulation results for these groups can be obtained from the authors.

database is the GSOEP 2003; hence we estimate the preferences for work and disposable income for the fiscal year 2002.[15]

Based on the labour supply estimation we simulate the labour supply effects resulting from the introduction of the tax credits. Using the microsimulation model STSM, which models the German tax and benefit system in detail (Steiner et al., 2005), we simulate the net household income for two scenarios at the defined discrete hours points: i) the fiscal system of the year 2005, which includes the implemented reforms between 2002 and 2005 described in section 4; and ii) a hypothetical scenario in which we introduce the tax credits into the system of 2005 as described in section 4. For each household we simulate the probabilities of choosing each point for the status quo scenario 2002 and the two simulated scenarios. The differences in the probabilities yield the labour supply responses induced by the respective reforms. In order to disentangle the work incentives resulting from the introduction of the tax credits we calculate the differences in the employment effects induced by the two simulated scenarios.

Tables 5 to 7 present the labour supply effects by household type and region with regard to changes in both employment and working hours.

*Single households*

As discussed above, the tax credits provide positive labour-supply incentives for single households, in particular for lone parents as tax credits are most generous for this group (Table 5). We simulate that the overall employment rate of single women increases by more than 95,000 or about 2.9%. This effect is almost exclusively borne by lone mothers. Single women without children in the western part of Germany hardly change their labour supply behaviour; the same group in the eastern half reacts slightly more. This difference stems from the higher gains from the tax credits reform for East Germans as their average earnings are markedly lower than in the western part of the country. The same holds true for lone mothers. The relative change in participation in East Germany (at 15%) is more than twice as high as the change for lone mothers in West Germany (6.5%). A very similar picture emerges when turning to the changes in the weekly working hours.

For single men the effects of the tax credits are relatively modest, the main reason being that the number of lone fathers in Germany is very low. The overall participation effect amounts to about 10,000, a figure that translates into a relative increase of 0.34%. Again, the effects in East Germany are higher, both in relative and in absolute numbers. The impact on the working hours of single men is moderate as well. Weekly working hours increase by about 0.30%.

*Couple households*

The overall effect of the tax credits on the labour supply of men and women in couples is negative (Table 6). As discussed above this is because the tax credits are based on household rather than on individual earnings and for eligibility only one spouse needs to fulfil the working requirements. The total employment among women in couples decreases by more than 55,000, which amounts to a decrease of about 0.8%. Again the effect is mainly borne by women with children. The effect on couple households without children is basically zero. As for single women, the effect on the participation rate and the relative change in working hours for women in East Germany are higher. For men living in couples, we find smaller negative effects of the tax credits. Employment among men in couples decreases by about 13,000 or 0.16%. The

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[15] We cannot estimate preferences directly for the year 2005 as the data for the fiscal year 2005 is not yet available.

reduction in working hours is relatively high (-0.46%), as the share of men working full-time or overtime in the baseline scenario is high.

*Table 5. Effect of tax credits on single individuals*

| | Change in participation | | Change in number of hours (unconditional) | |
|---|---|---|---|---|
| | **Absolute** | **(in %)** | **Absolute (in 000s):** | **(in %)** |
| Women: | | | | |
| West | | | | |
| – no children | 400 | 0.019 | 28.6 | 0.041 |
| – with children | 59,400 | 6.474 | 1,676.4 | 5.953 |
| East | | | | |
| – no children | 1,000 | 0.356 | 63.2 | 0.588 |
| – with children | 34,500 | 15.002 | 1,244.8 | 15.166 |
| Total – women | 95,300 | 2.914 | 3,013.0 | 2.583 |
| Men: | | | | |
| – with children | 2,400 | 1.728 | 92.1 | 1.634 |
| – without children | 7,200 | 0.273 | 279.4 | 0.260 |
| West | 3,900 | 0.167 | 132.5 | 0.139 |
| East | 5,700 | 1.239 | 222.7 | 1.209 |
| Total – men | 9,600 | 0.344 | 355.2 | 0.312 |

*Notes:* Simulation built by drawing 100 times from the distribution of the unobserved heterogeneity and allocating each observation to the alternative that yields maximum utility (e.g. see Blundell et al., 2000). Absolute change in participation is rounded to the nearest 100.

