Economics Department
Economic Policy Office

Labour Market Review

Orsolya Soosaar
Natalja Viilmann
Ülo Kaasik

October 2006

Main developments in the first half of 2006

The first half of 2006 witnessed extremely fast economic growth, which clearly reflected also in labour market indicators (see Figure 1 and Table 1). High demand for labour spurred employment growth to record 6.8% and 6.7% in the first and second quarter of 2006[1] from 2% the year before. Meanwhile the number of Estonian residents working abroad most likely also increased significantly. For the second consecutive year, employment increased mainly in the services sector but also in construction.

Along with improved prospects of finding well-paid jobs, the labour participation rate[2] of those aged 15 to 74 increased to 66% by the second quarter of 2006. The principal entrants to the labour market were the inactive in their prime working age as well as the elderly in Southern Estonia and Ida-Viru County. The number of the discouraged and people inactive[3] due to retirement decreased considerably.

Average wages grew faster than Eesti Pank had foreseen in its 2006 spring forecast: the growth accelerated from 10.8% in 2005 to 15.7% in the first quarter of 2006 and to 15% in the second quarter. Taking into account the employment growth estimate in the Estonian labour force survey, real productivity[4] grew at the same time 4.6% and 4.7%, respectively, while nominal productivity[5] increased 10.4% and 11.3%. Hence wage growth significantly outpaced that of productivity. Meanwhile the share of the wage fund in GDP continued to decline. This means that GDP statistics do not confirm that wage growth has outpaced productivity growth. This review briefly tackles one of the possible solutions to the discord – namely the hypothesis that the statistics in the labour force survey underestimate the number of those employed abroad, which in turn leads to underestimating productivity growth.

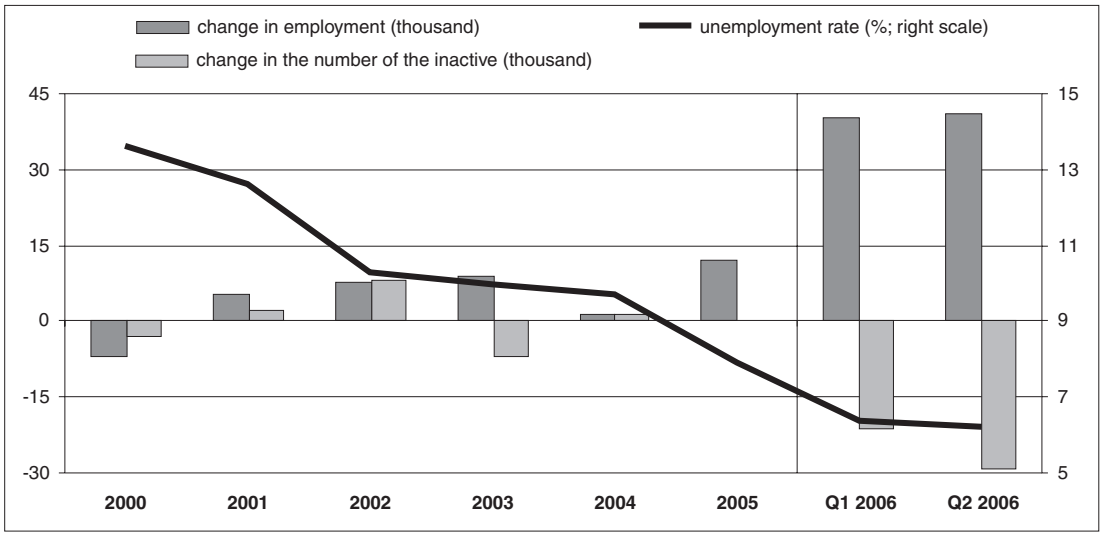

Figure 1. Main labour market indicators

[1] Here and hereinafter the data of the Statistical Office of Estonia, the Estonian Labour Market Board, the Estonian Institute of Economic Research and Eurostat have been used.
[2] Labour participation rate equals the weight of the employed and the unemployed in the working age population.
[3] A person is inactive when he/she does not work and is not looking for work either.
[4] Real productivity is the ratio of GDP at constant prices to employment.
[5] Nominal productivity is the ratio of GDP at current prices to employment.

Table 1. Main labour market indicators

	Change y/y (%)				Change y/y (thousand people)			
	2004	**2005**			**2004**	**2005**		
Population (as at 1 January)	-0.37	-0.26			-5.0	-3.6		
Employment status (15 to 74 years old)	**2004**	**2005**	**Q1 2006**	**Q2 2006**	**2004**	**2005**	**Q1 2006**	**Q2 2006**
Workforce	-0.2	0.1	3.3	4.5	-1.4	0.5	21.7	29.7
employed	0.2	2.0	6.8	6.7	1.2	11.9	40.2	40.9
manufacturing	5.1	-0.9	5.3	-5.3	6.8	-1.4	7.0	-7.8
unemployed	-3.9	-17.9	-29.7	-20.7	-2.6	-11.4	-18.5	-11.2
less than 6 months	-17.2	-12.3	-22.8	-5.1	-4.4	-2.6	-4.7	-0.9
6–11 months	-9.8	-38.0	-32.6	-10.8	-1.0	-3.5	-2.8	-0.8
12 months or more	9.2	-16.0	-33.3	-33.0	2.8	-5.3	-11.0	-9.5
24 kuud või rohkem	7.0	-15.3	-29.9	-40.5	1.4	-3.3	-6.0	-7.9
Inactive	0.3	0.1	-5.4	-7.6	1.3	0.3	-21.3	-29.1
Total	0.0	0.1	0.0	0.0	0.0	0.8	0.5	0.5
	Level (%)				**Change (percentage points)**			
Participation rate	62.9	62.9	64.7	66.0	-0.1	0.0	2.1	2.8
Employment rate	56.8	57.9	60.5	62.0	0.1	1.1	3.8	3.9
Unemployment rate	9.7	7.9	6.4	6.2	-0.3	-1.8	-3.1	-1.9
Wages	**2004**	**2005**	**Q1 2006**	**Q2 2006**	**2004**	**2005**	**Q1 2006**	**Q2 2006**
	Level (EEK)				**Change (%)**			
Average gross monthly wages	7,287	8,073	8,591	9,531	8.4	10.8	15.7	15.0
manufacturing	6,696	7,526	8,048	8,824	8.4	12.4	15.8	15.7
Average net monthly wages	5,675	6,411	6,952	7,623*	9.6	13.0	17.2	15.8*
Minimum wages	2,480	2,690	3,000	3,000	14.8	8.5	11.5	11.5

* authors' estimates

The third part of the review analyses institutional developments of the labour market. The recently adopted national budget for 2007 foresees quite a significant rise in jobseeker's allowances and subsistence benefits. In some cases increasing the benefits might reduce the motivation to accept work for minimum wages. At the same time, the reservation wages of the unemployed significantly exceed the minimum wages and thus the actual impact of the above-mentioned changes most probably remains marginal.

Labour supply and demand

Labour force participation and economic inactivity

The inactivity and labour participation rates changed drastically in the first half of 2006. While in 1999–2005 the rate of labour participation in the age group of 15 to 74 fluctuated near 63%, then in the first and second quarters of 2006 the indicator rose sharply to 64.7% and 66%, respectively. Year-on-year 21,700 and 29,700 people, respectively, entered the labour market.

In the first quarter, labour force increased across all age groups (see Figure 2). The biggest growth was registered in the group of people in the prime working age (aged 25 to 49), i.e. by 8,600 people. In the second quarter, the number of people in the prime working age and the elderly (aged 50 to 74) in the labour force grew by 12,200 and 17,800, respectively. While in the first quarter the number of young people (aged 15 to 24) in the labour force increased by 6,800 year-on-year, in the second quarter the respective indicator decreased by 300.

The labour participation rate reflects changes in people's behaviour in the labour market better than changes in the number of the employed. The number of people participating in the labour force (the employed and the unemployed) may change also due to population decline or growth, which is mainly determined by population events – the birth rate and the death rate.

