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Latvia: Sharing the High Growth Dividend
A Living Standards Assessment

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CURRENCY AND EQUIVALENT UNITS

Currency Unit = Latvia Lati (LVL)
US$ = 0.5375

ABBREVIATIONS

CIS	Commonwealth of Independent States
CSB	Central Statistical Bureau
NAP	National Action Plan
LFS	Labor Force Survey
HBS	Household Budget Survey
GMI	Guaranteed Minimum Income
LVL	Lats
GDP	Gross Domestic Product
FDI	Foreign Direct Investment
DI	Duncan Index
TFP	Total Factor Productivity

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PREFACE AND ACKNOWLEDGEMENTS

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The World Bank task team included Salman Zaidi (task team leader), Branko Milanovic, Mihails Hazans, Andrejs Jakobsons, Anna Zasova, Necmeddin Bilal Erdogan, and Helena Makarenko. The report was undertaken under the guidance of Daniela Gressani, then Country Director; Cheryl Gray, Sector Director; and Asad Alam, Sector Manager. Karlis Smits, Edmundo Murrugarra, and Emmanuel Skoufias were the peer reviewers of the report. The team would like to also thank Dina Grube, Bernard Funck, Suman Mehra, Thomas Laursen, and the staff of the World Bank Riga office for their comments, advice, and help throughout the course of this work.

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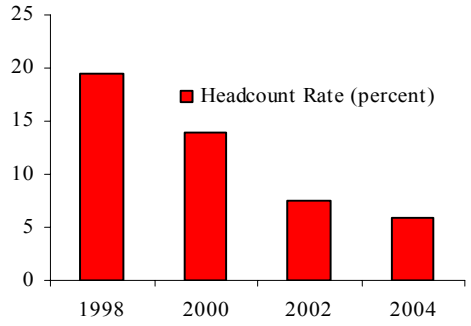
EXECUTIVE SUMMARY

Between 1998 and 2004, Latvia achieved substantial progress in poverty reduction, with an estimated 325,000 people moving out of poverty over this period. The labor market provided the primary channel through which the benefits of rapid economic growth were shared widely across the population. Along with higher employment rates, labor productivity rose appreciably, spurring higher real wages, incomes, and living standards. At the same time, maintenance of a broad-based system of social transfers has ensured that vulnerable groups such as pensioners and the poorest are protected even as the targeting effectiveness of local government benefits can be improved.

1. Following its independence in 1991, Latvia experienced a sharp decline in output and welfare. However, over the past decade, it has steadily improved its economic performance and has become one of the top performers in Europe. As a result, the country has achieved substantial progress in poverty reduction in recent years. Between 1998 and 2004, poverty rates fell by an estimated 13 percentage points (Figure 1). An estimated 325,000 Latvian people moved out of poverty during that time. The benefits of high growth were also spread widely across different income groups. This fortunate turn of events represents a reversal of earlier trends that showed rising inequality during the latter half of the 1990s. Unemployment in the country has also fallen steadily, while employment rates have picked up since 2002.

Figure 1: Recent Poverty Trends in Latvia



2. This report examines the extent and causes of poverty reduction during this period using data from a variety of sources – the national accounts as well as household budget, labor force, and other household surveys. It also explores several inter-related questions, namely (a) why don't the Laeken poverty indicators used by the government show corresponding progress in poverty reduction for the same period, (b) were the benefits of growth widely shared among the entire population, (c) if so, what were the main channels for sharing these benefits, (d) did residents of different regions and ethnic minorities also benefit from this high growth, (e) what are the main determinants of welfare/earnings in the country, (f) how well do social assistance programs reach the poor, and how can their targeting performance be improved.

3. As explained below, the answers to these questions are as follows: (a) unlike the Laeken poverty indicators which are based on a relative poverty line, this report uses an absolute poverty line, (b), the benefits of growth were very widely shared indeed, as indicated by the declining income inequality and flat growth incidence curves, (c) increased employment and earnings provided the primary channels through which the benefits of growth were shared across the population, (d) different regions, men and women, as well as the Latvian and non-Latvian population all benefited from growth during this period, even if some differences persist, (e) household size, gender, education and labor market status are important predictors of poverty, and (f) targeting of social assistance can be improved somewhat by increasing allocation through b-etter targeting of poor regions by the national government.

4. **High growth rate.** The Latvian economy has performed quite well over the past decade. Growth during the past five years has been particularly high: real per capita GDP increased by almost 50 percent, seven times the increase in the EU overall (Figure 2). Between 1995 and 2005, when total value added in the national economy doubled in real terms, the service sector grew at 7.4 percent a year. The key service sectors driving growth were wholesale and retail, followed by real estate and related activities. Industry has grown at an annual rate of 6.9 percent nearly as fast as services. In agriculture, growth has been considerably slower, though respectable (2.4 percent per annum on average). Over this period, agriculture's share of national output fell from an already low 6 percent to 4 percent (Figure 3). Given the predominance of the service sector, the Latvian economy now closely resembles that of Western European countries.

Figure 2: Latvia's High real GDP per capita Growth

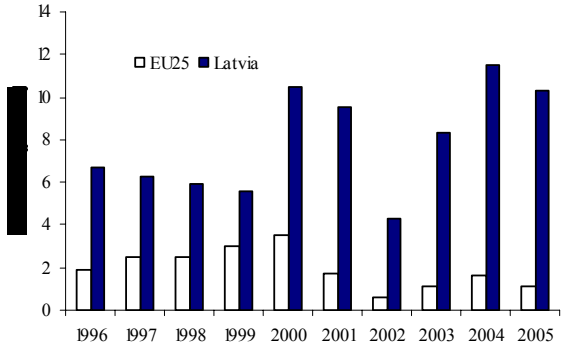
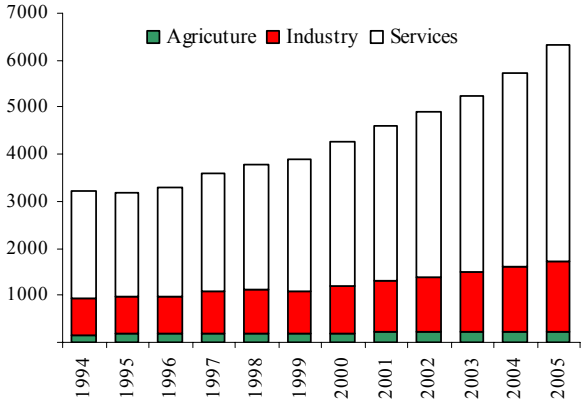
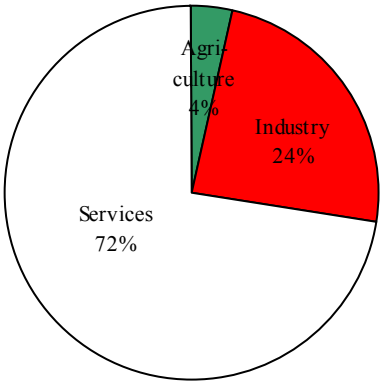


Figure 3: Value-added in the Services and Industrial Sectors Grew Rapidly During the Past Decade



Value-Added, Constant Prices – 1995 – 2005



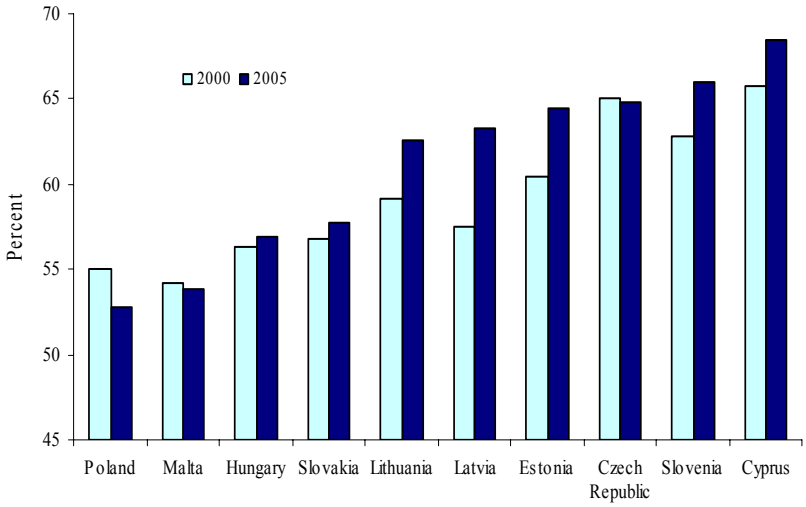
Composition by Sector (2005)

5. Rapid increases in productivity and earnings, and more recently an increase in total employment, have been the main channels for sharing the benefits of high growth across the population. Based on a growth accounting analytical framework, analysis shows that the more open to trade a particular sector was in Latvia, the greater its increase in productivity.[1] This analysis indicates that between 1996 and 2003, labor made a relatively modest contribution to overall growth. However, in more recent years, data from labor force surveys reveals that employment in Latvia has risen appreciably. From 1998 to 2000, total employment rates declined

[1] *World Bank EU-8 Quarterly Economic Report, Part III: The Baltic Growth Acceleration—Is it Sustainable?* January 2004 issue.

to about 58 percent, but have since risen by about one percentage point per year. In 2005, Latvia's employment rate of 63 percent was still well below the 2010 Lisbon target of 70 percent. Nevertheless, it has been rising faster than that of any other new EU member state (Figure 4).

Figure 4:Latvia's Employment Rate has been Rising Quite Rapidly



6. **The Poverty Puzzle: Trends in Laeken Indicators vs. Absolute Poverty Measures.** At present no series track long-term trends in poverty in Latvia. The government's national action plan for poverty reduction notes that during 2000-2003 the population at risk of poverty remained unchanged at approximately 16 percent. That statistic is puzzling, given the high per-capita income growth experienced during the same period. This trend is based on poverty indicators developed by Eurostat and approved at the Laeken European Council. Any adult whose income falls below 60 percent of the national median income in each member state is considered poor; in other words, it is a relative poverty measure.

7. Using HBS data from several surveys during 1998–2004 and an absolute poverty line,[2] this report identifies for the first time trends in poverty for this extended period based on a consistent definition of poverty.

Table 1: Key Poverty and Inequality Statistics

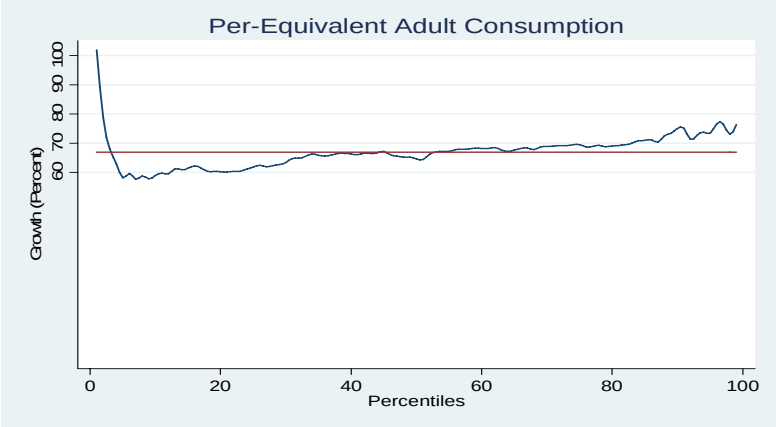
	1998	2000	2002	2004
Poverty Headcount Rate (percent)	19.4	14.0	7.5	5.9
Poverty Gap (P1) measure	5.5	4.1	2.0	1.2
Poverty line (% of mean consumption)	50	41	34	30
Gini coefficient	33.5	37.3	35.1	33.5

As the table shows, the poverty headcount rate fell significantly – from 19.4 percent in 1998 to less than 6 percent in 2004 (Table 1). Inequality in the distribution of incomes has also improved since 2000. The poverty gap index, measuring how far on average the poor are below the poverty line, declined substantially from 5.5 to 1.2 percent. The impact of high growth has been to lift an estimated 325,000 people out of poverty.

[2] This report uses the same poverty line as that in the World Bank's earlier living standards assessment for Latvia, namely 28 LVL per person per month in 1998 prices. It is adjusted for inflation to hold constant the real value of the poverty line over time.

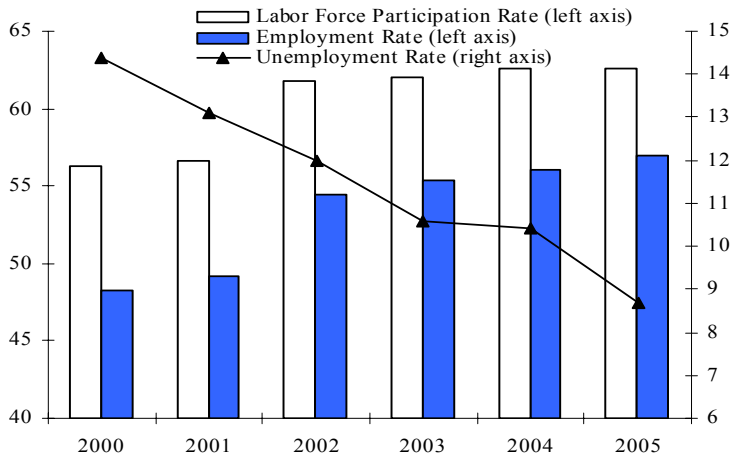
8. Why are poverty trends derived using an absolute poverty line so different from those based on the Laeken poverty measures? The reason is that the latter are based on a relative poverty measure. During 1998 – 2004, growth in per-capita consumption in Latvia was evenly distributed across all income groups (Figure 5). Survey data show that average per capita consumption in Latvia increased by 69 percent. Poverty measures based on an absolute poverty measure show a rapid decline in poverty because of the economic growth that occurred during this period. However, one of the consequences of this growth was that median incomes increased as well. As a result, poverty estimates linked to this measure (i.e. the Laeken poverty indicators) show no change in poverty during this period.

Figure 5: Recent Growth in Latvia has been Evenly Spread across Income Groups (1998-2004 HBS data)



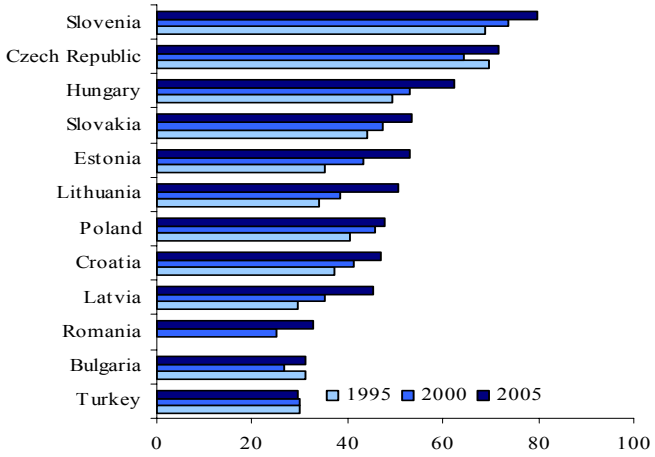
9. Between 2000 and 2004, Latvia has experienced exceptionally high growth along with rising employment and falling unemployment rates (Figure 6), and these developments in the economy have coincided with a substantial drop in poverty incidence and reduction in income inequality (Table 1). Expanding economic opportunities in the labor market appear to have been the primary channel through which the benefits of rapid economic growth were shared widely across the population during this period.

Figure 6: Declining Poverty and Income Inequality in Recent Years Noted Earlier has been Accompanied by Improving Labor Market Indicators



External income convergence and international poverty comparison: As a result of the remarkable post-1995 sustained spell of high output growth, even though average income in Latvia is still less than one-half the EU25 average, the gap between the two has declined steadily over the past decade (Figure 7).

Figure 7: Rapid Convergence with EU Average Incomes

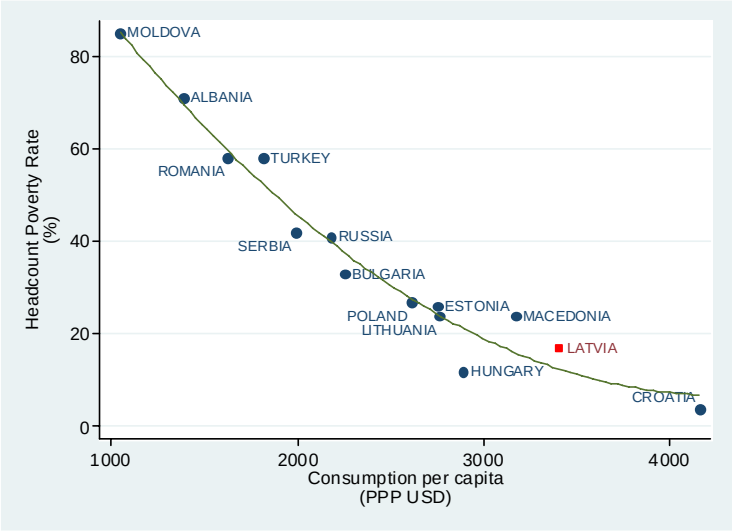


GDP per capita in purchasing power standard, EU25=100

10. Using an internationally comparable poverty line for the region, the report finds that Latvia's poverty rates are now among the lowest in Europe and Central Asia. This is because $PPP-adjusted survey estimates of mean consumption are higher than those observed in other countries, even if inequality is also somewhat higher than in most other countries.

11. Latvia's low poverty rate (around 17 percent, if an international poverty line of $PPP 4.30 per day per person in 2003 prices is applied) is a bit higher than what one might expect from Latvia's $PPP-adjusted per capita consumption level (Figure 8)—this is likely because income (consumption) inequality is also higher than in most countries in the region. The share of food in Latvia's total consumption, at around 40 percent, is among the smallest in the region.

Figure 8: Cross-Country Poverty Comparisons: Latvia and Selected European Countries



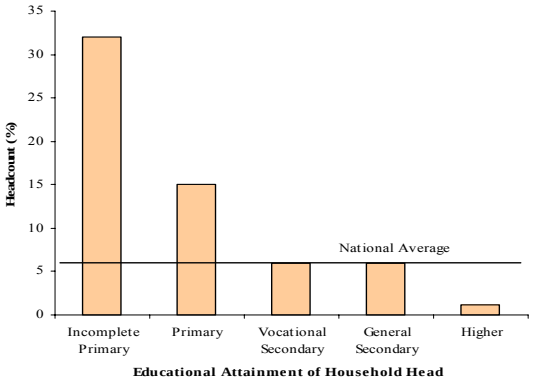
WHAT EXPLAINS DIFFERENCES IN WELFARE STATUS ACROSS GROUPS?

12. Multivariate regression analysis suggests that household size and gender, education and labor market status of the household head are significant to poverty.

13. *Household size and gender of the household head:* Larger Latvian households tend to have lower per capita consumption, but their welfare appears to have improved slightly with time. Poverty rates do not vary significantly for men and women. However, regression analysis indicates that controlling for other explanatory variables, having a male-head is in-fact associated with a large and rising premium in terms of per capita consumption—this premium amounted to roughly 10 percent per household member in 1998, and rose to 14 percent per household member by 2004.

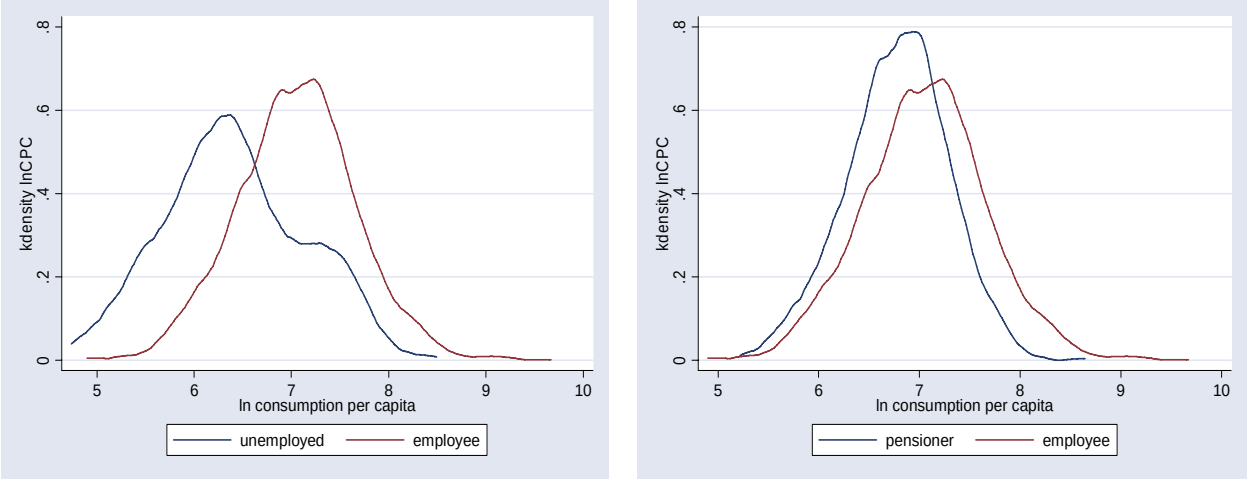
14. *Education of the household head:* Like in most other countries, household survey data in Latvia shows a strong negative association between risk of poverty and the level of education of the household head. The education gradient appears to be quite clear, with higher educational attainment of the household head clearly associated with lower risk of poverty (Figure 9). Moreover, in comparing regression results across different survey years, the report finds that over time, the correlation between education and economic welfare has become even stronger.

Figure 9: Poverty and Education (2004 HBS)



15. *Poverty and labor market status:* As one might expect, average living standards vary considerably depending on the work status of the household head. In general, average living standards for employees are much better than for the unemployed and pensioners (Figure 10).

Figure 10: Average Living Standards and Labor Market Status



16. Two points are worth elaborating on. First, falling unemployment rates in Latvia over the years have meant that the unemployed constitute a much smaller share of the overall population in 2004 than they did in earlier years. This is true for the overall population as well as for different age groups (Figure 11). Second, Latvia's growth during this period has been shared widely across all groups, even if the relative rankings of different groups have changed over time. As the HBS data clearly show, poverty rates fell between 1998 and 2004 for all groups. While overall poverty incidence for employees and pensioners was quite similar in 1998, employees were much better-off in relative terms in 2004 (Figure 12).

Figure 11: Falling Unemployment across Age-groups

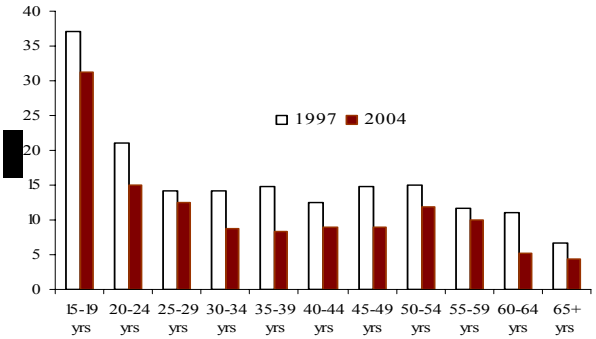
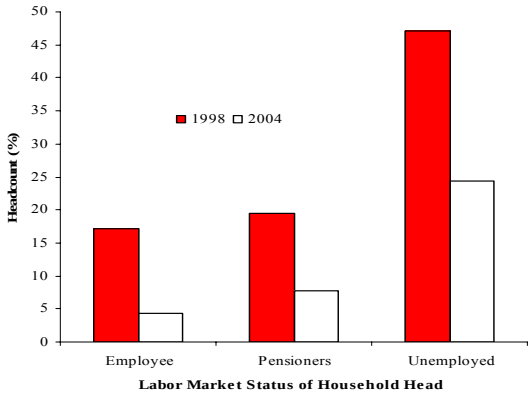
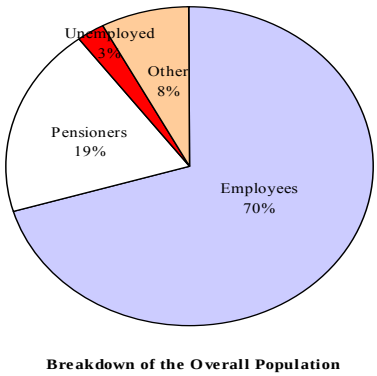


Figure 12: All Groups Benefited from Poverty Reduction, Regardless of Their Labor Market Status



Poverty Incidence (percent)

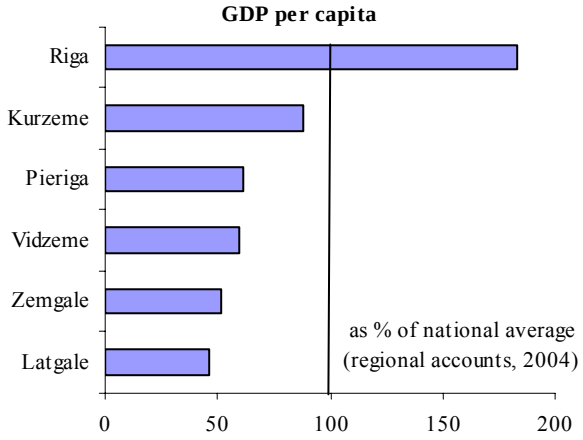


Labor Market Status of Head (2004)

HOW IMPORTANT ARE REGIONAL DIFFERENCES IN LIVING CONDITIONS?

