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Labour Market and Social Policies in the Baltic Countries



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FOREWORD

Following their rapid transition to market economies in the early 1990s, the three Baltic States have thoroughly reformed most of their labour market and social policies. However, continuing reform is required in response to rapidly changing economic conditions and to promote further catch-up with their European neighbours. This report points to a strong linkage between economic and social developments in each country, underlining that economic factors largely determine not only the need for social programmes, but also, the possibilities to implement and finance them. Nevertheless, it is natural to consider the policy experiences of more advanced economies as possible models for the Baltic States to copy, not least in view of their expected accession to the European Union. On several specific points, the report draws both positive and negative lessons from OECD countries' experiences. The report also gives recent examples of Baltic policy initiatives that are more advanced than those adopted until now in most OECD countries, notably in the area of pension reform.

This policy review was carried out under the auspices of the OECD's Centre for Co-operation with Non-Members (CCNM). It is part of a series of similar labour market and social policy reviews devoted to Central and Eastern European countries, designed to permit comparison with other countries in the region as well as with OECD member countries. Previous reviews in the series concerned Poland (1993), the Czech Republic and Hungary (1995), the Slovak Republic (1996) – before their accession to the OECD – and subsequently Slovenia (1997), Bulgaria (1998), Romania (2000) and the Russian Federation (2001).

The report was written by Anders Reuterswärd. Substantive contributions were made by Bernard Casey and consultancy support was provided by Mihails Hazans, Raul Eamets and John Earle. A draft was discussed with experts and representatives of the Ministries of Labour and Social Affairs of the three Baltic countries at a Workshop held in Palanga, Lithuania, in July 2002.

The OECD's Employment, Labour and Social Affairs Committee discussed the review with representatives of the Baltic Ministries of Labour and Social Affairs at a meeting in Helsinki, held on the 30 September 2002. It is published under the responsibility of the Secretary-General of the OECD.

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SUMMARY AND CONCLUSIONS

The three Baltic States – Estonia, Latvia and Lithuania – have made impressive progress since the early 1990s, when they suffered a severe transitional shock as a result of the breakdown of the Soviet economy. Having regained independence in 1991, they quickly opened their small economies to international competition and aligned their economic policies with those of other market economies, and they have almost completed their preparations for accession to the EU. However, while the economic transition to the market system can be regarded as essentially achieved, the restructuring of industry, agriculture and services needs to continue at a high pace because the Baltic States are still far behind OECD countries in terms of economic development.

Most elements of labour market and social policy have been thoroughly reformed over the past decade. Nevertheless, this report identifies several difficult policy questions that need to be addressed, largely as a continuous process of adjustment. These especially concern the policy responses to unemployment and under-employment, the continued pension reforms, issues concerning long-term care of frail elderly persons and the need for targeted support of the poorest households. For natural reasons, the reform activity until now has been largely inspired by policy examples set in OECD countries, from which both positive and negative policy lessons can often be drawn. But policy making must also take account of the more difficult situation in the Baltic States, marked by significant under-employment, modest living standards and relatively unequal income distributions. Moreover, as in most European transition countries, the combined burden of taxes and social insurance contributions tends to be too heavy, even with moderate social spending relative to GDP by EU standards. This financial burden, which must be carried by enterprises and workers in the formal economy, contributes to the persistence of a significant informal economy and under-reporting of incomes, especially Lithuania and Latvia.

This report begins, in Chapter I, by an analysis of the current economic and labour market situation. Chapter II considers labour market policy, focusing first on the institutional framework for employment and then

on active and passive labour market programmes. Chapters III-V subsequently highlight key issues in three topical areas of social policy, selected in view of the importance of on-going reform activity: pension policy, long-term care of the elderly and means-tested social assistance benefits.

Chapter I shows that the three Baltic countries have considerable human resources that are not fully utilised. The average education attainment of their populations is high by international standards, and the short-term demographic situation is favourable with large cohorts of young people born in the 1980s. However, despite intense economic restructuring, the job-creation process until now has been far from sufficient to provide productive employment for everybody. Not only is unemployment substantial, at around 12% in Estonia, 13% in Latvia and 18% in Lithuania in 2001. The employed populations in Latvia and Lithuania include large numbers of subsistence farmers, most of whom contribute only marginally to GDP and cannot pay taxes or social insurance contributions at normal rates. In all three countries, young people have on average been relatively successful in the labour market, while the negative impact of restructuring has been more severe for middle-aged and older workers.

Chapter II first discusses the institutional framework for employment, which has been reformed by new labour legislation that follows OECD practice in all essential respects. Collective bargaining is well established and combined with a large element of individualised wage setting, resulting in a considerable flexibility. With respect to most types of labour market regulation, the key challenge for the future is not so much to introduce additional laws as to enforce those that exist. Labour Inspectorates play an important role, but they cannot regularly inspect all small enterprises, which in the Baltic States are characterised by low trade union membership. There is also a need to develop institutions and procedures for resolution of individual labour conflicts.

Latvia has a moderately generous unemployment insurance (UI) programme, while Estonia is currently phasing-in a similar scheme. Lithuania, by contrast, pays very low unemployment benefits, so some increase will probably be justified in the near future if it can be afforded. The chapter recognises that it can be difficult to implement UI correctly in rural areas where many depend on subsistence farming, but this problem may not be too serious when the benefits are substantially reduced already after a few months of unemployment, as is done in Latvia's UI programme.

OECD experience shows that an effective implementation of UI depends crucially on the capacity of the public employment service (PES) to provide job counselling and job-search assistance. In Estonia, the introduction

of UI would therefore seem to justify allocating some additional resources to PES offices. The corresponding office networks in Latvia and Lithuania are better equipped by comparison. Various "active" programmes, such as training and job-subsidy schemes, can also be useful, but OECD experience shows that these are most likely to be effective if implemented on a relatively small scale. Therefore, any additional resources that may become available for labour market policy in the Baltic States should be used primarily for job counselling, job clubs and related activities, which should be tightly targeted and linked to the needs of local labour markets.

Chapter III finds the Baltic pension systems reasonably effective in preventing poverty in the present old generation. The lowest pensions fall short of conventional poverty limits, but most pensioners receive more. However, this apparently favourable result is achieved in part because current pensions take account of work recorded in the Soviet period, when almost all working-age citizens were employed. Today, the combination of lower employment and an often unsatisfactory contribution discipline means, on the one hand, that the financing of pensions is too expensive for those who do contribute, and, on the other, that many in the present working-age generation are at risk becoming poor after retirement. In Lithuania, those who contribute for less than 15 years will receive no pensions; but in Estonia and Latvia, any old person receives at least a minimum benefit.

Important reforms, adopted in the 1990s, have created stronger incentives to contribute to the pension insurance. Latvia's notional defined contribution (NDC) scheme has become internationally renowned as one of the most radical reforms with such a purpose. Estonia and Lithuania opted for less radical changes, adding certain income-related elements to their inherited pay-as-you-go (PAYG) pension systems. These should encourage more employed persons to contribute, although, compared with the NDC model, they offer more limited incentives to postpone retirement.

The statutory pension age has been increased in the three countries, and existing legislation will raise it further in the years to come, especially for women. Some further policy action to push up the effective retirement may soon be justified. However, both demographic factors and labour market conditions – which, as mentioned, are not very favourable to the elderly – suggest that there is limited scope for accelerating the process in the short term.

To varying degrees, the Baltic countries have begun to introduce *funded* pension systems. All three countries have legislated about a voluntary "third pension tier" based on private saving. This option has until now been followed by less than 10% of the workers in Estonia and Latvia, while, in

Lithuania, hardly any such pension plans have begun to operate. The coverage of households in the two former countries may be limited primarily by their modest incomes, but it will be justified to monitor the development of the third tier with a view to various institutional conditions that may affect its commercial viability. In Lithuania, some changes in the tax system will be needed so that it does not favour life insurance over pension saving.

Much more complex, however, are the plans to phase in compulsory "second-tier" pension saving. Estonia and Latvia have begun to switch part of the mandatory pension contributions towards a second tier, to which the younger workers and their employers now pay 6% of their wages in Estonia, and, initially, 2% in Latvia. But Lithuania's Parliament recently rejected a similar proposal, which, if adopted, would have involved the transfer of 5 percentage points of the contributions to a second tier. The government has subsequently proposed, as a "voluntary second tier", an option to transfer 2.5 percentage points of the compulsory contributions to a funded scheme.

The potential long-term advantages of funded pensions are undeniable, including a diversification of risk and less concentration of economic power in the hands of government. But the switch to funding involves a substantial transitional cost that must be financed, either by increased public borrowing or by higher pension contributions than would have been required otherwise. Moreover, Chapter III finds that all three Baltic governments appear to have under-estimated the likely cost of administering second-tier pension funds. Latvia has somewhat reduced these costs by centralising some of them in its public social insurance agency. But the actual fund management must nevertheless be out-sourced on market conditions, a process that has hardly begun because the funds are concentrated in government bonds and bank accounts during the first 18 months. International experience points to the difficulty of establishing competitive conditions in the markets for pension-fund management. To reduce the risk of pension assets suffering from inefficient management in the small Baltic financial markets, it appears particularly important to ensure that these markets are fully exposed to international competition.

Taking all these difficulties into account, this report argues that, to the extent that a second pension tier is introduced, the switch from pay-as-you-go (PAYG) to funding should be implemented relatively slowly, at least until it is more clear how rapidly the administrative problems can be resolved. The part of pension contributions devoted to the second tier should be kept at a modest level, taking account of the short-term possibilities of financing the transitional cost. Should the question of a compulsory second pension tier be raised again in Lithuania, it may be appropriate against this background to keep the relevant

part of the mandatory social insurance contribution at a lower level than the 5% that was previously proposed. Similarly, in Latvia, it cannot be excluded that it may prove justified – depending on economic and administrative developments over the next few years – to postpone one or more steps in the planned increase of the second-tier contribution rate, which has been scheduled to reach 10% already in 2010.

Chapter IV finds that gradually more old people will require long-term care services. This appears inevitable in view of both demographic trends and developments in the labour market, with higher labour-force participation in the age groups that currently provide much of the care informally. In this situation, public policies should aim to ensure that old people can obtain the care they need. But to make this objective realistic, it will be essential to promote new forms of service provision and financing that do not rely too much on public spending.

As a general principle for policy making, it thus appears important to encourage a continued respect of individual and family responsibilities. Elderly persons and their families will probably have gradually higher incomes in the future, which should give them more capacity to pay for care services. It should then be a key objective to ensure that the markets for care services are efficient and competitive, so that the demand that is likely to emerge can generate sufficient supplies.

To improve the functioning of these markets, the governments should quickly dismantle or restructure a number of relatively large institutions, which do not appear cost-efficient. It will also be important to continue the recent efforts to develop quality standards, so that the care provided by different bodies can be more easily compared. When care services are provided by public bodies, the main rule should be to charge fees that cover the costs, while allowing for reductions when recipients cannot pay.

Chapter V recommends that the move from categorical social assistance benefits – targeting certain groups or types of expenditure – towards means-testing based on the principle of a "guaranteed minimum income" (GMI) should be pursued. To the extent that means-testing can be conducted with reasonable accuracy, GMI offers a more "fair" and effective targeting of the poorest households than is possible with other methods.

The relevant income limits – and, hence, the benefit amounts – must in foreseeable future remain modest compared with conventional poverty limits. This appears necessary not only in view of budgetary considerations, but also because higher benefits could distort work incentives, given the presence of

significant proportions of relatively low-paid jobs in the Baltic labour markets. Nevertheless, some increase of the current basic benefit amounts might be justified in Estonia and Latvia, if it can be afforded, perhaps up to the estimated cost of some minimum food basket.

However, it must be recognised that means-testing is often difficult. Benefit administrations need to develop better methods for assessing households' actual incomes and assets. In Lithuania, where benefit dependency is most widespread in rural areas, it appears necessary to take account of in-kind as well as monetary incomes. Co-ordination with tax authorities and social insurance can be helpful as far as monetary incomes are concerned; but this is unlikely to solve more than a limited part of the problems encountered. In the end, the results will depend to a large extent on the proficiency of the social workers and the professional support they can receive from national and county-level administrations.

In sum, this report finds that important reforms have been adopted or are being prepared in all policy areas it covers. To varying degrees, each of the three countries have thus developed their labour legislation, adopted programmes for unemployment compensation and employment services, reformed their pension systems, initiated a modernisation of their provisions for care of the elderly and established social assistance benefits for the poorest. While much of this reform activity is parallel to the corresponding developments elsewhere, a key difficulty resides in the appropriate timing and sequencing of various reforms, which must harmonise with developments in the economy and the labour market. The analysis above and in the five main chapters seeks to give some indication, in each policy area, of which reform elements deserve to be treated with the highest urgency.

