

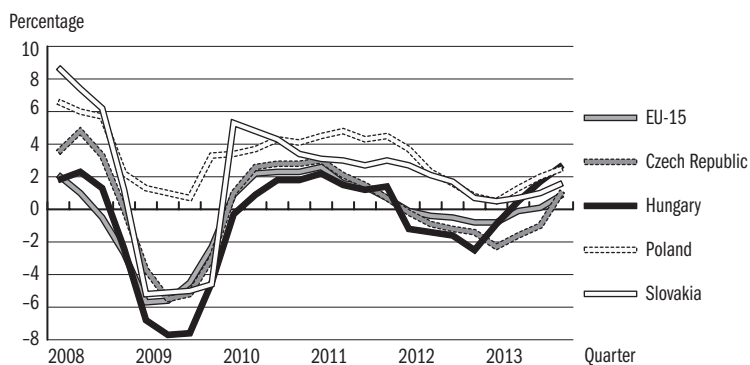
**THE HUNGARIAN
LABOUR MARKET
IN 2012–2013**

TAMÁS BAKÓ

ECONOMIC ENVIRONMENT AND EMPLOYMENT

The Hungarian economy was characterised by a deepening of the second wave of the economic crisis followed by weak growth from mid-2012 until the end of 2013. The country's GDP fell by 1.7 per cent in 2012, which was the largest decline among the Visegrád countries (*Figure 1*). Both external and internal factors played a role in this. The Eurozone went into recession again in 2012 and the weakening of Hungary's main export markets meant a contraction of international trade. Household consumption declined¹ as a result of a decrease in the real value of wages and cash transfers as well as the reduction of debt accumulated before the crisis. Unused capacities and limited credit supply prompted businesses to postpone or limit their investments.

Figure 1: GDP growth in the region (percentage change compared to the same period in the previous year)



Source: Eurostat online database.

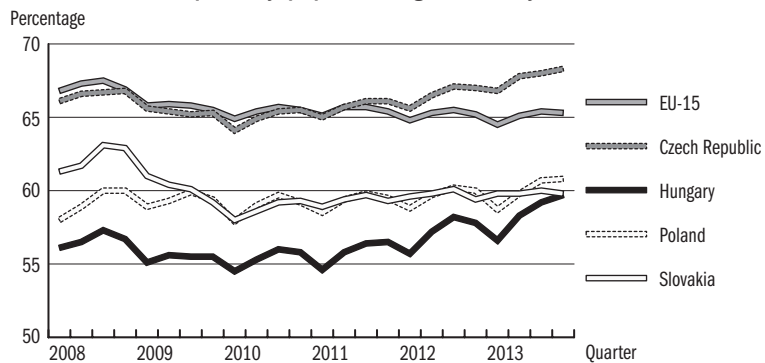
The economy of the European Union was characterised by a slow recovery from the recession in 2013; annual economic output effectively stagnated (+0.1 per cent). The German economy – considered the engine of the European economy – expanded by 0.4 per cent and this also had a positive impact on the Hungarian economy whose output grew in the last three quarters of 2013 compared to the same periods of the previous year. The annual GDP of Hungary was 1.2 per cent higher than in 2012.

Expanding car production and export, as well as the intensifying of internal demand all played an important role in the growth. Economic investment increased for the first time since the crisis mainly thanks to infrastructure developments financed from EU sources but household consumption also expanded underpinned by rising real wages and strengthening consumer con-

¹ The annual consumer price index was 5.7 per cent in 2012 (NBH, 2013a).

fidence (NBH, 2013c). The economic performance of East-Central Europe improved gradually in 2013, and the region's growth exceeded the EU average in the last quarter of 2013. The improving economic performance had a positive impact on employment in the region. Of the Visegrád countries Hungary and the Czech Republic achieved the greatest improvement in employment between the last quarter of 2012 and the last quarter of 2013, while employment in Slovakia stagnated during the same period. By the end of 2013 employment rates in all Visegrád countries – apart from Slovakia – exceeded their pre-crisis level (Figure 2).

Figure 2: Employment rates in the Visegrád countries, quarterly, population aged 15–64 years



Source: Eurostat online database (lfsq_ergan).

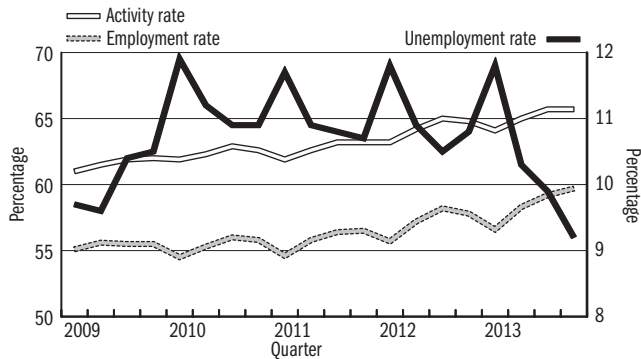
The economically inactive population decreased by nearly 10 per cent in Hungary between 2008 and 2013, which can be considered a positive development in recent years. This was due to a decline in the number of 15–64-year olds by about 100,000 and a nearly four-per-cent increase in the activity rate. The unemployment rate peaked at 11.9 per cent as a result of the crisis in the first quarter of 2010 and remained above 10.5 per cent for almost two and a half years. Unemployment began to rise again during the 2012 recession in Hungary and reached 11.8 per cent in the first quarter of 2013. The employment and unemployment rate improved in 2013, the former grew by 1.6 per cent and the latter fell by 2.6 per cent between the first and the last quarter. It is worth noting that although the employment rate of 15–64-year olds was around 60 per cent in the last quarter, which is the highest value since the early 1990s, it is still well below the European Union average (Figure 3).

