Economics Department
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LABOUR MARKET REVIEW

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MAIN DEVELOPMENTS IN THE FIRST HALF OF 2007

In the first half of 2007, labour market indicators evolved in line with the ongoing economic growth slowdown. Even though unemployment was at record low and wage pressures at record high during that period, the employment growth rate declined even further. In the second quarter, the Estonian economy employed 1.3% more people year-on-year, whereas the unemployment rate fell to 5%.

The activity rate continued to grow in the second quarter, though also at a slower pace. The employment rate in the age group of 15 to 64 reached 69.3%, which gives ground to hope that achieving the Lisbon Strategy objective – 70% employment rate – by 2010 is quite realistic.

Along with the rise in employment and economic activity, unemployment has been steadily declining. Thereby the share of the long-term unemployed (for a year or longer) in the economically active population[1] has decreased. This is a positive indicator also when compared to the EU average. While long-term unemployment in Estonia has exclusively followed a downward trend in the past years (falling to 2.8% in 2006); the EU average has remained close to 3.6%.

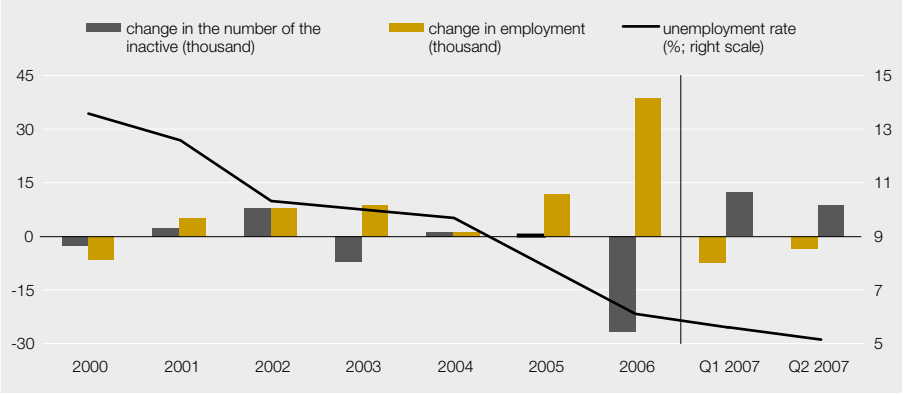

Figure 1. Main labour market indicators

There are yet a few signs of a slowdown in wage growth, which is considered to be too fast. Real wage growth was extremely rapid in the first half-year. This increases purchasing power on the demand side and generates additional costs on the supply side, thus putting the competitiveness of quite a few companies at risk. Companies were no longer able to finance the accelerated wage growth in the first half of 2007 from revenue growth, i.e. at the expense of productivity and price rise, and the share of profits in GDP fell to the levels recorded 6-7 years ago.

[1] The number of economically active people equals the sum of the employed and the unemployed.

Table 1. Main labour market indicators

	Change y-o-y (%)					Change y-o-y (thousand)				
	2004	**2005**	**2006**	**2007**		**2004**	**2005**	**2006**	**2007**	
Population (as at 1 January)	**-0.4**	**-0.3**	**-0.2**			**-5.0**	**-3.6**	**-2.3**		
Employment status (15 to 74 years old)	**2004**	**2005**	**2006**	**Q1 2007**	**Q2 2007**	**2004**	**2005**	**2006**	**Q1 2007**	**Q2 2007**
Workforce	-0.2	0.1	4.1	0.7	0.1	-1.4	0.5	27.2	4.9	0.7
employed	0.2	2.0	6.4	1.9	1.3	1.2	11.9	38.9	12.3	8.6
manufacturing	5.1	-0.9	-2.2	6.2	-1.2	6.8	-1.4	-3.1	8.5	-1.6
unemployed	-3.9	-17.9	-22.4	-16.9	-18.2	-2.6	-11.4	-11.7	-7.4	-7.8
less than 6 months	-17.2	-12.3	-15.6	-11.9	-11.8	-4.4	-2.6	-2.9	-1.9	-2.0
6 to 11 months	-9.8	-38.0	-7.0	-48.3	-48.5	-1.0	-3.5	-0.4	-2.8	-3.2
12 months or more	9.2	-16.0	-30.1	-12.3	-14.0	2.8	-5.3	-8.4	-2.7	-2.7
24 months or more	7.0	-15.3	-37.4	-24.8	-25.0	1.4	-3.3	-6.8	-3.5	-2.9
Inactive	0.3	0.1	-6.9	-2.0	-1.0	1.3	0.3	-26.7	-7.5	-3.5
Total	0.0	0.1	0.0	-0.3	-0.3	0.0	0.8	0.5	-2.7	-2.7
	Level (%)					**Change (percentage points)**				
Participation rate	62.9	62.9	65.5	65.3	66.3	-0.1	0.0	2.6	0.6	0.3
Employment rate	56.8	57.9	61.6	61.8	62.9	0.1	1.1	3.7	1.3	0.9
Unemployment rate	9.7	7.9	5.9	5.3	5.0	-0.3	-1.8	-2.0	-1.1	-1.2
Wages	**2004**	**2005**	**2006**	**Q1 2007**	**Q2 2007**	**2004**	**2005**	**2006**	**Q1 2007**	**Q2 2007**
	Level (EEK)					**Change (%)**				
Average gross monthly wages	7,287	8,073	9,350.5	10,322	11,549	8.4	10.8	16.2	20.1	21.2
manufacturing	6,696	7,526	8,823.3	9,784	10,836	8.4	12.4	17.6	21.6	22.8
Average net monthly wages	5,675	6,411	7,524	8,339	9,214	9.6	13.0	17.4	20.0	20.3
Minimum wages	2,480	2,690	3,000	3,600	3,600	14.8	8.5	11.5	20.0	20.0

* authors' estimates

The growing cross-border mobility of employees is probably an additional factor that exerts wage pressure also on these positions that would otherwise remain unaffected owing to low labour shortage.

Further developments regarding wage pressures are important upon adjusting to slower economic growth. If wage growth does not subside in the near future, the probability of more abrupt adjustment increases.

Labour force participation and economic inactivity

Labour market developments in the first half of 2007 were in line with expectations. Employment growth is likely to slow and the unemployment rate to decline also in the following quarters. According to the Estonian labour force survey, the number of the employed in the age group of 15 to 74 stood at 658,600; the number of the unemployed was 35,000 and that of the inactive[2] (students, retired, homemakers and discouraged) totalled 352,800 in the second quarter of 2007. During the preceding four quarters the number of the employed had stayed around 650,000 and there were discussions about reaching the possible limit of labour supply. In the second quarter, however, the number of the employed increased to 659,000, which gives hope that not all reserves have been used up.

In addition to demand for labour arising from economic growth, employment growth also requires stronger labour supply. Therefore, besides growth in employment and a steady decline in unemployment, attention should be paid to reducing economic inactivity, particularly to those age groups whose integration into the labour market has been obstructed for one reason or another (e.g. the elderly and the young).

Year-on-year, employment increased due to a decline in both unemployment and inactivity. Yet the decline in inactivity and the rise in the labour participation rate[3] in the first half of 2007 was not as drastic as in 2006. The labour participation rate in the age group of 15 to 74 increased to 66.6% in the second quarter of 2007, being only 0.6 percentage points above the year-ago figure.

Although employment increased somewhat slower than before, we have still made it quite close to an important milestone: the objective laid down in the Lisbon strategy to raise the employment rate among those aged 15 to 64 to 70% by 2010. Namely, the respective rate in Estonia reached 69.3% in the second quarter.

The number of the inactive declined rather modestly in 2007: by 2% in the first quarter and by only 1% in the second quarter. In other words, 3,500 inactive people entered the labour market in the second quarter of 2007. No long-term growth trend regarding the number of the

[2] Inactive is a person in working age who neither works nor looks for a job.

[3] Labour participation rate equals the percentage of the employed and the unemployed in the working-age population.

inactive was observed by regions. Yet in the short term the number of the inactive increased in North-Eastern and Southern Estonia and decreased in Western and Northern Estonia. Western Estonia contributed the most to the decline in the total number of the inactive in the first and second quarters.