*Source:* Authors' simulations.

*Table 6. Effect of tax credits on individuals in couples*

| | Change in participation | | Change in number of hours (unconditional) | |
|---|---|---|---|---|
| | **Absolute** | **(in %)** | **Absolute (in 000s):** | **(in %)** |
| Women | | | | |
| West | | | | |
| – no children | 100 | 0.005 | 4.9 | 0.006 |
| – with children | -43,000 | -1.330 | -1,033.3 | -1.405 |
| East | | | | |
| – no children | 0 | -0.002 | 1.1 | 0.008 |
| – with children | -12,600 | -1.499 | -635.7 | -2.169 |
| Total – women | -55,500 | -0.813 | -1,663.0 | -0.850 |
| Men | | | | |
| West | | | | |
| – no children | -100 | -0.004 | -5.0 | -0.005 |
| – with children | -2,000 | -0.044 | -956.7 | -0.494 |
| East | | | | |
| – no children | -100 | -0.016 | -3.7 | -0.019 |
| – with children | -11,300 | -1.268 | -656.9 | -1.708 |
| Total – men | -13,400 | -0.163 | -1,622.2 | -0.460 |

*Notes:* Simulation built by drawing 100 times from the distribution of the unobserved heterogeneity and allocating each observation to the alternative that yields maximum utility (e.g. see Blundell et al., 2000). Absolute change in participation is rounded to the nearest 100.

*Source:* Authors' simulations.

*Effect by employment status of the spouses*

As shown previously in Table 4, in Germany the share of couple households in which both spouses are working is relatively low in comparison to the UK. In contrast, the share of one-earner households is relatively high. Our findings indicate that the introduction of the UK-style tax credits further increases the differences between the two countries in this respect. In order to accurately simulate the impact of the tax credits by the employment status of the spouses we have to compare the participation effect relative to the base scenario in 2002, since the employment status can be only observed in this year (Table 7). The first column yields the observed number of households within each group for the year 2002, the second column the simulated effect for the fiscal year 2005, and the third column the simulated effects for the hypothetical system including the tax credits. In order to disentangle the effect of the tax credit we take the difference between the employment effect of the two simulated systems (column 4).

*Table 7. Effect of tax credits (TCs) on couples conditional on a combination of partners' employment*

|  | 2002 system (in 000s) | 2005 system (in 000s) | TCs (in 000s) | Effect of TCs (in 000s) |
|---|---|---|---|---|
| Women: |  |  |  |  |
| – (0,0) | 0.0 | 23.6 | 32.0 | 8.5 |
| – (1,0) | 0.0 | 82.6 | 76.3 | -6.3 |
| – (0,1) | 478.3 | 473.8 | 469.9 | -3.9 |
| – (1,1) | 6,339.8 | 6,314.1 | 6,260.3 | -53.8 |
| Men: |  |  |  |  |
| – (0,0) | 0.0 | 27.0 | 53.1 | 26.1 |
| – (1,0) | 2,093.9 | 2,079.8 | 2,072.0 | -7.8 |
| – (0,1) | 0.0 | 35.3 | 33.5 | -1.8 |
| – (1,1) | 6,121.2 | 6,097.4 | 6,067.6 | -29.9 |

*Notes:* Simulation built by drawing 100 times from the distribution of the unobserved heterogeneity and allocating each observation to the alternative that yields maximum utility (e.g. see Blundell et al., 2000).

*Source:* Authors' simulations.

As a result of introducing the tax credits we observe an employment effect for couples in which neither of the spouses was working in 2002. Relative to the fiscal system in the year 2005 this effect is particularly high for men (26,000) but is non-negligible for women (8,500). As shown in Table 4, one-earner couples in which the man is working are far more common in Germany than couples in which the woman is the sole earner. This characteristic explains the stronger increase for men than for women.

Yet this positive employment effect is clearly outweighed by the negative effect of the tax credits on the other groups. In particular the number of couples in which both spouses used to work in the year 2002 markedly decreases. The effect of the tax credit implies that more than 50,000 women and nearly 30,000 men leave this group. The effect on one-earner couples is relatively small. In comparison to the effects of the fiscal system in 2005, the impact of the tax credits slightly reduces employment within these groups, for both men and women.

