

Restricted macroeconomic policy and flexible labour market: the case of Estonia

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Introduction

Following paper gives a brief overview of general macroeconomic developments in Estonia during 1992-2009 with focus on labour market and labour policy issues. We try to shed the light on factors influencing growth and explain labour market flexibility as one of the major factor of fast growth and economic adjustment. Radical and rapid introduction of market oriented institutions accompanied by high social costs are the most characteristic features of Estonian economic reforms.

In general, the following characteristics describe Estonian economic policy options in 90-s:

- annually balanced state budget,
- fixed exchange rate and currency board type of monetary system,
- flexible labour market
- liberal trade policy, openness of economy,
- high speed of privatisation,
- flat income tax and low tax burden

Important is that these policy options did not changed during different political coalitions. Despite of ideological platform of different parties, liberal economic policy low taxes, currency board arrangement and balanced budget has been always economic priority number one. This created trust and credibility and Estonia had one of the highest inflow of FDI per capita among post communist countries.

But as result we can see also greater fall in output than in most CEE states, also relatively high inflation and very fast restructuring of economy. Also we can see increasing unemployment and drop of average nominal wages during economic recession.

Because of annually balanced budget, low tax burden and currency board system we can claim that fiscal policy and monetary policy tools of government were very limited in Estonia. Plus Estonian economy is extremely open economy, both export and import constitute about 80-90% of GDP. Therefore only “buffer” for economic adjustment should be labour market. In our paper we try show how these limited policy options “worked” during economic boom and which problems they created during economic recessions.

First we describe major macroeconomic changes during 1992-2008, and then we analyse labour market changes, labour market institutions and labour market flexibility

Output decline and GDP

Before economic reforms, the industrial sector in Estonia was characterised by:

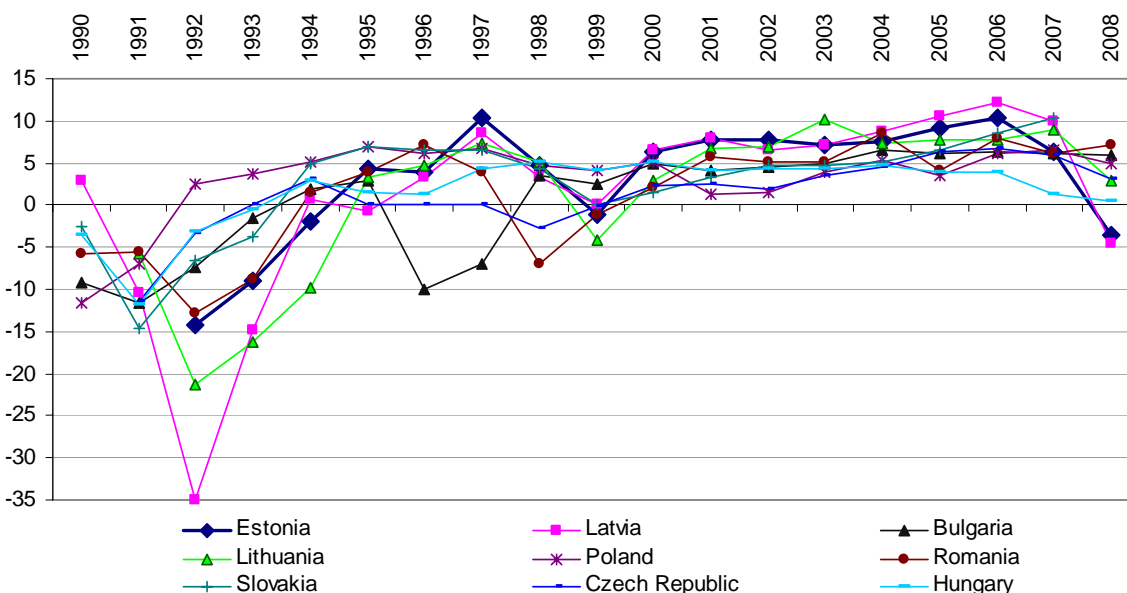
high degree of concentration, with about 20% of all enterprises producing about two thirds of total industrial output;
a heavy reliance on inputs imported from the rest of the former Soviet Union;
dependence on markets of the former Soviet Union.

The beginning of the transition period in Estonia was similarly to the other two Baltic countries characterised by greater falls in output than in most CEE states (figure 1).

A fall in economic output is typical of an early transition period. According to Allen (1992) the main sources of output decline, common to transition economies, are as follows:

- 1) The implementation of structural changes. The experience of the IMF has shown that deep structural adjustment is almost invariably accompanied by a certain retrenchment in production.
- 2) The shift from the pattern of holding stocks of input as a precaution against disruptions in supply to holding stocks of output, so that customer demand may be met. This is a fundamental part of the process of transition from a supply-constrained to a demand-constrained economy. In such case output losses are inevitable because all the enterprises are not able to change their activities fast and effectively.
- 3) The decline in output has been partly explained as a result of the breakdown of centrally planned system. The command economy offered a certain kind of coordination in economy. Transition to market economy requires creation of a new coordination mechanism, which takes time and thus causes production problems for enterprises. This phenomenon is of a temporary character.

Figure 1. Annual GDP growth rate of certain transition countries (%)



Source: Eamets, Arro 2000; Eurostat.

There are many other possible explanations for the economic decline during the transition phase. Some researchers have argued that the magnitude of the decline has been overstated by official statistics, inter alia because their coverage excludes all or part of the growing private sector (including illegal economy for example) (Berg and Sachs, 1991). Similarly,

price index does not always reflect adequately the changes in the economy (e.g. the product quality and assortment changes); therefore, the index may overestimate the decreases in real values (Osband, 1992). If we analyse Baltic countries in this context, then we can claim that most probably the GDP drop in 1992 was overestimated in the case of Latvia and Lithuania. Estonia introduced already in 1992 its own convertible currency, while in Lithuania and Latvia did it half a year later, therefore measurement unit for their GDP was soviet rouble. Most probably so big the differences in growth rates came from different interpretations of dollar rouble exchange rate.

Some economists have associated the output decline with the price shock that followed economic liberalisation. Such demand-side view argues that the decline in real wages, money, and credit is connected to the inflation depressed domestic absorption and thereby contributes to the decline in output. (Borensztein, Ostry; 1995) Other demand-side effect might include a high real interest rate and a change in foreign trade (collapse of trade relations with CIS countries in Estonia's case).

A supply-side view would characterise the output decline as a result of the increased input prices (energy, oil). After the price shock Estonia was faced with a new relative price structure and over a period of time, resources were expected to flow towards sectors where relative output prices had risen. A comparative advantage would imply that, if the country faced world market prices for its inputs and outputs, resources would move towards those sectors where comparative costs were the lowest, increasing thereby the value of goods and services. During the transition period, when production factors are reallocated, structural change may be associated with output decline.

The Estonian small-scale open economy is to a large extent influenced by world market and remains vulnerable to its influences. Very fast growth of Estonian GDP (11.7%) in 1997, turned into a lower growth (6.4%) in 1998 and into a standstill (-0.3%) in 1999. The main factors causing the recession were decreasing external demand, crisis of financial sector as well as the crisis in the Russian market. The economy recovered quickly generating the economic growth of 9.7% in 2000.

Forecasts for the following year's (2001) GDP in Estonia were not optimistic, because most of the developed countries reduced their GDP growth prognosis and Estonian economy always depends on foreign investments, foreign trade policy and the economic policy decisions of leading countries in world economy. However, the GDP in Estonia retained its rather high growth rate (7.7%) and the growth continued until 2007. During the period 2000 – 2006, Estonian economic growth was the fastest among European Union countries – averaging around 8% per year.

At the same time, GDP per person compared to EU15 is still low, the main reason for that has been the relatively low productivity (approximately half of the EU15 average). This low productivity level is related to both low total factor productivity (TFP) as well as capital intensity, which has grown quickly compared to other EU countries, but continues to be one of the most modest in the European Union. This means basically that companies have invested little, considerable human resources are being consumed, relatively inexpensive products are being produced and services with low added value are being offered. (Action plan... 2008)

The very rapid economic growth of Estonia in 2004-2006 was supported by the following factors (The Estonian Economy... 2008):

- Increase of the demand of households financed to a large extent with the help of the growth of loan burden. The latter was enabled due to the lowest interest rates ever in the years 2004–2006, which in their turn originated from both the impact of global factors and the decrease of the country risk accompanying the accession of Estonia to the EU (and also the fall of risk premium);
- Increase of the demand of the government sector, which mainly resulted from an extremely high growth of the state budget, caused by the increased tax income. Government budget grew in nominal terms in average 20% per year in 2004-2006.
- Active operation of foreign investors in investing in Estonia, which has constantly covered the current account deficit of the balance of payments, and enabled the continuous high growth of the money supply.
- Export growth, which has mainly relied on cost advantage (especially on low labour costs);
- Positive impact of the accession to the European Union (EU financial aid via structural funds, growth of attraction for foreign tourists, etc.).

Since the middle of 2007, economic growth started to slow down and turned to economic recession in 2008 (-3.6%). As small open economy, Estonia was very vulnerable to world financial crises and following economic recession. The key factors, which could help to recover from the economic recession, seem to be the growth of productivity and finding new markets (from the EU as well as from the third countries). The quality of the products should reach the level the EU standards and correspond with the EU quality requirements. The growth of productivity generated a new problem – unemployment. In the mid of 2009 unemployment reached to 13,2%, which was one of the highest among EU member countries. Prognoses for 2009 forecast 15% drop of GDP in annual bases.

As Estonia followed very liberal economic policy, government has no policy tools against of overheating real estate bubble or lending boom in 2004-2006. Pro-cyclical fiscal policy and very limited monetary policy accelerated economic growth instead. Problems appeared in 2009 when during economic recession government cut expenditures and therefore pushed economy even into deeper recession.

Inflation

Most open sector prices were liberalised in Estonia in 1991-1992 and the monthly inflation rate declined from 20% in the summer of 1992 to 6.6% in September 1992 and to 1.7% in May 1993.

Annual inflation was reduced from near-hyperinflation in 1992 (annual rates of 1076% in Estonia) to 11.2% in 1997. In 1998, for the first time during transition, Estonian inflation rate reached a single digit number (8.2%) and according to the Estonian Statistical Office the annual inflation rate in 2003 was only 1.3%. Compared to other Eastern European countries Estonia has been relatively successful in suppressing inflation rates, although Latvia and Lithuania have occasionally achieved even lower rates (See following table 1).

Also we can see from table that at the end of economic boom, in 2008, inflation accelerated again.

Table 1. Annual average inflation rate in certain transition countries (%).

