VID Colloquium

Probabilistic Forecasts of Long-term Care Dependency in Austria: Methodological Issues in Modelling Demographic Variables

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Date: Thu, 22 May 2014, Time: 10:00 - 11:00 am

Increasing life expectancy and the ageing of large cohorts will result in a rise in demand for long-term care services. Predicting the amount of need for long-term care services is crucial for planning provision of adequate care services and estimation of associated costs. Previous projections are based on the time series of care allowance recipients in Austria as well as assumptions on the future developments of related trends in morbidity, service take-up and costs. Demographic variables that are measured by age, gender, time and region, such as care dependency, have a high-dimensional structure; disregarding this structure in modelling may result in inefficient estimation, biased results, wrong understanding of the degree of certainty of forecasts and scenario definitions that are inconsistent with their underlying assumptions. I discuss consequences of incorrect modelling of demographic variables and present possible solutions in a Bayesian framework. I present preliminary results of long-term care dependency forecasts in Austria and discuss open questions related to my work.

About the presenter
Martin Zuba graduated in Economics from the University of Vienna and enrolled in a doctoral programme at the Vienna University of Economics and Business in 2010. He is affiliated with the Research Institute for Economics of Aging at the WU. His research focus is on the economic costs of care, which include monetary and non-monetary costs of formal and informal care arrangements accrued to public or private stakeholders. Recent publications address the role of workplace characteristics in mitigating working informal caregivers' work-family conflict and forms of providing medical services to nursing home residents.