EUROMOD
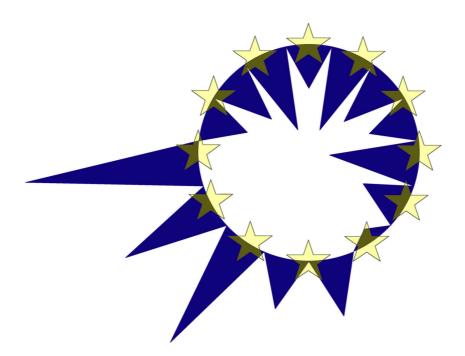
WORKING PAPER SERIES

NON TAKE UP OF SOCIAL BENEFITS IN
GREECE AND SPAIN

Manos Matsaganis, Horacio Levy, Maria Flevotomou

November 2010

NON TAKE UP OF SOCIAL BENEFITS IN GREECE AND SPAIN[1]

Manos Matsaganis, Horacio Levy, Maria Flevotomou[2]

Abstract

Even though interest in non take up of social benefits is considerable in many European countries, the topic is under-researched in southern Europe. The paper provides preliminary estimates of the extent of non take up of two pairs of means-tested retirement benefits in Greece and Spain. The benefits examined are (i) the minimum pension supplements *pensioner social solidarity benefit ΕΚΑΣ* and *complementos por mínimos*, and (ii) the social pensions *pension to uninsured elderly* and *pensión de jubilación no contributiva*. The paper finds that non take up of social benefits in the two countries is rather extensive, examines the methodological difficulties inherent in the analysis of non take up, and concludes with a discussion of the results and their implications.

JEL Classification: D31, H31, H53, I38

Keywords: Non take up, means-tested benefits, Greece, Spain

Corresponding author:

Manos Matsaganis
Department of International and European Economics
Athens University of Economics and Business
Patission 76
Athens 10434
Greece
E-mail: matsaganis@aueb.gr

Non take up of social benefits in Greece and Spain

1. Introduction

The policy shift in favour of means-tested benefits in several European countries over the last three decades or so (Gough et al. 1997, Nelson 2010) has been largely based on the assumption that targeting is the most efficient way to reduce poverty (World Bank 1990). The objections to that assumption are well known. As Atkinson (1996) has explained, "the scope of governments to target benefits effectively is limited […] by administrative factors, by the impact on economic incentives and by considerations of political economy". Also, as Korpi and Palme (1998) have pointed out, because of a trade off between the extent of targeting and the size of redistributive budgets, "the more we target benefits at the poor the less likely we are to reduce poverty".

In southern Europe, the recent interest in targeted provision on the part of policy makers has been real, but has produced patchy results. As Matsaganis et al. (2003) and the contributors to a volume edited by Ferrera (2005) have demonstrated, only in Portugal is a minimum income programme available at a national level, providing a social safety net that is universal in scope. In Italy, the termination of a minimum income experiment involving a number of municipalities in 2003, when responsibility for social assistance was devolved to the regions, seems not only to have led to geographical fragmentation, but more generally to have arrested progress towards strengthening the social safety net. In Spain, minimum income schemes are well established in some regions, but provision remains rather rudimentary elsewhere. As for Greece, where the concept of a guaranteed minimum income has never caught the imagination of politicians, social assistance still consists in a plethora of poorly integrated categorical benefits.

Nevertheless, in all four countries the social safety net is relatively tight for one category of citizens: the elderly. Universal coverage is achieved through the provision of minimum pension supplements and social pensions – at least in theory. In practice, there is little evidence on how southern European social safety nets for the elderly are affected by a crucial drawback of means-tested benefits, namely non take up. This paper aims to fill part of this gap, by presenting estimates of non take up of means-tested benefits for the elderly in Greece and Spain in 2004.

The paper is structured as follows. Section 2 reviews the theory and evidence on non take up. Section 3 presents the benefits examined. Section 4 describes the data and explains the methodology. Section 5 discusses the results. Section 6 concludes.

2. **Theory and evidence**

Targeting benefits is subject to errors. These may take the form of "overpayment" of benefits to individuals who are ineligible for them, and would have been identified as such had they disclosed all relevant information about their income and other characteristics. On the other hand, social benefits may not fully reach those eligible for them. This is the case of non take up, defined as the extent to which individuals fail to receive social benefits for which they are actually eligible.

Both types of error have serious implications: they limit the effectiveness of social policies; they introduce disparities of treatment between individuals who ought *ex ante* to be treated equally; and they make the outcome of policy change difficult to predict. Naturally, their fiscal effects are diametrically opposed: while "overpayment" of benefit is costly to government finances, non take up actually saves public money. This asymmetry may partly explain why the latter often receives less attention than the former.

Moreover, as van Oorschot (2002) has observed, "one of the most important factors [for this bias] is the widespread idea that the modern citizen is a rational, calculating individual seeking personal profit from any relationship with the state, not bothered by cultural and personal barriers, such as feelings of shame or insufficient bureaucratic skills. From this perspective, the proper functioning of social policy is seen as being endangered more by over-consumption than by under-consumption of social rights. As a consequence, the existence of under-consumption may easily be underrated."

Non take up, in van Oorschot's phrase, is "strongly inherent to means testing" (2002). In fact, as several surveys have established, non take up of means-tested benefits is widespread across Europe and beyond, spanning a range of 20% to 60%, and seems to be rising over time (Currie 2004, Hernanz et al. 2004, Matsaganis et al. 2008). In contrast, non take up is hardly an issue where universal or contributory benefits are involved.