Throughout the years, the participation of the young in the labour force has witnessed the sharpest and the biggest decline. When in 1999 the rate amounted to 45%, then in 2004–2005 it stood at just 34%. In the first half of 2006, it increased by an average of 1.1 percentage points, but considering the volatility of the indicator, the change was marginal.

Much more significant was the rise in the activity of the people in the prime working age by 2.4 and 3.2 percentage points in the first and second quarter from 86% in recent years. The 1.6 and 4.6 percentage point rise in the activity of the elderly, which marked the acceleration of a years-long trend, should also be noted.

Strong demand for labour, which considerably increased the prospects of finding a suitable job, undoubtedly had the biggest impact on the labour market behaviour of the people in the prime working age. This is confirmed by the drastic fall (by more than a half compared to the first half of

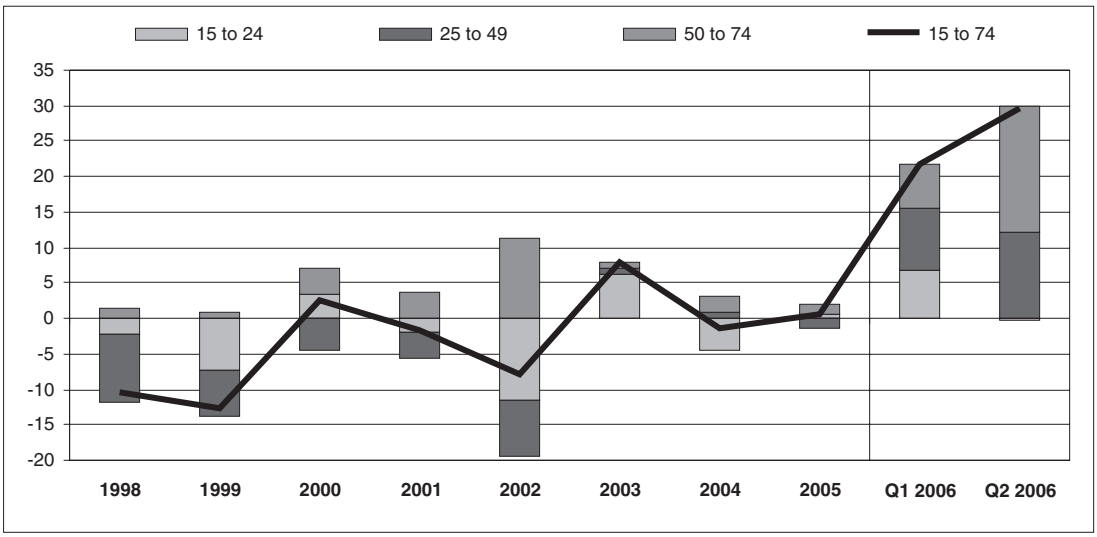

Figure 2. Contribution to employment growth by age groups (thousand people)

2005) in the number of the discouraged, i.e. those who have lost hope of finding work. The long-time growth in the activity of the elderly has been caused by the gradual increase in the retirement age, but in the past six months also improved job and salary prospects have undoubtedly contributed to it. The number of those inactive due to retirement decreased in the first half of 2006 by an average of 15,700 people.

The activity rate of the working age population differs quite a bit by regions. To some extent, this is affected by the age structure of the working age population; however, differences persist also across narrower age groups. Historically, the activity rate has been the highest in Harju County and in Tallinn (some 69–70%) and the lowest in Võru County (about 50–51%). In the past six months, however, the increase in activity has been supported namely by the population of Southern Estonia and Ida-Viru County (see Figure 3).

Employment

The extremely robust economic growth in 2005 continued during the first half of 2006. Employment growth picked up from 2% to 6.8% and 6.7% in the first and second quarter (slightly more than 40,000 people in both quarters; see Figure 4). It is likely that the number of people working abroad grew faster than the number of those employed in Estonia. This is confirmed by corporate statistics, according to which employment growth did not accelerate significantly, data on tax receipts as well as the compensations of employees on the income side of GDP. The growth in the number of the employed in Estonia still accelerated to at least 4–5% (see the background information "Employment growth assessment in the Estonian Labour Force Survey and people employed abroad").

By sectors, employment increased mainly in the services sector (7.5% in the first and 9.2% in the second quarter). Though in the industrial sector employment growth slowed down, it still remained fast (7.7% in the first and 3.7% in the second quarter). In the agriculture, forestry and fishing, the employment rate declined further (1.1% in six months).

In the services sector, employment increased across almost all fields of activity with a year-on-year decline just in healthcare. The biggest rise in employment (by 10,500 people from the first half of 2005) was seen in wholesale and retail trade as well as in transport, storage and communications (7,000 new

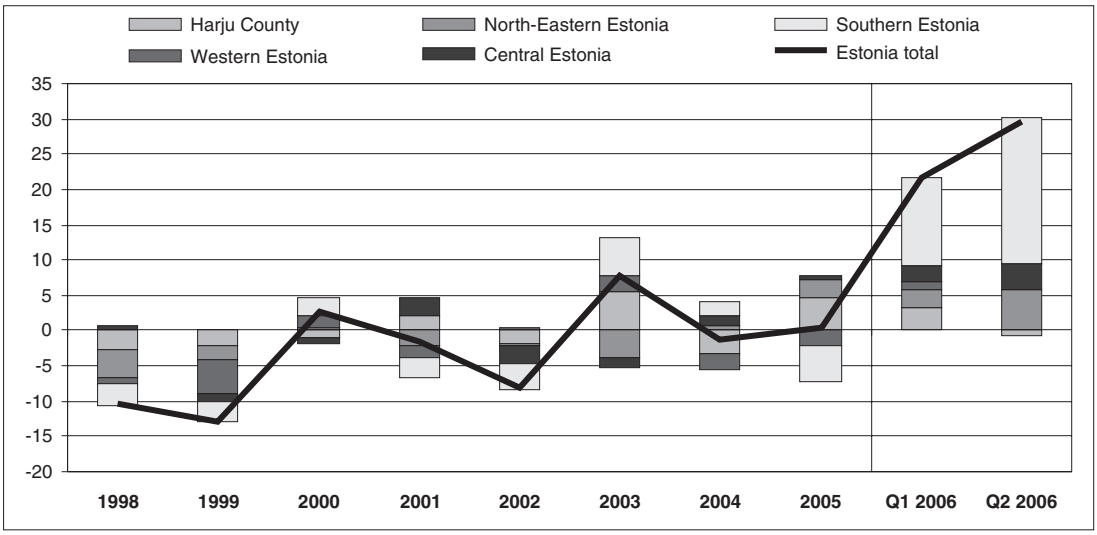

Figure 3. Contribution to employment growth by regions (thousand people)