The favourable employment and unemployment statistics are somewhat dampened by the fact that they are mainly due to a large increase in public works (Figure 4). From January 1, 2011 earlier public works programmes were replaced by a new public works scheme that makes participation in a public works project a special form of employment. The number of people in public works employment² has increased steadily in the past three years and with

2 Average headcount based on information from the Employment and Public Works Database [in Hungarian: Foglalkoztatási és Közfoglalkoztatási Adatbázis] of the National Labour Office compiled for the Ministry of Interior.

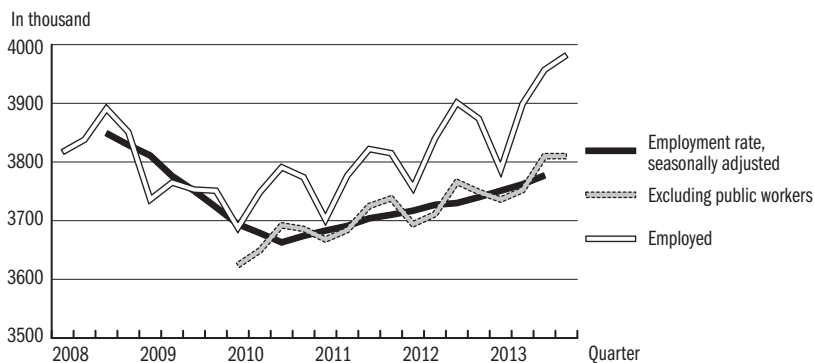
the launch of winter public works projects reached 172 thousand in the last quarter of 2013.

Figure 3: Main labour market indicators (axis on the right: unemployment rate)



Source: KSH Stadat.

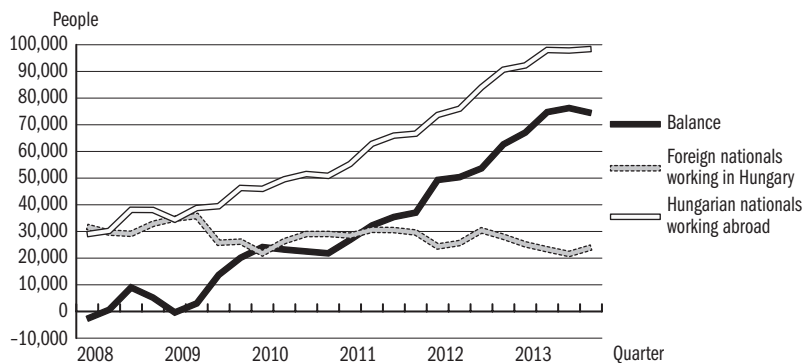
Figure 4: Number of people in employment, population aged 15–64 years



Source: Own calculations based on CSO Stadat and brief report on *Earnings*.

An increasing number of people are working abroad because of the crisis and this has important implications for unemployment and employment figures. Some of the migrant workers are settled abroad and planning to stay long-term or indefinitely, however a sizeable group of migrants are commuting or only planning a short stay, or they moved recently and some of their family are still in Hungary. The latter group of workers are still part of the households in Hungary and thus they are also observable by the CSO's Labour Force Survey; their number was only 28,977 at the beginning of 2008, nearly 2,000 people less than the number of foreign nationals employed in Hungary. Although the exact number of Hungarian nationals working abroad cannot be determined on the basis of the CSO's Labour Force Survey, certain trends can be identified. It is clear that labour migration had already been on the rise before the crisis, which only intensified this trend (*Figure 5*).

Figure 5: Balance of Hungarian nationals working abroad and foreign nationals working in Hungary, population aged 15–64 years, 2008–2013



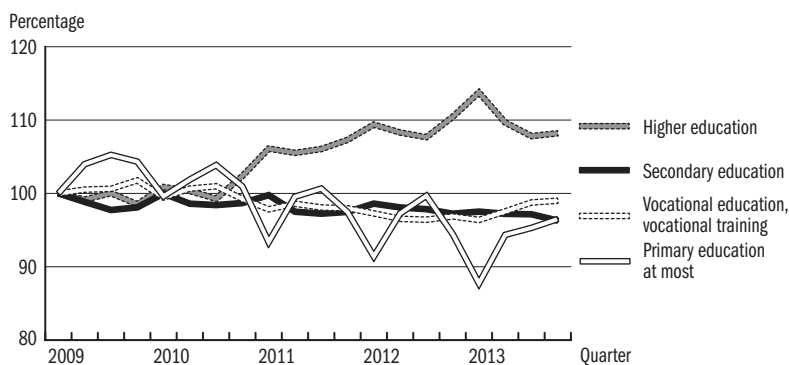
Source: Own calculation based on basic data from the *CSO Labour Force Survey*.

The number of people working abroad while maintaining their residency status in Hungary has increased threefold in the last five years, their number being near 100,000 in the last quarter of 2013. Two thirds of them work in German-speaking countries; 46 per cent of migrants work in Austria (more than 44,000 people). The majority of people working in Austria live near the border to Hungary; which also supports the argument that the CSO Labour Force Survey is most suitable to detect cross-border commuters. People working in the United Kingdom also represent a fairly large share at just over nine per cent. It is worth noting that 46 per cent of the migrant workers observed by the Labour Force Survey have a vocational or vocational training school qualification, substantially higher than their share in the total population. The share of people with a vocational qualification increased at the expense of people with only primary education who are much underrepresented compared to their share within the total population aged 15–64 years. There are differences in the composition of migrant workers by education level across countries. In Germany and Austria there are more males with vocational or secondary education while in the United Kingdom the share of graduates and females is higher. It is important to emphasise that Hungarian citizens who work abroad but do not appear in these surveys might be significantly different from the observed population in terms of the demographic characteristics.

