CAPP Centro di Analisi delle Politiche Pubbliche

Which European model for elderly care?
Equity and cost-effectiveness in home based care in three European countries

Francesca Bettio e Giovanni Solinas

CAPP*aper* n. 64

febbraio 2009

Dipartimento di Economia Politica –Università di Modena e Reggio Emilia – **www.capp.unimo.it**

*Francesca Bettio**

Giovanni Solinas°

Which European model for elderly care?
Equity and cost-effectiveness in home based care in three European countries

Long term care for the elderly is growing apace in developed economies. As growth is forcing change in existing production and delivery systems of elderly care services, the question arises as to how different systems compare in terms of cost-effectiveness, equity or quality. Based on an in depth survey carried out in Denmark, Ireland and Italy – the GALCA survey – this articles compares prevailing arrangements of home based long-term care in these three countries, focussing on the overall cost-effectiveness of the provisions as well as on employment equity for the care workers. Comparison between alternative types of provisions within each country suggests that home based care is generally, although not consistently, more cost-effective than care within institutions. Comparison of home care provisions across the three countries suggests that the Italian and the Danish systems are the most cost effective, but the Danish system is more equitable, overall. These latter findings are partly explained by progressive replacement in Italy of unpaid family carers with low cost immigrant workers directly employed by the families and often cohabiting with the elderly, the migrant-in-the-family model of long term care. This new model has spread across Southern Europe and raises complex issues of equity and sustainability from an employment perspective.

JEL Codes: I12, I39, J14
Key words: elderly care, long term care, cost-effectiveness, migration, welfare

**Dipartimento di Economia Politica, Facoltà di Economia, Università di Siena, Italy*
°Dipartimento di Economia Politica, Facoltà di Economia, Università di Modena, Italy

Acknowledgments
This paper is based on the results of the European project GALCA (Gender Analysis and Long Term Care) available on request from the Fondazione Giacomo Brodolini, Roma (www.fondazionebrodolini.it)

1. The questions

There is at present a wide variety of elderly care arrangements across industrial countries, each arrangement being situated at different intersections between the family, the state and the market (Bettio and Plantenga 2004; Gibson et al. 2003; Anttonen et al. 2003). In some of the traditional family-centred care regimes demographic and economic change is altering both the demand for elderly care and the supply of unpaid, family care work, thus calling for an overhaul of the LTC model. On the demand side, falling fertility and increasing life expectancy are causing the population to progressively age, thus boasting the demand for elderly care. On the supply side, progressively weaker intra-family and inter-generational links, ever smaller households, and the increasing number of women in paid work are making the burden of elderly care no longer bearable by the family alone.

To different degrees female immigrants in the role of elderly 'minders' are gradually replacing unpaid care by (female) family members in Mediterranean countries like Spain, Greece and Italy (Anthias and Lazaridis 2000; Salimbeni 2004; Kasimis and Kassimi 2004; Steinhilber 2003, Cavounidis 2002; Escrivà 2005; Bettio et al. 2006; Kofman and Parvati 2007; Lyberaki 2008a, 2008b). Change in elderly care arrangements is less pronounced in other European countries. Ireland and Denmark are cases in point, although the organisation of elderly care is very different in the two countries. Denmark has a Nordic type care regime where the family plays a modest role as provider, especially in elderly care, and the state substitutes for rather than supporting the family in its caring activities. Ireland is a borderline case between Mediterranean countries and countries like Germany and Austria where the family delivers care services based on the principle of subsidiarity, but the state takes a larger role as direct supplier of elderly care services. In Ireland there are no formal obligations on families to care but the state has no much formal responsibility in this area either, although it has contributed to developing a larger institutional care sector than is found in the Mediterranean.

In both Denmark and Ireland the adequacy of current elderly care arrangements is being questioned by growing and changing needs for old care services, although for very different reasons. Denmark has pioneered de-institutionalization since legislation brought to an end the construction of conventional residential nursing homes in 1987, and has since developed one of the most comprehensive public systems of home care, promoting independent, specialised housing at the same time. While this combination is often heralded as an example of efficient and technologically advanced elderly care sector in Europe (Capecchi 2004; Gibson et al. 2003:4), it has

been questioned from within with regard to the public/private mix – leading to the granting in 2002 of the full choice of provider on the part of the elderly - but also with regard to poor social integration of the elderly. Ireland has so far avoided a major overhaul of its elderly care sector thanks to a relatively young population combined with relatively low participation of poorly educated women in the labour market. Since the late nineties, however, pressure for change stemming from the rise in dependency ratios and the progressive integration of women in the labour market has increased the number of immigrant workers in elderly care (Timonen and Doyle 2008)[1].

Comparative analysis of the Danish, Irish and Italian cases helps focusing on some key questions concerning actual versus desirable change. Comparison between Ireland and Italy illustrates that, where the family is the main or a large provider, ongoing demographic and labour market trends are bound to lead to structural change in the organization of elderly care. Asking questions about the direction that change is taking makes sense because developments are recent enough and there is still room for policy intervention. In particular, the 'migrant in the family' model that is 'spontaneously' emerging in Italy and other Mediterranean countries invites assessment against potential alternatives. How does this model compare with the Danish one? Should countries that can no longer (entirely) delegate elderly care to the family rely on immigration to bring provisions in line with demand? And should families be left in charge of organizing the supply of immigrants – which may imply a large informal sector – or should this supply be progressively integrated into formal public or private provision of services along the lines of Denmark?

These are big and broad questions that cannot be answered by any single piece of research. However, the three countries comparison that this paper offers provides some initial answers. Our specific aim here is to focus on the supply side of home care provisions for the elderly and assess selected implications of the mix of provisions in different countries. Our choice of assessment criteria is conventional among economists and includes efficiency on the one side and equity on the other, though in our view the former need not necessarily be traded off for the latter. Rather than efficiency we prefer, however, to focus on cost-effectiveness. The reason is that efficiency implies comparison of services of the same 'quality' whereas our data do not afford systematic information on the quality of services. Cost-effectiveness is understood here as lower cost per elderly person in care. As regards equity, much of the literature looks at equity in elderly care from the demand side (Österle 2001, Davies et al. 2000; Cuadras-Morato et al. 2000), thus evaluating the implications of

[1] According to the authoritative Mercer Report, the number of elderly (65 years of age or more) needing Long Term Care is foreseen to more than double between 2011 and 2051 (Mercer Ltd., 2002, pp 72-75).

prioritizing medical versus paramedical services, acute versus chronic disabilities, and so. Since the focus here is on the supply side, the discussion will instead take the point of view of carers, both national family carers and immigrant carers, and assess some controversial aspects of the respective labour market positions.

Our primary data source is the GALCA survey (Gender Analysis of Long Term Care) which was carried out in 2003 as part of a European project coordinated by the Fondazione Brodolini (Rome) purporting to collect comparable evidence on the input mix and of the costs of long term care services in Denmark, Ireland and Italy. Three local surveys on elderly home care were conducted in Roskilde (Denmark), Dublin (Ireland) and Modena (Italy) in 2003. The surveys were primarily designed to provide evidence on the full cost of alternative Long Term Care arrangements, with detailed recording of the inputs to each regular care activity as well as detailed information on the carers and the elderly being cared for. In addition to the GALCA survey we rely on information from various sources about the characteristics and labour market conditions of female migrants in the elderly care sector in Italy.