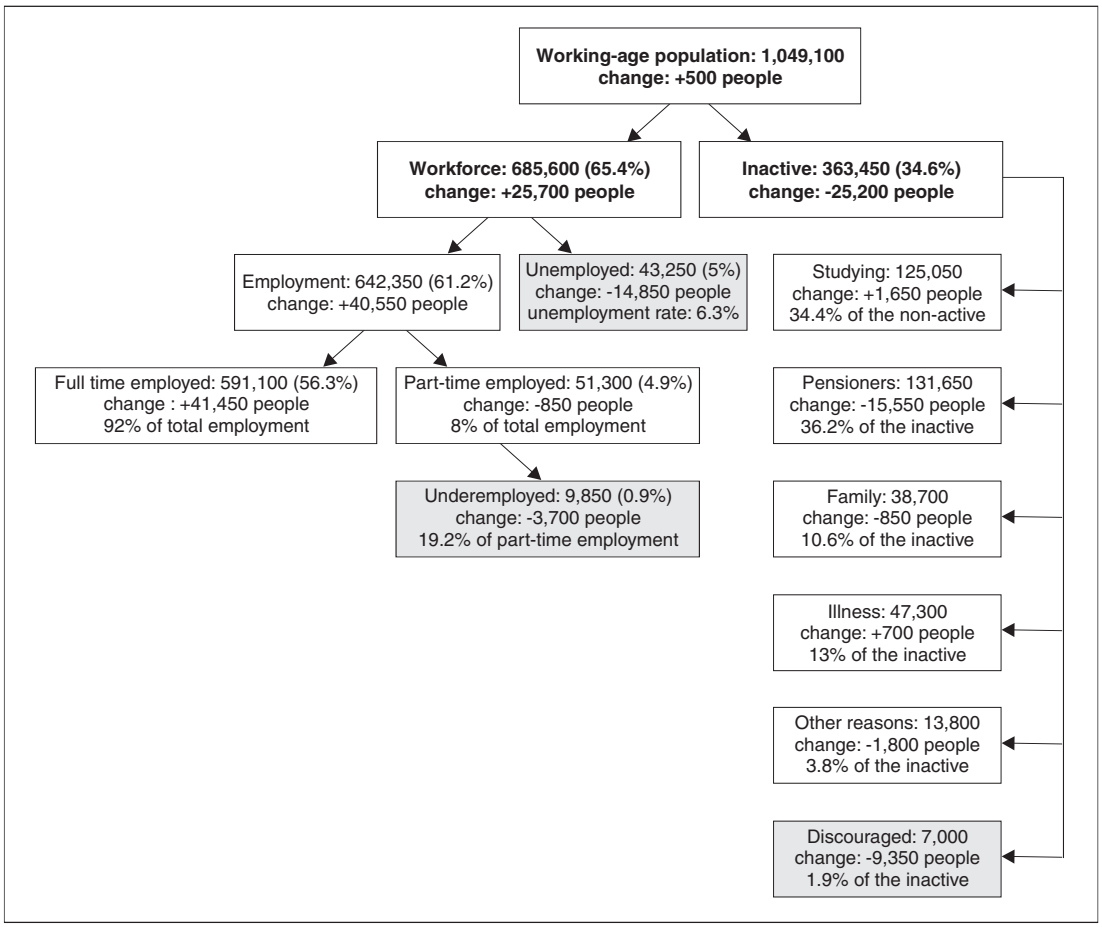

Figure 4. Estonian labour market in the first half of 2006 and the change compared to the same period in 2005 (% of the working population, i.e. 15 to 74 years old)

employees). In terms of growth rates, the largest employment growth occurred in financial intermediation (18.2%), in the field of hotels and restaurants as well as in public administration (14.2% in both).

As regards the fields of activity in the industrial sector, employment grew only in the construction area, but that growth was very robust: 28% (i.e. 12,500 people) compared to the first half of 2005. This partly results from the still thriving real estate market, but it also reflects the growing tendency to work in the construction sector abroad. Employment in the manufacturing sector remained by and large at the level of the first half of 2005.

Employment growth remained positive across all the five regions of Estonia during the entire first half of 2006. Employment grew the most in Northern Estonia, where the number of the employed increased by nearly 15,900 in the first and by 11,000 in the second quarter, and Southern Estonia (by 12,000 and 16,300, respectively). Employment grew the fastest in Southern Estonia (10.1% as the six-month average) and Ida-Viru County (8.7%).

Similarly to the labour participation rate, the employment rate varies considerably by regions. Historically, it has been the highest in Tallinn (67.4% in the first half of 2006) and the lowest in Ida-Viru County

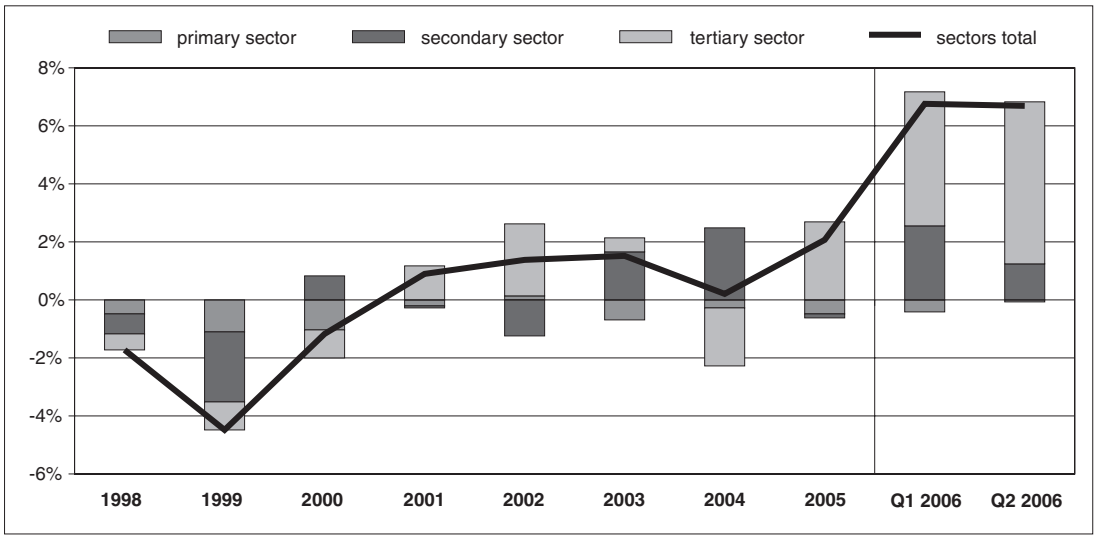

Figure 5. Employment growth and contribution to growth by sectors (%)[6]

(55%). The employment rate among those aged 15 to 74 increased from 57.4% to 61.3%. Regionally, growth was the most extensive namely in the areas of low employment rate – in Southern Estonia and Ida-Viru County (more than 5 percentage points). In Southern Estonia, the employment rate increased across different age groups while in Ida-Viru County the indicator went up significantly just among the elderly (aged 50 to 74).

All in all, the share of salaried employees in total employment remained at the level of the first half of 2005, i.e. close to 91.5%. In agriculture, the share of salaried employees increased even more, while declining by 3 percentage points in the first and second quarter in construction and by 3 and 7 percentage points, respectively, in the real estate sector. The number of part-time employees declined further, which was well expected in the light of strong demand for labour.

Contrary to 2005 when employment growth resulted directly from the rise in the number of white-collar workers[7] while that of blue-collar workers[8] declined, in the first six months of 2006 employment grew on account of blue-collar workers. This is in line with the increase in the number of sales staff and skilled construction workers.

Vacancies

Although the statistics on vacancies of the Labour Market Board are not representative and thus do not extend to the entire Estonian economy, this analysis makes use of such statistics as one possible indicator of labour demand. Figure 6 depicts announcements on vacant jobs submitted to the Labour Market Board in a certain period and the stock of announcements valid at the end of that period. During the first seven months of 2006, the database of the Labour Market Board included an average of 48% more valid job announcements as in the same period in 2005. The growth in the number of announcements submitted during one month has been rather volatile across months, but it seems to have halted by now. The rise in the number of valid announcements means that the number of incoming vacancy announcements

[6] Primary sector – agriculture, forestry, fishing; secondary sector – manufacturing; tertiary sector – services.
[7] White-collar workers: lawmakers, senior officials and executives; specialists and technicans; officials.
[8] Blue-collar workers: service and sales staff; skilled workers in agriculture and fishing; skilled workers and craftsmen; operators of equipment and machinery; unskilled workers; military personnel.

