COST
EUROPEAN COOPERATION IN SCIENCE AND TECHNOLOGY

ROSEnet COST ACTION (CA 15122)

REDUCING OLD-AGE SOCIAL EXCLUSION:
COLLABORATIONS IN RESEARCH & POLICY

Economic Aspects of Old Age Exclusion: A Scoping Report

Prepared by:

Michał Myck, James Ogg, Birgit Aigner-Walder, Ingemar Kåreholt, Ioannis Kostakis, Andreas Motel-Klingebiel, Raquel Marbán-Flores, Elke Murdock, Jolanta Perek-Białas, and Angelika Thelin

On behalf of the ROSEnet Economic Working Group

Knowledge Synthesis Series: No. 1 **April 2017**

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Please cite as:

Myck, M., Ogg, J., Aigner-Walder, B., Kåreholt, I., Kostakis, I., Motel-Klingebiel, A., Marbán-Flores, R., Murdock, E., Perek-Białas, J., and Thelin, A (2017). Economic aspects of old age exclusion: a scoping report. ROSEnet Economic Working Group, Knowledge Synthesis Series: No. 1. CA 15122 Reducing Old-Age Exclusion: Collaborations in Research and Policy.

Authors list, affiliation and acknowledgements:

Michał Myck: Centre for Economic Analysis – CenEA, Szczecin.
Jim Ogg: Ageing Research Unit, Caisse nationale d'assurance vieillesse, Paris, France.
Birgit Aigner-Walder: Institute for Applied Research on Ageing (IARA), Carinthia University of Applied Sciences, Villach, Austria.
Ingemar Kåreholt: Institute of Gerontology, Aging Research Network – Jönköping (ARN-J), School of Health and Welfare, Jönköping University, Jönköping, Sweden.
Ioannis Kostakis: Department of Home Economics and Ecology, Harokopio University, Athens, Greece.
Andreas Motel-Klingebiel: Division Ageing and Social Change, Department of Social and Welfare Studies, Linköping University, Sweden.
Raquel Marbán-Flores, Department of Applied Economics, Universidad Complutense de Madrid.
Elke Murdock: RU INSIDE, University of Luxembourg, Esch-sur-Alzette, Luxembourg.
Jolanta Perek-Białas: Institute of Sociology, Jagiellonian University, Kraków and Institute of Statistics and Demography, Warsaw School of Economics, Warsaw, Poland.
Angelika Thelin: Department of Social Work, Linnaeus University, Växjö/Kalmar, Sweden.
We are grateful for the comments of Kieran Walsh and Tom Scharf in a previous draft of the synthesis report.

Introduction

Economic exclusion is a multidimensional field. It can be understood as a life-long multilevel process which has a comprehensive impact on later life and old age. In this sense, economic exclusion is related to social class and origin, individual qualifications, changing education systems, and shifting labour markets. It is related to individual chances and decisions to participate in paid work, occupational activities and unpaid home-work, quality of work (tenure, wages, workload, pension rights), consumption and life-styles, and pathways to retirement. Economic exclusion is also inseparable from the modernisation of pension systems that give access to retirement and recognise life-time achievements in ways that differ over time and between cohorts as well as between social groups and between societies. These dimensions are manifest in different social policy regimes as well as in organisational policies and practices within the workplace. They encompass new and existing social risks in general and life-course/work-course risks in particular, as well as life-course events and trajectories and individual biographical experiences, all of which shape behaviour and life-plans. They relate not only to the macro-level of economics, but also to climates of political and social change – and crises. It is against this background that effective policy measures need to be introduced to target economic exclusion in later life by focusing on those groups in society which are most vulnerable, such as people with long term health problems and disabilities, older individuals living on their own, older migrants, etc.

With respect to exclusion as an outcome in later life, economic life-courses and in/exclusion over the life-course are directly linked to other dimensions of exclusion and policy responses to them. As such, economic exclusion is a component of different domains of exclusion that include social relations, public and private services, and civic participation. At the same time, economic exclusion in later life has its own specific features, since it is inextricably linked to *material* resources. Thus the concept is deeply rooted in economic approaches to the development of material wellbeing over the life-course and the capacity to address expected and unexpected changes in the level of material conditions and needs at different points in the life-course. Unlike traditional approaches to material wellbeing that tend to focus on the dimension of poverty and income, the concept of economic exclusion extends beyond financial aspects of material conditions to a broader perspective that includes different aspects of individual lives.

This synthesis report, as a first joint outcome of the Economic Working Group of the COST Action on Reducing Old-Age Social Exclusion (ROSEnet), mainly addresses this second economic aspect of exclusion. To structure the presentation of the multidimensional characteristic of economic exclusion in later life, the report invokes a specific micro-perspective of the economic life-cycle theory of consumption. It should be emphasised that the intent is not to give predominance to one particular approach over another. In this sense we are aware that the economic life-cycle theory of consumption is only one way of approaching the topic and not without its detractors. However, while it may neglect broader interdisciplinary perspectives, the economic life-cycle theory of consumption clearly delineates some of the most crucial challenges in the task of identifying economic exclusion in later life and the causes behind it. The broader interdisciplinary approach will be discussed at greater length in a second stage.

In this report we draw on international literature to shed light on the relationship between the standard economic concepts of material wellbeing and economic exclusion. The aim is to provide a knowledge synthesis of economic exclusion and its significance for individuals in later life and old age. Section 1 provides an outline of the traditional approach to the analysis of material wellbeing based on the life-cycle theory of consumption and the concept of permanent income. This concept is then related to the notion of economic exclusion through the perspective of needs and capability failures (Sen, 2000). In Section 2 we distinguish different sources of capability failures in the material domain and focus on two categories of mitigating factors that are especially relevant for understanding economic exclusion in old age, namely public services and social networks. In Section 3 we outline the principal features of economic exclusion and different research approaches. Section 4 concludes with comments on the implications of the recent economic downturn for economic exclusion in old age.

