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Sustainable Ageing Societies: Indicators for Effective Policy-Making

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¹ This paper is informed by my experience chairing the Indicators Sub Group and my work as economic adviser to the UK Pensions Commission but the views expressed are mine and do not necessarily reflect the opinions and conclusions of either organisation.

Introduction This paper sets out a general framework for monitoring the policies affected by the almost universal ageing of societies. It starts with some general principles and then suggests a minimum list of indicators that will allow monitoring of ageing and key policies within an international framework. The key criteria are:

- **Real resources and associated financial flows:** indicators need to measure real resources transferred to the elderly as well as the associated finances needed to effect the transfers
- **Flexibility** to accommodate the different policy rationales particularly of pension policies
- **Balance** between monitoring today's pensioners and projections of what will apply to tomorrow's
- **Realistic** trade off between exactly comparable indicators at an international level and what is available domestically
-

Real resources and associated financial flows

I start with a powerful but simple framework suggested by Lawrence Thomas² and summarised in the attached annex. The total resource transferred to pensioners is the key measure of the burden imposed on society by the retired population. The public finances deliver some of this transfer but in many countries, the private sector is used to transfer the resources between the working population and the retired. Private funded pensions are the most obvious example but long term care of the elderly within households is also relevant. It is important to monitor the total resource transfer both private and public. Over the last decade, there has been a concentration on public expenditure on the elderly and the implications for public finances. This is important but the size of the total transfer matters, regardless of the financial channels used.

Flexibility

Working with the ISG to develop pension adequacy indicators has taught me the importance of developing a framework that is flexible enough to accommodate the very different pension systems that operate in the EU 15. Some pension systems give priority to removing destitution and providing workers with the opportunity to accumulate pension entitlement that replaces working life incomes at a level chosen by the individual. Others in addition to safe guarding against destitution incorporate a specific objective to replace earnings. In the first, recourse to means tested additions to state pensions is a measure of the successful targeting of resources on low income pensioner households In the

² See "The Economics of Public Pensions – Older and Wiser" by Lawrence Thomas The Urban Institute Press Washington DC

second system it is seen as a measure of the failure of the system to replace earnings. Similarly the different policy rationales evaluate sources of pensioner household income differently. Where there is a commitment to replace income, a retirement income of half pension and half earnings, with a total replacement rate of 80%, is not unambiguously better than a replacement rate of 60% made up entirely of pensions. In systems that place emphasis on public pensions targeting those on low incomes the 80% replacement rate made up of earnings and pension would be a better outcome for policy

Balance between today's pensioners and those in the future

It is easier to monitor the outcome for today's pensioners than project outcomes 30 or 50 years ahead. But the outcome for today's pensioners is the result of pension and employment policies operating in the past. Monitoring the impact of ageing must also concentrate on the projected outcome for pensioners in the future. Pensions policies have a very long lead time and if they are to be reformed to accommodate future demographic changes, monitoring their effect on future generations of the retired is vital if difficult.

Realism

We can all describe the ideal set of indicators and then make recommendations about improving the quantity and quality of data. Although there is a role for putting pressure on statistical authorities to improve their data, the lead times are long and we should accept that we have to operate with what is available. In my judgement, it is better to work with good national data that is not exactly comparable on an international basis than to insist on using poor quality data that purports to be collected on the same basis regardless of the quality of that data.

A Suggested List of Indicators

1. Resources Transferred: It is easier to describe the ideal indicator – all resources transferred as a percentage of GDP – than define it in a way that produces a practical measure. The denominator is not a problem: all countries have a measure of GDP although it may be more important to us GNP if many countries private pension systems are going to rely in the future on transfers from overseas to meet their private pension commitments.

The numerator is more difficult. All pensions whether public or private should be included but even this is not as simple as it sounds. Public pension expenditure is more readily available but there is more difficulty with private. This is partly a matter of what should count as public and what private. In addition, some of the possible sources for private pensions such as household income surveys are not

always reliable in distinguishing pensions from other income. The indicator should also show the division between public and private pensions.

Information on the maturity of pension systems is necessary for the interpretation of this indicator. A pension system that is not mature in the sense that pension entitlement is lower the older the person will continue to transfer a growing share of resources even if the dependency ratio does not change.

Resources for long term care should also be included but here there are measurement problems. Resources transferred within the household when the elderly are cared for by the family should not be ignored but as they measured for purposes of estimating GDP it is not practical to include them. Furthermore where residential care is paid for out of the individuals pension there is a risk of double counting. A pragmatic suggestion would be to include publicly funded long term care costs and an indicator measuring household composition of those households where the elderly live.