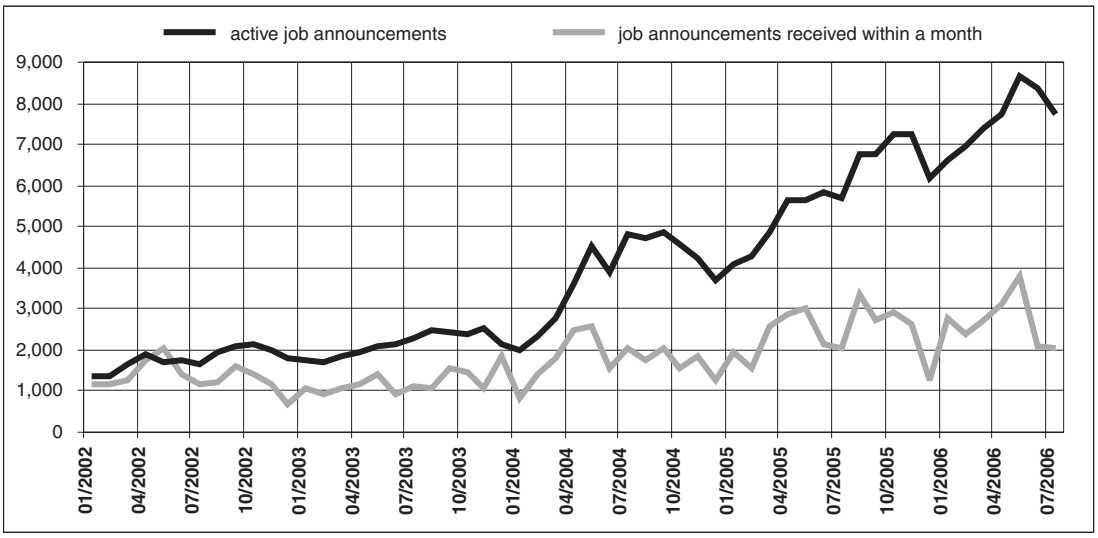

Figure 6. Job announcements submitted to the Labour Market Board

still exceeds the number of those who have found work through the Labour Market Board.

Unemployment

The rate of unemployment among those aged 15 to 74 was only 6.4% in the first quarter of 2006 and 6.2% in the second quarter. The average number of the unemployed in the first six months was 43,250, which was 25.6% (14,850) less than in the first half of 2005. The number of the long-term unemployed fell faster than that of the short-time unemployed, and as a result their share in the unemployed decreased from 53.2% to 47.8% (see Figure 7). This certainly resulted from the fact that part of the inactive who returned to the labour market moved into the group of the short-term unemployed.

Youth unemployment continued to decline fast, decreasing from 17.5% in the first half of 2005 to 13.3% in the first half of 2006. The unemployment rate among people in the prime working age stood at 6.2% while the respective indicator among the elderly was just 3.9%. There was a sharper unemployment decline among non-Estonians than among Estonians. The indicator declined from 9.6% to 6.3% as an average of six months while the respective indicator among Estonians fell from 3.5% to 3%.

The unemployment rate is still the highest in Ida-Viru County: 14.7% (17.7% in the first half of 2005). The decrease in unemployment was the sharpest in Tallinn (from 8.7% to 4.1%) where employment growth did not lead to higher activity. In Southern Estonia, where the labour participation rate increased notably, besides employment also unemployment increased. This means that some of those who returned to the labour market did not find work immediately.

The decline in registered unemployment accelerated during the first eight months of 2006, amounting to as much as 39% (-30% at the same time in 2005). At the end of August 2006, just 13,100 unemployed had been registered with the Labour Market Board. According to the consumer barometer of the Estonian Institute of Economic Research (EKI), Estonian households estimated the likelihood of unemployment to be lower than in the first half of 2005 (see Figure 8).

In conclusion, it can be said that fast economic growth affected the labour market more in the first half of 2006 than in 2005. Though it remains unclear precisely how much the growth in the number of those working abroad affected employment growth, we could still claim that the employ-

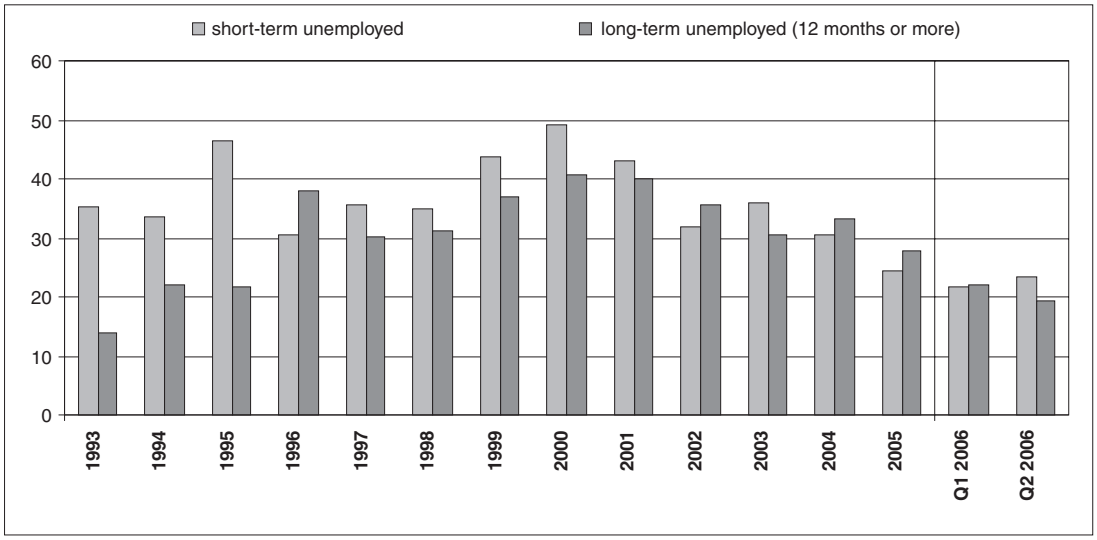

Figure 7. Number of short-term and long-term unemployed (thousand people)

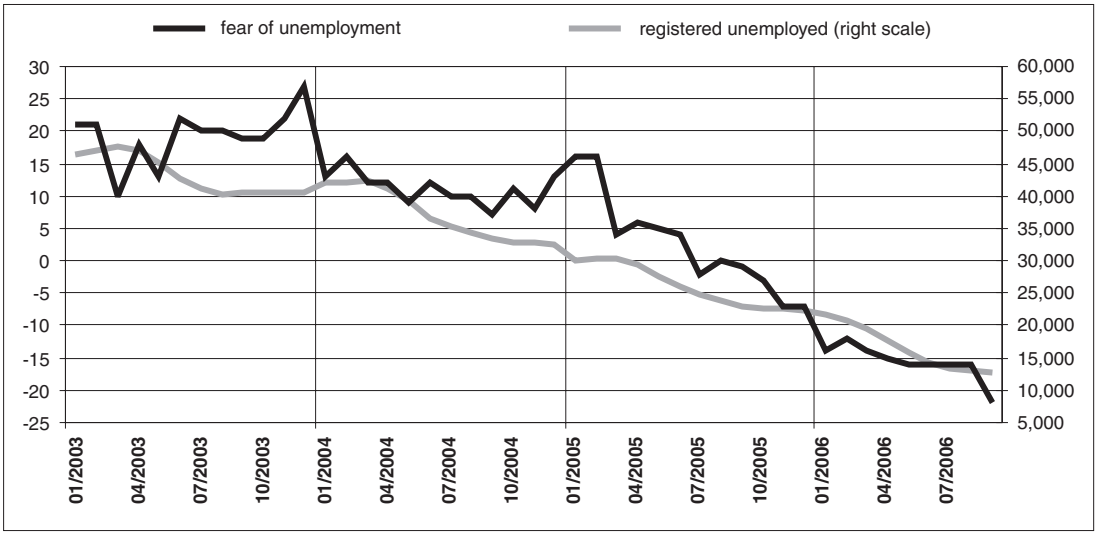

Figure 8. Fear of unemployment according to the consumer barometer of the Estonian Institute of Economic Research and registered unemployment (thousand people)

ment growth in Estonia accelerated significantly. Employment increased mainly in the construction and services sectors. Although a part of the services sector (e.g. hotels and restaurants) is clearly export-oriented, such employment growth reflects above all strong domestic demand. For two consecutive quarters we witnessed the long-expected rise in activity in the labour market, which is a very positive development. A downside is that activity increased mainly in two regions: in Southern Estonian and Ida-Viru County. But considering the fact that the labour participation rate in Southern Estonia is below the Estonian average, a rise there could be expected.