Section 1. Economic exclusion and the life-cycle theory of consumption

The life-cycle theory of consumption (Modigliani and Brumberg, 1954) has been at the centre of economic explanations of individual behaviour. This theory explains how people plan their lifetime economic activity and how they allocate their resources over the life-course (spending/saving). The theory has an intuitive rationale as it relies on the premise that individuals make intelligent choices concerning the level of their spending over the course of their lives. The limiting factor behind these choices is life-time resources. Depending on the position in the life-course, these resources are either built up or run down and spending is adjusted in such a way as to ensure smooth consumption levels over time. The key prediction of the theory is that consumption levels respond to permanent changes in income, which in turn allows testable predictions concerning the behaviour of individuals as they respond to expected and unexpected changes in income. With regard to later stages in the life-course, the first type of change is a fall in current income levels at the time of retirement (Banks *et al.*, 1998; Battistin *et al.*, 2009), while the second type depends on government policies relating to pensions or taxes that impact positively or negatively on consumption (Attanasio and Brugiavini, 2003; Attanasio and Rohwedder, 2003).

From the perspective of the life-cycle theory, consumption at each point in time should reflect permanent income and adjustments occur only in response to variations in how the level of this income is perceived by the individual. This implies that an expected change in current income levels which does not affect life-time resources (such as retirement) should leave spending levels unchanged, while unexpected changes (such as public pension reforms) should lead to an adjustment of private savings (and thus consumption) before retirement in order to accumulate the appropriate level of assets for use during retirement. However, the debate over how strongly the predictions of the life-cycle theory hold up in individual behaviour continues, and there are conflicting research results, some of which support the theory whilst others refute it. Reactions to pension reforms in the form of changes in private savings have often been found much weaker than suggested by the 'perfect crowd-out' effect (Attanasio and Brugiavini, 2003; Attanasio and Rohwedder, 2003; Lachowska and Myck, 2015). Similarly, consumption patterns have often been found to follow changes in current incomes (Banks *et al.*, 1998) and there is ample evidence that total consumption falls as people retire and grow older (Haider and Heinz III, 2007; Possner, 1995). Such a 'concave' development of consumption over the life-cycle has been shown for a number of countries and some studies find explanations of such patterns consistent with the predictions of the life-cycle theory.[1] For example Fernández-Villaverde and Krueger (2002) find that this pattern can be partly explained by changing household size over the life-course, different levels of

[1] For Germany see: Deutsche Bank Research (2007); Bundesministerium für Familie, Senioren, Frauen und Jugend (2007); for Austria: Aigner-Walder and Döring (2012) and (2015), for the United Kingdom: Foot and Gomez (2006) and for the US: Fernández-Villaverde and Krueger (2002).

income insecurity and credit constraints. Similarly, a fall in consumption at retirement – sometimes at a higher rate than a fall in income – which has often been referred to as the ‘retirement consumption puzzle’, has been associated with a fall in work related expenses, greater relevance of home production (Hurd and Rohweder, 2005; Lührmann, 2009) and unexpected shocks at retirement (Banks *et al.*, 1998). Additionally, there are gender differences in income and transfers over the life-course (Kluge, 2014). Even though participation of women in the labour market has increased over the last decades, many women continue to be dependent on men for support with respect both to income and the possibility to build up their own assets and buffers – leaving them with less space for choices and action in relation to the life-cycle planning of income streams and consumption. Notwithstanding these remaining and unsolved issues, the life-cycle theory remains the key reference for understanding the dynamics of material wellbeing over the life-course and it can serve as a useful starting point in the discussion of different aspects of material conditions – including the causes and consequences of economic exclusion.

In much recent empirical work it has become clear that a broad perspective on economic conditions is necessary if we are interested in understanding ‘impoverished lives, and not just (..) depleted wallets’ (Sen, 2000, p.3). From this perspective Sen’s powerful suggestion to apply the concept of capability failures to formulate and conceptualise social exclusion, can be applied to the material aspects of people’s lives. Sen’s approach (Sen, 1980; 1983; 1985a; 1985c; 1993; 2000 and 2006) focuses on what a person can be or do rather than what he/she has. The strength of the capability approach is that it takes into account the parametric variability in the relation between the means/income and actual opportunities and needs (Sen, 1990; 2005). For a variety of reasons, people with similar resources can have different abilities to achieve certain functions. These include physical or mental heterogeneity (*e.g.* disability, disease-proneness), disparities in social capital (*e.g.* whether or not one can rely on family, informal care) or cultural capital (*e.g.* one’s level of literacy), environmental diversities (*e.g.* climatic or geographic), distinctive societal positions (*e.g.* professional activity vs. retirement, other social roles) and unequal access to public goods and services (*e.g.* education, health care).

In a very general way, economic exclusion could be associated with a situation when individuals lack adequate income to live with dignity (van Parijs and Vanderborght, 2017). From this perspective of the life-cycle theory of consumption, it seems that the traditional approach to material wellbeing and the broader approach of economic exclusion can be reconciled by outlining three principal reasons why individuals may be faced with unmet material needs and thus be faced with capability failures:

1. *Permanently low levels of material resources* in relation to the needs of individuals over the life-course. Accumulated over time, a low level of material resources leads to insufficient buffers of assets to ensure sufficient resources with the consequence of being 'trapped' in poverty in old age.

2. *Unexpected shocks* to the level of resources in relation to individual needs. Such shocks can lead to an inability to finance current needs against future expected income flows or accumulated assets.

3. *Lack of sufficient buffers of assets* accumulated over the life course to ensure adequate resources with regard to individual needs in later life which by and large could have been anticipated.

Below we discuss these reasons in more detail with a particular focus on the risks of unmet material needs in later life and old age. The three reasons relate principally to the level and changes in individual material conditions. We need to remember however, that while economic exclusion can be a result of the level of material resources *given* the level of individual material needs, individuals might also face unmet material needs due to changes in non-material aspects of life which in turn result in increases in the level of material needs. For older people such changes include in particular a deterioration in the health of household members and changes to household composition.