Section 2 below briefly introduces the GALCA survey while section 3 recalls some key features of the long term care service sector in the three regions covered by the survey. Section 4 assesses the comparative cost effectiveness of home based care provisions in the three surveyed areas, paying special attention to the role of immigrant supplies in lowering costs in Italy. Section 5 carries the comparison of the three systems forward to issues of labour market equity, and in order to do so briefly reviews the characteristics and the conditions of migrant care workers in Italy. Section 6 concludes by weighing the overall findings on comparative cost-effectiveness and equity.

2. The GALCA survey

Since the GALCA survey is our primary source of information for the next three sections, a brief illustration of its main features is in order. The primary objective of the survey was assessing the comparative cost of alternative elderly care arrangements, i.e. home care versus care in a nursing home or hospitalisation. So called ‘main carers’ are the unit of analysis, namely persons in the family or in institutions that take ultimate charge of an elderly individual in need of care. Interviews with main carers were conducted locally: in Dublin and Modena the information was collected in sample surveys of voluntary carers. In Roskilde it was necessary to contact the municipality of Roskilde in order to identify and interview the professional carers working there; the municipality also supplied own statistical data. In the trade off between statistical representation at national level and a thorough questionnaire and survey methodology a choice was made in favour

of the latter. Although the size of the sample in each of the three areas is small – complete records are available for about three hundred dependent elderly per area – statistical representativeness was ensured at local level for Ireland and Italy where a large telephone screening was used to sample the main carers. A wide range of information was collected, including detailed data on the time spent by the main carers on the various (elderly) care tasks as well as on own paid work. The detail of the records is such that the data can be used to estimate the full social cost of alternative care packages, including the opportunity cost of unpaid family care.

3. **Elderly care in Denmark, Ireland and Italy**

Denmark, Ireland and Italy differ not only in the public/private mix of long-term care provision, as noted, but also in the balance between care in the community and institutional care. Table 1 puts figures on these differences. In Denmark most of the care is delivered by public or private (market) providers, primarily local authorities that bear ultimate responsibility and are financed by general taxation. Italy and Ireland rely on the family to look after the majority of those being cared for and on cash transfers to partly support families. The Carer's Allowance in Ireland is paid as a cash transfer, and the maximum value of the Allowance at the time of the survey amounted to €129.60 per week or about 24 percent percent of average industrial earnings[2]. In Italy, the most important cash transfer item is the Attendance Allowance for dependent persons, which is not means tested, amounted to about €426 per month and was granted to some 6 percent of the population over sixty-five at national level around 2003 (Gori 2003, p. 6). In the region of Emilia Romagna where the Italian GALCA survey was conducted, the allowance corresponded to about 35 percent of the average industrial wage in 2003. Here, as elsewhere in Italy, the allowance is often combined with other cash transfers (e.g. the so called 'Care Cheque' granted by local authorities) and is used by families to pay for private, non family carers.

Table 1 about here

In all the three countries home care is the dominant form of provision and far more important than institutionalisation, with the latter being relatively more important in Ireland (Pacolet et al. 1999: table A3.1; Bettio and Plantenga 2004: figure 6; Gori 2005: tables 11 e 13). At the time of the survey over 90 percent of dependent elderly in Denmark and Italy were looked after in their own homes or apartment while more than a fifth of the elderly in Ireland were cared for in

[2] Since 2007 the scheme has been extended to include half rate payment for those already on or claimed as Qualified Adults on certain other Social Welfare payments.

either public hospitals or private nursing homes. Moreover, the incidence of elderly receiving home care was broadly comparable and ranges between 14 and 16 percent of the over 65: national estimates for Ireland put this figure at 14.8, the GALCA survey estimates a 16 percent figure for Modena while in Roskilde 14.5 percent of all pensioners received home care at the time of the survey.

One feature common to all the three countries, albeit expected, is the sex of main carers who are overwhelmingly female, with the share of women among family carers ranging from 71 to 80 percent in Ireland and Italy to 88 percent of professional carers in Denmark. Two key differences are housing and technology in Denmark and immigrant workers in Italy. The policy in Denmark is to maintain elderly in their own homes or apartments until such time as a comprehensive social and psychological assessment shows inability to handle everyday activities of daily living (e.g., walking, dressing, bathing, toileting, cooking, cleaning, and shopping). At that stage serviced housing or sheltered accommodation are provided. In the Roskilde municipality about one quarter of the elderly in the GALCA sample lived in serviced apartments or sheltered accommodation. In some of these apartments – those offered to people with considerable functional disability – a 24 hour domiciliary care service operates in the building. Sheltered accommodation is normally provided for elderly people who are unable to manage everyday activities in their own home but who do not need to be admitted to a nursing home. The accommodation is located in an institutional environment in which each elderly person has an apartment and professional carers are available 24 hours a day.

In addition to providing dedicated housing, the Danish municipalities offer to adapt elderly people homes, and supply technical and personal appliances to help them coping with their disabilities. People with considerable disability are thus given the option to remain in their own home as long as possible, while homes are often transformed into mini public wards in the later stages of life.

Investment in housing and home care technology allows for extreme rationalisation of professional cares' time, as we shall document below. However, family carers in Italy have found a different way to 'save' on their own care time: they hire so called 'minders'. Twenty seven percent of families in the GALCA Italian sample delegated most of the caring to paid, non family carers, usually migrant workers hired on a part time basis (12 percent of families) or as full-time, co-residing 'minders' (15 percent of families). These way families, or rather the main carers, retain ultimate responsibility because they are in charge of hiring, coordinating and supervising minders. Some of them actually share minding or physical assistance with the helper they hire, while all of them act as interface between the elderly and public services. In Modena, live-in minders were

reported to supply on average (weighted across disability levels) 66.9 hours per week compared with 28.5 reported for all principal caregivers. Moreover, the figure for the live-in minders is likely to be underestimated since the latter are paid on a monthly basis but are practically 'available' 24 hours per day, 5-6 days per week, whereas families tend to consider only daily hours as working hours. As we shall document below, foreign minders are considerably 'cheaper' than any national, public or market substitute.

Like Italy, Ireland has witnessed an inflow of immigrant workers into the care sector. However, the phenomenon is much more recent since it dates from the late nineties. It is also qualitatively different as migrant workers have found employment in both the formal and the informal (family) care sector, but the evidence for the latter is still anecdotal (Timonen and Dayle 2008). It is not surprising, therefore, that the GALCA survey yields hardly any evidence of Irish families hiring foreign workers to care for their elderly at home.

4. Comparative cost-effectiveness

With these differences in mind we can now look at cost effectiveness. The level and structure of the actual, per week cost of providing home care to an elderly person of given disability are summarized in Tables 2 and 3 below. The inputs that have been 'priced' include the family carer's time, assistance from public or public carers other than the family carer, visits to/from doctors, priests, nurses etc., hospitalization, assistance at day care centres, meals on wheels, housing appliances and housing adaptations. The costs are full social costs thereby comprising monetary outlays by families, the full cost of public and private services (e.g. the full cost of a day in hospital, of a public home helper or the fee of a private nurse) as well as the opportunity cost of care time from the family carer.