Labour costs and price pressures

Average wages

The average wage growth accelerated further in the first and second quarter of 2006, which could be expected given the fast rise in employment. Gross monthly wages increased 15.7% year-on-year in the first quarter and 15% in the second quarter. Average gross hourly wages increased 13.8% and 17%, respectively. Also the growth in real wages was above 10%, which means that the purchasing power of salaried employees is robustly increasing. The difference in the growth of net and gross wages still arises from reducing the personal income tax rate and raising the non-taxable income threshold (see Figure 9).

The six-month average rise in wages was the fastest in agriculture (23%) and wholesale and retail trade (21.5%; see Table 2). The fast rise in agricultural wages can probably be explained by a low level of wages (it is still lower only in the field of hotels and restaurants) and the impact of the European Union agricultural subsidies. Employment increased rapidly in trade, whereas there are signals about a shortage of qualified labour. In fishery, the full-time equivalent number of salaried workers is very small (less than one thousand people) and this figure fluctuates quite a lot during different times, and therefore also the estimates of average wages are very hectic.

Wage growth picked up in the field of real estate, renting and business activities. It quite expectedly slowed down in healthcare from 21% last year to 12.8% as the impact of the wage agreement concluded at the end of 2004 subsided. Manufacturing wages increased 15.7%, i.e. approximately as fast as the average of all fields of activity (the average of the overall economy was 15.3%).

Just like in 2005, wage growth in the tradable sector outpaced that of the non-tradable sector[9] during the first half of 2006 (see Table 2), but the difference was very small.

Similarly to 2005, also during the first half of 2006 wages increased faster in the private sector. In foreign-owned companies wage growth picked up to more than 16% in the first quarter from a modest level of 6% to 7% in the years 2003–2005 (see Figure 10). Also the 12% growth in the second quarter was much faster than during previous periods. Either

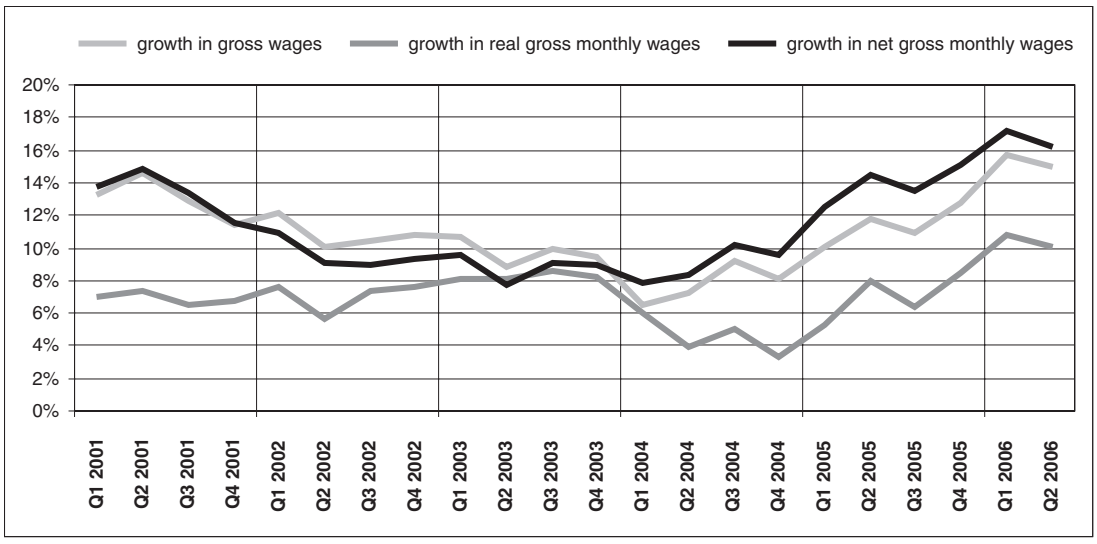

Figure 9. Developments in average wages (%)

[9] An economic sector is non-tradable when its enterprises do not compete with foreign enterprises.

Table 2. Growth of average gross monthly wages by fields of activity (%)

	2002	2003	2004	2005	Q1 2006	Q2 2006	First h/y 2006
Average of fields of activity	**11.5**	**9.4**	**8.4**	**11.4**	**15.7**	**15.0**	**15.3**
Tradable sector	**9.6**	**9.5**	**8.7**	**12.7**	**15.8**	**15.9**	**15.9**
Agriculture	18.3	8.9	13.1	18.0	23.5	22.5	23.0
Forestry	3.4	13.3	22.9	16.6	4.7	9.5	7.2
Fishery	19.4	-4.4	-1.4	4.5	62.2	43.4	52.4
Mining and quarrying	9.0	9.3	6.6	0.6	13.8	16.0	14.9
Manufacturing	10.0	9.0	8.4	12.8	15.8	15.6	15.7
Non-tradable sector	**12.1**	**9.6**	**8.2**	**10.8**	**15.5**	**14.8**	**15.2**
Electricity, gas and water supply	8.8	9.3	6.0	13.6	4.4	7.0	5.8
Construction	12.6	13.5	11.7	14.6	23.4	13.7	18.2
Wholesale and retail trade	9.8	14.5	2.6	7.1	21.2	21.7	21.5
Hotels and restaurants	-5.8	17.7	8.5	22.1	5.6	15.8	10.7
Transport, storage and communications	9.4	4.1	9.3	10.7	11.7	13.4	12.6
Financial intermediation	8.2	9.8	3.0	9.8	5.0	2.9	4.1
Real estate, renting and business activities	28.9	-0.4	15.4	6.1	18.4	16.6	17.4
Public administration and defence	12.7	8.7	8.2	9.6	11.2	13.9	12.6
Education	12.5	9.4	10.3	11.4	10.6	9.5	10.0
Health care and social welfare	4.5	15.0	13.9	21.0	10.9	14.5	12.8
Other	7.4	8.3	14.3	12.2	10.7	11.0	10.9

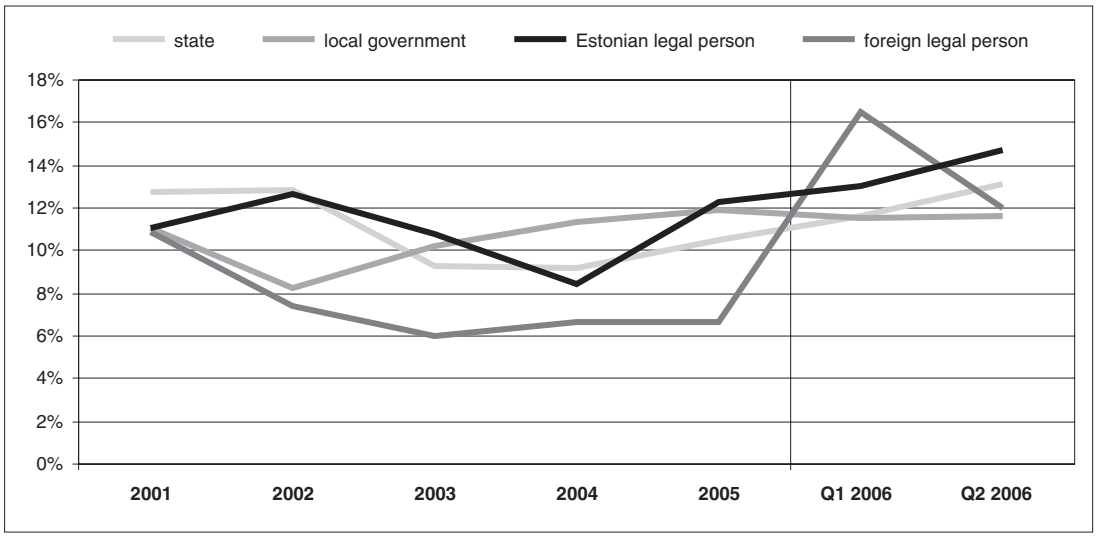

Figure 10. Average wage growth by the owner of employer (%)

a change in the structure of salaried employees in such companies or just the implementation of a long due pay rise in quite strenuous labour market conditions may lie behind the growth. In Estonian companies wages grew somewhat faster than in state or local government agencies (see Figure 11). In the future, wages are expected to pick up in the public sector as well since several state agencies are already now facing staffing problems due to a lower level of wages compared to the private sector.

