

1.3 TRENDS IN BASIC SHORTAGE INDICATORS

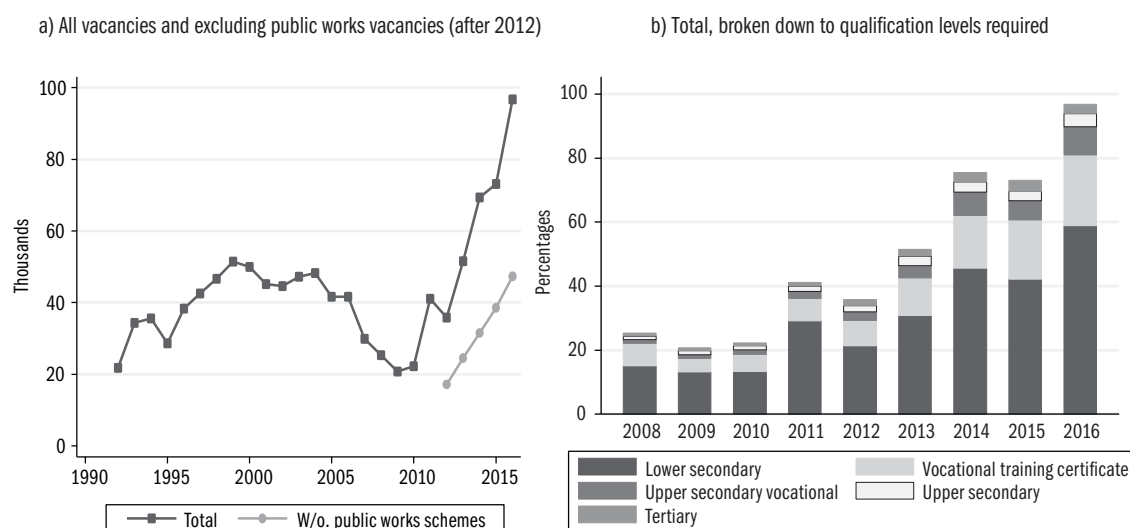
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There are two main approaches for measuring labour shortage: 1) using indicators of labour market imbalance, 2) analysing employers' perceptions of labour shortage, which is mapped by enterprise surveys (*Reymen et al, 2015*). This subchapter first investigates the trends in labour shortage in Hungary (and also abroad) using the first then the second approach. We are revealing up front that all sources reviewed suggest growing recruitment difficulties and increasingly more serious complaints in Hungary after 2013.

The vacancy registry of the National Labour Office

The average monthly number of vacancies reported to local job centres increased in 2015–2016 to a level unprecedented since the political changeover of the 90s. However, it is important to note that public works vacancies account for half of the total vacancies and 60 per cent of total vacancies require only a lower secondary qualification at most (*Figure 1.3.1*), thus the statistics of the National Labour Office cannot be regarded as an overall shortage indicator.

Figure 1.3.1: Number of vacancies reported by the National Labour Office, 1990–2016 (in thousands)



Note: Annual average figures.

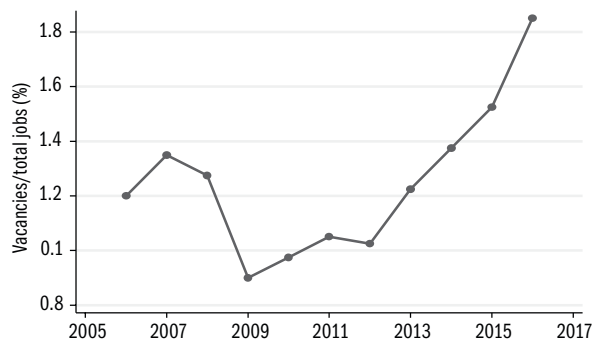
It should be noted that the average number of annual vacancies reported in the primary labour market in 2016 (47,302 vacancies) was lower than the total number in the period between 1998 and 2004 including public works vacancies. However, the number of public works participants in that period

did not reach twenty thousand, i.e. one-tenth of the figure in 2016, thus demand for labour in that sector cannot have been significant.

