

# **Internal IMMAQ WORKSHOP 2015**

## **ON PENSION AND AGEING**

**Louvain-la-Neuve, January 27, 2015**

### **Abstracts**

#### **Can all Belgians afford to get old?**

Pierre Pestieau ( CORE)

My contribution presents a diagnosis of the current situation of Belgian pensions and of their prospects. It basically shows that this future is gloomy: benefits should decrease within an unsustainable system. It then turns to a number of reforms that insure both sustainability and fairness. The most important of these are raising the effective age retirement, unifying the scattered pension regimes, and introducing an unconditional universal basic pension. It finally touches two key issues: grandfathering and long term care.

#### **Automatic balancing mechanisms for Notional Defined Contribution Accounts in the presence of uncertainty**

Jennifer Alonso García (ISBA)

The notional defined contribution model combines pay-as-you-go financing and a defined contribution pension formula. This talks aims to demonstrate the extent to which liquidity and solvency indicators are affected by fluctuations in economic and demographic conditions and to explore the introduction of an automatic balancing mechanism into the pension system. We demonstrate that the introduction of an automatic balancing mechanism reduces the volatility of the buffer fund and that, in most cases, the automatic mechanism that re-establishes solvency produces the lowest variance of the notional factor with the lowest expected value.

#### **Ageing and Employability. Evidence from Belgian Firm-Level Data**

Vincent Vandenberghe (IRES)

The Belgian population is ageing due to demographic changes; so does the workforce of firms active in the country. Such a trend is likely to remain for the foreseeable future. And it will be reinforced by the willingness of public authorities to expand employment among individuals aged 50 or more. But are older workers employable? The answer depends to a large extent on the gap between older workers' productivity and their cost to employers. To address this question we use a production function that is modified to reflect the heterogeneity of labour with workers of different age potentially diverging in terms of marginal products. Using unique firm-level panel data we produce robust evidence on the causal effect of ageing on productivity (value added) and labour costs. We take advantage of the panel structure of data and resort to first-differences to deal with a potential time-invariant heterogeneity bias. Moreover, inspired by recent developments in the production function estimation literature, we also address the risk of simultaneity bias (endogeneity of firms' age-mix choices in the short run) using i) the structural approach suggested by Akerberg, Caves & Frazer (2006), ii) alongside more traditional system-GMM methods (Blundell & Bond, 1998) where lagged values of labour inputs are used as instruments. Our

results indicate a negative impact of larger shares of older workers on productivity that is not compensated by lower labour costs, resulting in a lower productivity-labour costs gap. An increment of 10%-points of their share causes a 1.3-2.8% contraction of this gap. We conduct several robustness checks that largely confirm this result. This is not good news for older individuals' employability and calls for interventions in the Belgian private economy aimed at combating the decline of productivity with age and/or better adapting labour costs to age-productivity profiles.

## **Optimal mix between pay as you go and funding in public pension schemes**

Pierre Devolder (ISBA)

This presentation deals with the financing of public pension in a stochastic environment. The aim is to compute the optimal combination between a riskless asset, a risky asset and a part in PAYG in a risk management perspective.

We introduce different stochastic models where the main processes become random (wage growth, population growth, financial rate of return) and develop first the optimization problem in a mean variance framework. We obtain in particular conditions on the parameters in order to justify the diversification and the explicit optimal sharing between the pay as you go mechanism, the risky asset and the riskless asset. In a second part we extend the model by substituting to the mean variance context power utility functions in a continuous time model

## **Long-Term Care Insurance, Housing Demand and Decumulation**

Bertrand Achou (IRES)

The market for long-term care insurance (LTCI) in the US is still small while long-term care (LTC) expenses are usually large. This observation is particularly puzzling for the richest individuals for which the crowding-out effect of Medicaid is likely to be small. It has been argued that housing could explain the lack of insurance demand for these individuals as it is mainly sold when individuals move to LTC. Using simulated life-cycle models and studying wealth profiles from the Health and Retirement Study, I show that this argument is not convincing for the top wealth quartile of the distribution of elderly individuals. The main reason is that their rates of decumulation of financial assets are much lower than those required for housing to play a substantial role.

## **A pension system with points as an instrument to implement inter-generational and intragenerational justice**

Erik Schokkaert (CORE)

A pension reform raises questions of intergenerational and intragenerational justice. The main issue with respect to the former is the differential treatment of different cohorts in the face of economic growth and demographic changes. As for the latter, the issue is to reconcile the idea that pensions should be related to past incomes (and past effort) with the intuitions that people cannot be held responsible for bad luck in their lives and are entitled to a decent minimum living standard. There is a need for a coherent and sustainable pension system that is transparent with respect to these justice issues. I will argue that a points system is sufficiently flexible to accommodate different views on justice and efficiency. The distribution of points is relevant for intragenerational justice and for labour market incentives, the value of a point is the crucial parameter to realize intergenerational justice and long-run sustainability.