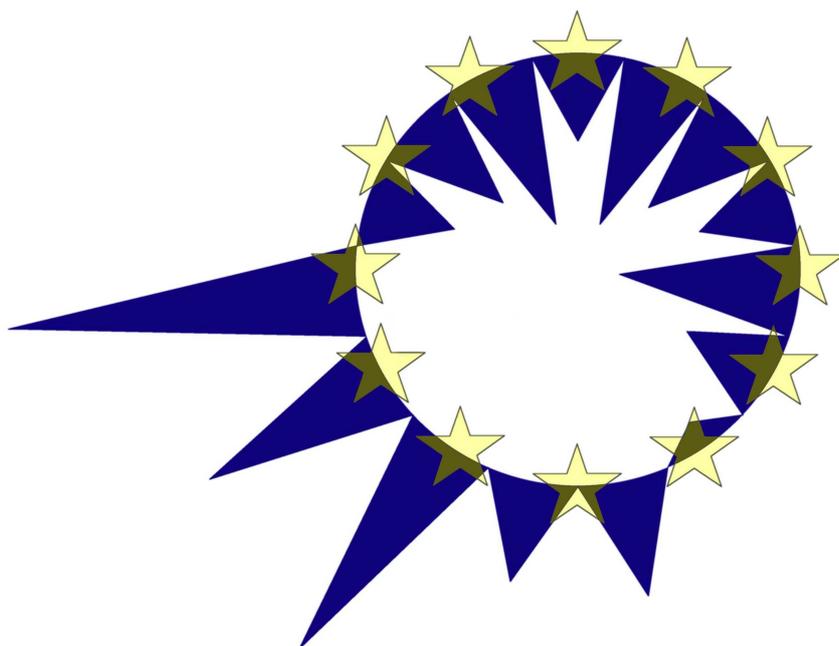


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**CAN IN-WORK BENEFITS IMPROVE
SOCIAL INCLUSION IN THE SOUTHERN
EUROPEAN COUNTRIES?**

Francesco Figari

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Can In-work Benefits Improve Social Inclusion in the Southern European Countries?¹

Abstract

This paper analyses the effects of implementing a family based and an individual in-work benefit in the Southern European countries using EUROMOD, the EU-wide tax-benefit microsimulation model. In-work benefits are means-tested cash transfers given to individuals, through the tax system, conditional on their employment status. They are intended to enhance the incentives to accept work and redistribute resources to low income groups.

The family based in-work benefits seem to be more redistributive, in particular in Italy and Portugal, but the presence of extended families does not allow such policies to be well targeted on the very poorest, especially in Spain. Individual policies lead to better incentives to work than family based in-work benefits, in particular for Spanish and Italian women in couples whose labour market participation is far below the European average.

JEL: H53, I32, I38

Keywords: in-work benefits, fiscal microsimulation, social inclusion, women participation, Southern Europe

Corresponding author:

Francesco Figari
ISER – University of Essex
Wivenhoe Park
CO4 3SQ Colchester Essex
UK
E-mail: ffigar@essex.ac.uk

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1. Introduction

In the last decade, interest in in-work benefits has grown in most European countries. In-work benefits provide cash transfers through the tax system to individuals with low earnings. They belong to the family of “make work pay” policies (OECD, 2003) since they are conditional on the employment status of the recipient. In-work benefits aim to enhance the incentives to accept work by increasing the financial value of the work and to redistribute resources to low income groups through transfers (Pearson and Scarpetta, 2000; Blundell, 2006). Saez (2002) shows that in-work benefits may configure as optimal income transfers when the individual choice is whether or not to work, rather than varying the number of hours worked. In this case, Saez shows that in-work benefits are more efficient than guaranteed income support schemes. In-work benefits, targeted on those in employment, are not expected to have a large impact on overall poverty reduction. However, evidence demonstrates that in-work benefits are cost-effective as a redistributive instrument when in-work poverty is high. On the other hand, they may cause a reduction in the number of hours worked if an individual decides to work fewer hours to be eligible to the benefit. Nevertheless, recent studies confirm that the overall employment effect is still positive (Immervoll and Pearson, 2009). Statutory minimum wages are a complementary instrument to in-work benefits in order to increase the financial gain from employment for those in low-paid jobs. However, in-work benefits have the advantage that they can be conditional on a minimum number of hours worked per week and they do not increase the labour cost for the employers (Burkhauser *et al.*, 1996). Effects on labour market participation, as well as distributional effects, also make in-work benefits particularly favoured in the political agenda of countries traditionally not characterised by generous social assistance programmes.

Half of the OECD countries have in-work benefits. Across countries the schemes differ in important features related to their generosity, their profile and their targeting on individuals with low earnings rather low hourly wages. Moreover the unit of assessment of the benefits, either family or individual, is considered one of the most important issue to assess the extent to which there is a trade off between the redistributive and incentive effects associated with the in-work benefits (see Immervoll and Pearson (2009) for a recent review). Family based in-work benefits are well established in Anglo-Saxon countries. The Family Income Supplement was introduced in the UK in 1971 and has been modified several times since then, with the introduction of the Working Family Tax Credit (1999) and, most recently, the Working Tax Credit (Brewer, 2003). The US, Ireland and New Zealand have also introduced

family based in-work benefit schemes. Other countries, such as Australia, Canada, Belgium and France, have implemented individual in-work benefits, targeting individual family members rather than the family as a whole. See section 3 for a detailed description of the structure of both types of in-work benefits.

The two different types of in-work benefits share common objectives. First, they aim to enhance labour market participation, through additional financial incentive to work. Second, they favour redistribution of financial resources to low income groups, who very often are those at the margin of the labour market. Individual in-work benefits tend to emphasize the work-incentive aspects and are recommended from a purely employment point of view (OECD, 2003). Family based policies may discourage the labour market participation of the second earner due to income effect: in a couple the additional employment income would lead the family to lose the eligibility to receive the benefit. This scenario has been confirmed by *ex ante* and *ex post* evaluations of the reforms of the British in-work benefits (Brewer *et al.*, 2006; Francesconi and Van der Klaauw, 2007) and may be crucial in those countries where non-employment is concentrated among wives. On the other hand, individual policies may be less well targeted on poor households, due to individuals with low earnings receiving the benefit irrespective of partner's earnings and other family's non-labour income. This type of support to members of non-poor households with little if any personal earnings might be particularly common in countries where extended families are more common.

