Identifying effects of health and long-term care policies through cross-national analysis

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Ageing affects us both as individuals and as societies. One fascinating aspect of the five papers in this special issue is the combination of both levels in a single analysis, made possible by the data of the Survey of Health, Ageing, and Retirement in Europe (SHARE).

Individuals are concerned about declining health and deteriorating productivity and worry about how life will look after retirement. Part of this uncertainty stems from the great variety of individual ageing processes. Humans become even more diverse as they age when different life circumstances accumulate. Health, social and economic status at old age reflects all the various life circumstances from very early childhood on, including interventions by family, friends, and formal care systems. The large individual variety of health, social and economic outcomes and potential causes for these outcomes characterizes all five papers in this special issue and shows why longitudinal micro data is indispensable to understand the aging process.

For societies, population ageing is one of the megatrends in our century. Population ageing is often seen as a plague, threatening our living standards. Indeed, there are formidable challenges to our social security and health care systems, in providing care both in the family and in institutions. Our longer and healthier lives, however, also provide intriguing chances. The overlap of four generations is a novelty in human history and will provide the younger generation with new opportunities as well as new challenges. Modern technology and the increase of professions in which experience and management abilities count more than physical

strength will open new possibilities for older individuals to actively participate.

Making intelligent use of our longer and healthier lives to turn the challenges of population ageing into chances is a prime policy task for the coming decades. It requires a solid understanding as to which policies work and which do not. Even more, in times of tight budgets and little capacity to further increase government indebtedness, policies need to be cost efficient. This calls for evidence-based policy analysis and internationally comparable harmonized data, exploiting the fact that there has been quite a rich spectrum of policies particularly in Europe. This rich spectrum permits comparative policy analyses: learning from each other, from failures and successes. All five papers in this special issue aim for policy implications derived from such cross-national comparisons, mainly in the areas of health and long-term care.

Providing the data base for such analyses, which enables researchers to employ multi-level analyses to distinguish individual effects from country-wide effects and to properly identify policy effects, is a formidable challenge. This is the aim of SHARE, the Survey of Health, Ageing and Retirement in Europe, on which the five papers in this special issue are based. SHARE provides longitudinal micro data on older individuals which are ex-ante harmonized and thus ideally comparable. Moreover, just as these five papers are concerned with health, health care and family care, combining medical, social and economic insights, SHARE's interdisciplinary approach to data collection has been proven to be very productive.

The core idea of SHARE is that of a “European laboratory” where we observe different policies—such as health and long-term care provision, retirement and pension policies, and earlier in life, education and labor market interventions—and different outcomes in many dimensions,

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such as health at older ages, economic status, and psychosocial well-being, just to name three. The analogy to a physics laboratory is of course a bit exaggerated as we cannot control the political and social environment in which health, economic status, and well-being are generated, but modern statistical and econometric methods can in many cases generate causal inference close to that of a pure experimental design since similar policies have been introduced at different times in the SHARE countries, often due to political circumstances that can be regarded as random with respect to the key variables that are relevant for the analysis. The combination of longitudinal with cross-national variation in SHARE is therefore the key for such causal policy analyses, and the five papers make a first step in exploiting this variation.

The five papers in this special issue were written when the first two waves of data were available. Since then, the longitudinal dimension of SHARE has steadily developed further. Following the first wave of data collected in 2004/05 and the second, in 2006/07, a third wave was collected in 2008/09 with a focus on retrospective life histories. These three waves were financed mainly through the European Commission's Framework Programmes and the U.S. National Institute on Aging. The fourth wave in 2010/11 was collected under the new framework created by the European Strategy Forum for Research Infrastructures (ESFRI), mainly financed by the SHARE member countries. Design work for the fifth wave has already begun and fieldwork is scheduled for the fall of 2012.

The cross-national dimension in SHARE has also developed over time. In the first wave, in 2004/05, SHARE interviewed about 27,000 respondents aged 50 and over in 11 European countries. The participating countries covered all EU15 regions: Nordic countries (Sweden and Denmark), Western European countries (Netherlands, Belgium, France, Germany, Austria, and Switzerland), and the Mediterranean (Spain, Italy, and Greece). The Czech Republic, Ireland, Israel, and Poland joined SHARE in the second and third waves in 2006/07 and 2008/09 and are included in some of the analyses in the five papers of this special issue. The fourth wave includes 19 countries, having added Estonia, Hungary, Portugal, and Slovenia. Altogether, more than 120,000 interviews have been collected in SHARE thus far.