Main sources of economic exclusion in old age in the context of the life-cycle theory of consumption

'Later life' and 'old age' are ambiguous concepts that can define different stages of the life-course. A common assumption is that 'later life' refers to the chronological age of 50 years and above, with 'old age' commencing around 75 or 80 years. As indicated above, the overall wellbeing and material situation of an individual is strongly related to his/her position in the life-course. Moreover, the factors determining economic exclusion, together with policy responses, are strongly associated with the particular position of an individual within the life-course.

In this section we discuss the main sources of economic exclusion from the perspective of the life-cycle theory of consumption. At the end of the section we analyse these sources from the perspectives of ‘later life’ and ‘old age’ and in the discussion we refer to ‘early’, ‘middle’ and ‘late’ old age, which roughly correspond to age phases of 50-60 years old, 61-70 years old and 71+ years. However, it should be noted that since the ageing process is strongly related to individual histories and to the private and public resources available over the life-course, even the phases themselves may vary across different countries and cohorts and they should by no means be treated as fixed categories. At the end of this Section, in Table 1, we briefly discuss each of the specified risks from the point of view of their relationship to these three phases of old age and complement the list with the key risks that do not directly affect material resources but have a strong influence on material needs in old age and in this way affect the degree of unmet needs.

Low levels of material resources over the life-cycle

One of the key factors behind economic exclusion in old age is permanent or nearly-permanent low levels of material resources over the life-course. Such situations are frequently related to levels of human capital exemplified by low education and poor health in childhood, or long term health problems or disabilities arising early in the life-course, all of which can result in long spells of inactivity and unemployment. Low levels of material resources over the life-course may also be in part due to the broader context of individuals’ lives, such as their family situation (*e.g.* number of children or health and disability of family members, *etc.*) or local and regional circumstances (local area conditions, regional economic circumstances, *etc.*).

Material wellbeing in old age has been shown to depend on childhood circumstances, educational achievement, early life health conditions and labour market histories. In conceptualising how circumstances and conditions earlier in the life-course influence inequalities in old age, the theory of cumulative disadvantage has been advanced (Crystal *et al.* 2016; Dannefer 2003, Ferraro and Shippee, 2009; O’Rand 1996). This theory has a particular relevance for explaining economic exclusion in old age, since it emphasises how social systems can generate inequalities over the life course and that as a consequence individual trajectories are shaped by exposure to risks and the availability of resources. If these disadvantages accumulate over time, then the likelihood of inequalities in income and resources in later life increases. An important question within this context is the role of human ageing and the means by which individuals can act to rectify disadvantaged situations.

Unexpected shocks to the level of resources

The basic principles of the life-cycle theory derive from the assumption of perfect foresight, where individuals know both how much resources they will need in the future, what their income flows will be over the life-course, (*i.e.* earnings, income of family members, public and private transfers and pensions), and how valuable their accumulated assets will be over time. While the main predictions of the theory hold under different forms of uncertainty, real life is of course very different from this theoretical construct. It is impossible to ensure against every eventuality and many life paths are simply very difficult to imagine, predict and plan. As such, unexpected shocks can adversely affect resources. These shocks, or risks, can influence both levels of assets and levels of income.

Risks related to a depreciation of assets

Pension reforms represent one of the major risks with regard to individuals' assets and from this perspective the shift observed over the past decades first from so called defined-benefit to defined-contribution pension system (Crystal *et al.*, 2016; Munnell *et al*., 2016) and secondly the move away from public to private pensions (Ebbinghaus, 2015) represents a major challenge in terms of planning to ensure adequate resources in old age. Many results of studies that have examined reforms which result in reduced future pension benefits have shown that – in contrast to the standard prediction of the life-cycle theory – individuals during their working lives do not adjust fully to such changes with their private savings (Deaton, 2016; Fisher *et al.*, 2007; Kopczuk and Lupton, 2007). This is often explained by an incomplete understanding of how pension systems work or a myopic approach to future material conditions. The findings suggest however, that these reforms in combination with inadequate private retirement savings may result in an increasing proportion of retirees with limited material resources in the future and thus greater risks of economic exclusion. It is generally acknowledged that reforms to public pensions systems which affect their redistributive implications (*e.g.* by withdrawing flat rate pensions) will increase income inequality in old age (Arza, 2008) and many questions are raised concerning the adequacy of support through public pensions and the potential sources for supplementing them with other sources of income such as work at the time of retirement or through targeted income support mechanisms.

Housing wealth is, next to pension wealth, one of the main assets individuals have at their disposal in old age, as this is often the primary asset they either inherit or invest in during their working lives. While often considered to be a safe asset, ownership of housing also carries certain risks with regard to how much the asset can be relied on to provide either the flow of housing services or additional income through the sale of the asset and so called 'downsizing', *i.e.* moving to less expensive accommodation or by releasing equity through reverse mortgages. The principal risk is depreciation of the value of housing wealth through physical damage over time or external factors such as worsening of local area conditions or at the time of housing crises. Of course even if the value of a house falls the owners may still benefit from living there. In this respect however, an important aspect of economic exclusion in old age has been recently characterised by the term 'housing rich, income poor' (Doling and Ronald, 2009) to describe a situation when older people suffer poor material conditions while at the same time living in their own large and often expensive to maintain accommodation. From this point of view the question of releasing income through housing wealth to increase retirement incomes or to pay for care services has become an important research issue (Doling and Ronald, 2010; Hancick, 1998). For example historically older people would frequently enter into 'retirement' contracts with their children, whereby land or tenancy rights were passed on to a child in exchange for help and support in old age. Housing wealth has to a large extent replaced these contracts and the important issue is whether this wealth can be effectively used to finance material needs in old age including long term care. The deterioration of the quality of housing assets due to the inability to maintain repairs can also present a risk to the depreciation of housing wealth.

Further risks which affect the level of assets at the disposal of individuals are those related to financial assets, such as stocks, bonds or other forms of investments and savings. These risks have become especially evident during the recent financial crisis which resulted in the reduction of the stock of assets of thousands of households (Azra 2008, Banks *et al.* 2012; Mather, 2015). Financial assets naturally carry an unavoidable risk of a fall in value and for an appropriate approach to private savings and proper planning in terms of how much risk individuals should take at different points in their lives, better public awareness of the risks involved seems to be needed. Apart from improvements in the regulation of the financial market, individuals would thus benefit from better financial education and public campaigns regarding both the need for private savings in old age and the risks different financial instruments involve.