CHAPTER I

CATCHING UP WITH THE WORLD ECONOMY

Despite intense economic restructuring, the job-creation process until now has been far from sufficient to provide productive employment for everybody. Not only is unemployment substantial, at around 12% in Estonia, 13% in Latvia and 18% in Lithuania in 2001. Labour force participation is relatively low among youth and older workers, while significant sub-groups among the employed earn very low incomes. Latvia and Lithuania count large numbers of subsistence farmers, who contribute only marginally to GDP and who cannot pay taxes or social insurance contributions at normal rates.

The negative impact of restructuring has often been severe for middle-aged and older workers. Young people, by contrast, have on average been relatively successful, apart from initial difficulties related to the transfer from school to work. On the positive side must also be mentioned a high education level and a great deal of mobility between jobs.

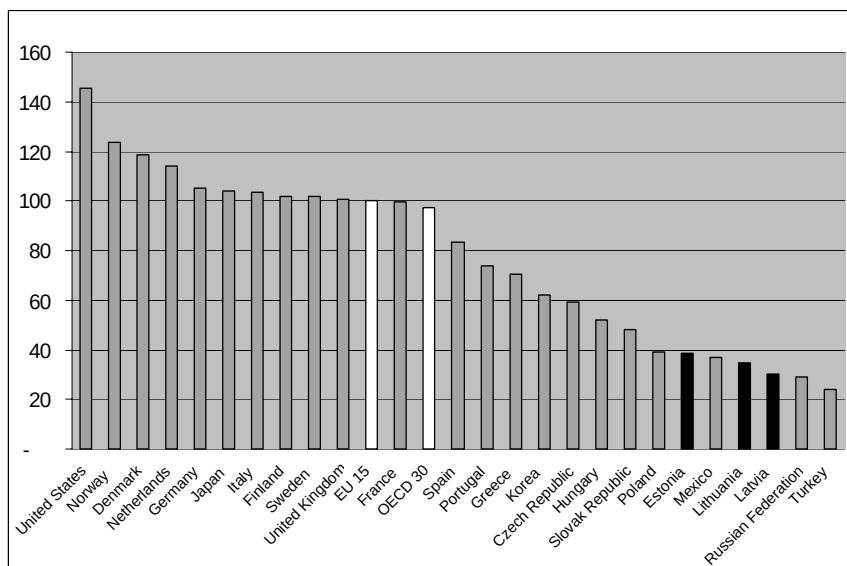
Introduction

Following a decade of rapid change, the Baltic States are among the most successful of the formerly planned economies. Although they suffered severe economic and social turbulence in the early 1990s – as did other parts of the former Soviet Union – their swift transformation into liberal market economies was rewarded by annual real-income gains from about 1995 on, apart from a temporary setback in 1999. On average over the period 1996-2001, real GDP increased by around 5% per year in each country, aided by a gradually more effective participation in international product and capital markets. A process of catching-up with more advanced economies thus is well under way.

But living standards are still much lower than in most OECD countries. Based on OECD estimates of purchasing power parities (PPP) for 1999, real GDP per capita in 2001 was only 37% of the European Union (EU) average in Estonia, which is nearly as much as in Poland but below the approximately 50% reported for Hungary and the Slovak Republic (Figure 1.1). The corresponding estimates for Latvia and Lithuania were around 30% of the EU average and comparable to the Russian Federation.

Not all households have benefited fully from the recent improvements. According to labour force surveys conducted in the autumn of 2001, the unemployment rates for the 15 to 64-year labour force were on average about 12 % in Estonia, 13% in Latvia and 18% in Lithuania. Moreover, around 15% of those employed in Latvia and Lithuania were engaged in agriculture and related activities, with usually much lower incomes than average. Partly for these reasons, the income distribution is relatively unequal with Gini coefficients of around 0.35 in all three countries, or more than in almost any other country in western, central or eastern Europe apart from the United Kingdom and the Russian Federation (Table 1.1).

Figure 1.1. GDP per capita by PPP in 2001
EU = 100



Source: OECD estimates of PPPs in 1999 and the subsequent real GDP growth.

As in most former planned economies, some increase in income inequality has resulted from a growing differentiation of wages according to education and other individual qualifications, a type of differentiation that can be important for efficiency in a market economy. But the unusually wide income gaps now found within the Baltic economies must also be seen against the background of the relatively large adjustment needs that resulted from the sudden impact of international competition on what until recently was but a small part of the Soviet central planning system. This historical break has necessary innovative process has encountered obstacles of varying complexity in different economic sectors, with the result that some labour-force groups have tended to lag relatively far behind the others. Thus, despite undeniable achievements, the processes of business start-up and job creation until now have not been sufficient to provide employment with the expected higher levels of productivity for the whole labour force.

In transition countries more than elsewhere, it is pertinent to consider labour market and social policies in a broad context of economic development.

A relatively long period of sustained economic growth would offer the best solution to many of their social problems. A continued rapid reorganisation of the production of goods and services in response to market forces should therefore be welcomed, even if it may lead to additional unemployment in the short term. Labour market and social policies should facilitate restructuring, support those who are negatively affected and provide a degree of income security for everyone, and avoid placing excessive legal or financial burdens on business.

This report draws on numerous policy studies the OECD has conducted over the past decade, covering transition economies as well as other Member countries. It is natural to consider the policy examples set by OECD countries, to which the Baltic States have many historical links. But it must be recognised that policy priorities frequently differ from country to country, and the range of realistic options is often more limited in these newly established market economies.

The remainder of Chapter I considers the macro-economic context and then provides a mainly quantitative overview of current developments in the economy and the labour market, followed by information about public spending on labour market and social programmes. Chapter II subsequently reviews the key policy issues in labour market policy, followed by three chapters devoted to selected areas of social policy. Chapter III thus focuses on pension policy, which accounts for the biggest part of social spending and where major reforms are at various stages of preparation and implementation. Chapter IV looks at long-term care of the elderly, a type of service that for several reasons is set to become more important in the future, raising questions about the appropriate role of public as opposed to private-sector provisions. Chapter V considers the development of means-tested social assistance benefits for the poorest inhabitants, a feature that did not exist in the Soviet period but is now being developed. Finally, Annexes 1 to 3 provide more detailed quantitative analysis of the functioning of Baltic labour markets from three aspects: unemployment risk factors (Annex 1), labour force dynamics (Annex 2) and the relationship between human capital and earnings (Annex 3).

The economic context

Three small open economies

While each of the Baltic States has its specific characteristics, their overall development has been largely parallel over the past ten years. As indicated already, much restructuring was initially prompted by disruption of

economic links with other parts of the former Soviet Union. Some of these links will certainly be maintained or restored in the future: trade with the eastern neighbours will always be a source of business opportunity in the region. Nevertheless, the profound transformation of the three economies that began in the 1990s has occurred, above all, in contact with the countries that surround the Baltic Sea, with the EU, and indeed with the global market economy to which the Baltic countries are now very open.

Estonia is one of the most trade-intensive economies in the world. The sum of its imports and exports amounted to 148% of GDP in 2000 and 138% in 2001, comparable only with a few other relatively small economies such as Ireland, Hungary and the Czech and Slovak Republics (Tables 1.2 and 1.3). The corresponding percentages are less extreme in Latvia (71% in 2000) and Lithuania (82%), but even these figures are high compared with such traditionally trade-exposed economies as the Nordic countries and Germany. The Baltic countries' exports are largely specialised in the same product areas – *e.g.* wood and clothing – with the result that they do not trade very much with each other, making them all the more dependent on access to the wider international markets.

The re-orientation of foreign trade – both imports and exports – from the CIS region towards the EU and other OECD countries occurred in the early transition years, and it has since been consolidated. In 2001, the EU accounted for over half of both imports and exports in Estonia and Latvia and almost half of total trade in Lithuania (Table 1.3). Only Lithuania still purchased more than a small proportion of its imports from CIS countries. Trade surpluses have emerged for wood, furniture and apparel while large deficits are incurred for other commodity groups (Table 1.4).

Overall, the three Baltic countries display wide trade deficits by international standards, albeit comparable to the deficits incurred by Portugal and Poland. In 2001, each Baltic country's balance of trade in goods was negative in relation both to the EU, the CIS and the rest of the world (Table 1.3). Having somewhat improved their competitiveness in the past few years, the three countries have tended to narrow their deficits in trade with the EU. But their deficits relative to CIS countries widened after the Russian financial crisis in 1998, when that country reduced its imports while largely sustaining its exports to the Baltics.

These deficits of trade in goods are partly offset by surpluses gained in the service sector, *e.g.* transport and tourism. Moreover, much of the remaining deficits, as recorded on the current accounts, are related to capital formation, often financed as foreign direct investment. Approximately one-third of each

country's trade deficit in 2001 could thus be attributed to purchases of machinery and equipment. Nevertheless, such wide deficits can be a threat to macro-economic stability in the long run. To contain them, it will be crucial that both capital and labour can be allocated to the types of business where they are most productive.

The Baltic economies will need to sustain high investment rates for many years to come, not only to create jobs and to enhance productivity but also to develop transport systems and other infrastructure that will be needed for a better functioning of regional and national labour markets. On average for the period 1996-2000, fixed capital formation represented 27% of GDP in Estonia and 23% in Latvia and Lithuania, or about as much as in several Central and Eastern European economies but more than in most OECD countries.¹ However, given the modest absolute levels of GDP, both the stocks of productive capital and the annual investments remain fairly small by international standards.

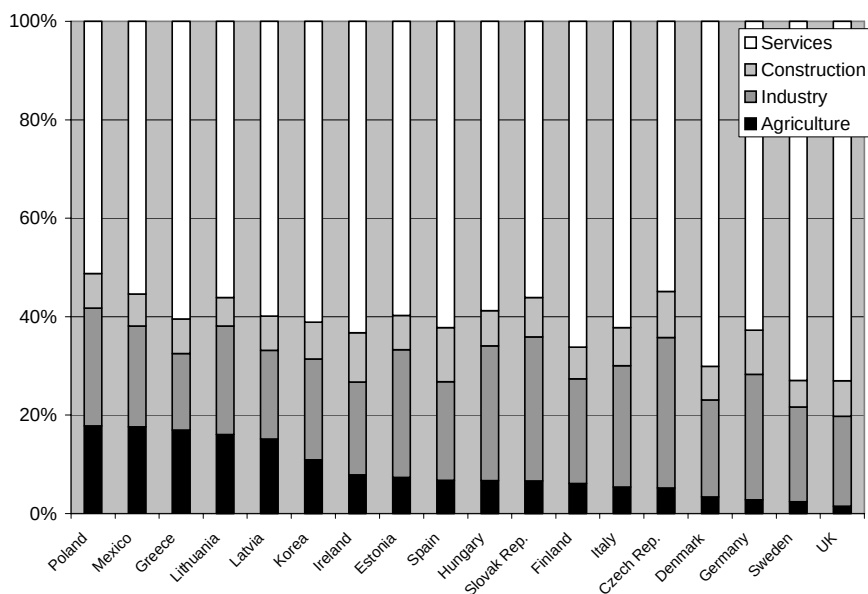
Large employment shifts between sectors

Economic restructuring has already led to large shifts of employment between sectors and enterprises. Net job creation has been recorded mainly in the service sector, but also in those forms of manufacturing that are competitive on western export markets. Private ownership is predominant and accounts for about 70% of total employment in each country, while at least two-thirds of the remainder consists of public administration, education and health and social care.

The *service sector* represented about 60% of employment in Estonia and Latvia in 2001, or almost as much as in most OECD countries, while Lithuania's service sector was slightly smaller in relative terms (Figures 1.2 and Table 1.5). As in most transition countries, the bulk of service-sector job creation since 1990 has occurred in commerce (wholesale and retail trade and some related services) although the Baltic governments also, in the first years of restored independence, expanded their public administrations. More recently, Lithuania alone has continued to increase its employment in public services, notably education. On the other hand, Lithuania's private service sectors other than commerce have shown little employment growth. The service sector as a whole undoubtedly has a potential for much further job growth in the three countries, especially in Lithuania.

¹ On average for the period 1996-2000, fixed capital formation represented 22% in Germany and 17 to 19% in France, Italy, the United Kingdom and the United States (WDI, 2001).

Figure 1.2. **Employment by economic sector**



Source: OECD. Countries are ranked by the agricultural employment shares. The data used refer to 2001 for Baltic countries and Poland, otherwise 2000. Agriculture includes forestry.

Within the *manufacturing* sector, the significant reallocations of resources between sub-sectors that began in the early 1990s (see the *2000 Economic Survey of the Baltic States*) have continued. Employment thus continued to decline between 1997 and 2001 in such product areas as chemicals and heavy machinery, while positive trends have largely persisted in the wood and apparel industries and in Lithuania's food industry (Table 1.6). In certain segments of Estonia's engineering sector (electrical machinery, transport equipment), downsizing has given way to net job creation. Relatively favourable developments are also notable in the Latvian furniture industry, and, in all three countries, in enterprises making various types of metal and plastic products.

