

LABOUR SHORTAGE CAN BE THE HIGHEST THREAT TO THE BUSINESS CYCLE

5 January 2017

- Hungary's headline employment figure grew further in Q3, to 4.360 mn from 4.337 mn in Q2(+0.5% QoQ). Employment without Hungarians working abroad, public work participants, and sample rotation effects also improved in Q3, to 3.935 mn from 3.905 mn in Q2 (+0.8% QoQ). Employment in the non-farm private sector grew to 2.746 mn in Q3 from 2.724 mn in Q2 (+0.8% QoQ). The latter grew in line with our medium-term forecast, but the first two indicators showed about 30k higher employment than we had calculated with.(All data is seasonally and working day adjusted)
- Although total employment grew faster than we had thought, our adjusted unemployment indicator was in line with our forecast in Q3 and hit new all-time low. It means that the labour force also grew faster than we had thought. Our adjusted activity indicator (official activity-public workers+passive unemployed) was higher by 24k (~0.5%) than our forecast. The gap between the headline unemployment rate (which stood at 4.4% in November) and our advanced unemployment rate narrowed further in Q3, which suggests the actually free labour force shrank faster than what the headline unemployment rate suggests would suggest. In all, we think our 4.1% end-2017 unemployment rate forecast is on track.
- Labour shortage problem became a more serious issue in the last quarter. Our skill mismatch index remained at very high level and the share of companies which signalling labour shortage as the main production limiting factor grew further in Q3. The strong correlation between the new job vacancies and the new employment has been broken in the last few quarters. This also suggests that companies want to hire more employees but they do not find appropriate candidates.
- As we wrote [earlier](#) one possible adjustment channel for companies is to utilize their current labour force stronger. We definitely see this process: share of the part-time workers in the private sector and number of the underemployed part-time workers have been declining. Labour hours in the service sector also rose further.
- Both job vacancy statistics and employment expectations in business surveys suggest the employment can grow further in the coming quarters which will result in an even tighter labour market. This can accelerate further the wage dynamics. In the first nine month of 2016 private sector wages grew by 5.7% and the annualized QoQ growth in Q3 was also 5.7%. This annualized QoQ figure is 2%points higher than our mid-term forecast which means the wage growth can be higher in 2016 than we had previously expected. The announced 15% hike of minimum wage and 25% hike of skilled workers' minimum wage can add around 2-2.5%points on its own to our medium-term forecast' figure in 2017. We should note we already have calculated with a 5%point cut on Social Security Contributions (SSC) in our medium-term forecast (as a technical assumption because of we saw a large manoeuvring room in the budget for 2017; see [here](#) and [here](#)), thus higher wage dynamics also means higher cost-side inflation pressure (compared to our baseline forecast), too. As we wrote in our [Inflation Report](#), inflation expectations in the service sector has started to rise. As the beginning of the year is the main price setting period, particularly in the market service segment, we think the January and February CPI data will be outstandingly interesting because we cannot exclude negative surprise in the data in the light of the labour market developments.
- So, the question is how prolonged the labour-shortage period can be. On the one hand we think labour demand may remain strong in 2017 as labour intensive service sectors and construction can grow rapidly. On the other hand some adjustment may take place on the supply side. Possible labour force reserves include:
 - Employees who work abroad: according to the HCSO around 115k Hungarian people works abroad. It is not a total amount of people who works abroad, it is rather a number of commuter workers who works in Austria or Germany. But we should note the wage gap between Austria or Germany and Hungary is very large (2 or rather 3fold) Thus, despite accelerating Hungarian wage growth, the gap may remain large for a while. However, commuting is not very convenient for several workers, so some may still decide to work in Hungary instead of commuting.
 - Workers in public works programs: unfortunately, the last detailed analysis about the public workers was made in 2013/2014; since then the general labour market situation has turned 180 degrees. This analysis showed that about the