1a Resource Transfer Ratio: total pensions [public + private] plus publicly funded long term care/ GDP or GNP

Current values should be estimated from current data. Complete projections in the future for 20 or 50 years are not practicable because to do so would require forecasts of labour market histories as well as patterns of household formation. But target ratios would make transparent the policies on pensions and long term care. If pensioners' consumption in the future is expected to grow in line with output then the share of GDP transferred can be expected to grow in line with the growth in the retired population. Only changes in the effective retirement age through changes in employment rates can alter this. And this therefore requires another indicator.

2. Employment Rates:

The employment rates of two groups, 50 -64 and 65-74. This indicator will measure whether governments are successful in raising the employment rates of older workers and the younger retired. It is a way of measuring the effective retirement propensity of the population.

2a. & b. Employment 50-64 and 65 – 74 /population 50 – 64 and 65 – 74

2. Demography

Although demographic factors are rarely directly related to policies and their monitoring and evaluation it is important to monitor the different demographic factors underlying the ageing of societies. The simplest is the dependency ratio that measures the number of people over retirement age to the number of people

of working age. It can be refined to take account of the changes in inactivity and unemployment among the working age population. But for the purposes of an international monitoring exercise across a wide number of divergent countries the simplest is:

3a the number of people aged 65 and over/number of people 15 – 64

The appropriate policies for ageing societies will also depend on the reasons for the ageing. Currently most countries are facing three factors driving the ageing of their populations: increasing longevity: a one off baby boom effect: declining fertility. It is appropriate to tackle increasing longevity by raising the effective retirement age. Lower fertility will result in a rise in the dependency rate but a drop to a newer lower fertility rate will in equilibrium result in a steady state dependency rate. A baby boom in societies with lowered fertility and increasing life expectancy should be seen as postponing the rise in dependency rather than the main cause of ageing. Two associated demographic indicators are:

3b. Fertility rates

3c. Life expectancy at 65

4. Financial Indicators for Pensions:

The fiscal implications of a rising public pension burden have been measured by projecting public pension expenditure and then calculating the tax and social security contribution rates needed to pay for this level of pension expenditure in the future. This is a key to monitoring the impact of ageing on pension policies and other social programmes such as long term care that are affected by ageing. But it is also important to have a corresponding indicator to check how private pensions will respond to the growth in the number of retirees. This area is relatively under-developed but to stimulate discussion I am suggesting:

4a. Public Expenditure on Pensions and the associated tax and contribution rates

4b. Net private pension contributions/GDP

5. Poverty

The first pensions were designed to abolish destitution among the elderly. This rationale has been widened but a set of indicators is needed that monitors the risk that pensioners live in low income households. The key indicator is the proportion of people 65 and over who live in households with equivalised incomes below 60% of median. This indicator needs the context of the same information for the rest of the population. Are people over retirement age more or less likely to be at risk of poverty? The majority of pensioner incomes are relatively stable. If a pensioner is on low income today there is a high probability that they will be in years to come. Ideally a separate indicator if duration on low

income might be useful but the nature of pensioner household incomes suggests that living on low income will be a good predictor of long duration. The results for the EU15 using the European Community Household Panel [ECHP] data are shown as Fig 2 in Annex 2.

A secondary indicator is needed to measure whether the income of people 65 and over is similar on average to that of the rest of the population. Median household income of people 65 and over relative to people to the population 0 - 64 provides this measure [see fig 3 in Annex 2]. It can also show the relative position of women.

Indicators based on dispersion of household income are important and data is relatively widespread to calculate the indicators for today's pensioners. But they do not readily lend themselves to projections. In systems where pensions are predominantly provided by the public sector, projections of expenditure and the associated tax and contributions rates act as a check whether these levels can be sustained. Theoretical replacement rates for different work histories and earnings levels can provide a measure of the distributional effect of a pension system. But where private pensions are used these measures may not be good enough to check whether low and middle income people are exposed to unacceptable risks of low pensions. The risks would arise from uncertainty about the returns on the funds invested and the possibility that annual management charges on low contributions might erode a significant share of the funds deposited. I have no simple indicator to recommend. it will be necessary to carry out sensitivity testing on hypothetical replacement ratios for low and middle income people. These calculations will need checking to see if the assumptions about annual management charges, contributions as well as returns on funds invested are plausible in a world where most of the funded pension systems will be paying out pensions to historically large cohorts of pensioners and receiving contributions from smaller working age populations.

