

FOREWORD

The Hungarian Labour Market Yearbook series was launched in the year 2000 by the Institute of Economics of the Hungarian Academy of Sciences with the support of the National Employment Foundation. The yearbook presents the actual characteristics of the Hungarian labour market and employment policy, and provides an in-depth analysis of a topical issue each year. The editorial board has striven to deliver relevant and useful information on trends in the Hungarian labour market, the legislative and institutional background of the employment policy, and up-to-date findings from Hungarian and international research studies to civil servants, staff of the public employment service, municipalities, NGOs, public administration offices, education and research institutions, the press and electronic media.

An important aspect is that the various analyses and the data published in the yearbook series should provide a good source of knowledge for higher education on the different topics of labour economics and human resources management. The yearbook series presents the main characteristics and trends of the Hungarian labour market in an international comparison based on the available statistical information, conceptual research and empirical analysis in a clearly structured and easily accessible format.

Continuing our previous editorial practice, we selected an area that we considered especially important from the perspective of understanding Hungarian labour market trends and the effectiveness of evidence-based employment policy. The yearbook consists of four main parts.

The Hungarian labour market in 2016

In 2016 the Hungarian GDP increased by 2 percent compared to the previous year, which however was the lowest among Visegrad countries. In addition to the external demand, domestic demand – mainly consisting of the consumption expenditures of households – was a main factor in this improvement. The volume of the domestic demand has increased by 4.9% mainly due to the improving labour market environment and the real wage growth.

According to the population based representative survey of the Central Statistical Office – by using the definition of the labour force survey – the number of employed increased to 4 million 352 thousand which was the highest value since the survey was introduced in 1992. Employment growth was special from the respect that it has been realized almost exclusively in the domestic primary labour market and within the business sector. There was only a very slight increase in

the number of public work participants in 2016 and the policy package which was adopted in 2017 already aims at decreasing the number of public workers in 2017. After the dynamic increase in the previous years the number of Hungarians working abroad – and subject to the labour force survey – was stagnating in 2016. This trend is probably relevant for the total number of the population working abroad including those who are not included in the LFS. In addition to the improving labour market situation the withdrawal announcement of the United Kingdom (the third most popular target country for Hungarians) from the European Union played an important role in this trend.

Statistical data sources cannot provide exact information on the number of additional employees needed in the economy but it is evident that labour demand reported by enterprises in 2016 was significantly higher than in the previous year. Accordingly, the annual average number of job vacancies was 36 percent higher than a year ago. Within the business sector the number of vacant positions was the highest in the ICT sector – one and a half times higher than the business sector average (this latter equalling to 3.0 percent in Q4 2016). In total 420.5 thousand persons (not including public workers) belonged to the category of the potential labour force, 115 thousand fewer than in 2015. In addition to the surplus due to the increase of the retirement age this labour force potential – and within as usual primarily the unemployed – ensured the source of the employment growth.

In 2016 wage developments were influenced by the favourable economic trends and, in addition, the strengthened competition for labour force. The gross average wage in the economy increased more intensively than in previous years in total by 6.1% and reached 263,200 HUF in 2016. Net wage became 7.8% higher than in the previous year – which together with the constantly low consumption price index – resulted in an increase of 7.5% in real wages. The amount of the family tax allowance introduced in 2011 has also been increased. The benefits of the most developed regions of the country are not only reflected in the employment rate but also in wages. Generally, in counties where employment rate is low (and therefore labour force potential is higher) wages are also below average and vice versa. The cumulative assessment of these two factors shows a picture of a strongly polarized Hungary where – with few exceptions – regions either belong to the first or the second category. Such exceptions are Heves and Tolna counties where the gross average wage of employees exceeds the countryside average. In the case of Heves the difference could be explained by the high wages of the Thermo-electric Power Station of Visonta which has a major weight in the employment in this area. The nuclear Power Station in Paks has a similar impact in Tolna county. The single county with both a high employment rate and concurrent low wages is Zala where industries with higher average wages are underrepresented; furthermore wages in other sectors – which represent a higher share in the employment structure – are also below average.

In Focus

The Ministry of National Economy – as the sponsor of our yearbook this year – submitted a request for us to explicitly address the issue of labour shortage in this chapter as a topic which currently stands in the focus of enterprises and their representatives. Contemporary professional literature in this field is rarely available; neither does a commonly agreed professional definition (related to market economies) exist. Consequently, an economic researcher has some misgivings when beginning such work. But even though the definitions are unclear, the fact that entrepreneurs do complain about labour shortage highlighted that this phenomenon is a social fact worthy of examination especially because of its real economic consequences: it could initiate wage competition, could strengthen the entrepreneurial pressure on education and training policies and last but not least could encourage public institutions – who face this challenge day by day – to introduce administrative measures in this field.