In Tallinn, where the level of wages is the highest, wage growth accelerated from 7.3% in 2005 to 14.5% in the first half of 2006. The wages grew above average (nearly 18%) in Western Estonia: in Pärnu, Saare and Tartu Counties. In Ida-Viru County, where the level of wages is the lowest, the growth in wages remained below the average in Estonia, amounting to 12.7%.

Unit labour costs

The real unit labour cost indicator compares the amount of expenditure per employee (mostly wages and taxes on labour) and labour productivity at current prices. Practically, the share of the 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 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 their profitability when wage growth exceeds productivity.

The adjustment of the GDP statistics for 2000–2005 this September significantly changed the dynamics of real and nominal unit labour costs in that period. As can be seen in Figure 11, the increase in real unit labour costs was much more volatile according to the new data (much faster in 2003–2004 and slower in 2005) than based on the old data. The same applies to nominal unit labour costs, whereas the growth of the real indicator changed more than that of the nominal indicator.

According to the adjusted data, nominal unit labour costs increased 3.7% (instead of 5.1%) in the first quarter of 2006, while real unit labour costs continued the decline that had started in early 2005 (see Figure 12). Even though the growth rate of both indicators has accelerated since 2005, it is still not substantial against the background of longer time series. Nevertheless, the core inflation rate has picked up since 2005 and it is likely that also labour costs have affected that.

As already mentioned in the employment growth analysis, the gap between the growth rate of the

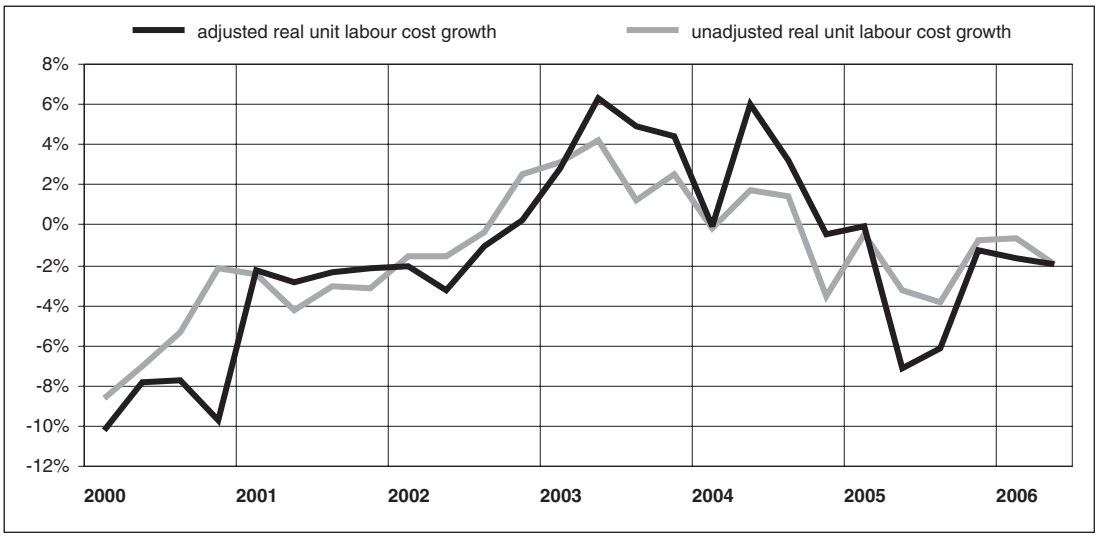

Figure 11. Growth in real unit labour costs based on adjusted and unadjusted GDP data (%)

wage fund from the GDP statistics and the wage fund estimate based on the average wages and employment statistics in the Estonian labour force survey increased significantly in the first quarter of 2006. It can be partly explained by the fact that people working abroad are reflected in the labour force survey. The following background information explains this hypothesis in more detail.

In the first quarter of 2006, both real and nominal unit labour costs grew faster than average in the fields of construction and real estate, renting and business activities. Nominal unit labour costs increased in financial intermediation. As can be seen in Table 3, manufacturing indicators, which are important from the aspect of export competitiveness, have grown modestly.

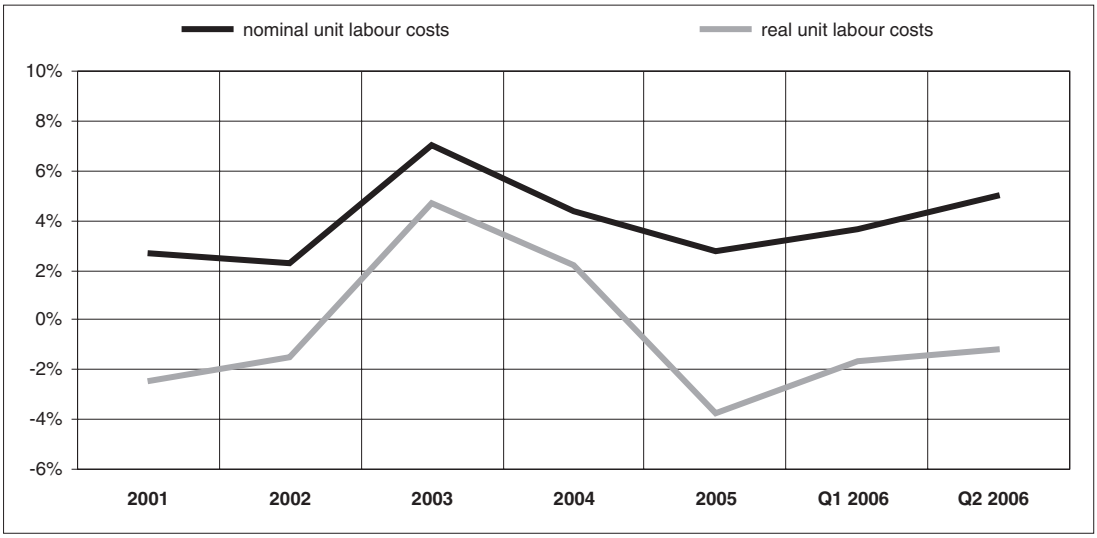

Figure 12. Growth in real and nominal unit labour costs (%)

Table 3. Unit labour cost growth based on GDP statistics (%)

	2001	2002	2003	2004	2005	Q1 2006	Q2 2006
Real unit labour cost growth							
Total economy	-2.4	-1.5	4.7	2.2	-3.8	-1.7	-1.2
Primary sector	9.8	5.6	0.7	-2.0	-7.3	0.8	-3.8
Secondary sector	-4.0	0.5	7.0	2.4	-3.2	0.3	-0.8
Private sector service providers	-1.4	-3.7	6.2	3.7	-2.0	-1.6	-1.3
Public sector	-2.9	-0.9	0.1	1.8	-0.7	-1.5	2.5
Nominal unit labour cost growth							
Total economy	2.7	2.2	7.1	4.4	2.8	3.7	5.0
Primary sector	26.7	-3.0	-3.6	20.9	3.2	7.5	16.4
Secondary sector	2.1	4.0	10.4	2.0	1.0	4.5	5.8
Private sector service providers	1.7	0.2	3.4	2.9	0.5	4.8	6.0
Public sector	4.1	5.9	10.3	9.0	8.0	6.2	10.6

Source: Statistical Office of Estonia, authors' calculations

BACKGROUND INFORMATION

Employment growth estimate in the Estonian labour force survey and people employed abroad

The employment growth estimate of more than 6% in the first half of 2006 included in the Estonian Labour Force Survey (ETU) may arise from the fact that the number of Estonian residents working abroad increased significantly year-on-year. If included in the sample, the likelihood of interviewing them for ETU may be smaller than of those staying in Estonia, since they are frequently away from home. Therefore it is likely that the number of people employed abroad has been underestimated in ETU. In the following we analyse how much this could affect the estimates of domestic employment and productivity growth. Since it involves major simplifications, this should be treated as a "mental exercise".