A variety of factors, operating both at the recipient- and at administrative-level, and influenced by scheme design, have been shown to affect non take up (van Oorschot 2002). While economists (e.g. Moffitt 1983, Atkinson 1996, Duclos 1995) see the claiming process as a utility-maximising decision under uncertainty, sociological insights often find their way into their models. For instance, Moffitt (1983) emphasized *stigma* as a main cost of participation in a means-tested programme, though his model has been extended to include other types of costs.

Drawing on Hernanz et al. (2004), we may group determinants of non take up into four main categories: (a) the expected level and duration of entitlement to benefit, subject to uncertainty about the outcome of application; (b) information costs, i.e. time and effort required for understanding entitlement rules and mastering application procedures; (c) transaction costs associated with gathering proof of eligibility, administrative delays and

errors; and (d) psychological costs including stigma. Clearly, these factors interact with each other: administrative errors will affect the expected level of entitlement, while "handling claims in a way that is experienced by claimants as humiliating or degrading" (van Oorschot 2002) will inevitably raise the psychological costs of claiming.

The focus on the costs and benefits of claiming has proved influential. However, as Currie (2004) has noted, there have recently been two additions to this basic framework. The first concerns the role of social networks in reducing claiming costs, as when the take up rate of a certain benefit by an immigrant or a member of an ethnic group correlates with the participation rate by other members of that group. The second theoretical development underlines "irrational" behaviour in the form of time-inconsistent preferences: given that claiming costs are borne immediately, while benefits occur later and are uncertain, some persons might decide not to claim even though in the future they would find it beneficial to have done so now.

The decision to claim benefit may also be linked with other decisions, e.g. regarding labour supply. For instance, Creedy (2002) has developed a theoretical model showing that take up increases in line with the value of the income threshold and the taper rate (i.e. the rate at which benefit is withdrawn as income rises). While labour supply considerations are important, they are less relevant when the focus is on old age benefits, as in this paper.

Evidence on non take up of means-tested benefits for the elderly is scarce. In Britain, the total cost of claiming *Income Support* for pensioners was estimated at £3 to £4 per week (Hernandez et al. 2006). A study of *Minimum Income Guarantee*, which replaced *Income Support* for pensioners, found that non take up declined as the level of entitlement rose (Pudney et al. 2006). According to the latest official estimate (DWP 2009), non take up of *Pension Credit* (the successor of *Minimum Income Guarantee*) was 30% to 39% by caseload, and 22% to 30%

by expenditure. In the USA, non take up of *Supplemental Security Income*, the largest federal means-tested cash assistance programme, was estimated to be in the range of 40% to 55% (Warlick 1982, McGarry 1996).

In southern Europe, non take up remains overlooked as a policy issue and neglected as a research topic. This certainly reflects the limited significance of targeted provision, but could also be related to the belief that, given the size of the informal economy, non take up must pale into insignificance compared to benefit fraud, even if no evidence is put forward in support of such belief. The specific question this paper aims to address (non take up of means-tested benefits for the elderly in Greece and Spain) has never been studied before.

3. The benefits examined

Retirement benefits in Greece and Spain are typically contributory, earnings-related, provided through social insurance institutions. Non-contributory means-tested benefits play a secondary role, as complements to, or as substitutes of, social insurance pensions.

Two types of benefits are examined here. The first is supplements to contributory pensions, put in place to ensure a certain minimum standard. *Επίδομα κοινωνικής αλληλεγγύης συνταξιούχων* (pensioner social solidarity benefit, for short *ΕΚΑΣ*) in Greece and *complementos por mínimos* (supplements to reach the minimum) in Spain belong to this type.

The second type of benefit is social pensions to elderly persons lacking an adequate contributory record as well as adequate income. *Σύνταξη ανασφαλίστων υπερηλίκων* (pension to uninsured elderly) in Greece and *pensión de jubilación no contributiva* (non-contributory old age pension) in Spain are typical examples.

Table 1 places the benefits examined in the broader context of retirement benefits in the two countries in 2004, our year of reference. In relative terms, spending on the benefits concerned is comparable in the two countries: 0.37% to 0.38% of GDP in the case of minimum pension supplements, 0.10% to 0.12% in the case of social pensions. Also similar is the population share of recipients: 3.6% to 4.4% for minimum pension supplements and 0.5% to 0.7% for social pensions in Greece and Spain respectively.

3.1. *Minimum pension supplements*

Complementos por mínimos in Spain are income-tested supplements paid to recipients of social security or civil service contributory pensions below an official minimum level. In 2004 the monthly minimum pension for beneficiaries aged over 65 was €411.76, rising to €484.89 for pensioners with a dependent spouse. Monthly amounts are paid 14 times a year.

Eligible income, defined as annual personal taxable income in excess of the insurance pension (i.e. before the supplement), must not exceed €5,754 in the assessment year (here 2003). In the case of pensioners with dependent spouse, the threshold for the combined annual taxable income of the couple in excess of the insurance pension was €6,900 in 2004. The supplement is reduced *pari passu*, i.e. by €1 for each €1 above the threshold. Eligibility is assessed automatically by the benefit agency on the basis of information provided in the application form for an insurance pension, and is cross-checked by the Inland Revenue. Pensioners failing to provide full information at the time of application, or experiencing a change in circumstances since then, need to claim the supplement on their own initiative.

The *pensioner social solidarity benefit ΕΚΑΣ* in Greece is an income-tested supplement to low pensions[1], restricted to those receiving a contributory social insurance pension (i.e. recipients of a farmer basic pension or a social pension are excluded). Beneficiaries must be

over 60 if in receipt of an old age pension or a survivor pension. The age condition does not apply to recipients of invalidity or orphans' pensions. Claimants must pass three income tests: (a) annual net personal income from retirement benefits and employment earnings below €6,562, (b) annual personal taxable income from all sources below €7,656, and (c) annual family taxable income below €11,913 in 2004. Income assessment is based on the latest available tax return (i.e. income earned up to two years before the application).