These results imply that owing to the tax credits the share of two-earner couples in Germany would decline further, widening the gap between the UK and Germany. In addition, the decomposition by employment status of the couples underlines the importance of estimating not only the labour supply effects of women but also of men. We show that the tax credits have a strong impact on men's employment decisions, positively or negatively, dependent on their initial employment state.

*Labour supply effects of in-work support in other studies*

Bargain & Orsini (2004) simulate the labour supply effects of the British WFTC as it was implemented in 1999 for single women and women in couples for several countries, including Germany. In general, our results point in the same direction as their findings. Bargain & Orsini (2004) show that the in-work credit has a positive effect on the labour supply behaviour of single women and a negative effect on the behaviour of women living in couples. They find, however, that the negative effects on women in couples outweigh the positive effects achieved for singles. This difference is mainly owing to the different generosity of the simulated in-work credits. In comparison with the studies of Blundell at al. (2000) and Gregg et al. (1999), which focus on the effects of the 1999 WFTC reform in the UK, we find greater labour supply effects, which is not surprising since we model the introduction of the full system and not only increases in its generosity (as is the case in these two studies). The important difference between the results for the UK and Germany concern couples. Both the UK studies (as well as subsequent estimates of the effect of the WFTC in e.g. Brewer et al., 2005, Blundell et al., 2005 and Myck & Reed, 2005) find positive net effects on the employment of men in couples. For Germany we find that over 13,000 men living in couples would leave employment. Moreover, if we take the overall employment effect on individuals living in couples measured as a proportion of the positive effect on single individuals, we find that it is –19% in the case of Blundell et al. (2000) and is positive (+14%) in the case of Gregg et al. (1999).[16] In our estimation we find that the negative effect on couples is –66% of the effect on single persons. This finding suggests a very different (relative) responsiveness among individuals in couples in Germany and calls for a lot of caution in applying means-tested policies based on total family income.

## 6.    Can tax credits 'do the trick'?

We saw in the previous section that introduction of the tax credits in Germany would have an overall positive effect on employment but this effect would be small (in the range of 35,000) and there would be a negative effect on the labour supply of individuals in couples in the range of 70,000. The principal reason behind the effect on couples is that the policy impact on the income on secondary earners would lead many of them to give up work. This negative effect on two-earner couples would not be outweighed by increases in employment among couples in which (in the baseline scenario) both partners are out of work.

Below we return to the analysis of employment statistics. On the one hand this is done to find an explanation for our results in the employment patterns in Germany. On the other hand we want to look more closely at families with children to see if differences in employment between the UK and Germany suggest any specific groups that could be targeted from the point of view of employment policy.

In Tables 8, 9 and 10 we present a further breakdown of employment rates for men and women with children. The additional disaggregation is conditional on the age of the youngest child in the family, and we divide the sample into those with the youngest children aged 0-3, 4-6 and 7-16. As in section 2, statistics are presented for single persons (Table 8) and couples (Table 9). Table 10 presents the proportion of couples with children conditional on the employment status of the parents.

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[16] We refer to the updated version of the Gregg et al. results given in Blundell & Reed (2000).

*Table 8. Employment rates of single individuals in the UK and Germany, 2002-03*

| | Employment rate (in %) | |
| --- | --- | --- |
| | UK | Germany |
| Singles with children <17 | 52.43 | 62.74 |
| Singles with children: youngest 0-3 | 33.08 | 32.30 |
| Singles with children: youngest 4-6 | 50.78 | 49.10 |
| Singles with children: youngest 7-16 | 60.26 | 73.37 |

*Source:* FRS (2002-03) and GSOEP (2003).