Firstly, we know that the number of Estonian residents aged 15 to 74 comes from the Estonian population register and is thus a fixed figure. According to the Statistical Office of Estonia, in the first half of 2006 some 9,000 people were working abroad, which is 37% and 100% more in the first and second quarter, respectively, than during the same period in 2005. Figure 13 shows total employment growth and the number of the employed in Estonia on different assumptions. The assumptions are as follows: 1) ETU has correctly estimated the total number of people working abroad; 2) the number of those working abroad during the entire period is twice, and 3) four times higher than estimated in ETU.

The growth in the number of the employed in Estonia was somewhat slower in 2003–2005 than the increase in the total number of the employed indicated in ETU. In the first quarter of 2006, the gap rose to 0.76 percentage points since the number of those working abroad increased significantly ac-

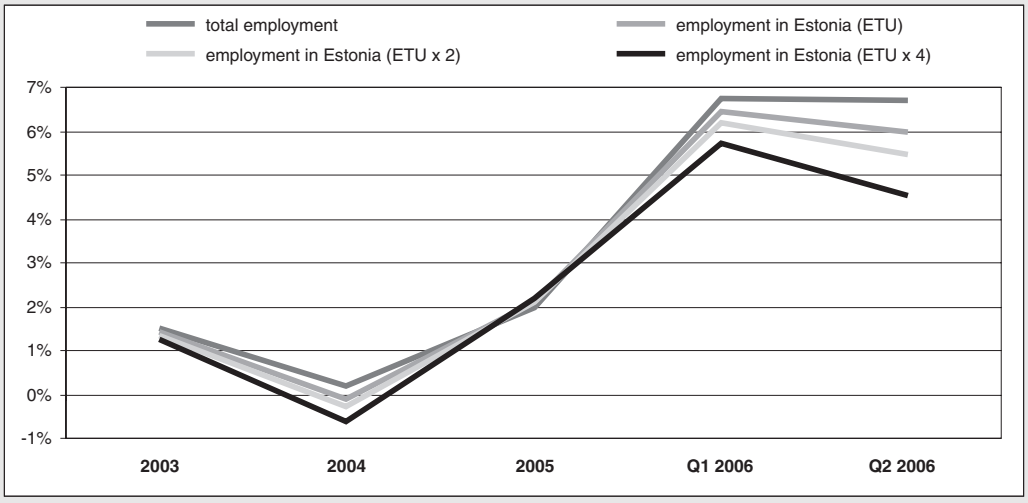

Figure 13. Growth in total employment and in the number of the employed in Estonia according to different scenarios

cording to the Statistical Office of Estonia. Making a daring assumption that ETU has underestimated the number of those employed abroad four times, the number of people employed in Estonia grew 5.7% in the first and 4.5% in the second quarter.

Figure 14 shows the development of real productivity of those employed in Estonia under different scenarios. Even if the number of those working abroad was four times higher than the estimate presented in ETU, real productivity growth would have slowed down in the first half of 2006. Besides, productivity growth (5.9% in the first and 7.1% in the second quarter) would have been slower than that of real wages (10.8% and 10.1%, respectively). Compared to the estimate obtained on the basis of total employment, in the first quarter the difference would be a bit over 1 percentage point and in the second quarter slightly over 2 percentage points smaller.

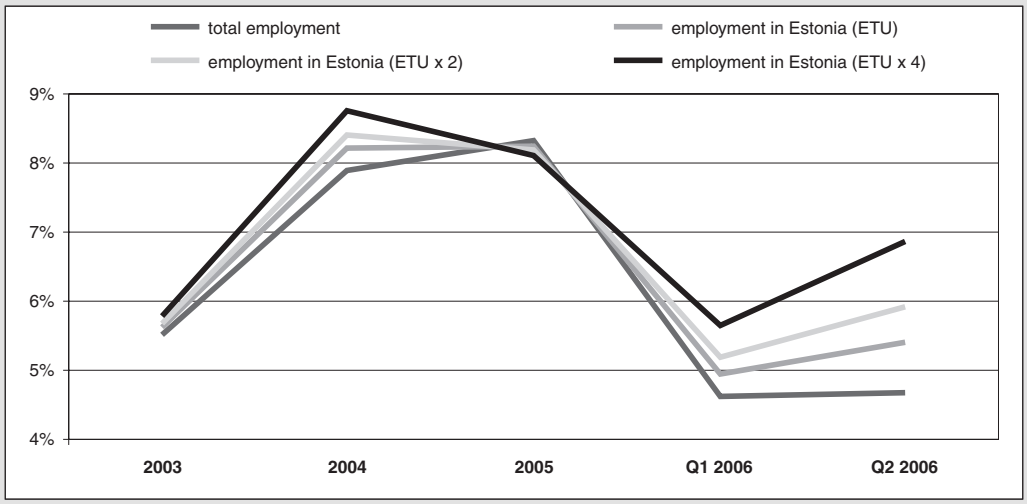

Figure 14. Growth in real productivity according to different scenarios of total employment and employment in Estonia

Institutional developments in the labour market

On 14 September 2006, the Riigikogu approved the 2007 draft State Budget Act which foresees that the daily rate of jobseeker's allowance (former unemployment benefit) would rise from 14.3 kroons in 2006 to 32.9 kroons. Even though the rise is more than twofold, the jobseeker's allowance remains very low. In 2006, it is slightly less than 16% of the net monthly minimum wage; in 2007 the figure will be approximately 28%, depending on the established minimum wages.

If the income of an unemployed household member remains below the subsistence level after reasonable living costs are deducted, the person is entitled to subsistence benefit in the amount of the shortfall. The subsistence rate will rise to 900 kroons in 2007 from 750 kroons in 2005. In case of households with many children the high subsistence rate may make job offers for minimum wages unattractive to the unemployed.

The organisation of the wage scale of public servants has recently attracted a lot of media attention. The 2007 State Budget Act foresees raising the highest salary grade from 12,500 kroons to 25,000 kroons. According to media comments by the Minister of Finance, the change is aimed at organising the wage system and reducing the share of bonuses. Since the amount of several bonuses is tied to the wage scale, a slight rise in wages cannot be excluded.

Minimum wage negotiations

On 18 September 2006, the Confederation of Estonian Trade Unions (EAKL) and the Estonian Employers' Confederation (ETKL) started negotiations over the minimum wage in 2007. Trade unions are aiming at establishing next year's minimum wage at 4,050 kroons, which would mark a 35% rise from 3,000 kroons in 2006, taking into account the 2001 framework agreement on raising the minimum wage and the Ministry of Finance's average wage forecast. Employers have not yet voiced their offer. In the past years the growth rate of minimum wages has been close to the expected average wage growth.

Latest developments in Estonian trade union movement

Estonia is predominantly described as a country with decentralised wage negotiations where a relatively small number of employees belong to trade unions. In the past years, however, trade unions have become more active in the media and their actions have become more frequent. Also, the relations between EAKL and Nordic trade unions have become closer. That is why we turned to EAKL in order to study the latest developments in their membership and the scope of collective agreements.

The confederation's response revealed that their membership and branch associations have rather shown a declining trend mainly because of the restructuring of industrial enterprises and the exclusion of in-active members. The confederation's principal role in the wage policy is evident at national minimum wage negotiations with the employers' confederation. According to EAKL, the minimum wage affects approximately 14% of salaried workers.

The branch associations of EAKL have concluded the total of two extended collective agreements in the fields of transport and healthcare. At corporate level, 138 collective agreements were concluded in 2005 and 169 in 2006, which involved altogether some 60,000 employees in both years. These also include collective agreements with large monopolies, such as Eesti Energia (Estonian Energy) and Eesti Põlevkivi (Estonian Oil Shale). According to the Confederation of Estonian Trade Unions, as a rule companies extend wage provisions agreed upon in the collective agreement also to employees who are not trade union members. Therefore the impact that trade unions have on wage formation is probably bigger than one could conclude on the basis of their relatively small membership.