In the first quarter of 2007, economic inactivity decreased owing to both students and people in the retirement age, whereas in the second quarter the latter did not contribute to activity rise. The number of economically inactive working-age pensioners remained exactly at the level recorded in the second quarter of 2006 (128,700). Therefore, the number of the inactive declined mainly on account of students (i.e. the number of people inactive due to studies fell by 8,000 year-on-year). Meanwhile, inactivity related to illness and parental leave rose slightly, and so did the number of the discouraged (by 1,000).

Apart from the economic situation, the number of participants in the labour force also depends on population changes. The population either grows or declines, depending on the birth rate, mortality rate and the inflow and outflow of labour. Factors related to demographic processes were the ones that curbed labour supply this year. Namely, the working-age population in Estonia began to shrink, just as expected. The past few years saw the entrance of the baby-boom generation born in the 1980s (the most numerous young age group) into the labour market, whereas by now this trend has lost its topicality. Those entering the labour market, i.e. 15-year-olds, are still more numerous than those leaving the labour force (people aged 75), but the difference is no longer sufficient to offset the decline in the number of working-age population of other age groups (either through death or migration).

Eurostat anticipated in its forecast of 2004 that the decline in Estonia's working-age population (aged 15 to 74) would begin as soon as in 2006 and deepen further. By the year 2014, the number of working-age people was supposed to decline by as many as 67,000 to 982,000.

In reality, Eurostat's forecast turned out to be slightly pessimistic. Estonia's working-age population started to decline just this year and at the beginning of the year the number of those aged 15 to 74 had fallen by just 2,600 year-on-year (i.e. the total number exceeded the forecast by 2,500). This was probably owing to a somewhat smaller than expected net migration[4] (above all emigration), which resulted in a more moderate decline in the number of working age residents. However, if the emigrated do not return to Estonia in the coming years, Estonia's working-age population may, according to preliminary estimates, decrease by approximately 40,000 people to one million by 2014 (see Figure 2).

In the second quarter of 2007, the labour force was underpinned by younger (aged 15 to 24) and older (aged 50 to 74) age groups. Year-on-year, the number of young labour force participants

[4] Net migration equals the difference between the number of immigrants and emigrants.

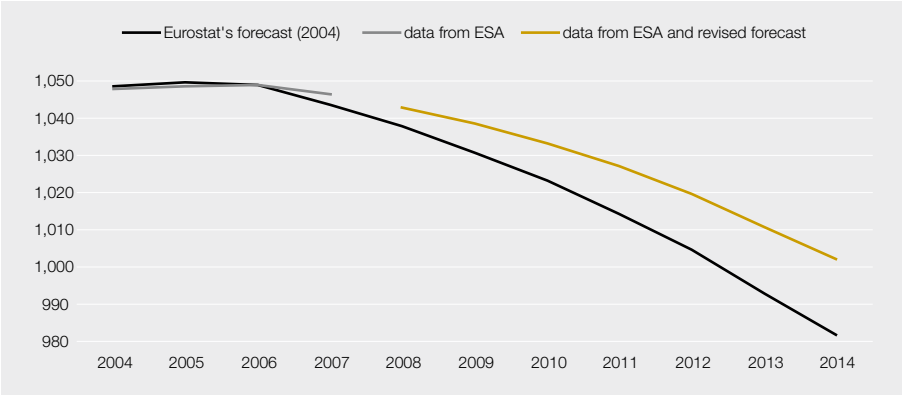

Figure 2. Working-age population estimate for Estonia (thousand)

grew by 2,600 and the number of older participants by 1,600. Meanwhile, the number of people in their prime working age, i.e. aged 25 to 49, decreased by 3,500 (see Figure 3). Still, all age groups contributed to the incease in employment, and also the number of people of prime working age rose year-on-year, although by just 1,900. Evidently, unemployment declined by 7,800 persons largely on account of that age group.

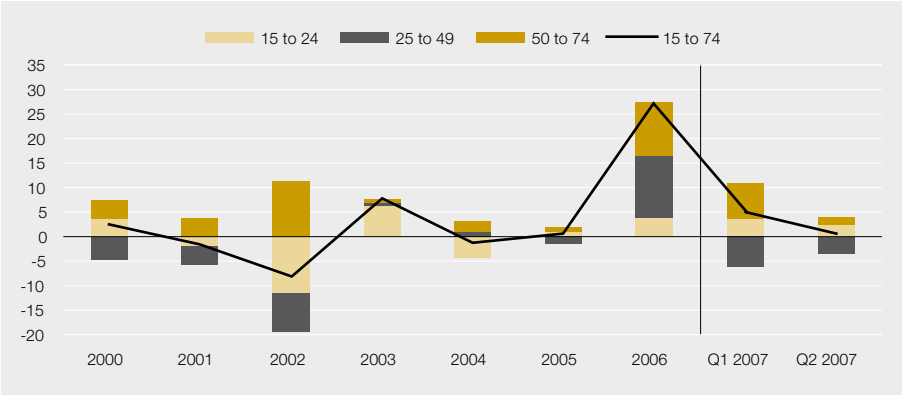

Figure 3. Contribution to employment growth by age groups (thousand)

Apart from age, people's labour market behaviour is also affected by their regional mobility. Even though differences between Estonian regions have decreased in recent years, labour market development was still quite inconsistent by regions. The activity rate has always been the highest in Harju County and Tallinn (69–70%). However, in the past half-year, activity increased above all in Central Estonia (see Figure 4).

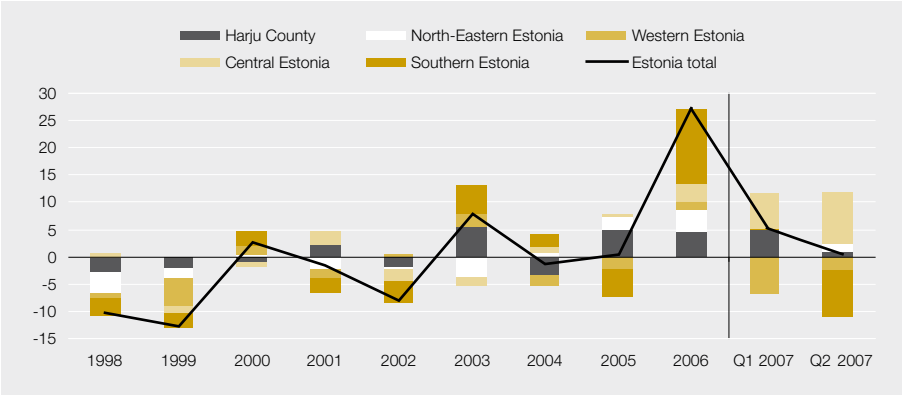

Figure 4. Contribution to employment growth by regions (thousand)

Employment

Compared to 2006, when the number of the employed increased by 6.4% year-on-year, employment growth slowed in the first half of this year: in the first quarter, the number of the employed stood at 1.9% and in the second quarter at 1.3% above the year-ago figure. In the second quarter of 2006, the number of the employed increased rapidly to 650,000 and remained close to that level in the following three quarters, even slightly declining now and then. But in the second quarter of 2007, the number of the employed increased by as much as 8,600 to 658,000.

The employment figure has risen across all age groups (see Figure 5). The number of young employees has increased quite considerably. In the second quarter this year, employment in the age group of 15 to 24 stood at 70,000, which is 4.8% more year-on-year. The number of young employees has gone up by a fourth in the past three years. Quite many young people prefer to work while studying.

By economic sectors, employment rose only in the secondary sector (manufacturing, construction, electricity, gas and water supply) in the second quarter – by 8.5% or 18,300 people. The number of working people increased rapidly only in the construction sector (by 21,200). In the past four years, the number of employees in that sector has more than doubled, amounting to 82,600 people, i.e. 12.5% of total employment. The trend of the construction sector attracting employees from other sectors with higher wages and faster wage growth probably continued also in the second quarter. If the expected cooling in the real estate market materialises in the near future, it might again reduce demand for construction workers after a certain period.