The on-going transformations of the economic environment also involve relative-wage changes, reflecting – among other things – the higher market value now placed on qualified human capital, discussed further below and in Annex 3. Within the manufacturing industry, the often skill-intensive sectors of machinery, transport equipment, chemical products and publishing generally increased their relative wages over the past four years, suggesting a growing proportion of relatively high-skilled workers in these sectors. By

contrast, falling relative wages were recorded in Lithuania's large and growing food industry, indicating a strong emphasis on cost control in recruitment decisions.

Agriculture still occupied 16% of the labour force in Lithuania and 15% in Latvia in 2001, compared with the sector's contributions to GDP of about 8% of gross value added in Lithuania and only 5% in Latvia (Table 1.7). Such discrepancies between a sector's contributions to employment and output are not only a sign of inefficient utilisation of labour; they point to the role of subsistence farming as a survival strategy for many persons who otherwise might have been jobless: a form of "hidden unemployment". Internationally, however, these productivity gaps between agriculture and other sectors are far from unique (Table 1.8). In Estonia, agriculture represents about the same proportion of employment as of output, at 6–7%, still considerable by OECD standards. Notwithstanding these labour inputs, both Estonia and Latvia incur substantial trade deficits in the food sector: only Lithuania has nearly a zero trade balance in food.

Labour resources and employment

The populations continue to decline...

Their small populations will always represent a potential constraint on the development of the Baltic economies. At the beginning of 2002, the three countries had altogether 7.2 million inhabitants of which a little less than half or about 3.5 million lived in Lithuania, about 2.35 million in Latvia and 1.36 million in Estonia. Demographic limitations on labour supply are set to become gradually more critical in the years after 2015. Insofar as a possibly emerging scarcity of labour in the future would be unlikely to be offset by a steep rise in immigration or fertility, it will be all the more important to enhance the existing human capital and to ensure that it is productively employed.

But the risk of a general labour shortage is not an urgent problem at the moment, when many working-age inhabitants are unemployed and large numbers of youth approach working age. Indeed, inhabitants born in the 1980s constitute the largest of all age cohorts in the Estonian and Latvian populations, followed by middle-age cohorts born around 1960. Lithuania's middle-age cohorts are slightly more numerous than those born in the 1980s.

Over the past decade, birth rates have been much lower and the migration balance has also turned negative. Compared with the historical

population peaks attained around 1990, the respective populations at the beginning of 2002 had diminished by no less than 13% in Estonia, 12% in Latvia and 6% in Lithuania (Table 1.9). The biggest parts of these population declines were due to net emigration, including return migration to CIS countries – especially in the early years of independence – and an increasing flow of workers and students travelling to OECD countries, often without being registered as permanent emigrants.² The natural population changes (balance of births and deaths) have also been significantly negative since 1991 in the two smaller Baltic countries, representing about 3 percentage points of the accumulated population decline in Estonia and 4 to 5 percentage points in Latvia. Lithuania's natural population change has been only marginally negative until now, but it is set to become gradually less favourable.

Focusing on the age groups that participate in the labour force, ageing appears somewhat less advanced than in western Europe. Indeed, the Baltic countries stand to benefit from a relatively youthful composition of their working-age populations over the coming ten years or so, with a slight under-representation of the age classes between 45 and 64 compared with those between 15 and 44 (Table 1.10). But this will change because fertility rates have recently fallen to only 1.2 to 1.4, which is below the EU average and comparable to several Mediterranean countries.³ The ageing of the labour force will accelerate from around 2010 when the small cohorts born in the 1990s will be reaching working age.

About 15% of the Baltic populations are aged 65 or more.⁴ This is a little less than the 16 to 18% reported for most EU countries, but the difference is explained by shorter life expectancy: 65 to 68 years for Baltic men compared

² Preliminary results from population censuses in 2000 in Estonia and Latvia and in 2001 in Lithuania suggest that previously published statistics greatly underestimated emigration. It is also possible that the previous census in 1989 had overstated the populations. In any case, the population estimates for 2000 were revised downwards by 69 000 (4.9%) in Estonia, 45 000 (1.9%) in Latvia and 200 000 (5.7%) in Lithuania. Emigration had previously been under-estimated due to the use of official records that only covered moves declared as "permanent". *Sources: statistical yearbooks and the statistical agencies' websites.*

³ The total fertility rate represents a hypothetical number of child births per woman in her lifetime, calculated as the sum of the age-specific fertility rates for all age classes in one year.

⁴ For Lithuania, available pre-2001 Census data probably overestimate the working-age population. The figure 13.3% given for the 65+ age group is therefore likely to be an underestimate.

with an EU average of around 75, and for women 76 to 78 years compared with an EU average of over 80. Assuming that life expectancies for both men and women will gradually increase until they converge with EU levels, the proportions of elderly inhabitants are set to rise slowly in the near future, and then more rapidly in the period 2015 to 2030 when the large cohorts born in the 1950s and 1960s will retire.

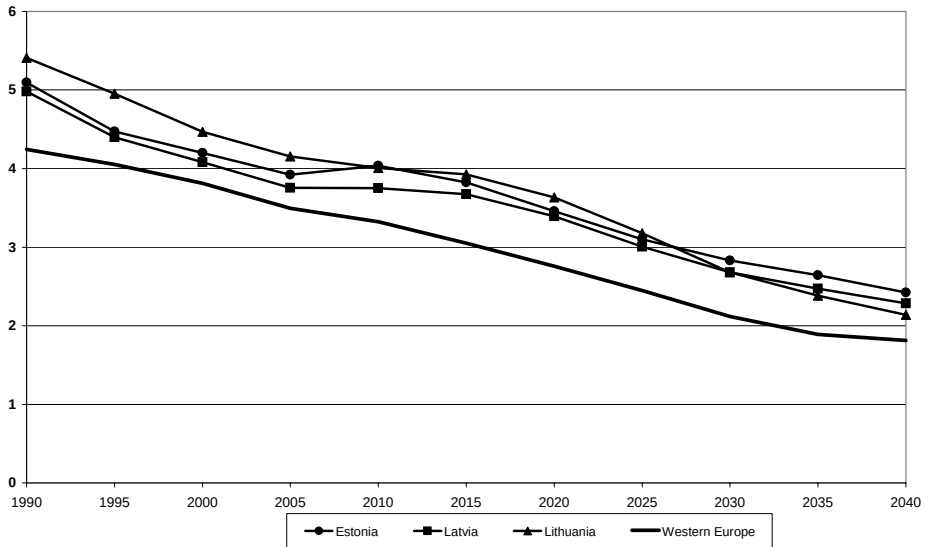
As measured by the "dependency ratio" between the age groups 20 to 64 and 65+, the long-term prospects for population ageing in Lithuania appear to be almost exactly the same as in western Europe – but with a time lag of, perhaps, a few years. (Cf. Figure 1.3., based on UN/ILO projections, which however are too optimistic because they do not take account of the new Census results.) In Estonia and Latvia, ageing by this measure is almost as advanced as in western Europe, but the size of recent youth cohorts gives hope that the expected further deterioration will be slow until 2015.

Another notable trend is that ethnic minorities have diminished more than the respective indigenous ethnic majorities since 1990, so that by 2001 the latter represented 68% of the total population in Estonia, 58% in Latvia and 83% in Lithuania (Table 1.11). The non-indigenous groups are primarily Russians and others related to the former Soviet Union, who for a long time – before and after the economic transition – have accounted for much of the migration to and from the Baltic region. Russian-speakers form a majority in Riga and several eastern districts of Latvia and Estonia, while they are a significant minority in Tallinn. Few other minority groups have survived the many disasters of the 20th century, the most significant exception being a Polish community of around 250 000 that has lived for centuries in south-eastern Lithuania

The expected EU accession will eventually permit free labour mobility to and from western Europe. Preliminary agreements allow EU countries to limit immigration for a transition period, but some member countries such as Denmark, Sweden and the United Kingdom have indicated that they plan to open their borders for Baltic citizens as soon as accession is in force. The prospects for future mobility between the Baltic region and CIS countries are more difficult to predict because this will depend on the latter countries' future relations with the EU. In any case, it is evident that the large and diversified labour markets abroad will be increasingly appealing to many workers and enterprises, whose requirements are likely to become more and more differentiated.

Figure 1.3. **Projected old-age dependency ratio**

Persons of age 20 to 64 per person aged 65 or more



Source: UN/ILO.

In the light of EU accession, is there a risk of significant population losses due to emigration? When such fears were previously expressed in other countries that became members of the EU, *e.g.* Greece, Spain and Portugal, they turned out to be exaggerated. However, these countries differed from the Baltic States in that their populations had lower average education attainment than most EU members. In any case, the possibility that many Baltic citizens might choose to emigrate, temporarily or permanently, should encourage a trend of convergence with other countries in terms of wages and other labour market conditions.

... but available labour supplies are not fully utilised

As underlined already, job creation has not been dynamic enough to ensure productive employment for everybody. Depending on the situation in individual cases, a shortfall of acceptable job opportunities may result in unemployment, non-participation in the labour force, some form of "hidden unemployment" such as involuntary working-time limitations ("under-employment") or low-productive employment.

In 2001, the overall labour force participation rates for the 15 to 64 year old population were about 70% in Estonia and Lithuania and 68% in Latvia (Table 1.12). These figures are similar to those found in Germany and France but lower than in the Nordic countries, the Netherlands, the United Kingdom and the United States (Table 1.13). But because relatively high proportions of the labour force are unemployed in the Baltic States, the resulting employment-population ratios – around 60% – are lower than in most OECD countries, apart from the four Mediterranean members and three transition economies.

A closer scrutiny reveals that the Baltic employment-population ratios are lower than the European average for prime-age men and for youth of both genders, especially young women, while they are above-average for prime-age women (Table 1.14). Although the gender-related variation in employment is smaller than a European average for the prime age, it is greater than average for youth as a result of a higher rate of education enrolment for young women (see below).

With respect to youth, especially 15 to 19-year olds, the low employment-population ratios also suggest that secondary-school pupils in the Baltic States rarely combine education with employment. This follows a pattern that is common in large parts of Europe, but it contrasts with the situation in the United States, the United Kingdom and much of northern Europe where students more often take temporary or part-time jobs. Thus, the low labour-force activity observed for Baltic youth can probably be explained as a consequence of high participation in education, but it may also indicate a shortage of temporary and part-time jobs of the type that would be suitable for students.

Notwithstanding the relatively late entry of Baltic youths into the labour market, the analysis in the Annexes to this report suggests that young people in general face a favourable situation in the Baltic labour markets. The Estonian labour market appears especially youth-centred in several respects, but the same holds to some extent for Latvia and Lithuania as well. Thus, Annex 2 documents a strong concentration among young workers of persons who successfully change jobs between economic sectors, while Annex 3 shows that, with the exception of new entrants to the labour market, young workers often earn relatively high wages.

For older workers, too, the observed low rates of employment and labour force participation appear to follow a common European pattern. But although statistics show low labour force activity for elderly persons in many countries, the underlying economic and social conditions may differ. Insofar as the low labour supply recorded for 55-64 year olds in western and southern Europe reflects a popular preference for leisure over additional income, it can be explained at least partly as a sign of "affluence" in the societies concerned. But in the less wealthy Baltic countries, the most plausible explanation may reside in a shortage of attractive jobs for this age group. In any case, the design of pension systems –

considered below in Chapter III – will evidently have crucial implications for current and future labour force participation among older workers in all countries.

Human capital: education and experience

The Baltic populations in general are relatively well educated, an advantage that has become more important as a result of the transition. About 82% of the labour force in Latvia and Lithuania and 89% in Estonia have at least completed upper secondary education (including vocational courses), which is above the OECD average of about 70%. Around 20% of the labour force have university education, to which must be added a significant number with non-university post-secondary education (Table 1.15, first panel). Baltic women are, on average, more likely than men to have secondary or higher education. The group with less than upper-secondary education includes many retired people; even in the prime age groups, the low-educated are among the least active in the labour market. (See the third panel of Table 1.15).

The annexes to this report demonstrate in different ways that education, especially at university level, confers a greater relative advantage to individuals in the Baltic States than in most OECD and other transition countries. But secondary education alone may not be enough to avoid unemployment. Several types of education seem to have lost its value unless it is relatively recent, indicating that many older qualifications are outdated. Most of these observations concern all three Baltic States, but Estonia stands out as an extreme case in several specific comparisons.

On the other hand, *work experience* appears to have remarkably little economic value in the Baltic labour markets, apart from some persons with higher education. A typical "age-earnings profile" in OECD countries tends to be increasing up to about age 50 before starting to decline (both controlling for other factors and without such controls). But the corresponding profiles in Latvia and Lithuania are almost flat, while in Estonia the decline sets in from about age 35. Only in some groups with university-level education does long work experience have significant market value in the Baltic States.⁵ Thus, both secondary education and work experience have lost much of their market value if they date back to the time before independence. While this may be a natural

⁵ See Figures A3.3 and A3.4 in Annex 3. In the former, which does not control for other factors than age, the profiles for persons with higher education peak near age 60 for Estonian men and Lithuanian women and near age 50 for both genders in Latvia. But even for this education group, the peaks occur earlier if other factors are kept constant (ethnicity, economic sector, ownership, location, local unemployment rate).

consequence of the profound transformation of the three economies, the results for youth testify to the recent success of Baltic education systems in responding to new demands.