EKAΣ improved dramatically since its introduction (from €33.46 a month for full-rate claimants in 1996 to €230.00 in 2008). In 2004, our year of reference, the full monthly rate of was €141.20, while reduced rates at €105.90, €70.60 and €35.30 were paid to those with annual net personal income from retirement benefits and employment earnings below €6,562 but above €5,976. Between these thresholds the benefit is withdrawn at a 100% rate. Monthly amounts are paid 14 times a year.

Claimants need to apply on their own initiative, providing proof of low income (in practice the most recent tax return). On their part, social insurance institutions notify minimum pension recipients that they may be eligible for *EKAΣ* and consequently invite them to apply. Administration of *EKAΣ* is devolved to the social insurance institutions paying out contributory pensions.

3.2. *Social pensions*

The *pension to uninsured elderly*, a non-contributory income-tested benefit introduced in 1982 in Greece, is reserved for persons aged over 65 lacking independent means of support and not in receipt of a social insurance pension (except if it is lower than the non-contributory basic pension for farmers). Beneficiaries must reside in Greece at the time of application and be Greek or EU nationals, or UN refugees. The benefit rate is set at the level of the

non-contributory basic pension for farmers, and has improved considerably over recent years (from €73.37 a month in 1996 to €330.00 in 2008). In 2004 it was €200.80 a month, paid 14 times a year. Supplements apply for a dependent spouse and dependent children (€2.93 and €5.85 a month respectively in 2004).

The income condition specifies that annual taxable income must not exceed the benefit rate (€2,811 per annum for single claimants or €5,622 per annum for couples in 2004). Income assessment is based on the latest available tax return. Claimants must apply on their own initiative, attaching the most recent tax return.

The benefit is administered by *OΓA*, the social insurance institution for farmers. There is no reduced rate: applications reporting incomes over the threshold are simply rejected. Both spouses are eligible to receive the full amount, provided they fulfil the income and other conditions.

The *pensión de jubilación no contributiva* in Spain is targeted to persons aged over 65 living on low income and not entitled to an insurance pension. At the time of application, beneficiaries must have lived in Spain (or in another EU country, if EU nationals) for at least 10 years. The maximum level of the benefit in 2004 was €276.30 per month, paid 14 times a year.

The income threshold varies by household type: in the case of single persons, taxable income must not exceed the maximum benefit amount; in the case of pensioners living with others the threshold is adjusted by 2.5 (per first-degree relative) or by 0.7 (per second-degree relative). For example, in 2004 the annual income threshold for a single person was €3,868, and rose to €23,209 for those living with their spouse and a dependent child. The maximum benefit is payable to single claimants with an annual personal taxable income below €967 in 2004 (i.e. 25% of the maximum benefit), and is reduced by €1 for each €1 of

income in excess of that level. A similar rule is applied to those living with others. Entitlements of less than 25% of the maximum benefit are raised to that amount.

Both spouses may be eligible to receive the benefit, if they fulfil the income and other conditions, but the amount for each additional recipient is limited to 70% (€193.41 monthly in 2004); total benefit is then divided equally among beneficiaries (i.e. in 2004 each eligible spouse received €234.86 per month). The benefit is administered by the *Comunidades Autónomas* (regional governments) and the Institute for Migration and Social Services *IMSERSO*. Claimants need to present an application form, attaching proof of low income.

4. **Data and methodology**

Our estimation of non take up is based on a comparison of eligibility vs. receipt of benefit. The rate of non take up is defined as entitled non-receipt (ENR) divided by the sum of entitled receipt (ER) plus entitled non-receipt (ENR), as shown in Table 2.

Two measures of non take up are estimated: by caseload (defined as the number of entitled non-recipients divided by the total number of those eligible, whether receiving or not) and by expenditure (defined as the amount of benefit not claimed by entitled non-recipients) divided by the total amount of benefit available to eligible (potential) recipients, whether actually receiving or not.

4.1. *The datasets*

Administrative databases may record benefit receipt accurately, but contain no information on non-recipients, including those theoretically entitled to benefit. In contrast, benefit receipt may or may not be recorded in those datasets (such as income surveys) that are

appropriate for the analysis of non take up. Of the benefits examined here only *ΕΚΑΣ* was observed directly. The other three were not identified as such in any appropriate dataset.

Receipt of *ΕΚΑΣ* is separately recorded in the 2004/5 Household Budget Survey (HBS), carried out by the National Statistical Service of Greece over a period of 12 months, from February 2004 to January 2005. The survey contains information on the incomes, expenditure patterns and demographic characteristics of 17,386 individuals in 6,555 households. Nevertheless, since receipt of *ΕΚΑΣ* in the 2004/5 HBS is seriously under-reported, as explained in section 4.4 below, we also analyse a sample of unaudited income tax returns submitted in 2005. The sample contains information on incomes earned in 2004 and several other characteristics of 41,283 tax payers in 27,414 tax units (sampling fraction of 0.53%).

On the contrary, receipt of the *pension to uninsured elderly* in Greece does not appear in any dataset. For instance, although the 2004/5 HBS collects data on retirement benefits under 14 separate items (codes no. 9013 to 9026), no information is collected on the social pension as such. As a result of that, benefit receipt had to be estimated indirectly.

The same holds for the two Spanish benefits considered here. In this case we relied on the 2005 wave of the European Union Statistics on Income and Living Conditions (EU-SILC). Our sample contained information on the social, demographic and economic characteristics (including incomes earned in 2004) of 37,276 individuals in 12,937 households. In EU-SILC all pensions (including old age, survivor's and disability benefits) of those aged 65 or more are reported in a single variable, as a result of which receipt of the benefits under consideration had to be identified indirectly.