Data collected by the Hungarian Central Statistical Office (HCSO) and Eurostat

Based on enterprise surveys, there has been a dynamic growth in the proportion of vacancies relative to the total (filled and unfilled) jobs in the HCSO survey, which follows the methodology of Eurostat, since 2009 (*Figure 1.3.2.*). (The exact definition HCSO data is provided in the note of *Figure A1.3* of the *Annex.*)

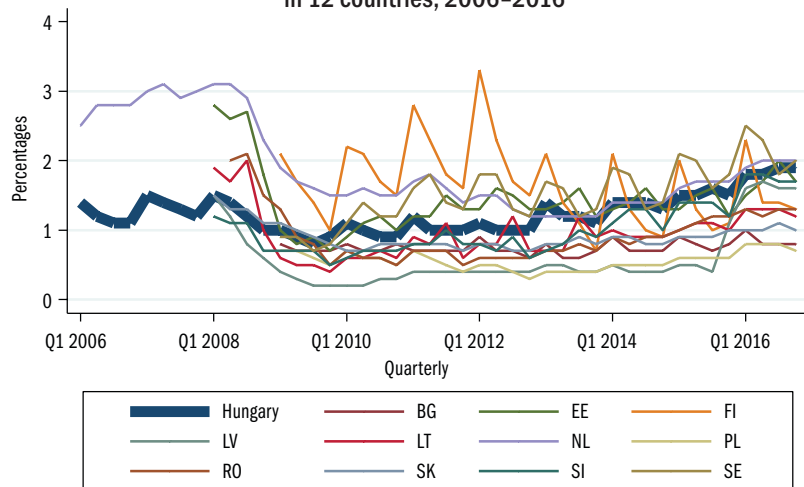
Figure 1.3.2: Vacancies as a percentage of total jobs according to the HCSO survey 2006–2016



Note: Annual averages from quarterly surveys.

Source: Eurostat.

Figure 1.3.3: The proportion of vacancies according to Eurostat data in 12 countries, 2006–2016