17. Regional inequalities in Latvia look quite striking, based on regional GDP per capita estimates (Figure 13). The most recent data show considerable variation across localities. For example, in Riga, the national GSP per capita in 2004 was at a high of 183 percent compared to the Latgale region, which stood at 46 percent of the national average.

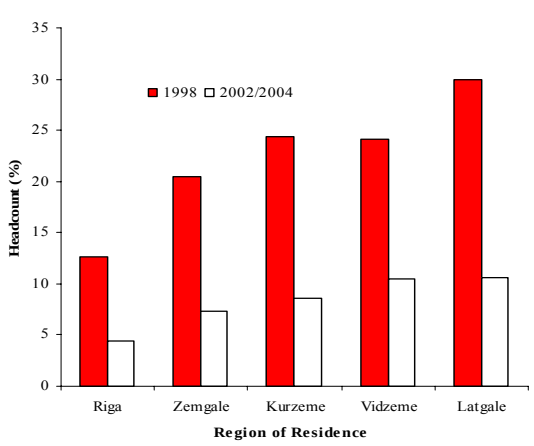
Figure 13: GDP per Capita by Region (2004)



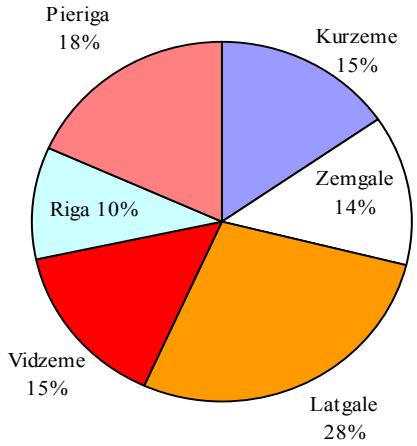
18. Regional GDP accounts overstate inter-regional differences in living conditions because of three factors: cost-of-living differences between regions, the effects of inter-regional tax transfers, and differences between production sites and workers' residences. Per-capita consumption estimates derived from survey data are a much better measure of inter-regional differences in living conditions, and, as shown later in the report, are more equally distributed across regions. To improve the precision of the regional poverty estimates, the 2002-2004 HBS data were pooled to increase the total sample size by region.

19. **Poverty declined appreciably in all regions.** The resulting tables and maps provide useful insights to the variations in development indicators across different parts of Latvia. They show, for example, that poverty is relatively low in the Riga region (including Pieriga), somewhat higher in the Kurzeme and Zemgale regions, and highest in the Vidzeme and Latgale regions (Figure 14). Thus, while roughly one-third of Latvia's overall population resides in the Riga region, this region houses only about 10 percent of the nation's poor. In contrast, about 28 percent of the population lives in the Latgale and Vidzeme regions; nevertheless, these regions account for 43 percent of the country's poor. However, the most striking finding of the analysis shows the extent to which the gains in growth from 1998 – 2004 were shared across different regions.

Figure 14: High Growth also Resulted in Appreciable Decline in Poverty across All Geographic Regions



Poverty Incidence (percent)



Share of the Poor by Region (2002/2004)

LABOR MARKET DIFFERENCES BY GENDER, ETHNICITY AND REGION ARE DECLINING

20. **Labor market flexibility has increased.** How geographically segmented are internal labor markets in Latvia due to, for instance, barriers to mobility? Comparing labor force data on employment and earnings for 2002 and 2005 across regions, and across rural and urban areas, in Latvia, regional wages are found to be less spatially polarized in 2005 than they were three years earlier. Unemployment rates varied from 11 percent (Riga) to 17 percent (Latgale) in 2002, but this inter-regional gap narrowed somewhat in 2005 (8 percent in Riga to 13 percent in Latgale). Similarly, the rural-urban earnings gap has declined considerably in 2005 relative to 2002—in fact, in 2005, average earnings of employees working in rural areas were statistically indistinguishable from those of otherwise similar counterparts working in urban areas. Finally, a substantial part of the effect of job location on wages (i.e. across the 33 NUTS-4 regions in Latvia)[3] can be explained in the analysis by differences in unemployment rates across regions. Taken together, these findings suggest that labor market flexibility in Latvia improved considerably between 2002 and 2005.

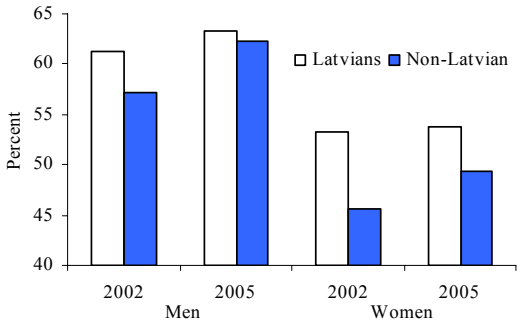
21. **Gender wage differentials have declined.** Labor force survey data show that in 2005, the monthly wages of men in Latvia exceeded those of women by 25 percent – even though differences in observed productivity-related characteristics across the two groups suggest that these differences should be less than 5 percent. The persistence of such "unexplained"[4] wage differentials remains a vexing issue that continues to be the focus of ongoing research. Nevertheless, between 2002 and 2005, evidence suggests that the gross wage differential between men and women declined; the "unexplained" wage differential between the sexes did too.

[3] NUTS is the *Nomenclature des Unites Territoriales Statistiques* classification scheme of Eurostat.

[4] "Unexplained" refers to the difference between gross wage differential and the wage differential that can be explained by observed productivity-related characteristics of men and women.

22. **Ethnic differences persist, though labor market tightening has resulted in a considerable narrowing of the employment gap.** 2002 LFS data indicate that there were fairly significant differences in labor market outcomes between the Latvian and non-Latvian population: unemployment rates for the former were 5 percentage points lower than for the latter group. Similarly, employment rates for non-Latvian men and women were 4 and 8 percentage points lower, respectively, than for their Latvian counterparts. However, labor market tightening over the next three years helped reduce the gap between these groups: by 2005 the employment rates differential between the two groups had narrowed to 1 and 4 percentage points for men and women respectively (Figure 15). Similarly, the gap in labor force participation rates narrowed from 3 percent in 2002 to less than one percent in 2005.

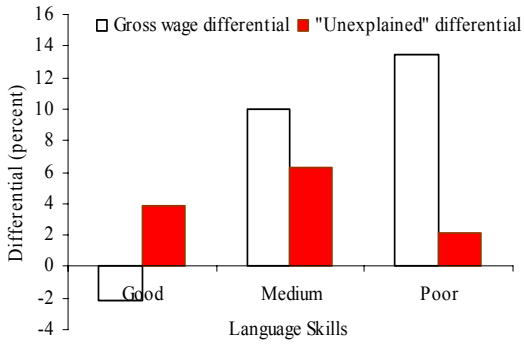
Figure 15: Narrowing Gap in Employment Rates between Ethnic Groups



23. And yet, the gap in employment rates between the two ethnic groups continues to be high for some sub-categories. For example, in 2005, the ethnic gap remained substantial (10 percentage points) for persons with tertiary education. Similarly, differences persist for segments of the labor market. A greater proportion of Latvians is highly skilled non-manual occupations; whereas non-Latvians tend to be in skilled manual and elementary occupations. Furthermore, the latter group is more likely to work in the private rather than the public sector. Labor force survey data also show that in 2005 the wage gap between the Latvian and non-Latvian population remained considerable (9.6 percent; this however represents a marginal improvement compared to 10.2 percent in 2002). Moreover, the wage differential between the two ethnic groups was largely unexplained by observed differences in education, age, occupational characteristics or similar variables.

24. **Are differences related to language skills?** Why are labor market outcomes so different across these two groups? Analysis of data from a recent nationally representative survey of employees in Latvia suggests that the difference between the two ethnic groups stem from differences in language skills. In terms of occupational distribution, the extent of dissimilarity is considerably lower among native Latvian speakers and those non-Latvians who have a good working knowledge of the state language. Similarly, once differences in language skills between the two groups are accounted for, the "unexplained" gap in earnings between the two groups is also substantially reduced (Figure 16).[5]

Figure 16: Wage Differentials for Non-Latvians by Language Skills

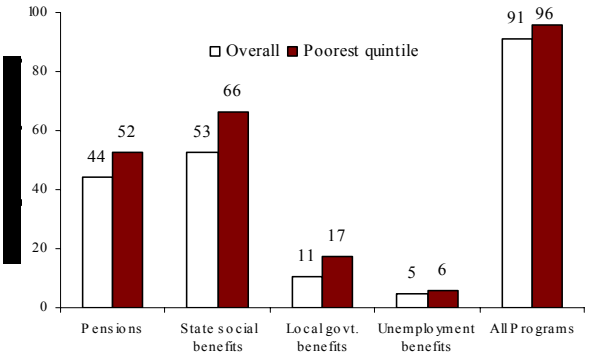


[5] The "unexplained" wage gap is defined to be the observed gross wage differentials minus the "explained" ethnic wage gap—i.e. the differential in mean predicted wages of native Latvian speakers and the given group, using earnings functions estimated over the pooled sample without language and ethnic dummies.

REACHING THE POOR THROUGH SOCIAL TRANSFERS

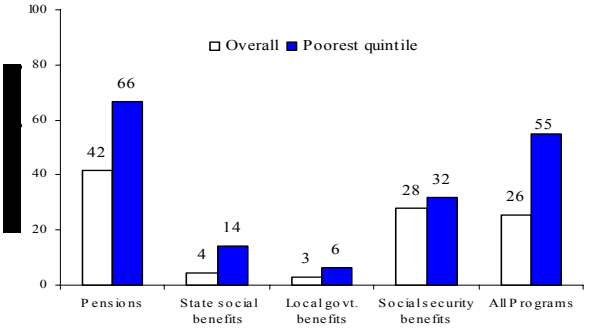
25. The relative performance of various social programs[6] in reaching the poorest one-fifth of the population is compared using three related criteria: (i) coverage (i.e. share of this group receiving benefits), (ii) adequacy (i.e. share of their total consumption accounted for by this transfer), and (iii) targeting efficiency (i.e. share of total program spending accruing to this sub-group).

Figure 17: Program Coverage Rates



26. **Coverage:** Pensions and state social benefits reach a fairly large share of the poorest quintile (52 and 66 percent respectively), while local government benefits and the unemployment program have relatively lower coverage rates (17 and 6 percent respectively) (Figure 17).

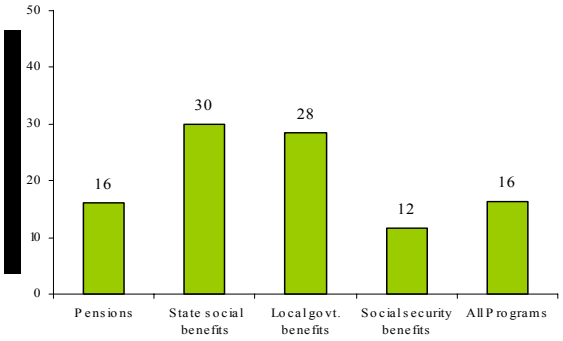
Figure 18: Benefits as Share of Consumption



Adequacy: Total transfers are an important income source for those receiving them, especially among the poorest quintile: in 2004, these transfers represented the equivalent of 26 percent and 55 percent of per-capita consumption of all and poorest quintile beneficiaries respectively (Figure 18).

27. **Targeting Efficiency:** State social benefits and local government benefits are the best-targeted transfers in Latvia (Figure 19), with about 30 percent and 28 percent respectively of total transfers under these programs reaching the poorest quintile. By contrast, pensions and state social security benefits are relatively less well-targeted, with only 16 and 12 percent respectively of total expenditures accruing to this group. While clearly not all benefits are intended to reach the poor exclusively (e.g. pensions, which also serve an important social insurance function), these findings nonetheless suggest there is scope for improving access to these benefits by the poor.

Figure 19: Targeting Efficiency



[6] See footnote 27 on page 42 for a more detailed description of the various central and local government programs included under each of the broad program categories presented in the figures.

28. While local government benefits were quite well targeted in Latgale, Vidzeme, and Zemgale regions—in the sense that a high proportion of their beneficiaries was from the poorest one-fifths of the population—this was not the case in Riga and Kurzeme regions.

CONCLUDING OBSERVATIONS

29. Latvia has come a long way in improving the living standards of its population. Sustained and robust growth has moved the country closer to income convergence with the EU25 average income level, and the gains from it have been widely shared across the entire population. This is reflected in rising employment rates, and wages, and narrowing labor market differences and income inequalities. Looking ahead, the report's preliminary policy recommendations include:

- Sustaining Latvia's impressive growth performance is key to consolidating its achievement in poverty reduction, and macroeconomic management will thus be of fundamental importance also for these achievements;
- Absolute measures of poverty – such as those used in the report to assess poverty trends – are needed to complement relative measures, especially to capture welfare developments in the poorest segments of the population; and
- Improved targeting of state and local government benefits is needed to better reach the poorest, possibly through channeling more resources to lower-income regions.

CHAPTER 1.
OVERVIEW AND RECENT ECONOMIC DEVELOPMENTS

A. OUTLINE OF THE REPORT

1.1 The World Bank prepared a living standard assessment report for Latvia in 2000, which provided a number of sobering findings regarding poverty and inequality levels and trends. Based on 1998 Household Budget Survey data, about one-fifth of Latvia's population were below the poverty line of 28 *Lats* per capita per month. Inequality in incomes was also on the rise; the Gini had increased from 0.30 in 1996 to 0.34 in 2000. The report also highlighted significant disparities in living conditions across regions; poverty rates varied from a low of 13 percent in Riga to more than 30 percent in the Latgale region. Overall, unemployment rates were high, but they varied considerably across regions and urban and rural areas. There was a strong correlation between unemployment and poverty. In addition, econometric analysis of labor market earnings revealed fairly striking unexplained differences in earnings between men and women and between Latvian and non-Latvian (mainly Russian-speaking) groups.

1.2 However, over the past decade, Latvia has steadily improved its economic performance and has become one of the top performers in Europe. The main objective of the World Bank's follow-up living standards assessment is to analyze the impact that the recent spell of high growth in Latvia has had on living conditions there, particularly during 1998 to 2004. This assessment picks up where the earlier report left off; it includes the latest year for which survey data are available. This report uses data from a variety of sources -- the national accounts as well as household budget and labor force surveys conducted during this period.

The chapters of this report are organized as follows:

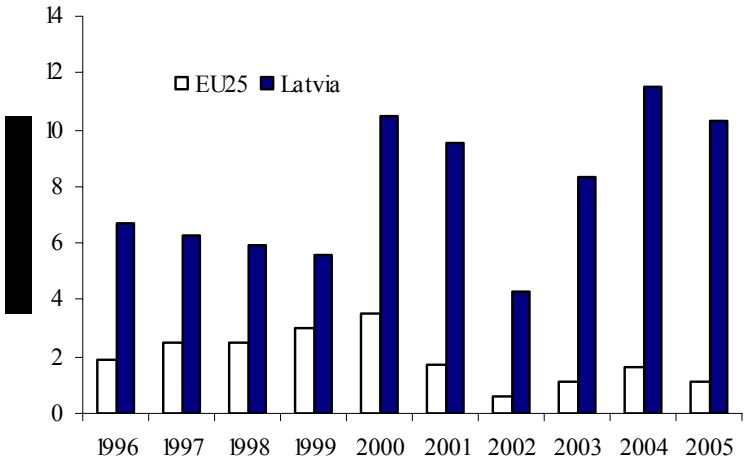
- *Chapter 1 summarizes recent economic developments*. It reviews key changes in the Latvian economy over the past decade. It addresses growth trends at the sector level, summarizes changes in income and consumption, and identifies key labor market developments experienced by Latvia in recent years.
- *Chapter 2 examines trends in poverty and inequality, and provides a poverty profile.* It uses data from the household budget survey series to shed light on recent trends, and strives to resolve the apparent puzzle of why Laeken poverty indicators show no decline in poverty. The chapter also summarizes the main correlates of poverty, and elaborates on what explains differences in welfare status among different groups.
- *Chapter 3 analyzes the main determinants of employment and earnings.* It draws upon data from the labor force survey series, as well as from a recent representative survey of employees conducted in 2005 to examine the links between language skills and earnings.
- *Chapter 4 examines targeting effectiveness of various social assistance programs* using data from the 2004 HBS. In particular, the analysis focuses on the coverage, adequacy, and targeting efficiency of the various transfer programs in operation (pensions, state social security benefits, local government assistance benefits, and state social benefits).

B. HIGH GROWTH IN THE ECONOMY AND INCOME CONVERGENCE WITH THE EU

Latvia has been the best economic performer in the European Union in recent years. Over the past decade, the services sub-sector has been the main driver of growth; the industrial sector is a close second.

1.3 After suffering a severe contraction in output and employment after the transition from communism, Latvia has steadily improved its economic performance since the mid-1990s (Figure 1.1. During the past five years Latvia has experienced the fastest growth of all European Union (EU) countries: real per capita GDP increased by over 50 percent, more than seven times the increase in the EU overall. Growth in the Latvian economy can be attributed to rapidly expanding exports initially, followed more recently by booming domestic demand. As in many other transition countries in the region, Latvia's aggregate growth has been spurred by a dynamic services sector (Box 1.1). Between 1995 and 2005, when total value added in the national economy doubled in real terms, the services sector grew at 7.4 percent a year. The key service sectors driving growth were wholesale and retail, followed by real estate and related activities.

Figure 1.1: Latvia High Real GDP per capita Growth



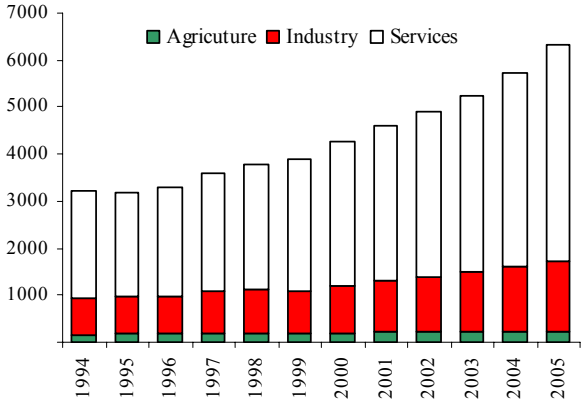
Source: Eurostat. Publish date: 24 October 2005.

Box 1.1: The Services Sector in Latvia

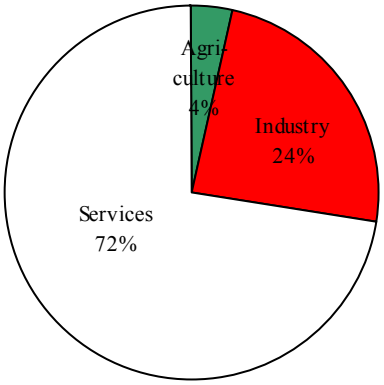
Located at the center of the three Baltic states, Latvia is ideally situated as a strategic transit hub for trade between CIS countries and the West. Since the country's independence in 1991, a rapidly expanding transport and communications subsector has led to a booming services sector. Ventspils, Riga, and Liepaja are Latvia's three main ports, and another seven ports are scattered along the country's 500+ km. Baltic coastline. More than one-third of Latvia's population lives in Riga, the capital. Riga dominates the country's economic and social landscape; it is also an important center of finance, transport, and industry in the Baltic region. CSB estimates that in 2002, the economy of Riga contributed nearly three-fifths of Latvia's GDP.

1.4 From 1995 to 2005, industry has grown at an annual rate of 6.9 percent, nearly as fast as services. During this period, there was a significant shift in labor and capital resources – away from the initially less productive tradable goods sector dominated by the heavy industry and toward the more productive non-tradable goods sector. In agriculture, growth has been considerably slower, though respectable (2.4 percent per annum on average). During this period, agriculture's share in national output fell from an already low 6 percent to 4 percent (Figure 1.2). With a very high share of the services sector, the structure of the Latvian economy now closely resembles that of Western European countries.

Figure 1.2: Value-added in the Services and Industrial Sectors Grew Rapidly During the Past Decade



Value-Added, Constant Prices – 1995 - 2005

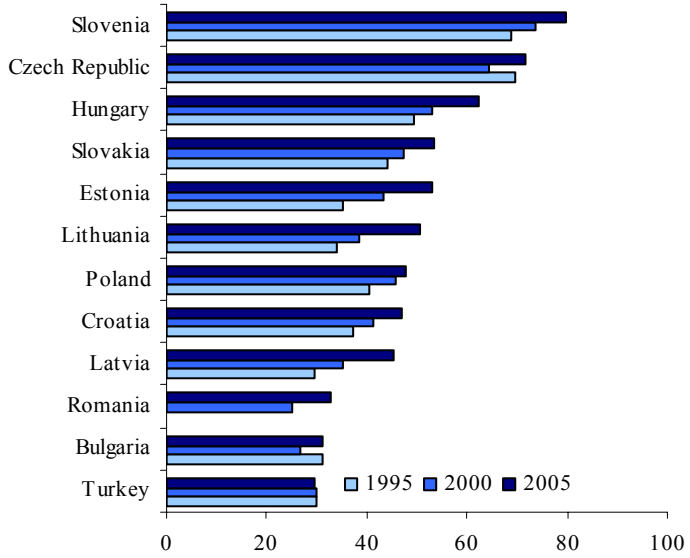


Composition by Sector (2005)

Source: CSB.

1.5 Latvia's recent EU integration process, which culminated in the country's formal accession in May 2004, has served as a unifying force to support political, economic, and social reforms. It has also helped to boost investment, exports, and overall growth in output. Since 2005, Latvia's domestic currency, the *Lats*, has been tied to the euro to support the country's planned entry into the euro zone. Inflation has generally been quite low during the past decade (though, somewhat worryingly, has risen in recent years). Good fiscal discipline has kept the overall fiscal deficit and public debt quite low; Latvia's credit rating is also strong. Although average income in Latvia is still less than one-half the EU25 average, the gap between the two has declined steadily over the past decade (Figure 1.3) largely as a result of the remarkable and sustained post-1995 growth in output.

Figure 1.3: Fast Convergence with EU Average Incomes, but Still a Long Way to Go



Source: Eurostat. EU25=100; GDP per capita is in PPS.

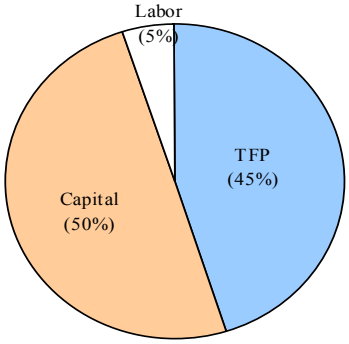
1.6 Using an accounting framework to separate growth into its main production components—labor, capital, and productivity—provides insight to the recent economic growth in Latvia.[7] Over the period 1996-2003, total factor productivity contributed about 45 percent of the increase in output; capital stock growth accounted for about one-half of that increase. In contrast,

[7] *World Bank EU-8 Quarterly Economic Report, Part III: The Baltic Growth Acceleration—Is it Sustainable?*. January 2004 issue.

labor growth played a minor role (5 percent) in the total increase in output during this period (Figure 1.4).

1.7 Analysis reveals a positive correlation between growth in productivity and the degree of openness to trade—in other words, the higher the openness to trade, the greater was the observed contribution of total factor productivity (TFP) to sector output growth. The pressures of competing in the world market provided a major push for greater efficiency gains across sectors. Moreover, investment was a pivotal component of growth. This was true in sectors that experienced major structural changes during this period (e.g., wholesale and retail trade) as well as those created from scratch (e.g., banking insurance, etc.). Investment accounted for more than one-half of all key sector output growth rates. Although the overall contribution of employment growth to total growth in output growth was relatively small, the analysis revealed important differences between the traded and non-traded goods' sectors. Total employment shrank in the former and rose in the latter. The net effect was a positive contribution by labor to overall growth in these sectors.