Risks related to income flows

These risks include an unexpected fall in earnings due to unemployment prior to retirement, uncertainty with regard to the level of public pensions and other safety net benefits (including pensions indexation), exit from the labour market due to illness or disability, reduced household incomes resulting from divorce or widowhood and increased care requirements, ranging from domiciliary care (such as cleaning or cooking) to specialised long-term care in situations of severe ill health or disability.

One of the main risks with regard to income flows in old age, in particular when we consider 'early' old age, is the risk of losing a job (Couch, 1998; Couch and Placzek, 2010) or the inability to continue working due to poor health or disability (van Rijn *et al.*, 2013). From the perspective of the life-cycle theory, the key point is the difficulty of accurately anticipating this risk early enough so as to build up a sufficient financial buffer to provide resources for the period of unexpected reduced income. Unemployment and illness or disability prior to retirement carry a double jeopardy in the sense that they reduce both current income flows as well as future pension eligibility, and in this sense they both have additional long term consequences (Poterba *et al.*, 2017). With increased life expectancy many pension systems have been faced with structural problems that have led to extensions in retirement ages and higher expectations on the length of working lives. In this context job loss and the inability to find or continue employment present significant risks to older individuals. It is also fair to ask whether in such a context the distinction between the working life and retirement is breaking down (Phillipson, 2015). Is retirement (in the sense of receiving a pension) therefore being replaced by paid work? And if so, what are the consequences for older workers and especially for those with a limited capacity to work, for whom unemployment rates are much higher than at younger age. It could be that current pension systems are being designed in such a way that while the better off can afford to retire relatively early, those on low earnings need to work much longer in order to accumulate enough pension wealth for their retirement.

Similar long term consequences for incomes in old age to those of job losses prior to retirement stem from an unexpected fall in earnings, which are often due to labour markets and which are to a large extent independent of individual decisions. Shifts in the pattern of international trade and changes in the demand for specific skills have in recent decades had a major impact on the level of earnings. These global trends may have severe implications for older individuals who are less likely to adjust successfully to new conditions as their skills become obsolete. Lower pay is additionally related to poor conditions in the workplace and heavy workloads which on their own also contribute to the level of quality of life and non-material aspects of exclusion.

At the same time, individual expectations related to income flows may prove too optimistic with regard to the level of their pension. While on the one hand public pension systems are reformed in ways which increasingly link the value of pensions to individual labour market histories, on the other hand fiscal pressures on governments may lead to attempts to reduce the real value of pension benefits. This could take the form of direct reductions in the value of pensions, as has been the case following the economic crisis in Greece (Ifanti *et al.*, 2014; Simou and Koutseorgou, 2014; Tinios and Lyberaki, 2012), as well as changes in the approach to pension indexation. Individual incomes in old age will also be affected by changes in the generosity of welfare support provided by governments which may be another reflection of fiscal limitations faced by the state (we return to this issue in Section 3.2.).

Poor health and disability are also key risks for reduced material resources in old age. It has been recognised for a long time in the literature that the relationship between material conditions and health is very complex, as poor health is likely to affect material conditions, but at the same time low financial resources are also likely to inversely affect health (Marmot, 2005; Haan and Myck, 2009). As health deteriorates with increasing age, poorer health on the one hand becomes a limiting factor in terms of the ability to work and earn income, and on the other hand it presents individuals with additional – often unexpected – financial expenses (Gary, 1988), which very often need to be prioritised ahead of other expenditure items. As such, poor health is thus one of the key factors behind old age economic exclusion, considered as the inability to meet material needs, and since the two may reinforce each other, older people may be at risk of finding themselves in a vicious circle of worsening health and deteriorating material status. This situation naturally relates both to problems with physical and mental health, with the latter strongly related to social exclusion and isolation. Stigma and discrimination, low expectations of what unhealthy individuals can achieve and barriers to engaging in their communities have been identified as some of the main reasons why people with health problems are likely to face both difficult material conditions and severe social exclusion.

Unexpected shocks arising from a reduction in overall household income are also associated with economic exclusion. In many countries, divorce and separation rates are rising among individuals aged 50 and above resulting in a significant fall in income, particularly for women (Sharma, 2015). Since divorce and separation invariably lead to a division of households, housing wealth can also be adversely affected, with home ownership becoming less likely (Dewilde and Stierb, 2014).

Lack of sufficient buffers of accumulated assets to address expected changes in resources and needs

Many paths in life are subject to significant risk and uncertainty and it is impossible to envisage every eventuality and insure against all possible risks. However, there is a significant proportion of scenarios which evolve over time which can be predicted reasonably and accurately and thus can be planned for far ahead. These include the most obvious consequences of ageing, like gradual health deterioration and eventual need of daily assistance or long term care, changes in household composition, as well as the phasing out of labour market activity and the need to provide resources for retirement. The life-cycle theory of consumption stipulates that faced with predictable events, individuals accumulate assets at the time of good health and labour market activity in order to be able to provide for their needs in old age (Smith, 1999). There is however a significant body of literature demonstrating an insufficient degree of asset accumulation and a high degree of procrastination. The most obvious example are the findings that individuals do not fully compensate changes in the level of expected public pensions with their own private savings (Attanasio and Brugiavini, 2003; Attanasio and Rohwedder, 2003; Lachowska and Myck, 2015) which one would expect if they behaved in accordance with the theory. Myopia or lack of understanding of the future stream of resources or future needs is usually the key explanation behind these findings. It is clear though that insufficient care in the planning of the distribution of life time resources, even if overall they are high enough to ensure that material needs could be met at all stages of life, might lead to a high probability of facing unmet needs in old age, with the need to rely on support from the state or from one's social network.