*Table 9. Employment rates of individuals in couples in the UK and Germany, 2002-03*

| | Employment rate (in %) | | | |
| --- | --- | --- | --- | --- |
| | UK | | Germany | |
| | Men | Women | Men | Women |
| Couples with children <17 | 90.32 | 67.03 | 86.83 | 60.51 |
| Couples with children – youngest: 0-3 | 92.53 | 51.77 | 83.74 | 40.02 |
| Couples with children – youngest: 4-6 | 89.64 | 67.41 | 89.53 | 58.37 |
| Couples with children – youngest: 7-16 | 89.16 | 76.57 | 87.60 | 72.34 |

*Source:* FRS (2002-03) and GSOEP (2003).

*Table 10. Employment rates of individuals in couples in the UK and Germany, 2002-03 (in %)*

| Proportion by employment status | Child <17 in family | Youngest child aged 0-3 | Youngest child aged 4-6 | Youngest child aged 7-16 |
| --- | --- | --- | --- | --- |
| UK | | | | |
| Two-earner | 63.46 | 50.06 | 64.45 | 71.60 |
| Single earner – man employed | 26.86 | 42.47 | 25.18 | 17.55 |
| Single earner – woman employed | 3.57 | 1.71 | 2.95 | 4.97 |
| No-earner | 6.11 | 5.77 | 7.41 | 5.87 |
| Germany: | | | | |
| Two-earner | 53.91 | 34.42 | 54.58 | 64.26 |
| Single-earner – man employed | 32.91 | 49.32 | 34.95 | 23.34 |
| Single-earner – woman employed | 6.60 | 5.59 | 3.79 | 8.09 |
| No-earner | 6.57 | 10.67 | 6.68 | 4.32 |

*Source:* FRS (2002-03) and GSOEP (2003).

Several interesting facts emerge from this additional disaggregation of employment statistics. First of all, the group of lone parents 'responsible' for the relatively higher employment rates among single persons in Germany seems to be the lone parents with school-age children. Only for this group there is a big difference in employment rates, with 73.4% of lone parents with school-age children employed in Germany and only 60.3% in the UK. Looking at the average employment rates for lone parents in Germany we could conclude that (at least relative to the

UK) employment among this group does not seem to be a major concern. Nevertheless, given that there is this large discrepancy *within Germany* in employment rates between parents with pre-school and school-age children, perhaps addressing the factors constraining parents of younger children from taking up employment would be an efficient way to increase the overall employment rate. As shown earlier the tax credits are very effective in increasing the employment of single persons. Over 100,000 individuals would move into work following the introduction of tax credits. Depending on the design of the implemented system, the effect would be high especially among lone parents (over 96,000). Of these, 44,000 have children below school age, so tax credits could play an important role in increasing employment among this group. The policy could be extended to include childcare support (as is the case in the UK) and then the effect on parents with the youngest children would most probably be even higher.[17]

Differences between the UK and Germany in employment rates for individuals living in couples also vary by the age of the youngest child. Among men the group that seems to 'turn' the overall employment statistic for fathers in the UK's favour is that of fathers with very young children (aged 0-3). For this group the employment rate in the UK is 92.5%, while in Germany it is only 83.7%. On the other hand we once again find that for women the difference in employment rates is smallest among those in couples with school-age children, so as in the case of lone parents Germany is lagging behind the UK insofar as the employment of people with pre-school age children is concerned. It is for these groups of individuals in couples that we have seen the highest increases in employment since 1996 in the UK (see Appendix Table A3) and so perhaps a form of in-work support could be used to encourage employment among these groups in Germany as well. Yet, as we argued above the extent of the negative employment effect of tax credits in Germany is (relatively) much higher than in the UK, and such an in-work support policy could backfire and result in lower and not higher employment among individuals in couples. Clearly, as in the case of lone parents, assistance with childcare could encourage more individuals from no-earner couples to take up employment, but this may still not be enough to outweigh the negative response of secondary earners in two-earner couples.

Thus if the German government considers low employment levels among couples with children to be an area of concern, then perhaps it would be more effective to consider other policies supporting the low-paid in work and targeted at the secondary earner. Such policies could include a move away from joint taxation (see Steiner & Wrohlich, 2004) and perhaps some form of individual tax credit (based on individual and not family income). The latter policy could bring the desired effects of increasing employment among lone parents and would not have equally strong disincentive effects on secondary earners in couples.[18] Given the differences between the UK and Germany in the pattern of employment conditional on the age of the youngest child, perhaps the policies could be focused on specific groups of parents.