Country	1990	1992	1994	1996	1998	2000	2002	2004	2006	2008
Bulgaria	26.3	82.0	96.3	123	22.3	9.9	6.1	6.1	7.4	12.0
Czech Republic	0.8	11.1	10	8.8	10.7	3.9	2.3	2.6	2.1	6.3
Estonia	23.1	1076	47.7	23.1	8.2	4.0	3.6	3.0	4.4	10.4
Hungary	28.9	23.0	18.8	23.6	14.3	9.8	4.9	6.8	4.0	6.0
Latvia	10.7	951.2	35.9	17.6	4.7	2.6	2.3	6.2	6.6	15.3
Lithuania	8.4	1012	72.2	24.6	3.3	1.0	0.9	1.2	3.8	11.1
Poland	480.1	38.5	28.4	18.7	11.8	10.1	2.1	3.6	1.3	4.2
Romania	5.1	210.4	136.7	38.8	59.1	45.7	22.7	11.9	6.6	7.9
Slovakia	10.8	10.1	13.4	5.8	6.7	12.0	3.1	7.5	4.3	3.9

Source: IMF, OECD, 2002 EBRD, Eurostat, Statistics Estonia.

Several explanations have been provided concerning the relatively high inflation rate in Estonia (especially in 90s).

a) Currency Board arrangement. Due to the Currency Board system, money supply in Estonia is directly related to foreign reserves in the Bank of Estonia. These reserves in their turn depend on the inflow of foreign money. The continuous high rate of foreign investments and foreign loans increased the foreign reserves and the resulting rise in money supply has put pressure on inflation.

b) Related to previous point we can mention that during 2004-2005 Estonia faced high inflow of loans from Scandinavian Banks to their sister banks in Estonia. These loans caused fast increase of domestic demand and public sector expenditures and private consumption increase caused demand pull-inflation.

c) Price arbitrage. The Estonian kroon exchange rate is fixed with EUR and hence the PPP (Purchasing Power Parity) principle influences the price level. In situations where Estonia does not have trade barriers the price level of imported goods (mostly from Finland, Sweden and other Western countries) increases the domestic price level. According to Eurostat, in 2007, the Estonian price level in relation to EU-27 was 71.5% while in Finland the ratio valued 122.5 and in Sweden 117.3.

d) Administrative price control. While the tradable sectors have been opened to foreign competition since 1991-1992, prices in non-tradable goods are not completely liberalised and they have partly remained regulated by the state. Analysis of different components of inflation shows that it is mostly price increases in the non-tradable sectors (electricity, public transportation, central-heating, water supply etc) that lead to high inflation in Estonia.

e) Openness of economy. Additional price pressure resulted from the price increase in the world oil market and world food prices.

During the first years of transition, relatively high inflation did not influence labour market, because the currency board system helped to stop hyperinflation rather quickly in 1992. During the currency reform, the Estonian currency (Eesti kroon) was undervalued. Therefore, prices could still increase despite the fixed exchange rate. The undervaluation of the kroon made Estonian goods competitive in international markets and helped firms to find new markets.

In 2003, the inflation in Estonia was the lowest of the years of independence (only 1.3%). Joining the European Union raised the inflation rate again. In 2004, the inflation increased to 3.0% mainly due to changes in tax and foreign policy caused by the joining process. At the same time, administratively non-regulated prices increased moderately. In 2005, the inflation rose to 3.6%, partly due to the rise in housing costs (real estate bubble).

In 2006 and 2007 the inflation rate continued to increase, mainly because of cheap loan money from Swedish banks which reached Estonia through their Estonian subsidiaries, and this involved fast growth of internal demand. Primarily, the inflation was related to consumption. Until autumn 2007, inflation was additionally boosted by income growth. (Estonia's Economy... 2007).

Until autumn in 2007, inflation was boosted by fast income growth. New jobs were created almost throughout the year, but at a slower pace compared to the previous year and considerably less in the last months of the year. In 2008, however, the real wages did not grow and in 2009, the real income is expected to remain lower than the level of 2008. However, the decrease in total demand resulting from economic crisis should somewhat decelerate inflation due to general decrease of incomes which reduces purchase power of the population and enterprises. For 2009 prognoses foresee 0% or even disinflation for Estonia.

Currency reform and monetary policy

Estonia was the first country of the FSU to leave the rouble zone. Currency reform based on the currency board system was introduced in mid-1992¹. The base money (M0) of the Estonian kroon (EEK) is fully (100%) guaranteed by the Bank of Estonia's foreign reserves. At the beginning Estonian kroon was pegged to the German mark at a rate of 1 DEM = 8 EEK. From January 1999 EEK is pegged to EUR (1 EUR = 15,646 EEK) as Germany joined the eurozone. Kroon was undervalued at the moment of creation; therefore, Estonia has managed to keep the exchange rate unchanged during whole transition, despite relatively high inflation. As a result, Estonian kroon has undergone a significant real appreciation since the start of monetary reforms in June 1992. Measured in US dollars, the level of the CPI had by June 1995 grown 4.5 times, which translates into average annual increases in dollar prices of 65% in Estonia. Yet, in spite of massive real appreciation, exports have expanded rapidly.

The fixed exchange rate based on the currency board arrangement was chosen, because for an open economy like Estonia, it is considered to be optimal for anchoring inflation

¹ For more details about currency board system see Schuler (2009).

expectations and ensuring price stability (Estonia's Economy 2007). The openness of the Estonian economy is affirmed by the fact that Estonia has abolished all restrictions on capital movements and foreign exchange accounts. Additionally, Estonia's economy is characterised by the convertibility of its national currency.

The Bank of Estonia, that operates the Estonian monetary system, is responsible for maintaining the currency board system in Estonia. The mission of the Bank of Estonia is to ensure price stability in Estonia. The currency board system limits the use of monetary policy instruments. Thus, the Bank of Estonia does not issue bonds, intervene in markets, print extra money etc. The currency board acts as an automatic stabiliser and money supply is restricted, depending only on the inflow of foreign currency. Therefore, the main tools for the Bank of Estonia include regulations for commercial banks and the supervision of commercial banks. Concerning these regulations, the reserve requirement ratio for the commercial banks is considerably higher in Estonia (currently 15% of the reserve) compared to other exchange rate mechanism countries. In addition to other tasks, the Bank of Estonia also remains responsible for technical emission of Estonian kroons.

Commercial banking in Estonia oriented quickly towards European (mainly Scandinavian) markets. At the same time, Latvian banks, for instance, mainly oriented towards eastern markets. The openness of the financial system of Estonia included higher general risks for Estonia, but the risk level remained significantly lower compared to eastern markets.

The Estonian banking system was in crisis at the end of 1992. Banks failed to carry out their creditors' orders. At the end of 1992, the three biggest commercial banks were placed under moratorium by the Bank of Estonia. Eight smaller banks became insolvent and the situation considerably weakened the trust of the public towards the Estonian banking community. (Development of... 1993). After the banking crisis the Bank of Estonia strengthened its supervisory activities and tightened regulations concerning the capital adequacy ratio, banks' minimum capital requirement etc. As a result, these measures, together with general economic developments, helped to rationalise the banking sector. In 1997, after the stock exchange crisis, the banking sector concentration continued. As a result, the balance volume of the two biggest banks in Estonia was 80% of the aggregated balance of commercial banks (Finantssektor. 1998). While in 1991, there were more than 40 commercial banks, the number had declined to seven by the end of 1999.

After selling the controlling interest to foreign banks in 1998, the credibility of the Estonian banking sector has risen for foreign investors. However, in terms of internal market the concentration of banks may include lower effectiveness and service quality, because in essence, the banking in Estonia is oligopolistic. Growing number of foreign bank agencies could raise competitiveness, but internal market in Estonia remains limited and most of the international branches are usually opened in Latvia, in Riga, which is more often considered the metropolis of the Baltic States.

The Government in Estonia has not tried to hinder the process of price adjustments characteristic of transitional economies. This policy has contributed to the increase in

general price level and the real exchange rate of EEK has appreciated. During transition period, while the price level is adapting to world market prices, the process is inevitable and it is accompanied by the productivity growth. As the effectiveness of the use of resources still differs from the effectiveness in developed countries, the real exchange value is expected to increase further.

In June 2004, Estonia joined ERM II system, but as meeting the inflation criterion in its present interpretation remains a problem, the adoption of the euro is postponed beyond 2011. However, Estonia's accession to the euro area is still considered an essential economic policy objective. Today major concern is budget deficit not inflation.

Fiscal policy

Since the monetary reform in 1992 and the new beginning of independent economic policy, Estonia has followed the principle of annually balanced budget. Therefore, the political effect of fiscal policy in Estonia – particularly in the long perspective – remains nearly non-existent and terms like overall deficit and financial deficit are not employed.

During the first years of Estonian independence, the economic recession considerably reduced fiscal incomes; in 1992, for example, the decrease amounted to 30% in real values. The relative decrease in government's spending reflects lessening direct economic interference by government. The first budget deficit occurred in 1995 (1.2% of GDP); in 1996, the deficit formed 1.5% of the GDP (see figure 2). During these two years, expenditures and investments increased the overall deficit in Estonia, although the EU was successful in terms of reducing the overall deficit (Saarniit 1997).

Figure 2. Estonian budget deficit/surplus (percentage of GDP)



* - preliminary data for 2008

Source: Statistics Estonia

In 1997, conservative income forecasts, strict saving policy and risen tax revenues resulted in budget surplus (about 2% of GDP). This surplus enabled the government to establish the state stabilization reserve aiming to reduce general economic risks, to

guarantee stability of long-term socially beneficial investments and to finance structural reorganizations. Additionally, the reserve may be able to reduce inflationary pressure through hindering money supply. The idea of the reserve was introduced after the stock market crash in 1997. Despite the autonomous stabilisation processes, which actually were more important than the belated reserve, the government continued to follow the same ideology during the following years. By the end of March in 2009, the reserve stood at market value of 7.33 billion EEK (€468 million), but in April 2009, the government decided to use about 3.5 billion EEK of the reserve in order to balance the increased expenditures and decreased revenues resulting from economic recession (mainly to reduce risks and to pay out salaries, pensions and benefits without delay) (Kaldoja 2009).