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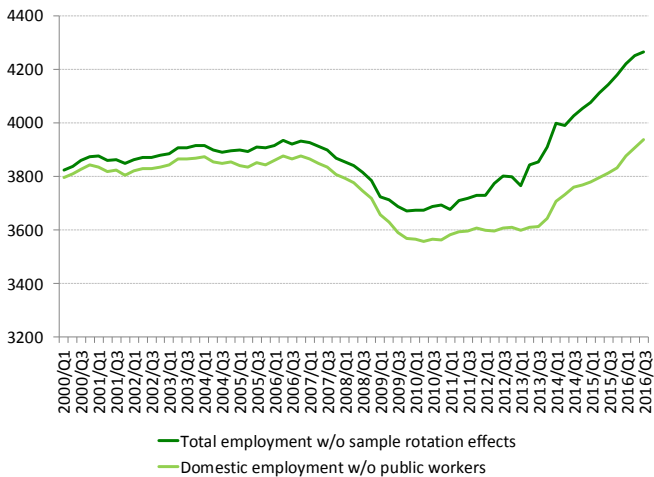
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half of the public workers are totally unskilled and have very limited access to the labour market. They were actual inactive persons before the introduction of public work programs. But the other half of the around 200k public workers had skills and work experience. Nevertheless, it is questionable whether these ratios are appropriate in the current situation. Still, we should note that the wage of public workers is lower than the minimum wage and the gap will widen significantly in 2017. This can encourage persons with some education and skills to enter the primary labour market. The government also shows some attention to re-channel them to the “primary” labour market.

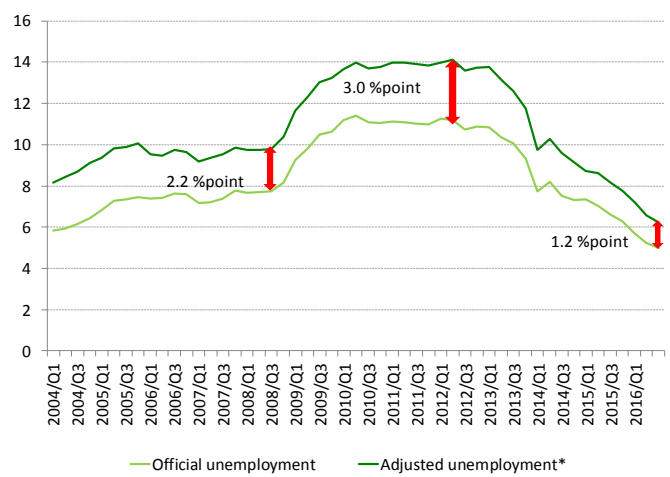
- The third and most important channel can be the cyclical component of the participation rate. As in the US, labour market participation is procyclical in Hungary. The Hungarian activity rate is currently at an all-time high which helps to ease labour shortage problem. Reasons for the recent increase in the participation rate in last years can be divided into 2 groups:
 - Structural component: the gradual increase of the activity rate is mainly a consequence of the improving education structure of the Hungarian labour force, because participation rates within each education level did not increase significantly in the last 15 years. This positive composition effect may soon end. Between 2002 and 2013 the improving education structure added 0.5%point (on average) by year to the activity rate. But this pace reduced to 0.3% in 2014 and 0.2%point in 2015. In addition, the Hungarian working age population is decreasing by around 30-35k (0.5%) year by year. This process also obstructs further significant increase of the number of economically active persons. In all, the ‘structural component’ supports participation growth much less than in the last decade.
 - Cyclical component: the usual categorization of individuals into employed-unemployed-inactive groups does not necessarily reveal their ‘actual’ labour market connections. For example, the relative variance of passive unemployment (who are inactive in the official statistics) is almost the same that of headline unemployment, and the correlation between the two time series is very strong ($r \sim 0.9$). Our adjusted participation figure categorizes this group as unemployed and this adjusted figure’ relative variance is smaller than the official activity’s one. But the clear cyclical pattern did not appear. When we decomposed the cyclical pattern of the participation rate, we found that the cycle correlates strongly with the real wage growth. Our rough estimation shows the $\sim 6\%$ real wage growth (what we expect for 2017) results in around 0.4%point cyclical rise in the participation rate (+25-30k active person).
 - In all, we think the activity growth will decelerate due to the shrinking working age population and the fading positive education effect. Due to cyclical reasons the activity rate may rise somewhat, but even more previously inactive people become active the remaining inactive persons increasingly can be labelled as ‘actual inactive’. Thus there is certain limit to the cyclical growth of the labour force.
- In all, we think the most likely candidates for possible labour force ‘reserves’ are commuting workers and public workers. They coupled with possible reactivated persons the additional ‘available’ labour force can reach $\sim 150k$ persons in 2-3 years horizon. Keep in mind the private sector’ employment grew by 125k between 2015/q3 and 2016/q3. In our baseline we had calculated with roughly +150k employment in the private sector by the end of 2018 resulting in a 4% unemployment rate by the end of 2018. But we did not calculate with public workers or commuters returning in large numbers to the primary labour market. Nevertheless, our employment growth forecast for the next 2 years easily proves too pessimistic (particularly if we take into the account the elections in 2018 and its usual consequences for public sector’ employment). Therefore, we think the unemployment rate will decline gradually in the forecast horizon, which will be resulted in even stronger labour shortage. Possible new labour force reserves can re-enter the ‘primary’ labour market only gradually, and further (significant) growth of the labour force has certain limitations.
- As the domestic demand remains strong in the next 2 years – due to the fiscal manoeuvring room, accelerating EU fund inflow, some big ticket investments and reviving loan taking – the even stronger labour shortage can result in deteriorating external position. The first sign of this process has been appeared in the Q3 C/A statistics as the CA surplus was much lower than the previous data suggest. The problem is that if these strongly demand led years result in so wage acceleration which deteriorates the Hungarian competitiveness.
- The labour shortage problem could be mitigated in the medium run if companies invested more to replace labour with capital. We see private investment is on the rise in sectors not driven by EU funds, corporate loan demand turned positive and FDI inflow started to pick up. But it is very difficult to decide whether these investments are made to increase the production capacities or to replace labour force. However, the new investments require more labour in short run, so the companies probably face with even stronger labour shortage in 2017.