Calculation of actual costs used quantities and mix of inputs derived from the GALCA survey, while representative unit prices were obtained from a variety of national sources. The (hourly) opportunity cost of carers' time in Ireland and Italy was derived on the basis of gross average industrial earnings in the respective countries weighted by the way in which carers would allocate their hours between paid and unpaid work, voluntary work and leisure if they were not committed to providing care for the elderly. Unpaid work and voluntary work were both valued at the expected market wage, i.e. gross average industrial earnings multiplied by the probability of engaging in market work in the country's sample of carers. Leisure was valued at a quarter of the market valuation of the weighted value of paid work, unpaid work and voluntary work. Finally, costs were separately obtained for five levels of disabilities as well as for the 'average' elderly in

the (national) sample, and were made comparable across the three countries by using Purchasing Power Parity conversion rates.

The full details of this costing exercise are reported elsewhere (Reinicke 2004; Hughes et al. 2004; Bettio et al. 2007). Our interest here is in two main set of results, respectively, the comparative overall costs of home care across countries and the relative cost of home care versus institutionalization in each country (in a nursing home or in a hospital). Starting with the latter, our findings indicate that, while home care may be the option that elderly people prefer, it is generally but not consistently the least expensive option once the opportunity costs of unpaid family labour is factored in. In Modena and Roskilde, home care was found to be definitely 'cheaper' than either hospitalization or care in a nursing home at all level of dependency, except for the most disabled elderly in Roskilde for whom care in a nursing home was estimated to cost marginally less. In Dublin, home care costs were estimated to be consistently lower than hospitalization but care in a nursing home was found to be more cost effective at intermediate to high levels of dependency.

However, some caution must be attached to these findings because the full cost of home care must include two items that turned out to be potentially problematic for comparison across countries. The first is personal consumption. The relevant data can be derived from household budget surveys suitable for studying macroeconomic aggregates – consumption income savings etc. – or from household income surveys suitable for interpersonal comparisons. In both cases personal consumption figures might include items like payment for private home helpers, or nurses that are also entered as separate items in the reported costing exercise, thus giving rise to potential duplications that it is not easy to identify and remove. The second problematic cost item is hours of supervision by unpaid family carers. Unlike hours of physical care – like bathing, feeding, administering medicines – and of instrumental care – like shopping house cleaning, ironing – both of which tend to be reported with an acceptable degree of accuracy, hours of supervision are fraught with measurement errors. To mention only the most apparent reasons for such errors, unpaid hours of supervisions may be exaggerated or underestimated depending on cultural stereotypes. Also, and perhaps more importantly, respondents may find it difficult to precisely separate supervision time from time for physical and instrumental care. Finally costing night time supervision by family carers who co-reside with the elderly is problematic: should such time be priced at the opportunity cost of the carer even when the total declared care time runs up to 24 hours per day?

It is beyond the scope of this paper to fully address such problems. However, this is not strictly required for the kind of inter-country comparisons of home care that serve our purposes. Once differences in purchasing power parity are accounted for, in fact, personal consumption of elderly people in need of care (and thus often confined at home) is not likely to vary substantially

across our three countries. We therefore believe that errors are minimized if we compare costs net of personal consumption. As for the cost of unpaid supervision, we present two sets of calculations, respectively including and excluding such cost[3].

The findings in table 2 must be assessed with these caveats in mind. Total costs (net of personal consumption) are broken down into five levels of disability – from A to E in ascending order – and are reported in actual Euros (first set of figures) and in Purchasing Power Parity figures (PPPs, second set of figures). Average cost figures across disability levels (at the bottom of the table) have been computed standardizing the composition of the elderly in the sample to the disability distribution reported for Italy[4]. Two sets of PPPs averages are reported, respectively excluding and including the opportunity cost of supervision by the (unpaid) family carer.

Costs tend to progress along the disability scale, which conforms to expectations. The only exception is for category D both in Dublin and in Modena, principally on account of scant observations in this group. If we take average values, the ranking of countries with respect to costs effectiveness is the same whether or not we standardize for purchasing power parity and whether or not the cost of supervision is included: Italy shows the most cost effective arrangements followed by Denmark and Ireland. What varies with standardization and the inclusion of supervision cost is the actual cost gap between countries. Considering the inevitable degree of approximation entailed by these exercises and the fact that the gap would diminish in percentage terms if personal consumption was included, Italy and Denmark turn out not to be too far apart when costs are expressed in PPPs, with extra costs for Denmark ranging from 13 to 25 percent (depending on whether supervision by family
carers is included or excluded).

Table 2 about here

In order to gain insight into these findings we must look at the structure of costs. Here we shall confine our attention to Denmark and Italy because they appear to have achieved fairly similar levels of costs despite the radically different organization of home care. The structure of costs is reported in section A of Table 3 and is complemented by figures on the hours of care in section B of

[3] Because, however, the cost of paid supervision (i.e. supervision by private or public home helper) suffers from none of shortcoming cited for unpaid supervision it is fully included in the calculation.

[4] We have used the Italian distribution for this standardisation for heuristic purposes, since the process of aging in Italy (and in Modena in particular) has gone further than elsewhere in Europe and is thus likely to anticipate future developments in other countries. However, any of the three distributions would have been appropriate on strictly statistical grounds.

the Table. All the figures refer to category of dependency C corresponding to intermediate-to-high levels[5].

Clearly, hours supplied by home carers are the principal cost item in both countries. Families in Modena variously combined unpaid labour by the family carer with paid services from migrants (minders) , provisions like house cleaning bought on the private market and skilled home help supplied by the municipality (e.g. to bathe, clean and give basic medication to a bed-ridden elderly), the three latter items being factored in as 'home help'. Unpaid care by family members in Denmark was not recorded by the survey. In the assessment of the Danish researchers taking part in the survey care by family members is sufficiently negligible compared to home help supplied by the public to make it worthwhile for a survey on costs to concentrate on the latter. The available evidence is broadly consistent with this view[6].

In our estimation, hours of home care account for a share of 55.3 percent of total costs in Italy and of 52.6 percent in Denmark. Contrast the similarity in these shares with the difference in average hours of care: 12.3 hours care per elderly per week in Denmark compared with 43.6 hours in Italy.[7] Clearly, a strong difference in the per hour cost is implied, with the high cost country – Denmark – being intent upon minimizing labour units in order to keep the total amount down and the low cost country – Italy – achieving an even better result by keeping unit labour cost low.

Table 3 about here

[5] Because input levels and input proportions vary considerably across levels of dependency, we have chosen to confine comparison to a single category rather than taking average values, even if this implies a limited number of observations (about 40).

[6] Based on a survey of about 1050 individuals carried out in 1999, Leeson (2004: Table 1.3) reports that the percentage of persons aged 60 years and over in receipt of various forms of help from their social network (family excluding spouse, friends, neighbours and volunteers) varied from less than one percent for personal care to 4/5 percent for shopping, cleaning and laundry, reaching a peak of 21 percent only for gardening and house repairs. Care by spouses is more frequent, but there is no hard evidence on the extent of the latter. While, in principle, neglect of unpaid family care could be a source of underestimation of the total costs of home carers for Denmark, this is balanced up by the fact that in Italy unpaid care from family members other than the main carer or from friends and volunteers was recorded but not factored in the costs.