Eligibility conditions can be simulated directly, provided the relevant dataset contains all necessary information and there are no interactions with other benefits or taxes. When

this is not the case, eligibility for benefit can be simulated using a tax-benefit model. In this paper we relied partly on direct simulation in the dataset, and partly on the European tax-benefit model EUROMOD[2].

4.2 *Survey vs. population*

The reliability of non take up estimates depends critically on the accuracy of survey data in representing the population of interest and their incomes. The main issues involved here are population coverage, time frame, accounting unit and statistical reliability.

More specifically, while household surveys are representative of the population living in private households in the country, some of the benefits reported in administrative datasets may be received by individuals living in hospitals, in institutions, or abroad.

On the other hand, there may be a mismatch between the date of interview and the income reference period. In the case of the Greek HBS, respondents were interviewed between February 2004 and January 2005, and were asked to report on incomes earned over the last 12 months. In the case of the EU-SILC, interviews took place in the second quarter of 2005, reporting on incomes earned in 2004.

Furthermore, administrative data usually provide number of benefits provided, while household surveys report number of recipients by category of benefit. Discrepancies will arise if some individuals receive more than one benefit in the same category. In fact, the Spanish National Statistical Institute estimated that 903,810 pensioners received two or more contributory pensions in 2006. To account for the fact that some Spanish pensioners actually receive more than one contributory pension, we adjusted their number by a factor of 0.9225.

Finally, although the household survey sample may be representative of the overall population, it is not necessarily representative of population sub-groups such as recipients of particular social benefits. Levy (2009) found that the EU-SILC tends to underestimate the number of male pensioners by 1%, but that of female ones by 20%. The mismatch was largest in the case of female pensioners aged 80 or more.

4.3 *Benefit identification*

As explained in section 4.1, while receipt of *ΕΚΑΣ* is recorded separately, this is not the case with the other three benefits examined. In view of that, the latter had to be identified indirectly.

In theory, the benefits of interest can be identified by simply selecting the individuals that (a) fulfil the eligibility conditions and (b) receive old age benefits equal to the official value of each benefit. In practice, the value of benefits received by the relevant population sub-group is not a discrete variable (in which case identification is straightforward), but almost a continuous one. Because of this, the various benefits cannot be identified by their exact amounts or eligibility conditions, but within intervals around these values.

In the case of the *pension to uninsured elderly* in Greece, we selected the interval so as to match the condition that beneficiaries must not be recipients of a social insurance pension, except if the latter is lower than the benefit itself. Accordingly, we assumed that recipients' pension income (including the benefit itself) was in the range of 85% to 185% of the level of benefit, subject to their spouse's pension income not exceeding 105% of that level. This led to a small overestimation of recipient numbers (+1.7%).

In the case of the Spanish benefits, we have applied an iterative procedure for the identification of recipients of each benefit, setting the interval around the official amount

of benefit to bring the proportion of identified recipients in the dataset close to official figures. As a result, the proportion of pensioners receiving *pensión de jubilación no contributiva* in the dataset was 4.2% compared to an adjusted official figure of 4.3%, while the share of recipients of *complementos por mínimos* was 27.6% and 28.5% respectively.

4.4 *Measurement errors*

The accuracy of any attempt to estimate benefit non take up depends on the correct identification of entitled non-recipients, i.e. of those appearing to meet eligibility conditions but not to receive the benefit in question. Three issues arise here: income measurement error, reporting error and recall error.

As regards income measurement error, the reliability of income surveys at either end of the income scale is known to be limited. This is of particular relevance to non take up, as some of those appearing to be entitled non-recipients may in fact have their incomes measured with error. When this is the case, estimates of non take up (by caseload and, even more, by expenditure) will be biased. An attempt to correct for this type of error through sensitivity analysis is discussed later on.

Furthermore, survey participants may report receipt of a certain social benefit under a different item, even if a specific question is present in the survey questionnaire for that benefit. Respondents are likely to misclassify benefits when these are received jointly with other benefits. This is an issue with *ΕΚΑΣ*, which is paid together with the social insurance pension it supplements. Probably this is one of the reasons why the weighted number of individuals reporting receipt in the 2004/5 HBS was equivalent to just 170,044 recipients in the population. While official data on actual number of recipients are not available, our best

estimate (based on tax data[5]) is 390,079 (Matsaganis 2009). Assuming that is correct, HBS data underestimate the number of recipients by 56%.

Measurement and reporting errors are made worse by recall error. As explained in section 4.2 above, in both the HBS and the EU-SILC respondents are asked to report on incomes earned up to 18 months before the day of the interview. When survey participants happen to be elderly, as is the case here, the accuracy of the information given is bound to be affected by recall error.

In theory, the errors discussed above affect the accuracy of tax records as well, while the truncated nature of such records constitutes an additional source of bias. Nevertheless, our estimation of non take up of *EKAΣ* using tax data is not affected by these errors. On the one hand, even though individuals earning less than a certain level of income in Greece are allowed not to submit a tax return, this exemption does not apply to social insurance pensioners (including recipients of *EKAΣ*). On the other hand, social insurance institutions send pensioners individualised statements of benefits received in the relevant fiscal year, in which *EKAΣ* features as a separate item; pensioners' tax returns have to be consistent with these statements. These provisions greatly limit the scope for measurement, reporting and recall errors.

4.5 *Simulation errors*

While the measurement errors discussed in section 4.4 may affect the correct identification of benefit recipients, a further set of errors may in turn affect the simulation of eligibility conditions which is necessary for the correct identification of entitled non-recipients.

The most common of these errors are missing information, past incomes and tax evasion.