The second part of the chapter elaborates the necessary replacement due to demographic exchange and labour market emigration. In the past few years large age groups (the so called *Ratkó*-children) entered into retirement while younger age groups currently entering into the labour market became smaller and smaller. The mismatch between the skills and qualifications of the potential new applicants and those job vacancies which became available due to retirement has also increased. A commonly accepted idea among professionals is that there is a causal link between the growing number of complaints about labour shortage and the increased labour emigration. The study examines the form and the intensity of this relationship using the data of the labour force survey of the HCSO on the last domestic job, occupation and sector and geographical region of labour emigrants and compares its correlation with the reported growing labour demand. The chapter also examines the occupations and sectors within which Hungarian labour migrants are hired and if the job is in line with their qualifications and additionally deals with the topic of return migration.

The first study of the third chapter examines employer's complaints concerning labour shortage and analyses by using multiple regression methods how sectoral and geographical aspects, labour force-constitution, productivity, residual wage level (i.e. after filtering out the effects of the labour force composition), age, staff number dynamics and investment activities of the enterprises influence the probability of such complaints. The analysis uses the linked data of the Wage Tariff Survey and the Short-term Labour Market Forecast (hereinafter Forecast). The second study deals with manifest shortage situations, the characteristics of the trends on job vacancies and unused capacities.

The third and fourth study of the third chapter aim at exploring the most important consequences of the recruitment difficulties and strive to provide an in-depth analysis of the role of labour shortage in the progressively growing wages over the past few years. The increase in the number of complaints about labour

shortage and the progressively growing wages do not necessarily stand in a cause and effect relationship. The mistake of coming to such a foregone conclusion is only avoidable by using a micro level analysis. The relation between labour shortage and wage increase (or other reactions) could be examined on a limited sample of companies with the use of linked data from the Wage Tariff Survey and the Forecast. In addition to this, the detailed examination of the wage developments using a larger sample of the Wage Tariff Survey could bring results from which conclusions regarding the role of shortage situations could be drawn. It could also be examined if wage growth is more dynamic in those occupations, sectors and regions where other databases show increasing complaints about a growing labour shortage. Additionally that question could be raised if the growing competition for the labour force came to force an extremely dynamic wage growth on enterprises with wages below the market average?

Another consequence of the labour shortage is the growing pressure that business groups – complaining about labour shortage – take on education and training policies. Data and findings of research studies on the decline of the vocational training are briefly summarised in the fourth part. The second chapter elaborates some relevant questions in connection with labour shortage in higher education. Nowadays, there is a continuously growing labour market demand for appropriately skilled professionals in the fields of natural sciences, technology and information. According to European forecasts this demand will further increase while the signs of such growth trends in the education and training of skilled professionals in these fields are still not visible. Supply is determined by several factors however the most important one is the ability of technical occupations to attract an appropriate number of students. Based on the outcomes of the PISA survey of 2015 the chapter examines the trends on the proportion of students, in international comparison, who are interested in technical occupations as well as the influencing factors for choosing such career paths.

Finally, the fifth part presents mechanisms which could promote the effectiveness of employee-job matching at the given qualification level of the workforce and therefore could ease labour shortage. The first chapter provides an overview on the current transformation of labour demand – which labour force should adapt to. One aspect of this adaptability is occupational mobility, the ability and willingness to change. The composition of occupations is changing, new occupations occur and recent ones disappear even within the life cycle of the individual. This process is influenced by several factors including technological change, external trade, the change in composition of the population by age and educational background, the change of the legislative framework and the transformation of the labour market institutions. Low mobility rates could contribute to the labour shortage. Therefore, the second chapter examines the changes in the mobility rates in Hungary between 1997 and 2014 and also how qualification level, age, gender and other characteristics influence the probabil-

ity of mobility. A short segment presents the most important data regarding the intensity of the formal and informal adult knowledge accumulation by international comparison. The next subchapter highlights the importance of geographical mobility by using the enumeration district level GEO availability database developed by the Hungarian Academy of Sciences Centre for Economic and Regional Studies (MTA KRTK) to highlight the role of commuting costs in the evolution of mismatches between labour demand and supply. Finally, the last chapter of this section examines the composition of the unemployed participating in re-training and its changes as well as the effectiveness of retraining.