[7] In order to enhance comparability the discussion in the text refers to the figures that exclude supervision by the family carer (the totals in the shaded cells of the table) while they include hours of paid supervision, e.g. by foreign minders in Italy and public home helpers in Denmark. As shown by Table 2, however, Italy's total costs remain lower even if the hours of supervision by the family carer are factored in.

Labour inputs are kept in check in Denmark by housing and technology[8]. The 4.4 percent share of costs devoted to personal and technical appliances in Denmark highlights the role of technology and rationalization of tasks in the organization of home care. The maximum weekly hours an elderly person in the Roskilde sample received was 47 hours, but the average ranged from 1.2 for the least dependent group to 12.1 for the intermediate dependent group up to 34.1 for the most dependent. The reason is extreme rationalisation: some municipalities calculate in single minutes how long the services being provided must take. The price for such rationalisation is, often, loneliness for the elderly person. To quote from Hughes et al. (2004, p. 19):

"The very low number of care hours provided for dependent elderly people in Roskilde is generally regarded as inadequate. Their physical needs are provided for but their psychological needs are not. The dependent elderly in Denmark have little contact with people other than their carers and are consequently rather isolated. The rapid turnover of caring staff employed by the municipalities accentuates this isolation. In some municipalities and especially in Copenhagen students take jobs as home helpers to partially pay for their studies. The delivery of care through paid professionals means that most of the elderly, and primarily elderly women, are left in their own home often with no social networks and few daily contacts with other people".

Lewinter (1999) suggests that this image of the lonely elderly underestimates the contribution of family and friends to the social life of the elderly, and Leeson argues that perhaps the main role that the Danish family retains is helping its older member to remain "socially active and included (take part in family events)" (Leeson 2004, p. 14). While these studies qualify the divide between the Danish and the Italian model that emerges from our data, they cannot detract from the fact that the divide remains large.

The Italian families in Modena could afford to be generous with care time due to a combination of low opportunity cost and low actual cost for substitutes for their caring time. The opportunity cost of carers' time was valued at € 2.7 per hour in Modena, less than half of the average net female earnings in industry in the region (€ 5.8) and lower than the minimum contractual figure for an unskilled home helper (€ 5.13)[9]. More specifically:

(i) because of a much older population structure, carers in Italy are themselves much older than their Irish counterpart and thus less likely to have given up employment in order to

[8] Having chosen not to report personal consumption (including rent) there is no trace of role of housing in the cost structure that we report. Housing costs are a very complex cost item accounting for which is beyond the scope of this paper. For a general account of the role of dedicated housing and of technology in the efficient organization of the Danish care sector see Capecchi (2004).

[9] Bettio et al. (2007: Table 27) and own calculations on the Bank of Italy Household survey for 2002 (microdata).

care for a family elderly: merely 17 percent of carers in the Modena sample were below the age of 50. Moreover, until recently, early retirement has been extensively used in Italy to soften the impact of redundancies, thus freeing at least some older carers from the need to choose between paid market work and unpaid care work. Both these factors lower the probability of being in work, and therefore the opportunity cost of caring.

(ii) carers from a two earner family in Modena were often able to remain in the labour market due to their ability to hire immigrants to provide care on a live-in basis in the home or by coming to the home on a daily basis.

The latter feature, which we interchangeably refer in this paper to as 'migrant in the family' or the 'foreign minder' solution, clearly distinguishes the Italian elderly care system from that of Denmark or Ireland. Crucial elements in the decision to hire non family carers in order to retain employment are wage and employment conditions. For reasons that we shall expound below, starting from the 90s the demand for elderly carers met plentiful supply of female immigrants originating primarily from Eastern European Countries, Latin America and the Philippines (Bettio et al. 2006). With the complicity of the informal labour market, some families still impose exploitative wages and conditions of work. However, thanks to successive regularization of immigration flows and the granting of residence and work permits to those already working, a non negligible share of contracts between families and immigrant carers are legal and abide to at least some minimum contractual standards.

In particular, the municipality of Modena has set up a scheme that encourages families to legalize the position of their live-in foreign carers, and the number of contracts signed under this scheme totalled about 300 in 2003 and increased later. Average gross costs to the family of live-in minders in these contracts amounted to € 987 euro per month inclusive of the social security contributions owed by the family and corresponding to net earnings of about € 800-850 per month for the migrant[10]. If we assume that this earnings figure for Modena is sufficiently close to the clearing market rate in medium to large cities of Northern Italy and divide it by the hours of work estimated by the survey (66.9 per week, as noted or 288 per month), we get an hourly cost of about € 3.4, not much higher than the opportunity cost for a family carer in Modena. Hiring external carers or minders was more expensive on an hourly basis. However, the contractual minimum was about € 5 per hour at the time of the survey, and the actual pay needs not be much higher, even on a regular contract, if the supply of candidates is plentiful as has been the case so far.

[10] Other sources confirm this order of magnitude for the North of the country, and not necessarily for 'official' contracts only (Caritas 2003).

It is instructive to compare the hourly cost figures that we just derived for in-living immigrant workers with the cost of potential alternatives. The hourly fee for a care worker from local cooperatives in Modena, typically a native worker, ranged between €8 and €13 at the time of the survey. Public home helpers were far more expensive since their cost to the municipality of Modena was €19.8 per hour, more than in Roskilde (€14.9) although this latter comparison may be distorted by differences in the skill mix.

Italian families appear, in fact, to efficiently combine three different types of labour – family carers, hired minders and public home helpers – treating them as complements. The minder is dependent on the family carer for coordinating his/her work and for complementing his/her work with tasks requiring skills that the migrant may lack, like knowledge of language or of the way institutions work. At the same time the public carer is more skilled at handling severely disabled elderly than either the family carer or the minder are, and s/he is likely to be far more productive on a per hour basis. Thus cheaper migrant labour is mainly allocated to minding and physical assistance, while the family carer supplies coordination and social skills whenever needed, and the public home helper chips in briefly for paramedical or skilled tasks like handling and washing an elderly person confined to bed.

Summarizing on cost-effectiveness, in order to be cost effective Denmark cuts down on the quantity (hours) of professional care while Italy keeps labour costs of carers down. The downside of the Danish solution is low social integration for the elderly. This raises questions about of the quality of care provisions and, specifically, whether they can really be assumed to be comparable across the three countries as we are doing here. In contrast to the Danish solution, the 'foreign minder' solution that has spontaneously developed in Italy may preserve the human touch of family care, but raises issues of exploitation and unequal treatment of foreign carers. Because most of the migrant carers are women and some leave their own family behind, such issues include the risk that receiving countries like Italy subtract care resources from the countries of origin for immigrants. We shall examine issues of equity in the next section, while we lack information to pursue the question of quality any further.

The 'foreign minder' solution also raises doubts about long term sustainability. With less than one a half child per woman in many regions of Italy, and an increasing share of childless couple, the elderly of the future will be more at risk of living on their own and not being able to count on a family carer to organise and co-ordinate paid help for them. Moreover, migrant care workers from Eastern European countries like Albania, Poland, Bulgaria, Romania, but also Chechnya, and Moldavia are known to be well represented among minders in Italy (see below). They are especially valued by families on account of cultural similarity and ability to quickly learn

the language. Since most of them migrate because of lack of opportunities back home, the question arises of how long it will take for the economy of some of these countries to pick up and dry out emigration flows.