Table 1. Intensity of risks at different stages of "old age"

Asset risks:	
risks to financial and non-financial assets	- the risk is not much dependent on individual age, but the absolute value of losses likely to be highest close to retirement age at which point financial assets are usually at their peak; - heavy financial losses close to retirement have substantial consequences on the value of pensions at retirement as pensions are calculated with regard to their value at the time of retirement; - risks closely related to macro-economic policies and overall financial stability in the economy;
depreciation of fixed assets (housing)	- the risk is not much dependent on individual age, although it may be related to low levels of income and inability to invest and maintain high standards of fixed assets; - willingness to invest in fixed assets to improve quality of fixed assets and/or slow down depreciation may fall with age as individuals perceive shorter periods over which they can benefit from it;
Income risks:	
unemployment, low pay	- most prominent and important in the "early old age" prior to retirement, with significant contemporaneous and future consequences for material wellbeing; - heavily dependent on macro-economic performance; - affected by government labour market policies; - strongly dependent on overall work life histories including education and health prior to old age;
low/reduced pensions and other benefits	- affects people of pension age ("middle" and "late old age"), but role of pensions indexation accumulates over time and its role will grow with age; - heavily dependent on government pension policy and the degree of intergenerational transfers;
inability to work due to poor health or disability	- the risk grows with age and will affect both those prior and after retiring, although will have different consequences depending on the status; - importance of labour market support policies;
Non-monetary risks:	
poor health and disability	- risk of poor health and disability strongly increasing with age; - public financing and good access to healthcare will thus grow as people get older; - long term poor health and disability during working lives will have significant consequences on material conditions prior and after retirement;
family raptures (separation, divorce, widowhood)	- widowhood as an age-related risk since older people are increasingly likely to lose their partner due to death; - importance of survivor's pensions and benefits to provide protection to surviving partners; - consequences of family raptures may be particularly severe among people in "late old age";
old age and care requirements	- old age and long term care requirements affect principally, though not exclusively, those in "late old age"; - importance of public financing of long-term care; - risks may have particularly significant consequences among people living on their own;

Source: Authors' preparation.

Section 2. Main factors mitigating the degree of economic exclusion in old age

Access to services

While globally there are few policies labelled specifically to address economic exclusion, public policy has a crucial role to play in mitigating the consequences of developments which increase individual risks of falling into it. All broad policies focused on improving material conditions and reducing poverty, as well as provision of services such as healthcare and transportation will affect the degree of economic exclusion (Phillipson and Scharf, 2004). Such policies though need to be reinforced with maintenance and promotion of the health and working capacity of workers as they age, support for development of skills and employability of older workers and the provision of decent working conditions for an ageing workforce.

In the perspective of complex socio-economic contexts and considering the potential causes of economic exclusion outlined in the section above, the most important factors which would help mitigate old age economic exclusion seem to be:

- stable financial and housing markets for those with private assets;
- attractive housing options to downsize housing wealth and free some of the accumulated housing wealth;
- stability and predictability of old-age financial support in the form of old age and disability pensions and low income safety nets
- labour market support in the form of retraining, job matching, development of the skills and employability of older workers, in-work subsidies, policies to improve working conditions of older individuals and integration of migrants into the labour market;
- access to free or low cost health and long-term care; implementation of health promotion and disease prevention strategies;
- access and affordability of other services, *e.g.* transport and culture;

- policies to ensure safe and good quality living conditions including physical, social and economic environment;
- policies to ensure the equal sharing of duties and responsibilities between men and women and that minimise gender inequality.

These key policy areas reflect the need for a truly comprehensive approach to address the challenges of economic exclusion in old age. It is unlikely that any single policy area, be it financial support or public healthcare, will be able to be successful on its own. It is thus important to identify an adequate policy mix, suitable for specific contexts and focusing on dimensions that are most likely to require intervention. The policy challenge becomes even more demanding if old age exclusion is considered in a longer term life-cycle perspective with the implication that effective policies must address each stage of the life-course. Early investment in education and promoting skills, uninterrupted working lives and access to good healthcare at all ages result in better later outcomes in terms of material conditions and reduce the risk of economic exclusion.

The recent economic crisis demonstrates the role that public services play in mitigating adverse material situations. Austerity measures that have been introduced in many European countries have led to increases in unmet medical care and older people on low incomes have been among those most affected (Kentikelenis *et al*., 2014; Reeves *et al.*, 2015). Countries with more generous public pension entitlements tend to have lower rates of unmet medical care among older people (Reeves *et al.*, 2017), and it is also the case that countries with higher levels of financial support for individuals unable to participate in the labour market because of disability or unemployment tend to have lower rates of poor health. As regards future levels of economic exclusion, in particular given the current context of fragile and interrupted working careers, persistent high unemployment, and the shift towards more individual responsibility for ensuring adequate incomes during retirement, access to health care is becoming increasingly important. For example, out of pocket payments for long-term care services are increasingly common. In addition, there is a trend of refamiliarisation in many countries, whereby families (and within these primarily women) revert to undertaking care tasks in the absence of affordable or available alternatives (Deusad *et al.,* 2016).

Economic exclusion is also related to mobility and access to transport. Unaffordable transport not only limits the amount of economic activity people can do, but also affects social contacts and increase the risk of social isolation (Schwanen *et al.,* 2015). Policies that promote access to public transport systems through the availability of free or subsidised travel for older people continue to play an important role in sustaining economic and social contacts, especially for those on low incomes. Affordable transport services are particularly important in rural areas characterised by limited access to the labour market, to goods and services as well as to healthcare, cultural activities and public spaces.[2]

The absence of a bank account or internet can induce hidden costs given that routine expenditure is increasingly linked to dematerialised payments. This type of financial exclusion mainly affects people living on low incomes. It is also linked to people's knowledge of and exposure to financial services. There is a link with age, with both younger and older people being most likely to be excluded. Indeed, an ageing population may lead to an increase in the number of people with physical, cognitive and social network limitations, which in turn can lead to further social and financial exclusion and an inability to find suitable financial products and services. Moreover, in an increasingly technological financial sector, the financial inclusion of older people is hampered by the fact that they are disproportionally represented among the population that experiences a digital divide.

