

## ABSTRACTS 4/2007

*Alexia Fürnkranz-Prskawetz/Bernhard Mahlberg/Vegard Skirbekk*      **JEL-No: J20, L20**

### **Demographic Structure and Firm Productivity in Austria**

We assess the relation between firms' productivity levels and the age composition of the employees using a unique Austrian dataset. We control for firm-specific characteristics (including number of employees, firm type and size) as well as employees' characteristics (including age, length and type of education, gender and marital status). We find a negative productivity effect of the share of older workers (50 years and older) for the whole sample, as well as for small sized firms (irrespective of the economic sector we consider). This is similar to the finding of most employer-employee studies. If we restrict our sample to large sized firms, the age-productivity profile changes. For firms in the mining and manufacturing industries the age structure of the workforce is not significantly related to productivity while for firms in the non-manufacturing sectors the share of younger workers is negatively related to productivity.

*Matthias Czechl/Golo Henseke*

**JEL-No: O40, J10, I00**

### **Demography and Economic Growth: No simple relation**

Demography, growth, and wealth interact with each other in a multidimensional manner. This study gives a short, nontechnical overview of past and more recent basic research in the area. Besides a transitional effect on growth (1. Demographic Dividend), Demographic Change has a permanent influence on wealth via productivity development (2. Demographic Dividend). Theoretical modelling is generally based on human capital accumulation and knowledge spillovers from research and development. However, causality runs in the opposite direction, too; economic growth influences demographic processes, for example fertility decisions. The relation between demography and growth is robustly confirmed in recent empirical work and holds for developing and developed countries, for which it constitutes an opportunity or challenge, respectively.

*Martin Brussig*

**JEL-No: 11, 14, 18**

### **The effects of the raise of the statutory pension age in Germany**

Currently, many European countries discuss to raise the statutory pension age to ease the growing financial burden for pension systems caused by population ageing. As the only country in Europe so far, Germany has already adopted a bill to raise the pension entry age gradually from 65 to 67 years from the year 2012 onwards. Already since 1997, pension deductions in the case of early retirement are in effect in Germany to compensate for longer pay-off periods. New data from the German pension insurance show that the average age at pension entry increased due to the implementation of deductions at early retirement. At the same time, there is a growing social differentiation at pension entry: Long term unemployment leads to early retirements. These results show that integration into employment in the late stages of work life is more important for individual old age provisions than the statutory pension age.

### **Too old for a new job?**

#### **Age-specific reemployment chances after job loss.**

The labor market situation for older job searchers is more difficult than for younger ones. To identify patterns in the reemployment of the elderly, we analyze employment histories of about 113,000 male job searchers in West-Germany. The analysis is based on a hazard rate model with piecewise constant intensities. We focus on age-specific reemployment rates. Individual characteristics, labor market indicators as well as the influence of individual employment history on reemployment are accounted for. As expected, reemployment chances decline with age. Taking ages 50 to 54 years as a reference age group, reemployment risks (i.e. chances) in age group 35 to 39 years are 41 percentage points higher, whereas the chances in age group 55 to 59 years are 63 percentage points lower.

### **The Demographic Change: Population Ageing and Shrinking? Developments and Perspectives for Austrian Municipalities**

Demographic changes cause sustainable shifts in the population structure. The number of older people is increasing while at the same time this of younger people is declining. The consequences of shrinking birth rates and an ageing population are immediately visible in communities, whereas two opposed trends become apparent: A population growth in urban areas and along arterial roads and at the same time a population decline in structural and economical disadvantaged regions. By focusing on birth rates, age distribution, and development of households, the article summarises the prospected changes of the Austrian population, its federal states and regions until 2050. Central themes are the consequences for urban and rural areas as well as the care for the elderly. Finally, examples of possible perspectives for communities are pointed out.