Chart 1: Employment
(ths. people, SA)



Sources: HCSO, OTP Research

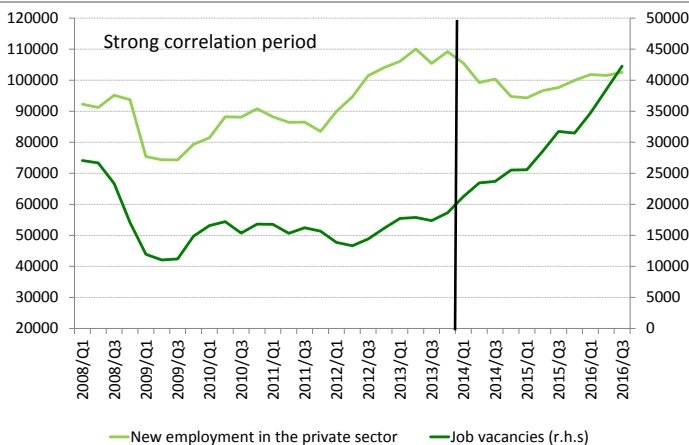
Chart 2: Measures of free labour force
(quarterly data, SA, %)



Sources: HCSO, OTP Research

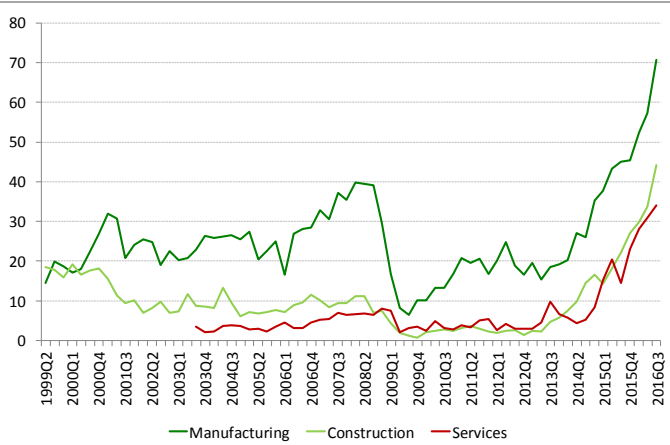
*: unemployed people + people who are willing to work but think no work is available