Estonian tax policy is characterised by simplicity and taxes form rather moderate proportion of Estonian GDP. During the years of economic growth individual income tax rate has been declining and in 2008, it equalled 21%. Nevertheless, due to the economic recession in 2009, the gradual reduction of the tax rate was stopped. The corporate earnings taxation is a unique system in Estonia, because the profits are taxed at the moment of their distribution instead the moment of earning. Thus, reinvested profits are not taxed. If the profit is distributed through fringe benefits, gifts, donations, expenditures and payments unrelated to business activity; these net payments are taxed at a rate of 21/79 in 2009 (21% on the gross distributed profits) (Taxation... 2009). In fact, the discussions about direct tax burden are of little importance with regard to macroeconomy or in terms of Estonian state budget, because direct taxes are relatively low. In 2006, for example, direct taxes formed about 7.16% and indirect taxes about 13.4% of GDP (Eesti majanduskasvu... 2007)

Although the EU requested Estonia to alter tax system in accordance with union's laws by 2009, the planned changes were abolished. Due to positive developments in the case law of the European Court of Justice (case C-284/06 Burda), the Estonian corporate tax system is expected to be in line with Parent-Subsidiary directive and no changes have to be made (Estonian corporate... 2008). The aims of the government contain partial reorientation of taxes to shift the tax burden from taxing income to taxing consumption as well as to the use of natural resources and pollution of the environment. (Riigi eelarvestrateegia... 2008)

In 2006, for the first time since the beginning of transition all the levels of the government sector ended the year with budget surplus (central government, social security funds and local governments). Mostly, the financial position of the central government is connected to economic cycle, because to a large extent, the revenues of the central government consist of taxes, which are sensitive to economic development. In 2008, the abrupt deterioration of the economic conjuncture caused the budget deficit of nearly 3% of GDP. This deficit did not result only from economic recession or lower tax revenues, because during the economic growth, many cost-increasing laws were stipulated and contractual obligations taken. For instance, the budget of pension insurance increased by 8 billion kroons (nearly 70%) and the budget of Estonian Health Insurance Fund by more than 50% (4 billion kroons). (Riigi eelarvestrateegia... 2009).

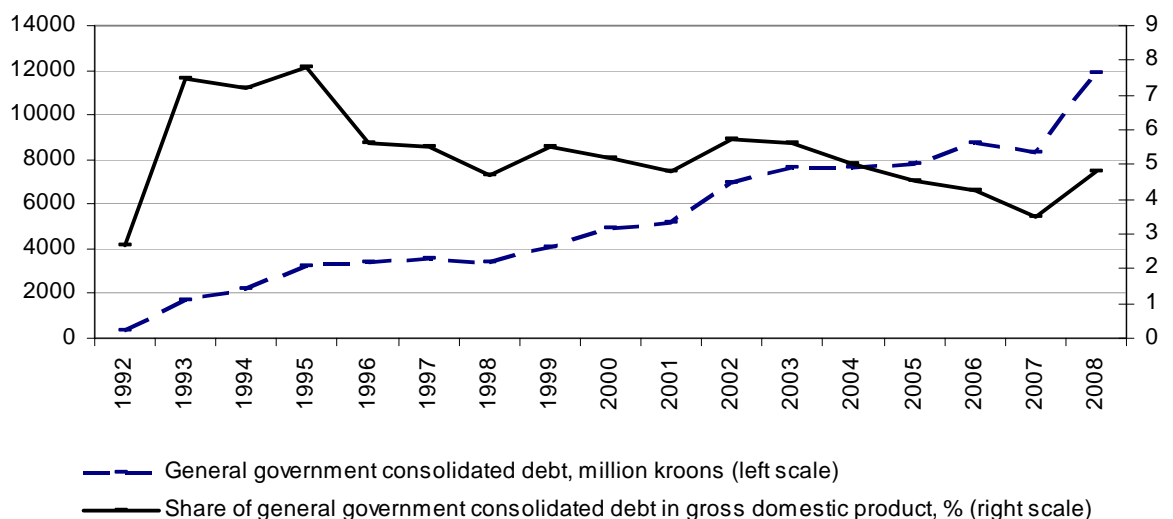
Fiscal policy in Estonia tend to be pro-cyclic, and amplify the growth phase during periods of economic boom and intensify the decline during a downturn. As it was mentioned during 2004-2006 Government increased budget by 20 % per year. In 2009 so far more than 10% of Government budget was cut in order to meet Maastricht budget deficit criteria. It means that during economic boom Government increased substantially their expenditures and during recession they have reduced public expenditures. Active fiscal policies to stabilize the economy are not implemented in Estonia today, based on an ideology that supports a general liberal market economy with small public sector. One of the results of this ideology is a relatively low tax burden, and therefore, scant opportunities for influencing the economy, because the state just does not have sufficient resources and corresponding policy instruments.

Public sector loans and foreign debt

With regaining the independence Estonia disengaged from foreign debt because Russia took over all of the foreign assets and liabilities of the FSU. The first loans in independent Estonia were needed mainly for importing the goods of vital importance (medicines, fuels etc). Later the new loans have been used to invest into infrastructure. Practically, only central government takes and guarantees foreign debts. Local governments and enterprises to some extent use the resources, which are lent by the central government. Mostly the loans are used as investments.

In 1995, the public debt formed 7.8% of the GDP in Estonia. This is also the highest value of the indicator during the transition period in Estonia (see figure 3), before 2009². By the end of 2007, the public debt to GDP ratio dropped to 3.5%, but in 2008, the indicator increased again to 4.3%, which still remains rather small compared to most of the countries.

Figure 3. Government debt in Estonia, million EEK and percentage of GDP



Sources: Ülevaade... 2000 and Statistics Estonia

² In 2009 Government increased foreign debt in order to balance budget and meet Maastricht criteria. The plan is to join Euro zone in 2011.

In conclusion, the debt in Estonia has been rather moderate and the central government has enough room for making decisions concerning new foreign loans. The rather low rate of loans to GDP refers to the fact that loan repayments will not turn into a burdensome task for the Estonian economy.

Foreign trade

Estonia's share of foreign trade with OECD countries, which was negligible in the beginning of 1990's, increased to nearly 50 per cent of total trade by the third quarter of 1992. The following table 2 demonstrate that in 1991, the main trade partner of Estonia was Russia (with 45.9% of total imports and 56.5% of total exports). Dramatic changes in foreign trade took place in the second half of 1992 after the introduction of the Estonian national currency. The main reason for this reorientation was the economic crisis in Russia. Local enterprises in Russia were in financial difficulties, and therefore, Estonian enterprises were forced to find new markets.

Table 2. Estonian import and export by main trade partners (%), years 1991-2002.

	1991	1992	1994	1996	1998	2000	2002
Export							
Finland	2.3	21.2	17.9	18.3	18.7	27.0	28.1
Sweden	0.5	7.7	10.8	11.6	16.7	17.3	14.8
Russian Federation	56.6	20.8	23.1	16.5	13.4	7.2	3.7
Latvia	7.7	10.6	8.2	8.3	9.4	6.8	7.7
Import							
Finland	2.0	22.6	29.9	29.1	22.6	23.9	14.8
Russian Federation	45.9	28.4	16.7	13.6	11.1	14.1	8.7
Germany	0.8	8.3	10.0	10.0	10.8	8.8	10.1
Sweden	0.8	5.9	8.9	8.2	9.0	8.7	9.5

Source: Statistics Estonia.

Another very important reason for the changes in foreign trade was internal convertibility of Estonian national currency, which enabled Estonian enterprises to easily obtain foreign currencies necessary for foreign trade. At the same time, the internal convertibility created conditions for the fast increase of import, which later created chronic deficit of the current account. Due to the reorientation of trade Finland, Sweden, Latvia and Germany are next to Russia among the most important trade partners for Estonia in 2009 (see tables 3 and 4). However, the tables also show that the imports and exports of goods are still rather concentrated across countries.

Table 3. Estonian import by main trade partners (%), years 2004-2009.

Country	2004	2005	2006	2007	2008	2009
Finland	21.56	19.7	18.11	15.5	14.21	13.75
Russian Federation	9.21	9.17	12.97	10.12	7.67	10.77
Germany	12.83	13.99	12.51	12.92	13.3	10.3
Latvia	4.87	4.84	5.68	7.44	8.96	9.16
Lithuania	5.41	6.01	6.62	6.99	8.92	9.04
Sweden	9.79	8.79	9.05	10.62	10.01	8.58
Poland	3.2	3.66	3.83	4.52	4.56	4.16
Netherlands	3.67	3.41	3.55	3.4	3.34	3.52
France	1.99	2.04	1.83	2.02	2.04	3.5
China	1.91	2.08	2.05	2.08	2.14	2.64
Other	25.56	26.31	23.8	24.39	24.85	24.58
Total	100	100	100	100	100	100

Source: Statistics Estonia

Table 4. Estonian export by main trade partners (%), years 2004-2009.

Country	2004	2005	2006	2007	2008	2009
Finland	22.67	26.39	18.02	17.71	18.34	18.84
Sweden	15.26	13.08	12.26	13.27	13.84	14.79
Latvia	8.51	9.1	9.06	11.56	9.97	9.08
Russian Federation	5.6	6.48	7.84	8.83	10.4	8.23
Germany	8.23	6.09	5	5.21	5.04	6.43
Lithuania	4.53	4.63	4.88	5.91	5.7	4.72
Denmark	3.24	3.15	2.57	2.72	3.26	4.05
Canada	0.23	0.72	0.6	0.81	0.5	3.92
Norway	3.26	2.87	2.65	3.37	3.31	3.02
Nigeria	0.02	0.22	0.37	0.08	0.81	2.2
Other	28.45	27.27	36.75	30.53	28.83	24.72
Total	100	100	100	100	100	100

Source: Statistics Estonia

During 1994–2006, Estonia’s exports as well as imports of goods increased by nearly eight times. Moreover, the annual growth rates were reaching double-digit numbers in most years. (Saks 2008)

Similarly to other economic indicators, the significant influence of the Russian financial crisis can be noticed also in foreign trade. Export to Russia declined by more than 10% in 1998 (excl transit trade) (Komisjoni... 1999). This decrease in exports to Russia accompanied by declining domestic demand caused an exceptional situation in trade since the imports and exports of goods decreased by 8.5% and 2.1%, respectively. For instance, concerning export of agricultural products, the share of Russia declined from 44.9% in 1994 to 8.7% in 1999 (Maadvere 1999). Altogether, Estonia’s exports to Russia fell by 42% in 1999 (Saks 2008).