Since robust evaluation of sustainability requires separate research, in what follows we shall be primarily concerned with assessing equity. In order to set the stage for the discussion on equity, the next section looks more closely into the recent history and the current conditions of female migrant carers in Italy, with occasional reference to other Mediterranean countries.

5. Migrant carers and equity

Like other European countries, Italy changed from being a region of emigration to one of immigration starting from the 80s. While high permeability of borders played and continues to play an important role, it is primarily the existence of a large underground economy[11], coupled with an immigration policy of ex-post regularisations rather than ex-ante control that pulled migration flows into Southern Europe (Reyneri 2003). The overwhelming majority of migrant workers first entered Italy and Southern European countries without a work permit (either on a tourism or a student visa, or crossing the border illegally), found work in unregistered and undeclared jobs, and stayed, or overstayed their visa, without residency. Some took advantage of repeated regularization episodes to legalize their positions, while others preferred to remain underground. Between the mid eighties and 2003 Italy witnessed five regularisation waves, Spain five, Greece two and Portugal three, involving, respectively 1502 thousand, 555 thousand, 722 thousand, and 181 thousand individuals. Successive episodes of regularisations created expectations that acted as a strong pull factor (Boswell and Straubhaar 2004).

In the specific case of elderly care, however, pulling factors would not have sufficed on their own to attract enough supply, were it not for the push exercised by the political and economic collapse of the Eastern bloc. The arrival of large numbers of migrant female workers from the East allowed a typically South European immigration pattern to spontaneously develop into a new model of elderly care.

[11] 'Underground economy' is meant as paid activities that are not fully registered and may therefore evade, at least in part, administrative and legal rules on taxation, social security contribution, safety, labour standards.

Developments in Italy tell this story especially well. The 1970s and the 1980s witnessed an increasing inflow of female immigrants "on their own", i.e. not having moved to re-unify with their family. They came mainly from countries with catholic or historical/colonial ties: Africa (former Italian colonies and Capo Verde) and South East Asia (Philippines). The Church was often instrumental in bringing these early migrants into the country in response to a waning local supply of middle-aged, low income women as well as an ever thinner stream of "internal migration of domestic servants – young girls from poor, rural backgrounds who went to the big cities to work as maids for rich families" (King and Zontini 2000, p. 46).

With the arrival of Peruvian women in the 90s, there was a first 'spontaneous' move to employ female migrants as elderly minders. Following the collapse of the Eastern bloc a much larger and heterogeneous flow of female migrants from Poland, Ukraine, Romania and Russia entered the market of personal care in the mid nineties and rapidly changed the organisation of work in the elderly care sector throughout the country.

Prior to large scale immigration, families had tried to cope with the sudden rise in long-term care needs by resorting to a mix of solutions, from an increase in the (unpaid) work load for women, to exit from the labour market of female carers when the double burden became unbearable, to reliance on the meagre supply of public helpers or a burgeoning market of private home carers, to institutionalisation (in hospitals or in nursing homes). All such options were either costly or rationed. Cheap immigrant labour outcompeted expensive alternatives and/or filled the public services gap.

The hiring of foreign minders was so popular among families that political pressure forced yet another call for regularisation upon a fairly unwilling government in 2002. The success of this call was unprecedented and partly unexpected: some 702 thousand illegal immigrants applied, with little less than half (341 thousand) of them demanding regularization as worker in domestic services. Another way to emphasize the extent to which this regularization was targeted on home helpers is to note that 2 migrants applied for regularization every 100 regular employees, compared with 11.5 migrants for every 100 housewives (Table 4).

The 2002 regularization scheme radically changed the composition of migrants by nationality as well as sex. Source countries of predominantly female migration like Romania, Ukraine, and Poland recorded the highest incidence of regularizations in their respective community, signalling that flows from these countries were both the most recent and the ones growing more rapidly.

This pattern continued into the second half of the present decade, with about half of the applications for a regular work permit in 2006 attributable to the domestic service sector. Because of the high incidence of irregular employment it is difficult to give a precise figure on the stock of elderly care worker currently employed by families. According to the latest estimates they totalled 774,000 in 2008 and cared for 6.6 percent of the population older than 65 years of age (Pasquinelli and Rusmini 2008, pp. 9-11). The overwhelming majority are foreigners (about 90 percent) with the largest groups originating from Romania, Ukraine and Moldova. Estimates of the share of migrant workers without a regular contract varies depending on source and year of the survey: the latest figure is two thirds (Pasquinelli and Rusmini 2008, p. 10), but earlier surveys suggest a lower figure (IREF-ACLI 2007, pp. 33)[12].

Eastern European female migrants tend to differ radically from previous waves of migrants as well as from present day female migrants from non-European countries. In order to discuss equity and social inclusion it is important to articulate these differences. For heuristic purposes we may divide female migrants into two large groups. The first group broadly corresponds to women from the Eastern bloc, while the second comprises migrants from less developed and more distant countries, especially Latina American and the Philippines. The typical Eastern European female migrant is a woman with a diploma, middle-aged and married with children who left her own family behind (Piperno 2007). Before EU enlargement most of them entered on a temporary tourist visa; enlargement has made entry straightforward for important supplies like Polish women first and Romanians women later, although work permits are still restricted. Many of them pursue a temporary migration project and strive to attain what may be called 'project income', i.e. they are interested in staying the minimum period necessary to save income earmarked for specific projects back home like building a house, paying for children's college, buying a car or some household appliance[13]. A non negligible share work in relays (i.e. in rotation with other women) in order to be able to take up care work in the host country while meeting familial responsibilities in their home countries (Morokvasic 1996; Morokvasic et al. 2003).

By contrast, female migrants from more distant countries tend to be less educated and include a higher proportion of single and younger women. Even those who are married or separated and have left their own family behind follow a long-term migration project. Their participation

[12] See also the newspaper *Il Sole 24*, 2nd of April 2007: 1,5) for estimates of all foreign workers in domestic employment.

[13] See Caritas 2003, Immigrazione. Dossier Statistico 2003, p. 297, and, among others, Ambrosini and Boccagni, 2003 for Trentino.

behaviour may not be driven by specific projects either because their return home is uncertain or because they remit their savings on a regular basis to support the family they left behind.

While the reality of migrants in the care sector (or in other sectors) is far more complex than implied by this sketchy partition into two groups, and is constantly evolving, the purpose here is to clarify issues, not to render a realistic and comprehensive account of present day migrant carers in Italy. Our interest in emphasizing this partition is not only the fact that exposure to labour market discrimination or the cost of having to neglect the family left behind (the so called 'care drain') differs across groups of migrants, but also the possibility that discrimination or care drain means different things for different groups, calling for a revision of these concepts.

Let us look more closely at the frequent allegation of discrimination in pay and/or working conditions. As it is well known, the debate on labour market discrimination dates back from the seventies and is a very thorny one, with many issues still unresolved. Nevertheless, a largely consensual definition emerged among economists (Cain 1986) that may be put as follows: discrimination exists when the following conditions are verified (i) systematic wage and/or income disparities persists between *clearly identifiable groups*, not individuals, and (ii) the said income or wage disparities originate from lower pay for the discriminated group despite *potentially* equal productivity across groups. *Potential* productivity is, in turn inferred (and measured) from a vector of individual characteristics ranging from age, education, work attitudes that may influence actual productivity on the job. Clearly this definition allows group discrimination to exist even when occupational segregation prevents between groups direct comparisons of wages for the same job.