However, *Reviews of National Policies for Education* conducted recently in the three countries (OECD, 2001) point out that existing provisions for adult education are not very advanced, despite policy commitments to "lifelong learning". An increasing use of new technologies, open-distance learning and other features were found promising. But the reviews noted that private education provisions were too expensive for large parts of the adult populations and that the public efforts of regulation and quality control were too weak in the non-state sector.

Regarding *secondary* education, these OECD reviews noted that especially the vocational courses inherited from the Soviet Union were often too narrow. The development since 1990 has involved a lengthening of the general parts of education for many students and a delayed specialisation. Although most secondary-level students currently follow general courses, vocational courses are still important and their content has tended to converge with the other streams as a result of new standards for 12th-grade examinations.

Provisions for *post-secondary* education were judged to be well-developed and varied, a conclusion the results in the Annexes to this report seem to confirm. Nevertheless, the education reviews found a need for further development in response to escalating demands, *e.g.* for a greater variety of alternatives such as non-university "colleges". Clearly, however, the small size of the Baltic countries will always limit the possible scope for specialisation in higher education, underlining the importance of international student exchanges. For these and other reasons, the reviews also underlined the need to adjust the standards and degree structures so that they conform with the situation abroad.⁶

Unemployment and unemployment risks

Recent unemployment developments have been most preoccupying in Lithuania. Since 1999, when the unemployment rate in all three countries was

⁶ The proportion of tertiary-level students who study abroad is probably increasing in many countries, though for natural reasons the phenomenon tends to be most notable in small countries. *Cf.* the numbers of students from Norway and Sweden who receive state scholarships for education abroad, corresponding in 2000 to about 8% of the number of tertiary-level students in Norway and 5% in Sweden (www.ssb.no, www.scb.se).

13 to 14% according to labour force surveys, the rate in Lithuania rose to 17% on average for 2001 and almost 18% in the November survey (Table 1.12). In the two smaller countries, by contrast, unemployment in 2001 was on average 13% and falling, with continued declines at least through the first quarter of 2002, when it was 11% in Estonia.

Contrary to the situation in many OECD countries, unemployment in the Baltic States is higher for *men* than for *women*, both on average and for most age groups. The analysis in Annex 1 – focusing on members of the labour force – confirms that when other factors such as occupation and experience are controlled for, men face on average much higher unemployment risk than women in Estonia, and somewhat higher risk in Latvia and Lithuania as well.⁷

Education is a key factor behind unemployment risks, as indicated already. Annex 1 finds that most forms of education offers the strongest protection against unemployment in Estonia. The effect is also considerable in Latvia and Lithuania, but there it seems to depend more on the chances it offers to enter relatively safe jobs at the beginning of a working life.

The highest unemployment rates are recorded for *youth* up to age 24, as in most countries.⁸ However, the analysis in Annex 1 of various causes of unemployment suggests that the special obstacles faced by young people are largely an initial problem facing new entrants to the labour market (and, perhaps, re-entrants). For youth aged 20 to 24 who are *not* new entrants, the risk of unemployment is generally not higher than for older workers. The outcomes can differ depending on the conditions, however: not all jobs provide useful work experience. For example, young Lithuanian men in rural areas seem relatively often to be employed in jobs that do not reduce the risk of future unemployment (*e.g.* seasonal farm work).

Unemployment is high in every *region* in the Baltic States, including the three capitals and other urban areas. The average LFS-unemployment rate in 2001 was 9% in Riga, 12% in Tallinn and as high as 14% in the counties of

⁷ In Estonia, women's low likelihood of unemployment is somewhat surprising in view of certain regulations that permit them to register as unemployed while taking care of children.

⁸ The unemployment rate is particularly high for 15 to 19-year olds in almost every European country. But this has limited quantitative importance because most teenagers are not in the labour force. It can be relevant as a measure of the labour-market problems facing secondary-school dropouts – and, hence, as an argument for additional efforts in education and vocational guidance to discourage drop-out behaviour.

Vilnius, Klaipėda and Panevėžys, which however were the three most buoyant urban labour markets in Lithuania (Table 1.16).⁹ Moreover, as Annex 1 shows, the below-average unemployment rates recorded in large cities are closely related to their different labour market structure compared with other regions, with higher proportions of qualified jobs. Controlling for these factors, the unemployment risk is not particularly low in the capitals. In other words, for an individual worker, moving to one of these big cities might well reduce the unemployment risk if the geographic move is combined with an *occupational* change – e.g. towards more specialised work – but not necessarily in other cases.

Both unemployment rates and employment-population ratios show moderate variations between most counties and districts, but a few regions in each country stand out with particularly high unemployment. This concerns both urban areas, such as Ida-Viru (with Narva) in Estonia, Rezekne in Latvia and Kaunas in Lithuania, and a few predominantly rural counties, which however have relatively small populations. Some of the latter are also characterised by unusually low labour force participation rates, as for example Alytus in Lithuania and south-eastern Estonia.

Long-term unemployment is a significant phenomenon in all three countries. In Latvia and Lithuania, the proportion of the LFS-unemployed in 2001 who had been so for a year or more was just under 60% (Table 1.17). In Estonia, this proportion was 48%, close to the EU average, but the analysis in Annex 2 suggests that a relatively high proportion of those who become unemployed in Estonia suffer repeated spells of unemployment. Such results indicate that economic opportunities are unequally distributed and that significant parts of the labour force are at risk of social exclusion.

Public spending on social programmes

Social spending amounts to 15 to 17% of GDP in the three countries, of which 10 to 13% represent income transfers to households (Table 1.18). This is substantially less than in most EU countries, and also less than in Poland, though comparable with the spending in the United States, Canada and Australia and slightly higher than in Japan (Table 1.19). It is similar to the spending recorded in some other transition countries. Much of the difference in

⁹ Data on employment-population ratios suggest that, among Lithuanian cities, it is Klaipėda and not Vilnius that enjoys the best labour market conditions, while those in the second-biggest city, Kaunas, are no better than the national average.

public social spending compared with EU countries concerns the two biggest items: health care (not analysed in this report) and pensions (see Chapter III). Spending on labour market programmes also appears modest by international standards, while it is closer to the average on some items such as child and family benefits.

Notwithstanding these apparently moderate spending levels – and the correspondingly modest levels of various social benefits, to be discussed in the following chapters – the rates of income tax and social security contributions charged on employment are among the highest in the world. This situation, analysed in more detail in Chapter II, appears to be largely a result of under-reporting of incomes, work in the informal sector and, in Latvia and Lithuania, the fact that many self-employed persons do not need to contribute more than small amounts to social insurance.

Concluding remarks

This chapter has shown that the three Baltic countries have considerable human resources and that these are not fully utilised in the present situation. On the positive side must be noted a relatively good educational level by international standards, and, in the short term, comparatively large youth cohorts about to enter the labour force over the coming decade – before the effects of population ageing begin to have stronger influence, as is already happening in other European countries.

A paramount policy challenge will be to ensure that economic restructuring, innovation and job creation can continue at a relatively high pace so that these labour resources can be better utilised and living standards can be improved. This will be necessary not only to close the gap in living standards compared with OECD countries, but also to reduce the inequalities that have arisen within the Baltic States as a result of the often uneven progress of adjustment in different sectors and for various population groups.

In this situation, a challenge facing labour market and social policy – the topics of the subsequent four chapters – will be to support a continued economic restructuring by making the population more ready to face risk and to grasp the opportunities that emerge. This means, on the one hand, that legal regulations of employment conditions should be generally liberal to facilitate new business initiatives and job creation, while the financial burden of social insurance needs to be kept at affordable levels. But on the other hand, policy will need to support the groups who in various ways have been less successful in adjusting to the new conditions. For example, this chapter has pointed to an

unusually strong tendency for the Baltic labour markets to favour young workers more than those who are middle-aged or older. Education policy, in particular, has been relatively successful in modernising the education provided to youth, but much remains to be done in the way of promoting life-long learning and career development.

Table 1.1. Income inequity in selected countries

Gini index	Top decile/ bottom decile	Central and Eastern Europe 1996-98	CIS and China 1996-98	Established market economies 1991 - 1997
0.200-0.249	4.0 – 4.6		Belarus	Japan
0.250-0.299	5.0 – 6.3	Czech R., Hungary, Bulgaria, Croatia, Slovenia		Norway, Sweden, Finland, Belgium, Luxembourg, Italy
0.300-0.328	5.1 - 7.2		Ukraine	France, Germany
0.329-0.349	7.7 – 9.0	Latvia, Lithuania, Poland		Canada, Greece, Netherlands
0.350-0.380	9.1 – 10.0	Estonia	Kazakhstan	Portugal
	10.1 – 12.7		Georgia	UK, Australia
0.400-0.450	11.7 – 17.0		Moldova, Kyrgyz R., Armenia, China	US
0.480-0.520	22.8 – 25.7		Russia	Mexico

Note: The results refer to per capita income, except in Lithuania, Ukraine and Armenia where they refer to consumption.

Source : Calculations based on World Development Indicators, 2000, 2001, and data submitted by national statistical offices.

Table 1.2. Foreign trade as percentage of GDP in 2000

	Exports	Imports	Balance	Exports+imports
Estonia	63	85	-21	148
Ireland	81	54	27	136
Hungary	61	69	-9	130
Slovak Republic	61	66	-5	127
Czech Republic	57	63	-6	121
Netherlands	52	50	2	102
 Lithuania	 34	 48	 -15	 82
Latvia	26	45	-19	71
Sweden	38	32	6	70
Finland	38	28	10	66
Portugal	23	38	-15	61
Norway	37	21	16	58
Germany	30	28	3	58
 Poland	 20	 32	 -11	 52
Spain	20	27	-7	48
France	23	23	-1	46
Italy	22	23	-1	45
United Kingdom	24	21	4	45
United States	8	12	-4	20

Note: Countries are ranked by total of exports and imports.

Source : OECD.

Table 1.3. **Foreign trade by country groups**

Per cent GDP

	<i>Estonia</i>			<i>Latvia</i>			<i>Lithuania</i>		
	1995	2000	2001	1995	2000	2001	1996	2000	2001
Exports, total	47	63	60	29	26	26	43	34	38
To EU countries	26	48	42	13	17	16	14	16	18
To CIS countries	10	2	3	11	2	3	19	5	8
To Estonia	-	-	-	1	1	1	1	1	1
To Latvia	3	4	4	-	-	-	4	5	5
To Lithuania	2	2	2	2	2	1	-	-	-
All others	5	6	10	4	4	5	4	6	6
Imports, total	67	85	78	41	45	46	58	48	53
From EU countries	45	53	44	20	23	24	23	21	23
From CIS countries	12	9	9	12	8	7	21	15	16
From Estonia	-	-	-	2	3	3	1	1	1
From Latvia	1	2	2	-	-	-	1	1	1
From Lithuania	1	1	2	2	3	na	-	-	-
All others	8	19	22	5	11	12	12	11	13
Trade balance (goods)	-21	-21	-18	-12	-19	-20	-15	-15	-15
With EU countries	-19	-5	-2	-7	-7	-8	-9	-5	-5
With CIS countries	-2	-7	-6	0	-5	-4	-2	-10	-8
With Estonia	-	-	-	-1	-1	-2	0	0	1
With Latvia	2	2	2	-	-	-	3	4	4
With Lithuania	1	0	0	-1	-1	na	-	-	-
All others	-3	-13	-12	-3	-4	-6	-8	-4	-6
<i>Memorandum items</i>									
<i>(percentages of GDP):</i>									
Balance of trade in goods and services	-8	-5	-4	-2	-9	-11	-10	-6	na
Current-account balance	-4	-7		-0.4	-7	-10	-9	-6	-5
Foreign direct investment	6	8		4	6	2	2	3	4
Fixed capital formation	26	23	25	15	25	27	23	19	na

Source : Calculations based on data from statistical yearbooks and www.stat.ee, www.cbs.lv, www.std.lt.