The number of foreigners employed in Hungary fell slightly after the crisis and stabilised – at this lower level. It is not possible to determine the nationality of foreign employees on the basis of the CSO Labour Force Survey, only the country where their parents were born. Based on this it might be concluded that at least 44 per cent of foreign nationals employed in Hungary have parents who are ethnic Hungarians born outside Hungary. Foreigners employed in Hungary have a higher education level than Hungarians working abroad and the total working age population. Employment in Hungary

and the retention of jobs is promoted by the job protection action plan. This has supported job creation and job retention for disadvantaged people on the labour market by providing social contribution tax discounts and training subsidies since January 2013. One of these clearly defined groups is unskilled people who are the most excluded from the labour market (see *Figure 6*) (the social contribution tax is reduced from 27 per cent to 12.5 for employers who hire them). As a result of the expansion of public works programmes³ the employment rate of people with a primary education or lower increased in 2013, but despite this growth it has remained below its early 2009-level.

Figure 6: Employment rate by education level, population aged 15–64 years



Source: Own calculation based on CSO *Stadat*.

Although the largest decline was in the employment of unskilled people, the employment rate fell for all education levels apart from graduates compared to the first quarter of 2009. In the past four years the employment rate of graduates grew by three percentage points in the 15–64-year-old active population and after a slight drop graduate employment approached its pre-crisis level. Other important target groups of the job protection action plan are young people aged under 25 years, people aged over 55 years, and employees with young children.⁴ Of these three groups, people aged 55–64 years are the largest group (since the second quarter of 2011) in the working age population and their number is continuously rising, while the number of 15–24-year-olds is rapidly decreasing. Despite this, changes in the employment of young people are a lot less favourable than in the 55–64 years age group (*Figure 7*).

The unemployment rate within each disadvantaged group increased between 2008 and 2013, the greatest increase (73 per cent) was among mothers with young children (*Figure 8*).

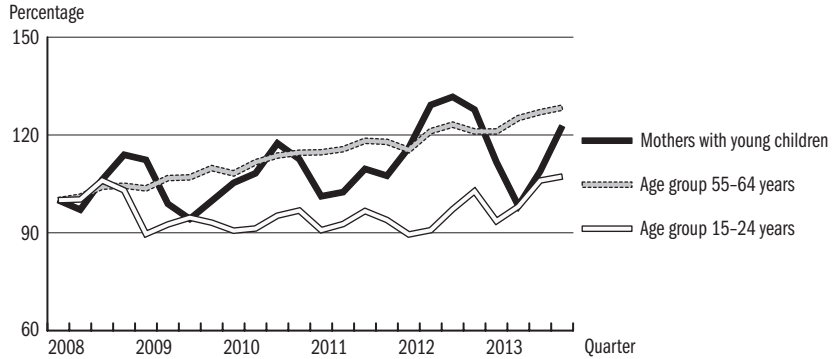
Even before the crisis one in five young people were out of work; their unemployment rate has increased by 36 per cent since then and reached 24 per cent in the last quarter of 2013. It is worth noting however, that the unemployment rate of young people fell substantially, by six percentage points,

³ Using the Employment and Public Works Database *Molnár et al.* (2014) found that half of public works participants had primary education at most.

⁴ According to Act CXLVI of 2012 on the Amendment of certain legislation for the implementation of the job protection action plan, the employers of people returning to work following parental leave are entitled to reduced rates of contribution payment: no contribution payment is required in the first year and 14.5 per cent in the second year as opposed to 27 per cent. This study considers mothers who have a child aged under three years in the household disadvantaged in the labour market; this definition is slightly broader than the official definition set out in the legislation.

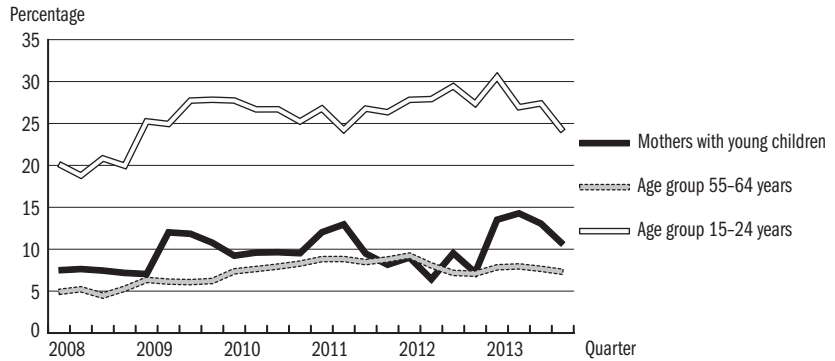
during the year. Although people aged 55–64 years are in the best situation in terms of unemployment, their unemployment rate also increased by 54% between 2008 and 2013.

Figure 7: Changes in the employment rate of disadvantaged groups in the labour market, 2008–2013 (first quarter, 2008 = 100)



Source: Own calculation based on basic data from the CSO Labour Force Survey.

Figure 8: The unemployment rate of disadvantaged groups in the labour market



Source: Own calculation based on basic data from the CSO Labour Force Survey.

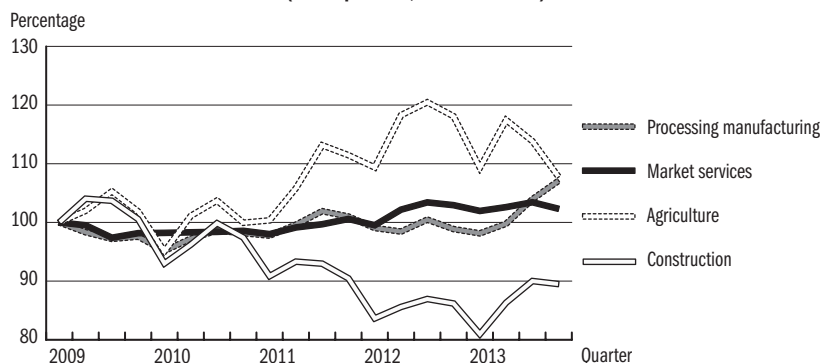
There is a question as to whether older people “crowd out” youngsters from the labour market. Is it possible to promote the employment of both groups at the same time if one can only grow at the expense of the other? Research so far does not give a clear-cut answer. Looking at workplace-level data from the public sector, *Cseres-Gergely* (2013) concluded that there is a crowding-out effect in employment and wages as well, but it is limited: it affects the youngest and least experienced. Using time series data from Belgium *Jousten et al.* (2008) argued that there is no evidence of a crowding-out effect but the employment of both groups is sensitive to business cycles, especially the employment of younger people. However, there might be other mechanisms as well: cost-cutting can be vital for companies during periods of downturn

and it might make sense to replace more experienced but higher-paid older workers with lower-paid entrants. On the other hand, people retire later due to the rising state pension age and therefore there are not enough job vacancies for young entrants.