In 1999, Estonia joined WTO and thus, increased its credibility as a foreign trade partner and guaranteed that the country was accepting international trade rules. While in 2004, part of the import and export growth could be attributed to the changes in data sources and methodology³, the year-on-year comparison of 2006/2005 data, however, draws from the same sources and methods showing 29% annual growth rate for imports and 24% for exports. (Saks 2008) Additionally, the increase in import was already fast and significant before joining the EU, mainly because of stocking up the goods whose prices increased with imposing the uniform EU customs tariff from May 1, 2004 (Tamm, Varblane 2004). Concerning the EU, accepting regulations for agriculture was one of the most difficult tasks for Estonia, because these regulations caused many changes to Estonian economy. On the one hand, support to the agriculture increased several times due to the common agricultural policy of the EU, but on the other hand, Estonia had to stop importing food products with world market prices from non-EU countries. (Tamm, Varblane 2004)

Estonia's foreign trade balance has been in deficit, whereas within thirteen years (1994-2006) it has grown ten times: from 4.5 billion to 45.8 billion EEK. The deficit has been boosted by the large volume and rapid growth of imports, which in its turn have been driven by strong domestic demand. During that period, the majority of import and export transactions involved machinery and electrical equipment. However, considering the imports and exports of goods by the categories of final consumption, industrial raw materials formed the largest share in imports as well as exports during 1994-2006. Capital and consumer goods followed and the share of imported transport vehicles was also considerable. In the thirteen years (1994-2006), Estonia has had a surplus of goods with Sweden, Latvia, Norway and the United States. Estonia has recorded the largest trade deficits with Finland, Germany and Russia. (Saks, 2008)

Estonian economy is very open economy. In average export consist of 75-80% of GDP and import 80-85% of GDP in 2004-2008. As in a case of many other aspect of Estonian economy we can see also in process of automatic stabilisation. During fast boom, import is increasing faster than export because of high domestic demand, during recession economy adjust and deficit will decline because of import decline.

³ Since May 1, 2004, foreign trade statistics is based on the combination of two reporting systems. Trade with non-EU countries is still calculated on the basis of customs declarations submitted to the Tax and Customs Board (the so-called Extrastat), whereas trade with other EU countries is registered through the so-called Intrastat survey organised by Statistics Estonia. While Extrastat still enables the use of the special trade system, which excludes trade through customs warehouses, then Intrastat provides no way of excluding goods moving through intermediate warehouses that actually do not reach the Estonian domestic market, thus rather reflecting the principles of the general trade system. Therefore, the general level of both imports and exports of goods is higher than in previous periods and this has to be taken into account when comparing different years.

Privatisation

The privatisation process in Estonia was considerably faster than in the post-socialist countries, which, similarly to Estonia, sold enterprises for money. Additionally, Estonia was one of the most successful post-socialist countries in completing the task of large-scale privatisation. The Estonian case is not a clear-cut sample of one certain privatisation method, as different methods were used depending on the social preparedness of the society. (Terk 2000) First of all, the privatisation included the restitution of homes, farms, and businesses expropriated during the communist periods. Simultaneously, the following methods were used to transfer state-owned property to private ownership (Laar 2002):

- sale of small-scale business units at auctions;
- lease arrangements for parts or whole enterprises
- joint ventures, combining foreign private management and capital with government-owned assets;
- active bankruptcy processes to liquidate insolvent, non-performing state enterprises and transfer the assets to private companies.

The first stage of privatisation was connected to Gorbachev's reform attempts in the Soviet Union after 1986. Related to Gorbachev's perestroika programme, several hundred co-operatives were established in Estonia. (Jones *et al.* 2003) In relation to the size of the economy (Estonia had 1.3 million inhabitants), the density of these small private enterprises in Estonia was one of the highest among the constituent republics of the USSR. The workforce in small state enterprises and co-operatives gained the right to decide on production, pricing, wage setting and investment (although within the limits imposed by state authorities), and, importantly, they obtained the right to keep the net revenues. As these measures were insufficient to revive the economy, in 1989, semiprivatisation (known as leasing of state enterprises) of large industrial enterprises was initiated. The leaseholders gained the right to control the enterprise and the right to residual revenues. In essence, they were private firms, lacking only the right to transfer the assets to third parties. They also had to pay rent for the use of assets to the government. (Kalmi 2003) In 1991, Estonia passed the Law on the Privatisation of State-Owned Trade and Service Enterprises. This legislation was amended in early 1991 to permit the sale of all small enterprises, and by the end of 1993 less than 20% of all service establishments were state owned.

The privatisation policies in Estonia changed notably following the establishment of the Estonian Privatisation Enterprise (EPE) in September 1992, followed by the introduction of a law on privatisation in June 1993, and the establishment of the Estonian Privatisation Agency (EPA, the successor of EPE) in September 1993. From late 1992 the majority of enterprises were sold by tender to strategic investors. The winner of the privatisation contest was decided based on the price offered for the shares and on the development prospects the new owner could offer for the enterprise. (Kalmi 2003) This development led to preferences for privatisation to strategic investors and for large concentrated investors rather than insiders or dispersed investors (Jones *et al.* 2003).

The privatisation of large enterprises was more complex compared to small enterprises. Various methods were applied in case of large enterprises, such as auctions, employee

buy-outs and direct sales of shares. Use of the bankruptcy law to transfer assets into private hands was also increasingly common. Advice and consultation on privatisation was requested from the German *Treuhandanstalt*, which had established a *Treuhand-East European Consultancy* branch in early 1992. This institution was established for offering its experience to Eastern countries of the former Soviet bloc in their endeavours to transform their economies to Western market policies, with the centrepiece of this transformation process being the privatisation of enterprises, land, buildings and other nationalised assets.

Most of the manufacturing enterprises were privatised by 1996 and large-scale privatisation of infrastructure started in 1997. The latter ended in 2001 and although some of the biggest infrastructure enterprises (Eesti Energia, Eesti Telekom, Tallinna Sadam) are still owned or partially owned by the Ministry of Finance. During years 1993-2001, altogether 1150 enterprises were privatised valuing 4,59 billion kroons in current prices. By 2001, all the more important privatisation processes were over and EPA ceased to operate. (Liitumiseelne... 2003)

Analyses on privatisation in Estonia refer to different factors which turned the process effective. Wolfe (1996), for example, brings out the following reasons explaining the success of the privatisation in Estonia:

- the right timing (drastic measures were necessary during the crisis);
- choosing the right model and making the right modifications;
- the privatisation legislation which let EPA choose appropriate owners;
- the correct monetary policy.

John Nellis (2002) states that the Estonian case shows that investor (domestic and foreign) could be found to pay cash for generally run down and highly dubious assets and achieve success in them. However, he admits that the prices paid were low, as the privatisation authorities consciously sought to encourage employment maintenance and creation and future investments as much or more than sales price. Furthermore, the proximity of Estonia to Scandinavian markets and the significant Estonia diasporas in Scandinavia helped greatly.

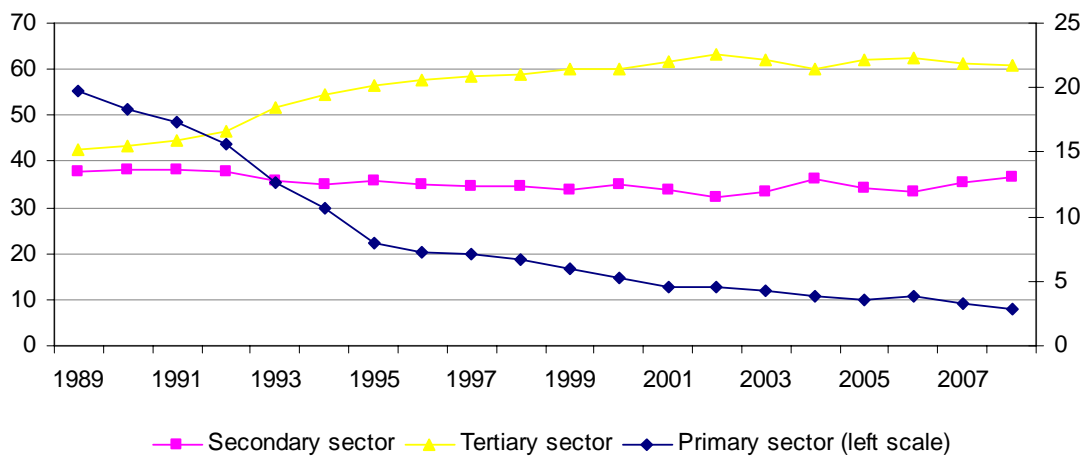
Labour market and labour market policies

The population of Estonia is decreasing since the 1990-s, the decline was sharper at the beginning and rather moderate in the late 1990-s, resulting mainly from high emigration and low fertility rates. Consequently, the working age population is also declining. However, despite the general decline, the participation of the oldest population groups (aged 60-64 and 65+) has increased. The main reasons explaining the phenomenon are deferred pension age, low pensions and pension laws favouring working pensioners. Relatively low pensions force people to remain in work despite the availability of different retirement schemes. (Eamets et al. 2007) Additionally, the labour demand for younger members of the labour force had increased drastically by 2000. During very dynamic economic development, employers in Estonia preferred younger employees with greater flexibility for acquiring training and a better knowledge of languages and IT. (Arro et al. 2001)

The decrease of employment did not change even in 1997 with the extremely high economic growth. Nevertheless, since 2000, the situation became stable and certain normalisation of the labour market could be noticed. The normalisation means the behaviour of the labour market according to the rules of market economy, where the unemployment decreases and employment increases in the conditions of economic growth as a rule. In principle, it seems that major structural changes caused by transition shock in the Estonian labour market terminated by the year 2000. (Eamets, Tuvikene 2006)

Fast changes in the general structure of employment characterised the Estonian economy during transition period. Agricultural sector declined rapidly and led to increasing shares of employment in the service sector (figure 4). The total employment in agriculture dropped from 161.5 thousand in 1989 to 46.5 thousand in 1995 and further declined to 16.9 thousand employees by 2008. The fast change in agriculture resulted in serious consequences: growth in long-term unemployment in many rural areas, structural unemployment etc (Eamets *et al* 2007). The Soviet agricultural system relied on big collective farms and after the collapse of the system with the introduction of private agriculture; many collective farms began to disintegrate. A number of Estonia's more successful farms were reorganized into cooperatives.

Figure 4. Employment by economic sectors in Estonia, 1989-2008, (% of total employment).



Source: Statistics Estonia

The Estonian employment structure in 2008 is close to the structure prevailing in other developed countries in Europe. According to table 6 below, the share of employment in Estonia in agriculture was even lower than in the EU-15 in 2008. However, the share of industry has remained rather high in Estonia. Employment in industry is the highest in Estonia compared to the other Baltic States and the EU-25 as well as the EU-15, in 2008, at the same time the share of Estonia in service sector is the lowest in the table. On the one hand, the relatively small decline of employment in industry could be considered as a comparative advantage for Estonia - e.g. as denoting the sector's strength (Eamets *et al* 2000). On the other hand, some authors claim that the competitive advantages of Estonia like of the other Central and Eastern European transition economies lie mainly in the labour intensive (textile) and resource intensive

(timber) industries, whereas the capital and technology intensive industries (for example, chemicals, machinery and equipment) are relatively uncompetitive. Thus, an open economy and foreign investment has not led to an automatic change of the structure of the industry towards greater knowledge and skills intensity: rather than that, it is the other way round. (Tiits *et al.* 2003).