### **Employment and Demographic Change: A regional perspective**

The study deals with regional disparities in demographic change in Europe. It discusses possible consequences for firms, using labor supply as a showcase. First, it provides an analysis of the extent and pattern of demographic change in the 99 NUTS 2 regions of Germany, Austria, Spain, Sweden, Poland and Bulgaria. It then shows that the working age group shrinks faster, but ages much slower than total population. Based on these results, the interplay of demographic trends and characteristics of the regional labor market is used to conjecture that female potential labor supply could not, under all circumstances, be expected to compensate for a shrinking workforce. This is especially in those regions the case, where low female employment rates coincide with higher unemployment of women.

*Matthias Czechl/Thusnelda Tivig*

**JEL-No: J13; J24; J63**

### **Education or Children? Skill Shortages under demographic change**

Based on the Quantity-Quality Trade-Off (between the number and education of children) it is studied how shortage of quantity and quality can occur at the same time. Explanations start from the theoretic model but go beyond. A high propensity to consume, high exports of human-capital intensive industries and a lack of labor-market orientation in the choice of studies and occupations are offered as explanations. In Germany the situation is aggravated by a particularly uneven distribution of educational chances.

*Ralph Lützel/Volker Elis*

**JEL-No: H55, H71, J11**

### **Demographic Change in Japan – Its Background and Recent Developments in Social, Employment and Regional Policy**

Demographic change in Japan is characterized by population decline and an accelerated rise in the ratio of the elderly population. It is essentially caused by a fertility rate which has been extremely low for decades. While population aging is already far advanced in many places in the countryside, urban regions are less affected. Particularly challenging is the adjustment of social policy measures. The reaction of the Japanese government so far included the introduction of a long-term care insurance system, measures to boost the number of child care facilities and a cut in pension benefits while simultaneously raising insurance premiums. To prevent the threat of a severe labour shortage measures to increase workforce participation of women and the elderly are favoured, while a more active approach to immigration is less popular. An adequate regional policy approach is needed to mitigate the widening disparities between the large conurbations and the rural areas, a problem, which has resurfaced due to demographic and economic effects mutually reinforcing each other, and the reorganization of the interregional fiscal transfer system.

*Pascal Hetze/Michael Kuhn*

**JEL-No: J10, J24, J71, M53**

### **Continuous education and transfer of knowledge in ageing workforce**

The transfer of knowledge is a key determinant of productivity both at the level of firms and at the level of the economy as a whole. In the presence of demographic change intergenerational knowledge transfer assumes a particular importance. Transfer of knowledge occurs in both directions: The young acquire experience knowledge (know-how) from the old. The old learn from the young about new products and processes. Population ageing changes the circumstances under which knowledge transfer takes place. Ageing affects the ratio between the supply of knowledge and the demand for it as well as the need for continuous training. This article provides an overview on the role of continuous education within an ageing workforce and sketches how the transfer of know-how between old and young may be compromised through demographic change.

### **Fertility trends and the relevance of families for building human assets**

The declining birth rates indicate the demographic change which most of the European societies have to cope with. This article discusses fertility behaviour in Austria and the impacts of the demographic change on society. In that context some of the most prominent scientific approaches on impact assessment are illuminated. Particular emphasis is placed on the effects of low fertility on building human assets. The role of families as the prior institutions providing human assets and the importance of work performed within families are the main aspects which are discussed.

### **Baby boomer retirement, labor shortage and silver market: Challenges and chances of demographic change for businesses in Japan**

The rapid demographic change in Japan bears vast consequences for firms and other organizations. On the one hand, in the form of challenges and threats like e.g. labor shortage and knowledge loss, as well as a shrinking customer base, and on the other hand in the form of chances and new business opportunities, like e.g. the so-called "growth market age" or the "silver market". This article wants to give an overview and evaluation of the challenges and opportunities of demographic change for corporations in Japan and also take aspects regarding economic policy into account.