Figure 1.4: Growth Accounting Results: Contributions of Various Factors



Estimates are based on 1996-2003 data.

Box 1.2: High Growth in the Baltic Countries

A recent World Bank study analyzed the remarkable spell of sustained high growth in the three Baltic countries. It identified the following contributory factors:

High trade and investment: Following the gradual easing of trade barriers and pre-accession arrangements with the EU, foreign trade in the Baltic states expanded rapidly during the mid/late 1990s. All three countries are open to international trade. In 2002, turnover in foreign trade ranged from 101 percent of GDP in Latvia to almost 170 percent of GDP in Estonia. Investment has been another important source of growth for the Baltic countries; since 1995, all countries have achieved double-digit growth in foreign direct investment; the investment has primarily been in the service and manufacturing sectors. Relatively high investment rates and buoyant FDI inflows reflect generally prudent macroeconomic management in these countries, a favorable investment climate, good property rights and contract enforcement, relatively low labor costs, and favorable corporate taxes.

Human capital: Traditionally, the Baltic countries had high education levels compared to other European countries. For example, over 80 percent of all three countries have completed at least an upper secondary education; this percentage is significantly higher than in Western Europe. The EU15 average was around 65 percent in 2002. On the other hand, many older workers who acquired their education under the Soviet regime may not have skills that are relevant to a modern market economy.

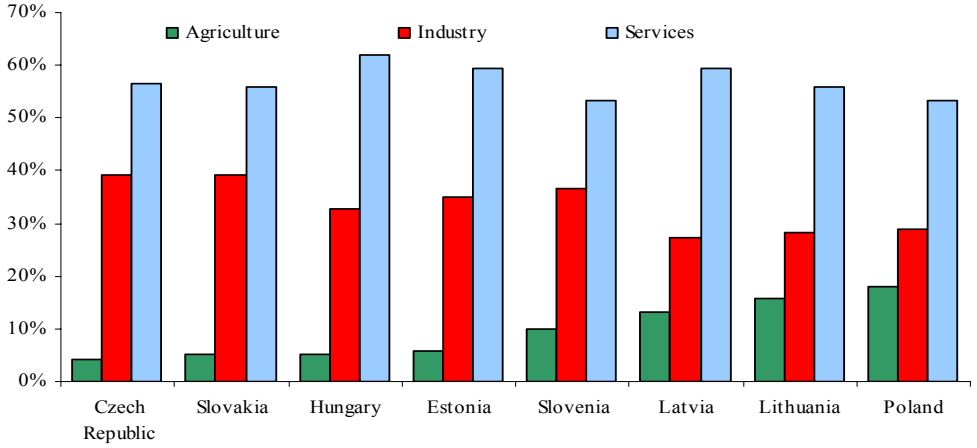
Source: EU-8 Quarterly Economic Report: The Baltic Growth Acceleration, January 2005 issue.

1.8 The sustained high growth in Latvia has been due to a combination of several factors: rapid economic reforms, liberalization of markets, high foreign direct investment and associated institutional changes. It also helped to have a low starting base after the sharp collapse in output in the initial years of transition. Likewise, growth in total factor productivity may be attributed to improvements in technology and efficiency, and changes in the composition of output across sectors and firms. Key factor inputs and conditions that contributed to high TFP growth in Latvia are summarized in the preceding box.

C. RECENT FAVORABLE DEVELOPMENTS IN THE LABOR MARKET

1.9 Like in other transition countries, Latvia's move towards a market-based economy during the early 1990s produced severe adverse shocks in the labor market. Labor market participation fell by about 10 percent between 1990 and 1996 (from 1.42 to 1.26 million people respectively). Total employment declined steadily: the overall unemployment rate, which hovered around zero at independence in 1991, rose rapidly. About 450,000 jobs were lost in the public sector through privatization and downsizing. Private sector employment increased rapidly from around 38 percent in 1992 to 66 percent by 1997. Transition also profoundly altered the employment concentration by sector. Between 1990 and 1996, employment in industry fell by one-half, agriculture declined by over one-fifths; meanwhile, employment in the services sector doubled.[8] While total employment in agriculture has continued to fall, this sector nonetheless still employs a significant share of the workforce (Figure 1.5), and this is of considerable significance for the country's poverty profile, as will be shown in Chapter 2.

Figure 1.5: A relatively Large Share of Latvia's Workforce is Employed in Agriculture



Source: Eurostat data for 2004.

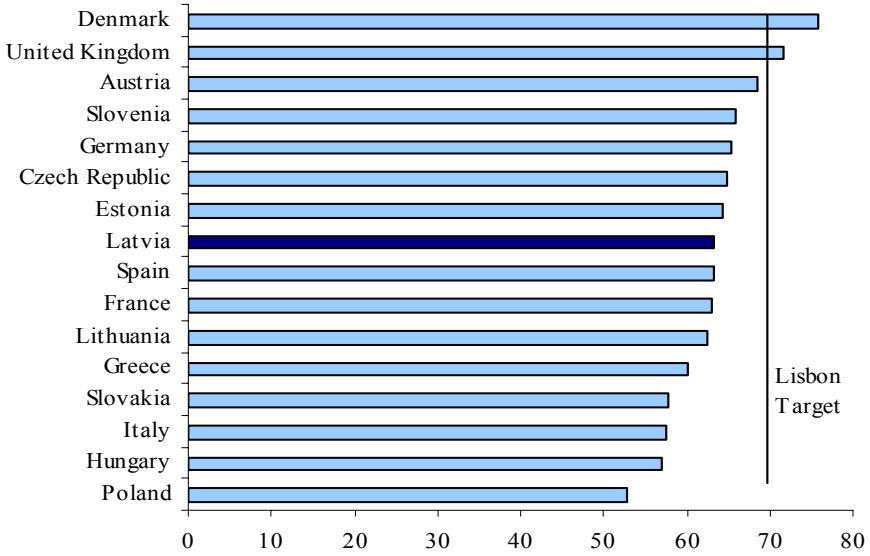
1.10 Labor market developments during the 1990s can be characterized by two main episodes.[9] First, during the period 1989 to 1996, the total labor force shrank by almost 20 percent, with demographic trends and declining labor force participation contributing in roughly equal measure to this contraction. Declining labor force and increased unemployment in turn contributed almost equally to the fall in the total number of employed people, which fell by almost one-third during this period. Over the next 3-4 years (i.e. between 1996 and 2000), total employment stabilized and remained more or less unchanged over the period. The impact of the shrinking total size of the labor force was partly off-set by an increase in the share of the working population as well as by falling unemployment rates.

[8] Government of Latvia: Joint Assessment of Employment Policy Priorities in Latvia, February 2003.

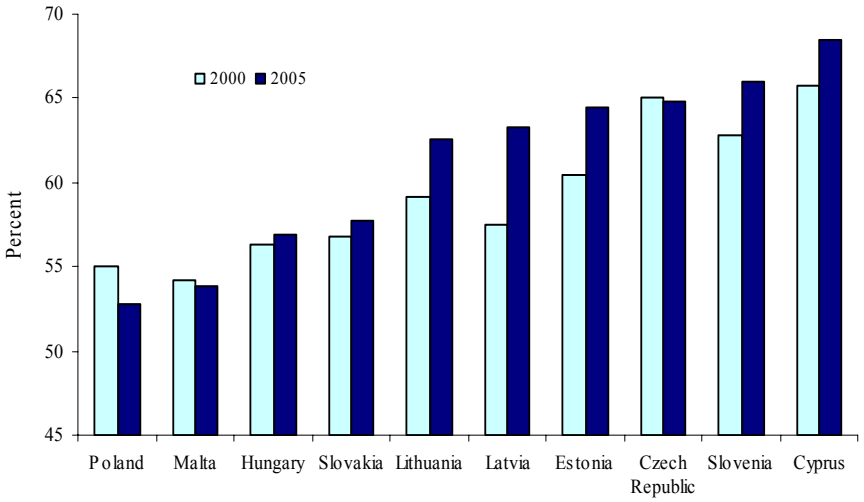
[9] For more details, see Hazans, Mihails (2004): "Looking for the Workforce: The Elderly, Discouraged Workers, Minorities and Students in the Baltic Labour Markets." http://ssrn.com/abstract=682862. Forthcoming in Empirica.

1.11 However, data from recent rounds of the labor force surveys indicate that employment in Latvia has started to increase. Between 2000 and 2005, total employment rates have been rising at the rate of about one percentage point per annum. In 2005, Latvia's total employment rate of approximately 63 percent was still well below the 2010 Lisbon target of 70 percent. However, the rate has been rising faster than that of any other new EU member state (Figure 1.6).

Figure 1.6: The Employment Rate in Latvia is Still Short of the Lisbon Target for 2010



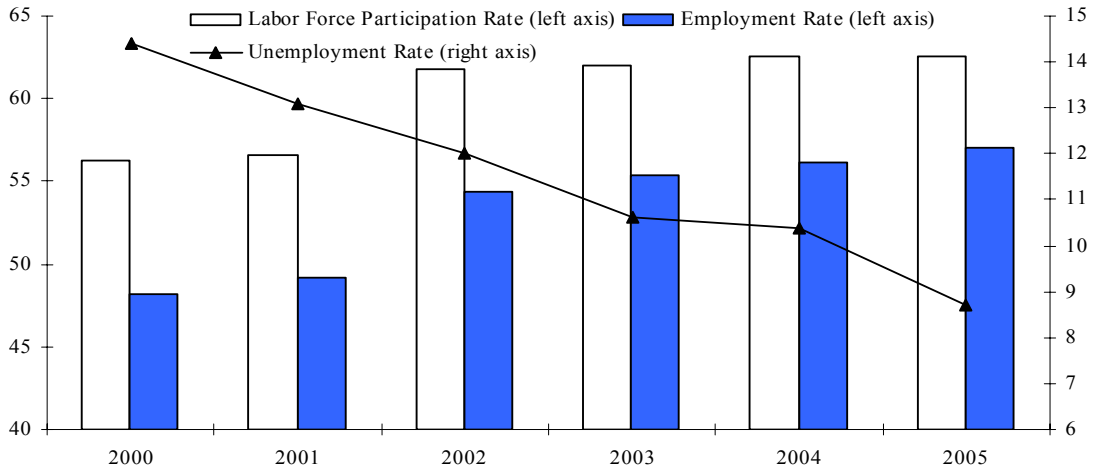
… but has grown faster than in other EU10 new member states in recent years



Source: Eurostat; population aged 15 – 64 years.

1.12 Increased labor market flexibility in Latvia in recent years is indicated by the various positive trends evident in the economy, with all three of the main labor market indicators—labor force participation rate, employment rate, and unemployment rate—continuing to show positive trends (Figure 1.7), as robust economic growth over this period was associated with creation of many new jobs in the economy. Migration of workers to other EU countries has also contributed to the recent favorable labor market developments in the country (Box 1.3).

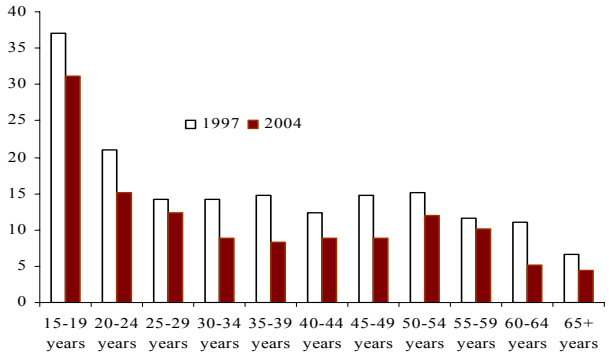
Figure 1.7: Recent Improvement in Various Labor Market Indicators (percent)



Source: World Bank estimates based on Central Statistical Bureau data.

1.13 The benefits of expanded job opportunities in recent years have been widely shared across different population groups in Latvia, a subject that is examined in more detail later in the report. For instance, as can be seen in (Figure 1.8), all age groups have benefited from the increased work opportunities in the rapidly expanding economy.

Figure 1.8: Falling Unemployment across All Age-groups



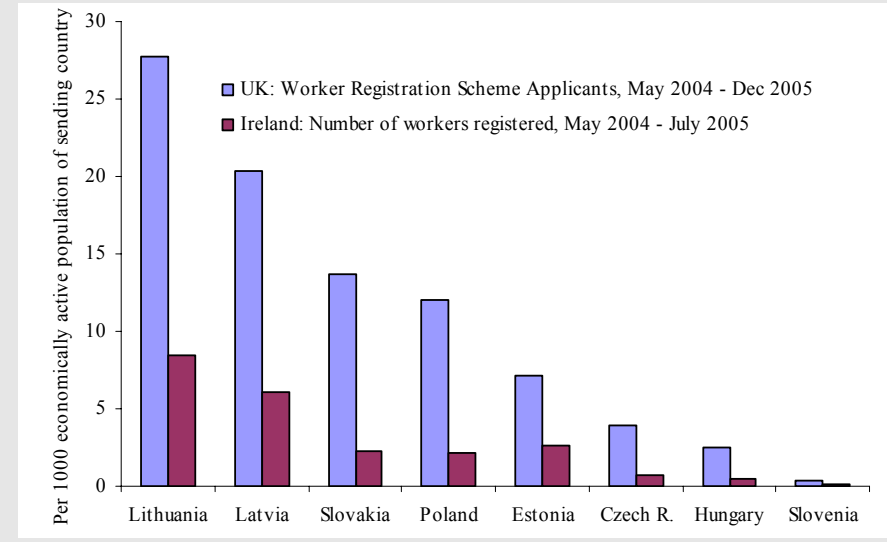
Note: World Bank estimates based on 1997 and 2004 LFS data.

1.14 As a result of these favorable developments in the labor market, Latvia is one of the few countries in the region where the total number of employed persons has risen steadily since 2000 (Figure 1.9).

Figure 1.9: Total Employment has been on the Rise since 2000

Box 1.3: EU Accession and Migration

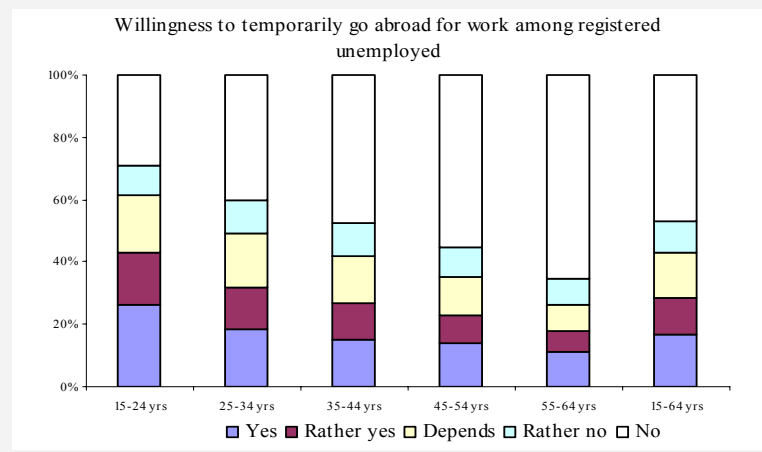
Since EU accession in May 2004, outflow of Latvian labor force to EU-15 (predominantly, UK and Ireland) has become an important factor in Latvian labor market (see figure). By the end of 2005, an estimated 40 to 50 thousand of recent Latvian residents were working in other EU countries.



Results from recent surveys conducted in Latvia suggest that willingness to work abroad is much higher among the youth, but, importantly, it is also not negligible among those aged 45 and older either. However, there does not appear to be any evidence for higher propensity to migrate among persons with lower income per family member. When queried about preferred duration of stay abroad, more than a half of the respondents (i.e. among those that did not explicitly rule out migration), indicated their preferred period was less than one year. A small proportion only plan to emigrate permanently. Data of EURES consultants suggest that most popular intended occupations abroad include elementary occupations, agricultural workers, hospitality industry and construction workers; this is consistent with available evidence from UK and Ireland.

Econometric analysis based on the data of "Quality of Life in Latvia" survey confirms that, other thing equal, propensity to migrate is higher among:

- Young people, and among single persons, especially those without children.
- Persons with secondary professional and higher education
- Students and manual workers.
- Residents of Kurzeme, Zemgale, and Latgale (in that order).



Migration appears to have contributed to the recent decline in unemployment in Latvia as well as resulted in higher remittances and hence improvements in welfare. At the same time, it also resulted in reduction in availability of skilled workers in the domestic labor force. The propensity to work abroad among registered unemployed is not much larger than among economically active population in general: 28 percent of those unemployed who in general are willing to work, answered "Yes" or "Rather yes" when asked "Are you prepared to go abroad temporarily in the next 12 months to get a job?".

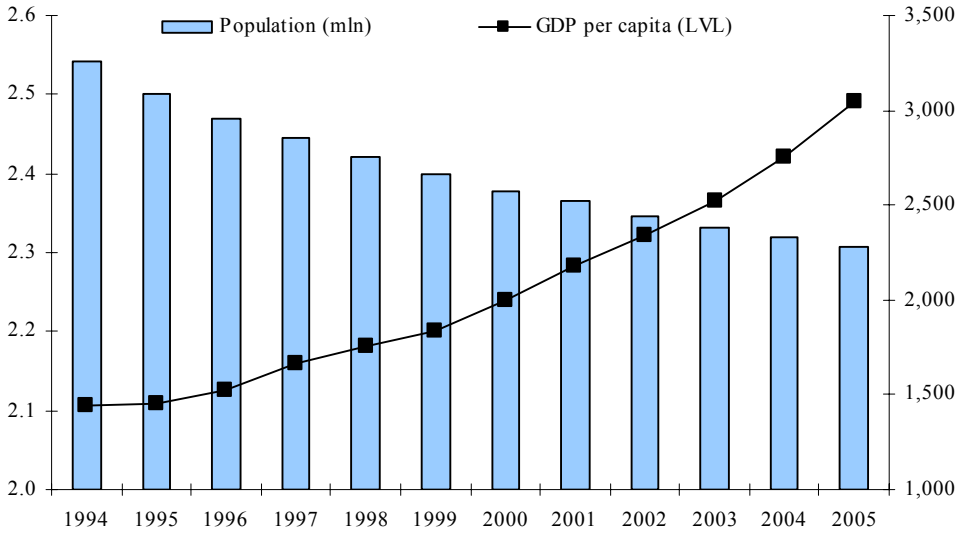
See M. Hazans "Outflow of the Latvian labour force after joining the EU: Structure and consequences. Analysis of the early evidence" (forthcoming) for more details on the findings of the various surveys.

D. TRENDS IN INCOME AND CONSUMPTION

Both national accounts and household-survey-based estimates suggest that per capita income and consumption have risen substantially during the period under review

1.15 Over the past decade, Latvia's population has declined steadily from about 2.5 million people in 1994 to an estimated 2.3 million in 2005. As GDP has risen, income per capita has more than doubled (Figure 1.10).

Figure 1.10: Declining Population and Rising GDP Per Capita over the Past Decade



Left axis: Population (millions); Right axis: GDP per capita (*Lats*) in constant 2000 prices.

1.16 Between 1998 and 2004, Latvia's per capita gross domestic income increased in real terms by about 50 percent and household per capita consumption rose by 58 percent (Table 1.1). Both income and consumption grew very fast—between 7 and 8 percent annually.

Table 1.1: Key Welfare Indicators

	1998	2002	2004
National accounts data; annual per capita			
Real GDI per capita (1998=100)	100	127	149
Household consumption (current LC)	1,050	1,526	2,000
Household consumption (current US$)	1,863	2,354	3,235
Household consumption (constant prices; 1998=100)	100	132	158
Household survey data; annual per capita			
Consumption per capita (current LC)	667	1,091	1,380
Consumption per capita (current US$)	1,125	1,766	2,518
Consumption per capita (constant prices; 1998=100)	100	149	169
Capture ratio (%)	64	72	68

Note: Capture ratio is the ratio between consumption per capita from household surveys and household consumption expenditures from national accounts.
Sources: Household consumption and GDI from World Bank national accounts data. Household survey estimates are based on the 1998, 2002, and 2004 Household Budget Survey series from the Central Statistical Bureau.

1.17 Household survey data track changes in gross domestic income and consumption changes quite well. During this period, household surveys suggest that mean per capita consumption increased by 69 percent, which is slightly higher than the national accounts showed.[10] The increase in per capita consumption, as expressed in current US dollars, was even higher: mean consumption per capita more than doubled from just over US$ 1,100 in 1998 to more than US$2,500 in 2004.[11]

[10] Consumption as measured by household surveys remained at around 70 percent of consumption as measured by national accounts. This is a lower capture ratio than the OECD or East European average of around 80 percent. One reason for this discrepancy is the Latvian survey data do not impute a value to home consumption.

[11] This sharper increase, compared to the increase in real terms, simply reflects the fact that the Lats exchange rate is fixed vis-à-vis the euro, which has appreciated vis-à-vis the US dollar.

CHAPTER 2.
POVERTY AND INEQUALITY TRENDS AND PROFILE

Given trends in population and per capita income, one would expect poverty to have declined quite rapidly. Yet government data on poverty trends—calculated for 2000–03 using the Eurostat Laeken poverty indicators methodology—show no decline. This paradox is because the poverty line used is a relative one. It moves upward as a country's average income goes up. In contrast, an absolute poverty line shows Latvia has achieved a significant decline in poverty.

A. Poverty Trends Based on Relative and Absolute Poverty Lines

2.1 For Latvia, reducing poverty and social exclusion is an important long-term goal of social policy. As part of Latvia's participation in the EU social inclusion process, the government elaborated on its National Action Plan for Reduction of Poverty and Social Exclusion (NAP) in 2004.[12] The NAP makes extensive use of the income poverty indicators developed by Eurostat and approved at the Laeken European Council. Given the high growth rates in mean consumption described earlier, one would have expected poverty to have declined. To keep the overall poverty rate unchanged, a large increase in inequality would have to have occurred. In fact, the Gini coefficient remained unchanged.[13] Yet the poverty trends calculated for 2000–03, which used the Laeken poverty indicators methodology (Box 2.1), showed no decline in poverty. From 2000 to 2003, living standards indicators derived from household survey data using the Laeken methodology suggest that the share of the population at risk for poverty remained unchanged at around 16 percent, according to the NAP.[14]

Box 2.1: Laeken Poverty Indicators

In December 2001, the Laeken European Council endorsed a set of 18 common indicators—the "Laeken indicators"—to monitor progress in the fight against poverty and social exclusion. The income threshold used to measure poverty was fixed at 60 percent of the national median income in each member state. Several features of this methodology are noteworthy. First, income is used instead of a consumption-based welfare measure. Second, the poverty line is tied to the national median income in each member state; it is calculated from the particular household survey in use. In other words, the standard of living is not necessarily held constant over time. The latter feature warrants further comment: (a) suppose the distribution of incomes within a country increases in real terms by 20 percent for all individuals from the first year to the second. Median incomes across the two survey years change by 20 percent also. However, since everyone's income has changed by an equivalent amount, the number of people below the Laeken poverty line remains the same. Thus, even though everyone in the country is better off than before, the poverty rate remains unchanged; (b) alternately, suppose the incomes of all households increase, but the increase in incomes of rich households is, on average, greater than that of relatively poorer households during the same period. Then, even though all households are better-off in absolute terms, Laeken poverty rates would rise; (c) conversely, suppose everyone's incomes shrink over time. But the rich suffer a disproportionate drop in their incomes compared to the poor. Under this scenario, poverty will fall even though everyone is worse off in real terms. To sum up, the Laeken poverty measure is a relative one. Rather than being benchmarked against an absolute measure, a particular individual's welfare is determined in relation to the living standards of all other people in that particular society.

[12] The NAP takes into account other policy documents such as the Single National Economy Strategy, the Single Programming Document (2004-06), and the National Employment Plan (2004).

[13] Between 1998 and 2002, the Gini coefficient increased from 33.5 to 35.1, but in 2004, it went back to the same level as before (33.5).