Table 6. Employment by economic sectors in 1992-2008, % of total employment.

	1992	1998	2000	2002	2004	2006	2008
Agriculture							
Estonia	15.6	6.7	5.2	4.5	3.8	3.8	2.8
Latvia	20.0	18.7	14.3	14.9	12.5	11.4	7.9
Lithuania	19.6	19.1	18.7	17.8	15.8	12.4	7.9
EU-25	-	5.9	5.4	5.2	4.9	4.6	4.3
EU-15	5.5	4.5	4.1	3.9	3.7	3.5	3.4
Industry							
Estonia	37.8	34.6	35.0	32.4	36.2	33.6	36.4
Latvia	31.9	25.5	25.9	24.8	26.5	26.8	28.0
Lithuania	38.0	28.6	26.7	27.3	28.0	29.5	30.4
EU-25	-	27.8	26.7	25.9	25.1	24.8	24.5
EU-15	29.1	26.6	25.8	25.0	24.2	23.6	23.2
Service							
Estonia	46.5	58.7	59.9	63.1	60.0	62.6	60.8
Latvia	48.1	55.9	59.8	60.4	60.9	61.8	64.1
Lithuania	42.4	52.2	54.7	54.9	56.2	58.1	61.7
EU-25	-	66.3	67.8	68.9	70.0	70.6	71.2
EU-15	65.4	68.9	70.1	71.1	72.1	72.8	73.5

Source: Statistics Estonia, Eurostat.

Next to agriculture and fishery, where employment decreased, there were, despite the general decrease in employment, some industries, where the employment increased. For instance, employment in real estate and business activities, education and public administration decreased until 1991-1992 and started to increase again. This resulted from the general changes in economic situation (e.g., the real estate market was nearly non-existent in Soviet countries). In financial intermediation and trade, the employment increased since the first years of independence in Estonia. Finance had been one of the most centralised industries during Soviet times; the deficit of nearly all the goods in command economy boosted the fast growth of commerce. (Eamets *et al.* 2000)

Productivity

Despite the employment increases in some industries, rather low labour productivity remains a problem for Estonia. Dating back to Soviet times the productivity has increased with a slower pace than pay. Statistics from Eurostat show that in 2000, for example, the GDP in Purchasing Power Standards (PPS) per hour worked formed only 34.7% of the EU-15 and in 2008, the same indicator valued 47.8%. In 2008, labour productivity (created value added per employee) lagged in all economic sectors in Estonia greatly behind the level of highly developed member states in the EU. Comparison with less developed countries like Portugal shows that Estonia has reached the closest in the productivity of real estate and business services, which constituted 80%. In the rest of the sectors, ca. 40–60% of the productivity of Portugal has been

achieved. In Estonia, the productivity of contemporary knowledge-intensive service and industry sectors is still several times lower than in highly developed countries. The view that Estonia has caught up with the developed EU countries in the business services sector appears to be incorrect because in the field of business services, productivity in Estonia is 21 per cent of the level of Ireland and Denmark, and 30 per cent of the level of Finland. Estonian enterprises are often engaged in the stages of the value chain where the productivity in knowledge-intensive fields is comparatively low, and also their export orientation is low. By fields of activities, however, the largest in productivity lag lies in the manufacturing and extractive industry, energy and construction, where it constitutes only 7–18 per cent of the level of the European Union Member States with higher income levels. (The Estonian Economy... 2008)

A relatively low productivity starts limiting the possibilities for further wage increase and diminish the competitiveness of several industry sectors in Estonia. That in case the premature growth of productivity cannot be ensured by various measures in front of the wage increase, which is inevitable in the conditions of an open labour market of the European Union. This is accompanied by the following problems:

- Transnational wage disparities might cause emigration of people;
- Increasing labour costs and decrease of profitability pressure the exportation of jobs from Estonia to other countries with lower labour costs.

Due to a large relative share of labour costs out of total costs, the problematic sectors are leather and footwear industry and, to some extent, also paper, textile, and sewing industry.

When comparing the wage level and dynamics in Estonia and in the EU developed countries, we see that in the past few years the wage increase in Estonia has been faster than in the destination countries of migration (Finland, the United Kingdom, Ireland, Norway, Sweden, Denmark, and Germany). At the same time, the differences in the wage level have still remained 4–5 multiple. Rapid wage increase in Estonia has brought about a situation where the differences in wage level in comparison with the destination countries of migration have decreased in all economic sectors under observation, therefore also the migration pressure to leave Estonia and go working abroad is decreasing .

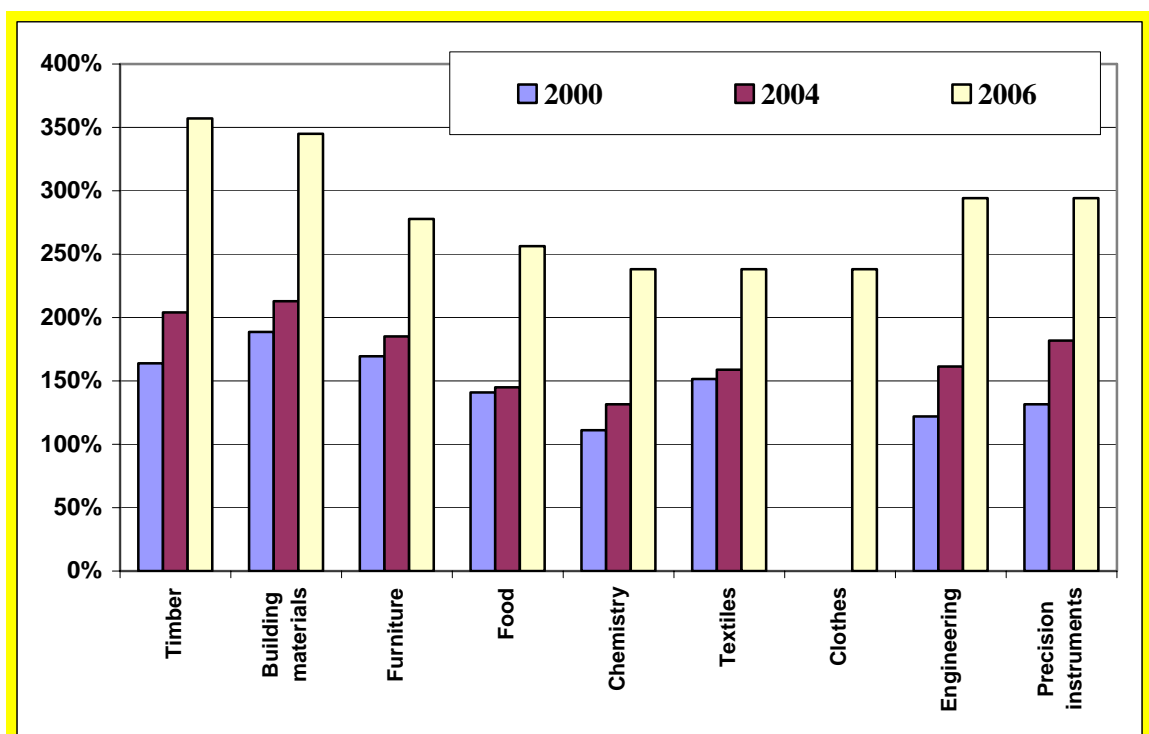
A very important factor in exporting jobs is the labour cost per employee. The fast developing Asian countries: China, India, Korea, Malaysia, and Philippines, were included into the analysis. During the observed period (2000–2006), the labour cost has grown faster in Estonia than in the Asian countries (see Figure 10). When only in 2000, the labour cost in the majority of sectors in Estonia was by ca 50% higher, then by now it is 2–3 times higher than in the Asian countries selected into the analogue group. Consequently, our ability to compete with the Asian countries from the aspect of low labour cost has decreased very fast. In comparison with other countries of destination, the labour cost of Estonia has also grown faster and has become equal with the level of Czech Republic and Hungary and overtaken Slovakia, Poland, and other Baltic countries.

The wage increase in itself does not necessarily mean having problems. Becoming a state with a high living standard does presume the increase of the level of wages. If that

is accompanied by a growth of productivity and profits, the competitiveness would be maintained and not pressure to export jobs would occur.

However, the analysis shows that there is a whole range of sectors in Estonia where residual profit per employee is low and that has increased slower than wages. Such sectors are :

- Manufacture of textile and textile products;
- Leather processing and manufacture of leather products;
- Wood processing and manufacture of timber products;
- Production of paper pulp, paper, and paper products;
- Publishing, manufacture of rubber and plastic products;
- Manufacture of means of transport;
- Transport.



Source: ILO database, authors' calculations

Comment: The chosen countries are China, India, Korea, Malaysia, and Philippines. Share of labour costs out of the total costs is calculated as a rate of labour costs and total costs of enterprises. The Statistical Office of Estonia possesses the latest data about the year 2005. The wages of 2006 are forecasted on the assumption that the wage increase in 2006 was by 5% faster than in 2005. Labour costs of the Asian countries have been found on the basis of ILO data. Average labour costs have been taken directly from the database. As labour costs in different countries have been brought per different periods (day, month, year), necessary recalculations have been made. Also, in case of missing data on single years, the average labour costs have been calculated on the assumption that their growth in the period of 2000–2004 was equal. Labour costs pursuant to the data of ILO were translated into euros for the purpose of this analysis.

Figure 10. Labour cost in the selected units of the Estonian manufacturing industry (percent of the level of the Asian countries)

Thus, the analysis shows that the wages grow faster than the productivity primarily in the manufacturing industry. In the above-mentioned sectors, the production will

probably be reduced in Estonia. On the other hand, in those sectors where productivity grew faster than wages, also the employment has increased (The Estonian Economy... 2008)

Unemployment

In command economy, everybody had the right and obligation to work and therefore unemployment officially did not exist. Enterprises were a source of social security. Thus, there were no institutions to tackle the issue of unemployment. However, simultaneously, there was hidden unemployment due to labour hoarding by Soviet enterprises. (Masso, Paas 2007:) The fall in GDP at the beginning of transition nevertheless did not lead to sudden high rate of official unemployment. Unemployment in Estonia increased gradually instead (see annex 1 for data). According to Arro *et al* (2001) the main reasons for moderate unemployment growth were:

- rapid restructuring of the economy;
- initial exchange rate undervaluation (which helped to maintain average enterprise profit rates);
- decrease in the labour supply (also due to migration from Estonia);
- fast-paced development of the hidden economy, mainly in construction, agriculture, trade, and service activities;
- rather large share of the inactive population in the total working-age population.