Employment in the manufacturing and energy sectors declined by 1,600 and 2,500 people, respectively. Since value added growth in the manufacturing sector remained high in the second

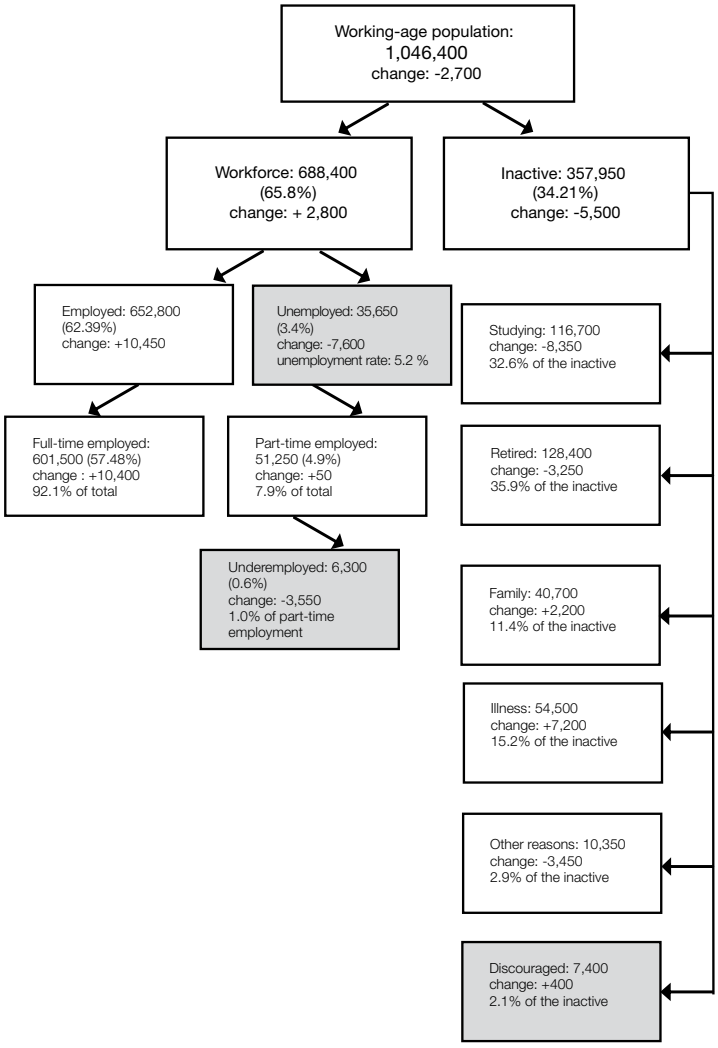

Figure 5. Estonian labour market in the first half of 2007 and change compared to the same period of 2006 (% of working-age population)

quarter, this could only occur on account of productivity. Nominal labour productivity[5] growth in the manufacturing sector accelerated to 20.9%; real growth (growth in constant prices) stood at more than 11%.

Employment decreased also in primary and tertiary sectors (see Figure 6). According to the Ministry of Economic Affairs and Communications, the driving force behind employment decline in the primary sector is forest management that has to cope with allowable cut restrictions. Based on second quarter data, the number of employees declined also in trade, hotels and restaurants as well as in the transport, storage and communications sector. This might have resulted from the somewhat stalled trade growth and difficulties in the tourism and transit sector, which arose from unfavourable foreign policy events.

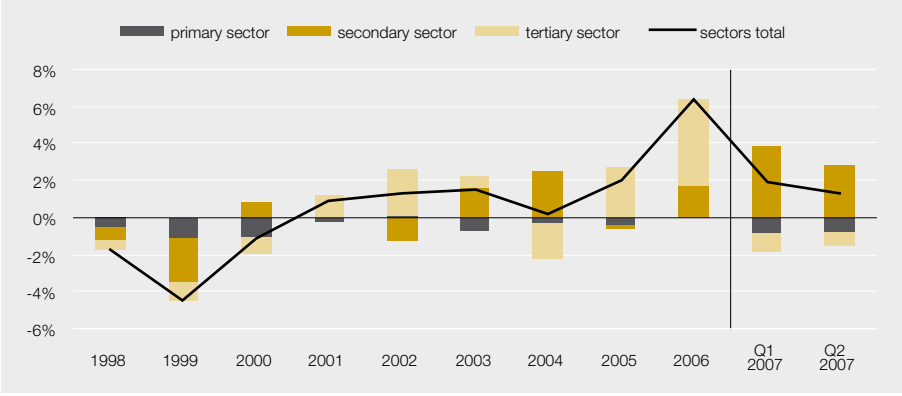

Figure 6. Employment growth and contribution by sectors

By regions, employment growth was positive in Western, Northern and Central Estonia in the first two quarters of 2007. Employment increased the most in Western Estonia – by approximately 8,700 people – and above all among the young and the elderly. Employment growth in other regions was comparatively slow and even declined in Southern Estonia (by 1.6% in the second quarter).

In the second quarter of 2007, the employment structure changed slightly. During 2006 and in the first quarter of 2007, employment growth was mainly underpinned by salaried workers. The share of this group in total employment climbed to 92.5% at the end of last year. In the second quarter of 2007, that group decreased by 1,300 whereas total employment increased along with the growing number of entrepreneurs and sole proprietors (by 6,900 and 2,900, respectively). The percentage of salaried workers in total employment again declined to near 90%.

[5] Nominal labour productivity means added value growth per employee

By occupational groups, employment growth was spurred not so much by the increase in the number of blue-collar workers[6] but rather by white-collar workers[7]. As regards the increase in the number of male workers, it coincides with the number of construction workers. The reasons behind changes in female employment (the decline in the number of blue-collar workers and the increase in the number of white-collar workers) are not so obvious (see Figure 7).

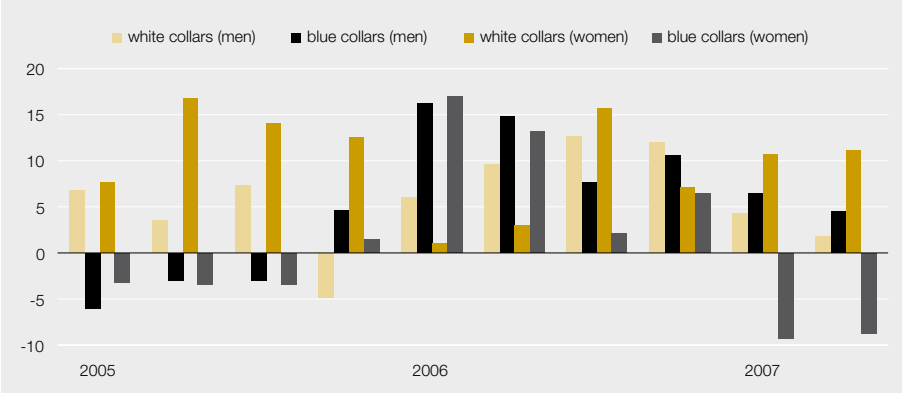

Figure 7. Contribution to employment growth by occupational groups (thousand)

Even though the extent of migration within the European Union it is very difficult to estimate since there are no reliable data, it is possible to use Eurostat's employment data proceeding from the concept of domestic and national employment[8]. The difference between these figures shows net migration, i.e the number of Estonian residents working abroad minus residents of other countries working in Estonia (see Table 2).

According to these data by Eurostat, in recent years (after the accession to the European Union) the number of Estonian residents working abroad has been steadily increasing. The inflow of residents from other countries into Estonia has not been able to offset it either. In the first quarter of 2007, the negative net migration balance amounted to as many as 17,000 people. In other words, of the 13,000 people that entered the labour market only 5,000 stayed in Estonia and 8,000 took up employment elsewhere. In the second quarter, the negative net migration balance decreased to 15,000 people. Thus, just 4,000 people stayed in Estonia of the 9,000 that entered the labour market while 5,000 took up employment elsewhere; meanwhile domestic employment grew by only 0.6% during that period.

[6] Blue-collar workers: service and sales staff; skilled workers in agriculture and fishing; skilled workers and craftsmen; operators of machinery and equipment; unskilled workers, military personnel.
[7] White-collar workers: lawmakers, senior officials and executives; specialists and technicians; officials.
[8] National employment includes domestic employment and Estonian residents working abroad; it does not include non-resident foreigners working in Estonia.