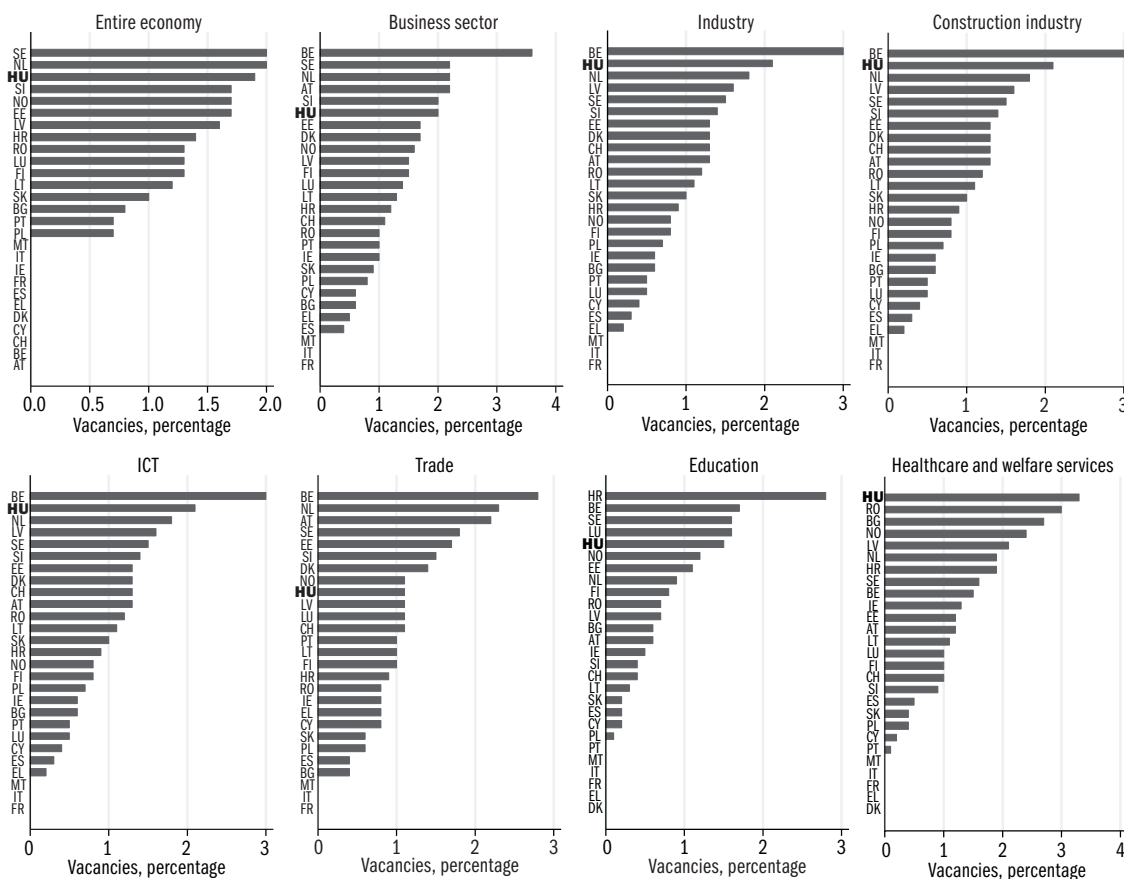


Country codes are provided below *Figure 1.3.4.*

Source: Eurostat data, authors' calculation.

Eurostat surveys enable international comparison. As seen in *Figure 1.3.3*, Hungary was in the mid-range in terms of vacancies in 2006 but as a result of the dynamic increase, which started three or four years ago, an extremely high level has emerged: at the end of 2016, Hungary had the third highest number of vacancies following Sweden and Holland. The figure includes countries that publish time series about the entire economy since 2008 or earlier. The Hungarian surveys started in 2006.

Figure 1.3.4: The proportion of vacancies in the fourth quarter of 2016 according to Eurostat

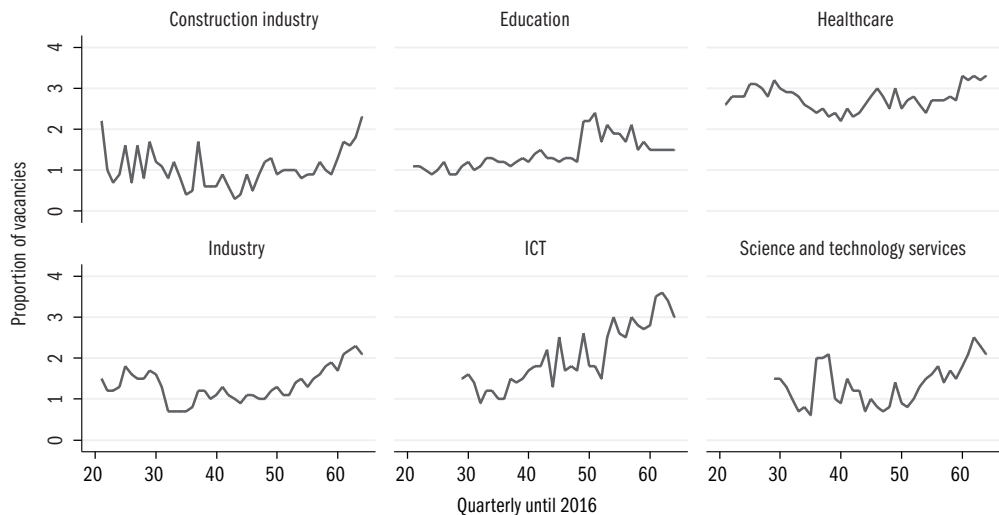


Country codes: AT: Austria, BE: Belgium, BG: Bulgaria, CY: Cyprus, CZ: Czech Republic, DE: Germany, DK: Denmark, EE: Estonia, EL: Greece, ES: Spain, FI: Finland, FR: France, HR: Croatia, HU: Hungary, IE: Ireland, IT: Italy, LT: Lithuania, LU: Luxemburg, LV: Latvia, MT: Malta, NL: Holland, PL: Poland, PT: Portugal, RO: Romania, SE: Sweden, SI: Slovenia, SK: Slovakia.