David Stanton
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Annex 1:

The Resource Burden of Ageing

The fundamental policy choice that countries will have to make is one of resources. At present, societies allocate some of current output to the consumption, in its widest sense, of the elderly. This includes the personal consumption of the elderly as well as resources consumed in the provision of health services and long term care whether publicly or privately funded. The average consumption of the elderly times the number gives the total and this can be expressed as a fraction of GDP and this is the resource burden of providing for the retired.³

Using c_r for consumption of the elderly, c for average consumption of the whole population, Y for total GDP, p_r for the retired population and p for the total population the burden of the retired population is then:

$$c_r p_r / Y$$

This ratio can in turn be expressed as a product of three other ratios

$$c_r p_r / Y = (c p / Y) \times (p_r / p) \times (c_r / c)$$

The burden of supporting the retired population depends on the ratio of the total population that is retired and the ratio of the living standards of the retired relative to the whole population. The retired population ratio is partly determined by the demographic age structure of the population but also by the factors that determine the age of effective retirement. All things being equal a 10% increase in the retired population raises the burden by 10%. If this retired burden is considered too high, the policy options are encapsulated in these ratios. One option is to raise the age of effective retirement or raise the working age population. The other is to accept a reduction in the living standards of the retired relative to the population as a whole. The first level of policy choice is centred on these two ratios. Pensions and the policies on pensions are instruments designed to deliver a transfer of GDP to the retired population. Given the very large changes in demography as populations age, societies are faced with choices about when the older working population retires and what standard of living they will enjoy relative to the rest of society. These are the primary policy choices. When older people retire will affect the ratio of retired to working people in the population. Early retirement increases the resource burden of the elderly and raising the effective retirement age lowers it. Increasing the generosity of pensions whether public or private raises the burden and reductions in pensions received lowers it.

³ See "The Economics of Public Pensions – Older and Wiser" by Lawrence Thomas The Urban Institute Press Washington DC

The future growth of GDP is also frequently forgotten when the “demographic time bomb” is discussed in public. Most EU economies will see their GDP double in less than 40 years. If the burden of the retired were to remain constant it is still possible in countries where the retired population increases, but does not double, for the retired population to enjoy real increases in their living standards although by less than the growth in output. The outcome for the living standard of the retired population should be a transparent policy choice rather than an accidental outcome of pension policies driven by concerns about fiscal sustainability of public pension systems.

Annex 2 Illustrations of suggested indicators from EU Indicators

Chart 1 Old-age dependency^{a)} ratio

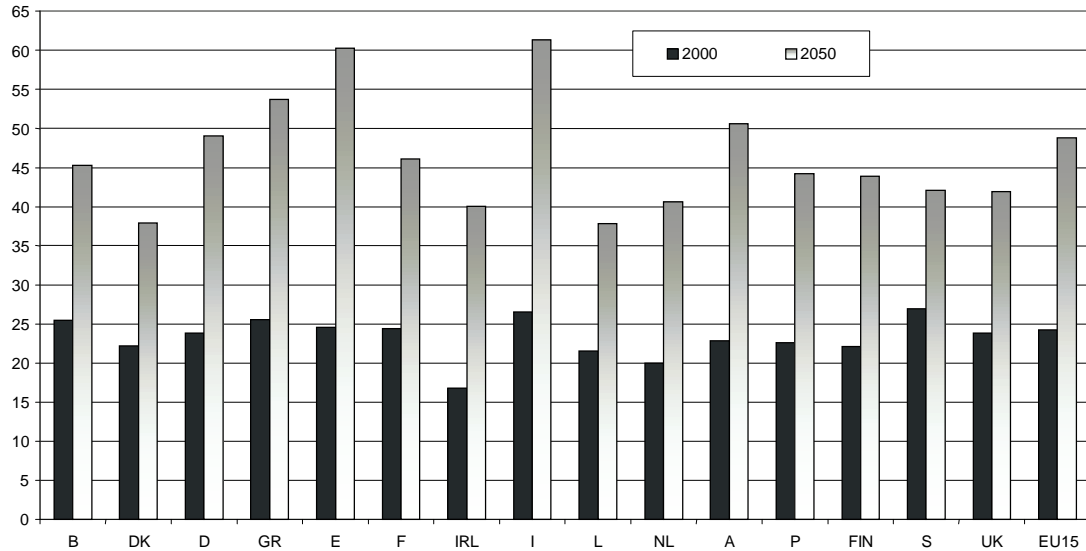


Chart 2 At-risk-of-poverty rate at 60% of median income
People aged 0-64, 65 years and over and 75 years and over