The Estonian Employees' Unions' Confederation (TALO) had approximately 30,000 members as at 1 January 2005. Negotiations with the Government on the minimum wages in the fields of education,

research and culture can be considered to be TALO's most significant contribution to wage policy.

Estonian labour market regulation

The regulation of labour relations has for decades been a subject of research for economists since labour laws and their implementation affect the economy's adaptability to shocks. Labour market regulation usually comprises legislation that regulates the working time, staff recruitment and redundancy, as well as the scope of agreements concerning remuneration. In order to measure that, several aggregate indices have been elaborated. The most wide-spread is the index of the Organisation for Economic Co-operation and Development (OECD) comprising 22 indicators. The main difficulty behind compiling such indices lies in the quantification of qualitative information and the weighing system.

As can be seen in Table 4, studies conducted at the end of the 1990ies led to the conclusion that labour markets in European countries were much more regulated than in the United States and that the markets in Central and Eastern Europe (CEE) were somewhat more regulated than in the old European Union Member States. Although Estonia's economy is considered to be very liberal, it appears that labour relations are regulated more strictly even compared to the CEE countries.

The indices shown in Table 4 consist of three subcomponents: the strictness of rules for open-ended employment contracts (weight 5/12), fixed-term employment contracts (weight 5/12) and collective redundancies (weight 2/12). As a rule, open-ended employment contracts are more strictly regulated than fixed-term contracts while the first account for a large majority of all employment contracts. According to M. Tonin (2005), Estonia's index was higher than average in comparison to other Central and Eastern European countries regarding the regulation of both open-ended employment contracts and redundancies. As regards open-ended employment contracts, it was more complicated to terminate a contract in Estonia than in other countries. For instance, the Employment Contracts Act foresees an order for making employees redundant; also, the compensation that an employee is entitled to in case of unlawful termination of employment contract is high in comparison to other countries.

Regarding collective redundancies, Estonia's index is upped by the delay arising from informing the third party. Meanwhile, the obligation to pay redundancy benefits now rests with the Estonian Unemployment Insurance Fund, which lowered Estonia's index.

Studies have shown that, as a rule, the impact of labour relations regulation on employment and unemployment has turned out to be weak. Nevertheless, a statistically relevant connection between labour flows and the strictness of regulation has been found. As regards Central and Eastern European countries, such a relationship does not seem to apply at least to the 1990ies: on the one hand, indices show strict legislation while on the other hand, an extensive relocation of labour occurred in the course of the transition process. Poor administrative capacity to implement legislation has been highlighted as one of the possible reasons along with weak trade unions and the large share of the black economy. The number of labour disputes per employee has been significantly higher in Estonia than the EU average, which indicates very frequent violations. In countries with strong trade union movements, collective agreements often provide for more favourable conditions for the employees than have been laid down in the legislation, but labour market regulation indices do not reflect that. If the black economy accounts for a large share in the economy and wages are undeclared, the employer might force employees to leave voluntarily by reducing the wages.

Even though the relatively strict regulation has not had a very adverse impact on Estonia's labour market, the market can become more rigid in the future along with the increase in administrative capacity (see also Table 5).

Table 4. Labour market regulation index

	Nicoletti et al. (2000)	OECD (1999)	Tonin (2005)
Slovenia	3.8	3.2	2.6
Estonia	**3.3**	**3.1**	**2.3**
Lithuania	3.1	3.0	2.8
Bulgaria		2.8	2.0
Czech Republic	3.0	2.1	2.7
Slovakia	2.9	2.4	1.7
Latvia	2.6	2.3	
Poland	2.4	2.0	2.2
Hungary	2.2	1.7	1.6
Baltic States	**3.1**	**2.8**	
CEE	**2.9**	**2.5**	
EU-15	**2.7**	**2.4**	
USA	**0.1**	**0.2**	

Sources: Eamets, Masso "Labour Market Flexibility and Employment Protection Regulation in the Baltic States" (2002); Tonin "Updated Employment Protection Legislation Indicators for Central and Eastern European Countries" (2005)

Table 5. Estonian labour market

	Unit		2004	2005	2006	
Population (as at 1 January)	thousand		1,351.1	1,347.0	1,344.7	
Employment status (15 to 74 years old)	**Unit**	**2003**	**2004**	**2005**	**Q1 2006**	**Q2 2006**
Workforce	thousand	660.5	659.1	659.6	678.4	692.8
employed	thousand	594.3	595.5	607.4	634.7	650.0
unemployed	thousand	66.2	63.6	52.2	43.7	42.8
Inactive	thousand	387.4	388.7	389.0	370.6	356.3
Total	thousand	1,047.8	1,047.8	1,048.6	1,049.1	1,049.1
Labour participation rate	%	63.0	62.9	62.9	64.7	66.0
Employment rate	%	56.7	56.8	57.9	60.5	62.0
Unemployment rate	%	10.0	9.7	7.9	6.4	6.2
Employed by fields of activity	**Unit**	**2003**	**2004**	**2005**	**Q1 2006**	**Q2 2006**
Agriculture, forestry and fishery	thousand	36.7	35.0	32.2	32.3	34.4
Mining and quarrying	thousand	5.7	8.0	5.9	5.7	4.2
Manufacturing	thousand	134.1	140.9	139.5	138.0	138.2
Electricity, gas and water supply	thousand	10.2	12.0	12.5	14.1	12.1
Construction	thousand	42.9	46.8	48.7	52.3	61.4
Wholesale and retail trade	thousand	80.8	80.0	80.6	88.3	92.7
Hotels and restaurants	thousand	17.4	16.2	22.1	25.9	25.5
Transport, storage and communications	thousand	56.2	51.5	54.6	61.0	66.2
Financial intermediation	thousand	7.6	7.9	6.9	8.6	7.6
Real estate, renting and business activities	thousand	44.4	39.4	46.4	46.7	43.6
Public administration and defence	thousand	34.5	36.9	37.2	39.8	39.0
Education	thousand	56.9	54.5	54.9	58.9	59.2
Health care	thousand	36.4	37.5	35.0	33.8	32.1
Other	thousand	30.4	28.8	31.1	29.2	33.9
Unemployed by duration of unemployment	**Unit**	**2003**	**2004**	**2005**	**Q1 2006**	**Q2 2006**
less than 6 months	thousand	25.6	21.2	18.6	15.9	16.9
6–11 months	thousand	10.2	9.2	5.7	5.8	6.6
12 months or more	thousand	30.4	33.2	27.9	22.0	19.3
24 months or more	thousand	20.1	21.5	18.2	14.1	11.6

Table 5 continues

Inactive by reason of inactivity	**Unit**	**2003**	**2004**	**2005**	**Q1 2006**	**Q2 2006**
Studies	thousand	119.5	123.1	126.1	126.7	123.4
Illness or disability	thousand	44.9	43.3	47.0	47.5	47.1
Pregnancy, maternity or parental leave	thousand	22.7	27.2	27.1	23.2	24.1
Need to take care of children or other family members	thousand	14.8	13.7	14.0	15.7	14.4
Retirement age	thousand	152.8	149.4	145.4	134.6	128.7
Discouraged people (lost hope to find work)	thousand	18.1	17.7	14.7	8.4	5.6
Other	thousand	14.5	14.4	14.6	14.6	13.0
Workforce by level of education	**Unit**	**2003**	**2004**	**2005**	**Q1 2006**	**Q2 2006**
First level and less	thousand	71.6	73.2	65.1	71.3	81.6
Second level	thousand	383.7	375.6	367.4	377.7	377.4
Third level	thousand	205.1	210.3	227.0	229.5	233.8
vocational secondary education	thousand	71.0	70.0	67.6	65.7	75.0
higher education	thousand	134.1	140.4	159.5	163.8	158.9