## 7.    Conclusion

Estimates of labour supply effects from recent UK reforms in the area of direct taxes and benefits show that policy can have a significant influence on the level of employment. We confirm this in a simulation of an in-work support system on German data. Our simulation results suggest that introducing in-work tax credits in Germany would increase the employment of single individuals by over 100,000, but it would result in a reduction of labour supply among individuals in couples by about 70,000.

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[17] For a discussion of German childcare policy, see e.g. Wrohlich (2005).

[18] A system of individual tax credits could replace the mini-job subsidies that support employment at very low hours of work.

Our analysis of employment rates has demonstrated that differences in employment between Germany and the UK are far from homogenous across various family types. This finding relates especially to patterns of employment within couples, with one-earner families being much more common in Germany. Importing a UK-style in-work support system into Germany would further increase this difference. The results of our simulations suggest that tax credits would result in significant reductions of labour supply among both women and men in two-earner couples. These reductions would not be matched by increases in labour supply among one-earner or no-earner couples, so the overall labour supply effects would be negative for both men and women. The outcome derived for men is especially important as it is markedly different from all results found for the UK, where the overall response among men has always been found to be positive. These estimated effects call for a high degree of caution insofar as importing UK-style tax credits into Germany is concerned. In-work support based on family income would increase the proportion of one-earner couples and reduce the employment levels of both men and women living in couples.

Comparing budget constraints determined on the basis of the 2002 tax and benefit system for several stylised types of families we have shown that, contrary to popular belief, the basic German system of support for the poorest groups of the population is not more generous relative to its British counterpart. This outcome implies that, at least relative to the UK system, there is little room for policies aimed at increasing employment through reductions in the values of support at the lower end of the income-distribution scale. The most important two differences between the two tax and benefit systems (as reflected in the budget constraints) are in-work support and joint taxation of couples. Although, as noted above, in-work support conditional on joint family income may not be the best solution for Germany from the point of view of increasing the employment rates of individuals in couples, this does not mean that every form of in-work support would fail. In fact, the simulation results for singles are encouraging and, as we have argued, if combined with childcare support could result in an even higher employment response than that estimated in this paper. Implementing tax credits for couples, however, would need to take into account the interaction of the labour supplies of both partners, and so perhaps be based on individual rather than joint family income. Taking into account the employment patterns among couples with children, another option to consider would be to limit tax credits to only those couples with the youngest children. As Steiner & Wrohlich (2004) demonstrated, the system of joint taxation of couples is to some extent responsible for the employment patterns we observe in Germany. A careful combination of a move away from joint taxation with a cautious design of in-work support could perhaps 'do the trick'.

# Appendix

*Discrete choice labour-supply estimation*

Discrete choice models of labour supply are based on the assumption that a household can choose among a finite number, J+1, of working hours (J positive hours points and non-participation); each hour j=0,.J corresponds to a given level of disposable income $C_{ij}$ and each discrete bundle of leisure and income provides a different level of utility. In effect, the choices j=0,...J of a couple correspond simply to all the combinations of the spouses' discrete hours (see for instance van Soest, 1995). The utility $V_{ij}$ derived by household i from making choice j is assumed to depend on a function U of spouses' leisure $Lf_{ij}$, $Lm_{ij}$, disposable income $C_{ij}$ and household characteristics $Z_i$, and on a random term $\varepsilon_{ij}$. When the error term $\varepsilon_{ij}$ is assumed to be identically and independently distributed across alternatives and households according to an extreme value distribution, McFadden (1974) proves that the probability that alternative k is chosen by household i is given by:

$$\Pr{}_{ik} = \frac{\exp(V_{ik})}{\sum_{j=0}^{J} \exp(V_{ij})}, k \in J$$

The likelihood of a sample of observed choices can be derived from that expression and maximised to estimate the parameters of function U. We assume a quadratic specification of the utility function as in Blundell et al. (2000). In the estimation we do not consider the potential effects of unobserved heterogeneity, which implies that the independence of irrelevant alternatives (IIA) property holds. Nevertheless, Haan (2006) has shown that labour supply elasticities, estimated on the same data as in the present study, do not differ significantly when unobserved heterogeneity is introduced.