Table 2. National and domestic employment

	National employment	Growth (%)	Domestic employment	Growth (%)	Difference
Q1 2004	592,000	2.2	587,000	2.3	5,000
Q2 2004	597,000	1.1	591,000	0.5	6,000
Q3 2004	600,000	-1.8	595,000	-1.9	5,000
Q4 2004	604,000	-0.4	596,000	-0.9	8,000
Q1 2005	597,000	0.8	590,000	0.5	7,000
Q2 2005	612,000	2.4	607,000	2.7	5,000
Q3 2005	614,000	2.4	609,000	2.3	5,000
Q4 2005	617,000	2.1	611,000	2.5	6,000
Q1 2006	636,000	6.6	627,000	6.2	9,000
Q2 2006	651,000	6.5	641,000	5.6	10,000
Q3 2006	651,000	6.0	640,000	5.1	11,000
Q4 2006	653,000	5.8	640,000	4.7	13,000
Q1 2007	649,000	1.9	632,000	0.8	17,000
Q2 2007	660,000	1.3	645,000	0.6	15,000

Sources: Eurostat; authors' calculations

As the difference between domestic and national employment data is relatively significant, there are also major differences in all the indicators based on these data. For instance, the labour productivity growth indicator, which has been calculated on the basis of the domestic employment rate, reflects a slighter slowdown in 2006 and a stronger growth in 2007: 9.2% in the first and 6.9% in the second quarter (see Figure 8).

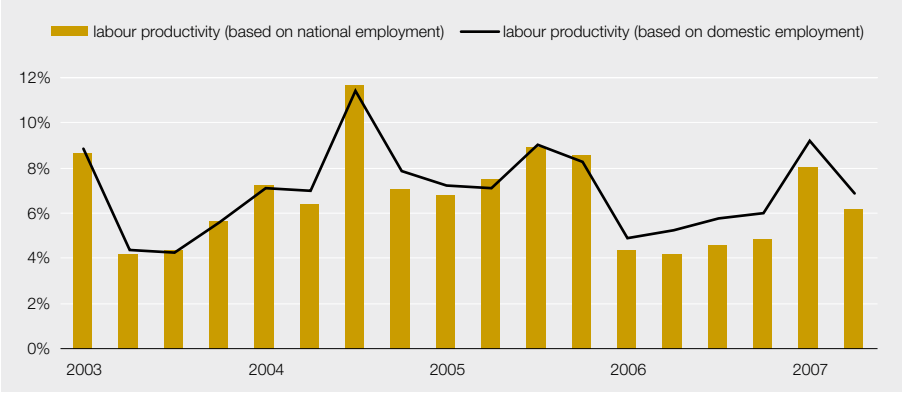

Figure 8. Labour productivity growth

All in all, we may say that the growth of labour supply targeted at the domestic market is slowing, whereas labour outflow from Estonia is picking up. This means that labour reserves have diminished and supply constraints will increase – a risk factor outlined by Eesti Pank in several of its forecasts.

Vacancies

According to the labour demand forecast of the Ministry of Economic Affairs and Communications from last year, labour supply was expected to create complications in the near future. On one hand, it is related to the decreasing and aging population and on the other hand, to consistent outflow of employees into foreign countries. Companies have difficulties with finding necessary workforce since insufficient labour supply no longer meets the demand arising from rapid economic expansion. However, this forecast is looking rather far ahead, as recent data do not confirm it yet.

Although the statistics on vacancies compiled by the Labour Market Board are not representative and thus do not extend to the entire Estonian economy[9], it has been used in the present analysis as one possible indicator of labour demand.

Recent Labour Market Board statistics indicate that labour demand growth is actually subsiding. According to that, the number of new job advertisements in the last four quarters was actually smaller year-on-year. In the second quarter of 2007, the number of new jobs fell by as much as 36%, but this growth figure has posted rather volatile results across months also before (see Figure 9).

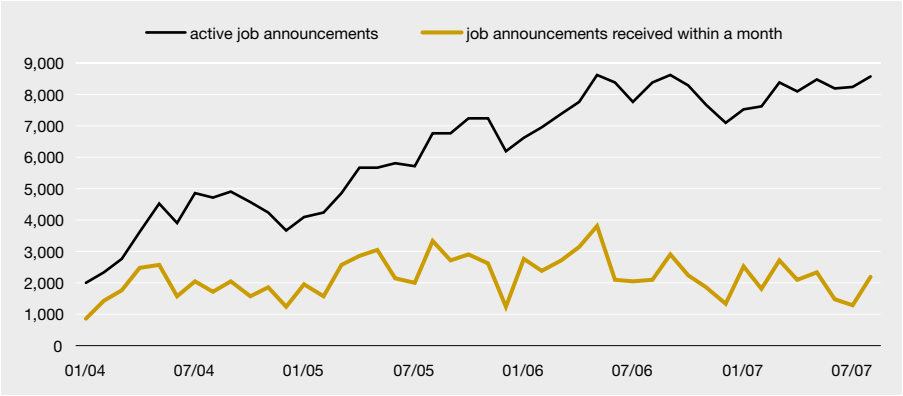

Figure 9. Job announcements submitted to the Labour Market Board

[9] According to Statistics Estonia, only 1% of employees who have found a job during the period under analysis have found it through the Estonian Labour Market Board.

The number of valid vacancy announcements submitted to the Labour Market Board during the period under review has remained close to the year-ago levels. Taking into account the fact that supply constraints (insufficient qualification of present job-seekers, outflow of labour to other countries etc.) have not eased recently, the stabilisation of the number of vacancy announcements may indicate that the ability of employers to hire suitable employees has not been diminished and that demand pressures have remained unchanged.

Unemployment

Unemployment decreased also in 2007, although this process has likewise slowed year-on-year. The number of the unemployed again fell to the level of the first half of 2005 after having stayed at a considerably higher level in the meantime. In the first two quarters of 2007, unemployment declined by an average of 17.9%, i.e. by 7,700 people. The second-quarter unemployment rate stood at 5.0%, after falling from the quarter before (5.3%) and year-on-year (6.2%). Over the last three years unemployment has decreased twofold: in the second quarter of 2004 it was as high as 10%.

Compared to the second quarter of 2006, this year the biggest decline in the unemployment rate was measured in North-Eastern Estonia, where unemployment is traditionally the highest: to 9.8% from 14.0%. Unemployment was the lowest in Western and Northern Estonia: 3.0% and 3.9%, respectively.

Along with the rapid decline in unemployment in 2005–2006 also long-term unemployment – the share of people in the economically active population who have been looking for work for a year or longer – has decreased. Compared to 2002, long-term unemployment declined by nearly a half by 2006. This is a positive indicator also compared to the EU average. In Estonia, the long-term unemployment rate fell to 2.8% in 2006, whereas the EU average totalled 3.6%. While long-term unemployment in Estonia has only shown a downward trend in recent years, the EU average has stayed close to 4%. The highest long-term unemployment rates in the European Union in 2006 were recorded in Slovakia (10.2%) and Poland (7.8%), and the lowest in Denmark (0.8%) and Cyprus (0.9%).

The number of the long-term unemployed has declined considerably, indeed, but the share of long-term unemployment in total unemployment has still remained high. While in 2006 the European Union average regarding those who had been looking for work for a year or longer was 46% of the unemployed, the share of long-term unemployment among the unemployed in Estonia stood at 48%.

According to Statistics Estonia, in Estonia the likelihood of becoming unemployed for a long time is three times smaller among people with higher education compared to people with primary or basic education. Older people and those who worked as unskilled workers before becoming unemployed face a bigger risk of long-term unemployment. While just every tenth employed

person has primary or basic education, the same applies to every fourth unemployed individual. People with higher education have no problems with finding work. The unemployment rate in that group fell to 2.6% this year. Such a remarkably low indicator rather illustrates the fact that it is not that easy for employers to find specialists with higher education.

Language skills constitute another problem in Estonia, which is why the unemployment rate among the Russian-speaking population and in North-Eastern Estonia is much higher compared to the rest of Estonia.