The unemployment increased despite above-mentioned circumstances primarily because of:

- low mobility of the labour force,
- lack of information about vacancies,
- increase in long-term employment.

According to Statistics Estonia unemployment during 1996-1998 was nearly 10%. The situation changed at the beginning of 1999 and the unemployment started to grow quickly. In 2000, the unemployment rate was 14.8%, which has been the maximum since the beginning of the 1990-s. Since 2000, the unemployment rate started to decline gradually reaching 4.7% in 2007, which is the lowest yearly rate since 1992. However, the economic recession has changed the situation and in the second quarter of 2009, the unemployment rate rose to the highest level after 2000 (13.2%). Due to the economic decline, the labour market entrants experienced greater difficulties with finding employment; the creation of jobs halted as well (Tur, Viilmann 2009: 2).

Labour market in small open economies like Estonia largely depends on neighbouring countries and world market. Therefore, the impact of the Russian crisis of 1998 was considerable also in the Estonian labour market. Since the beginning of 1999 the official unemployment rate started to increase – many enterprises which had used internal reserves in 1998 had to change their personnel policy in 1999. Thus, there was a time lag between the economic slowdown and unemployment. The similar lag has occurred in 2008. Although the economic growth turned into recession during the second quarter of 2008, the number of unemployed started to increase sharply during the second half of 2008 (resulting in the yearly rate of 5.5%). Thus, the unemployment rate will supposedly increase to a larger extent in 2009.

In Estonia, the registered unemployment rate has always been lower than the unemployment rate according to the labour force surveys (LFS). During years 1993-2006, for example, the maximum difference between the two rates valued 6.7 percentage points in 2000. In general, the unemployment rates according to LFS are nearly twice of the value of registered unemployment rate. As stated by Arro *et al* (2001) the difference results from several factors, including the following as the most important:

- inadequacy of the legislation and social guarantees for unemployment;
- poor reputation of State Employment Offices;
- very limited willingness on the part of employers to cooperate with the state jobmediation system; and
- various job seeking scenarios.

Indeed, a survey of 2008 concerning the public image of the Estonian Labour Market Board affirms that the institution is not popular among job seekers, as a large number of them presume that the board cannot offer suitable jobs. Although the board additionally has started to provide services for other jobseekers next to unemployed, the people do not have enough information about this fact as well as about the jobs that the board can offer. People continue to seek jobs through acquaintances, contact directly with employers or search in electronic databases. Employers prefer to seek for employees mostly through acquaintances and advertisements in newspapers. (Tööturuameti maine... 2008)

The situation nevertheless changed with the economic recession in 2009. During economic growth, most vacancies were actually filled directly by people changing jobs without an intervening period of registered unemployment. Only a fraction of unemployed, less than 25 years old, were registered at Labour Market Board compared to more than 50% of unemployed older than 50 years of age. (Labour Market... 2009) Non-Estonians, older people and discouraged people are usually in unfavourable position in labour market, but due to high demand for labour force in 2006 and 2007 they participated in labour force to a larger extent than usually. The unemployment rate for the non-Estonians, for instance, decreased to 6.9% by 2007 from 15.2% in 2003. (Töövaldkonna areng 2008) In 2009, newly unemployed eligible for unemployment insurance benefits or unemployment allowances started registering in unusually high numbers. As a result, the number of registered unemployed grew by 177% on year-to-year basis in January 2009. (Labour Market... 2009)

In terms of the legislation and social guarantees for unemployment, the process of registering oneself as an unemployed has been rather complicated and the amount of the unemployment benefit has been very low (table 7).

Table 7. Unemployment benefits in Estonia, 1992 -2008.

Effective date of unemployment benefits	Unemployment benefits (EEK)	Unemployment benefits (EUR)	Unemployment benefit as percentage of minimum wage (%)
1 Jan. 1992	180	11.5	60.0
1 July 1996	240	15.3	35.3
1 Mar. 1998	300	19.2	27.3
1 Jan. 1999	400	25.6	32.0
2000	400	25.6	28.6

2001	400	25.6	25.0
2002	400	25.6	21.6
2003	400	25.6	18.5
2004	400	25.6	16.1
2005	400	25.6	14.9
2006	400	25.6	13.3
1 Jan. 2007	1000	63.9	27.8
2008	1000	63.9	23.0

Source: State Gazette, Ministry of Social Affairs

Labour Policy

In Estonia, the expenditure on labour market policy has been very low. Mostly the labour market policy has been passive, but as the unemployment allowance (since 2006 the term „benefits“ is used) have been very low compared to the average salary in Estonia, the proportion of passive measures of all the labour market policy measures has been rather low (table 8). While in 2005, in Denmark, LMP expenditure amounted to almost 4.1 percent of GDP, which was the highest number in the EU; in Estonia, it amounted to less than 0.2 percent of GDP. (Expenditure on... 2008)

Table 8. Expenditures on labour market policy as % of GDP.

	1994	1995	1996	1997	1998	1999	2000	2001	2002	2004	2005	2006	2007
Total expenditures	0.24	0.17	0.17	0.17	0.16	0.24	0.21	0.22	0.15	0.11	0.15	0.13	0.13
- passive	0.11	0.07	0.07	0.08	0.08	0.16	0.14	0.14	0.09	0.04	0.03	0.02	0.04
- active	0.13	0.10	0.09	0.09	0.08	0.08	0.08	0.08	0.06	0.07	0.12	0.11	0.09

Source: Health, Labour... 2008; Leetmaa *et al* 2003.

Additionally, compared to other OECD countries, the structure of active labour market policies is rather unvaried in Estonia – most of the expenditures finance training and the Labour Market Boards, but other measures receive little finances. (Leetmaa *et al.* 2003) However, the reasons behind the low expenditures on active labour market policies could besides the different composition of the services offered to unemployed include differences in target groups entitled to services (in Estonia only registered unemployed, while elsewhere also the employed at risk of involuntary job loss and inactive persons who would like to enter the labour market) as well as the rather short duration of the programs in Estonia compared to the other countries. (Estonian Human... 2009)

Employment benefits were introduced in Estonia with the emergence of unemployment problem in 1991 and the system was reformed in 2002. Considerable changes to the legislation were additionally enforced with the Labour Market Services and Benefits Act on 1 January 2006. While in 2002, the unemployment insurance was introduced, the most important change in 2006 was the implementation of the principle of a case-management approach in providing the services at the Labour Market Board.

In 2002, unemployment insurance in Estonia was created as a type of compulsory insurance based on the principle of solidarity. The first benefits were paid out in the beginning of 2003. The following types of benefits can be provided: unemployment

insurance benefit, benefit for collective termination of employment contracts, and benefit for employer's insolvency. For the insured, or the employee, the unemployment insurance contribution rate may be 0.5 to 2.0 percent and for the employer 0.25 to 1 percent of the wages paid to the employee. In 2006–2008, the unemployment insurance contribution rate was 0.6 percent for employees and 0.3 percent for employers. In 2009, the contribution rates increased with the new labour law – to 1 percent for employee and to 0.5 percent for employers. Insured persons, who have been registered as unemployed and who have been insured for at least 12 months during the 36 months prior to registration (until 2006, during 24 months) as unemployed, have the right to receive unemployment insurance benefits. The amount of the benefit depends on the previous salary and it decreases with the duration of the unemployment spell. (Health, Labour... 2008)

In Estonia, the minimum contribution record requirement for unemployment insurance has been strictly enforced, and the unemployed who fail to fulfil this criterion may apply for unemployment benefit. Eligibility for assistance in its turn requires a record of previous employment as well as active job search. The latter includes registration as unemployed at the local labour office and visits to the labour office at least every 30 days. The payment of benefits may be terminated if the person refuses a suitable job offer. Rather strict criteria for receiving the unemployment benefits cause difficulties for recent graduates without working experience as well as people who should only work for another few years before retirement. (Eamets *et al.* 2000)

In 2006, the number of different types of labour market services was increased with the new act, including four services for disabled persons. (Health, Labour... 2008) Additionally, each unemployed person is handled by a caseworker, who helps to resolve the client's unemployment problem and assists him or her in finding a job as soon as possible. (Estonian Human... 2009) In conclusion, the role of active labour market policies in Estonia has been modest and there are no surveys yet conducted after the most recent changes in the system. Thus, the effect of these changes remains unclear.

Migration and working abroad

In connection with the accession to EU, the opportunities for people working abroad have significantly widened. An important impulsion for migration was given by the decision of our neighbouring country Finland in 2006 to abolish all restrictions to the free movement of labour originating from the new member states.

Statistics on that field is very deficient. When to sum up all the sent workers (ca 18,000– 20,000) and the employees who have worked abroad either for a shorter or longer period (ca 32,000–35,000), we get the result of ca 50,000–55,000 people who have worked abroad at a certain period of time (from the beginning of 2004 until the beginning of 2007, data of the Ministry of Social Affairs). That figure includes also those who have returned and those who have been abroad repeatedly, which to some extent smoothes the non-calculation of unofficially working people in the official migration statistics. Therefore, it can be presumed that as an average, ca 15,000–20,000 people work abroad in a year.

The entire active population (who work or look for job) in Estonia is ca 680,000 people at the moment; hence, the number of people working abroad constitutes ca 2–3% of all

the people actively operating at the labour market. If we presume that approximately as many works abroad unofficially, the total number would be 5–6%.

Labour market flexibility

The labour market flexibility is a topic that has been much discussed in the Estonian media and which different authors treat very differently. According to some top politicians labour market rigidity is the most serious problem of the Estonian economy. This is often mentioned (see for example Ansip, 2008) in connection with Estonia's 163rd ranking among the 181 countries in the World Bank's Ease of Doing Business Index.⁴ At the same time, we should remember that by using only one indicator, the picture is very one-sided and we are not considering all the aspects of labour market flexibility.