We estimate three separate models: the labour supply of 706 single men, the labour supply of 902 single women and a joint labour-supply model for men and women in couples (3,367). The full specification of the model and results of the estimations are discussed in detail in Bargain et al. (2005).

*Simulating employment effects*

In the present non-linear model, labour employment effects need to be derived numerically. Instead of the 'aggregated frequencies' technique, i.e. aggregating over the whole sample the expected individual hour supply, we follow the calibration method, which is consistent with the probabilistic nature of the model at the individual level (Creedy & Duncan, 2002). It consists of drawing for each household a set of J+1 random terms from the extreme value distribution until a vector of random terms is found that generates a perfect match between predicted and observed hour supply. In a second step, these draws are used for predicting labour supply responses to a particular tax reform, and averaging them over a large number of draws provides robust transition matrices.

*Table A1. Employment rates of single individuals in the UK, 1996 and 1999*

| | Employment rate (in %) | |
|---|---|---|
| | UK (1996) | UK (1999) |
| All singles | 61.93 | 65.89 |
| Male singles | 67.46 | 70.18 |
| Female singles | 56.00 | 60.90 |
| Singles without children <17 | 68.02 | 70.52 |
| Singles with children <17 | 38.67 | 46.51 |
| Singles with children: youngest 0-3 | 21.82 | 25.92 |
| Singles with children: youngest 4-6 | 34.64 | 43.08 |
| Singles with children: youngest 7-16 | 48.33 | 56.51 |

*Source:* FRS (1996 & 1999).

*Table A2. Employment rates of individuals in couples in the UK, 1996 and 1999*

| | Employment rate (in %) | | | |
|---|---|---|---|---|
| | UK (1996) | | UK (1999) | |
| | Men | Women | Men | Women |
| All couples | 84.74 | 69.39 | 86.82 | 71.93 |
| Couples no children <17 | 82.50 | 75.30 | 84.52 | 76.94 |
| Couples with children <17 | 86.89 | 63.70 | 89.07 | 67.00 |
| Couples with children – youngest: 0-3 | 87.26 | 49.82 | 90.92 | 53.23 |
| Couples with children – youngest: 4-6 | 86.73 | 65.13 | 89.60 | 68.40 |
| Couples with children – youngest: 7-16 | 86.66 | 74.16 | 87.62 | 75.91 |

*Source:* FRS (1996 & 1999).

*Table A3. Employment rates of individuals in couples in the UK, 1996 and 1999 (in %)*

| Proportion by employment status | All couples | No child <17 in family | Child <17 in family | Youngest child aged 0-3 | Youngest child aged 4-6 | Youngest child aged 7-16 |
|---|---|---|---|---|---|---|
| UK – 1996 | | | | | | |
| Two-earner | 63.69 | 67.47 | 60.05 | 47.62 | 61.96 | 69.19 |
| Single-earner – man employed | 21.05 | 15.03 | 26.84 | 39.64 | 24.77 | 17.47 |
| Single-earner – woman employed | 5.70 | 7.83 | 3.65 | 2.20 | 3.17 | 4.97 |
| No-earner | 9.57 | 9.67 | 9.46 | 10.54 | 10.09 | 8.37 |
| Number of couples (in 1,000s) | 9361 | 4589 | 4772 | 1745 | 826 | 2201 |
| UK – 1999 | | | | | | |
| Two-earner | 66.52 | 69.87 | 63.23 | 50.93 | 64.61 | 71.15 |
| Single-earner – man employed | 20.30 | 14.65 | 25.84 | 39.99 | 24.99 | 16.47 |
| Single-earner – woman employed | 5.41 | 7.07 | 3.77 | 2.30 | 3.79 | 4.76 |
| No-earner | 7.77 | 8.40 | 7.16 | 6.78 | 6.61 | 7.61 |
| Number of couples (in 1,000s) | 9,219 | 4,568 | 4,651 | 1,559 | 811 | 2,281 |

*Source:* FRS (1996 & 1999).