Table 1.4. Foreign trade by product type

Per cent of GDP

Product sector	Estonia						Latvia						Lithuania					
	Exports		Imports		Balance		Exports		Imports		Balance		Exports		Imports		Balance	
	2000	2001	2000	2001	2000	2001	2000	2001	2000	2001	2000	2001	2000	2001	2000	2001	2000	2001
Sectors where Baltic countries show positive trade balances																		
Wood and wood products	8	8	2	2	7	6	10	9	1	1	9	8	2	2	1	1	1	1
Textiles and apparel	7	7	6	6	0.8	0.7	4	4	3	3	0.3	0.3	6	6	5	5	2	2
Furniture, miscellaneous	4	5	2	2	2	3	1	2	1	1	0.2	0.2	1	2	2	1	-0.5	0.3
Sectors with trade deficits																		
Food	4	5	7	7	-3	-3	2	2	6	6	-4	-4	4	5	5	5	-0.9	-0.4
Fossil fuels, minerals	2	1	5	5	-4	-3	1	0	6	5	-5	-5	7	9	11	11	-4	-2
Chemicals, plastics, rubber	3	4	9	9	-6	-5	2	2	7	7	-5	-5	4	4	7	8	-3	-4
Pulp, paper	1	1	3	2	-1	-1	1	1	2	2	-1	-1	1	0.5	1	1	-0.8	-0.9
Leather, footwear	1	1	2	2	-0.2	-0.4	0.3	0.3	0.5	0.5	-0.3	-0.3	1	1	1	1	0.0	-0.1
Stone, glass, jewellery	1	1	1	1	-0.6	-0.6	0.6	0.6	1.2	1.3	-0.6	-0.7	0.5	0.5	1	1	-0.4	-0.5
Basic metals	4	4	7	6	-2	-2	3	3	4	4	-0.3	-0.5	1	1	3	3	-1	-1
Machinery, equipment	24	20	33	26	-9	-6	1	2	9	10	-8	-8	4	4	8	9	-4	-5
Transport vehicles	2	2	6	7	-4	-5	0	1	3	4	-3	-4	2	4	4	6	-2	-3
Instruments	1	1	2	2	-0.6	-0.6	0	0	1	1	-0.8	-0.8	0.4	0.4	1	1	-0.4	-0.5
Total	63	60	85	78	-21	-18	26	26	45	46	-19	-20	34	38	48	53	-14	-14

Source : Calculations based on official statistics.

Table 1.5. **Employed persons by economic sector**

Percentage distribution

Sector	Estonia					Latvia					Lithuania				
	1990	1995	1999	2001		1990	1995	1999	2001		1990	1995	1999	2001	
Agriculture, forestry, fishing	20	10	8	7		17	18	17	15		21	24	20	16	
Fishing	3	1	1	1		1	-	-	-		-	-	-	-	
Industry	29	29	25	26		28	20	18	18		30	21	21	22	
Construction	8	5	7	7		10	5	6	7		11	7	6	6	
Services	43	56	60	60		45	56	59	60		38	48	53	56	
Commerce, hotels, restaurants	10	15	16	18		12	16	19	19		9	14	16	17	
Transports, financial, real estate and other services	17	21	23	22		20	19	20	19		16	15	14	14	
Public adm., education, health and social care	16	20	20	20		13	20	21	21		14	19	23	25	
Total	100	100	100	100		100	100	100	100		100	100	100	100	
of which private	26	61	69	71		na	60	70	na		na	64	69	70	

Source : Statistical yearbooks and statistical agencies' websites.

Table 1.6. Employment and relative wages in manufacturing sectors

Annual averages

Estonia

Sector	Employment Thousands of persons 2001	Relative wages Manufacturing = 100 2000	Employment change 1997-2001(a)	Relative wage change 1997-2000 (b)
Food	21	100	-8	-11
Textiles	11	84	2	-2
Apparel	16	78	0	-7
Leather	3	80	-2	-7
Wood	21	100	-1	7
Pulp, paper ^c	7	120	2	-8
Publishing	na	178	na	29
Fuels etc.	5	103	-4	-11
Rubber, plastics	2	99	0	-2
Glass, stone	6	135	1	21
Basic metals and metal products	16	116	10	0
Machinery, appliances	5	104	-4	9
Electrical machinery ^d	11	129	4	8
Transport equipment	6	121	3	3
Other	13	92	-5	1
All manufacturing	143	100	-6	-

a) Change in thousands.

b) Change in percentage points.

c) For employment: includes Publishing.

d) For relative wages: excluding radio, TV, telecom equipment and instruments.

Source: Enterprise survey data submitted by the Estonian Statistical Office.

Table 1.6. Employment and relative wages in manufacturing sectors
(cont.)

Annual averages

Latvia

Sector	Employment Thousands of persons 2001	Relative wages Manufacturing = 100 2001	Employment change 1997-2001(a)	Relative wage change 1997-2001 (b)
Food	35	104	-3	-17
Textile	10	106	-3	3
Apparel	13	79	3	1
Leather	1	68	-2	7
Wood excl. furniture	30	87	10	2
Furniture and other	9	88	2	9
Pulp, paper	1	112	0	13
Publishing	7	148	1	10
Chemicals	4	123	-4	21
Rubber, plastics	2	80	1	2
Glass, stone	4	100	0	17
Basic metals	3	156	1	2
Metal products	7	92	2	1
Machinery, appliances	6	94	-4	3
Office machines	0.1	100	0	16
Electrical machinery	3	107	-2	-1
Radio, TV, communication eqp.	1	83	-4	4
Instruments	1	95	0	24
Motor vehicles	1	94	-1	10
Other transport equipment	5	108	-4	27
Recycling	0	76	0	-51
All manufacturing	144	100	-8	0

a) Change in thousands.

b) Change in percentage points.

Source: Enterprise survey data submitted by the Central Statistics Bureau.

**Table 1.6. Employment and relative wages in manufacturing sector
(cont.)**

Annual averages

Lithuania

Sector	Employment Thousands of persons 2000	Relative wages Manufacturing = 100 2000	Employment change 1997-2001(a)	Relative wage change 1997-2000 (b)
Food	65	98	4	-11
Textile ^c	34	83	-2	-3
Apparel	38	na	4	na
Leather	4	80	-4	-5
Wood excl. furniture	34	70	7	2
Pulp, paper	4	na	-2	na
Publishing ^c	11	120	4	-2
Fuels	4	na	0	na
Chemicals	7	158	-3	11
Rubber, plastics	6	92	1	-5
Glass, stone	12	102	-2	3
Basic metals	2	na	0	na
Metal products ^c	9	92	2	1
Machinery, appliances	12	101	-8	13
Electrical equipment	16	125	-7	17
Transport equipment	7	132	-2	22
Furniture	14	86	-1	-1
Recycling	1	na	1	na
All manufacturing	280	100	-9	0

a) Change in thousands.

b) Change in percentage points.

c) For relative wages: Textile includes Apparel; Metal products include Basic metals; Publishing includes Pulp and paper.

Source : Statistics Lithuania, employer surveys.

Table 1.7. GDP contributions: value added by sector

Percent distribution

Sector	Estonia				Latvia				Lithuania		
	1995	1999	2000	2001	1995	1999	2000	2001	1995	1999	2000
Agriculture, forestry, fishing	9	7	6	6	11	5	5	5	12	8	8
Industry	25	21	22	22	28	20	19	19	26	23	26
Construction	6	6	6	6	5	7	7	6	7	8	6
Services	60	66	66	66	56	69	70	70	55	61	60
Total	100	100	100	100	100	100	100	100	100	100	100

Sector	Selected OECD countries in 2001									
	Czech Rep.	Finland	France	Germany	Italy	Korea	Mexico	Netherlands	Poland	Sweden
Agriculture, forestry, fishing	4	3	3	1	3	4	4	3	3	2
Industry	34	27	20	25	23	33	22	20	25	27
Construction	7	6	5	5	5	8	5	6	7	4
Services	55	64	72	69	70	54	69	71	64	67
Total	100	100	100	100	100	100	100	100	100	100

Source : OECD, National statistical yearbooks.

Table 1.8. Agricultural employment and output

Ratio between the sector's shares of employment and value added

	Sweden	Estonia	Czech Rep.	Finland	Italy	Korea	Germany	Lithuania	Latvia	Mexico	Poland	China
Agriculture	1.1	1.1	1.3	1.7	2.0	2.3	2.4	2.6	3.4	4.2	4.7	2.8

The figures for Estonian refer to 2001, for other countries 2000.

Source : Calculations based on official data, see previous tables.

Table 1.9. The population and its changes since 1990

	Estonia	Latvia	Lithuania
Number of inhabitants at the end of 2001	1,361,200	2,351,400	3,482,300
Percent decline since the end of 1990	-12.9	-11.0	-5.6
<i>of which:</i>			
natural change (births and deaths)	-3.4	-4.6	0.03
net migration recorded as "permanent"	-5.2	-5.1	-1.3
other net migration	-4.2	-1.3	-4.3

Source : Statistical yearbooks, website of the Statistical Office of Estonia.

Table 1.10. Population ageing

A. Population structure by age

Percent distribution for both genders*

Age	Estonia	Latvia	Lithuania
0-14	18.1	17.3	19.8
15-24	14.5	14.5	14.3
25-34	13.4	13.7	15.2
35-44	14.3	14.7	15.3
45-54	13.2	12.7	11.4
55-64	11.5	11.9	10.7
65+	15.0	15.2	13.3
Total	100	100	100

B. Longevity and fertility in 2000

Life expectancy at

birth, men	65	65	68
women	76	76	78

Total fertility rate	1.38	1.24	1.27
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*Estonia: March 2000. Latvia: beginning of 2001. Lithuania: 2000. The figures for Lithuania do not take account of the 2001 Census results, and therefore overstate the working-age population. For Estonia and Latvia, preliminary Census results from 2000 are taken into account.

Source: Statistical yearbooks, website of the Statistical Office of Estonia.

Table 1.11. Main ethnic groups

Percent distribution of the total population

	Estonia	Latvia	Lithuania
The majority population	68	58	83
Russians	26	29	6
Ukrainians	2	3	1
Belarussians	1	4	1
Poles	0.2	2	7
Others	3	4	1
Total	100	100	100

Source : Estonia and Latvia: 2001. Lithuania: 1999.

Table 1.12. Labour force status by gender and age

Labour force participation and employment as percentages of the population in each category; unemployment as percentage of the labour force in each category

Estonia

Gender and age	Labour force participation					Employment/population ratio					Unemployment rate				
	1997	1998	1999	2000	2001	1997	1998	1999	2000	2001	1997	1998	1999	2000	2001
Men 15-64	79	78	76	77	76	71	69	66	65	66	10	11	14	15	13
15-19	25	21	15	17	17	16	15	9	10	11	34	30	40	39	38
20-24	80	79	78	81	78	72	69	65	64	66	10	13	17	21	15
25-54	93	92	91	91	90	84	82	79	78	79	9	10	13	14	13
55-59	78	77	74	76	74	70	69	67	66	67	11	11	10	13	10
60-64	43	47	47	48	46	42	45	44	43	42	3	3	7	11	8
65+	12	11	12	12	13	12	11	12	12	12	1	3	4	1	4
Women 15-64	67	66	65	65	65	60	60	58	57	57	9	9	11	13	12
15-19	19	16	12	16	14	14	12	8	9	7	26	26	34	43	53
20-24	58	62	57	56	55	54	55	49	46	44	8	11	15	18	19
25-54	85	84	84	83	83	77	77	74	73	74	10	9	11	12	11
55-59	52	54	52	52	57	50	52	49	49	50	4	3	6	6	11
60-64	21	24	25	26	31	21	23	24	24	30	1	1	3	6	5
65+	4	5	6	6	7	4	5	6	6	7	-	2	2	6	7
Both genders 15-64	72	72	71	71	70	65	65	62	61	61	10	10	13	14	13
15+	61	60	60	60	59	55	55	52	52	52	10	10	12	14	13

Latvia

Gender and age	Labour force participation					Employment/population ratio					Unemployment rate				
	1997	1998	1999	2000	2001	1997	1998	1999	2000	2001	1997	1998	1999	2000	2001
Men 15-64	77	76	77	74	73	64	64	65	62	62	16	16	14	15	15
15-19	29	18	22	18		17	12	15	12		40	31	33	33	
20-24	82	67	80	75		66	46	60	61		19	31	25	19	
25-54	89	91	91	89		76	79	79	76		15	13	13	15	
55-59	74	76	72	73		63	63	66	65		15	17	10	12	
60-64	39	45	34	34		32	40	33	32		18	12	3	7	
65+	12	15	13	10	11	11	14	12	10	11	11	8	10	2	1
Women 15-64	65	64	63	62	63	55	55	54	53	56	16	14	14	14	12
15-19	22	9	13	11		15	6	9	6		31	41	28	44	
20-24	64	56	57	55		49	41	47	45		23	27	18	17	
25-54	84	84	82	83		71	73	71	72		15	13	14	13	
55-59	39	45	41	41		35	42	37	37		10	7	10	8	
60-64	21	24	18	16		20	22	16	15		6	7	11	8	
65+	8	8	7	5	5	7	7	6	5	5	4	8	6	4	1
Both genders 15-64	71	70	69	68	68	60	60	60	58	59	16	15	14	15	13
15+	60	59	58	57	57	51	51	50	49	49	16	15	14	14	13

Source : Labour force survey data submitted by national statistical agencies. Most figures are averages based on more than one survey per year.