LABOUR DEMAND AND WAGES

In recent years, labour demand in the different sectors has been largely shaped by the effects of the economic downturn and responses to it (*Figure 9*). The construction industry had the largest decline: it had 15 per cent fewer employees in 2013 than in 2009. Within the market service industries the greatest expansion was achieved by the information and communication (22 per cent growth) and the administrative and support services (18 per cent increase) subsectors between 2008 and 2013. To a large extent this was due to the creation of service centres by international companies in Hungary that provide financial, accounting and IT services to the companies' own subsidiaries or external customers.

Figure 9: Employment in the main industries, population aged 15–64 years (first quarter, 2009 = 100)

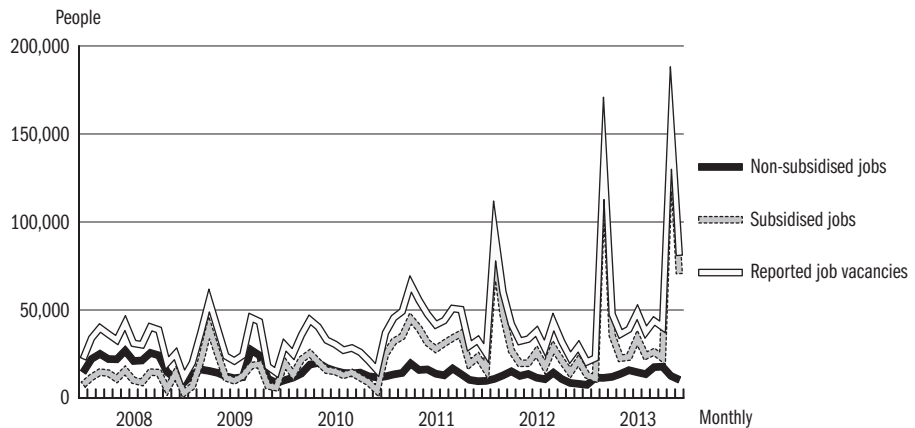


Source: Own calculation based on basic data from the *CSO Labour Force Survey*.

Manufacturing in Hungary fell in 2012 and this had implications for labour demand as well: in the first quarter of 2013 the number of workers employed in manufacturing was two per cent lower than in the previous year. Car manufacturing was especially badly hit but thanks to new investments it recovered quickly and its workforce has increased by more than 30 per cent since early 2011. In the second quarter manufacturing started to expand and by the end of 2013 the number of workers employed in process manufacturing was four per cent higher than in 2009. Employment in agriculture has been steadily increasing since 2009 according to the Labour Force Survey, however to a large extent this is due to the expansion of the public works programmes.

From the perspective of labour demand, it is an important question as to how many and what types of jobs are created and destroyed. Although not all new vacancies are reported to the National Employment Service, their records still provide valuable information on the economy (*Figure 10*). In 2008 60 per cent of registered job vacancies were non-subsidised; in 2013 this fell to 20 per cent. The steady increase of subsidised vacancies within all registered job vacancies started with the introduction of the new public works policy. Nevertheless, the number of reported job vacancies increased on average by 14 per cent compared to 2012 suggesting that economic growth was picking up.

Figure 10: The number of newly reported subsidised and non-subsidised job vacancies



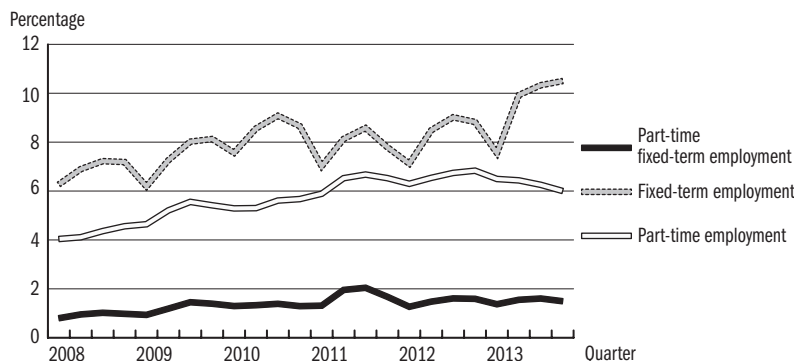
Source: *National Employment Service*.

The new downturn that followed the brief period of growth in 2010–2011 encouraged the development of new forms of employment to help adjustment of labour demand. The new Labour Code that entered into force in 2013 further promoted this process by the regulation of new flexible forms of employment (such as stand-by employment, job sharing, and employment by multiple employers). Companies in uncertain times and in recession can only plan short-term and they not only create fewer new jobs but those jobs also tend to be of shorter duration. If employers can only plan short-term but with a fair amount of certainty, then more people will be employed on a fixed-term contract.

Changes in labour law introduced in 2012 made it possible to terminate fixed-term employment contracts (with justification) and dismiss employees due to their performance or external factors that make it impossible to retain the job. In these cases the general redundancy rules apply, therefore employees are entitled to a period of notice and redundancy pay, however they do not need to be paid their wage for the remaining duration of the fixed-term contract. The quickest and cheapest way for flexible adjustment of labour de-

mand is reducing working time, therefore it is not surprising that in addition to the increase in fixed-term employment, part-time employment also became much more common (by more than 50 per cent between 2008 and 2013) in the years since the crisis (*Figure 11*).