If we accept this definition, both our groups of migrant carers would in all likelihood be found to suffer from discrimination by any standard statistical and econometric investigation (assuming that the right data were available for this exercise): migrants are clearly identifiable; they are rather eager to work; by virtue of being 'women' they are assumed to be as 'productive' as national workers in occupations like 'minding' where (good) knowledge of language is not strictly required although it may be valued (and even compensated) as a desirable 'extra'. Yet, judging by all available evidence they earn less than local (female) workers of comparable qualifications.

In order to briefly document inequality of pay, let's go back to the earnings of live-in minders on 'regularised' contracts in Modena. Recall that net earnings amounted to some 800-850 euro per month. The comparison with average net female industrial earnings in Modena is not so unfavourable, since the latter amounted to about 980 per month at the time of the survey[14], but gets

[14] Capp estimates for 2002 updated using the official rate of inflation (cf. Capp 2003).

much worse once we discount for differences in hours: on an hourly base a female employee in industry earned between € 5.8 (blue collar) and € 6.8 (white collar) compared with our earlier estimate of about € 3.4 an hour for a live-in minder.

From the point of view of migrants, however, calculations do not look as unfavourable as the above figures would suggest. Being a live-in minder means, in fact, saving on board and lodging in areas where rents are very high. So, earnings can be largely saved. At the same time, (Eastern) female immigrant minders interviewed in Modena around the time of the survey revealed that their wages were from 7 times (Romania) up to 15 times (Moldavia) what could be earned, or what was earned by their husbands back home (Mottura 2004). The instinctive reaction to these disclosures is that there is something disturbing in the notion that these workers are discriminated. The reason is that discrimination is often equated with lack of equity, some kind of unfairness that damages or puts at a disadvantage the group object of discrimination. Such concept may be problematic when analysing migrants.

The notion of 'purchasing power' may be relevant here. Consider applying this notion to that group of eastern minders that migrate with a 'project income' in mind. The share of earnings that they periodically bring home to spend in their project is likely to more than double in purchasing power terms. However, the notion of discrimination on grounds of lower pay presumes a one to one correspondence between nominal levels of pay and the associated purchasing power; in other words it assumes that foreign and national workers face the same price structure, that of the receiving country. The question is whether discrimination in the guise of unequal nominal pay for the same or comparable work can still be equated with unfairness and disadvantage when this correspondence no longer holds.

Note that there is an asymmetry in this respect between national workers and temporary migrant workers. While temporary migrants can take the earnings they save back home to boost their purchasing power in a not very distant future, this is hardly an option for national workers since many goods and services can only be consumed where one lives. Finally, matters are obviously different for long-term or permanent migrants although the purchasing power argument may be extended, within limits, to the remittances they send regularly back home.

While the purchasing power argument may be a healthy correction to indiscriminate victimization of migrants (Kofman 2003), the risk that it may be used to justify all sort of exploitation of foreign workers is all too apparent. However, this same argument can be turned on its head and used to the opposite effect. To the extent, that is, that low pay for migrants may put some downward pressure on national wages indirectly rather than indirectly – there is evidence that

occupational segregation or trade union regulations prevent direct competition between migrants and nationals (Venturini 2001) – it may be argued that national workers might suffer since they cannot compensate deteriorating pay conditions with access to cheaper goods and service markets.

From a gender perspective, acknowledging the purchasing power argument may help to resolve the seeming opposition between those who portray female migrants solely as victims of exploitation – indeed double exploitation, as foreign workers and as women – and those who view their migratory project as expression of emancipation. As the above example of Rumanian and Moldavian women makes clear, migration for these women is bound to imply some forms of empowerment, and this is equally true of, say, care workers from the Philippines sending remittances back home that weigh largely on the family budget.

Let us turn now to the issue of care drain. A fairly cynical economist would argue that reconciliation between work in a distant country and caring for one's family left behind is influenced by how much care can be bought back home with the wages received in the host country. From an equity perspective, however, the weakness of this argument is that caring for one's own family should be viewed as a right and not only as a task. In this respect the 'foreign minder' solution (or indeed any 'foreign carer' arrangement) involves clear cut equity costs (Ehrenreich and Hochschild 2003), although assessment of these costs may be problematic.

Summing up on equity, because of conceptual and measurement difficulties it is much harder to rank home care arrangements with respect to equity than with respect to cost-effectiveness. We have raised rather than solving two of the equity issues that are brought to the fore by the increase in migrant carers in Italy. The loss of equity implied by labour market discrimination of foreign migrants may be lessened by the fact that some of them can exploit in their favour a purchasing power differential. At the same time the loss of equity entailed by the fact that some women migrants are forced to give up the right to care for their own family must be weighted against the fact migration offers women a chance to redress the imbalance of power within the family, as well as in society.

If all this is taken into account it is not at all clear whether stronger reliance on unpaid family carers typified by Ireland in the early 00s is more equitable than the 'foreign carer' solution currently favoured by Italy. Is it more unfair to underpay migrant workers or to have a family member to give up or reduce paid work without any compensation? On balance, the Danish model of professional care workers is probably superior. Public professional carers may be relatively underpaid compared to equally skilled workers in other occupations (Reinicke 2004), but issues of discrimination are likely to be far weaker than for immigrant carers in informal employment in

Italy. Also, insertion of foreign female migrants into public professional care permits more equitable solutions to the 'care drain' problem because it offers migrants career-ladder type of employment and, therefore, much higher chances for full integration in society. At the same time, however, it is likely to limit their numbers due to constraints to public budgets, thus closing to some a road to emancipation. To add to complexity, the question of equity overlaps with the larger question of the different quality of employment that the different care systems create as well as with the question of the quality of future economic growth that the expansion of different care sector may favour (Simonazzi 2009).

6. Concluding remarks

The issues of cost-effectiveness and equity that are raised by the comparison of long term care provisions in Denmark, Ireland and Italy need further conceptual refinement as well as more empirical research in order to be addressed satisfactorily. Given the current state of knowledge we would conclude that the ongoing evolution in Italy from family services to migrant-in-the-family arrangements entails a moderate trade off between gains in cost-effectiveness and losses in equity. The comparison between Ireland and Italy (at the time of the survey) suggests that the new combinations of family and migrants in the latter country may not be less equitable than heavier reliance on family labour in the former, while affording some gains in cost-effectiveness. These gains are ascribable, in part, to the differential in earnings between migrant carers and (female) worker who hire them and would otherwise be forced to quit their job or reduce their hours of work. The comparison between Denmark and Italy suggests, however, that the costs advantages for the Italy are relatively contained and need to be weighted against comparatively lower equity.

In addition to the need for a better balance between cost-effectiveness and equity, the Italian solution raises questions of long run sustainability that we have deliberately neglected in this paper. We have also neglected the larger question of the quality of employment created by the different care arrangements and of the quality of the care being offered.

It is all the more important to address these issues as clear evidence is now available that in Europe countries such as Spain or Greece are following similar paths to the one illustrated for Italy. While developments in all these countries are part of a wider process of migrant labour leading the expansion of the care sector, the Mediterranean migrant-in-the-family solution for long term care raises specific challenges.