[14] Latvia Central Statistical Bureau: *Indicators Characterizing Poverty in Latvia*, Press release dated 21 Sept. 2004, prepared by Mr. Edmunds Vaskis, Social Statistics Department.

2.2 For this report, we use the same poverty line as that in the World Bank's last living standards assessment.[15] Unlike the Laeken poverty line, the World Bank's is an absolute measure of poverty, not a relative one (Box 2.1). It tells us in absolute terms whether or not people in Latvia are better or worse off than before. A second advantage: because poverty measures were calculated for 1998 for the earlier World Bank report, poverty estimates for 2002-04 may identify trends in poverty during the entire period of 1998-2004. To permit comparisons over time, we adjust the 1998 poverty line for inflation to derive welfare levels in subsequent years.

2.3 In 1998, in the absence of an official poverty line, the World Bank's report used a threshold of 28 LVL per person per month. On that basis, 19.4 percent of Latvia's population was in poverty. Adjusted for inflation over time, this poverty line estimates the number of poor people in Latvia fell by about 325,000 people between 1998 and 2004. The poverty headcount decreased from almost 20 percent of the population in 1998 to about 6 percent in 2004 (Table 2.1).

Table 2.1: Key Poverty and Inequality Statistics

	1998	2000	2002	2004
Headcount (%)	19.4	14.0	7.5	5.9
Average shortfall (%)	28.3	29.3	26.2	20.8
P1 measure	5.5	4.1	2.0	1.2
Poverty line as % of mean consumption	50	41	34	30
Headcount elasticity			1.2	1.6
Headcount semi-elasticity			0.24	0.12
Gini coefficient [1/]	33.5	37.3	35.1	33.5

[1/] For consumption per capita. Headcount elasticity is calculated as the percentage change in poverty headcount rate over percentage change in mean real per capita consumption. Headcount semi-elasticity is calculated as the percentage point change in the headcount rate over the percentage change in mean real per capita consumption. P1 measure is equal to the product of headcount ratio and average shortfall.

2.4 The rise in income inequality between 1998 and 2000 indicates that the gains from growth may initially have accrued to a few select groups only. However, over the period 2000 to 2004, the Gini fell back to its 1998 level. This suggests that the gains from growth since 2000 have in fact been quite strongly pro-poor. Declining income inequality coincides with the period when employment rates were rising in Latvia, which in turn suggests that the recent expansion in employment opportunities has been, along with rising wages, the main channel through which the gains from growth have benefited the poor. Additional evidence presented later in this chapter as well as in chapter 3 indicates that income inequality by gender, ethnicity, and region also declined appreciably during this period.

2.5 Based on the relationship between these two trends – poverty headcount and the trend in mean per capita consumption – we can infer how poverty has evolved. In 1998-2002, the poverty headcount went down by 11.9 points; mean per capita consumption increased by 49 percent (Table 1.1). Putting these two numbers together (11.9/49) gives the headcount (semi-) elasticity of 0.24. This suggests each percentage increase in mean per capita consumption met with a decline of 0.24 percent

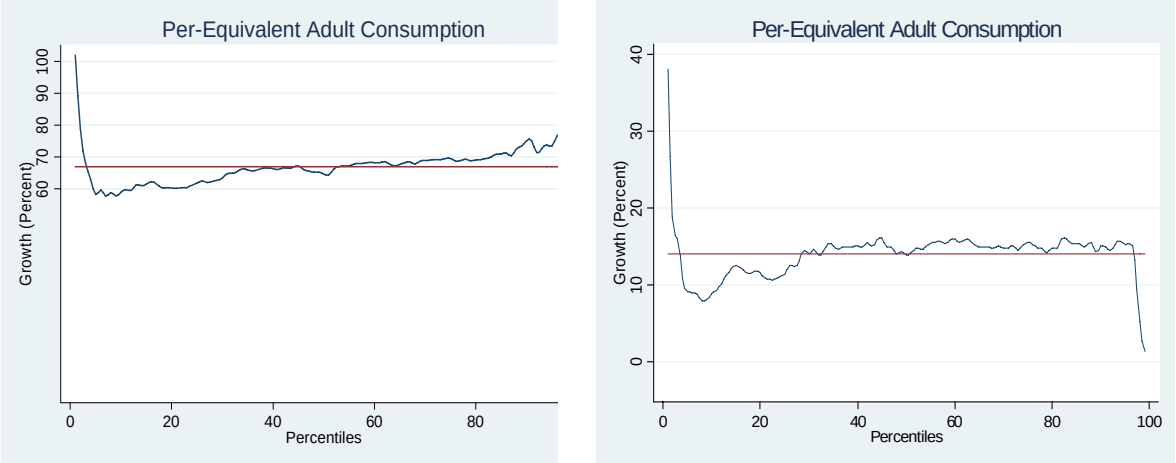
[15] Report No. 20707-LV: The Republic of Latvia: Poverty Assessment, June, 2000. Poverty Reduction and Economic Management Unit, Eastern Europe and Central Asia Region, The World Bank, Washington DC.

in the average poverty headcount.[16] Given that Latvia's average population was 2.4 million during 1998-2002, each percentage point increase in mean per capita consumption propelled approximately 5,800 people out of poverty. In 2002-04, the elasticity went down to 0.12. This is not surprising. Reducing the number of poor people becomes more and more difficult; those left behind tend to be relatively entrenched in poverty and are hard to change.

2.6 Another favorable development between 1998 and 2002 was a reduction in the depth of poverty. In 1998, the average distance of the poor from the poverty line amounted to 28 percent. By 2004 this shortfall had fallen to about 21 percent (Table 2.1, line 2). Poverty was thus becoming shallower and the number of people below the poverty line was decreasing. The outcome of these two favorable developments was a significant reduction in the poverty gap. This gap is the percentage of total household consumption that would be needed to lift all the poor out of poverty if there were no leakages at all. The poverty gap was a rather high 5.5 percent of total consumption in 1998, but by 2004 it had declined to 1.2 percent (Table 2.1, line 3).

2.7 Thus, in contrast to the virtual stagnation in poverty in Latvia indicated by the Laeken poverty indicators, poverty measures derived for this report show a rapid decline in poverty incidence from 1998 to 2004. Figure 2.1 helps illustrate why poverty trends derived from an absolute poverty line are so different from those based on the Laeken poverty measures. As the figure shows, growth in per-capita consumption in Latvia was evenly distributed across all income groups. Depending on the period under review, 1998-2004 or 2002-2004, survey data show that average per capita consumption in Latvia increased by 69 percent or 13 percent, respectively. As a consequence of widely shared growth, poverty measures based on an absolute poverty measure show a rapid decline in poverty. Median incomes increased as well. As a result, poverty estimates linked to this measure (i.e. the Laeken poverty indicators) show no change in poverty during this period.

Figure 2.1: Recent Growth in Latvia Appears to Have been Evenly Spread across All Income Groups



1998 – 2004 **2002 - 2004**

Source: World Bank estimates based on 1998, 2002, and 2004 HBS. Straight line represents mean of growth rates.

[16] Headcount semi-elasticity is calculated as the percentage point change in the headcount rate over the percentage change in mean real per capita consumption.

B. REGIONAL TRENDS

2.8 Table 2.2 displays poverty headcounts for four different types of settlements for 1998, 2002, and 2004. Not surprisingly, Riga has by far the lowest poverty rate each year. During the period 1998-2004, the capital city nearly eliminated poverty (at the assumed poverty threshold). In 1998, the rural headcount was 28.4 percent. By 2004, it declined to 12.7; nevertheless the difference between rural and urban areas was substantial.

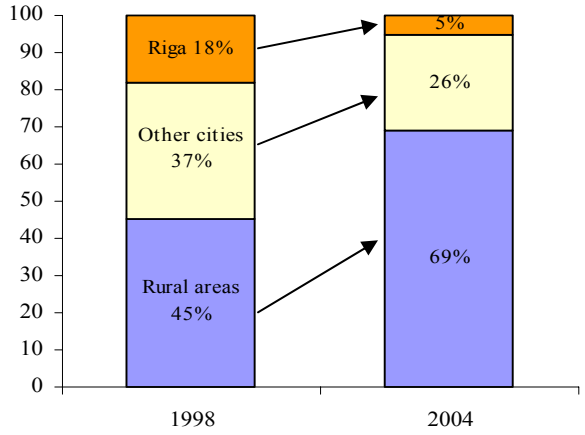
Table 2.2: Decline in Rural Poverty has Lagged Somewhat

	1998	2002	2004
Riga city	10.7	3.6	0.9
Other large cities	17.8	8.5	4.2
Small cities	20.9	6.2	
Rural	28.4	11.6	12.7
Latvia	**19.4**	**7.5**	**5.9**

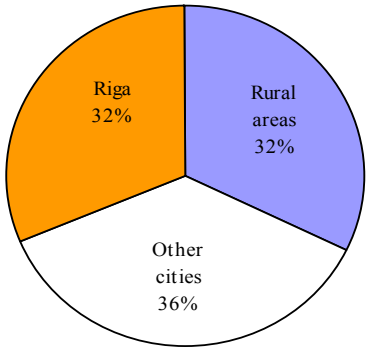
Source: World Bank estimates based on HBS series

2.9 That poverty has become more a rural phenomenon than in the past is evident from Figure 2.2. In 1998, 45 percent of the poor lived in rural areas although rural areas accounted for about 30 percent of total population. In 2002, the share of rural poor out of the total population of poor people increased to almost one-half (not shown). The asymmetry became even worse in 2004, when almost 70 percent of the poor lived in rural areas.

Figure 2.2: Most of Latvia's Poor Now Live in Rural Areas



Composition of the Poor (percent)



Population Shares in 2004

Source: World Bank estimates based on HBS series.

2.10 Inequality of income remained fairly stable. That was true overall, and also for rural and urban areas (Table 2.3) The Gini coefficient for each type of settlement fluctuates between 30 and 35 points. Although Riga, did indeed become more unequal, especially so in 2002, the change was far from dramatic, an increase of about 2 Gini points.

Table 2.3: Income Inequality in Latvia Remained Stable

Region	1998	2002	2004
Riga city	32.7	36.1	34.8
Other large cities	33.1	33.9	31.3
Small cities	31.8	31.7	
Rural	32.6	31.3	33.8
All Regions	**33.5**	**35.1**	**33.5**

Source: World Bank estimates based on HBS series.

2.11 In terms of regional trends in growth and poverty, all regions in Latvia have benefited from the recent high rate of growth. Between 1998 and 2004, they have witnessed rapid reduction in poverty (Table 2.4).

Table 2.4: Poverty Reduction across All Regions has been Quite Rapid in Recent Years

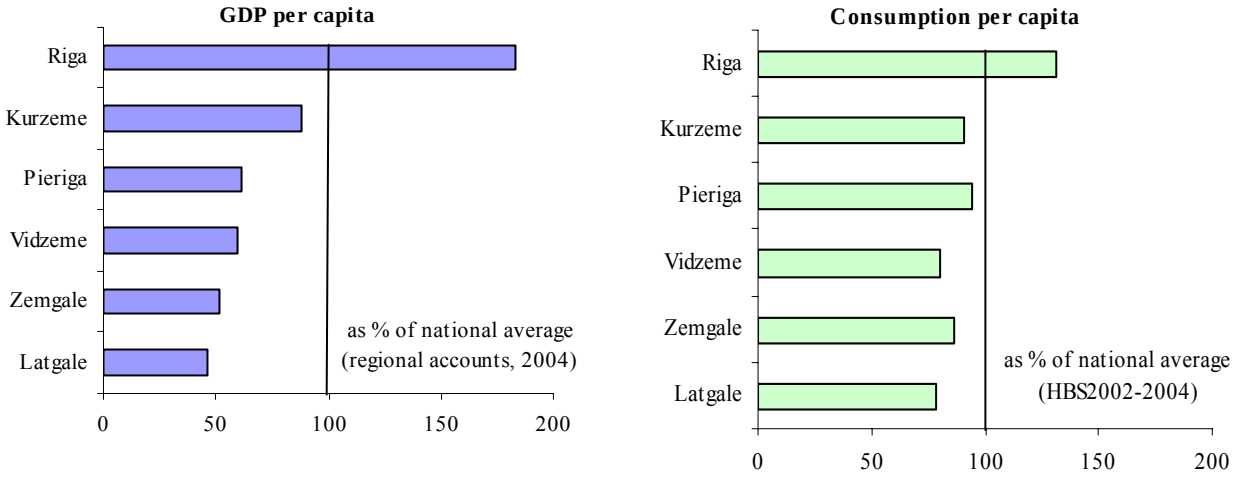
Region of Residence	Poverty Incidence (percent)			Population shares in 2004
	1998	2000	2004	
Kurzeme	24.4	16.6	4.7	12.1
Zemgale	20.5	15.1	4.6	13.5
Latgale	30.0	24.2	12.1	18.3
Vidzeme	24.1	23.3	7.9	10.1
Riga (including Pieriga)	12.6	6.8	3.7	46.0
All Regions	**19.4**	**14.0**	**5.9**	**100.0**

Source: World Bank estimates based on HBS series.

High regional variation in GDP per-capita overstates regional variation in living conditions

2.12 Regional inequalities in Latvia appear to be quite striking, based on regional GDP per capita estimates. For instance, the most recent (2004) GDP per capita data by statistical region shows considerable variation across localities, from a high of 183 percent of national GDP per capita in the Riga region to around 46 percent of the national average in the Latgale and region (Figure 2.3, left panel). Similarly, in 2004, the cities of Riga, Daugavpils, Liepaja, and Ventspils and their respective districts contributed over three-fourths of Latvia's total GDP.

Figure 2.3: Extent of Observed Inequality across Regions Depends on which Indicator is Used



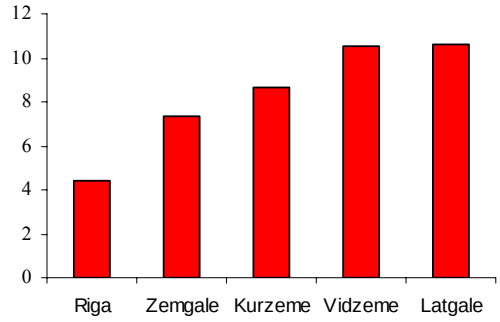
Source: CSB regional accounts, World Bank estimates based on pooled 2002-2004 HBS data.

2.13 Estimates of per-capita consumption based on household survey data are consistent in ranking with the regional GDP estimates, but are much more equally distributed (Figure 2.3, right panel) than GDP per-capita estimates based on regional accounts. Several factors help explain these differences. First, both public and private transfers redistribute resources from high- to low-income regions within the country. Second, while areas of high economic activity tend to be concentrated in large cities like Riga, workers often live in bordering districts and regions (for example, Pieriga). Third, part of the value-addition attributed to enterprises and firms in the

regional accounts is passed on as profits and earnings to owners residing elsewhere (including foreign corporations, governments, and shareholders). Household survey-based estimates of consumption therefore tend to be better indicators of variations in living standards across regions.

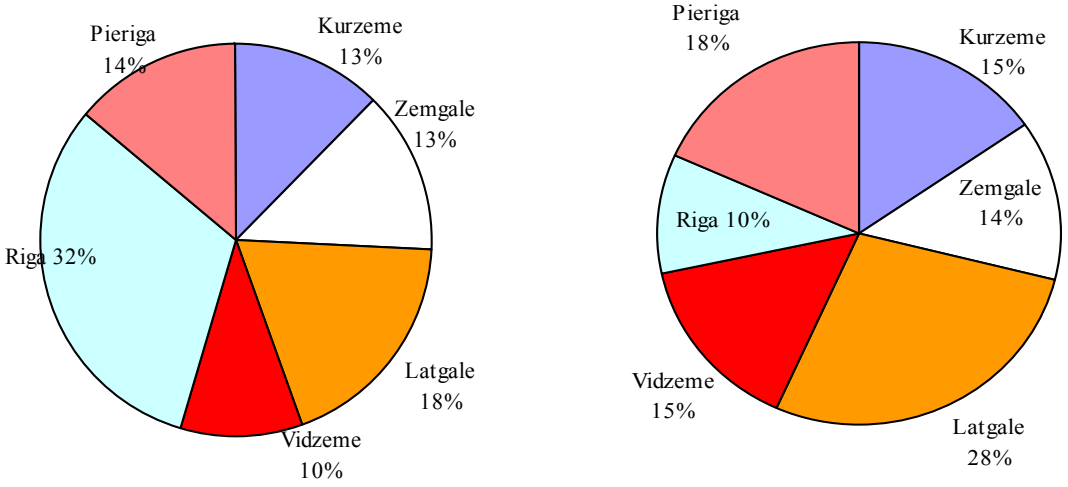
2.14 In general, regional poverty estimates in Table 2.4 tend to have a relatively high margin of error because of the relatively small survey sample sizes in each region in any given round of survey. To overcome this problem, data from the 2002, 2003, and 2004 HBS rounds were pooled to come up with poverty estimates for the region. This method allows developing robust regional rankings of poverty where sample size cannot be increased. Similar to the earlier findings, the resulting tables provide insight to the variations in development indicators across different parts of Latvia. They show, for example, that poverty incidence is relatively low in the Riga region (including Pieriga), somewhat higher in the Kurzeme and Zemgale regions, and highest in the Vidzeme and Latgale regions (Figure 2.4). Thus, while roughly one-thirds of Latvia's overall population resides in the Riga region, this region houses only about 10 percent of the country's poor. In contrast, about 28 percent of the country's total population lives in the Latgale and Vidzeme regions; however, these regions account for 43 percent of the country's total poor (Figure 2.5).

Figure 2.4: Regional Poverty Rates (percent)



Source: World Bank estimates based on pooled HBS 2002-2004 data.

Figure 2.5: Concentration of Latvia's Poor Tends to be Higher Outside Riga



Share of the Population **Share of the Poor**

Source: World Bank estimates based on pooled 2002-2004 HBS series.

2.15 **Time to adjust the poverty line?** Taken together, the trends in relative and absolute poverty measures discussed above beg the question: does the poverty line need to be changed to reflect the country's more comfortable situation today? This poverty line is austere for a country in Latvia's position today. In 1998, when the World Bank chose a threshold of 28 LVL per

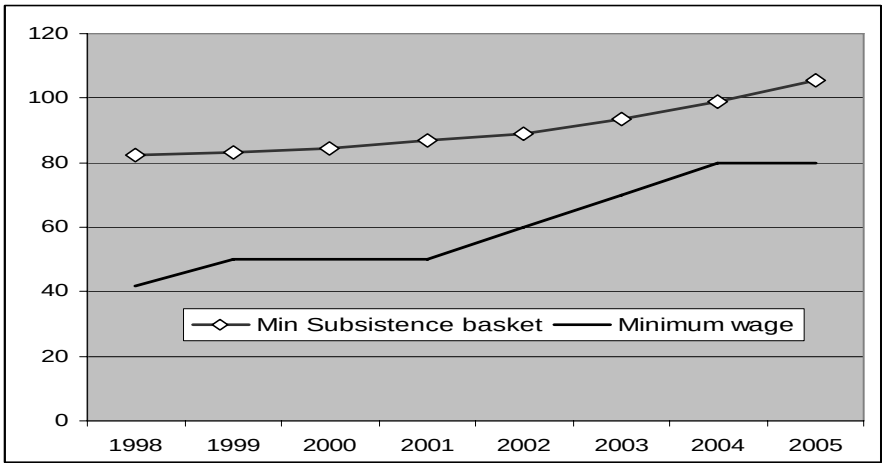
person per month, that represented about 50 percent of the officially accepted Minimum Crisis Basket (Box 2.2). At the time authorities considered the World Bank's choice of poverty line too high.[17] The poverty line of 28 LVL has since shrunk from 50 percent percentage of Latvia's mean per capita consumption in 1998 to only 30 percent in 2004. A yardstick to monitor progress in poverty reduction is still warranted, but it should probably be set at a higher level to reflect the higher standard of living that prevails.

Box 2.2: Minimum Crisis Basket

The concept of such a basket came into use in Latvia in the early 1990s. During the early years of transition to a market economy, real income dropped by about 50 percent, while inflation rocketed to 172 percent in 1991 and 951 percent in 1992. Therefore, there was a clear need to monitor changes in purchasing power. Then the public sector operated most enterprises. The Council of Ministers of Latvia adopted a regulation in 1991, "On Indexation of the Income of Population". It also established a legal minimum wage. Initially this basket was for indexing wages and salaries as well as the pensions and other benefits paid by the state. In 1992, because of a shortage of funds in the government's budget, the Council of Ministers approved a "crisis subsistence minimum," as an alternative for benchmarking pensions and wages.

The minimum subsistence basket lost its formal significance in the mid-1990s. The indexation approach was widely criticized, and gradually Latvia and other countries in the region moved away from it. Second, Latvia's reform of the social assistance system emphasized a guaranteed minimum income (GMI) approach, i.e. one not formally linked to the minimum subsistence level calculated by the Central Statistical Bureau. The GMI scheme ensures that each person receives a minimum income (an income below GMI is supplemented with transfers). The Law on Social Assistance and Social Services requires the Cabinet of Ministers to review the amount of GMI every year. As of January 1, 2006, the GMI was 24 LVL per person per month—less than one-fourth the minimum subsistence basket 105.48 LVL (the monthly average for 2005). Implementation of the GMI varies significantly by region. Some local governments have voluntarily increased levels of GMI: in comparison, the poorest local governments may struggle to find enough funds to finance it.

Trends of Minimum Wage and Minimum Consumption Basket in Latvia (LVL)



[17] See Report No. 28563: The Republic of Latvia: Poverty Assessment, April 2004, Poverty Reduction and Economic Management Unit, Eastern Europe and Central Asia Region. The World Bank, Washington DC.

C. POVERTY IN LATVIA: AN INTERNATIONAL PERSPECTIVE

Using a cross-country absolute poverty line derived in internationally comparable purchasing power parity terms on the basis of per capita consumption, poverty in Latvia is lower than in most other countries in the region.

2.16 In this section, we compare poverty levels in Latvia with those in other countries in the region, based on the PPP$ 4.30 per capita per day poverty line used in a recent World Bank study on living conditions in Europe and Central Asia.[18] The cross-country comparisons show that average per capita consumption in Latvia is among the highest within the countries considered, and roughly 20–25 percent higher than in neighboring Lithuania and Estonia (Table 2.5). The share of food in Latvia's total consumption, at around 40 percent, is among the smallest in the region. If the international poverty line of $PPP 4.30 per day per person is applied, the poverty rate in Latvia is around 17 percent, lower than in most other countries for which data are available.[19]

Table 2.5: International Comparisons of Poverty and Inequality

	Year of survey	Consumption per capita (PPP $)	Food Share (%)	Poverty Rate ($PPP 4.30/day poverty line)	Gini coefficient (per capita)
Croatia	2004	4,156	41.6	4	0.264
Hungary	2002	2,890	38.7	12	0.250
Latvia	**2003**	**3,401**	**41.0**	**17**	**0.350**
Belarus	2002	2,704	68.1	21	0.292
Ukraine	2003	2,496	72.2	22	0.268
Macedonia	2003	3,171	54.2	24	0.373
Lithuania	2003	2,762	44.5	24	0.325
Estonia	2003	2,753	42.2	26	0.330
Poland	2002	2,611	39.8	27	0.320
Bulgaria	2003	2,248	58.7	33	0.277
Russia	2002	2,179	55.8	41	0.338
Serbia	2002	1,993	60.8	42	0.292
Turkey	2002	1,816	38.8	58	0.393
Romania	2003	1,624	57.8	58	0.288
Albania	2002	1,388	61.7	71	0.319
Moldova	2003	1,046	66.4	85	0.328

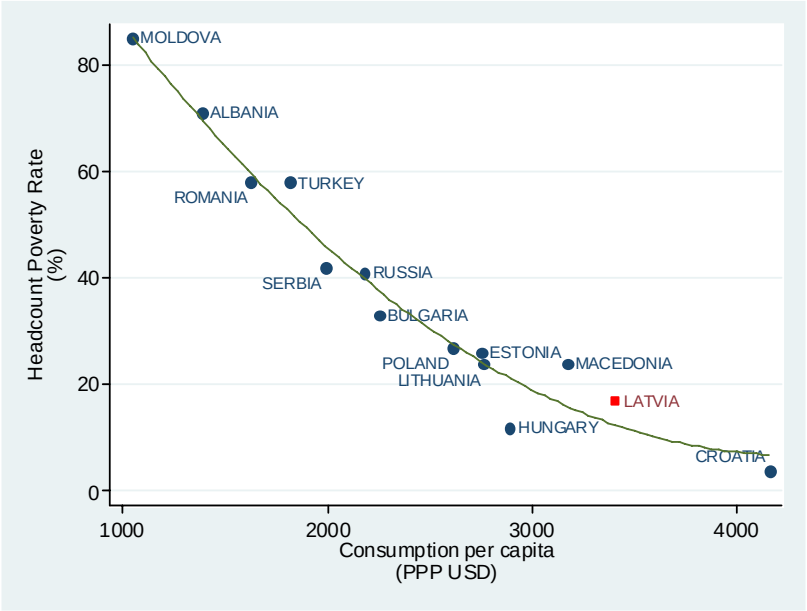
Source: World Bank (2005) Croatia LSA.