Table 1.12. Labour force status by gender and age (cont.)

<i>Lithuania</i>															
Gender and age	Labour force participation					Employment/population ratio					Unemployment rate				
	1997	1998	1999	2000	2001	1997	1998	1999	2000	2001	1997	1998	1999	2000	2001
Men 15-64	80	79	79	75	74	69	68	67	62	59	14	15	16	18	20
15-19	33	27	23	17		22	19	15	9		34	29	34	47	
20-24	82	78	78	72		62	61	58	52		25	22	26	27	
25-54	93	93	93	90		81	80	80	75		12	14	14	16	
55-59	81	82	84	78		71	74	73	66		12	9	13	15	
60-64	37	37	39	39		37	36	38	37		0	3	4	8	
65+	11	11	10	12		11	11	10	12		0	1	0	5	
Women 15-64	67	68	70	67	66	57	60	61	58	56	14	12	13	14	14
15-19	18	16	16	8		11	12	12	6		37	25	27	29	
20-24	59	60	60	56		49	49	46	41		17	19	24	26	
25-54	87	89	91	88		75	79	80	77		14	12	12	13	
55-59	41	44	46	53		38	41	44	46		7	7	4	11	
60-64	16	15	17	18		16	15	17	17		0	1	0	5	
65+	5	4	4	6		5	4	4	6		0	0	0	1	
Both genders															
15-64	73	74	74	71	70	63	64	64	60	58	14	14	14	16	17
15+	63	63	63	60	59	54	54	54	51	49	14	13	14	15	17

Source : Labour force survey data submitted by national statistical agencies. Most figures are averages based on more than one survey per year.

Table 1.13. Labour force participation, employment and unemployment rates in OECD and Baltic countries in 2000

Percentages of the population aged 15-64; unemployment as percentage of the labour force

Countries ranked by employment-population ratios

	Labour force participation rate	Employment- population ratio	Unemployment rate
Iceland	89	87	2
Switzerland	81	78	3
Norway	81	78	3
Denmark	80	76	4
United States	77	74	4
Netherlands	75	73	3
United Kingdom	75	71	6
Sweden	75	71	6
Canada	76	71	7
New Zealand	75	71	6
Australia	74	69	6
Japan	73	69	5
Finland	77	68	11
Portugal	71	68	4
Austria	71	68	5
Germany	71	65	8
Czech Republic	71	65	9
Ireland	67	64	4
Luxembourg	64	63	2
France	69	62	10
Korea	64	62	4
Estonia	70	61	14
Belgium	65	61	7
Mexico	62	61	2
Lithuania	71	60	16
Latvia	68	58	15
Slovak Republic	70	56	19
Hungary	60	56	7
Greece	63	56	11
Poland	66	55	17
Spain	64	55	14
Italy	60	53	11
Turkey	52	48	7

Source : OECD.

Table 1.14. Employment-population ratios by age in European countries in 2000

A. Youth (15-24)					B. Prime age workers (25-54)					C. Older workers (55-64)					
Countries ranked by the ratio for both genders					Countries ranked by the ratio for both genders					Countries ranked by the ratio for both genders in age 60-64					
		Men		Women			Men		Women			Men		Women	
		15-19	20-24	15-19	20-24			55-59	60-64	55-59	60-64			55-59	60-64
Netherlands		60	80	57	76	Norway		82	58	71	44	Norway		82	58
Switzerland		53	80	49	78	Switzerland		95	49	76	43	Sweden		81	49
Denmark		61	79	57	69	Denmark		88	80	66	33	Switzerland		89	61
Norway		48	73	47	66	Sweden		84	81	64	23	Denmark		80	38
United Kingdom		43	75	43	65	Portugal		90	74	47	38	Portugal		71	54
Austria		44	70	33	65	Netherlands		92	71	47	25	United Kingdom		71	47
Germany		33	67	26	63	Austria		90	73	53	19	Ireland		72	53
Finland		27	67	29	59	Czech Republic		89	74	66	43	Estonia		66	43
Ireland		29	76	23	64	Finland		85	78	26	60	Finland		57	26
Sweden		16	58	21	53	United Kingdom		88	73	66	37	Lithuania		66	37
Portugal		26	67	17	52	Germany		87	71	69	44	Greece		69	44
Czech Republic		7	66	9	53	France		87	70	66	27	Germany		66	27
Estonia		10	64	9	46	Belgium		88	68	69	26	Netherlands		69	26
Slovak Republic		5	51	8	47	Lithuania		75	77	68	39	Spain		68	39
Belgium		9	58	6	47	Estonia		78	73	65	32	Latvia		65	32
Hungary		8	58	8	45	Ireland		88	63	72	23	Czech Republic		72	23
France		14	52	7	44	Slovak Republic		79	69	48	27	Poland		48	27
Latvia		12	61	6	45	Latvia		76	72	54	11	France		54	11
Spain		17	54	10	39	Hungary		79	67	60	17	Austria		60	17
Lithuania		9	52	6	41	Poland		78	65	51	29	Italy		51	29
Greece		12	54	6	37	Greece		89	53	52	18	Belgium		52	18
Poland		7	45	4	37	Spain		85	51	50	11	Hungary		50	11
Italy		13	45	8	34	Italy		85	51	55	10	Slovak Republic		55	10
Unweighted average		24	63	21	53	Unweighted average		85	70	66	34	Unweighted average		66	34

Source : OECD.

Table 1.15. Employment-population ratios and unemployment rates by educational attainment

Educational attainment

Per cent distribution of the labour force

	EE	LV	LT
Below upper secondary	11	18	18
Upper secondary	58	39	39
Non-university tertiary	11	23	24
University	19	20	19
Total	100	100	100

Unemployment rate by educational attainment

Per cent of the labour force

	EE	LV	LT
Below upper secondary	24	22	22
Upper secondary	15	11	18
Tertiary	7	8	10
Total	14	15	15

Employment-population ratio by educational attainment

Per cent of the population in each age class

	15-24	25-54	55-64	All 15+*
<i>Estonia</i>				
Below upper secondary	16	55	27	24
Upper secondary	70	74	47	61
Tertiary	70	85	58	75
Total	32	76	44	55
<i>Latvia</i>				
Below upper secondary	19	56	28	24
Upper secondary	37	72	34	56
Tertiary	69	81	46	67
Total	30	74	36	49
<i>Lithuania</i>				
Below upper secondary	20	62	29	25
Upper secondary	35	74	43	62
Tertiary	59	86	59	75
Total	28	77	41	52

*For Estonia: 15-74. For Latvia, non-university tertiary is included in secondary education.

Source : Labour force surveys 2000 or 2001.

Table 1.16. Regional variation in labour market conditions

Estonia

Percentage rates in 2001 for the age class 15-74

Counties ranked by employment-population ratios

County	Unemployment rate	Rate of non-participation in the labour force	Employment-population ratio	Population, thousands
Hiiu	8	34	61	10
Harju (incl. Tallinn)	12	32	60	524
Lääne-Viru	9	38	57	67
Saare	9	38	56	36
Järva	16	34	56	39
Rapla	9	39	55	37
Viljandi	15	36	54	57
Tartu	10	42	52	149
Pärnu	11	42	52	91
Lääne	15	39	51	28
Valga	14	41	51	35
Ida-Viru	18	39	50	177
Võru	10	47	47	39
Põlva	18	44	46	32
Jõgeva	21	45	44	38
Total	13	37	55	1,361
<i>Range</i>	8-21	32-47	44-61	-
<i>Standard deviation</i>	4	4	5	-

Source : Labour force survey data from www.stat.ee.

Table 1.16. **Regional variations in labour market conditions (cont.)**

Latvia

Percentage rates in 2000 for the 15+ age class

City areas and other districts ranked separately

	Unemployment rate	Population, thousands
<i>Cities and adjacent districts</i>		
Riga	9	904
Ventspils	10	58
Jurmala	13	56
Jelgava	15	101
Daugavpils	15	157
Liepaja	16	136
Rezekne	25	82
<i>Other districts</i>		
Ogre	10	63
Saldus	11	39
Tukuma	12	54
Bauska	13	53
Kuldiga	13	38
Valka	13	34
Cesis	14	60
Talsi	14	50
Valmiera	15	60
Limbazi	15	40
Dobele	16	40
Gulbene	16	28
Aizkrakle	17	42
Aluksne	18	26
Madona	19	46
Jekabpils	22	56
Ludza	24	35
Balvi	28	30
Preili	28	41
Kraslava	30	37
Total	13	2,366
<i>Range</i>	9-28	-
<i>Standard deviation</i>	6	-

Source: Labour force survey data from Statistical Yearbook of Latvia 2001.

Table 1.16. Regional variations in labour market conditions (cont.)

Lithuania

Percentage rates in May 2001 for the age class 15-64

Counties ranked by employment-population ratios

County	Unemployment rate	Rate of non-participation in the labour force	Employment-population ratio	Population, thousands
Klaipėda	14	28	62	387
Tauragė	17	28	60	135
Vilnius	14	31	59	851
Siauliai	18	28	59	371
Utena	16	30	59	186
Panevėžys	14	33	58	302
Kaunas	19	29	58	703
Marijampolė	17	32	57	188
Telsiai	19	32	55	181
Alytus	25	31	52	188
Total	17	30	58	3,491
<i>Range</i>	<i>14-25</i>	<i>28-33</i>	<i>52-62</i>	<i>-</i>
<i>Standard deviation</i>	<i>3</i>	<i>2</i>	<i>3</i>	<i>-</i>

Source : Labour force, employment and unemployment, May 2001.

Table 1.17. Incidence of long-term unemployment

Percentage of all unemployed persons

Duration of unemployment, months	Estonia				Latvia				Lithuania			
	1997	1999	2000	2001	1997	1999	2000	2001	1997	1999	2000	2001
<i>Both genders</i>												
6 months or more	67	66	60	64	78	75	77	74	78	63	67	75
12 months or more	46	46	45	48	63	58	58	57	69	39	52	58
<i>Men</i>												
6 months or more	66	67	61	69	78	74	80	75	78	64	68	74
12 months or more	44	47	47	52	63	57	58	58	66	42	54	60
<i>Women</i>												
6 months or more	68	64	59	59	78	77	75	73	78	62	65	75
12 months or more	49	44	43	44	63	59	58	55	71	36	50	53

Annual averages; for Lithuania in 2001: May.

Source : Labour force survey data from official publications.

Table 1.18. **Public spending on social programmes**

Estonia

Percent of GDP

	1996	1997	1998	1999	2000	2001
Pensions	7.6	7.3	7.1	8.5	7.6	6.7
<i>Old-age</i>	6.4	6.0	5.9	6.9	6.3	5.9
<i>Disability</i>	0.9	0.9	0.9	1.1	0.8	0.6
<i>Survivors</i>	0.3	0.3	0.3	0.3	0.3	0.3
<i>Other</i>	0.1	0.1	0.1	0.1	0.1	0.1
Family benefits and other	1.7	1.6	1.7	1.6	1.6	na
<i>Child allowance</i>	1.2	1.1	1.0	1.0	0.8	na
Incapacity to work	0.8	0.9	0.9	0.8	0.9	na
<i>Sickness</i>	0.6	0.6	0.6	0.5	0.6	na
<i>Maternity</i>	0.1	0.1	0.1	0.2	0.2	na
<i>Other</i>	0.0	0.2	0.1	0.1	0.2	na
Subsistence benefits	0.7	0.6	0.6	0.4	0.4	na
Health care	6.1	5.5	5.1	5.2	4.5	na
Social care	0.4	0.4	0.5	0.6	0.6	na
Labour market programmes	0.1	0.1	0.1	0.2	0.2	0.2
<i>Unemployment benefit</i>	0.1	0.1	0.1	0.2	0.1	0.1
<i>PES offices and active programmes</i>	0.1	0.1	0.1	0.1	0.1	0.1
Total	17.5	16.4	16.0	17.3	15.8	na
<i>o/w cash benefits</i>	10.9	10.5	10.4	11.4	10.6	na

Source : Social Sector in Figures 2001, submissions from the Ministry of Social Affairs.