Figure 1.3.4. shows that at the end of last year Hungary ranked *second* in the proportion of vacancies in industry, the construction industry and the IT sector. However, concerning the whole business sector, and among a wider range

of countries, it only ranks *sixth*. The high level in education and especially in healthcare and social welfare plays a key role in ranking third in terms of the entire economy, as seen in *Figure 1.3.3*. Healthcare is the only sector that Hungary ranks *first* in. The number of vacancies broken down to sectors is provided in *Figure 1.3.5*.

Figure 1.3.5: The proportion of vacancies in some sectors



Source: Eurostat.

The graphs of the Figure reveal how different the reasons leading to complaints of shortages are. The highest final levels are seen in the IT sector as well as healthcare and social welfare. The former shows a continuous increase also taking place during the global crisis, which is probably due to the rapid increase in global demand resulting from digitalization and the (partly inevitable) slow adaptation of the education system. The latter is primarily due to regulatory restrictions on headcount, low wages and the resulting continuous outmigration of doctors and nurses. By contrast, the time series of industry, construction industry and science-engineering services were heavily affected by the crisis and the following recovery.¹

The questionnaires of several international (e.g. the Business and Consumer Survey coordinated by the European Commission)² and Hungarian (e.g. GKI Economic Research, Institute for Economic and Enterprise Research [IEER], Kopint–Tárki Institute for Economic research) business surveys contain questions on the most important factors hindering firms' business activities. They also include labour shortage (and sometimes also skilled worker shortage) among the possible answers. The question has been included in business surveys covering EU member states and accession states since the 1980s. The main findings of surveys on Hungarian labour shortage are presented below.

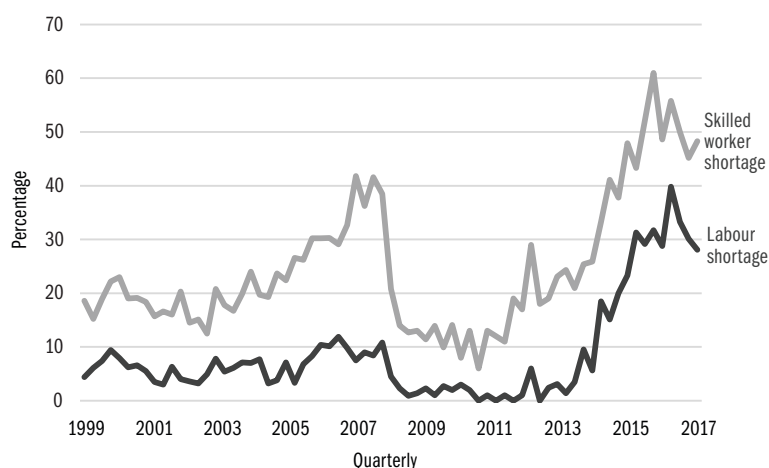
¹ Time series about industry and the IT sector are provided in *Figure A1.3* of the *Annex*.

² The Business and Consumer Survey of the European Commission.