The limited number of countries in the analyses in this special issue, ranging from 9 to 14, is a weakness of SHARE. This is most clearly visible in the multi-level analysis of late-life health by Ploubidis et al. (2012), where the five country characteristics are only vaguely identified. The added countries since their writing certainly help, but even more so the countries in the global network of aging surveys in which SHARE is embedded. SHARE has been modeled closely after the US-American Health and Retirement Study (HRS) and the English Longitudinal Study on

Ageing (ELSA). Most variables in these surveys are either identical or very closely comparable, making the triad SHARE-HRS-ELSA a powerful laboratory especially for analyses of different welfare state approaches and their health, social and economic outcomes. The aging study triad has sparked similar surveys around the globe: The Study on Global Ageing and Adult Health (SAGE), the Korean Longitudinal Study on Ageing (KLoSA), the Japanese Longitudinal Study on Ageing and Retirement (JSTAR), the Chinese Health, Aging and Retirement Longitudinal Study (CHARLS), and lately the Longitudinal Aging Study for India (LASI). Currently, three similar studies are emerging in Latin America (Argentina, Brazil, and Mexico).

The third important dimension of SHARE is its interdisciplinarity, echoed again in the five papers. SHARE combines fields and permits study, for example, of the side effects of health care policies on economic status and the side effects of pension policies on health. SHARE includes a broad set of *health variables* (e.g., self-reported health, physical functioning, cognitive functioning, physical measures such as grip strength, walking speed, peak flow and BMI, in Germany also dried blood spots, health behavior, and use of health care facilities), *psychological variables* (e.g., psychological health, well-being, life satisfaction, and control beliefs), *economic variables* (e.g., current work activity, job characteristics, job flexibility, opportunities to work past retirement age, employment history, pension rights, sources and composition of current income, wealth and consumption, housing, and education), and *social support variables* (e.g., the size and structure of the social network, assistance within families, transfers of income and assets, volunteer activities, and time use). Access to the infrastructure via two data archives is free for all scientists globally, subject to European Union data protection regulations.

The piece in this collection by Ploubidis et al. (2012) takes the most macro-oriented look at Europe. The authors try to explain why late-life health is so different across Europe. After accounting for a host of individual characteristics, e.g., economic status and health behavior, in their multilevel approach, substantial cross-national variation remains, with essentially the same pattern as the crude health measures, namely the by now well known North–South gradient from most healthy Sweden to least healthy Spain. Why so? Ploubidis et al. try to explain the remaining cross-national variation by five country characteristics: GDP per capita and the Gini coefficient of income distribution to describe the economic environment, social trust and Esping-Andersen's ubiquitous welfare state regimes to describe the social environment, and finally obesity—not entirely convincing—to describe the nutritional environment. Unfortunately, as already mentioned earlier, the statistical significance of all five country characteristics is

weak (only two are significant at all at a generous 5% level). The choice of the five variables is a bit surprising given the policy ambitions of the paper: one might suspect that expenditures for health care and the extent of health insurance coverage are main drivers of health at the population level. The main finding—uneven income distributions generate worse health outcomes is fascinating. Due to the few country characteristics included, however, the variable may represent the influence of other omitted country characteristics, such as the health care system. Typically, countries with a less equitable income distribution also have a more segmented health care delivery system. Fixing the health care system would therefore be a much more efficient policy response than redistributing general income.

The other four papers are much more micro oriented and more specific. They are concerned with the individual and welfare state contexts of providing care. The papers by Schmid et al. (2012), and by Geerts and Van den Bosch (2012) look at support and care for the oldest old, while the papers by Jusot et al. (2012), and by Ladin (2012) analyze preventive and general health care utilization. They all use variants of multilevel analysis as is appropriate for a cross-national data set like SHARE.

Support and care for the oldest old is high on the agenda of aging research since this age group is the fastest growing population segment in our second demographic transition. The number of individuals aged 85 and over is predicted to triple over the next two decades. While this is alluded to in both of the papers that focus on the oldest old, there is however an attenuating trend that requires attention as well. That is, compression of morbidity may be redefining what “oldest old” means, insofar as there is some evidence of reduced disability rates in Europe over the last two decades. Although “the jury is out” on whether this trend will continue and how strong it is, it nevertheless deserves attention in all papers about support and care for the oldest old.