As a consequence of recent economic crises, financial exclusion has increased in Europe, in particular in the South of Europe and among the older population. The closing or transformation of saving banks in Spain is an example of how the economic crisis has directly affected older people (Gómez-Barroso and Marbán-Flores, 2013). Before the crisis, saving banks were linked to local areas and they played a crucial role in rural areas where they fulfilled an important social mission. Branch closures means that many older people living in small villages do not have access to regular banking. Moreover, day care services and other facilities supported by saving banks as a part of its social mission are no longer in operation, reinforcing processes of exclusion and poverty.

Social networks: partners, family and broader networks

The risk of economic exclusion is very closely linked to household composition and in particular disproportionally affects single households. Living alone not only implies reliance on a single income, but also the inability to share certain fixed items of expenditure, such as housing or heating costs. In addition, family and broader social networks play an important

[2] See report "New innovative solutions to adapt governance and management of public infrastructures to demographic change" www.adapt2dc.com

role in reducing the risk of economic exclusion both through direct material assistance as well as through other means of support, such as help with daily activities and personal care, which otherwise would often need to be purchased on the market.

An important role in the context of economic exclusion is played by intergenerational transfers within families. Financial intergenerational transfers within the family have consequences for capital accumulation and wealth inequality (Arrondel and Masson, 2001, Attias-Donfut *et al.* 2005). Families that habitually make financial transfers between the generations are more likely to belong to higher social class groups and the reproduction of diverse forms of capital within families acts as a buffer against economic exclusion at each stage of the life course, including old age. Attias-Donfut *et al.* (2005) have shown that in Europe, the north/south country variation exists in the composition of the networks of recipients of financial transfers: younger respondents receive more from parents in the north, older respondents receive more from children in the south. The level and direction of transfers is often explained by the differences in the level of support through the welfare systems as, older needy people in the weak welfare regimes in the South are still partially at the charge of children. Moreover, older people with financial difficulties tend to receive financial transfers from their children more regularly than older people without financial difficulties and the amounts tend to be larger. However, excepting difficult financial situations, older people tend to receive smaller amounts on average than younger generations who receive money from the older generations.

From the point of view of non-financial support, it should be noted that the role of the family in the social care of older people, as viewed by governments and policymakers, differs according to the historical evolution of institutions within countries. In countries such as France, where the concept of solidarity underpins the legal framework relating to the obligations of different family members, the family continues to be on the front line in supporting older members who cannot assume the payment of their own care (*les obligations alimentaires*). But in countries with a social-democratic tradition, public policy measures that evoke family responsibilities are seen to be arbitrary and unjust measures that accentuate social inequalities by placing undue pressures on low income families (Saraceno, 2002; Guo and Gilbert, 2007).

Section 3. Features of economic exclusion and different approaches to measurement

Economic exclusion has traditionally been associated with poverty and even interpreted as the driving element behind social exclusion. Indeed, in the context of development studies, the concept of 'social exclusion' was introduced precisely to design anti-poverty strategies (Gore and Figueiredos, 1997). However, as Sen (2000) has emphasised social exclusion can be understood as both a cause and consequence of poverty. Poverty and its measurement is of course an important part of economic exclusion, but as we have argued in this synthesis report it is necessary to move beyond poverty measures to include different features of economic exclusion. This section of the report deals with these issues of defining the dimensions of economic exclusion and approaches to its measurement.

Measuring material conditions in old age using income

Current income has been the traditional approach to approximate the material wellbeing of individuals and household and income-based poverty measures continue to be the most commonly used indicators of material conditions. While common and relatively easily available in all major household surveys, these measures have their weaknesses including arbitrariness of the poverty threshold and different approaches to equivalising income to adjust for household size. Moreover these measures do not account for the aspect of individual needs and therefore, for example, treat in the same way a healthy and a disabled person on the same level of income. Since they usually rely on country specific poverty thresholds, the international comparability of the extent of poverty using these measures has often been questioned. There is thus growing evidence that these traditional approaches to the identification of disadvantaged groups of society through the lens of current income are often far from satisfactory. It has become clear that simple measures of financial resources based on current income information provide only limited insight regarding wellbeing at the individual level (Nolan and Whelan, 1996, 2010; Adena and Myck 2014).

While imperfect, the wide availability of income-based measures continues to be used in a number of ways. For example comparing the median income of older people with the rest of the population is often used as an indicator to measure the adequacy of retirement incomes, given that the 50% poverty threshold tends to capture the extreme poverty risk for older people. Median income is also used as one of the measures of the financial situation of older people in the Active Ageing Index (AAI) (Zaidi *et al.*, 2013; UNECE/EC, 2015) which is composed, among other items, of the measure of poverty risk (defined with reference to the median equivalised income threshold) and the relative median income ratio (defined as the ratio of the median equivalised disposable income of people aged above 65 to the median equivalised disposable income of those aged below 65).

Since current incomes are relatively easy to measure and influenced by policy, income also continues to be the principal policy target with respect to anti-poverty agendas. For example, the European Commission (2013) recognised the instrumental role reference budgets could play for helping Member States to meet the objectives of adequate minimum income protection and effective social inclusion in the European Union. In particular, within the Social Investment Package that was adopted in February 2013, the Commission proposes reference budgets as an instrument that on the one hand can help Member States to design efficient and adequate income support (European Commission, 2013, p. 11) and on the other hand, facilitates the Commission in its task to monitor the adequacy of income support in Europe (European Commission, 2013, p. 12; Goedemé *et al.*, 2015). Reference budgets are priced baskets of goods and services that represent a given living standard (Bradshaw, 1993) and are thus income approximations of the actual needs of individuals. This approach thus, while using income as a measure of overall resources, takes us closer to the capability failure approach to material wellbeing. The notion of adequate minimum income has been the subject of a campaign led by The European Anti-Poverty Network[3] and has become key to such institutions as AGE Platform Europe which consider it to be an indispensable guarantee to build cohesive societies where people of all ages can live in dignity.

