

High-skilled Labour Force - Impediment to Growth?

Topic: Structural change and dynamics II

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In Germany, the debate about too many academics entering the labour force has recently reached new input: The VET data report (BIBB 2013: 10) disclosed a raising number of first-year students, whilst the number of newly negotiated apprenticeship contracts has declined and that the number of non-occupied apprenticeship posts has further increased. This development has been commented by some as a “delusion of academization” (FAZ 2013) that implies a trend towards overeducation. Looking at mere data, this is not (yet?) a topic. The demand for high-skilled workers is still prominent: among academics the unemployment rate is 2.5% - close to full employment (IAB 2013: 2). Academics do still earn in average 36% more than others (DIW 2013: 2). And looking across the border, Germany even lags behind his OECD partner countries: in 2011, only 28% of 25-34 year olds attained a tertiary education degree while the OECD-average is at 39%.

Economic theory suggests that education in general is positively linked to economic growth, but overeducation in particular is likely to impute growth losses. Although, persons with a university degree have better options on the labour market than persons without, the question remains how many academics can be absorbed from the economy? The matching of the “right skills for the jobs of today and tomorrow” are essential not only with respect to the dynamics on the labour market but also with respect to structural changes within the economy.

The methodology rests on a dynamic macro-economic input-output model for Germany that captures the labour market in detail. Driven by the economic model, labour demand is broken down by economic sectors, occupational fields and qualification levels. Labour supply is capped by demographic change. The stock of working population is determined via the educational system and its output of students, graduates or trainees that enter the labour market and via the dropouts of the labour market due to pension, sickness or else. The labour force participation rate varies depending on age, sex and qualification level. A trend forecast dynamises the rate. The matching process of both parts of the labour market is conducted on the level of occupation: labour supply and labour demand are confronted by 54 different occupational fields. Skill mismatches are subsequent results of the matching process. Drawbacks to the economic model are implemented in the wage function. It explicitly captures labour shortage by occupation with a negative sign: the more (less) employees are available on the labour market, the lower (higher) the wages in that specific profession.

The model solves until 2030 in order to capture longterm adjustment processes. The baseline scenario presented in this paper assumes a constant share of student entries. This leads to a growing number of persons with a certificate for university entry, to an increase in first-year students and, finally, to an increasing number of high-skilled labour supply. Labour demand by occupational fields and skill requirements is driven by the economic model in the baseline scenario. A second scenario assumes a stronger path towards higher education by changing the labour participation rates of high-skilled persons. The results will be compared with those of the baseline scenario.

The results will give an approximate answer to the question whether overeducation leads to a slower growth path of the economy. The comparison of two scenarios with different rates of high-skilled labour force allows drawing a first conclusion. It is expected that overeducation leads to a lower growth path than compared to the baseline scenario. Oversupply of high-skilled workers is likely to lower wages in many professions, leading the economy to a lower growth path in total. At the same time, the oversupply of academics might lead to an undersupply in other qualification levels. Hence, wages are likely to increase in other areas. The overall effect on the economy is still to be assessed.