14

To begin with, information on some of these conditions may simply not be available in the dataset used. For example, as explained in section 3.2, the rules for awarding *pensión de jubilación no contributiva* include the requirement that claimants have been resident in Spain or elsewhere in the EU for the last 10 years, while non-EU nationals may be eligible for a Greek *pension to uninsured elderly* if officially recognised as refugees. However, no information on past residence or on refugee status is available either in the HBS or the EU-SILC. In the case of tax data, no information on taxpayer age is available except in the form of a binary variable (over or under 65), whose usefulness for the correct simulation of eligibility for *ΕΚΑΣ* is limited.

Moreover, as mentioned in sections 3.1 and 3.2, in practice the income test for both Greek benefits is based on the latest available tax return, which contains information on incomes earned up to two years before benefit is received[4]. Again, while panel datasets may contain information on past incomes and therefore permit the correct simulation of the income conditions, such information is not available in the 2004/5 HBS, nor in our sample of 2005 income tax returns – and nor, for that matter, in the 2005 EU-SILC, to the extent that the problem of past incomes affects the identification of entitled non-recipients in Spain as well.

Finally, in addition to involuntary reporting errors discussed in section 4.4, under-reporting of income may be perfectly voluntary when its purpose is tax evasion. If some individuals report lower incomes in their tax returns than in the HBS or EU-SILC, survey-based estimates of targeting errors will be biased. However, since income assessment is based on information available in tax returns, this bias will not affect our estimate of non take up of *ΕΚΑΣ* using tax data.

5. **Results and discussion**

In response to the various methodological problems discussed in the previous section, we estimated non take up of means-tested benefits for the elderly in Greece and Spain under a number of different assumptions.

As explained in section 4.1, non take up of *ΕΚΑΣ* was estimated using two different datasets, the 2004/5 HBS and our sample of 2005 income tax returns. On HBS data, as reported in Flevotomou and Matsaganis (2009), non take up was estimated at 68.7% in the sample (projected to 70.2% in the population). In an attempt to correct for the fact that the incomes assessed for eligibility in 2004 were practically those earned in 2002, we inflated the income conditions by the observed average rate of growth in 2002-2004 (i.e. by 13.2% for wages and salaries, 15.2% for incomes from self employment, 9.2% for pensions and by 17.1% for taxable incomes as a whole). That adjustment raised our estimate of non take up to 74.0% and 74.7% (in the sample and the population respectively).

Given that, as explained in section 4.4, *ΕΚΑΣ* was vastly under-reported in the HBS, we repeated the exercise using our sample of income tax returns. On tax data, our initial estimate was 63.8% by caseload and 64.0% by expenditure, raised to 66.2% and 66.5% respectively when the income conditions were inflated as described above. That estimate was based on the sample of all pensioners, defined as those with non-zero pension incomes (n=10,787 of which 1,927 reported receipt of *ΕΚΑΣ*).

Given our inability to simulate the eligibility test fully, since our sample of tax returns contained limited information on age, we re-estimated non take up for the group of taxpayers aged 65+ (n=3,799 of which 749 reported receipt of *ΕΚΑΣ* and 587 did not in spite of meeting the eligibility conditions). The resulting estimates of non take up were 60.4% by caseload and 60.3% by expenditure, or 63.4% and 63.2% respectively when the

income conditions were inflated. We consider this our "best" estimate, corresponding to 116,923 eligible non-recipients in the population (Matsaganis 2009). Non take up cases were distinctly poorer: the mean annual income of eligible non-recipients was €3,130, while that of recipients was €5,727 raised to €7,446 when *ΕΚΑΣ* was added.

In the case of *pension to uninsured elderly* in Greece, entitled non-recipients were defined as those in the HBS reporting pension income below 85% of the level of that pension and meeting all eligibility conditions. These two criteria were satisfied by 50 observations in the sample, corresponding to 32,515 persons in the population[5]. The estimated rate of non take up was 37.9% in the sample (projected to 38.3% in the population). We attempted to correct for income measurement error, discussed in section 4.4, through sensitivity analysis. Specifically, we relaxed the implicit assumption that the observed incomes underlying the simulation of benefit eligibility were "true", and examined the effect of systematic income measurement error upon our estimates of non take up. We therefore assumed that incomes varied around their observed values by ±15%. As a result of that, we obtained estimates of non take up of *pension to uninsured elderly* ranging from 28.9% to 48.2% (Flevotomou and Matsaganis 2009). Since the benefit is paid at a flat rate, estimates of non take up by caseload were identical to those by expenditure.

As discussed earlier, our estimates of take up of *complementos por mínimos* and *pension de jubilación no contributiva* in Spain relied on data from the 2005 EU-SILC. With respect to the former, persons aged 65+ who received a contributory pension below the minimum, even though they were eligible for the supplement, were identified as eligible non-recipients. The estimated rate of non take up by caseload varied from 19.9% to 24.1%, corresponding to approximately 400,000 to 500,000 eligible non-recipients. It was higher for single females and married males with a dependent spouse, and lower for married persons without a

dependent spouse (Levy 2009). The corresponding rate of non take up by expenditure was much lower (in the 7.3% to 9.1% range), supporting the hypothesis that take up increases with the amount of the entitlement.

With respect to *pension de jubilación no contributiva*, estimates of non take up were in the range of 40.2% to 65.5%, roughly corresponding to between 360,000 and 460,000 persons. Non take up by expenditure was between 37.3% and 65.7%. Lower estimates resulted from the assumption of a tighter income threshold for eligibility, disregarding the rather peculiar rule (described in section 3.2) that the threshold must be multiplied by 2.5 for each first-degree relative living with the applicant. Our "best" estimates (44.4% by caseload 41.4% by expenditure) are in fact mid-range estimates under that scenario. The estimates of non take up of *pension de jubilación no contributiva* were driven by the much higher rates among females, in particular married ones, since female recipients outnumbered male ones in 2004 by more than 5 to 1 (Levy 2009).