The increasing role played by the in-work benefits in the Anglo-Saxon welfare systems and their extension to continental European countries, with positive evidence of redistributive effects and social inclusion of low skilled workers, should encourage other countries to study the feasibility of implementing such policies. In particular, these policies may be one of the pillars of redesigned welfare systems of the Southern European countries (Boeri and Perotti, 2001; Owens, 2006). As explained in Section 2, Greece, Italy, Portugal and Spain, as well as geographical location and cultural stereotypes, share common features in their welfare systems. A reduction in the poverty rates (the highest in Europe) and an increase in the women labour participation rate (much lower than in other countries) are two important policy issues currently under debate in the Southern European countries (OECD, 2006). However, the potential role of in-work benefits as part of a redesigned welfare system has not been analysed yet.

This paper aims at filling this gap, analysing the effects of implementing two different types of in-work benefits in Greece, Italy, Portugal and Spain. The analyses are based on EUROMOD, the multi-country Europe-wide tax-benefit model, and the baseline scenario refers to the 2003 tax-benefit system. The first in-work benefit is a family based policy using the British Working Tax Credit as an exemplar (Brewer, 2003). The second in-work benefit is an individual scheme implemented as a low wage subsidy conditional on working at least 16 hours per week (Phelps, 1994). In order to compare the two in-work benefits, both policies are simulated to have the same budget cost within each country. Previous studies show that the effects of new in-work benefits depend heavily on the structure of the benefit and its interaction with the national framework. In fact, in-work benefits are designed to increase the gap between incomes of individuals in and out of work and they must be evaluated taking into account the whole tax-benefit system and the existing framework conditions (Bargain and Orsini, 2006; Bertola, 2000; Haan and Myck, 2007). Tax-benefit rules, income and wages distribution and household composition in the considered countries, make the comparison between a family based in-work benefit and an individual in-work benefit particularly relevant. Moreover, the Southern European countries are characterised by relevant informal labour markets and high level of tax evasion and in-work benefits, increasing the net pay-off of a regular job, might also reduce the incentive to low earnings workers to evade taxes.

2. Economic and institutional framework

A long-standing issue in the debate about welfare typologies is whether or not Greece, Italy, Portugal and Spain form a separate welfare regime. In his seminal work Esping-Andersen (1990) did not systematically include the Mediterranean countries, considering only Italy along with other conservative regimes. Since then the “Latin Rim” countries (Leibfried, 1992) have become the subject of a lively debate. On the one hand, Katrougalos (1996) supports the idea of considering the Southern European countries as underdeveloped cases of the conservative regime. Esping-Andersen (1999) is hesitant to add new typologies to his original three. On the other hand, other scholars have pointed out common characteristics which make the Southern European countries a separate cluster. To some extent these countries share a lack of minimum social assistance (Leibfried, 1992), fragmented income maintenance schemes, universal health systems, low state penetration and diffusion of clientelism (Ferrera, 1996), a low level of public expenditure with a predominance of

contribution-financing (Bonoli, 1997) and the prominent family role as an informal but effective social safety net (Naldini, 2003).

Such a debate (Arts and Gelissen, 2002) has favoured a greater knowledge of the challenging issues related to the welfare provision in the Southern European countries. Although there was growth in total social spending in the 1990s, the income maintenance system is still a fragmented and corporatist one (Ferrera 1996, 2005), providing hyper-protection to some individuals (namely those receiving pensions based on occupational status, in particular in Greece and Italy) and very low, if any, support for others (namely pensioners without enough contributory history, uninsured unemployed, first-time job seekers, and families with children without sufficient earnings).

The rather limited level of public support through the tax-benefit system for the working age population can be illustrated using the example of a stylised one-earner couple with two children aged respectively 9 and 7. Figure 1 reports the budget constraint chart for such a family in Greece (dotted-dashed line), Italy (solid line), Portugal (dotted line) and Spain (long dashed line). The disposable income is reported in the vertical axis, corresponding to different levels of gross earnings reported on the horizontal axis. The 45° line represents the situation pre-taxes and pre-benefits: a disposable income above such a line indicates net public support while an income below such a line indicates that taxes and social contributions exceed benefits. As is clear from Figure 1, Portugal is the only country with a national rights-based minimum guaranteed income scheme (i.e. Social Insertion Income), guaranteeing a minimum support to families in need if they accept being involved in a social integration plan, which may include, among other things, vocational training, return to school, access to health services and integration into the labour market. While most of the Spanish Autonomous Communities operate minimum income schemes (in some cases of limited coverage and subject to budget constraints and hence not included in Figure 1), Greece and Italy (with the exception of a few initiatives by regional and local authorities) are characterised by the absence of any generalised income support schemes.²

Families receive low public transfers to support children and most of them are channelled through the tax system, excluding by design the poorest families as most of the tax concessions are non-refundable (with the exception of a refundable tax credit introduced in Greece in 2002). Benefits conditional on employment status exist in Italy and Spain but are

² In addition limited Housing Benefits are provided in the form of rent subsidies (Greece, Italy), means-tested housing benefits (Portugal, some regions in Spain), non refundable tax credit on mortgage loan interests and/or housing expenses (all countries).

limited and only targeted on specific categories of people. The shape of the Italian budget set is due to the Family Allowances which are paid when at least one individual works as an employee or temporary worker and are subject to the employment income being at least equal to 70% of the whole family members' income. The amount of this transfer is means-tested at the family level and related to the number of family members. Since 2003 Spanish working mothers receive a refundable tax credit up to the limit of social contributions paid, until the child is one year old.