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# REVISER – Research Training Network on Health, Ageing and Retirement

**REVISER** was launched by several members of the ENEPRI network in August 2003. The project was financed under the programme on Improving the Human Research Potential & the Socio-Economic Knowledge Base of the 5th EU Research Framework Programme.

The **REVISER** project finances training stays for young researchers in the following six research institutes:

- **CEPS** (Centre for European Policy Studies), Brussels
- **CPB** (Netherlands Bureau for Economic Policy Analysis), The Hague
- **DIW** (Deutsches Institut für Wirtschaftsforschung), Berlin
- **ETLA** (the Research Institute of the Finnish Economy), Helsinki
- **FEDEA** (Fundación de Estudios de Economía Aplicada), Madrid
- **LEGOS** (Laboratoire d'Economie et de Gestion des Organisations de Santé, Université de Paris-Dauphine), Paris

Trainees participate in research conducted in the areas of population ageing, health and retirement in the institutes in which they are placed, often in the context of common research projects developed by consortiums of ENEPRI partners. Trainees must be nationals of an EU member state or associated state, or must have resided in the EU for at least five years immediately prior to their appointment. This network aims at fostering the mobility of researchers. Thus, trainees must not be nationals of the state in which the institute appointing them is located and must not have carried out their normal activities in that state for more than 12 of the 24 months prior to the appointment.

This project is coordinated by Jorgen Mortensen, Associate Senior Research Fellow at CEPS. For further information, contact him at: jorgen.mortensen@ceps.be.

# About ENEPRI

The European Network of Economic Policy Research Institutes (**ENEPRI**) is composed of leading socio-economic research institutes in practically all EU member states and candidate countries that are committed to working together to develop and consolidate a European agenda of research. **ENEPRI** was launched in 2000 by the Brussels-based Centre for European Policy Studies (CEPS), which provides overall coordination for the initiative.

While the European construction has made gigantic steps forward in the recent past, the European dimension of research seems to have been overlooked. The provision of economic analysis at the European level, however, is a fundamental prerequisite to the successful understanding of the achievements and challenges that lie ahead. **ENEPRI** aims to fill this gap by pooling the research efforts of its different member institutes in their respective areas of specialisation and to encourage an explicit European-wide approach.

**ENEPRI** is composed of the following member institutes:

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| CASE | Center for Social and Economic Research, Warsaw, Poland |
| CEE | Center for Economics and Econometrics, Bogazici University, Istanbul, Turkey |
| CEPII | Centre d'Études Prospectives et d'Informations Internationales, Paris, France |
| CEPS | Centre for European Policy Studies, Brussels, Belgium |
| CERGE-EI | Centre for Economic Research and Graduated Education, Charles University, Prague, Czech Republic |
| CPB | Netherlands Bureau for Economic Policy Analysis, The Hague, The Netherlands |
| DIW | Deutsches Institut für Wirtschaftsforschung, Berlin, Germany |
| ESRI | Economic and Social Research Institute, Dublin, Ireland |
| ETLA | Research Institute for the Finnish Economy, Helsinki, Finland |
| FEDEA | Fundación de Estudios de Economía Aplicada, Madrid, Spain |
| FPB | Federal Planning Bureau, Brussels, Belgium |
| IE-BAS | Institute of Economics, Bulgarian Academy of Sciences, Sofia, Bulgaria |
| IER | Institute for Economic Research, Bratislava, Slovakia |
| IER | Institute for Economic Research, Ljubljana, Slovenia |
| IHS | Institute for Advanced Studies, Vienna, Austria |
| ISAE | Istituto di Studi e Analisi Economica, Rome, Italy |
| NIER | National Institute of Economic Research, Stockholm, Sweden |
| NIESR | National Institute of Economic and Social Research, London, UK |
| NOBE | Niezalezny Osrodek Bana Ekonomicznych, Lodz, Poland |
| PRAXIS | Center for Policy Studies, Tallinn, Estonia |
| RCEP | Romanian Centre for Economic Policies, Bucharest, Romania |
| SSB | Research Department, Statistics Norway, Oslo, Norway |
| SFI | Danish National Institute of Social Research, Copenhagen, Denmark |
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