Schmid et al. (2012) point out the gender differences of providing support for older parents. They are well known. What is new, however, and could only be detected with international micro data like SHARE, is the interaction between legal obligations and the gender gap. Legal obligations push daughters to more frequently provide regular support than sons, while sons provide more sporadic support without legal obligations. Thus, ironically, legal obligations strengthen the gender gap rather than resolving it. This is a striking result. Whether it is credible, rests a lot on the credibility of the answer to the question “how often do you provide support” and the subjective evaluation as to whether it is sporadic or regular. If this subjective response is different across countries with different legal environments, we may obtain biased results. Such different

“response styles” are a plague in cross-national analyses and have led SHARE to employ objective measures, such as biomarkers for health or administrative data for income, wherever possible.

Geerts and Van den Bosch (2012) focus on another aspect of care provision, namely the decision when to switch from informal to formal care. The paper nicely opens the black box of human behavior in the link between policy and outcome by showing that the introduction of needs-based entitlements changes this switch point and through this change affects the quality of care. This is similar to the behavioral change in the frequency of providing support induced by legal obligations that was addressed in the Schmid et al. paper. Note that the differentiation between direct policy effects and effects working through behavioral change can only be distinguished with detailed micro data such as SHARE. This differentiation would be even better if more countries and/or more waves were available since this would provide more policy variation. Both papers are aware of the current limitations, and both papers have authors who are actively participating in fulfilling this agenda.

Health care utilization is another hot topic. Health care costs are increasing, not as dramatically in Europe as in the US, but still creating a large implicit debt since the current service promises made by public and private health insurances cannot be covered by the stream of future taxes and contributions at today’s tax and contribution rates. The papers by Jusot et al. (2012) and by Ladin (2012) are concerned with the quantity dimension of health care costs, namely the utilization of health services. (The price dimension is particularly relevant for the US.) Jusot et al. find large differences in preventive care utilization across Europe, especially in health care systems in which doctors are paid fee-for-service rather than with a fixed salary. This corresponds to standard economic intuition and is usually interpreted as “moral hazard”: doctors paid fee-for-service persuade patients to utilize more preventive care than the patients would have otherwise. The standard interpretation is therefore that fee-for-service creates wasteful and unnecessary expenses. Jusot et al. provide a non-standard interpretation: doctors know better than procrastinating patients, so more preventive care than the patients would choose is actually good for them. However, a stingy fixed-salary system prevents doctors from fulfilling such duty. This non-standard interpretation is brave. It conflicts with the weak and sometimes negative evidence on the efficacy of a broad array of preventive measures, as does the assertion that “prevention has been identified as an effective strategy to generate healthy, active and independent lives in old age.” It would have been interesting to relate this paper, e.g., in the introduction, to this ongoing debate.

Country differences in health care utilization are also the topic of the paper by Ladin (2012), with her specific interest in understanding why the difference in health care utilization among depressed and non-depressed elders is country dependent. Ladin adds another aspect to country differences: differences in prevalence and differences in impact of potential drivers of country variation. This is best explained using an example: differences in utilization may be explained by the higher prevalence of rich households; in addition, however, depression or non-depression may make individuals react differently to an income increase. Note that this corresponds, in a somewhat abstract way, to the opening of the black box of human behavior commented on earlier. The statistical tool employed by Ladin is the Blinder-Oaxaca decomposition, which, technically speaking, distinguishes differences in the explanatory variables (prevalence) from differences in the regression coefficients (impact, sometimes referred to erroneously, also in this paper, as unexplained variance). Ladin's results show a complex pattern which is not easy to interpret. The paper discussed initially in this review (Ploubidis et al.) may provide a methodology which could be fruitfully employed here as well, in particular with more countries at hand now: to parametrize the impact coefficients by country characteristics or, better, health care system variables.

In conclusion, the five papers show impressively how much richer cross-national data are compared to data from

a single country. Cultures, policies, and histories shape countries and the individuals living in these countries. And the influence of cultures, policies and histories becomes apparent only in comparison to other countries. With the greatly expanded range of countries and events over time available soon with the fourth wave of data in 19 countries, I very much hope that the readers will jump to their computers and use SHARE for all the ideas they have accumulated while reading this special issue.

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