On the revenue side, social insurance contributions are levied on an individual basis. They are deductible from income tax and are applied with a proportional tax rate (in some cases depending on occupation and industry and subject to minimum and maximum limits). The income tax schedule is progressive in all four countries. Greece, Italy and Spain (where family units may file joint tax returns) operate an individual based tax system, while Portugal imposes a mandatory joint taxation for couples using the splitting method.

< FIGURE 1 around here >

Poverty and inequality rates are among the highest in the EU-15: in 2007, the share of people at risk of poverty ranges from 18% in Portugal to 20% in Greece and Italy, against an EU-15 average of 17%. Income inequality has an even wider spread, with Gini indices ranging from 0.31 (Spain) to 0.37 (Portugal) against an EU-15 average of 0.30.

In Greece, Portugal and Spain employed individuals are entitled to receive at least a statutory minimum wage rate, while in Italy a minimum wage is set through collective bargaining agreements and only in some industrial sectors. However, a large proportion of the employed population (from 10% in Italy and Portugal to 14% in Greece) belongs to poor households, proving that earnings alone are less effective in securing individuals against the risk of poverty compared to the European average level.

The underdevelopment of social services related to childcare and the increasing needs of care for the elderly make the role of the family even more important as a social safety net, with implications for human capital accumulation and labour market participation of women which are lower than the European average (see Table 1). The exception is represented by lone mothers, whose number has increased over the last decade, and are more likely to work than women in couples due to the absence of relevant social protection schemes

< TABLE 1 around here >

Given such an economic and institutional framework, it is clear that the Southern European countries show a number of common features that can make in-work benefits particularly well tailored as part of a reformed welfare system. In particular the absence of income support schemes (with the exception of Portugal) makes those with a low paid job and consequently potential recipients of in-work benefits, more at risk of poverty. This enhances the potential role of in-work benefits in promoting social inclusion and in supporting the income of those at the bottom of the income distribution.

3. Simulation: model, data and approach

This paper uses EUROMOD, the multi-country Europe-wide tax-benefit model covering 19 European Union Member States. EUROMOD is a static microsimulation model which covers monetary incomes. It combines information on relevant policy rules with detailed and representative data on individual and household circumstances drawn from national household income surveys.

EUROMOD simulates most direct taxes, social contributions and cash benefits except those based on contributory history as this information is not available from input datasets. Instruments not included in the simulation are taken from the data. EUROMOD is of value in understanding how different policies in different countries may contribute to common objectives through (i) cross-country comparison of specific tax-benefit instruments, (ii) policy and whole system swapping, and (iii) analysis of the impact of common changes across countries. Alongside distributional effects, it provides the possibility of analysing the work incentives associated with a given policy reform and to derive the budget sets that an individual faces under different labour market choices. One of the main aims of EUROMOD is to maximise comparability while maintaining transparency about real differences across countries (Sutherland, 2007). This goal is achieved by a modular system design, without any part of the national tax-benefit system being hard-wired in the code. Policy swapping exercises are particularly facilitated by the flexible definition of the units of assessment (groups of people on which the tax-benefit rules are to be performed) and income concepts in the model (aggregations of monetary variables used as both input to tax-benefit algorithms (e.g. means for the calculation of social benefits, base of personal tax) and as output of the model (e.g. disposable income). EUROMOD outputs have been validated and tested at micro (i.e. case-by-case validation) and macro level, comparing the aggregate indicators and

distributive statistics with external sources and national microsimulation models, and they have been used in many applications.³

The baseline scenario of the analysis reported in this paper refers to the 2003 tax-benefit system. The Greek data come from the Household Budget Survey (2004) which contains information on 6,555 households and 17,386 individuals. The Portuguese and the Spanish data are from the European Community Household Panel (respectively 2001 and 2000 waves). The Portuguese data include information on 4,588 households and 13,237 individuals. The Spanish sample contains information on 5,048 households and 14,787 individuals. The Italian data come from the first wave of the new European Union Survey on Income and Living Conditions (EU-SILC 2004) which contains information on 24,270 households and 60,847 individuals. In the case of Portugal and Spain, monetary values are updated to the reference year (i.e. 2003) while demographic and labour information are kept constant.⁴

The recent developments of the in-work benefits in the UK suggest a separate structure for the in-work benefits and the benefits for families with children (Brewer, 2003). In 2003 the Working Families Tax Credit was subsumed within a new Child Tax Credit and the Working Tax Credit. The Working Tax Credit is the first in-work benefit for childless people in the UK. The decision to separate the two tax credits was driven by two aims. First, to simplify the public support for families with children for whom, in addition to the universal child benefit, the Child Tax Credit represents a means-tested benefit merging together several previously existing benefits targeted at children. Second, to make employment financially more attractive for those on low incomes even if without children, otherwise excluded from this kind of support. Recent studies show the major difficulties faced by low income families even without children: in the US they represent 20% of actual recipients of in-work benefits although the amounts of the benefits are lower than the average due to their family composition and incomes (Eissa and Hoynes, 2008).

Although a joint reform considering both in-work benefits and new ways to support families with children, through both universal and means-tested benefits, would represent a policy option to guarantee targeting objectives and sustainable costs (Matsaganis *et al.*, 2006), the

³ For more detailed information and documentation see the EUROMOD web site at <http://www.iser.essex.ac.uk/research/euromod>

⁴ Self-employed workers are included in the samples but they are not potential recipients of the simulated in-work benefits due to limitations of the data in recording the number of hours worked as self-employed.

main interest of this paper is to compare the effects of a family based and an individual in-work benefit (the latter by design not affected by the structure of the family), without modifying the support the families currently receive on account of having children.