Chart 3: Job vacancies and new employment
(unit and person)



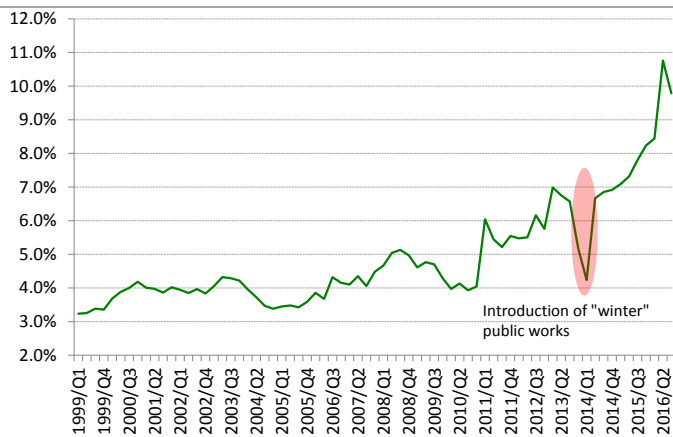
Sources: HCSO, Eurostat, OTP Research

Chart 4: Labour shortage as production limiting factor
(quarterly data, SA)



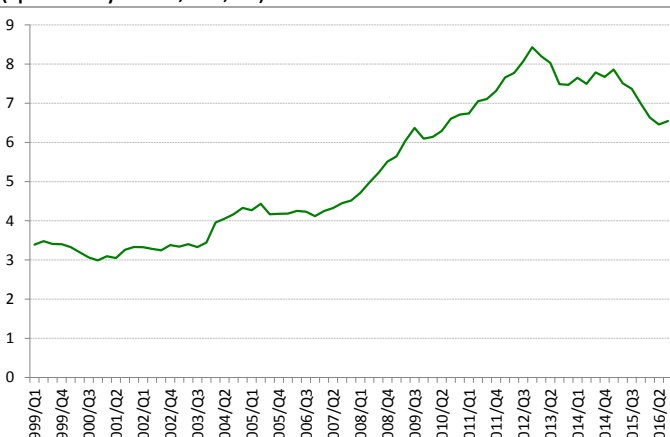
Sources: HCSO, OTP Research

Chart 5: Skill-mismatch index



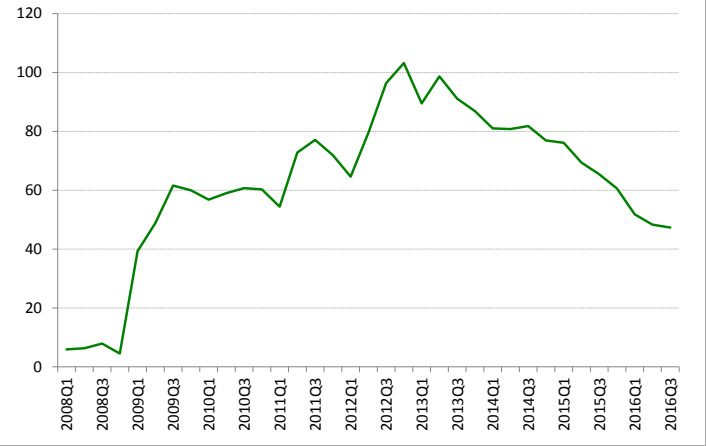
Sources: Eurostat, OTP Research

Chart 6: Share of part-time workers in the private sector
(quarterly data, SA, %)