Table 1.18. **Public spending on social programmes (cont.)**

Latvia

Percent of GDP						
	1996	1997	1998	1999	2000	2001
Pensions	10.7	10.5	11.2	12.0	10.3	na
<i>of which: old-age</i>	<i>8.2</i>	<i>8.2</i>	<i>8.8</i>	<i>9.4</i>	<i>8.3</i>	<i>8.0</i>
Family benefits	1.5	1.3	1.3	1.3	1.2	na
<i>of which: child allowance</i>	<i>1.0</i>	<i>0.9</i>	<i>0.8</i>	<i>0.8</i>	<i>0.7</i>	<i>na</i>
Incapacity to work	0.6	0.2	0.3	0.3	0.3	na
<i>Sickness allowance</i>	<i>0.5</i>	<i>0.1</i>	<i>0.2</i>	<i>0.2</i>	<i>0.2</i>	<i>na</i>
<i>Maternity leave</i>	<i>0.1</i>	<i>0.1</i>	<i>0.1</i>	<i>0.1</i>	<i>0.1</i>	<i>na</i>
Social assistance	1.2	1.0	1.1	1.1	1.0	na
<i>Benefits</i>	<i>0.5</i>	<i>0.4</i>	<i>0.4</i>	<i>0.4</i>	<i>0.3</i>	<i>na</i>
<i>Social care</i>	<i>0.7</i>	<i>0.6</i>	<i>0.7</i>	<i>0.7</i>	<i>0.7</i>	<i>na</i>
Health care	4.2	3.7	3.9	3.8	3.3	na
Labour market programmes	0.4	0.4	0.6	0.9	0.6	na
<i>Unemployment benefit</i>	<i>0.3</i>	<i>0.3</i>	<i>0.4</i>	<i>0.7</i>	<i>0.5</i>	<i>na</i>
<i>ALMP</i>	<i>0.1</i>	<i>0.1</i>	<i>0.1</i>	<i>0.2</i>	<i>0.1</i>	<i>0.1</i>
Total	18.5	17.2	18.3	19.3	16.8	na
<i>o/w cash benefits</i>	<i>13.6</i>	<i>12.8</i>	<i>13.6</i>	<i>14.7</i>	<i>12.7</i>	<i>na</i>

ALMP: Active Labour Market Policies.

Source : Fox and Palmer (1999), Table 1, Social Report 2001, submissions by the Welfare Ministry.

Table 1.18. **Public spending on social programmes (cont.)**

Lithuania

Percent of GDP

	1996	1997	1998	1999	2000	2001
Pensions	7.0	7.0	7.6	8.4	7.9	7.4
Family benefits etc.	na	0.5	0.6	0.7	0.6	na
<i>Family allowance</i>	<i>na</i>	<i>0.2</i>	<i>0.2</i>	<i>0.2</i>	<i>0.2</i>	<i>na</i>
<i>Grant for fam w 3+ children</i>	<i>na</i>	<i>0.0</i>	<i>0.2</i>	<i>0.2</i>	<i>0.2</i>	<i>na</i>
<i>Birth grant</i>	<i>na</i>	<i>0.1</i>	<i>0.1</i>	<i>0.1</i>	<i>0.1</i>	<i>na</i>
<i>Foster benefits</i>	<i>na</i>	<i>0.0</i>	<i>0.0</i>	<i>0.1</i>	<i>0.1</i>	<i>na</i>
<i>Orphans etc.</i>	<i>na</i>	<i>0.0</i>	<i>0.0</i>	<i>0.0</i>	<i>0.0</i>	<i>na</i>
<i>Funeral benefits and other</i>	<i>na</i>	<i>0.1</i>	<i>0.1</i>	<i>0.1</i>	<i>0.1</i>	<i>na</i>
Sickness benefits	na	0.5	0.5	0.6	0.5	0.4
Maternity leave	na	0.4	0.4	0.4	0.4	0.2
<i>Pregnancy and birth</i>	<i>na</i>	<i>0.1</i>	<i>0.1</i>	<i>0.2</i>	<i>0.1</i>	<i>na</i>
<i>Leave until child is 1 year</i>	<i>na</i>	<i>0.2</i>	<i>0.2</i>	<i>0.3</i>	<i>0.3</i>	<i>na</i>
Social assistance	-	-	-	0.5	0.5	na
<i>Social benefits</i>	<i>-</i>	<i>-</i>	<i>-</i>	<i>0.2</i>	<i>0.2</i>	<i>na</i>
<i>Lump sum benefits</i>	<i>-</i>	<i>-</i>	<i>-</i>	<i>0.0</i>	<i>0.0</i>	<i>na</i>
<i>Housing</i>	<i>-</i>	<i>-</i>	<i>-</i>	<i>0.1</i>	<i>0.2</i>	<i>na</i>
<i>School meals</i>	<i>-</i>	<i>-</i>	<i>-</i>	<i>0.1</i>	<i>0.1</i>	<i>na</i>
Health care	4.2	4.6	4.8	4.6	4.4	na
Social care	na	na	na	na	na	na
Labour market programmes	0.3	0.3	0.4	0.4	0.4	0.4
<i>Unemployment benefit</i>	<i>0.2</i>	<i>0.1</i>	<i>0.1</i>	<i>0.1</i>	<i>0.2</i>	<i>0.1</i>
<i>Employment</i>	<i>0.2</i>	<i>0.2</i>	<i>0.2</i>	<i>0.2</i>	<i>0.2</i>	<i>0.2</i>
Total	na	13.3	14.3	15.5	14.7	na
<i>o/w cash benefits</i>	<i>na</i>	<i>8.5</i>	<i>9.2</i>	<i>10.7</i>	<i>10.2</i>	<i>na</i>

Source : Social Report 2000.

Table 1.19. Public social spending as per cent of GDP

	Total	<i>Of which: Transfers to households</i>	Pensions	<i>Of which: Old age</i>	Family benefits	Incapacity to work	Sub- sistence and housing	Health care	Social care	ALMP	Unem- ployment benefits
Australia	18	<i>11</i>	7	4.3	2.2	0.9	0.2	6.0	0.4	0.4	1.1
Austria	27	<i>19</i>	16	9.9	1.9	0.6	0.4	5.8	1.1	0.4	0.9
Belgium	25	<i>17</i>	11	7.4	2.1	0.7	0.3	6.1	0.2	1.4	2.5
Canada	18	<i>11</i>	6	5.1	0.8	0.4	2.8	6.4	na	0.5	1.0
Czech Republic	19	<i>13</i>	9	6.4	1.6	1.0	0.5	6.5	na	0.1	0.2
Denmark	30	<i>19</i>	12	6.8	1.5	0.8	1.8	6.8	2.2	1.7	3.4
Estonia	16	11	8	6.3	1.6	0.9	0.4	4.5	0.6	0.1	0.1
Finland	27	<i>18</i>	12	7.0	1.9	0.7	1.0	5.3	1.4	1.4	2.6
France	29	<i>19</i>	14	10.6	1.5	0.8	1.3	7.3	1.2	1.3	1.8
Germany	27	<i>17</i>	13	10.5	1.9	0.7	0.8	7.8	0.8	1.3	1.3
Greece	23	<i>17</i>	14	10.2	1.2	0.8	1.0	4.7	0.7	0.2	0.5
Iceland	18	<i>10</i>	8	3.8	1.2	0.1	0.5	7.0	1.1	0.1	0.4
Ireland	16	<i>10</i>	5	2.5	1.6	0.8	1.2	4.7	0.2	1.2	1.7
Italy	25	<i>19</i>	17	12.8	0.6	0.7	0.0	5.5	0.3	0.7	0.7
Japan	15	<i>9</i>	7	5.7	0.2	0.3	0.2	5.7	0.3	0.3	0.5
Korea	6	<i>3</i>	2	1.9	0.0	0.2	0.2	2.4	0.1	0.5	0.2
Latvia	17	13	10	8.3	1.2	0.3	0.3	3.3	0.7	0.1	0.5
Lithuania	15	10	8	<i>na</i>	0.6	0.6	0.5	4.4	<i>na</i>	0.2	0.1
Luxembourg	22	<i>16</i>	11	8.0	2.4	1.4	0.3	5.5	0.4	0.2	0.6
Mexico	8	<i>6</i>	5	4.5	0.0	0.1	1.0	1.9	0.2	0.1	0.0
New Zealand	21	<i>14</i>	7	5.5	2.6	2.0	1.0	6.6	0.1	0.6	1.6
Norway	27	<i>18</i>	13	6.0	2.2	1.5	0.9	7.1	1.4	0.9	0.5
Poland	23	<i>18</i>	14	8.0	0.9	2.0	0.5	4.2	na	0.4	0.6
Portugal	18	<i>12</i>	10	6.3	0.7	0.5	0.3	5.1	0.3	0.7	0.8
Slovak Republic	14	<i>13</i>	9	5.2	2.1	1.2	0.9	na	0.1	0.0	0.6
Spain	20	<i>14</i>	11	8.1	0.3	0.9	0.2	5.4	0.1	0.7	1.6
Sweden	31	<i>21</i>	14	7.5	1.6	1.5	1.7	6.6	1.7	2.0	1.9
Switzerland	28	<i>20</i>	15	11.2	1.2	1.3	0.9	7.6	0.1	0.8	1.0
The Netherlands	24	<i>16</i>	11	6.2	0.8	1.0	1.1	6.0	0.4	1.3	2.6
Turkey	12	<i>7</i>	6	4.2	0.9	0.1	0.3	4.0	0.1	0.1	0.6
United Kingdom	25	<i>18</i>	14	9.8	1.7	0.2	1.8	5.6	0.5	0.3	0.3
United States	15	<i>8</i>	7	5.2	0.2	0.3	0.6	5.9	0.3	0.2	0.3

Sources: ECD-SOCX database referring to 1998; for Baltic countries, 2000 data in Table 1.18.

Source : ECD-SOCX database referring to 1998; for Baltic countries, 2000 data in Table 1.18.

CHAPTER II

LABOUR MARKET POLICY

The institutional framework for employment has been thoroughly reformed in the three countries. It now offers a considerable degree of labour market flexibility, while clarifying workers' rights and responsibilities. The key challenge for the future is not so much to introduce additional regulations as to enforce those that exist. Labour Inspectorates cannot regularly inspect all small enterprises, which are characterised by low trade union membership.

Estonia and Latvia have introduced unemployment insurance (UI) programmes. But Lithuania pays only very low unemployment benefits, so some increase may be justified in the near future. However, an effective administration of unemployment benefits will depend crucially on the capacity of the public employment service (PES) to provide job counselling and job-search assistance. This capacity is now very limited in Estonia, while it is better adapted to the requirements in Latvia and Lithuania. All three countries face a need for more adult training in the future, both on and off the job; much of this should be privately financed.

Introduction: the international experience

The concept of “labour market policy” can be said to have two main components: (i) the design of a regulatory framework for employment and industrial relations; and (ii) a range of so-called “passive” and “active” labour market policies (ALMP). The recent debate in OECD countries has reflected different views about the relative importance that should be attached to these elements. Much of the relevant policy experience was summarised in the *OECD Jobs Strategy*, first launched in 1994, and subsequent follow-up studies looking at its implementation in various member countries (OECD, 1994, 1999 and 2002).

As seen in Box 1, the OECD Jobs Strategy consists of ten broad policy guidelines of which the first six and the tenth have to do with institutional framework conditions for business, job creation and wage setting, underpinned by over 60 detailed recommendations. This reflected the experience that employment opportunities in many OECD countries had been too restrained by excessive regulation in the labour market and insufficient product-market competition. Three of the guidelines concern active and passive labour market programmes, which have been subject to a series of detailed OECD studies as well as evaluation research in member countries (see below).

The key recommendations of the Jobs Strategy have been vindicated in the follow-up studies, which found that the countries that had followed them in a comprehensive manner had been most successful in increasing employment and reducing unemployment. The 2002 *Employment Outlook* (Chapter V), analysing a large number of indicators for most OECD countries, finds that anti-competitive product-market regulations have significant negative effects on non-agricultural employment, and they distort relative wages to the detriment of workers in more competitive product-market sectors. A study reported in the Spring 2002 *Economic Outlook* points to the crucial role of innovation and better productivity as a driving force in economic growth. It also found that policies to enhance product market competition and ease employment protection raise the incentives to improve efficiency.

Box 1. The OECD Jobs Strategy

1. Set macroeconomic policy such that it will both encourage growth and, in conjunction with good structural policies, make it sustainable, *i.e.* non-inflationary.
2. Enhance the creation and diffusion of technological know-how by improving frameworks for its development.
3. Increase flexibility of working-time (both short-term and lifetime) voluntarily sought by workers and employers.
4. Nurture an entrepreneurial climate by eliminating impediments to, and restrictions on, the creation and expansion of enterprise.
5. Make wages and labour costs more flexible by removing restrictions that prevent wages from reflecting local conditions and individual skill levels, in particular of younger workers.
6. Reform employment security provisions that inhibit the expansion of employment in the private sector.
7. Strengthen the emphasis on active labour market policies and reinforce their effectiveness.
8. Improve labour force skills and competencies through wide-ranging changes in education and training systems.
9. Reform unemployment and related benefit systems – and their interactions with the tax system – such that societies' fundamental equity goals are achieved in ways that impinge far less on the efficient functioning of labour markets.
10. Enhance product market competition so as to reduce monopolistic tendencies and weaken insider-outsider mechanisms while also contributing to a more innovative and dynamic economy.

Similarly, the EU adopted the European Employment Strategy (EES) in 1997. It has served as a basis for national Employment Action Plans in Member countries and in countries applying for membership, including the Baltic States. It has also been subject to follow-up activities and the experience of the first five years is due to be reviewed at EU level during 2002. The main objectives were expressed as four "pillars":

- Improving employability (of job seekers).
- Entrepreneurship.
- Adaptability (of businesses and their employees).
- Equal opportunities (for men and women, ethnic and religious groups, the disabled etc.).