I simulate the family based in-work benefit using the UK Working Tax Credit as an exemplar (Brewer, 2003). Such a scheme is a well-known example of family based in-work benefit and there are many studies evaluating its impact (Blundell, 2006). The main eligibility condition for the Working Tax Credit is that at least one person in the family works 16 or more hours per week (30 or more if there are no children).⁵ The amount of the tax credit depends on gross family income⁶ and it varies according to the composition of the family. Above the given thresholds the tax credit is tapered out at the rate of 37%. The withdrawal rate has been reduced over the years to such a level in order to reduce the disincentives to work. Moreover, the potential drawback of disincentive effects faced by individuals in the phase-out region of the benefit is not an issue particularly relevant in the Southern European countries where low earnings individuals, due to the absence of generous means-tested benefits and relatively low taxation, face low replacement rates.

In the analysis, the ratios between the thresholds of eligibility and the maximum amounts of the benefit are the same as in the UK. I determine the value of such parameters through iterative simulations in order to simulate a benefit which costs, in each country, 0.34% of contemporary Gross Domestic Product, the same percentage as it was in the UK in 2003 (HM Revenue and Customs, 2005). This amount does not necessarily correspond to what it would be necessary to spend in order to achieve specific national goals in terms of redistribution of income and incentive effects. However, it represents a common benchmark that makes cross country comparisons possible.⁷ Given this constraint imposed on the cost of the new policy, the parameters of the family based in-work benefit depend on the number of families satisfying the eligibility conditions both in terms of number of hours worked per week and their income. In Portugal, for example, where 79% of households have at least one individual working 16 hours per week compared with 71% in Spain, 66% in Italy and 64% in Greece,

⁵ The assessment unit for the family in-work benefit is defined, as in the UK, as a family composed by each single adult or couple and their children aged below 16 years or below 19 if in full time education and not married.

⁶ Gross income includes all main sources of market income and pensions with the exception of children's earnings.

⁷ The final net cost of the in-work benefits is slightly less than 0.34% of Gross Domestic Product and equal to €464 million in Portugal, €533 million in Greece, £591 million in Spain and €4,066 million in Italy. This is due to a slight reduction of the overall cost of the existing income-tested benefits (i.e. Family allowances in Italy, Child benefit in Portugal and Spain) which now include the new in-work benefits as part of their means.

we can expect larger proportions of households receiving the family based in-work benefit. Moreover, the larger the number of households the lower the expected average amount of the benefit.

Figure 2 and Table 2 show the structure of the family based in-work benefit with the relevant parameters for each country. Families with an annual gross income up to a minimum threshold are entitled to receive the full amount of the benefit if at least one member of the family satisfies the working hours requirements. The maximum amount of the benefit varies if the beneficiary is a single person without children, a lone parent or a couple working part-time or full-time. Incomes above the minimum threshold reduce the benefit at the rate of 37%, and the maximum gross income thresholds at which the benefit exhausts vary according to the family composition.

<FIGURE 2 and TABLE 2 around here>

I simulate the individual in-work benefit as a wage subsidy (Phelps, 1994) for all individuals working 16 or more hours per week. The work requirement implies that beneficiaries of this policy are individuals characterized by low hourly wages and not simply by low earnings, so that creates an incentive for working poor people to work at least part-time. Its structure is depicted in Figure 2 and the relevant parameters are shown in Table 3. I calibrate the phase-in rate of the benefit in order to obtain the same cost as each country's family based in-work benefit. The calibrated rate represents the benefit each individual receives as an additional percentage of the earnings and depends on the number of potentially eligible individuals, who are those working at least 16 hours per week with earnings below the threshold at which the benefit exhausts (14% of individuals in Portugal, 9% in Spain, and 8% in Greece and Italy). The gross earning threshold corresponding to the maximum amount of the benefit is set equal to the fifteenth percentile of the earnings distribution. Earnings above such a threshold reduce the entitlement at the rate of 37% up to the gross earning threshold at which the benefit exhausts.

< TABLE 3 around here>

Three assumptions underlie the simulations. First, the simulation of the new in-work benefits does not consider how to cover their cost. The assumption is that part of the cost would be covered by an increase in the tax revenue of the direct taxes levied on the increased income associated to the additional employment created by the in-work benefits and of indirect taxes,

expecting that most of the increase in the income of a low earnings individual is consumed. Moreover each country would cover the remaining cost through specific actions (i.e. reduction in other public expenditures, increase in capital or indirect taxation, etc.). Second, all the administrative burden and procedures involved in such schemes are ignored. However, the British experience reveals the relevance of both the timing and the structure of the payment system. The difficulties related to the expensive administration of the benefits are one of the most convincing arguments against the schemes in countries where they are in place. Moreover, in countries with a high level of informal economics, it would be necessary to implement clear procedures to disincentivise any form of tax evasion which might make individuals eligible to the new benefits. Third, the individuals receive the full amount of the in-work benefits without any reduction in the gross wage. On the one hand, this requires procedures to prevent employers decreasing the gross wage below the level that existed before the introduction of the in-work benefits. On the other hand, the introduction of a binding minimum wage in countries where it does not exist yet (e.g. Italy) and in-work benefits could be a joint step. This occurred in the UK where the minimum wage came into force in April 1999 before the introduction of the Working Families' Tax Credit.

4. Is there a trade off between the redistributive and the incentive effects?

The proportion of households who receive the family based in-work benefit ranges from 10% in Italy, 11% in Greece, 14% in Spain to 17% in Portugal. The proportion of households receiving the individual in-work benefit is greater in all countries: 18% in Italy and Greece, 23% in Spain and 33% in Portugal. The main reason for the differences is that due to the earnings thresholds, two low earning individuals may be able to receive the individual in-work benefit separately but not the family benefit. Moreover other incomes in addition to earnings (e.g. capital incomes, pensions, private transfers) are taken into account when assessing the means of family based in-work benefit preventing some families from receiving it. Given the assessment of the eligibility conditions at the individual level, more than one person receiving the individual in-work benefit may belong to the same household: this happens in 13% of households receiving the benefit in Italy, 19% in Spain, 20% in Greece and 29% in Portugal.