The number of the long-term unemployed declined also in the first two quarters of 2007; however, their share among the unemployed did not change considerably. While last year 48% of the unemployed had been looking for work for a year or longer, the share of long-term unemployment stood at 53% in the first quarter this year. The situation improved in the second quarter: the share of the long-term unemployed was smaller than that of the short-term unemployed, amounting to 47.6% (see Figure 10).

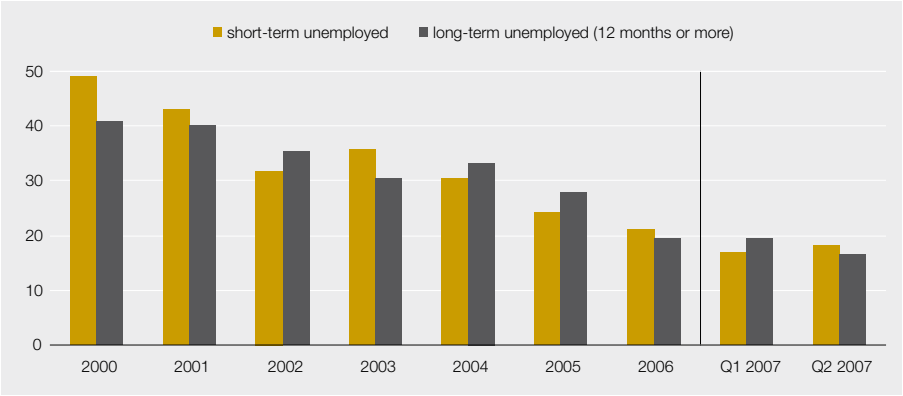

Figure 10. Number of short-term and long-term unemployed (thousand)

Unemployment decreased in the first half of 2007 across all age groups. The down trend was particularly fast among the elderly, whose unemployment rate fell to 3% in the second quarter. Unemployment among those in prime working age stood at 4.8% and at 11.7% among the young.

Unemployment among Estonians and non-Estonians decreased more or less comparably. Unemployment among Estonians decreased by approximately 3,300, whereas the respective figure for non-Estonians was 3,700.

Unemployment analysis by regions reveals that a particularly steep fall ocurred in North-Eastern Estonia where the unemployment rate shrank by more than 4 percentage points to 9.8% from 14%. Similarly positive changes took place in the Southern Estonian labour market where unemployment declined by 3 percentage points. In Western and Central Estonia, unemployment was rather low but it has risen slightly from the same period last year.

According to the consumer barometer of the Estonian Institute of Economic Research, households estimated the likelihood of becoming unemployed to be higher compared to 2006 (see Figure 11). The more pessimistic estimate is in line with the number of the registered unemployed that remained quite close to last year's figures during the past months and failed to decline.

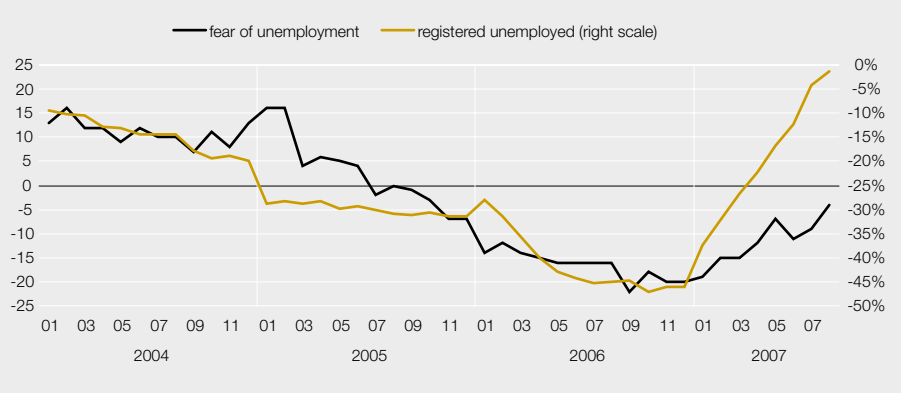

Figure 11. Fear of unemployment based on the EKI consumer barometer and registered unemployment (thousand)

But considering that the number of the registered unemployed has been generally in line with the changes in total unemployment, the decline in the number of the unemployed may soon stop. Further employment growth (in particular considering the decreasing and ageing population) is only possible with rising economic activity or return of people working abroad.

LABOUR COSTS AND PRICE PRESSURES

Average wages

Underpinned by strong demand and labour supply constraints, average gross monthly wages continued to rise fast also in the second quarter of this year, reaching 11,549 Estonian kroons. Consequently, average gross wages increased by 21.2% compared to the second quarter of 2006 and at an accelerated pace. Such a rapid growth was partly caused by one-off benefits and holiday pays in summer. The growth in gross hourly wages ceased to accelerate

in the second quarter, but still remained at a very high level of 20.1%. Even if the pace of wage growth finally begins to slow in the second half-year (a slight slowdown in the growth of social tax revenues gives grounds to expect that), annual wage growth will be faster than in 2006 when it was 15.8%.

The real growth of gross wages picked up from 12.6% at the end of last year to 14.2% in the first quarter of 2007 and reached a record high of 14.7% in the second quarter (see Figure 12).

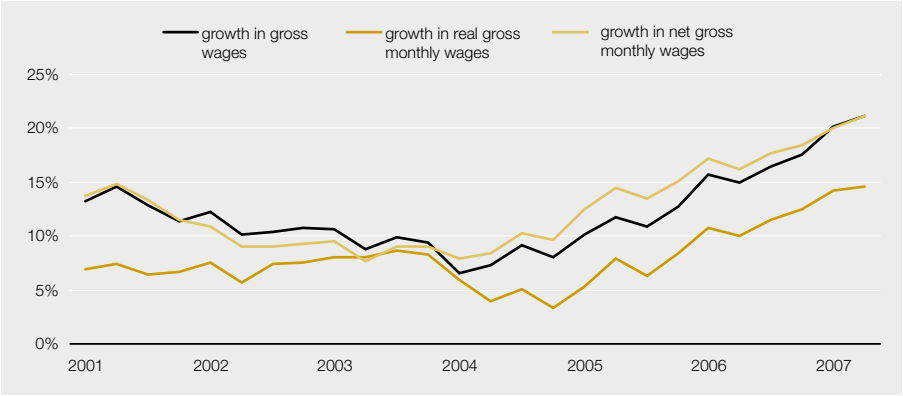

Figure 12. Average wage dynamics

Consequently, the purchasing power of salaried workers grew even further. This year the difference between the growth rates of net and gross monthly wages had disappeared, since the personal income tax reduction had been offset by the rise of the effective income tax rate stemming from stronger wage growth.

Robust wage growth has been accompanied by a rapid increase in relative wages both by fields of activity and by regions. Miners and construction workers saw the biggest rise in average gross wages in the second quarter – by as much as 38.8% and 32.1% year-on-year – amounting to 13,743 and 12,700 kroons, respectively. Gross wages of salaried workers in the mining industry were affected by one-off bonuses and additional remuneration. The growth in average gross hourly wages, on the other hand, slowed from 20.3% in the first quarter to 19.1% in the second quarter.

Average gross monthly wages fell only in the fishing industry (1.4%). The biggest slowdown in wage growth occurred in the real estate sector: from 16.3% last year to 5.6% in the second half of this year.

Rapid wage growth continued in 2007 in agriculture (25.1% in the first and 22.4% in the second

quarter). This can be explained by the low level of wages and increased EU agricultural subsidies. Based on GDP statistics, subsidies increased by 32.3% (253.5 million kroons) in the second quarter, with most of it channelled to agriculture.

In manufacturing, wages increased at a rate comparable to the average of fields of activity, although slightly faster: by 21.6% in the first and 22.8% in the second quarter (see Table 3).