Even though the focus of this paper is on non take up, we attempted to estimate "overpayment" of benefit to non-entitled recipients. Since this requires that the benefit in question is separately recorded in the dataset, it was only feasible with respect to *ΕΚΑΣ*. Our best estimate was around 55% by caseload and 51% by expenditure (Matsaganis 2009).

Our estimates of non take up of means-tested benefits for the elderly in Greece and Spain are summarised in Table 3.

On the whole, non take up rates were found to be higher for social pensions than for minimum pension supplements, in Greece than in Spain, by caseload than by expenditure.

Non take up of *complementos por mínimos* (around 22% by caseload, 8% by expenditure) is low by any standards – e.g. well below that of *Pension Credit* in Britain. This is mainly due to two factors: first, as explained in section 3.1, the claiming process is almost automatic;

moreover, as the incomes of poor pensioners do not tend to fluctuate much from one year to the next, administrative errors are kept low. Nonetheless, our finding allows no room for complacency, as it contradicts the common belief that non take up is negligible.

Indeed, the complexity of the income test and the amount of information requested (especially for family members) in the case of *pension de jubilación no contributiva* raise the costs of claiming benefit and render the administrative process more prone to error, increasing the probability of non take up. Our estimate of non take up at around 44% by caseload (41% by expenditure) bears that out.

Estimated non take up of *ΕΚΑΣ* was much higher, around 63%. This is striking, given that the benefit was hailed as a sign of a more innovative, "selective" policy approach when first introduced in 1996. In subsequent years, as explained in section 3.1, its value was raised significantly, while at the same time the number of beneficiaries also rose. As a result of these developments, spending on *ΕΚΑΣ* increased dramatically. Nevertheless, this considerable commitment was never matched by a parallel investment in administrative resources. Responsibility for awarding benefit continued to rest with the hundreds of social insurance institutions paying pensions, most of which simply lack the capacity to carry out this task (Matsaganis 2005).

Organisational fragmentation is less of an issue as regards *pension to uninsured elderly*, which is administered by a single institution. However, given that the main mission of that institution is to deliver social insurance to farmers, not means-tested assistance to the poor, its administrative capacity is low.

Therefore, our findings suggest that non take up is lower where the claiming process is more automatic. This confirms one of the key lessons of the empirical literature, namely that "the probability of non take up is larger in schemes that leave the initiative to start the

claiming process full to the applicant" (van Oorschot 2002). In the words of Remler et al. (2001): "Programs for which no 'extra action' is required have the highest take up rates. In contrast, other programs, which do require extra action, have much lower take up rates."

With respect to our finding that non take up was higher in Greece than in Spain, this is partly accounted for by differences in programme-specific features discussed above. This observation is supported by the fact that non take up of social pensions, which are more similar to each other than *ΕΚΑΣ* is similar to *complementos por mínimos*, was actually found to be higher in Spain than in Greece.

Nevertheless, poor administration of *ΕΚΑΣ* is symptomatic of the general neglect of social administration in Greece, and is related to the wider traits of public administration in most of southern Europe. As Sotiropoulos (2004) has suggested, these include "extended politicisation of the top administrative ranks; enduring patronage patterns in recruitment; uneven distribution of human resources; formalism and legalism; and, with the exception of Spain, absence of a typical European administrative elite". Clearly, as the author notes, significant differences exist between (and within) south European countries, which recent developments (such as decentralisation and Europeanization) may have intensified. These differences may play some role in our finding that non take up was higher in Greece than in Spain – and coexisted with high "overpayment" of benefit to non-entitled recipients.

On a different note, our finding that non take up was higher by caseload than by expenditure is entirely unsurprising, since "the positive correlation between the potential amount of welfare benefits and take-up is probably the single most robust result in the literature" (Hernanz et al. 2004). Specifically, since claiming costs tend to be fixed, smaller amounts of benefit are more likely to be left unclaimed than larger ones. As a result, non

take up is higher in terms of numbers of persons claiming benefit than in terms of amount claimed.

Finally, a word of caution: as discussed in section 4, the validity of our results could be affected by a series of methodological issues, particularly measurement and simulation errors. While some of these errors may be offset by others, it is difficult to say *a priori* what the net effect might be. In any case, it is probably true that "the greater the inaccuracy of the analyst's measurement of eligibility relative to the own inaccuracy of the agency, the more estimated take up tends to underestimate the true take up" (Duclos 1995).

6. **Concluding remarks**

Non take up is overlooked as a policy issue and neglected as a research topic – especially but not exclusively in southern Europe. As discussed earlier, this stems from widespread beliefs as to the relative significance of non take up *vis-à-vis* "overpayment" of benefit to ineligible recipients, and is reinforced by the fact that the two have very different fiscal implications. As the present paper also makes clear, non take up can be unattractive from the perspective of researchers as well: estimating non take up requires more information than is readily available, and can be technically very complex.

And yet, it would be no exaggeration to suggest that greater attention to non take up is more urgently needed than ever. The recent shift towards targeted provision raises the question of whether social benefits do indeed reach those in greatest need. Non take up renders means-tested benefits less effective, and casts doubts on the wisdom of that shift in the first place.

In this paper we attempted to estimate the extent of non take up of means-tested benefits for the elderly in Greece and Spain. These benefits constitute a social safety net for

the old in two countries otherwise lacking the generalised protection offered to the entire population by minimum income schemes or their functional equivalents. Furthermore, since no previous research on this issue existed in the two countries, our paper aimed to fill a gap in our knowledge on social policy and administration in Greece and Spain.