As expected, the average benefit amount depends on the per capita Gross Domestic Product of the country and, given the constraints imposed on the total cost, on the number of households receiving the benefit. The countries which show larger proportions of recipients

tend to report less generous average benefit amount. Italy, which has the lowest percentage of beneficiaries, present the most generous benefit amount, both in the case of the family based in-work benefit (€1,900 per year) and the individual in-work benefit (€850 per year). At the other extreme, the average amounts of the benefits in Portugal are approximately €800 per year for the family-based in-work benefit and €360 per year for the individual benefits. In Greece (Spain) the average family based in-work benefit is around €1,100 (€1,500) and the individual €600 (€780) per year.

This is the first lesson learned from a cross-country perspective: given the same structure of the in-work benefits, the participation rates and the level of income of the potential eligible people drive the final results in a substantial way. In Portugal, where a larger proportion of households have at least one individual working more than 16 hours per week with relatively low earnings, more resources would be necessary in order to give substantial amounts of benefits to those who are entitled to receive them. This confirms the risk that these policies might have too many beneficiaries when wages are not dispersed enough (Boeri *et al.*, 2000).

4.1. Redistributive effects

Without taking into consideration any potential behavioural effect, Table 4 shows the reduction in poverty due to the introduction of in-work benefits expressed in percentage points from the baseline. Relative to the poverty rates in the baseline, the reduction in poverty is larger when the poverty line is set as 40% of median equivalent income rather than as 60%, in particular when analysing the family based in-work benefit. This is particularly true in the case of Portugal (with a poverty reduction of 1 percentage point which corresponds to a 20% reduction of poverty rate) and Italy (with a poverty reduction of 0.7 percentage point which corresponds to an 11% reduction of poverty rate). It contrasts with the situation experienced in other countries where individuals at the bottom of the income distribution rely on pensions and social assistance schemes more than on their earnings and in-work benefits (Bargain and Orsini, 2006). The percentage points reduction in poverty rates among employed individuals is almost the same as the reduction for the overall population, implying a much larger relative effect, due to the smaller proportion of poor among employed individuals than of the overall population. In the Southern European countries a policy oriented to the working poor, as with the case of in-work benefits, is also a means to support a significant proportion of the poorest individuals.

With the exception of Spain, the contribution of family based in-work benefits to reduce the proportion of people at risk of poverty is larger than that of individual in-work benefits. This is due to the greater generosity of family based in-work benefits. Moreover they are means-tested at family level and hence more likely to be better targeted on the poorest families. Recipients of individual in-work benefits may belong to non-poor households, reducing the overall redistributive effects of the policy.

<TABLE 4 around here>

However, in countries characterized by a large proportion of multigenerational households (10% of the total in Spain, 9% in Portugal, 6% in Greece and 4% in Italy) the redistributive effects of means-tested policies are not clear *a priori*. On the one hand, it may happen that a family entitled to receive the family based in-work benefit belongs to a well-off household due to the presence, for example, of grandparents with their own income sources. In this case the family based in-work benefits are not targeted on the very poorest households. On the other hand, it is likely that in some households (3% in Italy, 4% in Greece and Spain and 9% in Portugal) there is more than one person receiving the individual in-work benefit enhancing its redistributive effect. As a consequence, households at the top of the income distribution may receive family based in-work benefit and it may happen, as in Spain, that individual in-work benefit is more redistributive than family based in-work benefit.

Looking at the distribution of gainers, defined as those households whose disposable income increases by at least 5%, it emerges that in presence of family in-work benefits, gainers are concentrated among the first (Portugal) and the second (Greece, Italy) quintile groups, with the exception of Spain where gainers are spread over the income distribution. In all countries but Spain, family based in-work benefits lead to a larger proportion of gainers at the bottom of the income distribution than individual in-work benefits which have a bigger impact on the households in the middle of the income distribution.⁸

In all countries, the households at the bottom of the income distribution experience the largest increase in their income (around 4% in Italy and Portugal, 3% in Greece and 2% in Spain for the households in the first quintile group) in presence of the family based in-work benefits, with a decreasing variation along the income distribution. In presence of individual in-work benefits, the increase in income is more spread with more equal variations for the households

⁸ Detailed results are available on request from the author.

in the first three quintile groups. This is particularly true in Spain where the individual in-work benefit leads to a larger income variation in the middle part of the income distribution than the family based in-work benefit.⁹

4.2 Economic incentives and second round redistributive effects

In order to evaluate the extent to which in-work benefits enhance the payoff of taking a paid job, I consider how the incentives to work change if a woman decided not to work or to work respectively part-time (20 hours per week) or full-time (40 hours per week). I look at the incentive to work faced by women aged between 18 and 65 years, lone mothers and women in couples separately. As a static indicator to evaluate the incentive effects of the in-work benefits, given each of the three potential work alternatives of the woman, I consider the percentage change in household disposable income due to the introduction of the simulated in-work benefits relative to the baseline system. Being assessed at the household level, such a measure takes into account any variation in the income of the household. On the one hand, an increase in the household disposable income when the woman is out of work represents a disincentive for the woman to work. The new benefits received by other members of her household make the household as a whole better off than in the baseline system. On the other hand, an increase in household income when the woman decides to work captures the positive contribution of the new benefits to the well-being of the household, increasing the incentives for the woman to work relative to the baseline system.

The assumption when the woman is out of work is that she does not qualify for unemployment benefits but the household as a whole may receive any other existing income based transfers. I predict a potential wage for all women, on the basis of the current hourly wage received by those in employment.¹⁰

Looking at the proportions of households who experience a substantial increase in their income (i.e. larger than 10%) in the different scenarios (Table 5) it emerges that more women

⁹ The redistributive effects of the simulated new benefits are robust to the design of each specific in-work benefit. Reducing the phase out rate, increasing the threshold corresponding to which the full amount of the benefit is paid, increasing the phase in rate (individual in-work benefit) or the maximum amount of the family-based in-work benefit lead to consistent results across countries both in terms of poverty reduction, additional cost and increased number of recipient households. The effects of each change to the simulated benefit are very similar across countries. In the case of Spain, the number of beneficiaries of the family-based in-work benefit does not increase as in the other countries because, as already noted looking at the gainers of the simulated benefits, the beneficiaries are more spread along the income distribution and hence are less affected by variations to the parameters of the benefit. Detailed results are available on request from the author.