[18] Alam, A., M. Murthi, R. Yemtsov et al., 2005: *Growth, Poverty, and Inequality: Eastern Europe and the Former Soviet Union*. The World Bank, Washington D.C.

[19] The per capita consumption aggregate used for the cross-country comparison does not include housing-related expenses, health care, and some more such items (i.e. to facilitate cross-country data comparability); these excluded items tend to be considerably more unequally distributed across the population; hence this Gini is slightly different from that reported earlier in the chapter.

2.17 The poverty rate in Latvia and other countries in the region can be plotted relative to the level of mean per capita consumption in each country (Figure 2.6). The dotted line in the figure shows the estimated relationship between the headcount poverty rate and income levels from a cross-country regression using a quadratic fit. As can be seen in the figure, the poverty rate in Latvia is a bit higher than what one might expect from the level of per capita consumption in the country, which is likely due to the fact that income inequality in Latvia is a bit higher than that in most countries in the region.

Figure 2.6: Cross-Country Poverty Comparisons



Source: World Bank (2005) and HBS 2004

2.18 While poverty rates in Latvia are lower than most countries in the region, other social indicators are in line with those in other countries in the region, and in some cases they are worse. For instance, infant and child mortality rates in Latvia are among the highest in the region (Table 2.6).

Table 2.6: Key Social Indicators: Cross-country Comparison

	Adult Illiteracy (%)		Secondary school enrollment (Net, %)		Mortality rate, infant (per 1,000)		Mortality rate, under-5 (per 1,000)		Life expectancy at birth, total (years)	
	1990	**2004**	**1990**	**2002**	**1990**	**2002**	**1990**	**2002**	**1990**	**2002**
Latvia	**0.2**	**0.3**	**77**	**87**	**16**	**17**	**20**	**21**	**69.3**	**70.4**
Croatia	3	1.9	63	84	12	7	13	8	72.2	73.8
Bulgaria	2.8	1.4	63	88	14.8	12.3	16	13	71.3	72.1
Czech Republic	..	..	86	89	10	4	11	5	71.7	75.0
Estonia	0.2	0.2	82	85	15	10	17	12	69.5	70.6
Hungary	0.9	0.7	75	92	15	8	16	9	69.3	72.3
Lithuania	0.7	0.4	81	93	17	8	13	9	71.3	72.7
Poland	..	0.3	76	89	16	8	19	9	70.9	73.8
Romania	2.9	2.7	73	79	27	19	32	21	69.7	70.0
Slovak Republic	..	0.3	..	86	14	8	15	9	70.9	73.3
Slovenia	0.4	0.3	89	92	8	4	9	5	73.3	75.9

Source: UNESCO, World Bank database (DDP).

D. MAIN CORRELATES OF POVERTY AND INEQUALITY

2.19 **Poverty and inequality by gender:** The differences in average poverty headcount by gender were virtually nonexistent in 1998 (Table 2.7). They do appear in the later years with male poverty headcounts between 1.2 and 0.8 percentage points higher. It is difficult to say what explains these developments and whether they may represent the beginning of a trend because the differences are small and both males and females did register, on average, quite a lot of improvement over the eight-year period under study. However, it is worth noting this reversal from typical patterns elsewhere where poverty rates among women are typically higher. Note also that these calculations apply to all individuals, that is, we ask the question whether males or females are disproportionately poor, not whether male- or female-headed households are disproportionately poor.

Table 2.7: Poverty Rates do not Vary Much by Gender

Gender	1998	2002	2004
Males	19.4	8.2	6.3
Females	19.4	7.0	5.5
Both sexes	**19.4**	**7.5**	**5.9**

Source: World Bank estimates based on HBS series.

Table 2.8: Poverty Rates by Education Level of Household Head

	Poverty Incidence (percent)			Population
Education Level	**1998**	**2002**	**2004**	**Shares in 2004**
Incomplete Primary		20.4	32.0	0.6
Primary	27.2	13.3	15.0	2.9
Basic		13.5	14.5	14.4
Vocational w/o secondary	29.6	10.7	3.6	1.9
Vocational with secondary		15.0	6.0	3.8
General Secondary		9.8	6.1	21.3
SS + Basic	19.2	6.3	5.4	19.7
SS + Secondary		3.8	2.0	14.1
Higher	6.0	0.7	1.2	21.3
Ph.D. graduate		0.0	0.0	0.2
All education groups	**19.4**	**7.5**	**5.9**	**100.0**

Source: World Bank estimates based on HBS series.

2.20 **Education level of the household head:** The education gradient (decline in poverty headcount as the education of the household head increases) is very clear in Latvia (Table 2.8). In 2004, going from incomplete primary to primary education, the simple poverty rate (uncontrolled for any other factors) falls from 32 percent to 15 percent. A further move from completed primary to completed general secondary education, more than halves the poverty rate again. Finally with higher education of the household head, the poverty headcount drops to 1.2 percent only. The gradient was notably less steep in 1998 and 2002. These simple statistics seem to indicate that education is one of the most important channels to get out of poverty, and its converse, that poverty is more than before characterized by low education of the household head.

2.21 **Work status of household head:** Not surprisingly, poverty rates differ a lot, depending on work status of the household head. Employees (who represent by far the largest group) have seen their poverty rates decrease from 17 percent in 1998 to 4.4 percent in 2004 (

2.22 Table 2.9). The self-employed saw a very similar change. The position of pensioners, the second most populous social group, which in 1998 was worse than that of employee- and self-employed households, has remained the same in 2004 although among pensioners too, the prevalence of poverty has been reduced by almost two-thirds. In 2004, the social groups with the highest poverty headcounts were those headed by the housekeepers and the unemployed.[20] This is largely self-explanatory because these households tend not to have active members nor pensioners.[21] The share of population living in households headed by the unemployed is not negligible; it was 2.6 percent in 2004. Since the households headed by the unemployed had a poverty rate some four times higher than the average (in 2004), they accounted for more than one-tenth of all people living in poverty. In relative terms, the unemployed were worse off in 2004 than in 1998. Although their absolute poverty rate was halved, in 2004 it was four times higher than the average compared to the ratio of 2 to 1 in 1998. Moreover, the share of total population living in the households headed by the unemployed rose from 1.7 percent in 1998 to 2.6 percent in 2004.

Table 2.9: Poverty Rates by Employment Status of Household Head

	Poverty Incidence (percent)			Population
Region of Residence	**1998**	**2002**	**2004**	**shares in 2004**
Employee	17.1	5.9	4.4	70.4
Employer	0.0	1.1	0.0	2.1
Self-employed		4.7	3.2	1.9
Family business employee	16.5	0.0	0.0	0.1
Farmer		10.4	13.6	2.9
Pensioner	19.5	6.8	7.7	19.3
Student	0.0	8.3	0.0	0.1
Housekeeper	0.0	40.3	39.6	0.5
Unemployed	47.1	29.2	24.3	2.6
Other	29.2	66.0	43.2	0.1
All Groups	**19.4**	**7.5**	**5.9**	**100.0**

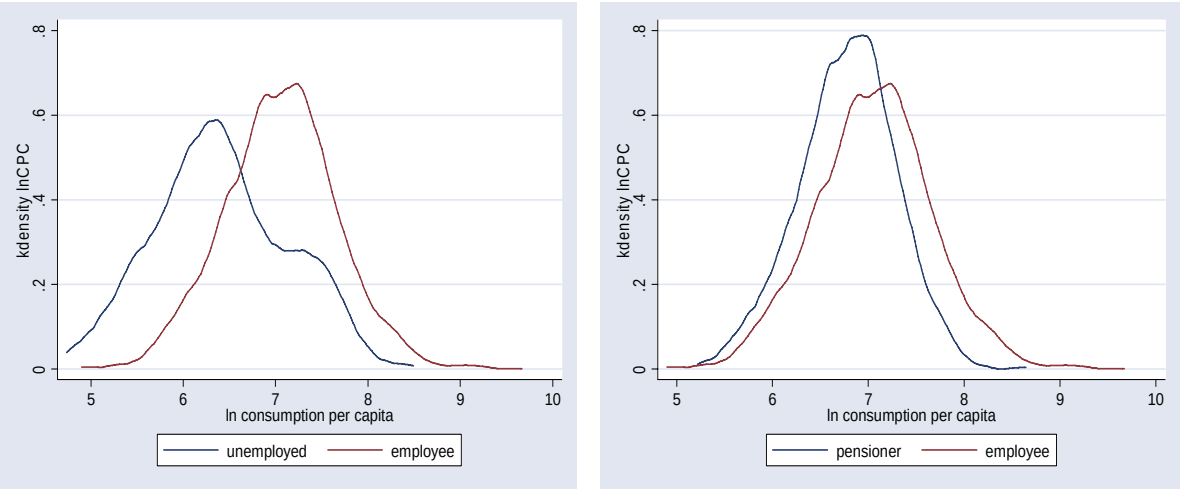
Source: World Bank estimates based on HBS series.

2.23 Figure 2.7 shows the distribution of per capita expenditures of the unemployed and pensioners vs. that of the households headed by employees. In both cases, the distribution of households headed by the employees is more to the right (that is, there are more households with a higher per capita welfare level) but the difference is clearly much greater between the employee- and unemployed-households than between the other two. In 2004, employee-headed households had a mean per capita consumption that was almost twice as high as that of households headed by the unemployed. The difference in means between employee-headed and pensioner-headed households was about 50 percent.

[20] "Other households" have the highest poverty headcount of all but their importance is tiny (less than one-tenth of 1 percent) and they are, of course, quite heterogeneous.

[21] Household head is defined as the person with the highest income.

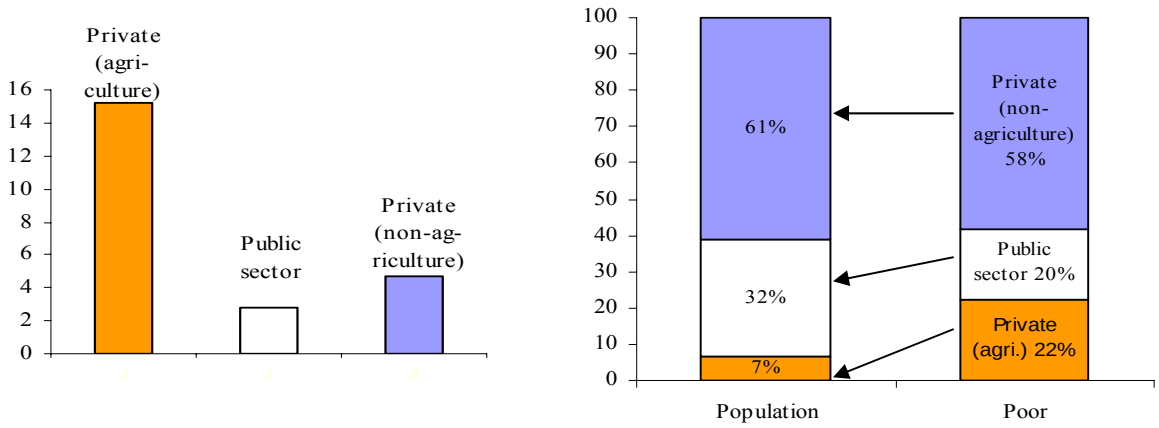
Figure 2.7: Comparing Employees with (a) Unemployed and (b) Pensioners



Note: Consumption per capita is in natural logs.

2.24 **Sector of employment of household head:** Figure 2.8 shows that poverty incidence in Latvia is considerably higher (about 15 percent) among the population where the household head works in the private agriculture sector than if the household head works elsewhere (the rate of poverty incidence among the public sector and private agriculture sub-groups is less than 3 and 5 percent respectively). As a result, while this sub-group comprises only about 7 percent of the total population, it figures much more prominently (22 percent) among Latvia's poor. By contrast, families of public-sector employees comprise a relatively smaller share (20 percent) of the poor as they do of the population overall (32 percent). Finally, families with the household head employed in the private non-agricultural sector are about equally represented among the poor as well as the population overall.

Figure 2.8: Concentration of the Poor in the Private Agricultural Sub-sector



Poverty Incidence (percent, 2004) **Composition (percent)**

Source: World Bank estimates based on HBS series. Analysis covers only those households whose heads are employees, employer, self-employed, family business employee, or farmers.

E. WHAT EXPLAINS DIFFERENCES IN WELFARE STATUS ACROSS GROUPS?

2.25 The analysis so far has been conducted in terms of bilateral relationships between different household characteristics and poverty. This of course gives us a very good first cut at the poverty issues but may cloud "true" relationships because of correlation that may exist between characteristics that are being examined. For example, while both education and urbanization are often negatively correlated with poverty headcounts, we are not able to tell exactly the contribution of each because more urbanized areas generally have a higher proportion of highly educated people. We are not sure if, for example, the negative correlation between urbanization and poverty headcount would remain if we control for the level of education. This then leads to the problem in the interpretation of the results, namely, to what extent education and urbanization are linked with greater division of labor and opportunity to earn the living.

2.26 To answer these questions, we run a multiple regression where we include all the characteristics that are thought to be relevant in explaining poverty. The dependent variable in regressions shown in Table 2.10 is the (logarithm) of consumption per capita. Thus a positive value of the coefficients means that the corresponding variables are associated with an increased consumption per capita and thus contribute to reducing poverty rates. We are interested both in the general effect of various variables and how their effect might have changed between 1998 and 2004.

2.27 **Regions:** Consider the role of living in the capital (Riga city) compared to living in rural Latgale. In both 1998 and 2004, the "premium" amounted to 33 percent.[22] In other words, having a residence in Riga (and keeping everything else the same) is associated with a large gain in terms of per capita household consumption. Turning to other regions (with Latgale, the poorest region, being the omitted category), we note the deteriorating relative position of Zemgale. While in 1998, it had (under *ceteris paribus* conditions) consumption per capita some 17 percent higher than Latgale, the differential has steadily declined since and was less than 7 percent in 2004.

2.28 **Household demographic composition:** We have noted above that gender differences increased to the detriment of men. This was based on looking at whether statistically more men or women are poor (or non-poor). However, if we look at male- and female-household heads, it turns out that having a male head is associated with a large and rising premium. The premium amounted to almost 14 percent per member of household in 2002 and 2004. It was about 10 percent in 1998. In 1998, age of household head was not a significant predictor of households' welfare level. The same was the case in 2004. According to the 2002 survey, there was a negative relationship between age of household head and consumption per capita that held for the entire range of observed (within-sample) age levels. Increase in household size is associated with lower per capita consumption. But there too, there was a bit of change as each additional household member "reduced" per capita consumption by about 17 percent in 1998 and by 15 percent in 2004. Thus, relatively speaking, the position of extended households has slightly improved.

[22] In 1998, it was composed (because of the way the data were organized) of two components: 21 percent for the Riga region and 11 for the city itself.

Table 2.10: Determinants of per-capita Consumption

	1998	2002	2004
Capital city	0.112**	0.190**	0.327**
Large city	0.121**	-0.0001	0.105**
Small city	0.042*	-0.020	
Riga region	0.231**		
Kurzeme	0.079**	0.025	0.086**
Vidzeme	0.155**	-0.013	0.071**
Zemgale	0.174**	0.102**	0.067**
Pieriga		0.096**	0.067**
Male household head	0.105**	0.131**	0.137**
Age of household head	0.0002	-0.010**	-0.003
Age of household head squared	0.00004	0.0001**	0.00001
Household size	-0.168**	-0.152**	-0.151**
Vocational without secondary	0.046	0.033	0.034
Vocational with secondary		-0.020	0.074*
General secondary	0.173**	0.105**	0.210**
SS + basic		0.208**	0.198**
SS + secondary		0.287**	0.318**
Higher	0.438**	0.546**	0.560**
Ph.D. graduate		0.975**	0.877**
Employer		0.382**	0.415**
Self-employed	0.165**	-0.011	0.160**
Family business employee		0.224	0.793**
Farmer		0.002	0.002
Pensioner	-0.314**	-0.257**	-0.232**
Student		0.001	0.072
Housekeeper		-0.365**	-0.539**
Unemployed	-0.360**	-0.449**	-0.465**
Other Income recipient	-0.040		
Constant	3.87**	7.22**	7.11**
No of observations	7,681	9,976	9,973
Adjusted R-squared	0.2706	0.3313	0.3464
F-Value	159.31	191.11	212.39

Dependent variable: (ln) consumption per capita. Omitted categories in 2002 and 2004 regressions: area=rural; region=Latgale; education=incomplete primary, primary or basic education; socio-economic group=employee. Omitted categories in 1998 regression: area=rural; region=Latgale; education=primary education or less; socio-economic group=employee. Riga region in 1998 includes both the capital city and the surrounding part (Pieriga).* Denotes significant at the 5 percent level; ** denotes significant at the 1 percent level.

2.29 **Highest educational attainment of household head:** Over time, education has become more strongly associated with higher welfare. Compared to the omitted category of primary or lower education of household head, vocational education is not conducive to statistically higher household welfare. But the returns to general secondary and higher education have grown substantially. In 1998, the premium (compared to primary education or less) was 17.3 percent, In 2004, all three categories of secondary education had premia which were higher than 17.3 percent, ranging from about 20 to 32 percent. The same is true for higher education. In 1988, it was associated with a gain of about 44 percent. In 2004, the gain ranged between 56-88 percent.

2.30 **Work-status of household head:** There were also differences in the evolution of welfare among different socio-economic categories. While pensioner-headed household remain significantly worse off than those headed by the employees (the omitted category), their relative positive has improved: in 1998, their per capita consumption was some 31 percent lower than that of employees; by 2004, the coefficient has dropped to 23 percent. Exactly the opposite happened to the relative position of the unemployed. Of course, having an unemployed household head is associated with lower level of welfare, whether in 1998 or 2004. However, the "penalty" was only about 36 percent in 1988, and rose to 46 percent in 2004.

2.31 To sum up, the regression analysis points to the following conclusions:

- Riga is associated with significantly higher levels of welfare;
- There is, albeit decreasing, premium for male household heads even if there are no statistically significant differences in poverty headcounts between males and females;
- Age of the household head does not seem to play much of a role in determining economic status of the household;
- Returns to education of the household head have increased, representing a clear way toward higher incomes and consumption;
- The relative position of pensioner and unemployed households has charted the opposite trajectories. While both remain associated with lower welfare per capita than that enjoyed by workers' households, the relative position of pensioners improved, while that of the unemployed deteriorated even further;
- Large families slightly improved their relative position.

CHAPTER 3.
EMPLOYMENT, EARNINGS, ETHNICITY, AND GENDER

3.1 One of the most important features of a labor market is its wage structure. Are the characteristics of human capital-related workers – education, general, and firm-specific experience – rewarded in Latvia in ways that are similar to established market economies? Empirical evidence from other post-communist countries suggests that returns to education have increased sharply, while returns to experience have decreased compared to the socialist wage-setting system. However, the patterns of change and the end result differ across countries; they also reflect differences in historical background, social norms, and the industrial structure of the economy. This section looks at the major factors contributing to wage differences among individuals in Latvia and their evolution since 2002. Particular attention is paid to differences in wages earned by individuals of varying education levels, gender, ethnicity, and region.

A. RETURNS TO HUMAN CAPITAL

3.2 The issue of returns to education is of particular interest for Latvia, where the labor force is increasingly well educated, as shown in Table 3.1. This section focuses on 2002 and 2005 LFS. Two earnings functions account for observable characteristics of individuals, and those of the firms that employ them (one specification does not control for occupation and plant size, while the other does). Comparison of these two sets of results helps to understand how human capital is rewarded in the labor market. It also gives useful insights to issues of gender and ethnicity.

Table 3.1: Full-Time Employees by Educational Attainment, 1997-2005

Education	1997	2002	2005
Higher	19.8	23.0	23.9
Secondary general	23.2	24.6	25.8
Upper secondary vocational	46.3	39.9	38.5
Basic general	9.5	9.9	10.0
Basic vocational	n.a.	1.8	1.3
Less than basic	1.2	0.8	0.5
Total	100.0	100.0	100.0

Source: Calculations based on LFS data.

3.3 Table 3.2 presents wage differential for full-time employees working at least 35 hours per week based on the estimated earnings functions. By 2005, returns to higher (tertiary) vs. general basic education in the Latvian labor market amounted to 77 percent (i.e. on average, an individual with higher education earns 77 percent more than an individual with basic education). These returns were significantly greater for females than for males (90 vs. 68 percent), for Latvians compared to non-Latvians (86 vs. 61 percent), the public sector than the private sector (109 vs. 61 percent), and for those working in the countryside compared to urban employees.

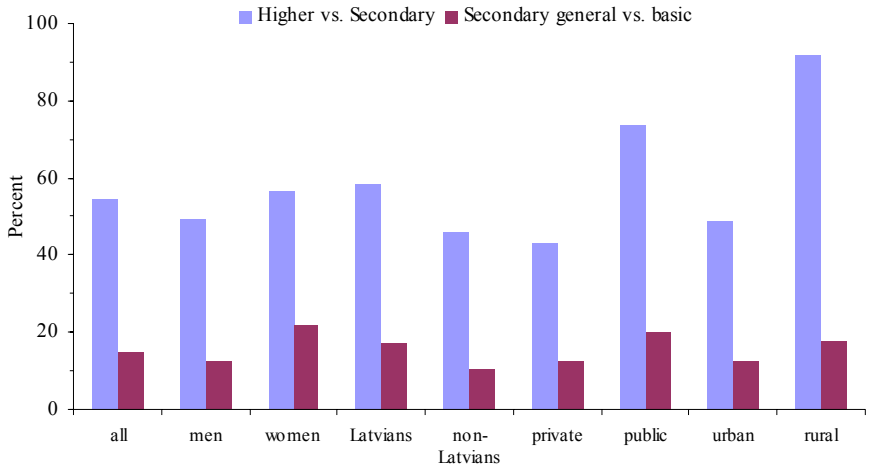
Table 3.2: Estimated *Ceteris Paribus* Wage Differentials (%) Associated with Educational Attainment. Full-time Employees. Latvia, 2005 and 2002

Education (vs. basic general or less)		All	Men	Women	Latvians	Non-Latvians	Private	Public	Urban	Rural
Higher:	2005	76.9	67.8	90.3	85.7	61.0	60.5	109.1	66.9	126.1
	2002	81.5	70.2	99.3	88.5	73.6	69.5	101.1	81.4	91.3
Secondary general	2005	14.6	12.5	21.8	17.1	10.4	12.3	20.3	12.3	17.7
	2002	17.3	16.1	23.7	19.6	15.2	17.1	20.4	19.3	11.4
Upper secondary vocational	2005	18.5	16.2	24.9	18.4	17.5	14.6	30.4	14.9	28.4
	2002	18.5	16.7	25.8	16.5	22.4	16.4	24.8	20.2	14.0
Basic vocational	2005	17.2	11.4	32.9		24.2	10.6	45.1	16.6	
	2002									
Higher vs. secondary general	2005	54.4	49.2	56.3	58.6	45.8	42.9	73.7	48.6	92.1
	2002	54.7	46.7	61.1	57.7	50.7	44.8	67.0	52.0	71.7

Source: Calculation based on LFS data.

3.4 A similar pattern emerges when returns to higher vs. secondary general education (64 percent on average) are considered (Figure 3.1).

Figure 3.1: Returns to Education in Latvian Labor Market



Source: 2005 LFS. Full-time employees only.