Figure 11: The rate of people in fixed-term or part-time employment, population aged 15–64 years



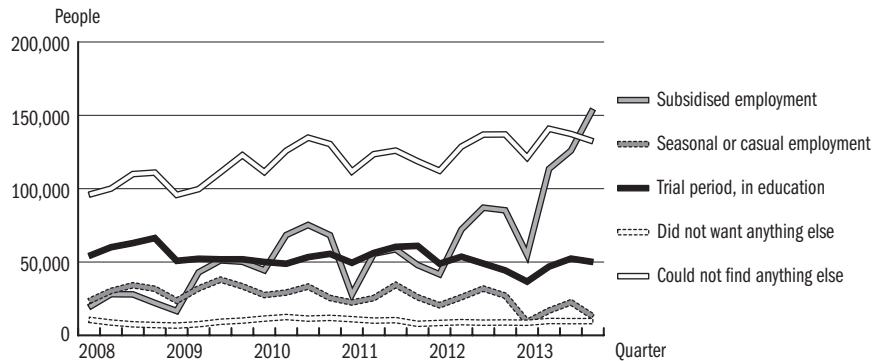
Source: Own calculation based on basic data from the *CSO Labour Force Survey*.

The wide fluctuations in fixed-term employment during the year suggest a strong seasonal effect and the use of short-term contracts. There is little overlap between the two forms of employment; part-time workers tend to have a permanent contract. An important difference however, is that the number of men and women on fixed-term contracts is very similar, more women work part-time and their share is increasing.

For all forms of atypical employment the question of whether their expansion is driven mostly by demand factors (employer's intention) or supply factors (employee's intention) also plays a role. The CSO Labour Force Survey asks respondents why they are on a fixed-term contract or work part-time. For both forms of employment demand factors seem dominant: people did not find another job even though they would have liked to. For fixed-term contracts the demand factor is much stronger and the number of people who said that they did not want a permanent contract is negligible. More broadly seasonal and casual employment can also be attributed to the demand effect: it can be assumed that most workers have no other option but to accept these jobs. The expansion of public works employment also played a key role in the increase in the number of fixed-term contracts (*Figure 12*). Most people indicated subsidised employment as the main justification for a fixed-term contract in 2013.

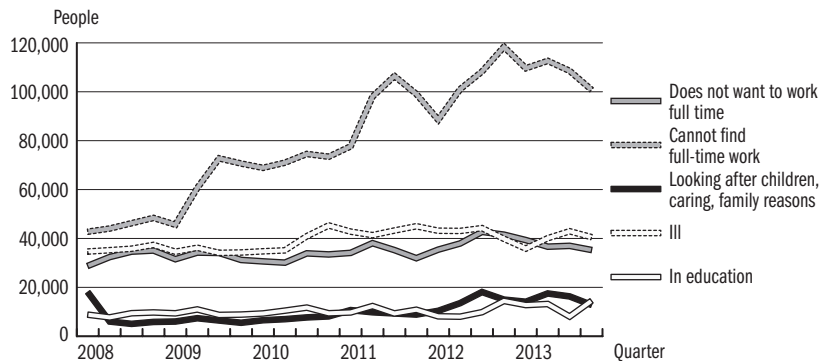
For part-time employment the supply effect is somewhat more prominent, a relatively large number of people do not want to or – due to other commitments (studies, family) – cannot have a full-time job (*Figure 13*).

Figure 12: Reason for fixed-term employment contract, population aged 15–64 years



Source: Own calculation based on basic data from the *CSO Labour Force Survey*.

Figure 13: Reason for part-time employment, population aged 15–64 years



Source: Own calculation based on basic data from the *CSO Labour Force Survey*.

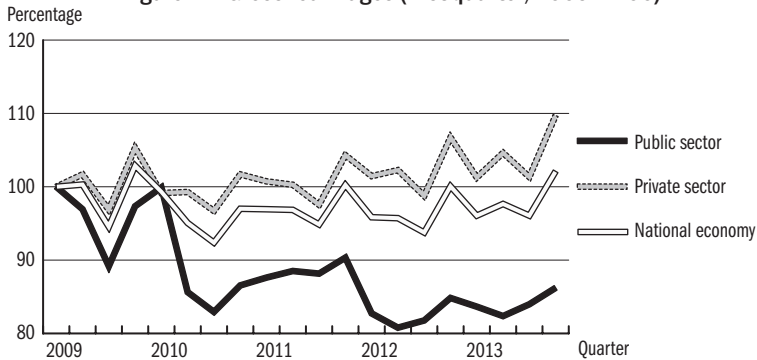
The number of people who could not find full-time employment was steadily increasing even during the period of growth in 2010–2011. This suggests that involuntary (demand-driven) part-time employment might have other drivers than economic cycles. Although the number of involuntary part-time workers (people who could not find full-time employment) increased on average by three per cent compared to 2012, if only the last quarters are compared there is a substantial (15 per cent) drop between 2012 and 2013. In terms of sectors, part-time employment is more common in agriculture and services. In addition to quantitative adjustment discussed so far, wage adjustment is also important. The behaviour of public and private sector is quite different in this respect (*Figure 14*).

According to CSO's wage statistics, average nominal wages fell in the private sector during the second half of 2009,⁵ however thanks to above-inflation pay rises in recent years, real wages have increased by nine per cent compared to 2008. In contrast, average gross pay in the public sector has been falling more

⁵ The CSO employment statistics differentiate between the gross monthly earning and gross regular monthly earning of employees. The latter excludes any bonuses and additional pay, and if we use this figure in the analysis, there is no fall in the average nominal wage. The difference suggests that the first response of companies to the external shock brought about by the downturn was cutting bonuses and other payments to employees.

or less steadily: overall by 15 per cent in the past five years. Various measures were introduced in 2013 that increased wages: a more than five per cent pay rise for public workers, the wage adjustment of health care workers and a new career model for teachers in 2013, a 5.4 and 5.6 per increase of the minimum wage and guaranteed minimum pay respectively.