Labour shortage as barrier – Surveys conducted by Kopint–Tárki

The proportion of those regarding labour shortage or the shortage of skilled workers as an obstacle is first presented relying on data from Kopint–Tárki (*Figure 1.3.6*). According to these, the proportion of businesses mentioning labour shortage was about 10 per cent and those mentioning skilled worker shortage was 30–40 per cent before the economic crisis, then the figures for both indicators decreased as a result of the crisis: between the end of 2008 and the beginning of 2014, the proportion of businesses mentioning labour shortage was only between 0 and 6 per cent, while the proportion of those referring to skilled worker shortage was low between 2009 and the beginning of 2012: 6–14 per cent. The proportion of those reporting labour shortage started to grow at the end of 2014 and reached a peak at the end of 2016, when 40 per cent of respondents mentioned this problem. Since that time their proportion has been around 30 per cent. The proportion of those mentioning skilled worker shortage started to increase in the spring of 2012 and culminated in the spring of 2016 when 61 per cent of respondents reported this as a problem. Since then the proportion has been around 50 per cent in each data collection period.

Figure 1.3.6: The proportion of businesses reporting labour and skilled worker shortage as an obstacle to business activity, April 2000 – July 2017 (percentage)



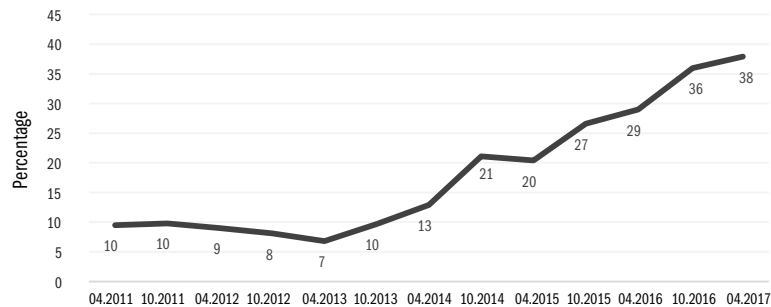
Source: Kopint–Tárki.

Surveys conducted by the Institute for Economic and Enterprise Research (IEER)

The business surveys of IEER indicate that about one in ten firms faced labour or skilled worker shortages between 2011 and 2013 (*Figure 1.3.7*). At the end of 2014, one in five (21 per cent) firms were facing the problem, then (apart from a short slowdown) the proportion of those complaining

started to grow continuously. In April 2017, 38% of respondents reported that labour and skilled worker shortage is a key obstacle to business (Nábelek *et al.*, 2017).

Figure 1.3.7: The proportion of businesses reporting both labour and skilled worker shortage as an obstacle to business activity, April 2011 – April 2017 (percentage)



Note: N = 1,823–3,614.

Source: IEER business surveys.

Surveys conducted by GKI Economic Research (GKI) and the European Commission.

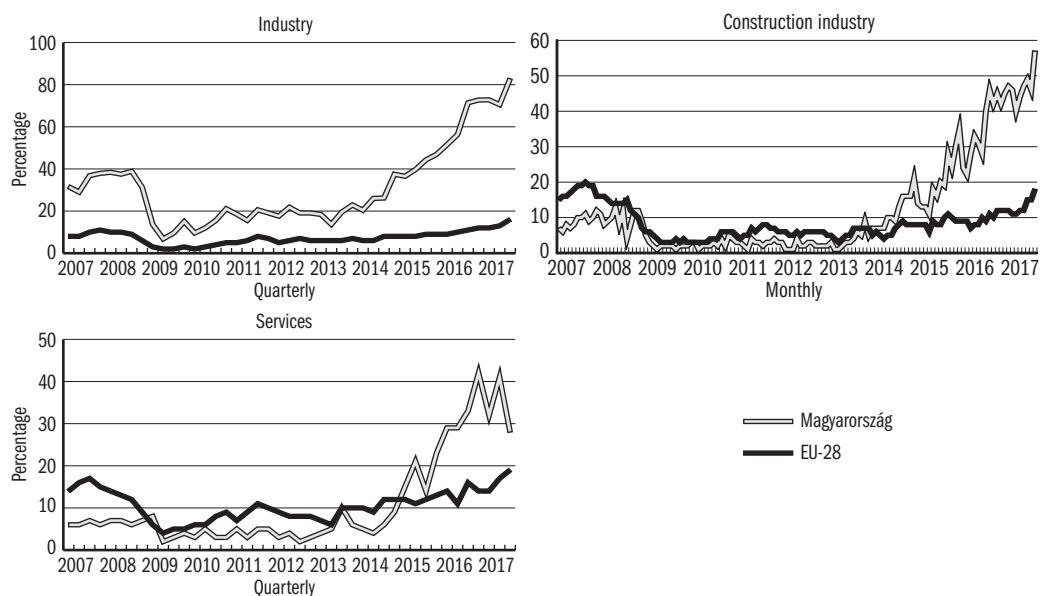
Figure 1.3.8 indicates the proportion of businesses mentioning labour shortage as an obstacle, broken down to sectors, in comparison with the EU average. The most recent data from 2017 suggest that the labour shortage perceived by Hungarian firms considerably exceeds the EU average in all three sectors. The proportion of firms complaining in the industry sector started to grow sharply in the second quarter of 2014, while the EU average only increased slightly. The difference was the most conspicuous in the third quarter of 2017, when 83 per cent of Hungarian businesses as opposed to 16 per cent of EU firms believed labour shortage is a major barrier to business. The construction industry and services experienced similar tendencies: while the proportion of those complaining showed a steep increase in Hungary (from 2014 in the service sector and from 2015 in the construction industry), the EU average grew modestly.