3.5 At the same time, returns to general or vocational secondary education are modest: on average and for most groups, they range between 10 and 20 percent. But for women, the public sector and rural employees, the range is between 20 and 30 percent. In rural areas, this range applies to vocational secondary education only. By international standards, returns to higher education in Latvia are high compared to secondary education. When different types of upper secondary vocational education are distinguished, in 2005 the wage differential between postsecondary vocational and general basic education was 22 percent for men and 31 percent for women. The differential between secondary professional education and general basic education was 18 percent for men and 21 percent for women. Vocational education after basic education

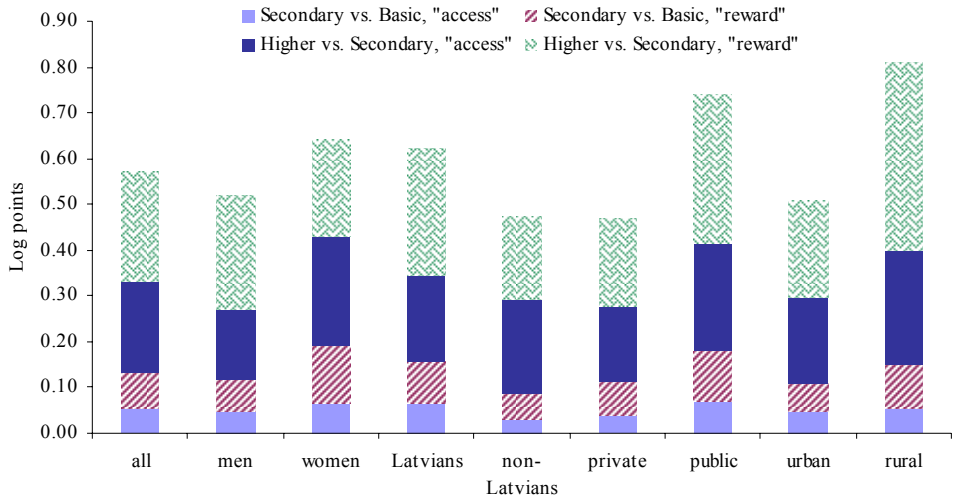
had no return for men and 11 percent for women. Vocational education is not widespread just 6 percent of male employees and 3 percent of females.

Box 3.1: "Access" vs. "Reward" Wage Differentials

Schooling may affect wages in several ways. More educated employees can be better-paid because (i) they are more productive, (ii) employers use educational attainment as a signal of abilities and/or productivity, (iii) they work in 'better' firms, or (iv.) because they occupy higher positions in firms. Earnings functions allow us to separate these different effects of schooling.

3.6 Comparing earnings functions with and without controls for respondent's occupation,[23] and firm size allows decomposition of the total payoff of education into two components: (a) returns via access to better firms and/or higher positions, which we refer to as "access" returns, and (b) wage differentials within major groups of occupations and firms, which we refer to as "reward." On average, 46 percent of the returns to higher education (as compared to secondary) are of the "access" type (Figure 3.2). This share is greater for women than for men (53 vs. 38 percent), and for non-Latvians than for Latvians (54 vs. 40 percent). The latter fact suggests an important development (in 2002 the access component for non-Latvians was just 40 percent). As for secondary general education, the access component of returns averages 40 percent; this share is particularly low (33-35 percent) among women, non-Latvians, and private sector employees.

Figure 3.2: Returns to Education in Latvian Labor Market by Source and Group of Employees



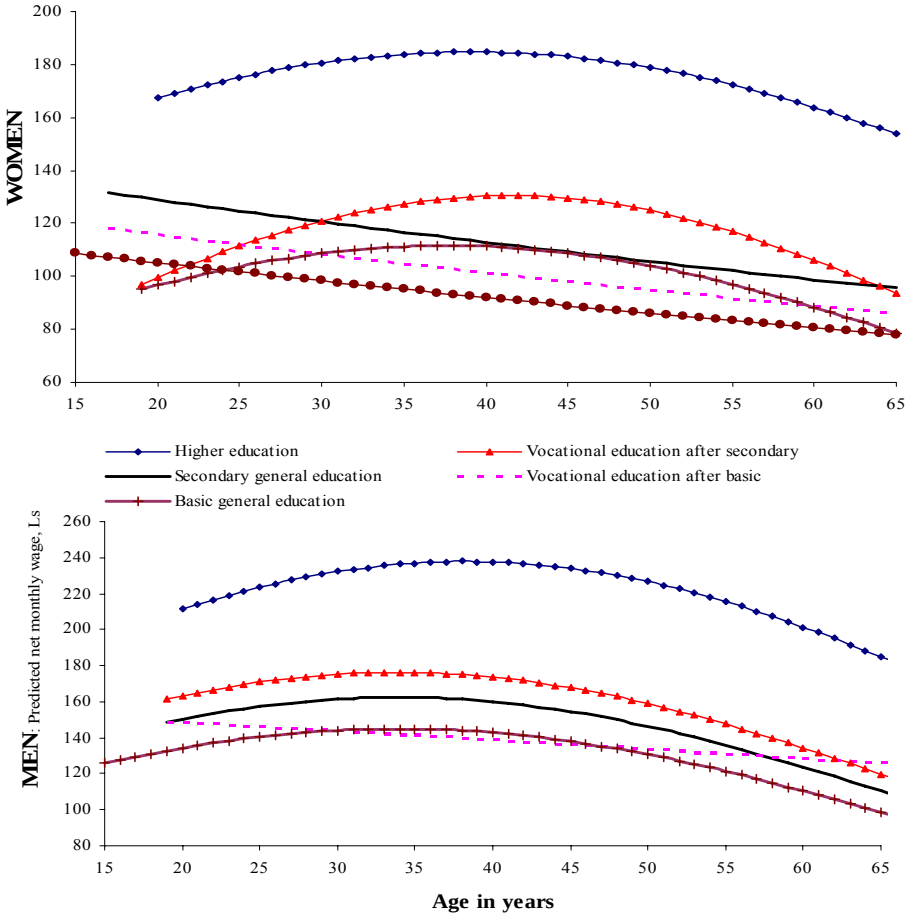
Notes:" Reward" component is returns to education when a major group of occupations and firm size are controlled. "Access" component is the difference between returns with and without occupation and firm size controls. Returns are measured in logarithmic points rather than percents to allow for decomposition. Professional higher education is not distinguished from academic. Presented results refer to full-time employees. *Source:* Calculation based on LFS data.

3.7 **Age–earnings profiles.** Cross-sectional age-earnings' profiles describe how earnings of individuals differ across cohorts at a given time. Age is taken as a proxy for work experience, as is common-practice in studies of returns to human capital. Thus age-earnings profiles give information about how experience is rewarded in the labor market. The typical industrialized

[23] 9 major groups according to International Standard Classification of Occupations.

country age-earnings profile for men in most education groups is rising up to about age 50-52, after which it decreases. For women, it often peaks somewhat earlier. Compared to the socialist era, a significant decline has been well documented in returns to experience in most post-communist countries. The decline stems from the fact that skills acquired under central planning have lost value during the transition. At the same time, the value of the following characteristics has increased, namely flexibility, adaptability, ability to learn, market-oriented education, foreign language and computer skills; these characteristics tend to be stronger in younger workers. Consequently, both observed and estimated age-earnings' profiles in the transition economies tend to peak at a much earlier age than in other industrialized countries (Figure 3.3).

Figure 3.3: Estimated Age – Earnings Profile in Latvia



Notes: For both genders, the profile for vocational basic education is not different from that for general secondary education.
Source: LFS 2005.

3.8 *Firm loyalty pays off.* Firm-specific experience can be proxied by the number of years with the current employer or job tenure. In 2005, the average tenure of full-time employees who worked at least 35 hours per week was 6.5 years for men and 8.5 years for women. Other things being equal, an additional year of tenure increased wages on average by 1.2 percent. Of this

increase, 0.7 percent represented a "reward;" it remained after controlling for occupation and firm size. The remaining 0.5 percent can be attributed to promotions associated with increased tenure. This breakdown is similar for men and women (Table 3.3). The tenure premium, as usual, becomes smaller for longer tenures (the figures reported above are calculated at mean values). The first year of tenure commands the highest premium (6.9 percent on average). This premium is much larger for Latvians than for non-Latvians (8.6 vs. 4.4 percent), as well as in urban areas as opposed to the countryside (8.1 vs. 2.0 percent).

Table 3.3: Estimated *Ceteris Paribus* Wage Differentials Associated with Job Tenure. Full-time employees, 2005

	All	Men	Women	Latvians	Non-Latvians	Private	Public	Urban	Rural
Mean tenure, years	7.5	6.5	8.5	7.3	7.7	5.9	10.6	7.6	7.0
				Without occupation and plant size controls					
Return to the 1st year of tenure, %	6.9	6.8	7.6	8.6	4.4	7.3	7.4	8.1	2.0
Return to an extra year of tenure at mean tenure, %	1.2	1.2	1.2	1.1	1.2	1.1	1.2	1.2	1.4
				With occupation and plant size controls					
Return to the 1st year of tenure, %	5.8	5.1	7.5	6.5	4.9	6.2	7.9	7.1	1.1
Return to an extra year of tenure at mean tenure, %	0.7	0.7	0.6	0.7	0.7	0.6	0.8	0.8	0.8

Note: Controls include education, age and its square, gender, ethnicity, marital status, type of contract, tenure and its square, ownership sector, sector of economic activity (14 dummies), job location (5 regions, capital city, rural/urban). Full-time: as defined by respondents but excluding those working less than 35 hours per week.
Source: Calculation based on LFS data

3.9 *Temporary workers are catching up.* Another indicator of the strength of employment relationships is the type of contract. Temporary or seasonal workers earn 8.8 percent less than permanent workers with the same characteristics; this gap is somewhat smaller than three years ago. Moreover, it is not significant when occupation and firm size are also controlled for. In addition, the share of fixed-term workers among full-time employees went down from 11.5 percent in 2002 to 6.9 percent in 2005. The new labor code, introduced in 2002, may have played a role; this code restricts the total duration of temporary contracts with one employer and the categories of workers, which can be employed under fixed-term contracts.

3.10 Notwithstanding the previously mentioned developments, the average temporary worker remains underpaid. That may be because many fixed-term workers have low reservation wages, meaning they have failed to find permanent jobs; they can also be new entrants and workers with adverse "unobserved characteristics". Such workers face relatively high unemployment risks as well as low wages. Any compensating wage differentials are overwhelmed by other effects, such as unobservable differences in quality between workers with temporary and permanent jobs. To make matters worse, temporary workers receive less on-the-job training and are rarely promoted.

Table 3.4 presents the shares of temporary and permanent workers and the *ceteris paribus* wage gap between them by group of employees.

Table 3.4: Incidence of Fixed-term Contracts and Estimated *Ceteris Paribus* Wage Differentials between Temporary and Permanent Workers. Full-time Employees, 2005 and 2002

		All	Men	Women	Latvians	Non-Latvians	Private	Public	Urban	Rural
Share of fixed-term workers	2005	6.9	8.7	4.9	7.2	6.4	9.1	2.5	5.7	12.0
	2002	11.5	14.3	8.7	11.0	12.3	14.1	7.5	10.7	15.5
		Without occupation and plant size controls								
Wage differential	2005	-8.8	-8.2	-8.2	-7.9	-11.1	-8.7	-19.3	-9.8	-9.1
	2002	-12.1	-11.6	-11.5	-14.1	-7.8	-13.0	-9.6	-11.6	-11.6
		With occupation and plant size controls								
Wage differential	2005	n/s	n/s	n/s	n/s	n/s	n/s	-14.3	n/s	n/s
	2002	-7.1	-8.0	-4.9	-9.6	n/s	-8.5	-5.7	-7.4	n/s

Note: Controls include education, age and its square, gender, ethnicity, marital status, type of contract, tenure and its square, ownership sector, sector of economic activity (14 dummies), job location (5 regions, capital city, rural/urban). Only differentials which are based on coefficients significantly different from zero are shown (not significant ones are denoted as "n/s"). Full-time: as defined by respondents but excluding those working less than 35 hours per week.
Source: Calculation based on LFS data.

3.11 Incidence of temporary work is relatively high among men (8.7 percent), in the private sector (9.1 percent), and in rural areas (12 percent). It is low among women (4.9 percent) and in the public sector (2.5 percent). While the number of fixed-term workers in the public sector is small, this sector severely underpays these workers. In 2005 the negative wage differential for temporary workers was larger for minority workers (-11.1 percent) than for ethnic Latvians (-7.9 percent). It was the other way around in 2002. However, the difference is not statistically significant; moreover, the incidence of temporary work is slightly higher among Latvians (7.2 percent compared to 6.4 percent for minority workers).

B. WAGE DISCRIMINATION AND SEGREGATION

3.12 Wage discrimination refers to a situation in which equally productive individuals are paid different wages due to some characteristic, for example gender or ethnicity, that is unrelated to productivity. The issue of the gender pay gap has been a focus of research and policy for transition and developed market economies. On average, in 2005, men's monthly wage in Latvia exceeded women's wages by 25 percent. Based on differences in observed productive characteristics, the difference should have been less than 5 percent. After accounting for the [main group of] occupation and firm size, the gender pay gap should be less than 8 percent. Since 2002, the total gender wage gap has declined, but its structure has remained intact. About two-thirds of the gap cannot be explained by observed productive characteristics; less than 15 percent is due to occupational segregation within major occupational groups. Differences in productivity account for about one-fifth of the gender wage gap (Table 3.5).

Table 3.5: Gross Male – Female Wage Differentials and Productivity Differentials

	Gross wage differential[b]	Productivity differential (without occupation controls)[c]	Productivity differential (with occupation controls)[d]	
			9 major groups of occupations	27 two-digit groups of occupations
2005	24.6	4.6	7.7	11.4
2002	31.2	6.8	10.6	15.6

Note: [a] Results refer to full-time workers (as defined by respondents but excluding those working less than 35 hours per week). [b] These differentials, according to conventional methodology of decomposition, are calculated as *exp(d)* – 1, where *d* is the difference between mean log net monthly wages of males and females. [c] Differential in (geometric) mean predicted wages of males and females, using earnings function estimated over pooled sample without gender dummy; known also as *explained gender pay gap*.
Controls include education, age and its square, ethnicity, marital status, type of contract, tenure and its square, ownership sector, sector of economic activity (14 dummies), job location (5 regions, capital city, rural/urban). [d] Additional controls: nine major groups of occupations and firm size (four categories).
Source: Calculation based on 2002 and 2005 LFS data.

3.13 The ethnic wage gap (9.6 percent in 2005) is much smaller than the gender gap. It has declined slightly since 2002, but it is almost completely unexplained by the differences in productive characteristics observed in the LFS (Table 3.6). However, knowledge of the Latvian language seems to be an important productive characteristic, which unfortunately is unobserved in the LFS.

Table 3.6: Gross Latvian – Non-Latvian Wage Differentials and Productivity Differentials

	Gross wage differential[b]	Productivity differential (without occupation controls)[c]	Productivity differential (with occupation controls)[d]
2005	9.6	0.8	2.6
2002	10.2	-2.1	1.2

See notes in above table.

3.14 Results from a representative survey of employees in late 2005 – early 2006 help shed more light on this topic, and suggest that when language skills are accounted for, the unexplained gap is substantially reduced (Table 3.7):

- Workers who are not native Latvian speakers but have good knowledge of Latvian language receive, on average, 2 percent higher wages. According to productive characteristics other than language, they should be paid 6 percent more than Latvians. Hence, the "unexplained" gap is just 4 percent (significant at 5 percent level). Possibly this is a fair premium for the difference between perfect and good language skills. For this group of workers, occupational distribution differs very little from that of native Latvian speakers.
- The raw wage gap between native speakers and workers, who evaluate their Latvian language skills as medium, is 10 percent. According to observed productive characteristics other than language, it should be less than 4 percent. The "unexplained" gap is about 6 percent (significant at 1 percent level). Again, this is a modest premium for the difference in language skills. This group or workers experiences substantial occupational segregation from native speakers. Possibly they occupy positions where a working knowledge of the state language is not so critical.
- The raw wage gap between native speakers and workers with poor knowledge of Latvian language is 13.4 percent. It is almost completely explained by observed productive characteristics other than language. Workers with poor knowledge of the Latvian language are concentrated mainly in manual labor. They experience very substantial occupational segregation from native Latvian speakers.

Table 3.7: Gross Wage Differentials and Productivity Differentials between Native Latvian Speakers and Other Workers, by Self-reported Latvian Language Skills Level

Knowledge of Latvian language	Share of workers	Dissimilarity index of occupational segregation [a] from native speakers	Gross wage differential [b]	Productivity differential (without occupation controls) [c]	Productivity differential (with occupation controls) [d]
Native	62.3	-	-	-	-
Good	19.9	7.0	-2.1	-6.0	-5.7
Medium	12.2	24.7	10.0	3.7	3.0
Poor	5.4	49.0	13.4	11.3	12.4

Note: Analysis based on sample of all full-time workers aged 18 to 64.
[a] With respect to nine major groups of occupations. [b] These differentials, according to conventional methodology of decomposition, are calculated as *exp(d)* – 1, where *d* is the difference between mean log net monthly wages of native Latvian speakers and other workers. [c] Differential in (geometric) mean predicted wages of native Latvian speakers and the given group, using earnings function estimated over pooled sample without language and ethnic dummies; known also as *explained gender pay gap*. Controls include education, age, gender, marital status, type of contract, tenure and its square, ownership sector, sector of economic activity (14 dummies), job location (5 regions, capital city, rural/urban). [d] Additional controls: nine major groups of occupations and firm size (four categories).
Source: Calculation based on *ad hoc* survey implemented by *Factum Group* in the framework of National program of labor market studies.

C. REGIONAL EFFECTS

3.15 Differences in earnings may also shed light on the degree of geographical segmentation of labor markets due to barriers to mobility. The inclusion of regional variables, namely the capital city and the five statistical regions (Pieriga, Vidzeme, Kurzeme, Zemgale, and Latgale), generally has a highly significant effect on earnings. Table 3.8 compares the regional effects in 2005 to 2002. When more than two regions (or other groups) are involved, such a comparison is best done using a normalized regression approach. This approach identifies deviations from the [non-weighted] mean instead of a fixed reference group. The problem with the latter, traditional, approach is that the position of the reference group in the distribution is also changing. Regional wages are less polarized than 3 years ago.

Table 3.8: Estimated *Ceteris Paribus* Regional Effects on Earnings

Job location	Share of [fulltime] workers			Wage deviations from non-weighted average (based on normalized regression coefficients)		
	2002	2005	Change	2002	2005	Change (percentage points)
Riga	45.0	43.2	-1.8	25.8	21.5	-4.2
Pieriga	11.8	14.4	2.6	8.3	3.7	-4.6
Vidzeme	8.7	8.0	-0.6	-7.9	-7.6	0.2
Zemgale	10.2	10.1	-0.2	-3.1	8.6	11.8
Kurzeme	12.3	12.0	-0.3	1.1	-5.4	-6.4
Latgale	12.1	12.4	0.3	-18.6	-16.5	2.1
Total	100.0	100.0	0.0			

Notes: Results derive from earnings functions which control for education, age and its square, gender, marital status, type of contract, tenure and its square, ownership sector, sector of economic activity (14 dummies), job location (5 regions, capital city, rural/urban).

- While wages in the capital city remain significantly higher than in the rest of the country and wages in Latgale significantly lower than in other regions, the differences have narrowed since 2002.
- The earnings rankings for Riga and the Pieriga and Kurzeme regions have worsened by 4 to 6 percentage points; in counterpoint, the Zemgale region has made impressive progress (an increase of nearly 12 percentage points).

3.16 *Rural-urban earnings gap declined.* In 2005, earnings of employees working in rural areas were on average not significantly different from earnings of their otherwise similar counterparts working in cities outside Riga (see Table 3-9). This is an important development since 2002, when the rural-urban wage gap was significant at the 1 percent level and amounted to -10 percent. Ethnic Latvians working in rural areas earn 4.4 percent less than their urban counterparts (other things being equal); for non-Latvians, the rural-urban wage differential was positive (10.4 percent). When dummies for six main cities (Jurmala in Riga region; Liepaja and Ventspils in Kurzeme; Jelgava in Zemgale; Daugavpils and Rezekne in Latgale) are included in the models, it appears that, other things being equal, workers in Ventspils received 21 percent more than elsewhere in Kurzeme; other effects were not significant.

3.17 A substantial part of the effect of job location on wages can be explained by differences in unemployment rates; this effect is known as "the wage curve". When local unemployment, based on the registered unemployment rate by the 33 NUTS-4 regions, is controlled for, earnings in Kurzeme and Latgale are not significantly different from those in Vidzeme (although the 7 percent difference between Kurzeme and Latgale remains significant). Moreover, the advantage of Riga over Vidzeme is reduced from 31 to 22 percent (Table 3.9). Wage curve elasticity, which measures the effect of local unemployment on wages, takes its classic value of -0.10, but it is twice as large in the private sector.

Table 3.9: Estimated *Ceteris Paribus* Regional Wage Differentials (percent) When Local Unemployment Rate is Controlled. Full-time Workers, 2005

Job location[c]	All	Men	Women	Latvians	Non-Latvians	Private	Public	Urban	Rural
Riga	22.4	24.0	19.8	25.5	11.8	17.2	28.8	14.4	
Pieriga	8.2	13.6	(2.2)	(6.1)	(6.3)	(5.1)	9.1	(-2.7)	20.3
Zemgale	17.8	23.9	11.4	16.2	18.0	19.1	15.2	14.4	20.7
Kurzeme	(2.6)	(3.8)	(0.7)	(1.1)	(1.9)	(-0.1)	8.3[d]	(-2.0)	(7.4)
Latgale	(-3.9)	-8.1	(-0.6)	(-3.0)	(-8.4)	-7.0[d]	(-3.1)	-9.3	(6.0)
Rural	(-1.7)	(-3.2)	(-0.3)	-4.4	10.4	4.2[d]	-10.8		
Wage curve elasticity [d]	-0.11	-0.12	-0.08	-0.11	-0.13	-0.20	(0.03)	-0.14	(-0.10)

Note: [a] Controls include education, age and its square, gender, ethnicity, marital status, type of contract, tenure and its square, ownership sector, sector of economic activity (14 dummies), job location (5 regions, capital city, rural/urban), and registered unemployment rate by 33 NUTS-4 regions (districts and main cities). Differentials shown in parentheses are based on coefficients, which are not significantly different from zero. [b] Full-time: as defined by respondents but excluding those working less than 35 hours per week. [c] Regions compared to Vidzeme; Rural compared to cities other than Riga. [d] Wage elasticity with respect to registered local unemployment rate (in the end of the previous year).
Source: Calculation based on LFS data.

3.18 **Industry Wage Differentials:** During the last three years, there have been important changes in relative wages of workers employed in various industries (Table 3.10). Most important, education and especially health workers have improved their position (by 4 and 10 percentage points respectively); by contrast, employees in other personal services have lost 5 points. Agricultural and manufacturing workers have lost about 4 percentage points, while those employed in forestry and fishing gained 6 points.

Table 3.10: Estimated *Ceteris Paribus* Industry Effects on Earnings

Economic activity	Share of [fulltime] workers			Wage deviations from non-weighted average (based on normalized regression coefficients)		
	2002	2005	Change	2002	2005	Change (% points)
Agriculture	3.1	3.1	0.0	-19.3	-23.7	-4.5
Forestry and fishing	4.1	3.7	-0.4	-3.4	2.6	6.1
Manufacturing and mining	20.7	17.8	-2.9	-0.5	-4.1	-3.6
Energy, gas and water supply	3.0	2.8	-0.2	9.4	7.6	-1.8
Construction	7.0	9.4	2.4	9.9	11.3	1.4
Trade	16.0	15.9	0.0	-8.1	-8.7	-0.6
Hotels and restaurants	2.5	2.7	0.3	-7.7	-11.8	-4.1
Transport and communication	9.5	9.5	0.0	5.4	9.4	4.0
Financial intermediation	1.5	1.9	0.3	45.6	38.9	-6.8
Real estate and business activities	3.6	4.6	1.0	1.7	1.5	-0.2
Public administration	8.2	9.2	1.0	11.0	11.6	0.6
Education	8.8	8.6	-0.2	-10.3	-6.8	3.6
Health	6.5	5.9	-0.6	-12.7	-2.8	10.0
Other services	5.5	4.8	-0.8	-6.8	-11.5	-4.7
	100.0	100.0	0.0			

Notes: Results are derived from earnings functions which control for education, age and its square, gender, marital status, type of contract, tenure and its square, ownership sector, sector of economic activity (14 dummies), job location (5 regions, capital city, rural/urban).