¹⁰ I estimate a Heckman selection-corrected wage equation. The coefficients of the outcome equation (with education levels and age as regressors) and the participation equation (with marital status, age of the youngest child and other household income as further restrictions) are in the expected direction. Results are available on request from the author.

in couples face disincentive effects in presence of family in-work benefit than in presence of individual benefit in particular in Portugal (10% versus 1%) and Italy (7% versus 2%). The disincentive effects are due to the assessment of the benefits at family level because other members of the family receiving the in-work benefit make the household as a whole better off than in the baseline system when the woman decides to stay out of work. However, the disincentive effects embodied in the family based in-work benefits always involve a small minority of households. Individual in-work benefits are slightly better targeted to encourage women in couples to work than family based in-work benefits. When the woman works part-time, the differences between family and individual in-work benefits are remarkable, in particular in Italy and Spain where the individual in-work benefits provide a substantial increase in income for a larger share of households (9% in Italy and 12% in Spain) than the family based in-work benefits. This is due to the presence in the same household of more than one recipient of the individual in-work benefit and the relative generosity of its amount. As expected, when a woman works full-time she is more likely to lose the entitlement to both the family based and the individual in-work benefits: as a consequence, fewer households experience an increase of at least 10% in their income after both types of benefits.¹¹

For lone mothers the results are partly different since, as expected, both the family based and the individual in-work benefits provide stronger incentives to work than for women in couples.

Lone mothers are likely to be entitled to both types of benefits. However, the family based benefits are much more generous and this results in higher incentive effects¹²: the majority of lone mothers face a substantial increase in their income in Greece (79%), Portugal (77%) and Italy (63%) in presence of family based in-work benefits. However, in Spain more lone mothers (47% versus 36%) experience an increase in their household income in presence of the individual benefit due to the presence of children working for a low wage and receiving the individual benefit. At the same time the possession of other incomes rather than earnings

¹¹ In the countries considered, when the woman is out of work, the percentage change in household disposable income is larger in presence of the family based in-work benefits (2.6% in Italy and Portugal) than in presence of the individual in-work benefits (0.7% in Italy and 0.8% in Portugal). The percentage change in income is larger when the woman is out of work than when she works with the exception of Greece: on average, the disincentive effect is greater than the incentive effect. When the woman works, the percentage change in household disposable income is always larger in presence of the individual in-work benefits, in particular when the woman works part-time (in Spain 6.1% versus 0.7%, in Italy 5.8% versus 1.3%). The incentives to work full-time are still greater in presence of the individual benefits but they are generally less pronounced. Detailed results are available on request from the author.

¹² The average increase in income, when a lone mother works part-time ranges from 8% in Spain to 31% in Greece in presence of the family based benefit and from 7% in Portugal to 10% in Greece in presence of the individual one in all countries

exhausts the family based benefit. As already noted for women in couples, the incentive to work part time is greater than that to work full time also for the lone mothers. However, a substantial proportion of lone mothers also experiences an increase in household income even if they decide to work 40 hours per week (52% in Greece and 40% in Portugal after the family based in-work benefit). For lone mothers, the disincentive effects embodied in the family based in-work benefits are less than for women in couples as fewer family's members are eligible to receive the benefits when the mother is out of work. However, the presence of children eligible to receive the individual in-work benefits makes the disincentive effects more pronounced after the individual policies.

<TABLE 5 around here>

These results confirm the positive incentive effects of in-work benefits, in particular of the family based in-work benefits for lone mothers, as also assessed in the UK (Brewer *et al.*, 2006). Moreover, it seems that the disincentive effects faced by the secondary earners in a couple in presence of family based in-work benefits, although larger than those due to the individual benefits, involve only a minority of households (from 3% in Spain to 10% in Portugal). This is a partially different response to these kinds of policy compared with that obtained from an *ex ante* evaluation of the same policies in other countries characterized by a relatively high female labour market participation. In Germany, for example, the disincentive effects for women in couples have been considered one of the main obstacles to importing the British model of in-work benefit (Haan and Myck, 2007).

Assuming that the women with the highest incentive are the most likely to enter the labour market in presence of in-work benefits, it is possible to assess which would be the redistributive effects of the new benefits under some potential scenarios in which more women are simulated to be in work (i.e. second round redistributive effects). Following the magnitude of the behavioural changes after recent reforms in some European countries (see Bargain 2008 for a review), I simulate the effects of an additional 2% and 5% of women (both in couples and lone mothers) starting a new job, part-time and full-time respectively, due to the introduction of the in-work benefits. As expected, if a woman starts working part-time her family might still be entitled to the family based in-work benefit. 2% (5%) of women starting working part time would reduce the extreme poverty rates (based on poverty lines set at 40% of the median) of around 1 (2) percentage points in Greece and Italy, with a smaller reduction in Portugal. As observed above, in Spain the individual in-work benefit has

larger and more spread effects along the income distribution than the family based in-work benefit and an additional 2% (5%) of women working part time would reduce the poverty rates at 60% of around 1.5 (2) percentage points. More women working full-time would make their families losing the entitlement to the family-based in-work benefit while the women with low earnings might still be entitled to the individual in-work benefit. 2% (5%) of women starting working full time would reduce the poverty rates (based on poverty lines set at 60% of the median) of around 1 (2) percentage point.¹³

The analysis of the economic incentives and the second round redistributive effects does not take into account the time spent by women in caring responsibilities and the availability of job offers in the market, which is likely to be a serious issue in a period of economic downturn. However, even if the labour market does not absorb the potential additional labour offers of individuals entitled to the benefits, in-work benefits may play an important role as a cushion to negative income shocks when one of the partners loses their job, enhancing their redistributive effects towards low income households.