Material wellbeing and living conditions

Economic exclusion in later life and old age can be manifested in poor quality housing (Walsh *et al*., 2016). Increased life expectancy after retirement (notwithstanding the fact that life expectancy gains are lower among excluded populations) has consequences for the upkeep and maintenance of homes. Economically excluded older people can also be home owners,

[3] http://www.eapn.eu/

with little capital to maintain and adapt their homes. Poor housing is in turn associated with poor health, and the inability to adequately heat the home can have importance consequence for health (Howden-Chapman *et al*., 1999; Rudge and Gilchrist, 2005). Poor housing can also be associated with poor environments, such as inner city or peri-urban zones, where economically excluded risk being captive to hostile environments.

One manifestation of economic exclusion can be the 'doubling up' of households in order to pool resources, since as Tinos and Lyberaki (2005) have pointed out 'co-residence among families is perhaps the oldest form of social security system'. In these families, exclusion is not confined to one generation but common to two or more. Economic exclusion can therefore be manifest by living in the same household, the same building or the same piece of land of other family members. Intergenerational coresidence is associated more with men, individuals not in a couple, unemployment or inactivity, crowded housing with poor amenities, rural areas and poor urban areas where the monthly income is below the average (Ogg *et al.*, 2015). Sharing a household can be considered as a family response to life course hazards.

Older people on low incomes and with few assets can also be captive in terms of residential mobility. Several studies have shown that households with low incomes have fewer options to improve the quality of their living environment Gobillon (2001). At the same time, changes in household composition resulting from family ruptures (separation, divorce and widowhood) can lead to unexpected or unanticipated residential mobililty, which in turn can have a negative effect for older people on low incomes (Feijten, van Ham, 2007).

Material wellbeing and measures of material deprivation

Given the growing evidence on different weaknesses and failures of the traditional approaches with respect to identification of disadvantaged groups of the society through the lens of current income, there has been growing interest in the development of more adequate and more internationally comparable measures of material wellbeing. In particular, as we argued above, material conditions of older people are to a larger extent determined by the level of their accumulated assets (in particular housing and pension wealth) and by aspects of their lives which are not directly related to their financial situation, such as health and disability. While the influence of such factors is not captured by income measures (and in terms of the influence of health also by assets), they are certainly important for material wellbeing. An alternative approach to income-base measures has been the analysis of material wellbeing using measures of material deprivation, defined as "*the inability to possess the goods and services and/or engage in activities that are ordinary in the society or that are socially perceived as 'necessities*'" (Fusco *et al.* 2010, p.7, see also Fusco *et al*., 2011). Indicators of material deprivation have recently been more broadly used, and measures of deprivation based on EU-SILC data have become the official EU indicators of social inclusion (see Europe 2020 Indicators).

There are a number of different approaches to define material deprivation, what to include and what weight to assign to different items (see Guio, 2009; Guio *et al*., 2009). With regard to the material deprivation of older individuals the fifth wave of the Survey of Health, Ageing and Retirement in Europe[4] focused on economic and social aspects of deprivation including derivation of deprivation measures specifically focused on individuals aged 50+. The survey in the fifth wave included new items focusing on aspects of deprivation specific to the 50+ individuals (see Myck *et al.,* 2015a) and on international comparability of the measures derived on the basis of these items (Bertoni *et al.*, 2015a; Bertoni *et al.,* 2015b; Litwin and Stoeckel, 2015, Myck *et al.*, 2015b). Analysis using these new survey items has demonstrated the relevance of the measures that have been developed, while tests conducted with regard to the sensitivity of deprivation indices showed their robustness with respect to different assumptions made in their construction.

Deprivation measures suffer from a degree of arbitrariness regarding their construction and composition and there has been some critique regarding what they actually measure. Walsh *et al.* (2012) in a comprehensive study that employed mixed methods to measure deprivation in later life in Ireland caution against an uncritical use of deprivation scales such as the 9-item and 11-item EU-SILC index. Their findings indicate that deprivation can be influenced by preferences and expectations within sub-groups of the population and that moreover, the perception of deprivation may change over time. Notwithstanding these limitations, deprivation measures clearly have their advantages. They refer directly to the capacity failures approach to material wellbeing and at the same time measure material conditions more objectively than self-declared assessment of the overall material situation. Additionally they can be more comparable across different groups of the population, across time and between countries compared to both subjective and income-based measures.

[4] For details of the survey and references to studies based on the SHARE data see: www.share-project.org.

Changes in consumption patterns as reflections of economic hardship

A further possibility to identify economic hardship is to look into the structure of household consumption. According to microeconomic consumer theory, the choice of which goods and services are consumed is determined by the preferences of the household, whereby a household aims to maximize utility under a certain budget constraint and prices of the goods and services (Pindyck and Rubinfeld 2005; Woeckener 2006; Mankiw and Taylor 2014). These preferences depend on a number of factors including the size of the household, its composition or age structure, as well as regional or cultural factors (Evans, Jamal and Foxall 2009). In general, in younger ages people will have higher expenditures in the field of education, while older people demand more goods and services in the health sector, and work related expenditures (such as for transportation or clothing) are naturally reduced after retirement (Hurst 2008). Importantly, from the point of view of treating expenditure patterns as a measure of material wellbeing, since the early work of Engel (1857) we know that the proportion of household expenditure on necessities such as food is inversely related to household income. Therefore examining the structure of household expenditure, with a particular focus on such items as food or medicines, we may learn about the material status of the household. Additionally, the life-cycle theory of consumption suggests that total current expenditure should be a much better measure of the so-called permanent income compared to current income.

A range of studies empirically shows the relevance of the age of the household for its consumption structure. Foot and Gomez (2006) show with data for Great Britain that the expenditure shares for food and non-alcoholic drinks, alcoholic beverages and tobacco, as well as furnishing and household equipment increase by age, while expenditures for clothing and footwear, communication and transport are higher in younger ages. An investigation for Germany presents age-specific consumption patterns of households, as well as a significant influence of the age factor on all consumption categories (Buslei, Schulz and Steiner 2007). In particular, consumption for such categories as housing, water and fuel as well as health increase in higher ages, while expenses for transport fall (Deutsche Bank Research, 2007). Old-age households in Austria also have been shown to consume more in the areas of health, food and non-alcoholic beverages, housing, water, electricity, gas and other fuels as well as miscellaneous goods and services, but to spend less on education, transport, alcoholic beverages, tobacco and narcotics as well as restaurants and hotels (Aigner-Walder 2012;

2015). A broader analysis of OECD countries indicates that the consumption proportions for housing, energy and health are increasing by age, whereas expenditures for transportation, entertainment and education are reduced (Martins *et al.,* 2005). Based on an estimation of age-specific demand elasticities, Yoon and Hewings (2006), Wakabayashi and Hewings (2007), as well as Aigner-Walder (2012 and 2015), show that households react differently on price and income changes dependent on age.