Table 3. Growth in average gross monthly wages by fields of activity (%)

	2003	2004	2005	2006	Q1 2007	Q2 2007
Average	**9.4**	**8.4**	**10.8**	**16.5**	**20.1**	**21.2**
Tradable sector						
Agriculture	8.9	13.1	17.2	21.0	25.1	22.4
Forestry	13.3	22.9	15.1	8.8	33.4	27.2
Fishery	-4.4	-1.4	3.3	55.3	-3.1	-1.4
Mining and quarrying	9.3	6.6	0.5	15.3	19.8	38.8
Manufacturing	9.0	8.4	12.4	17.5	21.6	22.8
Non-tradable sector						
Electricity, gas and water supply	9.3	6.0	13.5	7.8	18.0	22.3
Construction	13.5	11.7	13.6	18.8	24.2	32.1
Wholesale and retail trade	14.5	2.6	7.0	23.1	22.4	20.5
Hotels and restaurants	17.7	8.5	19.5	13.4	20.7	17.3
Transport, storage and communications	4.1	9.3	10.1	14.3	28.7	21.1
Financial intermediation	9.8	3.0	9.2	3.2	29.1	27.5
Real estate, renting and business activities	-0.4	15.4	4.2	17.6	5.4	5.9
Public administration and defence	8.7	8.2	9.5	13.7	23.7	25.6
Education	9.4	10.3	11.5	10.1	16.9	17.5
Health care and social welfare	15.0	13.9	21.1	14.3	15.3	26.6
Other	8.3	14.3	11.6	12.8	23.3	21.6

Since both employment and wage dynamics were rather uneven across fields of activity in the second quarter, faster growth in relative wages as well as structural changes largely affected also average wage growth. For example, while the number of the employed in the construction sector increased by 21,200 in the second quarter (total employment rose by just 8,600 people), the share of the construction sector in total employment rose by 3.1 percentage points year-on-year (from 9.4% in the second quarter of 2006 to 12.5% in the second quarter of 2007). Given that the construction sector also witnessed very fast gross wage growth (32.1%), the shift in the employment structure also boosted average gross wage growth. Considering only the statistics on fields of activity with regard to the number of the employed and average gross monthly wages, we may say that the impact caused by employment structure changes on average wage growth increased to 0.8 percentage points in the second quarter of 2007 (see Figure 13). This means that the acceleration of average gross wage growth in the second quarter (by 0.9 percentage points) was rather driven by structural changes in employment and not so much faster wage growth.

Figure 13. Impact of changes in employment structure on average wage growth

In reality, structural changes in employment are not limited to movement between fields of activity. Bigger changes occur within fields of activity and within companies, but there are no sufficient statistical data to assess the impact of such changes.

As regards wage growth by regions, in the second quarter of 2007 it was faster elsewhere in Estonia, outside Harju County that has so far stood out for the highest results. While average wage growth in Tallinn and Harju County was 19.4%, the respective figures in Tartu and Tartu County stood at 24.5%, in Viljandi at 25.8% and in Põlva at 24.4%. The situation has also improved in Ida-Viru County where wage levels have usually been the lowest, but where wage growth reached 24.7% in the second quarter, outpacing Estonia's average. Thus, the differences in wages between Harju County and other regions decreased even further, which might also be related to increased mobility of the population.

The situation has slightly changed by sectors and by owners of the place of employment. Last year and in the first quarter of this year, wages increased more vigorously in the private sector. In the second quarter, wage growth was the strongest in the public sector (24.7%) and the lowest in foreign-owned private companies (18.4%). As for companies belonging to Estonian private persons, the growth of average gross monthly wages was 21.8%, i.e. 1.5 percentage points lower than in the first quarter (see Figure 14). The public sector posted better results than other sectors also in terms of wage level.

So far, public sector wage growth has generally been in line with increased tax revenues and

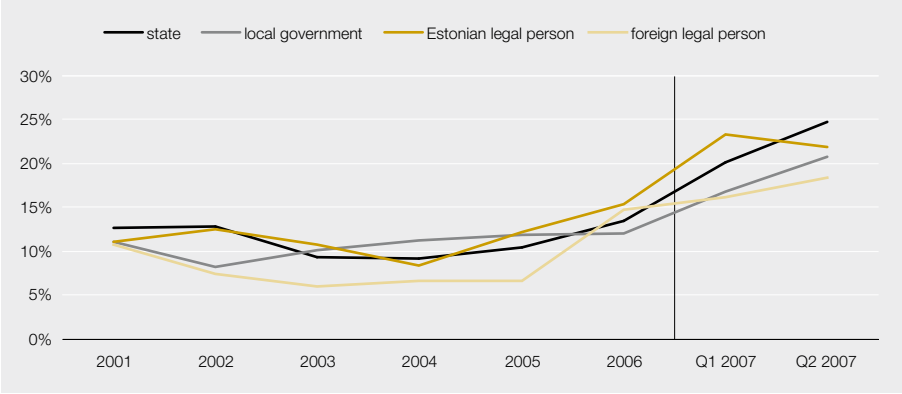

Figure 14. Average wage growth by the owner of the place of employment

stronger wage pressures are not expected in the medium term. Nor are public sector wages so sensitive as to react quickly to changes in the economic situation, in particular at the turning points of the growth cycle. Therefore, when the extremely rapid nominal economic growth began to slow in the second quarter, accelerated wage growth in the public sector was not a problem in itself, provided that it would recede within this year. The adjustment of public sector wage growth should nevertheless be aimed at in next year's budget.

As the economic environment has become more complicated compared to recent years, wage pressures have remained strong also in the private sector. One of the reasons is the ever increasing shortage of highly qualified specialists under the conditions of rapid economic growth. Companies are willing to pay increasingly larger sums of money either to retain them or attract employees from other firms. Supply constraints are also driven by open borders and increased cross-border mobility.

Unit labour costs

The recent rapid wage growth in Estonia indicates that the labour market has changed and that the cost of human capital has risen. The labour market has become increasingly more open and employees have more choices, including the opportunity to go and work outside Estonia, which serves as an additional source of wage pressures, even if it is just an argument.

Based on companies' economic statistics, the growth of the total wage fund did not exceed that of the total value added produced in the first half of 2007 either. The growth rate of value added was even faster that earlier, which in turn gave rise to robust wage growth (see Table 4).

Normally, wage policy in manufacturing companies is directly or indirectly related to labour productivity growth. Therefore, wages might well grow but the growth largely depends on

Table 4. Growth of labour cost and value added based on companies' data (%)

	Q1 2006	Q2 2006	Q3 2006	Q4 2006	Q1 2007	Q2 2007
Fields of activity total						
Labour cost	19.1	20.0	22.1	24.9	30.3	30.3
Value added	27.3	21.5	29.6	30.2	29.0	31.1
Manufacturing						
Labour cost	15.8	16.4	18.6	18.7	22.2	23.2
Value added	20.9	12.8	11.0	18.7	25.1	25.8

the increase in employees' contribution. In other words, wage growth must be in line with productivity growth. When wages and productivity grow at the same pace (though fast), it is considered to be a move up in the value chain and it is even recommended. According to companies' economic statistics, labour costs in the manufacturing sector grew by 22.2% in the first and 23.2% in the second quarter of 2007, whereas the value added created by that very labour force increased even faster – by 25.1% and 25.8%, respectively. Companies have invested in technologies that have even reduced labour costs in relative terms.

Meanwhile, GDP statistics calculated on the basis of a more complex methodology show completely different trends and estimates of the wage-to-productivity ratio.

Last year the share of labour costs in GDP did not grow much, but data on the first two quarters of this year indicate a fast rise, mainly at the expense of profits, approaching again the levels of 2000 (see Figure 15).

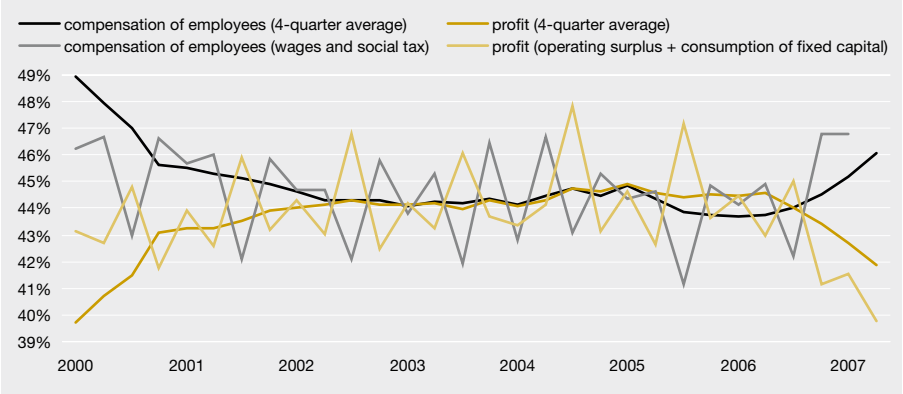

Figure 15. Share of labour cost and profit in GDP

Based on GDP statistics, it is possible to calculate also real and nominal unit labour costs for the economy as a whole as well as by economic sectors.