### **Aging of the German Labor Force**

Population aging does not translate directly into aging of the labor force. One reason is that in addition to demographic developments economic effects and individual decisions influence the age structure of labor as well. Specific subgroups of the labor force can thus exhibit a substantially different age structure and development than the reference group. In this paper we use various indicators to get a differentiated picture of labor force aging in Germany between 1975/85 and 2001/05. As a result we find that aging in subgroups defined by occupational status, gender and other characteristics is subject to a sort of convergence process: Subgroups that were relatively young aged faster, and vice versa. A decomposition of changes in the share of employed and unemployed persons yields that demography affects mainly the share of male employees. In the other cases, employment and behavioral effects dominate.

### **Demographic change as a challenge for the Austrian qualification system**

Demographic developments will influence the Austrian qualification system in manifold ways. Due to declining shares of younger age-cohorts in the potential workforce, continuing (vocational) education and training will generally become more important with respect to the potential for renewal of the economy. This is connected with a wide range of questions related to increasing the participation in CVET (particularly for older workers and in the segment of formally low-skilled people); in addition, issues such as supplementary education and training programmes and qualifications for adults in the skilled workers' segment and for immigrants must be addressed.

For the future it can, furthermore, be expected that – from a purely demographic perspective – the level of potential for renewal triggered by young cohorts for the qualification of the workforce will continue to dwindle. Any increase of the potential for renewal caused by the influx of young cohorts can, as a result, practically exclusively be achieved by “intensifying” the qualification output of the initial vocational training system. Need for action in terms of educational policy can mainly be seen in terms of students' proficiency and performance at the end of compulsory schooling (keyword: PISA) and regarding exploitation of the spare potential of the entire (if possible) young people, particularly youth with a migration background.

### **Pension promises: A company-risk-factor?**

In Germany pension promises are a widely-used and the only direct scheme of occupational pension programs. The paper considers five main risks for companies that provide pension programs. It concludes that the influence of a variable life-expectancy (that depends on the age of retirement) is much weaker than that of variations in the actuarial discount rate, fixed by law at nominal 6 %.

### **Pension adjustments for early retirement and differential mortality**

The 1992 public pension reform in Germany introduced adjustments for early or late retirement, the right amount of which is disputed. In this paper a new aspect of differential mortality is added to the debate. We show with new data that later retirement adds up to 2.4 years to live on average for men. Adjustments for early retirement thus appear too high. Fair adjustments should vary with retirement age and gender.

*Martin Zagler*

**JEL-No: E60, O40, O52, O31**

### **Innovation and Growth Policy**

This paper is a collection of policy recommendations to foster economic growth. We will exploit four specific recipes to foster economic growth, before mentioning two caveats. We will argue that the key to economic growth are innovations. Innovations require innovators, a sound institutional setting, correct incentives for innovators and innovative firms, and a beneficial macroeconomic environment. On the downside, innovations may lead to unfavourable distributional and employment outcomes.

*Ferry Stocker/Nicole Lindner/Kerstin M. Strobach*

**JEL-No: G30**

### **Corporate Bonds as alternative finance instrument in Austria**

In the recent past the Austrian Corporate Bond Market has experienced an upswing. This paper first describes this phenomenon and analyses the structure of the Austrian Corporate Bond Market, with particular emphasis on corporate bonds, currently listed on the Austrian Stock Exchange. In addition, the underlying reasons for the increased issuance of corporate bonds are explored in detail, and conclusions are drawn as regards the future development of the Austrian Corporate Bond Market as well as economic policy implications.

*Vladimir Pankov*

**JEL-No: F13, F53**

### **Russia joining World Trade organization: problems, consequences, future perspectives**

14-year history of Russia's negotiations on joining this organization is coming to its end. 52 countries - members of WTO has taken part in these negotiations which is kind of a record. The author analyses intentions and expectations of Russia and other negotiators, agreed conditions and their possible consequences for all of the parties involved. In the short-term, joining WTO will probably cause more problems than benefits to Russia, although its partners will immediately gain from liberalization of Russia import. Diversification of Russian export by increase of the processed hi-tech products may only be a long-term solution. Membership in WTO may help to achieve this goal. If Russia is not approved on the minister's summit at the end 2007 - beginning 2008, it may take an indefinite time to resolve the issue, which contradicts to the interests of both Russia and WTO as an international organization.