References

Anttonen A., Baldock J. and Sipilä J. (eds.) (2003), *The Young, the Old and the State*, Edward Elgar: Cheltenham, U.K. and Northampton, Mass.

Ambrosini M. and Boccagli P. (2003), *L'inserimento delle donne immigrate nel mercato del lavoro e nei servizi di cura*, mimeo, Immigrazione e lavoro in Trentino: una rappresentazione quali-quantitativa, Progetto Equal Promo Care.

Anthias F. and Lazaridis G. (eds.) (2000), *Gender and Migration in Southern Europe*, Berg: Oxford.

Banca d'Italia (2002), "I bilanci delle famiglie italiane nell'anno 2000", *Supplemento al Bollettino Statistico*, No. 6/XII.

Bettio F., Mazzotta, F. and Solinas, G. (2007), "Costs and Prospects for Home Based Long Term Care in Northern Italy", *Celpe Discussion Paper*, No. 103, Università di Salerno. (http://www.unisa.it/Centri_e_Vari/CELPE/discussionpaper.php).

Bettio F. and Plantenga J. (2004), "Comparing Care Regimes in Europe", *Feminist Economics*, Vol. 10, No. 1, pp. 85-113.

Bettio F., Simonazzi A. and Villa P. (2006), "Change in Care Regimes and Female Migration" *Journal of European Social Policy*, Vol. 16, No. 3, pp. 271-285.

Boswell C. and Straubhaar T. (2004), "The Illegal Employment of Foreigners in Europe", *Intereconomics*, January-February.

Cain G.G. (1986) "The Economic Analysis of Labor Market Discrimination: A Survey" in *Handbook of Labor Economics*. Volume 1, North-Holland: Amsterdam.

Capp – Centro di Analisi delle Politiche Pubbliche (2003), "Indagine Icesmo sui redditi e le condizioni di vita a Modena", Università degli Studi di Modena e Reggio Emilia.

Capecchi V. (2004), "Innovazione tecnologica a favore di persone anziane e disabili", *Economia Italiana*, No. 1.

Caritas 2003, *Immigrazione, Dossier statistico 2003*, Anterem: Roma.

Cavounidis J. (2002), "Migration in Southern Europe and the Case of Greece", *International Migration*, Vol. 40, pp. 45-70.

Cnel (2003), "I lavoratori extracomunitari", in *Rapporto sul mercato del lavoro 2002*, CNEL: Roma (pp. 284-296).

Cuadras-Morato X., Pinto-Prades J.L. and Abellan-Perpiñan J.M. (2000), "Equity Considerations in Health Care: An Axiomatic Bargaining Approach", *UPF Economics & Business*, Working Paper No. 479.

Davies B., Fernández J. L. and Nomer B. (2000), *Equity and Efficiency Policy in Community Care*, Aldershot: Ashgate.

Ehrenreich B. and Hochschild A.R. (eds.) (2003), *Global Women. Nannies, Maids, and Sex Workers in the New Economy*, Metropolitan Books, Henry Holt and Co.: New York.

Escrivá A. (2005) "Aged global care chains: a Southern-European contribution to the field", Conference on Migration and Domestic Work in Global Perspective, Wassenaar, May.

Gibson M.J., Gregory S.M. and Pandya S.M. (2003), "Long Term Care in Developed Nations: a Brief Overview", Research Report, AARP Policy Institute: Washington D.C.

Gori C. (2003), "Long Term Care: l'Italia tra ritardi ed opportunità di sviluppo", in Guerra M.C. e Zanardi A. (eds.), *La finanza pubblica italiana. Rapporto 2003*, Il Mulino: Bologna.

_____ (2005) "L'assistenza agli anziani non autosufficienti in Europa", in Facchini C. (ed.) *Anziani e sistemi di welfare*, Franco Angeli: Milano.

Hughes G., Bettio F., Reinicke K. and Solinas G. (2004), "Gender Analysis and Long Term Care of the Elderly: Synthesis Report (part 1)", European Commission and Fondazione G. Brodolini: Rome.

Hughes G., Williams J. and Blackwell S. (2004b) “Gender Analysis and Long Term Care of the Elderly: Country Report for Ireland (Part 1)”, European Commission and Fondazione G. Brodolini: Rome.

IREF-ACLI (2007) “Il Welfare fatto in casa”, Rapporto di Ricerca, Istituto di Ricerche Educative e Formative (IREF): Roma.

Leeson G.W. (2004) “National Background Report for Denmark”, Eurofamcare Project, http://www.uke.uni-hamburg.de/eurofamcare (accessed December 2006).

Lewinter M. (1999) “Spreading the Burden of Gratitude – Elderly Between Family and the State”, mimeo, Dept. of Sociology, University of Copenhagen.

Lyberaki A. (2008a) “ ‘Deae ex Machina’: Migrant Women, Care Work and Women’s Employment in Greece”, IAFFE Annual Conference, Torino, June.

Lyberaki, A. (2008b) “The Greek Immigration Experience Revisited”, *Journal of Immigrant and Refugee Studies*, Vol. 6, No. 1, pp. 5-33.

Kasimis C. and Kassimi C. (2004), “Greece: A History of Migration”, Migration Policy Institute, Migration Information Source: Country Profiles “Greece” (http://www.migrationinformation.org/Profiles/display.cfm?ID=228).

King R. and Zontini E. (2000), “The Role of Gender in the South European Immigration Model”, *School of European Studies*, Paper n. 60, University of Sussex: Faler, Brighton.

Kofman E. (2003), “Women Migrants and Refugees in the European Union”, Conference EU-OECD Conference on The Economic and Social Aspects of Migration, Bruxelles.

Kofman E. and Parvati R. (2007) “The Implications of Migration for Gender and Care Regimes in the South”, UNRISD: Geneva.

Mercer Limited (2002), *Study to Examine the Future Financing of Long-Term Care in Ireland*, Stationery Office: Dublin.

Morokvasic M. (1996), “Entre Est and Ouest, des Migrations Pendulaires” in Morokvasic M. and Rudolph H. (eds.) *Migrants. Les Nouvelles Mobilités en Europe*, L’Harmattan: Paris.

Morokvasic M., Erel, U. and Shinozaki, K. (eds) (2003), “*Crossing Borders and Shifting Boundaries. Gender on the Move*”, Vol. 1, Opladen: Leske and Budrich.

Mottura G. (2004), “Domanda di *care* domiciliare e donne migranti”, mimeo, Università di Modena e Reggio Emilia.

Österle A. (2001) *Equity Choices and Long-Term Care Policies in Europe*, Aldershot: Ashgate.

Pacolet J., Bouten R., Lanoye H. and Versieck K. (1999), “Social Protection for Dependency in Old Age in the 15 EU Member States and Norway”. Report commissioned by the European Commission and the Belgian Minister of Social Affairs, *Office for Official Publications of the European Communities*: Luxembourg.

Pasquinelli S. and Rusmini G. (2008) “Badanti: la nuova generazione”, Dossier di Ricerca ‘Qualificare’, Istituto per la Ricerca Sociale (IRS): Milano.

Piperno F. (2007) "L’altra faccia del nostro welfare: il drenaggio di cura nei paesi di origine. Il caso della Romania", *Studi Emigrazione*, Vol. 44, No. 168, pp. 947-967.