5. Conclusions

The increasing role played by in-work benefits in the Anglo-Saxon welfare systems, with positive evidence of redistributive effects and social inclusion of low skilled workers, should encourage other countries to evaluate the feasibility of implementing such policies. Taking into account the institutional framework conditions and making use of microsimulation techniques in a cross-national comparative view, in this paper I have considered the implementation of two forms of in-work benefits in the Southern European countries. The first is a family based in-work benefit, which borrows the structure of the well-known UK Working Tax Credit. The second is an individual in-work benefit in the form of a low wage subsidy. The simulation implies the same resources as a share of national Gross Domestic Product in each country as in the UK. Socio-economic conditions and labour market characteristics of the Southern European countries make the comparison between the two types of in-work benefits particularly relevant.

In a cross-national perspective it emerges that, given the same structure of the in-work benefits, the combined effect of family composition, family income and individual earnings,

¹³ Detailed results are available on request from the author.

drive the final results in a substantial way. On the one hand, in countries characterized by relatively high employment rates and wages highly concentrated at the bottom of the wage distribution, such as Portugal, in-work benefits might lead to too many beneficiaries providing less generous support. On the other hand, where both income and wages are relatively more dispersed, as in Italy, fewer individuals may receive a more generous amount. Moreover in countries characterized by the presence of extended families, such as Spain, in-work benefits cannot be narrowly targeted.

Although the redistributive effects of in-work benefits are modest, and they cannot be considered as a primary tool in poverty reduction, in the Southern European countries they are a means to support the working poor who are among the poorest people. This contrasts with the situation experienced in other countries where individuals at the bottom of the income distribution rely on pensions and social assistance schemes more than on their earnings. In general, family based in-work benefits seem to be more redistributive. However, the presence of extended families does not allow for such policies to be well targeted on the very poorest. Individual policies lead to better incentives to work than family based in-work benefits, in particular for women in couples whose labour market participation is far below the European average. However, the disincentive effects embodied in family based in-work benefits always involve a small minority of households. Therefore, the expected trade-off between the redistributive and the incentive effects of the two types of in-work benefits is rather weak and more limited than what is found in countries with higher female labour market participation. Although the analysis presented in this paper is purely static, the main findings are confirmed by the results of an econometric labour supply model used to estimate the behavioural responses after the potential introduction of different in-work benefits in Italy (Figari, 2009). Finally, differences across countries provide insights into the importance of looking closely at the institutional framework, family and household characteristics and labour market participation.

The analyses confirm that in-work benefits might be one of the pillars of a redesigned welfare system in the Southern European countries in order to enhance the economic position of the working poor and to increase female labour market participation, in particular of women in couples. The positive incentive effects faced by lone mothers should also be considered with attention given the increasing number of lone mothers in the Southern European countries and their high risk of poverty.

However, in-work benefits should be part of a more comprehensive reform including a new consideration of the family role in the care of both the elderly and children (Daly and Lewis 2000). Financial support for those living in low income families and more availability of institutionalized places should be seen as complements, in order to allow women to find jobs not only more financially attractive, but also reconcilable with caring responsibilities.

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Tables

Table 1 Social Indicators (2007)

	<i>Proportion of poor individuals^a</i>	<i>Proportion of employed individuals who are poor^b</i>	<i>GINI index</i>	<i>Proportion of low educated women^c</i>	<i>Female employment rate^d</i>	
					<i>All women</i>	<i>Low educated women</i>
	%	%			%	%
Greece	20	14	0.34	39.2	53.5	39.0
Italy	20	10	0.32	47.0	51.5	33.6
Portugal	18	10	0.37	70.0	68.2	62.8
Spain	20	11	0.31	49.4	58.8	42.9
EU - 15	17	8	0.30	33.8	64.2	46.4

Notes: ^a Proportion of individuals with equivalent income (using the OECD modified equivalence scale) below 60% of the median. ^b Proportion of employed individuals with equivalent income (using the OECD modified equivalence scale) below 60% of the median. ^c Proportion of the female population aged 25 to 64 having completed at most lower secondary education. ^d Number of women aged 25 to 64 in employment (and with at most lower secondary education) divided by the total number of women of the same age group. Source: Eurostat website (<http://ec.europa.eu/eurostat>).

Table 2 Parameters defining the family based in-work benefit scheme

	<i>Maximum benefit amount</i>			<i>up to which the maximum benefit is paid</i>	<i>Gross income thresholds at which the benefit exhausts</i>		
	<i>Single working full time</i>	<i>Lone parents and couples working part time</i>	<i>Lone parents and couples working full time</i>		<i>Single working full time</i>	<i>Lone parents and couples working part time</i>	<i>Lone parents and couples working full time</i>
	Greece	2,045	2,884		3,475	4,824	10,351
Italy	3,008	4,243	5,112	7,097	15,228	18,563	20,914
Portugal	1,394	1,966	2,369	3,289	7,057	8,603	9,692
Spain	1,530	2,158	2,600	3,609	7,745	9,441	10,636

Notes: values in € per year. Source: Author's calculations based on EUROMOD.

Table 3 Parameters defining the individual in-work benefit scheme

	<i>Phase in rate (%)</i>	<i>Maximum benefit amount</i>	<i>Gross earnings thresholds</i>	
			<i>corresponding to maximum benefit</i>	<i>at which the benefit exhausts</i>
Greece	14.6	1,096	7,508	10,471
Italy	16.2	1,563	9,647	13,868
Portugal	13.0	680	5,236	7,073
Spain	20.9	1,502	7,189	11,249

Notes: values in € per year. Source: Author's calculations based on EUROMOD.