3.19 **Changes in Overall Earnings Structure:** It follows from the discussion above that the following groups have slightly improved their relative position in earnings distribution:

- Females
- Ethnic minorities
- Temporary workers
- New entrants
- Private sector workers
- Workers employed in forestry and fishing, health, education, transport and communication
- Those working in rural areas and in Zemgale region
- Persons with vocational basic education (this is a small group though).

3.20 Table 3.11 presents a decomposition analysis of the change in predicted nominal net monthly earnings between 2002 and 2005, based on estimated earnings functions.

Table 3.11: Changes in Earnings' Structure of Full-time Workers between 2002 and 2005: Decomposition Analysis (log points)

	Characteristics effect	Share (%)	Coefficients effect	Share (%)	Total effect	Share (%)
Age	-0.006	-2.1	-0.056	-20.5	-0.062	-22.6
Education	-0.003	-1.1	-0.028	-10.3	-0.031	-11.4
Gender	0.002	0.6	0.000	-0.2	0.001	0.4
Ethnicity	0.001	0.5	-0.004	-1.3	-0.002	-0.8
Contract type	0.005	1.7	-0.015	-5.5	-0.011	-3.9
Marital status	0.000	-0.2	-0.006	-2.2	-0.007	-2.4
Tenure	0.000	0.1	0.002	0.6	0.002	0.7
New entrants	0.002	0.7	0.000	-0.2	0.001	0.5
Hours worked	-0.008	-2.8	0.134	49.1	0.127	46.3
Ownership sector	0.003	1.3	0.004	1.4	0.007	2.6
Sector of economic activity	0.007	2.5	0.002	0.6	0.008	3.1
Job location	-0.004	-1.3	-0.040	-14.6	-0.043	-15.9
Intercept	0.000	0.000	0.282	103.4	0.282	103.4
Aggregate effect	**0.000**	**-0.2**	**0.274**	**100.2**	**0.273**	**100.0**

3.21 Overall, the model predicts nominal wage growth of 31.3 percent (exp(0.272)=1.313) between 2002 and 2005. About on fifth of this growth is explained by increase in returns to hours worked, and another 8 percent (i.e., 2.3 percentage points of wage increase) are explained by reallocation between sectors, increased average job tenure, as well as (to a smaller extent) changing returns to these characteristics. On the other hand, substantial negative contributions to wage change are due to changes in returns to age (-28 percent of the total increase), education (-10 percent) and job location (-15 percent). This means that workers whose position in wage distribution has improved (e.g. young, low skilled, rural) belong to relatively small groups. Contribution of change in mean values of these characteristics were also negative but small. Contribution of change in other average observed characteristics of workers (ethnicity, gender, contract type) and returns to these characteristics is almost negligible. This is despite improved *relative* position of disadvantaged groups (ethnic minorities, females, fixed-term workers).

D. ETHNIC AND GENDER DIFFERENCES IN EMPLOYMENT RATES

3.22 While the minority population still has a somewhat lower rate of employment by 2005 the overall gap in the 15-74 age group declined from more than 6 percentage points in 2002 to less than 3 percentage points in 2005 (Table 3.12). Between 2002 and 2005 the overall increase in employment primarily occurred among minorities, especially women. The ethnic gap in employment rates has narrowed for all age groups except for youth and the elderly. For youth, the difference in rates is not statistically significant for any of the years under review.

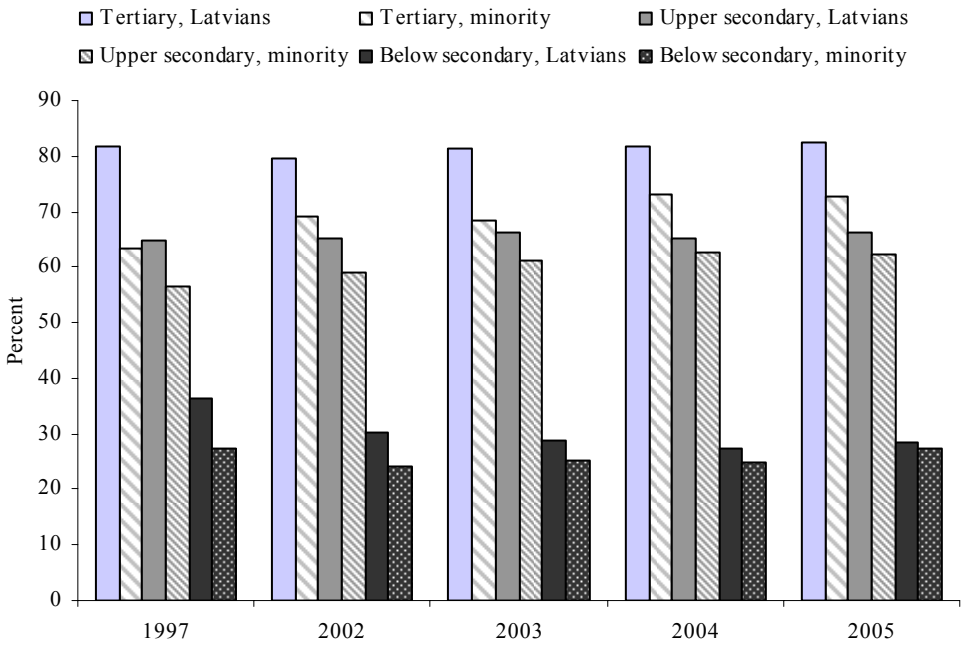
Table 3.12: Employment Rates (percent) by Ethnicity and Demographic Groups

	Latvians				Non-Latvians				Gap (percentage points)			
Group	**2002**	**2003**	**2004**	**2005**	**2002**	**2003**	**2004**	**2005**	**2002**	**2003**	**2004**	**2005**
Education:												
Less than secondary	30.3	28.9	27.5	28.8	24.1	25.1	24.8	27.8	6.2	3.8	2.7	1.0
Upper secondary	65.1	66.3	65.1	66.0	58.9	61.1	62.6	62.2	6.2	5.2	2.5	3.8
Tertiary	79.5	81.5	81.6	82.8	69.2	68.4	73.1	72.4	10.3	13.1	8.5	10.4
Gender:												
Men	61.3	62.4	62.2	63.3	57.1	58.8	60.3	62.3	4.2	3.7	1.9	1.0
Women	53.3	53.3	52.6	53.8	45.6	46.8	49.5	49.4	7.7	6.5	3.1	4.4
Age group:												
15-24 yrs	31.2	31.6	30.0	33.7	30.5	31.2	31.6	30.1	0.7	0.4	-1.6	3.6
25-34 yrs	80.0	80.0	77.5	76.6	68.0	71.0	72.8	74.1	12.1	9.0	4.7	2.5
35-44 yrs	80.4	84.1	83.9	83.6	71.8	75.0	75.8	79.9	8.5	9.1	8.1	3.7
45-54 yrs	81.1	80.0	79.4	80.1	72.5	70.6	73.9	74.5	8.6	9.4	5.5	5.6
55-64 yrs	48.1	46.3	48.8	51.5	34.1	41.1	46.8	47.4	13.9	5.2	2.0	4.0
65-74 yrs	14.8	14.3	15.7	17.0	7.6	6.8	9.1	10.0	7.2	7.5	6.6	7.0
Overall [a]	**57.1**	**57.6**	**57.1**	**58.2**	**50.8**	**52.2**	**54.5**	**55.4**	**6.3**	**5.4**	**2.7**	**2.8**

Note: [a] Overall denotes population 15-74 years, and includes also persons with unknown level of education.
Source: World Bank estimates based on LFS data.

3.23 The ethnic gap in employment remains substantial (10 percentage points) for persons with tertiary education. While this is just one-half of the gap that existed in 1997 (Figure 3.4), there have been no significant changes here since 2002. The gap for women, although it narrowed over time, remained higher than for men.

Figure 3.4: Employment Rates by Educational Attainment



Source: Various LFS. Population aged 15-74 years.

3.24 Inspection of employment rates by type of settlement (Table 3.13) reveals a substantial reduction in the ethnic employment gap in both rural and urban areas, especially outside Riga.

However, in all four types of populated areas, the employment rate of non-Latvians lags behind those of Latvians by four to five percentage points. The overall gap is smaller only because of a higher concentration of non-Latvians in Riga, where the employment rate is higher than it is elsewhere.

Table 3.13: Employment Rates (percent) by Ethnicity and Residence

	Latvians				Non-Latvians				Gap (percentage points)			
Settlement	**2002**	**2003**	**2004**	**2005**	**2002**	**2003**	**2004**	**2005**	**2002**	**2003**	**2004**	**2005**
Capital (Riga)	61.4	64.3	63.3	65.2	55.9	56.4	59.5	60.1	5.5	7.9	3.9	5.1
Big cities [a]	53.0	56.1	54.8	54.7	45.7	47.2	49.3	50.9	7.3	8.9	5.5	3.7
Small cities	56.3	56.5	55.6	58.3	47.7	50.6	54.0	53.8	8.6	5.9	1.5	4.6
Rural	56.1	54.7	54.7	55.0	47.4	50.0	50.4	51.2	8.7	4.7	4.3	3.8
Overall	57.1	57.6	57.1	58.2	50.8	52.2	54.5	55.4	6.3	5.4	2.7	2.8

Note: [a] Daugavpils, Jurmala, Jelgava, Liepaja, Rezekne, Ventspils. Overall denotes population aged 15-74 yrs.
Source: World Bank estimates based on LFS data.

3.25 While employment is an important determinant of living standards, the type of employment plays a role too. Table 3.14 compares the distribution of employed Latvians and non-Latvians in 2002-2005 by employment status and work time (full-time vs. part-time). It also compares the type of contract and monthly earnings (the two latter comparisons are for hired employees only). In general, distributions by employment status for the two ethnic groups are very similar and become even more so over time): 84 percent (in 2002) to 87 percent (in 2005) of employed Latvians and about 90 percent of their minority counterparts are employees (i.e., salaried workers), 3 percent to 4 percent in each group are employers. About 7 percent of Latvians and 4 percent of non-Latvians are self-employed. Between 2002 and 2005, the proportion of unpaid family workers (found predominantly in farms) decreased from 5 percent to 2.6 percent among Latvians and from almost 3 percent to 1.8 percent among the employed minority population.

3.26 The incidence of part-time work, low by international standards, decreased between 2002 and 2005 from 13.5 percent to 9.1 percent among Latvians and from 11.8 percent to 7.4 percent among non-Latvians. During the same period, the incidence of involuntary part-time employment decreased by one-third; in 2005, it was about 3 percent for each ethnic group. Overall, the proportion of part-time workers among the employed population (8.3 percent) is just one-half of that in the EU-15.

3.27 The incidence of fixed-term contracts, especially those with a duration of more than 6 months, has dropped dramatically during the last three years. In 2002, 14 percent of all employees had temporary contracts at their main jobs; 60 percent of these contracts were longer than 6 months in duration. In 2005, the main job was temporary only for 8.6 percent of employees (8.8 percent among Latvians and 8.4 percent among minority workers). Just one-half of their contracts (53 percent for Latvians and 44 percent for non-Latvians) were longer than 6 months. Among new EU members, only Poland, Slovenia and Cyprus have a higher frequency of temporary jobs than Latvia. On average, in the EU-25 and the EU-15, it is much higher (close to 14 percent).

Table 3.14: Employment Status, Incidence of Part-time and Temporary Work, and Wage Distribution in the Main Job by Ethnicity

	Latvians				Non-Latvians			
Group	**2002**	**2003**	**2004**	**2005**	**2002**	**2003**	**2004**	**2005**
Employment category								
Employee	84.2	84.7	84.7	86.9	89.3	90.7	90.9	90.7
Employer	3.0	3.1	3.6	3.4	3.5	3.4	3.1	3.5
Self-employed	7.5	7.6	7.7	7.0	4.3	3.7	3.6	3.9
Unpaid worker in a family farm/business	5.3	4.6	4.0	2.6	2.9	2.3	2.3	1.8
Total	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**
Working time								
Full-time	86.5	89.0	88.8	91.0	88.2	91.0	91.0	92.6
Part-time ≥ 40 (or irregular) hrs/week[a]	4.1	2.4	2.1	1.1	4.1	2.0	1.4	0.7
Part-time 15-39 hrs/wk	7.7	7.4	7.7	7.0	6.9	6.1	6.5	6.1
Part-time < 15 hrs/week	1.6	1.1	1.4	0.9	0.8	0.9	1.1	0.6
Total	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**
Total part-time (as declared by workers)	13.5	11.0	11.2	9.1	11.8	9.0	9.0	7.4
Involuntary part-time	4.5	4.0	4.3	3.1	4.1	4.1	4.0	2.9
Under-employed [b]	5.0	4.1	4.4	3.9	4.6	4.7	4.7	3.4
Employee contract type								
Permanent	86.5	89.5	90.8	91.2	85.3	87.6	90.2	91.6
Temporary, contract > 6 months	8.0	5.7	5.0	4.6	9.0	6.4	5.3	3.8
Temporary, contract for 6 months or less	5.5	4.8	4.2	4.2	5.7	6.0	4.5	4.6
Total	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**
Net monthly wage (employees)								
Corresponds to net[c] min. wage or less	20.1	12.7	16.5	12.7	22.7	13.9	15.4	11.9
Between net[c] minimum wage and Ls 100	28.2	34.4	22.1	19.8	32.4	40.0	29.1	24.9
Between Ls 100 and Ls 200	39.9	38.5	37.1	39.2	35.8	36.2	39.9	42.4
More than Ls 200	11.0	11.8	18.1	21.6	7.9	8.0	11.8	15.7
Refused to answer	0.8	2.7	6.2	6.6	1.1	2.0	3.7	5.1
Total	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**

Notes: [a] In Latvian statistics, this category is not considered as part-time. [b] Part-time workers, who usually work less than 40 hours per week and would like to work more if their earnings are adjusted accordingly. [c] For 2002, gross; hence, in these rows 2002 results are not comparable with other years.
Source: World Bank estimates based on LFS data. Employed population aged 15-74 years.

3.28 The previous discussion suggests that the incidence of part-time and temporary work is fairly similar among the two ethnic groups. The incidence of receiving just minimum wage is quite similar also: (in 2005, it was 12.7 percent and 11.9 percent among Latvian and non-Latvian workers, respectively). However, among minority employees, a significantly higher proportion (one-quarter vs. one-fifth among Latvians) reports net monthly earnings between the minimum and Ls 100. A significantly lower proportion (15.7 percent vs. 21.6 percent) reports earnings above Ls 200.

3.29 **Occupational and Industrial Distribution:** Table 3.15 provides the distribution of Latvians and non-Latvians across occupations in 2002 and 2005; the latter year also has a breakdown by gender. Segregation into different occupational groups is quite modest; differences tend to diminish over time. And yet, Latvians tend to be in highly skilled non-manual occupations, while non-Latvians tend to be in skilled manual and elementary occupations. For men, the differences in occupational distributions are considerably smaller than for women.

Table 3.15: Occupation in the Main Job by Ethnicity, 2002 and 2005

	Latvians				Non-Latvians			
	2002	2005			2002	2005		
	Total	Total	Men	Women	Total	Total	Men	Women
Occupation in the main job								
Senior officials and managers	9.4	8.6	8.6	8.6	5.3	5.7	6.7	4.7
Professionals	14.2	13.9	9.3	18.5	10.7	9.8	6.2	13.6
Technicians; associated professionals	16.0	16.1	11.2	20.9	13.2	11.9	9.0	15.0
Total highly skilled non-manual	***39.5***	***38.6***	***29.1***	***47.9***	***29.3***	***27.4***	***21.9***	***33.3***
Clerks	5.9	6.2	3.4	8.9	4.9	7.2	2.5	12.3
Service, shop and market workers	14.0	15.8	8.8	22.8	15.8	15.5	6.9	24.7
Total low skilled non-manual	***19.9***	***22.0***	***12.2***	***31.7***	***20.6***	***22.7***	***9.4***	***37.0***
Skilled agricultural and fishery workers	2.4	1.9	2.6	1.1	1.1	1.0	0.9	1.1
Craft and related trades workers	14.5	14.3	23.7	5.0	18.5	22.0	35.6	7.4
Plant and machine operators and assemblers	10.8	11.4	19.7	3.3	14.5	12.5	18.9	5.7
Total skilled manual	***27.8***	***27.5***	***46.0***	***9.5***	***34.1***	***35.6***	***55.4***	***14.2***
Elementary occupations	***12.9***	***11.8***	***12.7***	***10.9***	***16.0***	***14.4***	***13.2***	***15.5***
Total	100	100	100	100	100	100	100	100
Dissimilarity index [a] (%) between Latvians / non-Latvians: by four "***super-groups***" of occupations	10.2	11.2	9.9	14.7	10.2	11.2	9.9	14.7
by nine major groups of occupations	12.5	12.4	12.0	14.8	12.5	12.4	12.0	14.8
by 27 two-digit groups of occupations	16.7	16.5	17.5	18.7	16.5	16.7	17.5	18.7

Notes. [a] Dissimilarity index DI (known also as Duncan index) is a number between 0 and 1, with 0 indicating equal distribution of ethnic (or other) groups among occupations, and 1 (or 100 percent) indicating complete segregation. In the given context, DI shows the minimal proportion of non-Latvians which would have to change occupations in order to make their occupational distribution same as Latvians'.
Source: Calculation based on LFS data.

3.30 The "dissimilarity index" or DI is also known as the Duncan index.[24] It measures the share of individuals in one group that would need to switch to another occupation to achieve equal distribution. It shows that in order to achieve complete equality across four "supergroups" of occupations, only 11 percent of non-Latvians would need to change their occupations (10 percent for men and 15 percent for women).

3.31 The picture changes dramatically when one examines occupational segregation across non-native Latvian speakers with good, medium and poor language skills – rather than examining differences between Latvians and non-Latvians (see Table 3-16). Dissimilarity between native speakers and minority employees with good knowledge of the state language is relatively low; the DI index equals 6 percent. For non-native speakers with medium and poor Latvian language skills, however, the DI index goes up to 24 and 49 percent, respectively, for the same four broad occupational "supergroups." Taken together, these patterns strongly suggest that language skills are behind occupational segregation.

[24] DI takes values from 0, indicating equal distribution, to 1, indicating complete segregation.

Table 3.16: Occupation in the Main Job by Latvian Language Skills.
Employees aged 18-64, 2005

	Latvian language skills				
	Native	Good	Medium	Poor	Total
Occupation in the main job					
Senior officials and managers	6.3	5.3	3.3	0.9	5.4
Professionals	15.4	13.2	6.4	2.3	13.2
Technicians; associated professionals	17.2	17.4	10.5	6.0	15.8
Total highly skilled non-manual	*38.9*	*35.9*	*20.1*	*9.2*	*34.3*
Clerks	8.2	8.4	4.1	1.8	7.4
Service, shop and market workers	18.4	24.2	17.0	5.5	18.7
Total low skilled non-manual	*26.6*	*32.6*	*21.1*	*7.3*	*26.1*
Skilled agricultural and fishery workers	1.3	0.1	0.8	3.2	1.1
Craft and related trades workers	11.5	12.3	21.6	28.4	13.8
Plant and machine operators and assemblers	11.5	9.5	19.9	21.6	12.8
Total skilled manual	*24.4*	*21.9*	*42.3*	*53.2*	*27.7*
Elementary occupations	*10.2*	*9.6*	*16.4*	*30.3*	*11.9*
Total	100.0	100.0	100.0	100.0	100.0
Dissimilarity index[a] between given category and native Latvian speakers:					
by nine major groups of occupations, %	0.0	7.0	24.7	49.0	
by four "super-groups" of occupations, %	0.0	5.9	24.2	49.0	
Number of observations	2515	811	487	218	4031

Notes. [a] Dissimilarity index *DI* (known also as *Duncan index*, see Duncan and Duncan 1955) is a number between 0 and 1, with 0 indicating equal distribution of ethnic (or other) groups among occupations, and 1 (or 100%) indicating complete segregation. In the given context, *DI* shows the minimal proportion of workers with good, medium and poor Latvian language skills which would have to change occupations in order to make their occupational distribution identical to that of native Latvian speakers.
Source: Calculation based on a representative survey of employees implemented in November 2005-January 2006 by *Factum group* in the framework of the study of determinants of wages commissioned by the Ministry of Welfare for the National Program of Labor Market Studies.

CHAPTER 4.
TARGETING EFFECTIVENESS OF SOCIAL TRANSFERS

4.1 Total social spending in Latvia is below the average for both EU and OECD countries, in large part due to lower public spending on health care compared to other countries. Total social spending is dominated by social insurance benefits, the bulk of which comprise old-age pensions. Non-contributory state benefits comprise a relatively small share of total spending, with family and child benefits, benefits for disabled children and birth allowances being among the primary benefits provided (Box 1.1)[25] In addition, social assistance, the primary purpose of which is to provide material support to needy families, is provided by local municipalities and financed from municipal budgets. With support from the World Bank, the Latvian government implemented a Welfare System Reform project from 1997 to 2003. The main objective of this project was to restructure the system of social welfare in the country by ensuring financial stability, creating a client-oriented system of social insurance, improving the system of social assistance, developing alternative care services, and improving the system of monitoring and evaluation.[26]

4.2 Household budget surveys conducted by the Central Statistical Bureau in Latvia include information on the following types of social transfers: (i) pensions, (ii) state social security benefits, (iii) local government assistance benefits, and (iv) state social benefits.[27] Overall, 2004 HBS data show that about 91 percent of the population received benefits from at least one of these programs (Figure 4.1). State social benefits had the highest coverage rates in the population (53 percent), followed by pensions (44 percent), local government assistance benefits (11 percent) and state social security benefits (5 percent).

4.3 While not necessarily the explicit objective of all programs (e.g. pensions), section 4.2 summarizes the extent to which these various social transfer programs are successful in helping poor households. Section 4.3 summarizes the main findings of various probit regressions analyzing the marginal effects of the probability of receiving various social transfers as a function of different background characteristics. Finally, section 4.4 presents some concluding observations on the implications of these findings on Latvia's system of social transfers.

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[25] Peter Whiteford, *Social Protection and Social Assistance in Latvia* in Background Studies for the 2004 World Bank Country Economic Memorandum, Latvia: The Quest for Jobs and Growth, Volume II.

[26] For an assessment of the performance of this project, please see World Bank Report No: 29347: Implementation Completion Report, Republic of Latvia Welfare Reform Project, June 5, 2004.

[27] Pensions includes old-age, disability, survivor pensions, service/special as well as foreign pensions; state social benefits include child care benefit, state family allowance, benefit to a guard for supporting a child, remuneration for doing guard duties, state social security benefits, child birth grants, allowances to disabled people to compensate them for travel costs incurred, funeral allowances, and allowances to the victims of the Chernobyl nuclear power plant; local government assistance benefits include cash benefits to low-income families, housing benefits in cash, local government in-kind benefits (rent, electricity, heating, phone bills, fuel, other), benefits for the care of sick, old, or disabled persons, in-kind health benefits, food stamps, funeral grants, and other local government benefits (both cash and in-kind); state social security benefits includes unemployment benefit, sickness allowance, maternity benefit, & other social security benefits (e.g. labor accident, occupational diseases, insurance premiums, etc.). All Programs includes all of the above, plus scholarships and other social transfers (alimony, from other households, transfers from NGOs, grants and stipends, etc.).