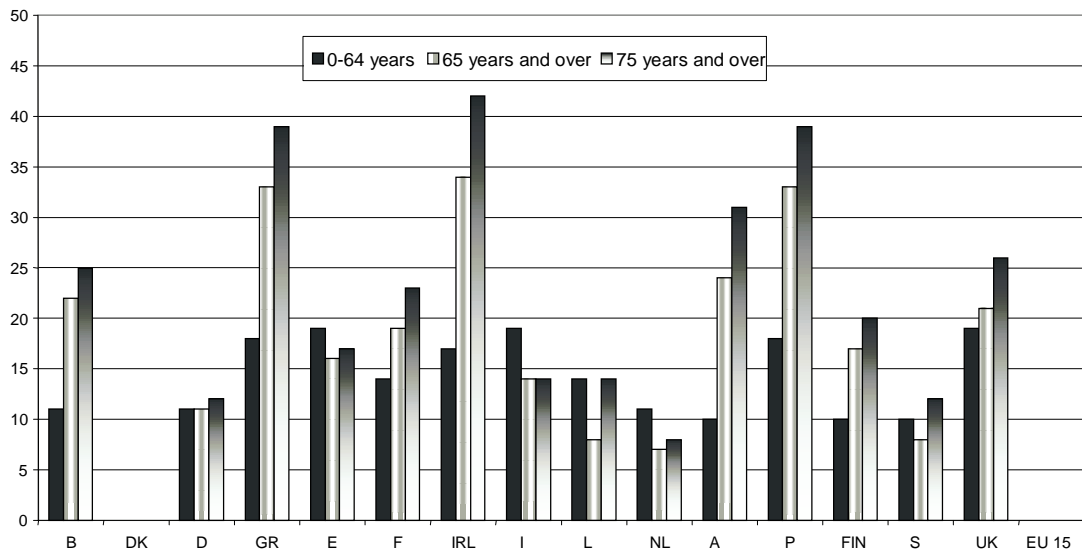
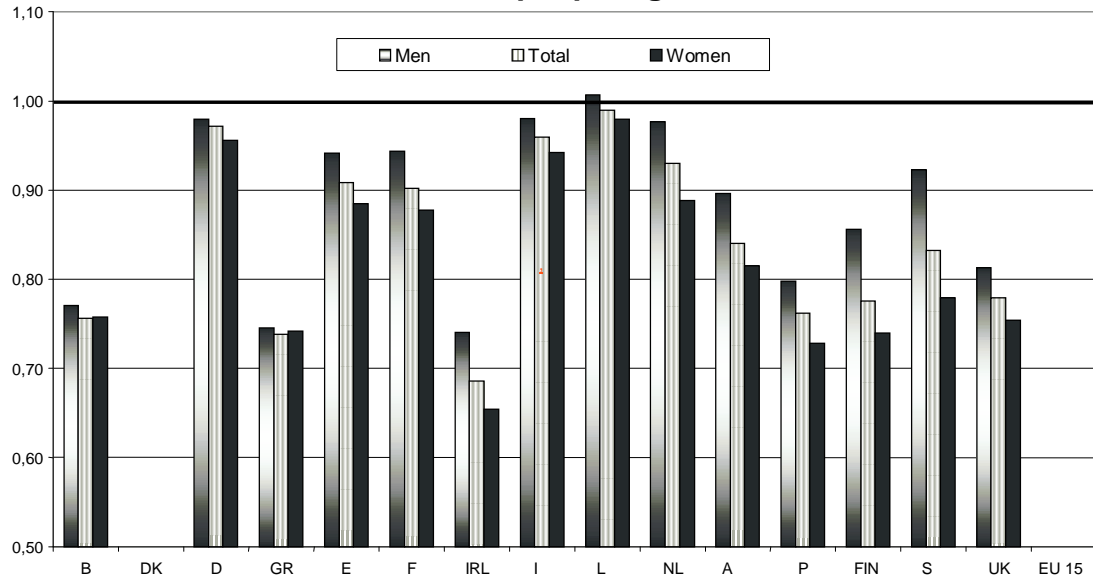


Chart 3 Income of people aged 65 years and over as a percentage of income of people aged 0-64



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