As it turned out, our findings imply that a large number of intended beneficiaries in fact fail to benefit from the programmes in question, even though they appear to meet the eligibility conditions for participation. This seems to be the case of around 150,000 persons in Greece, while the corresponding number in Spain is in the order of 850,000.

For reasons discussed in some length in the paper, our estimates are surrounded by a great deal of uncertainty. A more thoughtful design of income surveys, making possible the collection of richer and more accurate data, would greatly assist research into non take up. Nevertheless, even though we are still in the dark about many aspects, we believe that the underlying problem cannot be simply dismissed or explained away. Even when all possible sources of bias have been taken into account, the issue still appears to deserve considerably more attention than it currently receives.

Our findings are in line with theoretical insights into the determinants of non take up. Specifically, the more successful targeting of minimum pension supplements compared to social pensions reflects the significance of information and transaction costs. The higher rates of non take up by caseload than by expenditure confirm the influence of expected entitlement on claimants' behaviour.

On the other hand, the fact that in practice the benefits studied are awarded for life (barring an unlikely change in circumstances) ought to encourage take up. Also, while the role of stigma remains a mystery given the lack of sociological evidence on the attitudes of older Greeks and Spaniards to public assistance, it is likely to be less important than among

able-bodied persons of working age. In view of that, our estimates of non take up suggest that the problem is more serious than might have been expected *a priori* for this type of benefits.

On a different register, while the poor performance of *ΕΚΑΣ* relative to *complementos por mínimos* can be accounted for by differences in programme design and implementation, low administrative capacity itself is part of a broader picture concerning, to varying degrees, all south European bureaucracies. In this light, our finding arguably reflects the greater inefficiency of Greek social administration compared to its Spanish counterpart.

Although considering the extent of "overpayment" to non-entitled recipients relative to non take up lay beyond the scope of this paper (and was hampered by data problems), we were able to produce estimates with respect to *ΕΚΑΣ*. Our finding that high rates of non take up coexist with high rates of "overpayment" confirms that the habitual disregard of administrative matters in Greek social protection is rather unwise, and has proved costly. However, from a different perspective, the inclination to consider non take up less likely (and less important) than "overpayment" of benefit is not supported by the evidence.

On the whole, we conclude that much of the explanation for the extent of non take up of means-tested benefits for the elderly in Greece and Spain must be sought in the nuts and bolts of the claiming process. In this light, reducing the costs of benefit to claimants, simplifying the claiming process, and improving the capacity of benefit agencies to assess eligibility can be some of the components of a systematic policy effort to increase take up. Evidence from elsewhere (e.g. the "Outreach Programme" in Canada or the Dutch city of Nijmegen) implies that a sustained commitment to providing potential recipients with more information on their social rights, including practical help with applications, does make a difference. While such efforts rarely make headlines, their potential to improve the lives of

elderly persons on low income (almost by definition "the deserving poor") should not be underestimated.

As we write these lines, the governments of the two countries are fighting desperately to avert the greatest economic crisis since the end of World War II. The crisis – deeper and far more severe in Greece than in Spain – has already affected the welfare state, and will no doubt affect it more. Compared to the gravity of recent developments, our preoccupation with non take up may seem out of place. This may well be so. We can only hope that our work will remind policy makers that greater targeting is at best a very problematic solution, and that to minimise adverse side-effects means-tested benefits must be carefully designed and efficiently administered.

Notes

[1] Note that *ΕΚΑΣ* is not exactly equivalent to *complementos por mínimos*, as the minimum pension to which it is added already includes non-contributory components. Formally, the minimum pension of €463.18 per month subsidises the "organic pension", i.e. the amount obtained by applying the pension formula (€286.65 per month). In fact, the real subsidy is higher, given that the pension formula is already "progressive", i.e. more generous at low pension levels (Leventi and Matsaganis 2009).

[2] For information on EUROMOD see Sutherland (2007), or visit the website of the Microsimulation Unit, University of Essex (http://www.iser.essex.ac.uk/msu/emod/).

[3] We consider this figure more accurate than our earlier estimate of 378,698 recipients, based on data released by most but not all social insurance institutions paying *ΕΚΑΣ* (Flevotomou and Matsaganis 2009).

[4] As an illustration, applications for *ΕΚΑΣ* in year y are submitted in the first quarter of that year, are assessed in the light of tax returns submitted in the year *y-1*, which reported on incomes earned in the year *y-2*.

[5] Our analysis of tax data (Matsaganis 2009) yielded an estimated 7,967 taxpayers who reported zero income from pensions despite meeting eligibility conditions for pension to uninsured elderly, and another 9,561 whose reported pension income was less than the level of that pension (€2,699 p.a.). It has to be noted, though, that those with income below €3,000 p.a. in 2004 were legally exempt from the obligation of filing a tax return in Greece (the few exceptions are not relevant to our purpose).

References

Atkinson, A.B. (1996) On targeting and family benefits. In: *Incomes and the welfare state.* Cambridge: Cambridge University Press.

Creedy, J. (2002) Take-up of means-tested benefits and labour supply. *Scottish Journal of Political Economy* 49 (2) 150-161.

Currie, J. (2004) *The take up of social benefits.* Working Paper 10488. Cambridge MA: National Bureau of Economic Research.

Duclos, J.-Y. (1995) Modelling the take-up of state support. *Journal of Public Economics* 58 391-415.

DWP (2009) *Income-related benefits: estimates of take-up in 2007/2008.* London: Department for Work and Pensions.