Box 4.1: Main Social Assistance Schemes in Latvia

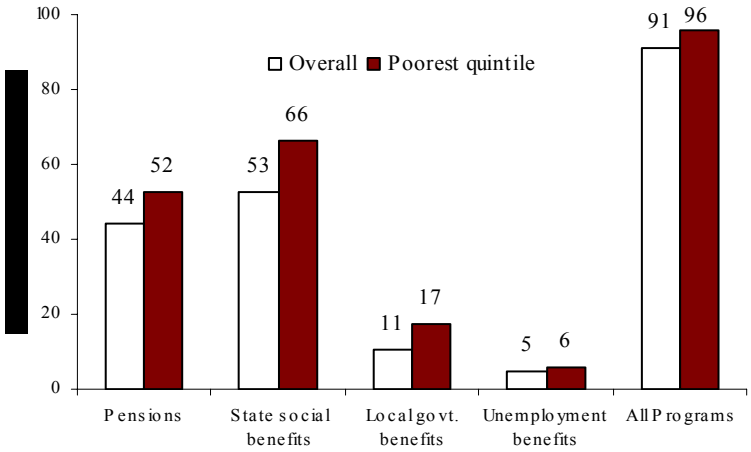
A. State benefits	
Type of Benefit and Qualifying Conditions	**Amount and duration**
1. Family state benefit: The benefit is granted to one of the child's parents from the date the child was born or to the child's guardian or adoptive parent from the date of establishing guardianship or adoption.	LVL 6 per month for 1st child, x1.2 for 2nd child, x1.6 for 3rd child, and x1.8 for 4th and all other children (LVL 7.2, LVL 9.6, LVL 10.8 per month). Benefit granted for every child under 15 (or while attending school and unmarried).
2. Additional payment to the family state benefit for a disabled child: A statement on the child's disability issued by State Medical Experts' Commission on Health and the Capacity for work is required for receipt of the additional payment.	LVL 50 per month in cash paid to the family. The benefit is granted from the date when disability is assigned till the time the child reaches the age of 18.
3. Child birth grant: Parents of the child are eligible for the benefit if the child has lived for more than 7 days. The benefit is granted to one of the parents or to the person who has adopted the child or has assumed guardianship over a child who is less than one year of age. The benefit is payable for every child born.	50 percent of the value of the baby's dowry in fiscal terms (i.e. LVL 98 in cash). Mothers who have been placed under medical care by the 12th week of pregnancy and who pay regular visits to the doctor, receive a benefit that is twice the amount of the basic benefit – LVL 196. Paid lump-sum.
4. Child care allowance: Not receiving the maternity benefit, is not employed on full time basis. Legislation prescribes the permissible length of employment for eligibility for the child care allowance. The benefit is granted to persons who take care of a child under 3 (if born after 1 Jan. 2003 – under the age of 2).	LVL 30 per month for taking care of a child under the age of 1.5 years, and LVL 7.5 per month until the child reaches the age of 2 years. The size of the allowance does not depend on the number of children born (it is granted for the case).
5. Remuneration for the performance of guardian's duties: Remuneration is granted to the person who has been appointed a guardian to a child as well as a brother or a sister if the ward lives in the guardian's family.	LVL 38 per month. The amount of remuneration does not depend on the number of children placed under guardianship. The remuneration is payable during the period of the guardianship.
6. Remuneration for the performance of duties of a foster family: Granted to the person who has entered into an agreement with the local government on placing the child with a foster family for a period > 1 month.	LVL 38 per month. The amount of the remuneration does not depend on the number of children placed with the foster family. Paid for duration of the agreement with the local government, normally one year, but extendable.
7. Benefits to guardians for the upkeep of the child: Granted to the person who has been appointed a guardian in compliance with the prescribed procedure.	LVL 32 per month. The benefit is payable for the duration of the guardianship period.
B. Municipal Benefits	
1. Guaranteed Minimum Income Means-tested benefit for low-income families: (i) income per family member below 50 percent of min. monthly wages; ii) no savings at credit institutions, (iii) no securities, (iv) no debt commitments, (v) no agreement on food, (vi) not on the full state or municipal maintenance, (vii) have not issued a loan, (viii) have no other incomes, except the state benefits and pensions during the last three months does not exceed the amount of the minimum monthly wages per family member, or if the person studies at a university or studies abroad	The amount of principal calculated as the difference between the actual expenditures for dwelling and the incomes of all residents (capped at LVL 15 per person. Additional amount payable does not exceed LVL 9 per person, registered as residing in the given dwelling, and who is eligible for the benefit. P=GMI *n – I, Where P is the benefit amount, GMI – the guaranteed minimum income level established by the Cabinet of Ministers (until 31.12.2003 – LVL 15, as of 01.01.2004 – LVL 18), n – number of family members, I – income of the family Typically 3 months; after which the person/family may reapply for the benefit.
2. Lump sum municipal benefits in an emergency situation	The benefit is granted only in emergency cases, depending on the financial possibilities of the local government (provided in cash and in-kind).
3. Other municipal social assistance benefits	Means-tested. The benefit is granted only if GMI demand has been met, also depending on the financial possibilities of the local government
Source: Background information compiled for ongoing EU8 Social Assistance study at the World Bank.	

A. COVERAGE, ADEQUACY, AND TARGETING EFFICIENCY

4.4 The relative performance of the various social programs of the Latvian government noted above in reaching the poorest one-fifth of the population (henceforth poorest quintile) is compared using three related criteria: (i) coverage (i.e. share of this group receiving benefits), (ii) adequacy (i.e. share of their total consumption accounted for by this transfer), and (iii) targeting efficiency (i.e. share of total program spending accruing to this sub-group).

4.5 **Coverage:** Pensions and state social benefits reach a fairly large share of the poorest quintile (52 and 66 percent respectively), while local government benefits and the unemployment program have relatively lower coverage rates (17 and 6 percent respectively) (Figure 4.1). The survey data show that 96 percent of the poorest quintile benefited from one of these programs. In large part this reflects the high coverage rates of pensions and state social benefits, not just among the poorest quintile but also the overall population.

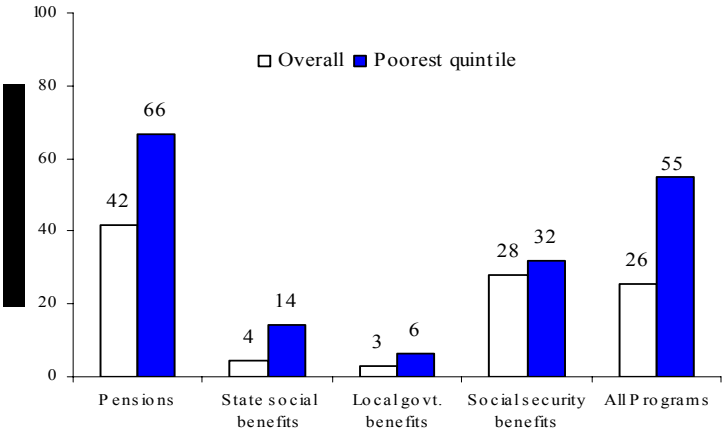
Figure 4.1: Program Coverage Rates



Source: World Bank estimates based on HBS 2004.

4.6 **Adequacy:** Total transfers are an important income source for those receiving them, especially among the poorest quintile: in 2004, these transfers represented the equivalent of 26 percent and 55 percent of per-capita consumption of all and poorest quintile beneficiaries respectively (Figure 4.2). Among the poorest quintile, pensions are by far the most important transfer (66 percent), but other transfers are important too—state social benefits, local government benefits, and unemployment benefits account for 14 percent, 6 percent, and 32 percent of the per-capita consumption of their respective beneficiaries.

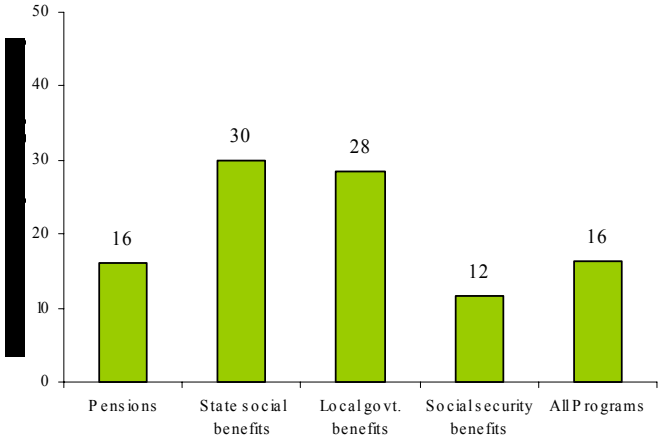
Figure 4.2: Benefits as Share of Consumption



Source: World Bank estimates based on HBS 2004.

4.7 **Targeting Efficiency:** State social benefits and local government benefits are the best-targeted transfers in Latvia (Figure 4.3), with about 30 percent and 28 percent respectively of total transfers under these programs reaching the poorest quintile. By contrast, pensions and state security benefits are relatively less well-targeted, with only 16 and 12 percent respectively of total expenditures accruing to this group.[28] The relatively poor targeting performance of most of the transfer programs can be ascertained from the fact that purely random assignment of expenditures under these program would result in 20 percent of spending accruing to the poorest one-fifth of the population—state social benefits and local government benefits do only slightly better than, while pensions and social security benefits do worse than, random assignment of benefits. While clearly not all benefits are intended to reach the poor exclusively (e.g. pensions, which also serve an important social insurance function), these findings nonetheless suggest there is scope for improving access to these benefits by the poor.

Figure 4.3: Targeting Efficiency



Source: World Bank estimates based on HBS 2004. Graph shows share of spending accruing to poorest quintile.

B. AN ECONOMETRIC ANALYSIS OF LIKELIHOOD OF RECEIVING TRANSFERS

4.8 This finding can be investigated more rigorously using a more formal regression framework to analyze these inter-relationships. Table 4.1 summarizes the results of different probit regressions relating the probability of receiving different types of transfers to various background characteristics of households. The advantage of using these models is that they allow one to isolate the marginal effect of a particular characteristic-of-interest compared to the compound effects of various collinear characteristics (i.e. a lower education level may be associated with a higher probability of being in an unskilled occupation, but the interest is to separate the effects of education and skill level).

4.9 The analysis was carried out separately for several different groups-of-interest, and the results are reported in Table 4.1: (a) recipients of any transfer (column 1), (b) recipients of any transfer other than pensions (2), (c) recipients of pensions (3), (d) recipients of social security (4), (e) recipients of social benefits (5), and (f) recipients of transfers from local government (6).

4.10 Examining first the probability of receiving "Any type of assistance", relative to residents of Latgale, residents of all other regions have a lower probability of receiving benefits, with the marginal effect of ranging from negative 9 percent (Zemgale) to negative one percent (Riga). These regional indicators are jointly-significant predictors of the probability of receiving any

[28] As pointed out earlier, however, it is important to bear in mind that the pension system does not function as a social safety net as such but instead has an important social insurance function as well.

transfer—i.e. even after accounting for other important determinants, the locality of residence is still found to play an important role in influencing whether a household receives any transfers. Households with male heads, and older heads have a lower probability of receiving transfers (however, the effect of age is found to be concave, meaning that households with very old heads have higher probability of receiving transfers compared to those headed by middle-aged persons). Household size has a large positive effect on the probability of receiving transfers. In terms of the relationship between education level and the probability of receiving transfers, higher education levels are associated with a lower probability of transfers.

Table 4.1: Probit Regression Reporting Marginal Effects of the Probability of Receiving a Transfer as a Function of Various Household-level Background Characteristics

	Any Social assistance	Any, not including pensions	Pensions	Social Security Benefits	State social benefits	Local govt. benefits
Urban areas (not capital)	0.00685	0.00221	0.019646	0.0048913	0.036586	0.03113*
Regions (Latgale omitted)						
Kurzeme	-0.0473	-0.0433	-0.00545	0.0094742	0.009013	0.035148
Zemgale	-0.0908	-0.0844	-0.00303	0.0058515	-0.04202	0.000666
Vidzeme	-0.0422	-0.0703	0.017669	0.0162207	-0.00061	-0.01424
Riga region	-0.0108	-0.0345	0.041846	0.0238713	0.008761	0.11234
Pieriga	-0.0885	-0.1109	0.015708	0.0088998	-0.0133	-0.01007
Household composition						
Male household head	-0.0585**	0.0487**	-0.11262	-0.010379	-0.12451**	-0.05207**
Age of household head	-0.0272**	0.04866**	-0.0656	-0.0000545*	0.005545	-0.00082
Age of household head squared	0.00031**	-0.0008**	0.000916	-9.62E-07	-0.0002	5.99E-06
Household size	0.11754**	0.02591**	0.086898	0.0098686**	0.29299**	0.024281**
Education (basic or less omitted)						
Vocational without secondary	-0.1092*	-0.1218	-0.01087	-0.0109272	-0.0712	0.005095
Vocational with secondary	-0.0026	-0.0702	0.091565	0.010121	0.011563	0.040239
General secondary	-0.0145	-0.0057	-0.00151	0.0194572*	0.011463	-0.0004
SS + basic	-0.0235	-0.0363	0.022077	0.014211	0.003116	-0.00015
SS + secondary	-0.0387	-0.009	-0.01227	0.0017848	-0.0074	-0.04123*
Higher	-0.0325	-0.0023	-0.01783	-0.0065862	0.005781	-0.01819
Ph.D. graduate	dropped	-0.1088	0.329356	0.1316009	0.16318	dropped
Social group (employee omitted)						
Employer	0.05014	0.09905	-0.02401		0.221862**	-0.00875
Self-employed	0.04304	0.12399	-0.1138	-0.0092798	0.202086**	-0.03448
Family business employee	-0.4473	-0.0165	(dropped)	(dropped)	0.03099	(dropped)
Farmer	0.08212*	0.02448	0.034317	0.0082464	-0.03125	0.088782*
Pensioner	(dropped)	(dropped)		-0.011725	0.103071	0.116618*
Student	(dropped)	0.33574	-0.16671	(dropped)	-0.19495	0.035128
Housekeeper	0.01879	0.14423	-0.13585	-0.0094746	0.027343	0.14066
Unemployed	0.08575*	0.1915	-0.07242	0.2901276**	-0.02844	0.116477*
Ln per capita consumption	-0.0044	0.00086	-0.03159	-0.0004428	-0.0395*	-0.02473**
Number of observations	2656	2669	2665	3845	3912	3900
Wald chi2	270.27(23)	418.14(25)	466.51	180.45	860.87	232.39
Prob > chi2	0.0	0.0	0.00	0.0	0.0	0.0
Log pseudo-likelihood	-965.76	-1601.56	-1307.19	-528.49	-1304.63	-1151.69
Pseudo R2	0.2012	0.1296	0.1836	0.1479	0.4904	0.094
Joint test for 6 regional coefficients being jointly zero:						
chi2(5)	17.40*	9.05	2.04	5.52	2.8	61.94**
Prob > chi2	0.0038	0.107	0.8432	0.3553	0.7314	0

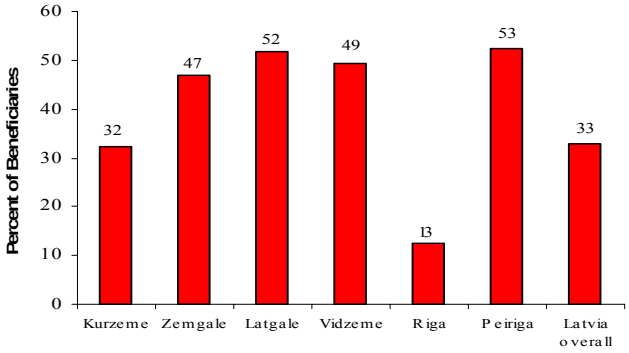
Note: The numbers of observations are different in the regressions because observations have been dropped due to collinearity. * denotes significance at the 5 percent level, ** denotes significance at the 1 percent level. *Source*: World Bank estimates based on 2004 HBS data.

4.11 Relative to employees, family business employees are less likely to receive assistance, while all other categories are more likely to do so. The unemployed and farmers have particular high marginal effects (8-9 percent) associated with them.[29] Finally, the level of income (using per capita consumption as a proxy) does not have any effect (the coefficient is insignificant) on the probability of receiving any transfer. Turning next to recipient of "Any transfer other than pensions", however, regional indicators are only marginally significant (at 10 percent level). Other differences with the previously-described model include the effect of age (in this model, it is positive and convex). The region of residence does not have any impact on probability of receipt of pensions either; other than this, the results are quite similar to those of "Any assistance". Being a recipient of social assistance is not influenced by the region of residence either, nor is it influenced by the age of the household head or per capita consumption. In general, while most of the correlates of receipt of social benefits are found to be quite similar to those for receipts of social assistance, there is one important difference: being a recipient of social benefits is strongly and significantly related with the lower income levels—i.e. poor people are found to be much more likely to receive this benefit than those with higher incomes.

4.12 In the case of local government transfers, however, the region of residence is found to be a very strong determinant of whether a person receives this benefit or not. In particular, residents in the richer parts of the country such as Riga and Kurzeme are more likely to receive assistance, relative to the residents of other regions. In fact, the results indicate that this effect is what drives the observed linkage between region of residence and receipt of "any transfer" discussed earlier. There is also a strong and negative association between receiving this benefit and income levels.

4.13 The relatively poor regional targeting of local government benefits is a surprise, given that one of its primary objectives should be to help poor households. Another way to examine the pro-poor focus of these benefits is to check what share of total beneficiaries is drawn from the poorest quintile—in 2004, about 33 percent of those receiving local government benefits in Latvia were from this target group (Figure 4.4). The remainder was not; they were from richer quintiles.

Figure 4.4: Recipients of Local Government Benefits that Belong to the Poorest Population Quintile



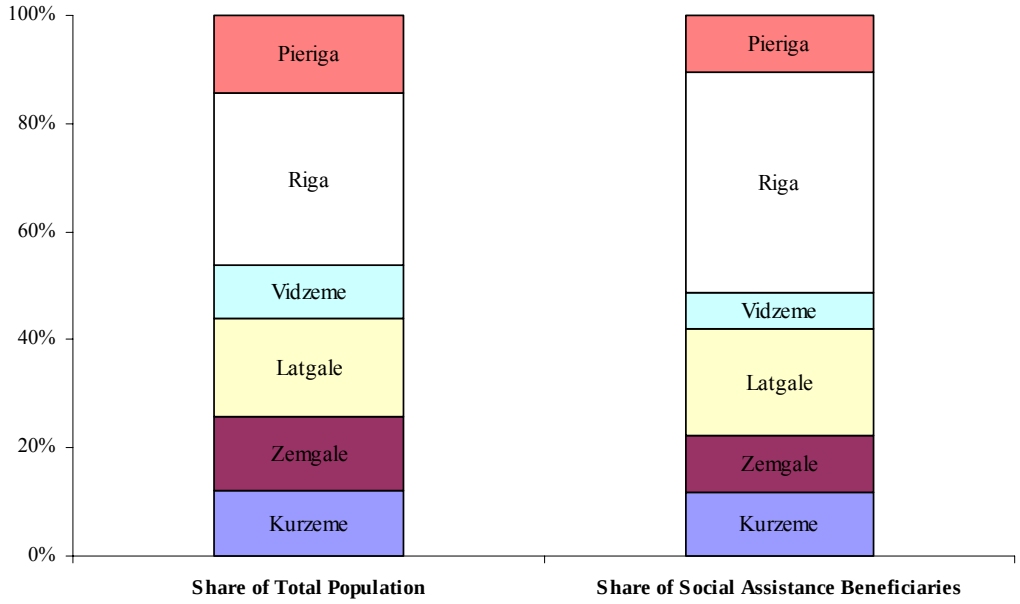
Source: World Bank estimates based on 2004 HBS. Graph shows percentage of beneficiaries from the poorest quintile.

4.14 However, this share varied across regions. Other than in Riga, and to some extent in Kurzeme, local government benefits were quite well targeted in other regions. In 2004, around one-half of program beneficiaries came from the poorest quintile. One of the problems is that local governments in relatively richer regions, such as Riga, have considerably more funds available to spend on these programs than those in poorer regions. This results in a perverse outcome. More than 40 percent of total social assistance transfers in Latvia go to people living in

[29] Note that being a pensioner or a student is perfectly collinear with being a recipient of "Any assistance".

Riga (Figure 4.5), even though they are, on average, considerably richer than those residing in other parts of the country.

Figure 4.5: Riga Residents Have a Disproportionately High Likelihood of Receiving Local Govt. Benefits



Source: World Bank estimates based on 2004 HBS data.

CHAPTER 5.
SUMMARY AND CONCLUDING OBSERVATIONS

5.1 This report has examined the extent and causes of poverty reduction during the period 1998–2004 using data from a variety of sources – the national accounts as well as household budget, labor force, and other household surveys. Using HBS data from several surveys during this period and an absolute poverty line, it finds that Latvia has come a long way in improving the living standards of its population. Sustained and robust growth has moved the country closer to income convergence with the EU25 average income level, and the gains from it have been widely shared across the entire population. In addition, the analysis presented in this report points to a number of preliminary policy implications, as summarized below:

5.2 *Sustaining Latvia's impressive growth performance is key to consolidating achievements in poverty reduction:* The Latvian economy has performed quite well over the past decade. Growth during the past five years has been particularly high: real per capita GDP increased by almost 50 percent, seven times the increase in the EU overall. The labor market provided the primary channel through which the benefits of this rapid economic growth were shared widely across the population. Rapid increases in productivity and earnings, and more recently an increase in total employment, have been the main channels for sharing the benefits of high growth across the population. Increased labor market flexibility in recent years is indicated by the various positive trends evident in the economy, with all three of the main labor market indicators—labor force participation rate, employment rate, and unemployment rate—continuing to show positive trends.

5.3 As a result, Latvia has achieved substantial progress in poverty reduction, with an estimated 325,000 people moving out of poverty over this period. As with many other countries throughout the world, the experience of Latvia illustrates vividly the dramatic impact that sustained high rates of shared growth can have on improving living conditions, even over a relatively short time period. Looking ahead, it would be important for the government to mitigate any risks that might threaten the sustained growth that Latvia has enjoyed in recent years. In particular, growth in the economy at present may be running ahead of potential, owing to rapid credit and wage growth, which has resulted in large current account deficits and relatively high inflation recently. Bearing these risks in mind, it would be important for the government to take early action to counter any adverse developments that might threaten the economy's long-run prospects for high and sustained growth.

5.4 *Complementarity between relative and absolute poverty measures*: Poverty estimates based on an absolute poverty measure show a rapid decline in poverty over the period 1998 to 2004 because of the economic growth that occurred during this period. However, one of the consequences of this growth was that median incomes increased as well. As a result, poverty estimates linked to this measure (i.e. relative poverty measures, such as the Laeken indicators) show no change in poverty during this period. Both relative and absolute poverty measures have

their uses, and in fact are useful complements in providing valuable information regarding evolution of living standards in the country. While the former helps shed more light on whether living conditions in the country have improved among the poorer segments of society in relation to a norm defined based on prevailing living conditions (i.e. relative to median income, regardless of whether living standards have changed in relation to an absolute objective standard), the latter measure shows whether these poorer groups are better-off in absolute terms (i.e. regardless of whether their living conditions have changed relative to other population groups).

5.5 Looking ahead, given the importance placed on this set of indicators in the European Union, the Latvian government will no doubt continue to use the Laeken indicators to track changes in poverty over time. In addition, however, tracking changes in living standards using an absolute poverty measure also merits serious consideration, since these two sets of poverty indicators provide useful complementary information on changes in living conditions. In the absence of an official poverty line in Latvia defined in absolute terms, this report has used a poverty line of 28 LVL per month in 1998 prices. However, as noted in the report, this poverty line was defined in 1998 based on circumstances which prevailed in Latvia at that time. In line with considerable improvements in living conditions over time, the government may want to consider revising this upwards to reflect the country's more comfortable situation today.

5.6 *Inter-regional fiscal transfers for social assistance?* As shown in chapter 4, municipalities in Latvia that have the most funds available to pay for social assistance may not necessarily be the ones whose residents need this assistance the most. This finding illustrates the dilemma in local government financing of social assistance benefits. On the one hand, the principle of subsidiary decision-making in the provision of social assistance is desirable. It helps ensure that municipalities plan their budgets and expenditures carefully, that they do not end up lobbying the central government for large transfers. On the other hand, however, municipalities with the most funds are not necessarily the ones whose residents are most in need of social assistance. Given the present fiscal arrangements in Latvia where social assistance transfers are financed entirely from local government resources, there may be some scope for the national government to introduce some equalizing fiscal transfers, especially given the substantial income gains achieved in recent years.