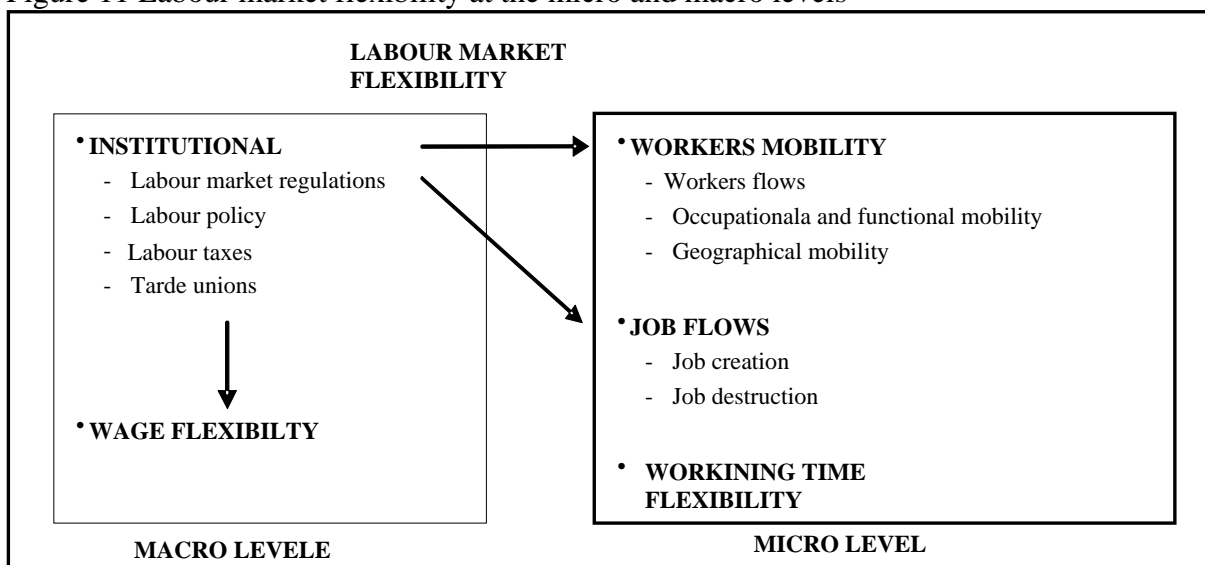
Labour market flexibility can be assessed at micro and macro levels. At the macro level, the flexibility of the labour market is measured by legislation and regulations and the flexibility of wages; the latter also reflects the influence of trade unions. The aforementioned international indexes reflect this aspect of labour market flexibility. At the micro level, or at the worker and company level, flexibility is indicated by how often workers move between different labour market stages, for instance, how easy it is to move from unemployment to employment. In addition, the flows of workers also includes functional flexibility or occupational mobility, or how often people change their occupation, or how simple it is for companies to replace workers with each other, etc. The third aspect of worker mobility is geographic mobility. Job flows show how many companies create new jobs or close old jobs during a given time period (usually one year). The last element at the company level is the flexibility of working hours or to what extent flexible work schedules, part-time work, overtime, etc are implemented. (see Figure 11).

There is a paradoxical situation in Estonia, where according to the macro indicators, i.e. the OECD Employment Protection Legislation Index, the Estonian labour market is rigid and overregulated, but when we examine data from the company level, it turns out that the labour market is flexible (see Eamets, Masso 2005). Similarly, according to the World Bank's Ease of Doing Business Index and the Heritage Foundation's Index of Economic Freedom, the Estonian labour market is rigid and overregulated. However, the fact is often ignored that the rigidity indicators operating at the state level are established by regulations or laws. In many other European countries, very minimal requirements are established at the legislation level and the majority of regulations are left for the social partners to agree upon. In other words, many international indices do not reflect the actual regulation of the labour market in the countries where the influence of trade unions is the strongest. In order to see the actual flexibility of the labour market,

⁴ To assess the severity of the labour market regulations, various indices have been used, the most famous being the Organization for Economic Development and Cooperation (OECD) Employment Protection Legislation (EPL) Index, the sub index on the severity of employment laws in the World Bank's Ease of Doing Business Index and the sub-index for economic freedom indicators in the Heritage Foundation's Index of Economic Freedom.

it would be necessary to analyze the macro data. Below, we try to fill this gap in the description of Estonia's labour market.

Figure 11 Labour market flexibility at the micro and macro levels



Let's examine two aspects of labour market flexibility – flows of workers between different labour market states and how many jobs are created and closed in companies.

Workers flows

Firstly, let's see how people move between different labour market states. People are in three different states in the context of the labour market – employed, unemployed or inactive. The employed are those who have jobs; the unemployed are looking for jobs; and the inactive are not looking for jobs and are not employed⁵ Since people are constantly moving from unemployment to employment, they become unemployed or someone leaves the labour market, or become inactive, there is constant flows in the labour market and this is called labour market mobility.⁶ The number of flows on the labour markets differs by year. Great changes in the economy/society (reforms, crises) cause an increase in labour market mobility, while during stable periods, there is less movement between various labour market states. Based on various flows, a matrix can be constructed.. Flows are indicated by the combination of the corresponding letters, or EU⁷ means moving from employment to unemployment, and IE from inactivity to employment. In total, there are nine potential flows.

A person's situation on the labour market is assessed during one year, for instance from January to January. Or, if a person was unemployed in January 2000 and employed in

⁵ The exact definitions of the three situations can be found in Statistics Estonia compendiums dealing with ETU methodology, see Statistics Estonia: 2006 Labour Market in Figures.

⁶ A separate issue is the geographical mobility of the workforce, which was not examined here.

⁷ E for employment, U for unemployment and I for inactivity.

January 2001,⁸ we get one movement from unemployment to employment. In reality, as we move diagonally along the matrix we see flows within the same state, or “stable” states. Or if a person was unemployed in July 2006, and still unemployed the next year, then he or she was in the same situation throughout the year and a real flow did not occur. In principle, he or she may have ended up in another state at some time during the year, but this method does not consider this.

There is one exception: within employment (EE flow, or job –to-job flow) we can speak of movement in a certain sense, because a person may change jobs during the year without leaving employment.

When analyzing empirical data, it is important to know what percentage of all employed people or all unemployed people changed their status . This shows us the ratio of flow compared to the number of people that are in the specific labour market state. The corresponding percentages are shown in following table.

Table 9 Flows of workers between various labour market states

	1996/1997	1998/1999	2000/2001	2002/2003	2004/2005	2006/2007
Employment to employment (EE)	16.8	11.8	9.6	10.3	10.3	10.1
Employment to unemployment (EU)	5.4	6.1	5.2	4.1	2.6	1.6
Employment to inactivity (EI)	6.1	5.7	5.3	4.5	4.7	3.6
Unemployment to employment (UE)	53.5	53.3	55.5	69.0	70.9	86.5
Unemployment to inactivity (UI)	13.1	12.8	25.6	25.0	23.6	13.5
Inactivity to employment (IE)	11.0	5.4	5.6	6.3	6.8	7.6
Inactivity to inactivity (II)	3.5	2.3	3.8	3.2	2.6	1.6

Source: Estonian Labour Force Survey

From the table we can see that the flows were greatest in the middle of the 1990s. For instance in 1996, 16.8% of the employed changed jobs during the year, 53% of the unemployed found new jobs during the year, and 11% of the inactive enter employment during the year.

At the same time, we can see that, for instance, the movement from unemployment to employment has been very simple during the period of economic growth. In 2006, 86% of the unemployed found jobs during the year. Such opportunities to find jobs will definitely decrease under conditions of economic recession, but for instance, during the previous serious economic recession in 1999/2000 it did not fall below 40%.

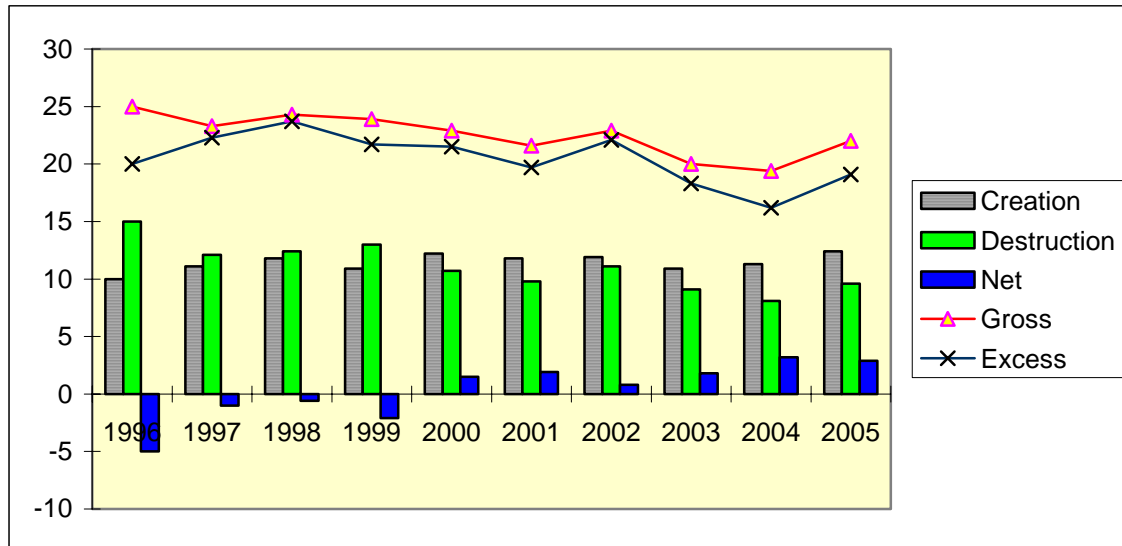
⁸ Before 2000, changes in situations were examined from January to January. As of 2001, movement has been defined as a change in situation compared to the same month of the previous year. Therefore, all the movements for a year are totalled by month and then an average obtained. Arithmetically: average annual movement = total (January-January, February-February,)/12

Job flows

Job flows is not defined as the physical movement of jobs, for instance from Estonia to countries with cheaper labour such as China, but the creation or destruction of jobs within companies. Using the data from the Business Register, a job is eliminated when, compared to the previous January, the job no longer exists in January of the following year. The creation of jobs is the opposite. Five indicators are used – the job creation rate, job destruction rate, net change, and the gross rate or change between the two and excess job reallocation rate, i.e. the gross effect subtracted from the absolute value of the net effect. The higher the net effect, the more volatile or flexible the labour market, the more jobs are eliminated and new jobs created.

This strand of empirical research has gained importance after research by Davis and Haltiwanger (1992) was published, and has produced a lot of evidence from the Western countries. The main findings, as summarised by Haltiwanger, Lehmann, and Terrell (2003), are that (1) in early transition, job destruction dominates job creation, whereas at later stages job destruction and creation are roughly equal; (2) there was a large increase in worker flows¹¹ when the transition began, (3) small and new private firms contribute to job creation disproportionately, while most of the job destruction occurs among state-owned firms, (4) there is vast heterogeneity in job creation and destruction within narrowly defined industries, but inter-industry reallocation is still more important than in western economies.