Table 4 Poverty effects of in-work benefits (percentage points)

	<i>Family based in-work benefit</i>		<i>Individual in-work benefit</i>	
	<i>Overall population</i>	<i>Employed individuals</i>	<i>Overall population</i>	<i>Employed individuals</i>
<i>Poverty line equal to 40% of median equivalised income</i>				
Greece	-0.63	-0.57	-0.34	-0.29
Italy	-0.74	-0.68	-0.34	-0.36
Portugal	-0.96	-0.75	-0.37	-0.47
Spain	-0.28	-0.31	-0.33	-0.36
<i>Poverty line equal to 60% of median equivalised income</i>				
Greece	-1.35	-1.35	-0.62	-0.71
Italy	-1.56	-1.48	-0.59	-0.78
Portugal	-1.18	-1.09	-0.72	-0.64
Spain	-0.28	-0.30	-0.89	-1.03

Notes: Percentage points reductions in proportion of poor individuals with respect to the baseline system (2003), by policy regime. Poor individuals are those with equivalent income (using the OECD modified equivalence scale) respectively below 40% and 60% of the median. The proportions of poor individuals after the introduction of the in-work benefits are based on the same poverty line as in the baseline system in order to disregard changes in median income due to the introduction of the new benefits.

Proportion of poor individuals (%) with poverty line at 60% (40%) of the median in the baseline system: Greece 20 (8), Italy 18 (7), Portugal 21 (5) and Spain 19 (6). Proportion of employed poor individuals (%) with poverty line at 60% (40%) of the median in the baseline system: Greece 11 (4), Italy 11 (4), Portugal 11 (2) and Spain 10 (3). Source: Author's calculations based on EUROMOD.

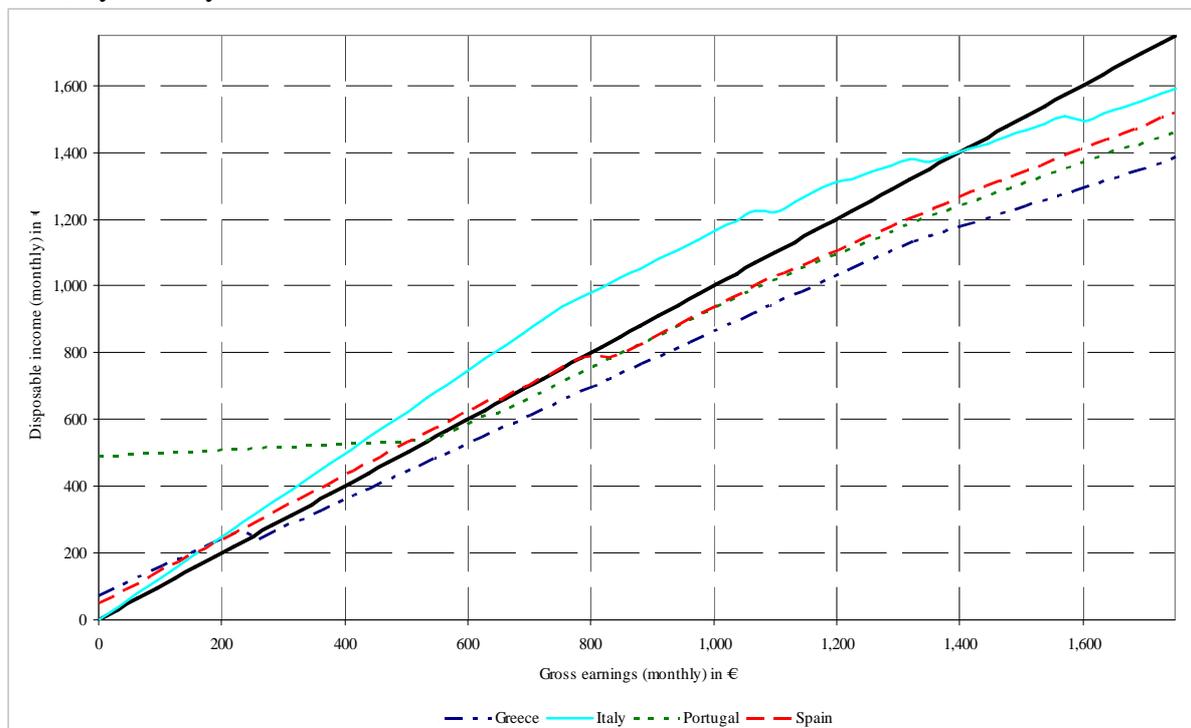
Table 5 Employment incentives of in-work benefits

	<i>Women in couples</i>			<i>Lone mothers</i>		
	<i>Out of work</i>	<i>Part time</i>	<i>Full time</i>	<i>Out of work</i>	<i>Part time</i>	<i>Full time</i>
<i>Family based in-work benefit</i>						
Greece	6,2	5,8	5,0	2,2	79,1	52,5
Italy	7,5	4,8	2,0	0,8	63,5	20,3
Portugal	9,9	5,1	1,5	2,6	76,9	40,5
Spain	2,9	1,8	1,2	0,9	36,1	1,9
<i>Individual in-work benefit</i>						
Greece	2,1	7,0	5,1	4,2	47,1	13,4
Italy	2,3	9,5	1,0	2,1	46,9	0,4
Portugal	1,0	5,2	0,6	8,7	24,8	1,3
Spain	2,2	12,5	1,5	3,0	46,8	4,6

Notes: Percentage of households with variation between household disposable income pre and after the introduction of the new benefits in the three different work alternatives larger than 10%, by partnership status. Women aged 18 - 65 years old. Lone mother are women with at least one child younger than 18 years and without partner. Source: Author's calculations based on EUROMOD.

Figures

Figure 1 Budget constraint for a one-earner couple with two children (9 and 7 years old) in 2003, by country .



Notes: Gross earnings are derived assuming hourly wage equal to the first quartile of the earning distribution in each country. Individuals are supposed to be not eligible to receive any unemployment benefits, prefiguring the long term situation when the potential unemployment benefits are exhausted. In all four countries the duration of unemployment benefits is limited, mostly depending on the age of the claimant (Italy and Portugal) or contributory history (Greece and Spain). Regional Minimum Income schemes (in Italy and Spain) have not been included in this chart. Source: Author's calculations based on EUROMOD.

Figure 2 Structure of in-work benefits