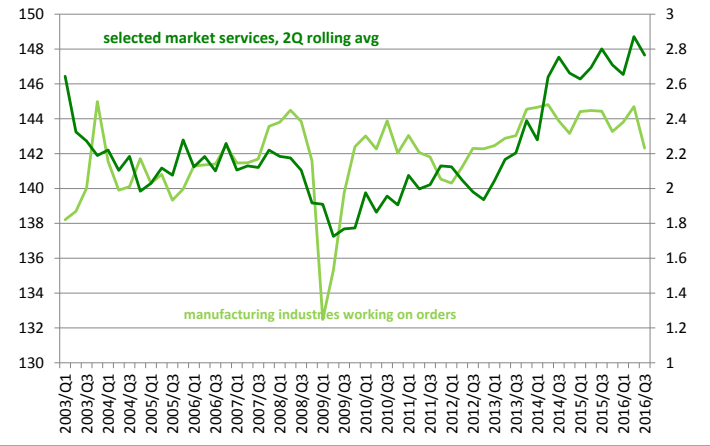
Sources: HCSO, OTP Research

Chart 7: Underemployed part-time workers (ths. people)



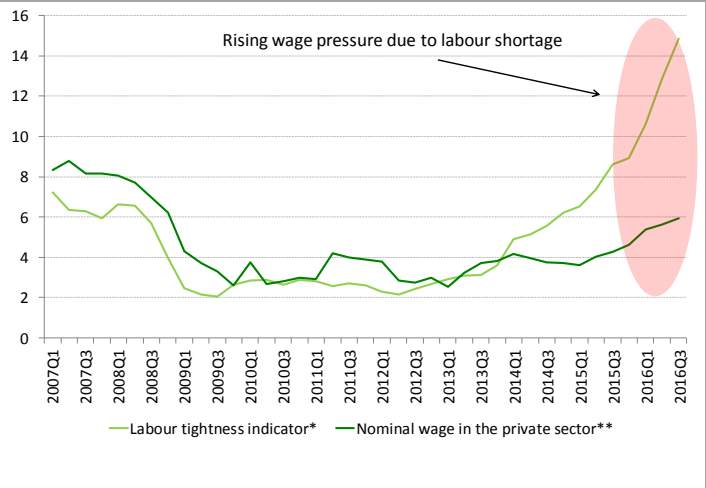
Sources: Eurostat, OTP Research

Chart 8: Labour hours (avg. monthly labour hours and weekly overtime)



Sources: HCSO, OTP Research

Chart 9: Labour market tightness (% and YoY %)

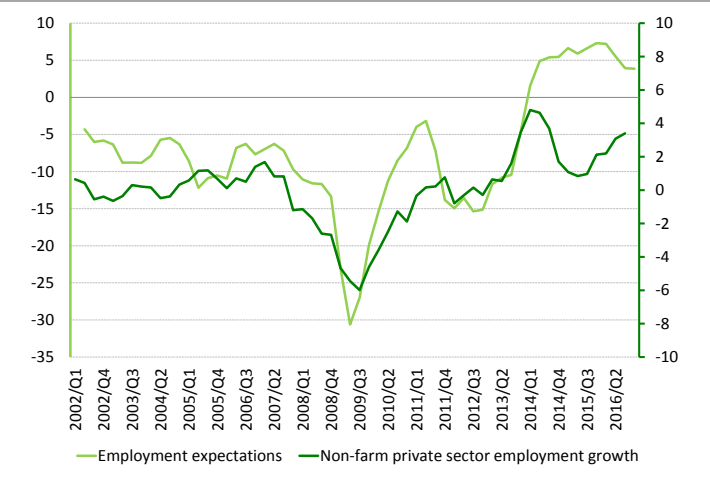


Sources: HCSO, OTP Research

*: job vacancy/unemployed

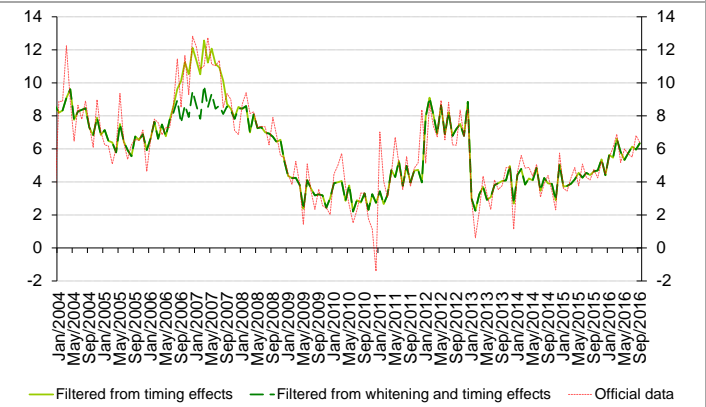
**.: filtered from significant minimum wage hike in 2012