Similarly to previous years, writers of the chapter 'In Focus' belong to a wide range of professionals. The majority of the authors are colleagues of the Hungarian Academy of Sciences Centre for Economic and Regional Studies (MTA KRTK) but professionals from the Economy and Enterprise Research Institute, Kopint-Tárki, ELTE, the EU Joint Research Centre of Ispra and Budapest Institute are also among the authors. The main mission of the 'In Focus' chapter is to make the conclusions of scientific research and analyses available and understandable for the broader public. Therefore, the chapters mainly present the already published and presented scientific works without the formal presentation of the methodological, mathematical and statistical apparatus – which might discourage many.

On a previous occasion, in 2010, we dispensed with this tradition when we endeavoured to present the labour market consequences of the economic crisis of 2009–2010 in Hungary as soon as possible and therefore decided not to wait for the publication of the studies which generally takes two-three (sometimes even five-six) years. Similarly to the chapter 'In Focus' of 2010 edited by György Molnár this time the chapter could be built not only on works which were already controlled by the scientific community. The curiosity of the sponsors is understandable as labour shortage has become more and more serious in recent years. This expectation however could only be fulfilled through carrying out new research. Therefore, the methodology of the analyses is sometimes not so well-established and the conclusions not as sound as in the case of usual scientific works which would be redrafted several times before publication. Taking into account these explanations we publish the chapter 'In Focus' with this reservation in 2017.

Changes in labour market policy tools (April 2016 – May 2017)

This chapter summarizes the main legislative changes in connection with labour market policies between April 2016 and May 2017.

Several important modifications of the Vocational Training Act entered into force on 1st September 2016. Since that time the new name of vocational schools is vocational secondary schools, secondary vocational schools became vocational grammar schools while special vocational schools are now called vocational

schools. According to the new legislation the new secondary vocational schools – besides vocational grammar schools and general grammar schools – became part the secondary education system. By 1st January 2017 territorial offices had seceded from the former Klebelsberg Institution Maintenance Centre (KLIK) and were merged into the 59 local district education centres. Since that time KLIK operates further as the Klebelsberg Centre and fulfils more or less the same tasks as previously. From 1st January 2017 authority tasks and responsibilities of the National Institute of Vocational and Adult Education as well as the connected legal relationships were taken over by the Government Office of Pest County.

In connection with the changes of the different labour market services in 2017, the individualized action plan (IAP) (that provides help for jobseekers in their job-search) should be mentioned. The goal of the jobseeker as well as the content of the IAP is determined jointly by the client and the public employment services. The EDIOP-5.3.6-17 programme aims at establishing a comprehensive system by providing employee-job matching, recruitment, counselling and professional HR services. In 2017 the promotion of the transition from public work into the primary labour market became an important goal as well as the decrease of the number of public works participants. At the same time the target group was extended to persons who due to their mental, health or social conditions previously were not able to enter into public work. In order to promote mobility, a direct support for municipalities was introduced for building workers' accommodations. In addition employers could also request company tax allowances.

The increase of the minimum wage and the guaranteed wage minimum for skilled workers was an important change in 2017. As a result, the maximum amount of the unemployment benefit and the child care benefit (GYED) were increased too. The public employment wage has also been increased from 1st January 2017. In addition several modifications were carried out in the tax- and contribution system. The most important changes aimed at decreasing the social contribution tax and the health contribution; broadening the scale of tax credits in connection with the social contribution tax; and the transformation of the cafeteria-system.

Statistical data

This chapter, in the same structure as in previous years, provides detailed information on the major economic trends, the population, labour market participation, employment, unemployment, inactivity, wages, education, labour demand, regional imbalances, migration, labour relations, welfare benefits as well as drawing an international comparison of certain labour market indicators.

The data presented in the chapter have two main sources: on the one hand, the regular institutional and population surveys: the Labour Force Survey (LFS), institution-based labour statistics (ILS), and the labour force account (LFA); on

the other hand the register of the National Employment Services and its data collections: the unemployment register database, short-term labour market forecast (PROG), wage tariff surveys (WT) and the Labour Relations Information System of the Ministry for National Economy. More detailed information on these data sources is available at the end of the statistical section. In addition to the two main data providers, data on old age and disability pensions and benefits was provided by the Central Administration of National Pension Insurance. Finally, some tables and figures are based on information from the online databases of the Central Statistical Office, the National Tax and Customs Administration and the Eurostat.

The tables and figures of the chapter can be downloaded in Excel format following the links provided. All tables with labour market data published in the Hungarian Labour Market Yearbook since 2000 are available at the following website: http://adatbank.krtk.mta.hu/tukor_kereso.

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