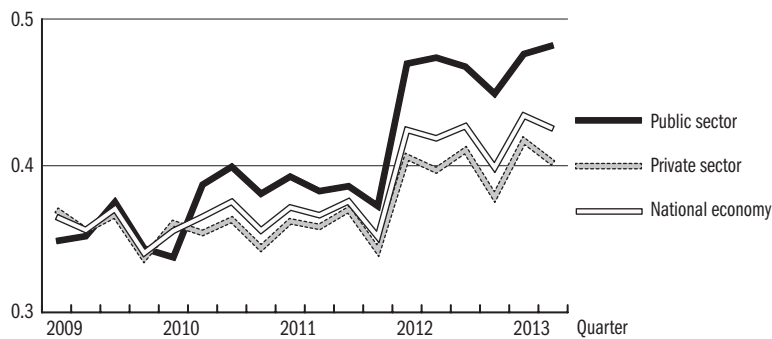
Figure 14: Gross real wages (first quarter, 2009 = 100)



Source: Own calculation based on CSO *Stadat*.

The crisis and fragile growth made companies very cautious when increasing wages; therefore it is worth using the Kaitz-index⁶ that is the ratio of the minimum wage to the median or mean wage (*Figure 15*). The greater its value, the bigger the negative employment effect (*Dolton–Bondibene, 2012*). The increase of the minimum wage by more than 25 per cent between January 2011 and 2012 boosted the value of the Kaitz index; however its 2013 value of 42 per cent, calculated using the national average wage, is not especially high – it puts Hungary in the mid-field by international comparison.

Figure 15: Value of Kaitz index, population aged 15–64 years (quarterly)



Source: Own calculation based on CSO employment statistics.

The impact of the minimum wage on employment might have been mitigated by new forms of taxation and funding for companies introduced by the job protection action plan, in addition to the wage compensation scheme. Em-

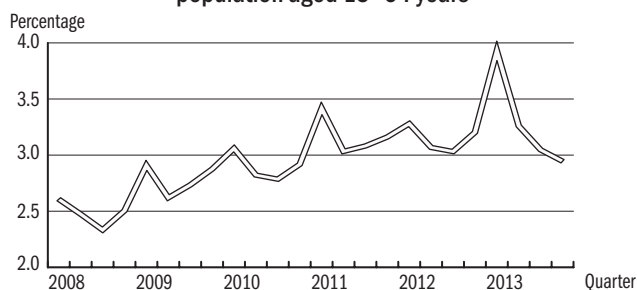
⁶ Due to the asymmetrical distribution of wages, the median wage is lower than the average wage, so the Kaitz index calculated with the median wage is higher than the index calculated with the mean wage. However, there is a strong correlation between the values of the two indexes in a given country at different times.

ployment was growing steadily in manufacturing and services in the first three quarters of 2012 then fell slightly from the fourth quarter until the end of the second quarter in 2013 and then starting growing again. This suggests that the minimum wage rises between 2011 and 2012 did not have a substantial impact on employment or only affected a relatively small number of employers negatively. This is also supported by the fact that labour market institutions provide more opportunities for wage adjustment to Hungarian companies, who tend to use these (NBH, 2013b). Gál *et al.* (2013) argue that Hungary experienced the largest wage-adjustment after the 2008 crisis among the 20 OECD countries which they examined, however in terms of quantitative adjustment it was the third lowest.

LABOUR SUPPLY

The overall activity rate reached 65% in 2013, which is its highest value in this millennium; however, it is still lower than the EU average. Recent increase in activity was largely due to government measures (review of disability pensions, increase of state pension age). To explore how much further labour market activity can potentially increase, it might be useful to disaggregate inactive people into different groups. One of these groups is people who want and are available to start work (within two weeks). *Figure 16* shows that the number of these inactive people who can be termed “passive jobseekers” increased from 2.6 per cent in early 2008 to four per cent in early 2013, then it fell below three per cent.

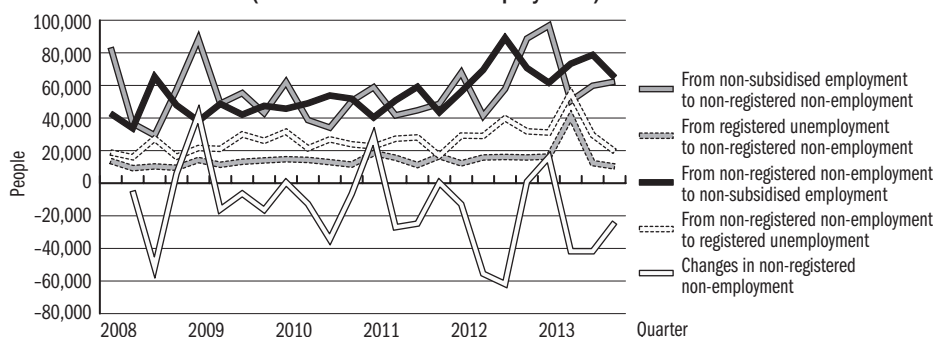
Figure 16: Inactive but wants to work and is available to start work; population aged 15–64 years



Source: Own calculation based on basic data from the CSO Labour Force Survey.

In terms of disadvantaged groups in the labour market, the share of passive jobseekers was highest in the group of 55–64-year olds and lowest among people on parental leave by the end of the period. The higher the share of passive jobseekers, the more likely it is that the activity rate will increase further if wages go up. The large fall in inactivity in 2012 diminished in 2013 (*Figure 17*). At the beginning of 2013 outflow from inactivity into registered unemployment was rising, however later in the year this trend became less intense.