Chart 10: Employment expectations over the next 3 months (quarterly data, SA, balance point and YoY, %)



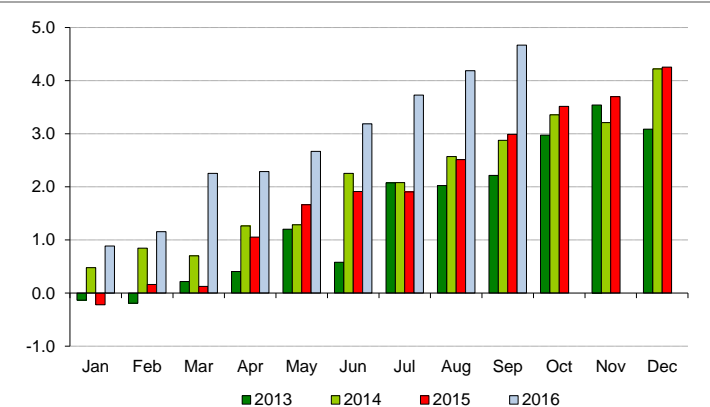
Sources: HCSO, Eurostat, OTP Research

Chart 11: Nominal wage growth in the private sector (annual changes, %)



Sources: HCSO, OTP Research

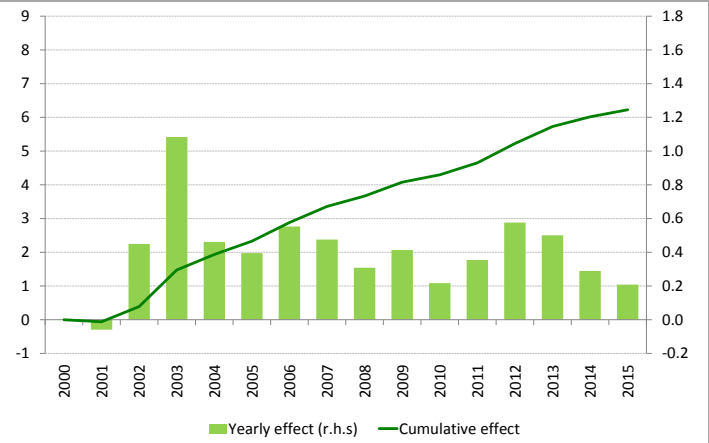
Chart 12: Within-a-year wage settings* in the private sector (previous Dec=0, %, SA)



Sources: HCSO, OTP Research

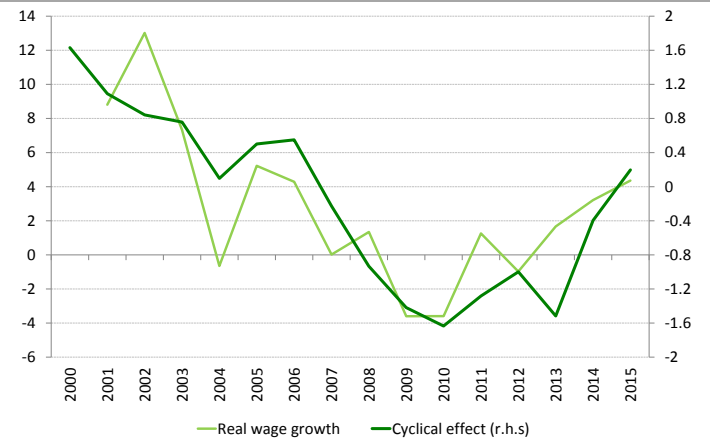
*calculated from regular wages

Chart 13: 'Education effect' on the activity rate (%point)



Sources: Eurostat, OTP Research

Chart 14: Estimated cyclical effect of the activity rate (%point and %)



Sources: HCSO, Eurostat, OTP Research

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