Reinicke K. (2004), “Gender Analysis and Long Term Care of the Elderly: Country Report for Denmark (part 1)”, European Commission and Fondazione G. Brodolini: Rome.

Reyneri E. (2003) “Illegal Immigration and the Underground Economy”, Conference on The Challenges of Immigration and Integration in the European Union and Australia, University of Sidney, February.

Salimbeni O. (2004), “Marriage as Immigrant Gate: the Situation of Female Marriage Migrants from Third Countries in EU Member States”, mimeo, Berlin Institute for Comparative Social Research.

Simonazzi A. (2009) “Care Regimes and National Employment Models”, Cambridge Journal of Economics, Vol. 33, No. 2, pp. 211-232.

Steinhilber S. (2003), “The Specific Situation of Female Migrant Workers in Relation to Social Security”, Report to the Committee of Expert On Co-Ordination in the Field of Social

Security", *Council of Europe*, Strasbourg (http://www.coe.int/T/E/social_cohesion/social_policies/04.Activities/3.Social_Security/3.International_Coordination/05_Publications/Default.asp).

Timonen V. and Doyle M. (2008) "In Search of Security: Migrant Workers' Understandings, Experiences and Expectations Regarding 'Social Protection' in Ireland", *Journal of Social Policy*, *Vol.* 38, No. 1, pp. 157–175.

Venturini A. (2001), *Le migrazioni e i paesi sudeuropei. Un'analisi economica*, Utet: Torino.

Table 1 . Percentage of Dependent Elderly Persons Being Cared for by the Family, by Private Services or by Public Services in Denmark, Ireland, and Italy

Providers	*Denmark*	*Ireland*	*Italy*
Family and friends	Very low*	76.6	83.1
Family or private services	Very low*	23.4	11.8
Public or private services	Universal coverage provided by local authorities*		5.1

* See section 3 for details.
Source: Hughes et al. (2004); Bettio et al. (2007); Reinicke (2004).

Table 2. Estimated social cost of care, per week, per elderly, 2003*

Category of Dependency	*Roskilde*	*Dublin*	*Modena*
At actual prices		*Euro*	
A	230.3	313.2	111.2
B	280.3	437.3	208.5
C	343.0	607.4	273.5
D	445.0	800.6	213.6
E	722.2	645.4	307.7
At PPPs		*(Euro, EU=1)*	
A	178.8	227.6	115.8
B	217.7	317.9	217.1
C	266.3	441.4	284.7
D	345.5	581.9	222.3
E	560.8	469.0	320.3
Average: actual prices using common weights			
	388.4	513.7	218.4
Average in PPPs (EU=1) using common weights			
	301.5	451.6	227.3
Average in PPPs, adding the cost of supervision by family carer			
	301.5	698.7	261.3

* Net of personal consumption, including imputed rent

Source: our calculation using GALCA survey data; Eurostat for PPPs.

Notes: For details on the methodology and GALCA survey data see Hughes et al. (2004), Hughes et al. (2004b: Table 6.6), as well as Bettio et al. (2007: Table 29) and Reinicke (2004: Table 10). Average total costs in this table do not correspond to total costs reported by these sources because consumption (including imputed rent) has been dropped from the calculations.

Table 3. Cost structure and hours of care, 2003
(Intermediate category of dependency: C)

A. structure of costs for category of dependency C

Cost item	Roskilde	Modena
Hours of home care		
physical+ instrumental care by family carer (opportunity cost)	negligible	17.6
Private (paid) or public home help	52.6	37.7
Use of hospital	31.8	29.0
Use of nursing home		3.3
Doctor	0.9	7.7
Public health nurse		0.3
Private nurse		1.9
Meals on wheals		
Chiropodist/physiotherapist		2.0
Priest		0.2
Day care	10.0	
Housing adaptation	0.3	0.3
Personal and technical appliances	4.4	
TOTAL	*100.0*	*100.0*
TOTAL adding opportunity cost of supervision	*100.0*	*114.7*

B. Hours of home care for category of dependency C

Home help including paramedical and supervision	12.1	25.7
Family carer		
Physical+instrumental	negligible	17.9
Supervision	negligible	14.9
TOTAL	*12.1*	*43.6*
TOTAL adding supervision by family carer	*12.1*	*58.5*

Source: Our calculations based on the GALCA survey results and on Reinicke (2004: table 10)

Table 4. Unauthorised immigrants who availed themselves of the 2002 regularisation schemes in Italy

	All applicants for employment	Applicants for employment in domestic services	Total applicants	Total employees ('000, Italy)	Total housewives ('000, Italy)	*Ratio (%)*	
	a	d	c	d	e	*a/d*	*b/e*
North-West	135,410	98,533	233,943	4,800	552	*2.8*	*17,9*
North-East	73,683	58,608	132,291	3,385	366	*2.2*	*16,0*
Centre	91,807	112,045	203,852	3,172	507	*2.9*	*22,1*
South	50,929	60,287	111,216	3,061	1,028	*1.7*	*5,9*
Islands	9,206	11,648	20,854	1,431	526	*0.6*	*2,2*
ITALY	361,035	341,121	702,156	15,849	2,979	*2.3*	*11,5*

Source: Ministero dell'Interno

RECENTLY PUBLISHED “Materiali di Discussione”

N. 608 - *Immigrant Links, Diasporas and FDI. An Empirical Investigation on Five European Countries*, by Sara Flisi and Marina Murat [January 2009].

N.607 - *Il boom demografico prossimo venturo. Tendenze demografiche, mercato del lavoro ed immigrazione: scenari e politiche***,** by Michele Bruni [December 2008].

N. 606 - *Marriage and Other Risky Assets: A Portfolio Approach,* by Graziella Bertocchi, Marianna Brunetti and Costanza Torricelli [December 2008].

N. 605 - *Sebastiano Brusco e la scuola italiana di sviluppo locale,* by Margherita Russo and Anna Natali [October 2008].

N. 604 - *L’inchiesta nell’analisi della struttura sociale e dell’organizzazione della produzione. Il contributo di Sebastiano Brusco,* by Margherita Russo [October 2008].

N. 603 - *Novità e tendenze nel quadro normativo della finanza dei comuni: entrate tributarie e patto di stabilità,* Maria Cecilia Guerra and Paolo Silvestri [December 2008].

N. 602 - *Child care, asili nido e modelli di welfare,* by Paolo Bosi and Paolo Silvestri [October 2008].

N. 601 - *Dentro la famiglia: le condizioni di vita dei bambini,* by Sara Colombini and Paolo Silvestri [October 2008].

N. 600 - *Stili di vita, salute e accesso ai servizi sanitari: un’analisi delle disuguaglianze nella provincia di Modena,* by Anita Chiarolanza, Massimo Brunetti and Paolo Silvestri [October 2008].

N. 599 - *Le principali dinamiche della condizione economica delle famiglie modenesi tra il 2002 e il 2006,* by Massimo Baldini and Paolo Silvestri [October 2008].

N. 598 - *Retribuzioni e segmenti deboli nel mercato del lavoro in un’area urbana a elevato sviluppo economico,* by Massimo Baldini and Paolo Silvestri [October 2008].

N. 597 - *Assessing The Implications of Long Term Care Policies in Italy: A Microsimulation Approach,* by Massimo Baldini, Carlo Mazzaferro and Marcello Morciano [October 2008].