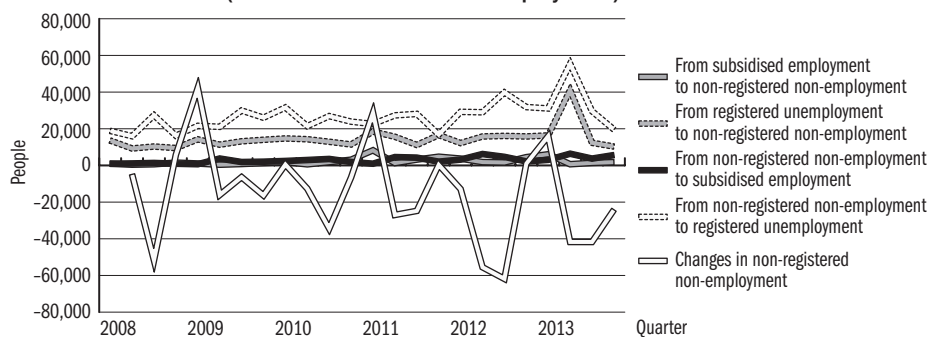
Figure 17: Changes in inactivity and flows to/from non-subsidised employment and unemployment, 2008–2013, population aged 15–64 years (excluded: subsidised employment)



Source: IE databank, calculation using *Cseres-Gergely's* (2011) method consistent with stock and flow.

A positive development was the substantial fall in the inflow into inactivity from non-subsidised employment during 2013 compared to its very high level at the end of 2012 and the beginning of 2013. Available data show that the flow into registered unemployment is greater than the flow into inactivity from subsidised employment (*Figure 18*).

Figure 18: Changes in inactivity and flows to/from subsidised employment and unemployment, 2008–2013, population aged 15–64 years (excluded: non-subsidised employment)



Source: IE databank, calculation using *Cseres-Gergely's* (2011) method consistent with stock and flow.

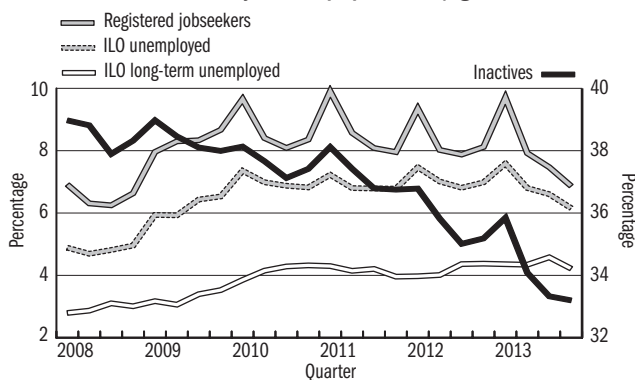
Labour supply is also affected by taxation and this has undergone major changes over the past few years. In 2011 a single-rate – 16 per cent – personal income tax was introduced alongside generous family tax breaks; in 2012 the tax refund to low-paid workers was abolished and “super gross” personal income taxation (where personal income tax is paid on gross income before the deduction of any social security contributions) was being phased out; in 2013 “super gross” was abolished together with the upper limit of personal pension contribution. When considering the impact of labour taxation on labour sup-

ply it is useful to examine decisions concerning the number of hours worked (intensive margin) and decisions concerning entry into the labour market (extensive margin) separately because the first is mainly influenced by changes in the marginal tax rate, while the latter is affected by the actual tax rate on the attainable wage for a given employee. It is not yet possible to fully assess the impact of tax reforms due to the short time scale, however a number of earlier studies (*Bakos et al., 2008, Benczúr et al., 2012a*) found that changes in the marginal tax rates do not have a significant impact on the labour supply of lower paid people, however high-paid people (earning above 2 million forints/year) were more sensitive to changes in taxation. *Benczúr et al. (2012b)* found that at the extensive margin, taxes had a stronger effect on disadvantaged groups in the labour market and women of childbearing age.

UNEMPLOYMENT

The mean unemployment rate according to the ILO definition was 10.3 per cent in 2013, 0.7 percentage points lower than in 2012. The rate of jobseekers registered with the NES within the 15–64-year old population was consistently higher than the unemployment rate based on the ILO definition throughout the observed period; however it showed a declining trend (*Figure 19*).

Figure 19: Rate of different out-of-work groups (partly overlapping) within the 15–64-year old population (right axis: inactives)

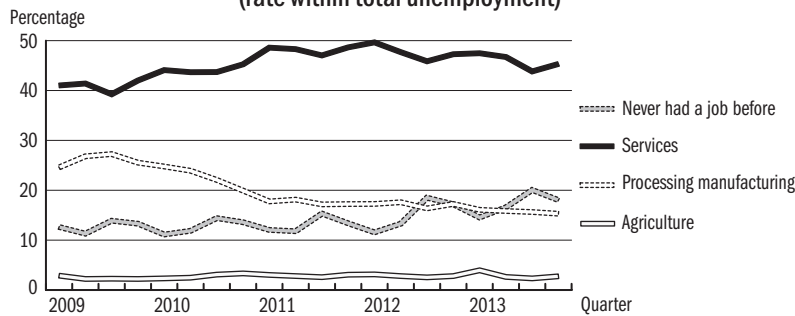


Source: CSO Labour Force Survey (inactives, ILO unemployed, ILO long-term unemployed) NES register (registered jobseekers).

The monthly average number of registered jobseekers in the records of the National Employment Service was 527,624 people in 2013, 31,478 people less than in the previous year. However, the number of unemployed school leavers went up: the monthly average number of unemployed school leavers registered was 66,025, 7.4 per cent higher than in 2012. As *Figure 20* indicates, the rate of those who had never had a job increased within total unemploy-

ment after the first quarter of 2012. The share of those who were made redundant in the service sector grew by 11 per cent compared to the first quarter of 2009 and reached 45 per cent by the end of 2013. The manufacturing industry recovered from the downturn and this was also indicated by the fall in the share of people made redundant in manufacturing among the unemployed: down from 26 per cent in the second quarter in 2009 to just over 15 per cent at the end of 2013.