The real unit labour cost indicator compares the amount of expenditure per employee (mostly wages and taxes on labour) and labour productivity (per employee) at current prices. Practically, the share of value added spent on wages is calculated. Following the definition, the growth rate of unit labour costs is positive when labour costs per salaried employee grow faster than labour productivity in nominal terms. When real unit labour costs increase, it normally indicates a decrease in the share of employer's profit in the value added (GDP).

Nominal unit labour costs compare labour costs per employee with real productivity, not with productivity calculated at current prices. The aim is to analyse inflationary pressures arising from wage growth, as enterprises have to increase prices of their products in order to retain profitability when wage growth exceeds productivity.

Adjusted GDP statistics changed also unit labour cost statistics to a certain extent. According to revised data, real unit labour costs increased by 1.6% in 2006. Taking into account the decrease in the preceding years, all in all real unit labour costs declined by 3.6% in 2006 from 2001 and by as much as 12.1% from 2000 (see Figure 16). The situation changed in the first half of 2007: unit labour cost growth accelerated to 7.8% in the first and to 9.5% in the second quarter. Nominal unit labour cost growth picked up to 7.9% in 2006, to 15.7% in the first quarter of 2007 and to 19.9% in the second quarter. Growth was particularly extensive compared to real unit labour costs, which means that the GDP deflator also grew faster during that period. The growth rate of both indicators was exceptional this year, compared to earlier periods.

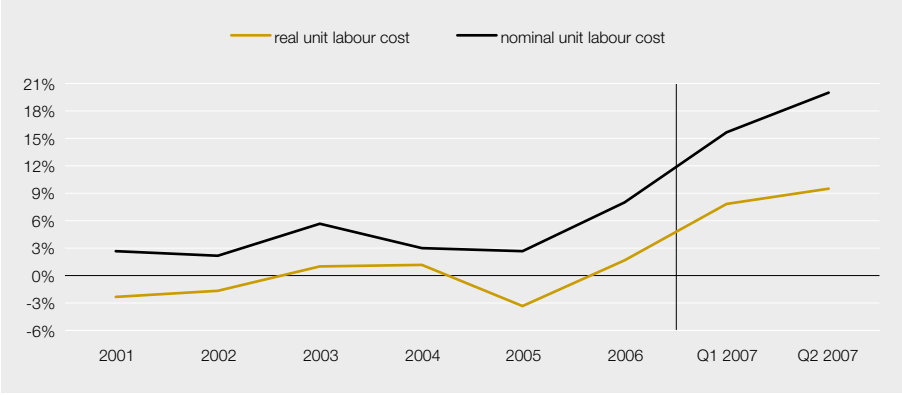

Figure 16. Unit labour cost growth

Considering the differences arising from calculating domestic employment indicators on the basis of national employment statistics, which have been rather large in the last few years, domestic real unit labour costs did not increase that abruptly in 2007, yet still rapidly. Table 5 shows real unit labour cost growth in Estonia on the basis of domestic employment calculated according to Eurostat's data. As can be seen, the indicator increased by just 0.9% in 2006, which is 5.1% below the level in 2001 and 13.6% lower than in 2000.

Table 5. Real unit labour cost growth based on domestic employment (%)

	2000	2001	2002	2003	2004	2005	2006	Q1 2007	Q2 2007
Real unit labour cost	-8.9	-2.4	-1.4	-0.1	1.2	-3.3	0.9	5.3	8.8

Against this background, also the 5.3% and 8.8% growth witnessed in the first and second quarters of 2007 seem slightly less robust, but if such trends persist the relative reduction in profits may become a problem for some investors.

By sectors,[10] in the first half of 2007 real unit labour costs increased faster than average in agriculture and in the fields of activity targeting the domestic market: electricity, gas and water supply, construction, hotels and restaurants and the real estate sector (see Table 6). In agriculture, growth was mainly driven by increased subsidies (from EU Structural Funds as well as Estonian funds owing to the cofinancing requirement). The subsidies probably expanded the wage fund more than the operating surpluses of companies, and income growth in this sector exceeded that of the value added produced. According to the GDP statistics calculated using the income method, subsidies increased by 32.3% in the second quarter of 2007. In the fields of activity targeting the domestic market, the rapid wage growth boosted by earlier strong economic expansion most probably started to reduce profit growth opportunities as economic

Table 6. Unit labour cost growth based on GDP statistics (%)

	2004	2005	2006	Q1 2007	Q2 2007
Real unit labour cost growth					
Total economy	1.1	-3.4	1.6	6.4	9.6
Primary sector	-2.2	5.7	2.9	11.8	34.7
Secondary sector	5.1	-3.1	5.1	8.6	10.5
Private sector service providers	3.0	9.6	-1.2	11.5	12.0
Nominal unit labour cost growth					
Total economy	2.9	2.6	7.9	15.7	19.9
Primary sector	15.5	13.7	-0.2	23.2	55.4
Secondary sector	2.9	2.7	10.1	16.3	20.7
Private sector service providers	4.6	13.2	5.5	14.8	17.0

[10] Only national employment data can be used here.

growth slowed. If these fields of activity react adequately to the changed economic situation in the near future, growth in wages as well as real unit labour costs in these sectors should moderate in less than a year.

In manufacturing, real unit labour costs have grown quite modestly through years. Maintaining the competitiveness of manufacturing companies is important for the economy since a great part of its production is exported. Therefore, it is not advisable that growth in labour costs would exceed growth in productivity during a longer period. In the first and second quarters of 2007, real unit labour costs increased by 3.5% and 3.4%, respectively, in manufacturing (see Figure 17), which cannot be considered a robust change.

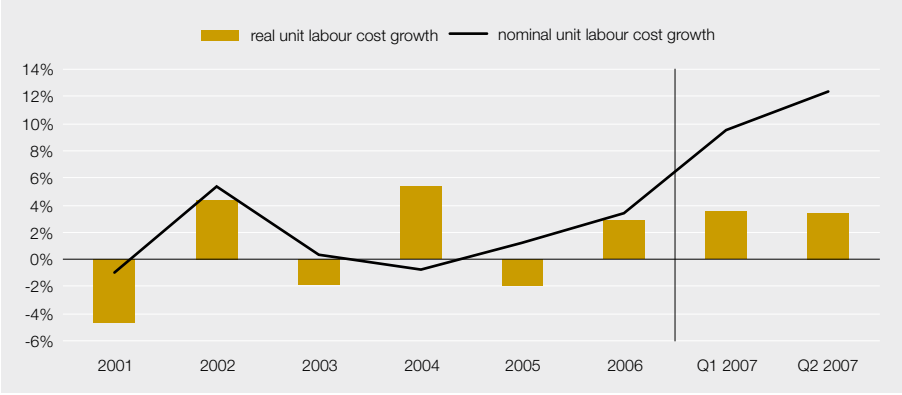

Figure 17. Unit labour cost growth in manufacturing

INSTITUTIONAL DEVELOPMENTS IN THE LABOUR MARKET

Minimum wage in Estonia

On 6 September 2007, the Confederation of Estonian Trade Unions (EAKL) and the Estonian Employers' Confederation (ETKL) commenced negotiations on national minimum wage for 2008. Trade unions seek to have the minimum wage raised to 5,000 Estonian kroons per month and to 29.75 kroons per hour. The current minimum wage is 3,600 kroons per month (21.50 kroons per hour).

New initiatives

The monthly rate that serves as the basis for minimum social tax liability rose from 1,400 kroons to 2,000 kroons at the beginning of 2007 and will rise to 2,700 kroons in 2008. As of 2009, it will be equal to the minimum monthly wage of the preceding year.