Figure 12 Job flow indicators in Estonia (% of unemployment)



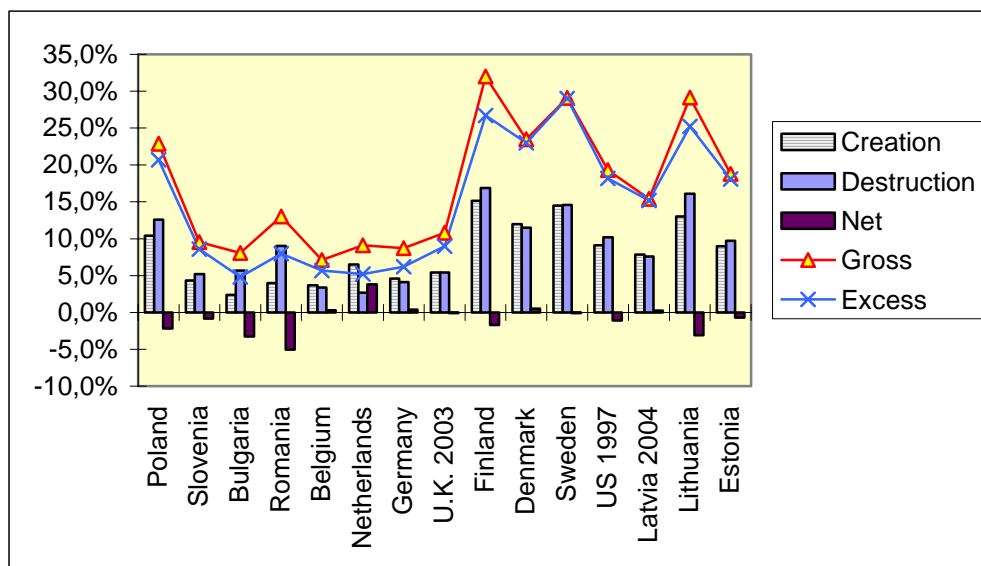
Source: J. Masso's calculations based on Estonian Business Register data

¹¹ Worker flows (flows between places of employment and employment status) are related to job flows as follows. The sum of job creation and job destruction induces the maximum amount of worker reallocation induced by the flow of jobs between firms, while larger job creation and destruction equal the minimum worker reallocation (Davis *et al.*, 1997).

Examining the dynamics of the net effect in Estonia (Figure 12), we see that this has constantly fluctuated at about 20%. When good times prevail in the economy, it is slightly less than 20%, for instance, the corresponding indicator was 19.1% in 2006 and during the economic recession of 1999 the corresponding indicator was 21.7%.

When we put the Estonian indicators into an international context (Figure 13), we see that labour market volatility is lower in Estonia than it is in the Nordic countries, but is at the same level as the US. We can observe that job flows in Lithuania and Poland are slightly higher to that of Estonia. Job creation and destruction indicators for the old EU member states are many times smaller than the corresponding indicators for Estonia. Therefore, the flows of people between various labour market states and the statistics for the destruction and creation of jobs do not confirm that Estonia is characterized by a very rigid labour market.

Figure 13 Creations of jobs indicators in international comparison (% of unemployment)



Source: Masso, Eamets Philips 2006

There is definitely some statistical information noise in this data, because the relabeling of jobs and redistribution of functions within companies are reflected ostensibly as job destruction or creation. But similar bias exists in all databases that reflect register data. In addition, Eamets & Masso, 2005, have given violations of the Labour laws as the reason for job mobility. Although it is relatively complicated to lay off workers according to the law, a large number of workers leave their jobs by “mutual agreement”⁹, which usually means that the worker often does not receive the benefits he or she is entitled to (unless a special agreement is reached).

⁹ This means according Estonian legislation, that workers left job voluntarily and they re not eligible for benefits. There are lot of anecdotal evidence that these workers were forced to leave by management.

In summary, it can be said that an analysis of the micro indicators confirms our assertion – Estonia’s labour market is flexible and operates as a kind of buffer for balancing the economy. This is proven by the relatively large flows between labour market states and the high rate of job creations and destructions. The final indicator is the rapidly increasing unemployment rate under conditions of the economic recession starting from the third quarter of 2008.

Conclusions

In Estonia, liberal market economy, small public sector, and relatively low tax burden result in scarce resources for policies. Annually balanced state budget has pro-cyclical nature, which means it works well during economic boom exaggerating growth through growing public expenditures. Opposite will take place during recession when government tries to cut expenditures in order to keep budget deficit under control. As personal income tax rate is flat and relatively low (21 %) and corporate income tax is 0 % (from reinvested profit) government also miss sufficient automatic stabilisers. In general we can say that government does not has fiscal tools to smooth cyclical fluctuations.

Additionally, the currency board system sets restrictions for money supply as well as for restraining inflation. Central bank does not control inflation in such case. Only tool for money supply is reserve requirement rate for commercial banking. But as all Estonian banks belong to their mother banks in Scandinavia, they do not have any restriction during a boom to borrow cheap money form Scandinavia. So their financial possibilities to increase money supply did not depend on their reserves.

Thus, in such a situation only flexible labour market can act as economic “buffer” for macroeconomic adjustment. Until 2009, the labour market has been quite successful in this role. Compared to other EU member states, the Estonian labour market is considered very flexible. Although employment protection legislation (EPL) shows that Estonia has relatively rigid labour market, a broader approach observing several different aspects of labour market flexibility reveals the opposite. Even though the employment protection index in Estonia is relatively high, the job destruction and job creation are very high as well. This may result from low law enforcement, but moreover, low administrative capacity of state institutions and weak trade unions may explain the situation. Initial data of 2009 also prove flexibility of labour market, within a year unemployment has escalated from 4 % to 13% and average nominal wages has declined more that 10 per cent during the first part of the year.

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ANNEX 1. Population aged 15-69, by sex and economic status, 1989 – 2008 (annual average, 000s, percentages).

Economic status	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Males and females																				
Total population	1096,4	1101,5	1102,1	1095,3	1067,0	1044,8	1025,9	1011,9	1000,5	993,6	987,7	986,0	985,3	984,6	985,1	987,5	990,1	990,5	987,8	983,2
Total labour force	842,6	831,2	818,7	790,5	748	730,9	701,4	687,7	678,8	668,6	655,8	658,2	655,2	646,5	654,2	652,1	653,8	681,3	682	689,1
Employed	837,9	825,8	806,6	761,4	698,9	675,4	633,4	619,3	613	602,5	575,3	568,3	572,2	579,3	588,1	588,6	601,6	640,9	650	650,9
Unemployed	4,7	5,4	12,1	29,2	49,1	55,5	68,1	68,4	65,8	66,1	80,5	89,9	83	67,2	66,1	63,5	52,2	40,4	32	38,2
Inactive people	253,8	270,4	283,4	304,8	318,9	313,9	324,5	324,2	321,7	325	331,9	327,8	330,1	338,1	331	333	333,7	309,2	305,8	294,1
Labour force participation rate, %	76,9	75,5	74,3	72,2	70,1	70	68,4	68	67,8	67,3	66,4	66,8	66,5	65,7	66,4	66,2	66,2	68,8	69	70,1
Employment rate, %	76,4	75	73,2	69,5	65,5	64,6	61,7	61,2	61,3	60,6	58,2	57,6	58,1	58,8	59,7	59,7	60,9	64,7	65,8	66,2
Unemployment rate, %	0,6	0,6	1,5	3,7	6,6	7,6	9,7	9,9	9,7	9,9	12,3	13,7	12,7	10,4	10,1	9,7	8	5,9	4,7	5,6
Males																				
Total population	519,6	522,4	522,7	518,9	503,4	492,4	483,2	476,3	471,0	467,5	465,0	464,5	464,5	464,6	465,4	466,8	468,4	469,1	468,3	466,7
Total labour force	429,1	428,9	426,6	417,5	392,6	383	365,9	356,1	352,3	344,7	337,8	338,7	335,5	331,2	333,6	329,8	326,8	341,7	345,8	348,1
Employed	426,7	426,3	420,5	401,2	367,1	355,1	327,6	318,3	316,7	307,3	292,1	289,2	291,9	295,1	299,4	295	298	320,5	326,9	327,8
Unemployed	2,5	2,6	6,1	16,3	25,5	27,9	38,3	37,8	35,6	37,4	45,7	49,5	43,7	36,1	34,2	34,7	28,9	21,2	18,9	20,2
Inactive people	90,5	93,5	96	101,5	110,7	109,4	117,3	120,2	118,7	122,9	127,2	125,8	129	133,4	131,8	135,7	139,8	127,4	122,5	118,6
Labour force participation rate, %	82,6	82,1	81,6	80,4	78	77,8	75,7	74,8	74,8	73,7	72,6	72,9	72,2	71,3	71,7	70,9	70	72,8	73,8	74,6
Employment rate, %	82,1	81,6	80,5	77,3	72,9	72,1	67,8	66,8	67,2	65,7	62,8	62,3	62,8	63,5	64,3	63,4	63,9	68,3	69,8	70,2
Unemployment rate, %	0,6	0,6	1,4	3,9	6,5	7,3	10,5	10,6	10,1	10,8	13,5	14,6	13	10,9	10,3	10,5	8,8	6,2	5,5	5,8
Females																				
Total population	576,8	579,2	579,4	576,4	563,6	552,4	542,7	535,6	529,5	526,1	522,7	521,5	520,7	520,0	519,7	520,7	521,7	521,4	519,5	516,6
Total labour force	413,5	402,3	392,1	373,1	355,4	347,9	335,5	331,6	326,5	324	318	319,5	319,7	315,2	320,5	322,4	327	339,7	336,3	341
Employed	411,3	399,5	386,1	360,1	331,8	320,3	305,8	301	296,3	295,2	283,3	279,1	280,4	284,2	288,7	293,6	303,7	320,4	323,2	323
Unemployed	2,2	2,8	6	12,9	23,6	27,6	29,7	30,6	30,2	28,7	34,8	40,5	39,3	31	31,9	28,8	23,3	19,2	13,1	18
Inactive people	163,3	176,9	187,4	203,3	208,2	204,5	207,2	204	203,1	202,1	204,6	202	201	204,7	199,2	197,4	193,9	181,7	183,3	175,5
Labour force participation rate, %	71,7	69,5	67,7	64,7	63,1	63	61,8	61,9	61,7	61,6	60,8	61,3	61,4	60,6	61,7	62	62,8	65,1	64,7	66
Employment rate, %	71,3	69	66,6	62,5	58,9	58	56,3	56,2	56	56,1	54,2	53,5	53,8	54,7	55,5	56,5	58,3	61,5	62,2	62,5
Unemployment rate, %	0,5	0,7	1,5	3,5	6,6	7,9	8,9	9,2	9,2	8,9	10,9	12,7	12,3	9,8	9,9	8,9	7,1	5,7	3,9	5,3