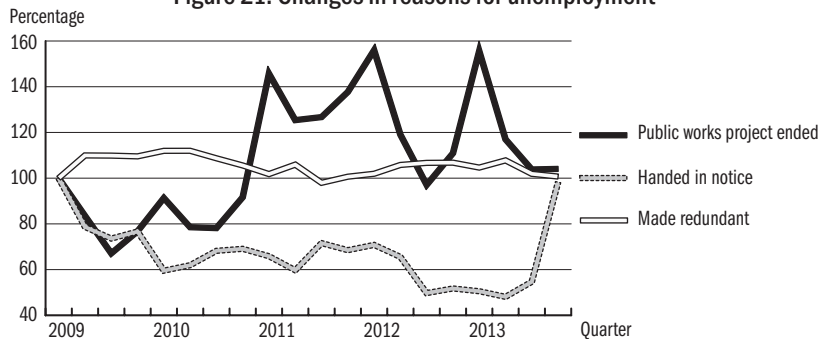
**Figure 20: Previous work of the unemployed, by sector
(rate within total unemployment)**



Source: Own calculation based on CSO Labour Force Survey.

The labour market was less tense in 2013 than in previous years. This is also suggested by the fact that redundancy was down from 57.7 per cent in 2012 to 55.8 per cent in 2013 as a reason for unemployment. The number of people who handed in their notice doubled in the last quarter of 2013 in comparison to the same period in 2012, which might also indicate a more favourable labour market.⁷ The share of people who became unemployed when the public works project they were employed in finished shows a substantial increase after 2010. The large fluctuations in this compared to redundancy as the reason for unemployment (*Figure 21*) suggests that public works programmes can only provide short-term solutions to labour market problems.

Figure 21: Changes in reasons for unemployment



Source: Own calculation based on CSO Stadat.

⁷ The employee handed in notice due to working conditions, financial or other reasons.

An unfavourable development was the growth in long-term unemployment (more than one year) that exceeded 35 per cent in 2013. There is increasing agreement on the causes of high unemployment and particularly long-term unemployment: these are not caused by economic cycles only but also by structural reasons. The most important structural factors are those that are caused by the mismatch between labour demand and supply. Employers might be looking for people with different qualifications or skills than those which jobseekers have, or labour demand and supply are concentrated in different geographical areas. Large disparities in local unemployment rates suggest that low workforce mobility has also played an important role in the growth of long-term unemployment. The general education level has been improving since the early 2000s and there are fewer people with no or low education in the total population and the economically active population. In the first quarter of 2000, 3.75 per cent of the long-term unemployed had a degree and 24.4 per cent had a general secondary education, while in the first quarter of 2013 the same figures were 9.83 and 29.9 per cent. Although educational attainment is improving, labour demand is shifting even faster towards people with higher levels of education. The number of graduates among people in employment was 17.05 per cent in the first quarter of 2000 and had already reached 27.49 per cent by the first quarter of 2013. People with no or low education had a negative, while graduates had a positive, contribution to the expansion of employment since the early 2000s. This suggests that labour demand is gradually shifting towards workers with higher levels of education.

REFERENCES

- BAKOS, P., BENCZÚR, P. AND BENEDEK, D. (2008): The elasticity of taxable income: estimates and flat-tax predictions using the Hungarian tax changes in 2005. *Közgazdasági Szemle*, Vol. 55, No. 9, pp. 733-762.
- BENCZÚR, P., KÁTAY, G., KISS, Á. AND RÁCZ, O. (2012a): Income Taxation, Transfers and Labour Supply at the Extensive Margin. Manuscript.
- BENCZÚR, P., KISS, Á. AND MOSBERGER, P. (2013): The flexibility of taxable income. In: *Fazekas, K., Benczúr, P. and Telegdy, Á.* (eds.): *Hungarian Labour Market, 2013*. In: Focus – I. Taxes, transfers and the labour market. Institute of Economics, HAS CERS -National Employment Foundation Non-profit Ltd. Bp., pp. 74-99.
- CSERES-GERGELY, ZS. (2011): Labour market flows, consistency and raking. *Statiztikai Szemle*, Vol. 89, No. 5, pp. 482–500.
- CSERES-GERGELY, ZS. (2013): Do older workers crowd out younger people in the public sector? Evidence from the era of rising state pension age in Hungary. *BWP*, 2013/3.
- DOLTON, P. AND BONDIBENE, C. A. (2012): The international experience of minimum wages in an economic downturn. *Economic Policy*, Vol. 27, 99–142. o.
- GÁL P., HIJZEN, A. AND WOLF, Z. (2013): The Role of Institutions and Firm Heterogeneity for Labour Market Adjustment: Cross-Country Firm-Level Evidence. IZA DP, No. 7404.
- JOUSTEN, A., LEFEBVRE, M., PERELMAN, S. AND PESTIEAU, P. (2008): The Effects of Early Retirement on Youth Unemployment: The Case of Belgium. Working Paper Series, No. 08/30.
- NBH (2013a): Report on inflation. National Bank of Hungary, Budapest, March.
- NBH (2013b): Report on inflation. National Bank of Hungary, Budapest, September.
- NBH (2013c): Report on inflation. National Bank of Hungary, Budapest, December.
- MOLNÁR, GY. (principal investigator) (2014): A munkapiac peremén lévők és a költségvetés. (People on the margins of the labour market and the budget.) Manuscript. Researchers: *Bakó, T., Cseres-Gergely Zs., Kálmán, J. and Szabó, T.*