Tax policy saw the following changes in the past year:
• Pursuant to the amendment to the Income Tax Act adopted in the summer of 2007, the income tax rate for both employees and companies will gradually fall to 18%: from 22% in 2007 to 21% in 2008, 20% in 2009, 19% in 2010 and eventually to 18% in 2011.

• The amendment to the Income Tax Act also provides for a gradual increase in the non-taxable income threshold to 3,000 kroons per month (2,250 kroons in 2008, 2,500 in 2009, 2,750 in 2010 and 3,000 kroons in 2011).

To promote saving, the Income Tax Act is going to be amended to exempt also income on private persons' securities investments from income tax in case it is reinvested.

In order to reduce health insurance liabilities, the Health Care Services Organisation Act and the Estonian Health Insurance Fund Act were amended at the beginning of 2007. It was decided to finance hospitals' capital expenditure, i.e. depreciation of buildings and facilities, additionally from the state budget. This enables to use the released resources for investments and improve the availability and quality of health care services.

Implementation of the Estonian Action Plan for Growth and Jobs

The progress report on the "Estonian Action Plan for Growth and Jobs 2005–2007 for implementation of the Lisbon Strategy" shows that under the national programme for increasing the supply of qualified labour in 2007–2009 financed during the new European Social Fund programming period for 2007–2013, aims to enhance employment and activity, and reduce unemployment and inactivity in the labour market.

On 2 August 2007, the Government adopted the implementation plan for the years 2007–2009 of the "Estonian Higher Education Strategy 2006–2015". The main objective of the plan is to ensure enhanced international competitiveness of higher education. To raise the quality of education, the base value of one student place will be raised by 30%, which gives higher educational institutions the opportunity to raise the wages of faculty members. The formula for financing universities will be reviewed as well. Moreover, subsidies of the European Regional Development Fund will be used to increase investments in buildings and furnishings of educational establishments.

On 14 June 2007, the Government approved the proposals of the Ministry of Economic Affairs and Communications to simplify the procedures related to citizens of third countries working in Estonia. This entails shortening the time of procedures and reducing red tape upon registration of short-term employment of foreigners and applying for residence permits for long-term employment. The whole plan is based on the principle that foreign labour is substantiated in case of qualified labour. This in turn will be ensured by imposing a wage criterion. Respective legal amendments will be prepared by November 2007.

Furthermore, on 14 June 2007 the Government also adopted the Draft Act to amend the Public

Service Act. The new Draft Act excludes the provisions that allow release from service of officials who turn 65. This will significantly broaden employment opportunities for older people.

The Government's action plan for 2007–2011 aims at modernising the labour market and making it more flexible. An efficient labour market policy is already in place, but the labour law is outdated and needs updating. The concept for a new Employment Contracts Act was submitted to the Government in September. The deadline for submitting the final Draft Act and related legislation is the end of 2007. In addition, consultations with social partners and other interested parties are to be conducted. Legislative proceeding in Riigikogu has been planned in the first half of 2008.

Conclusion

• Employment and unemployment developments in the labour market in the first half of 2007 were in line with slowing economic growth: unemployment decreased and employment increased further, although at a more modest pace.

• The growth in labour supply targeting the domestic market is declining due to demographic processes as well as opportunities to work abroad, whereas demand pressure is weakening. This means that wage growth is not expected to accelerate further in the near future.

• The cost of labour increased too fast in the last half-year. With growth in value added slowing, the stabilisation of wage growth might be insufficient.

• As regards wage growth, so far a "darker" scenario has materialised. Real unit labour cost growth is one of the reasons behind increased inflationary pressures. Faster wage cost growth may cause problems also in the future. Namely, besides stimulating inflationary pressures, it may lead to lower profitability, reduction in investment, slower economic growth, further deterioration of the external balance, loss of competitiveness, etc.

• The opening of the labour market has undermined the flexibility of the labour market, as reduced demand need not bring along increased unemployment. This, in turn, will put pressure on the cost of labour, which is an important production input. A serious alternative is to work abroad. Also the constraints on wage growth arising from increased unemployment may turn out to be weaker than earlier.

• So far, developments in the tradable sector have been more in line with productivity growth. In the non-tradable sector, however, wage pressures on prices raise more concerns. In manufacturing, the number of jobs decreased further, but this was offset by robust productivity growth.

• Further developments regarding wage pressures will be affecting also the economic adjustment process. If wage growth does not slow in the near future, the probability of "hard landing" will increase.

Table 7. Estonian labour market

		2004	2005	2006	2007	
Population (as at 1 January)	thousand	1,351.1	1,347.0	1,344.7	1,342. 4	
Employment status (15 to 74 year-olds)		**2004**	**2005**	**2006**	**Q1 2007**	**Q2 2007**
Workforce	thousand	659.1	659.6	686.8	683.3	693.5
employed	thousand	595.5	607.4	646.3	647.0	658.6
unemployed	thousand	63.6	52.2	40.5	36.3	35.0
Inactive	thousand	388.7	389.0	362.3	363.1	352.8
Total	thousand	1,047.8	1,048.6	1,049.1	1,046.4	1,046.4
Labour participation rate	%	62.9	62.9	65.5	65.3	66.3
Employment rate	%	56.8	57.9	61.6	61.8	62.9
Unemployment rate	%	9.7	7.9	5.9	5.3	5.0
Employed by fields of activity		**2004**	**2005**	**2006**	**Q1 2007**	**Q2 2007**
Agriculture, forestry and fishery	thousand	35.0	32.2	31.1	27.1	29.3
Mining and quarrying	thousand	8.0	5.9	5.2	6.1	5.2
Manufacturing	thousand	140.9	139.5	136.4	146.5	136.6
Electricity, gas and water supply	thousand	12.0	12.5	12.4	9.0	9.6
Construction	thousand	46.8	48.7	62.8	72.6	82.6
Wholesale and retail trade	thousand	80.0	80.6	88.7	88.7	91.3
Hotels and restaurants	thousand	16.2	22.1	22.3	20.5	25.4
Transport, storage and communications	thousand	51.5	54.6	61.5	59.0	62.7
Financial intermediation	thousand	7.9	6.9	7.3	7.6	7.9
Real estate, renting and business activities	thousand	39.4	46.4	48.1	51.7	44.4
Public administration and defence	thousand	36.9	37.2	39.0	34.4	40.1
Education	thousand	54.5	54.9	58.5	53.3	52.3
Health care	thousand	37.5	35.0	37.5	34.4	35.5
Other	thousand	28.8	31.1	34.3	36.1	35.5
Unemployed by duration of unemployment		**2004**	**2005**	**2006**	**Q1 2007**	**Q2 2007**
Less than 6 months	thousand	21.2	18.6	15.7	14.0	14.9
6 to 11 months	thousand	9.2	5.7	5.3	3.0	3.4
12 months or more	thousand	33.2	27.9	19.5	19.3	16.6
24 months or more	thousand	21.5	18.2	11.4	10.6	8.7
Inactive by reason of inactivity		**2004**	**2005**	**2006**	**Q1 2007**	**Q2 2007**
Studies	thousand	123.1	126.1	124.4	117.9	115.5
Illness or disability	thousand	43.3	47.0	51.3	57.1	51.9
Pregnancy, maternity or parental leave	thousand	27.2	27.1	23.8	27.1	26.9
Need to take care of children or other family members	thousand	13.7	14.0	13.9	13.9	13.5
Retirement age	thousand	149.4	145.4	129.5	128.1	128.7
Discouraged people (lost hope to find work)	thousand	17.7	14.7	7.2	8.0	6.8
Other	thousand	14.4	14.6	12.2	11.1	9.6
Workforce by level of education		**2004**	**2005**	**2006**	**Q1 2007**	**Q2 2007**
First level and less	thousand	73.2	65.1	75.3	68,2	73,9
Second level	thousand	375.6	367.4	376.4	383,2	382,2
Third level	thousand	210.3	227.0	235.0	231,9	237,4
vocational secondary education	thousand	70.0	67.6	70.5	74,9	76,7
higher education	thousand	140.4	159.5	164.6	156,9	160,6