Figure 1.3.9 shows sectoral labour shortage in Hungary between 2007 and 2017. Industry was excessively affected by labour shortage, while the services sector and the construction industry experienced a much smaller and similar labour shortage in this period.

In 2007 and 2008, only manufacturing industry was characterised by high (29–39 per cent) labour shortage, which then diminished as a result of the economic crisis and thus in 2009 was nearly as low as the level in the construction industry and services. However, it started to increase again: between 2010 and 2014 it exceeded the figures of the other two sectors by 10–20 per-

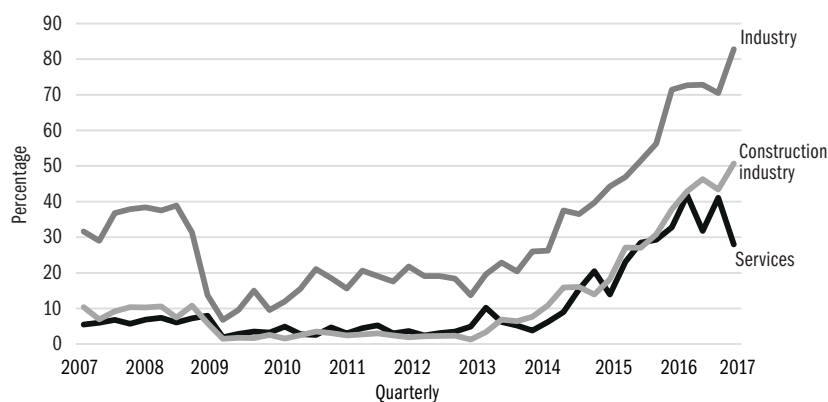
centage points. Then the difference was even larger at the end of 2014 and has been about 20–30 percentage points (sometimes reaching 40 percentage points) since that time.

Figure 1.3.8: The proportion of businesses reporting labour shortage as an obstacle to business activity broken down to economic sectors, in the EU and Hungary, 2007–2017 (percentage)



Source: *European Commission*, Hungarian data: *GKI*.

Figure 1.3.9: The proportion of businesses reporting labour shortage as an obstacle to business activity broken down to economic sectors in Hungary, 2007–2017 (percentage)