Ferrera, M. (2005) *Welfare state reform in southern Europe: fighting poverty and social exclusion in Italy, Spain, Portugal and Greece.* Oxford: Routledge.

Flevotomou, M. and Matsaganis, M. (2009) *Estimating the size and determinants of benefit non take up in Greece* (mimeo). Athens University of Economics and Business.

Hernandez, M., Pudney, S. and Hancock, R. (2006) The welfare cost of means-testing: pensioner participation in income support. *Journal of Applied Econometrics* 22 (3) 581-598.

Hernanz, V., Malherbet, F. and Pellizzari, M. (2004) *Take-up of welfare benefits in OECD countries: a review of the evidence.* Social, Employment & Migration Working Paper 17. Paris: Organisation of Economic Co-operation and Development.

Korpi, W. and Palme, J. (1998) The paradox of redistribution and strategies of equality: welfare state institutions, inequality and poverty in the western countries. *American Sociological Review* 63 (5) 661-687.

Leventi, C. and Matsaganis, M. (2009) *Disentangling annuities and transfers in Greek retirement benefits* (mimeo). Athens University of Economics and Business.

Levy, H. (2009) *Take up rates of means-tested benefits for the elderly in Spain* (mimeo). Institute of Social and Economic Research, University of Essex.

Matsaganis, M. (2005) The limits of selectivity as a recipe for welfare reform: the case of Greece. *Journal of Social Policy* 34 (2) 235-253.

Matsaganis, M. (2009) *Estimating non take up of ΕΚΑΣ and the pension to uninsured elderly using tax data* (mimeo). Athens University of Economics and Business.

Matsaganis, M., Ferrera, M., Capucha, L. and Moreno, L. (2003) Mending nets in the South: anti-poverty policies in Greece Italy Portugal and Spain. *Social Policy and Administration* 37 (6) 639-655.

Matsaganis, M., Paulus, A. and Sutherland, H. (2008) *The take up of social benefits.* Research Note 5/2008, Social Situation Observatory, European Commission.

McGarry, K. (1996) Factors determining participation of the elderly in Supplemental Security Income. *Journal of Human Resources* 31 (2) 331-358.

Moffit, R. (1983) An economic model of welfare stigma. *American Economic Review* 73 (5) 1023-1035.

Nelson, K. (2010) Social assistance and minimum income benefits in old and new EU democracies. *International Journal of Social Welfare* (DOI: 10.1111/j.1468-2397.2009.00671).

Pudney, S., Hancock, R. and Sutherland, H. (2006) Simulating the reform of means-tested benefits with endogenous take-up and claim costs. *Oxford Bulletin of Economics and Statistics* 68 (2) 135-166.

Remler, D.K., Rachlin, J.E. and Glied, S.A. (2001) *What can take-up of other programmes teach about how to improve take-up of health insurance programmes?* Working Paper 8185. Cambridge MA: National Bureau of Economic Research.

Sotiropoulos, D.A. (2004) Southern European public bureaucracies in comparative perspective. *West European Politics* 27 (3) 405-422.

Sutherland, H. (2007) Euromod: the tax-benefit microsimulation model for the European Union. In: A. Gupta and A. Harding (eds) *Modelling our future: population ageing, health and aged care.* Amsterdam New York and Oxford: Elsevier North-Holland.

van Oorschot, W. (2002) Targeting welfare: on the functions and dysfunctions of means-testing in social policy. In: P. Townsend and D. Gordon (eds) *World poverty: new policies to defeat an old enemy.* Bristol: The Policy Press.

Warlick, J.L. (1982) Participation of the aged in SSI. *Journal of Human Resources* 17 (2) 236-260.

World Bank (1990) *World development report 1990: poverty.* Oxford: Oxford University Press.

Table 1

The benefits in context (2004)

	expenditure		recipients	
	€ million	*% GDP*	*no. of persons*	*% population*
Greece				
ΕΚΑΣ	685	0.37	390,079	3.6
pension to uninsured elderly	181	0.10	56,907	0.5
Spain				
complementos por mínimos	3,224	0.38	1,886,680	4.4
pensión no contributiva	1,019	0.12	281,447	0.7

Note: The figures for Spain refer to pensioners aged 65+ only.

Sources: Matsaganis (2009), Flevotomou and Matsaganis (2009), Levy (2009).

Table 2

The non take up matrix

	receipt of benefit	non-receipt of benefit
eligibility for benefit	*entitled recipients (ER)*	*entitled non-recipients (ENR)*
non-eligibility for benefit	*non-entitled recipients (NER)*	*non-entitled non-recipients (NENR)*

Notes: The rate of non take up is ENR/(ER+ENR). The rate of "over-payment" of benefit is NER/(ER+NER).

Table 3

Estimates of non take up (2004)

	by caseload (%)			by expenditure (%)		
	"best"	min	max	"best"	min	max
Greece						
ΕΚΑΣ	63.4	60.4	66.2	63.2	60.3	66.5
pension to uninsured elderly	38.3	28.9	48.2	38.3	28.9	48.2
Spain						
complementos por mínimos	22.0	19.9	24.1	8.2	7.3	9.1
pensión no contributiva	44.4	40.2	65.5	41.4	37.3	65.7

Notes: "Best" estimates correspond to the following scenarios. *ΕΚΑΣ*: sample of 2005 tax returns; income condition inflated; individuals aged 65+ only. *Pension to uninsured elderly*: HBS data; income condition inflated. *Complementos por mínimos*: 2005 EU-SILC data; individuals aged 65+ only; mid-range of all estimates. *Pensión de jubilación no contributiva*: 2005 EU-SILC data; mid-range of estimates under alternative assumption of tighter income test.

Sources: Matsaganis (2009), Flevotomou and Matsaganis (2009), Levy (2009).