Subjective assessment of material conditions

Using subjective assessment of material conditions has become more frequent as a measure of poverty, and subjective measures have been shown to be strongly correlated with other aspects of quality of life in old age – much more so that for example income based measures (Adena and Myck, 2013). As such, on the one hand, the measures intuitively encompass the notion of unmet needs and are thus a very broad indicator of material conditions and thus material exclusion. On the other hand, they suffer both from a high degree of cultural bias, and from adjustments by individuals to the assessment of their material situations over prolonged periods of time spent in a given material situation.

There are theoretical arguments and empirical results that older people who experience economic hardships adjust their preferences to scarce economic resources over time (Berthoud and Bryan 2011; Halleröd 2006; Sen 2005; Scharf *et al.* 2005). For this reason they become satisfied with their living standards and everyday lives despite facing economic hardship in old age. Another way of explaining this counter intuitive finding is that current coping among old people – such as focusing on positive aspects of everyday life and adjusting one's preferences according to what is possible to achieve — results in satisfaction with everyday life despite the negative consequences of economic hardship (Thelin, 2013). These forms of coping emerge as a result of the fact that older people are locked into economic hardship for the rest of their expected lives and not as a result of their socioeconomic history.

Section 4 Conclusions: key questions and research challenges in the area of economic exclusion.

Research on economic hardship reveals that large proportions of older people face significant problems in meeting their material needs. Poor material conditions relate to low levels of income and assets, substantial requirements to finance basic expenditures on food, housing and medicines, and are reflected in difficulties to providing for proper nutrition, health and social care or transport. Economic exclusion leads to exclusion from social relations and more broadly from what has been called "the third age".[5] Older people who are faced with economic hardship tend to be excluded from leisure activities and interpersonal relationships. Such combinations may lead to feelings of loneliness and a lack of purpose in life. Older people who experience economic hardship often face imbalances between what they receive and give in relationships, which in turn results in feelings of being a burden for others. There is high variation in the level of poverty and economic exclusion of older people in Europe and different countries face different policy challenges in this respect. As the above review demonstrates, though, only a broad and comprehensive approach to the problem of poor material conditions among older people is likely to succeed in significant reductions of the number of individuals facing economic hardship.

The review sets the problem of economic exclusion in the context of the economic life-cycle theory of consumption and as such it provides a relatively narrow perspective. It does however allow a clear presentation of the most pertinent issues and it sets the stage for a further review of the literature that will incorporate different perspectives and methodological approaches. Thus rather than ending the review with specific research conclusions, we provide an open list of questions which in our view defines the scope of research for the coming years and for which it will be necessary to produce efficient evidence based policies.

1. *How is economic hardship experienced in different countries? How does the experience of economic hardship change with ageing?*

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[5] The "third age" can be defined as a lifestyle, based on health and economic resources which enable independence and characterized by an orientation towards self-fulfilment through leisure activities, including travels and visits to cultural events, restaurants and cafés (Gilleard and Higgs 2005).

2. *How can we measure economic exclusion for the purpose of comparison across countries and over time?*

3. *How do men and women and people with different ethnicity experience economic hardship?*

4. *What is the role of the state in different countries with respect to the provision of financial and in-kind support to older people? What is the interplay of state support and familial or societal networks?*

5. *What is the gap between minimum state pension/health care and current/future levels of expected provision?*

6. *How do people in different European countries make provision for old age? What kinds of preparation are beneficial and under what circumstances?*

7. *What are the inter-individual and inter-cultural differences in terms of expectations and life style preferences in old age? Are there differences in terms of a sense of entitlement?*

8. *Are there within-country or cross-country differences in terms of intergenerational support?*

9. *To what extent are younger generations expected and willing to pay for the pensions of older age cohorts?*

10. *To what extent is the current third age cohort willing to forgo some of the pension entitlements for the younger generations who are likely to be less well off?*

11. *Are migrants equally open to intergenerational support in their host country as in their country of origin?*

12. *How does intergenerational housing differ across countries and how is it perceived – as a loss of independence, financial gain or a form of intergenerationl support that is beneficial for all?*

13. *How do people in different counties experience and react to the situation of being "income poor and wealth rich". How can their experiences and decisions be understood?*

14. *How do single households in old age fair in different countries? What are the specific risks faced by such hoouseholds?*

15. *Little research empirically examines the relation between economic circumstances, social situation and ageing in later life. How do different economic trajectories relate to:*

    a. *social relationships among women and men as they age*

    b. *leisure activities among women and men as they age*

    c. *engagement in activities associated with social participation among women and men as they age*

    d. *connections between area and place deprivation, both (1) as a spatially clustered form of deprivation and poverty and the consequences for service, relational and political aspects of place, and (2) place as a shaper of economic opportunities and trajectories?*

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ROSEnet CA15122 COST ACTION

ROSEnet aims to overcome fragmentation and critical gaps in conceptual innovation on old-age exclusion across the life course, in order to address the research-policy disconnect and tackle social exclusion amongst older people in Europe.

Research Objectives

- Synthesise existing knowledge from regional, disciplinary and sectorally disparate dialogues, forming a coherent scientific discourse on old-age exclusion;
- Critically investigate the construction of life-course old-age exclusion across economic, social, service, civic rights, and community/spatial domains;
- Assess the implications of old-age exclusion across the life course within economic, social, service, civic rights, and community/spatial domains;
- Develop new conceptual and theoretical frameworks that can be practically applied in understanding and combating the exclusion of older people in European societies;
- Identify innovative, and implementable, policy and practice for reducing old-age exclusion amongst different groups of older people and in different jurisdictional and regional contexts.

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