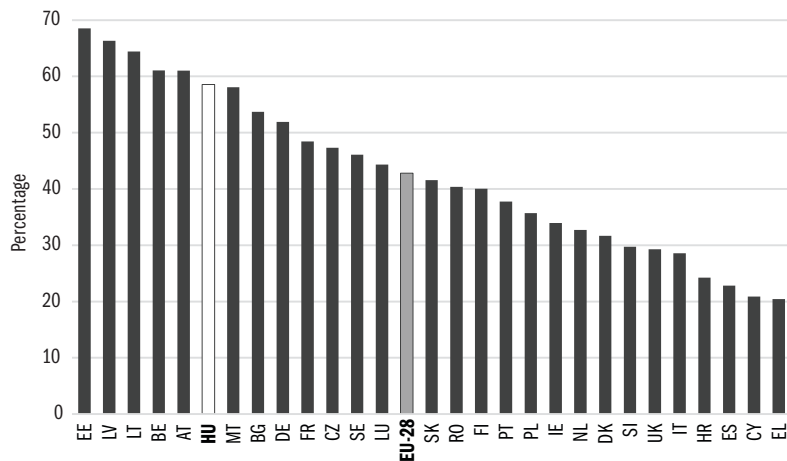


Note: Monthly data on the construction industry are provided as quarterly averages.
Source: *European Commission*, Hungarian data: *GKI*.

Data from the Eurofond European Company Survey

The Eurofond data draw attention to skills mismatch as a source of complaints. The most recent (2013) European Company Survey³ indicate that four out of ten (42.8 per cent) European firms find it difficult to hire appropriately skilled employees – this is shown in *Figure 1.3.10* 59 per cent of Hungarian firms agree with it; only five member states (Estonia: 69, Latvia: 66, Lithuania: 64, Belgium: 61 and Austria: 61 per cent) reported more serious difficulties than Hungary.

Figure 1.3.10: The proportion of businesses in the EU member states finding it difficult to hire appropriately skilled employees, 2013 (percentage)



Note: N = 26,803.

Country codes are provided at *Figure 1.3.4*.

Source: Authors' calculations based on the 2013 database of the *European Company Survey*.

Hiring school leavers and experienced workers – Surveys by IEER

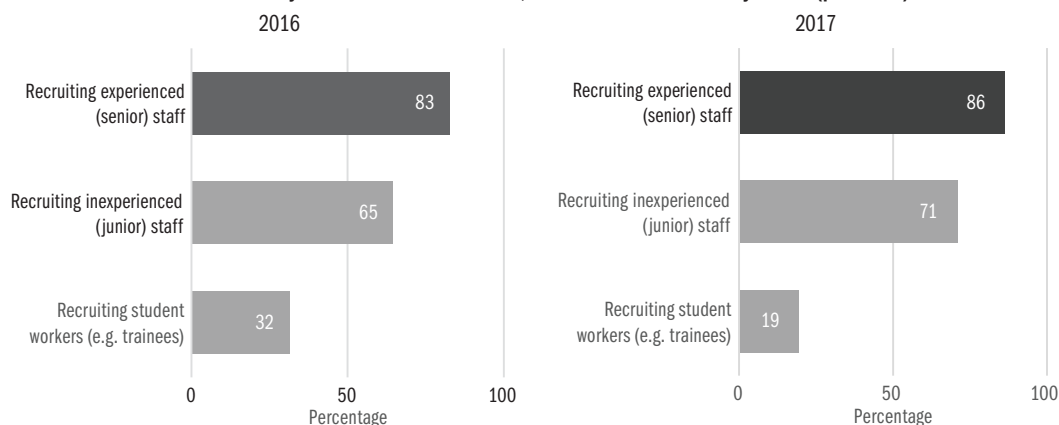
The findings of the mid-year business survey of IEER in 2016 (*Figures 1.3.11* and *1.3.12*) showed that, the majority (83 per cent) of firms facing labour shortage find it difficult to recruit experienced workers, nearly two-thirds (65 per cent) also find it difficult to hire freshers and about one-third (32 per cent) even find it difficult to recruit student workers. The quarterly figures of IEER were similar in 2017: most firms (86 per cent) found it difficult to hire experienced employees, followed by freshers (71 per cent) and student workers (19 per cent).⁴

In conclusion, the above surveys unanimously suggest that complaints of labour shortage, the number of vacancies reported to job centres and the shortage assessed in business surveys have been increasing in Hungary since 2013. At present Hungary is in the “top league” in Europe in terms of complaints of labour shortage.

³ European Company Survey.

⁴ The two data collections (the quarterly and biannual) are not comparable because they rely on different samples and adopt different data collection methodology. In addition, one of them is conducted in October, the other in July and therefore there may also be seasonal effects.

Figure 1.3.11: The proportion of businesses reporting labour shortage broken down to level of experience of workers they find difficult to recruit, October 2016 and July 2017 (per cent)



Note: 2016: N = 853–1,092, 2017: N = 144.

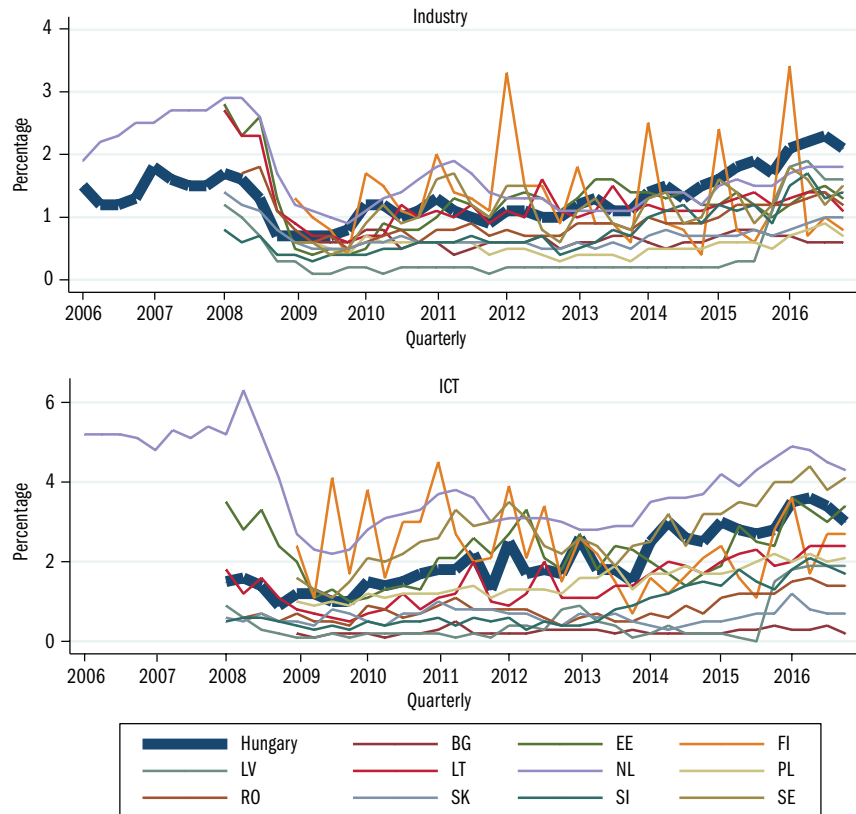
Source: IEER.

References

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Annex 1.3

Figure A1.3: Vacancies in two sectors as a percentage of the total number of jobs, 2006–2016



Note: according to the Eurostat and HCSO methodology, the definition for job vacancy is “a post that is newly created, unoccupied or about to become vacant in the near the future (within 3 months), for which the employer is taking active steps (e.g. through advertisements, tendering, contacting the National Labour Office, private recruitment agencies, colleagues, friends or acquaintances etc.) to fill with an employee with an employment contract. A post cannot be regarded as a vacancy if it is to be filled with temporary workers, independent contractors, service contracts, by transferring their own employee from another job or with a pupil or student on unpaid, compulsory traineeship. Also posts reserved for those with an employment contract but not obliged to work due to permanent absence (parental leave, military service or sickness leave or unpaid leave exceeding 1 month) cannot be regarded as vacancies either. The rate of vacancies: the number of vacancies expressed as a percentage of total posts (headcount of those participating in the activity of the organisation + number of vacancies).” <http://www.ksh.hu/docs/hun/modsz/modsz21.html>.