The EES thus covers approximately the same policy concerns as the OECD Jobs Strategy, with the addition of Equal Opportunities.¹⁰ The EES places more emphasis on ALMPs (especially training and subsidised work, under the first pillar) than does the OECD, although it has also, like the OECD, expressed concern about the need to enhance the effectiveness of ALMPs. A key objective envisaged by the EES in 1997 was to ensure, within five years, that every unemployed person would be offered "a new start" in the form of "training, retraining, work practice, a job or other employability measures" before reaching twelve months of unemployment, or six months in the case of youth.

The rest of the chapter first considers the legal and institutional framework for employment, before turning to the public employment service and its active and passive programmes.

The institutional framework for employment

The policy issues at stake in this section include rules about employment contracts and their termination, collective bargaining, and more

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An analysis of more detailed descriptions of the four EES pillars (not shown here) suggests that they cover broadly the same policy concerns as the ten guidelines of the OECD Jobs Strategy. The sole major difference is that the EES puts much less emphasis on issues of wage flexibility and employment security provisions.

generally the need to promote fair competition while reducing administrative obstacles to business and job creation. In each of these areas, western European experience gives examples of too-cumbersome regulations that were initially justified by social considerations, but which have caused more undesirable side-effects than expected. At the same time, it is evident – not least in transition countries – that weak institutions can pose a threat to the sound development of a market economy, as well as jeopardising employees' rights and social security. Competition functions best if all enterprises follow the same rules, which is not the case if many enterprises and workers operate informally, conceal incomes or are allowed *de facto* to benefit from tax privileges that do not pertain to their competitors.

To establish a "level playing field", the Baltic States will need not only to remove or change specific regulations that distort competition – a task largely accomplished already – but also, for the future, to ensure much more effective enforcement of the rules that have been adopted. This will require appropriate institutions for resolving disputes, a continued development of Labour Inspectorates and an effort to set gradually higher standards for health and safety at work. Co-operation with the EU and individual countries appears particularly important in these areas.

In many respects, the current legal regulations of employment are liberal. Although a Soviet Labour Law dating back to 1972 was in force until recently in the three countries, many particular elements of it have been gradually modernised since 1991. New comprehensive Labour Laws have been adopted in Latvia and Lithuania – in force from, respectively, June 2002 and January 2003 – while Estonia still has many separate laws which replace different parts of the previous legislation, *e.g.* laws on collective agreements, wages, working time, trade unions, employment contracts and resolution of labour disputes.

This legislative activity has been largely inspired by the need to conform to EU standards. The new labour laws notably seek to promote social partnership in enterprises, *e.g.* by obliging employers to provide information about important changes, and they clarify that an enterprise's responsibility as employer rests on the corporation (ultimately its owners) and not only on individual managers. Trade unions generally have a prerogative to represent workers in collective bargaining, although workers in Latvia can also elect representatives by general ballot. The Lithuanian law foresees works councils, but their potential role in collective bargaining is confined to enterprises without trade union, while Estonian enterprises may bargain with other authorised representatives if there is no trade union.

Some of the issues that have been politically most controversial in western Europe concern the procedures employers must follow when they dismiss workers for economic reasons. These may notably include duties to *negotiate* with workers' representatives, the *selection* of workers to dismiss, the length of *notice periods* and *severance pay*. In these respects, it is undoubtedly important for the Baltic States to avoid introducing legal requirements that make it too expensive for enterprises to restructure, a feature that has been found to inhibit job growth in western Europe.

The reformed labour laws in the Baltic States place the burden of proof about reasons for dismissal on the employer, as is common practice in the EU. But they are still liberal in the sense that employers are free to dismiss workers if there is not enough work and – with a few exceptions – they have the right to select the workers they want to dismiss according to economic criteria. (Only some relatively small groups of employees may have a right to special protection, *e.g.* trade union representatives, disabled persons, single parents.) Lithuania recently abolished a previous, seldom-used right for municipal authorities to stop dismissals. Moreover, according to a rule inherited from the Soviet Union that is still in force in Estonia and Lithuania, workers can be engaged on temporary contracts for up to five years (including extensions). In Latvia, this limit was reduced in 2002 to two years, which is similar to the situation in many OECD countries.¹¹

The minimum notice period for economically motivated dismissals can be up to 4 months in Estonia and Lithuania, but only 1 month in Latvia. The legally required severance benefit is up to 4 months' pay in Estonia and Latvia and up to 6 months in Lithuania, and collective agreements may stipulate more generous provisions.¹² Although the costs involved are not out of line with the situation in many OECD countries, concerns about these costs have been expressed from the employer side on various occasions, including discussions with the OECD review team. As a rule, there may be special reason to keep them moderate in transition economies in order to facilitate a higher rate of innovation and job creation.

¹¹ Lithuania's new Labour Code prevents the signing of a new temporary contract within one month of the expiry of a previous one. But the maximum duration of 5 years was not changed.

¹² Although employers are responsible for paying severance benefits, Estonia's new Unemployment Insurance law (see below) permits employers to obtain reimbursement of between 1 and 2 monthly wages. This applies to *collective* dismissals, concerning a minimum number of workers (ranging from 5 in the smallest firms to 30 in firms with over 300 employees).

Legal regulations about *wage setting* are also relatively liberal by international standards. The legal minimum wages are quite low compared with average wages: in Estonia \$106 (using 2001 exchange rates) or 32% of the average gross wage in early 2002; in Latvia \$95 or 37% and in Lithuania \$108 or 42%.¹³ (The average monthly wages were then \$327, \$258 and \$259, respectively.) Collective agreements typically do not specify individual wages, but they may stipulate minimum amounts that are higher than the legal minimum wages.

Trade union membership is much lower in the private sector than in the public sector. On average, surveys in 1999 indicated that 25% of all workers in Latvia, 15% in Lithuania and 12% in Estonia were union members.¹⁴ Some 18% of respondents in Latvia and Lithuania and 12% of those in Estonia worked in enterprises covered by collective agreements. Regardless of union membership, just over half of the surveyed employees in Lithuania deemed that their wages had been determined by collective rather than individual negotiations, whereas in Estonia and Latvia the latter was the predominant form of negotiation.

A possible way for the legislator to promote more uniform and predictable labour market conditions may be to provide for the *extension* of collective agreements, for example to a whole sector, following examples set by some EU countries such as Germany and the Netherlands. However, for both legal and practical reasons, it is usually not possible to extend collective agreements unless the signatory parties represent a high proportion of employment in a sector. Such concerns may explain why the relevant article in Estonian law, which permits the government to extend collective agreements at the signatory parties' request, has been little used. The new Lithuanian Labour Law includes a similar option, while Latvia's new Labour Law goes further: it stipulates (Section 18, point 4) that any collective agreement signed by employers representing over 60% of employment in a sector shall be binding for all employers and workers in that sector. It seems that this new rule in Latvia was inspired by the hope that it would encourage collective bargaining.

¹³ The minimum wages in 2002 are EEK 1 850, LVL 60 and LTL 430 per month. Based on 1999 *purchasing power parities* (PPPs), the respective dollar values appear over twice as high: about \$250 to \$300.

¹⁴ *Working Life Barometer in the Baltic Countries*, quoted in the 2000 *Economic Survey of the Baltic States*, p. 165.

As discussed in Chapter I, relative wages in the Baltic States show some remarkable characteristics, including an unusually strong wage premium for higher education and surprisingly small wage differences depending on age and experience. There are also considerable regional variations, with lower wages in regions with high unemployment. Most of these results appear possible to explain as "rational" responses to supply and demand in the labour market rather than as a result of institutional constraints.

In sum, the predominant forms of wage-setting in the three countries appear quite flexible and capable of responding to changing market conditions. While such flexibility is advantageous for business, there can be a danger of abuse by less-scrupulous employers if the institutional framework is too weak. Some groups of low-skilled workers, notably in small private firms, are probably in a vulnerable position if their employers are tempted to reduce wage costs more than is legally allowed. As indicated already, market competition would in principle be most efficient if all businesses were required to play by the same rules.

The grey economy: concealed work and informal work

Although the "grey" labour market is, by definition, difficult to measure, its relative importance is undoubtedly greater in several transition economies than in, for example, north-western Europe. Here it is pertinent to distinguish between *concealed* work – *e.g.* work or incomes not reported for tax purposes and/or for reasons related to labour law – and *informal* work, such as small-scale farming.¹⁵ While the former type is found in most countries, the latter is more typical of low and medium-income countries, where it often serves as a survival strategy for households whose members cannot find more profitable work.¹⁶ In western Europe, by contrast, informal work seldom provides more than a marginal complement to household incomes. Both concealed and informal work are significant in the Baltic States.

¹⁵ Cf. Bernabè (2002), who discusses a conceptual framework for informal employment in transition countries.

¹⁶ As a third category within the "grey economy", one may conventionally mention *illegal* activities (*e.g.* sale of stolen goods and illicit drugs). But these are likely to be quantitatively less significant for employment.

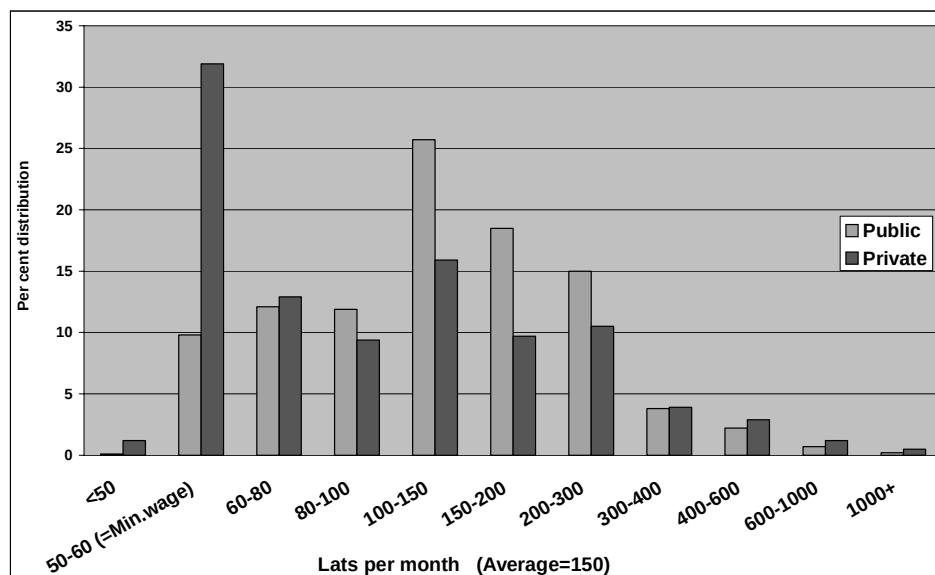
A practice that appears relatively common consists of wage supplements paid "*in envelopes*". For example, some employees may officially receive only the minimum wage while any additional compensation goes unreported. A partial indication is provided by a discrepancy (on average about 10%) between the wages employers report to social insurance and the wages they report to statistical agencies (Table 2.1, panel A). This discrepancy has recently increased slightly in Latvia and Lithuania.¹⁷ Worse, many private-sector employers probably conceal wages from the statistical agencies as well. Official wage statistics are therefore unreliable for the private sector, but probably less so for the public sector. For example, in Latvia in 2000 – when the minimum wage there was 50 LVL – no less than 32% of the private employees earned 50 to 60 LVL per month according to official statistics (Figure 2.1). This result is not very plausible, considering that the average wage was 150 LVL and that the *public-sector* wage distribution did indeed show the expected bell-shaped normal distribution around the average. Labour force surveys (LFS) indicate about the same wage distribution in the public and private sectors (although LFS-based wage data are less reliable in other respects). By comparing public and private-sector wages according to both LFS and employer surveys, it can be estimated that around 20% of all private-sector employees in Latvia and Lithuania earn more than their employers report for statistical purposes (Table 2.1, panel B).

While a tendency to conceal incomes is well-known in most countries, the policy implications can be more severe in transition countries than in a highly advanced economy. Depending on the living standards of the population groups concerned, the concealment of income in less-wealthy countries may more often reflect a genuine difficulty in paying taxes, rather than merely an ineffective tax collection.¹⁸ By implication, the best remedy may reside in a policy to contain public spending in order to reduce taxes and social security contributions, as indeed the Baltic countries have done to some extent in recent years.

¹⁷ In Latvia, the pension reform in 1995 – which established stronger incentives to pay contributions – does not seem to have led to any reduction of this discrepancy. However, the total wage sum on which contributions are paid increased more than the average wage for several years. A possible interpretation is that an increasing proportion of the working population (and their employers) declared at least some incomes.

¹⁸ As a rough indicator of the lower capacity to pay taxes and social security contributions, *cf.* the food share in household consumption: about 54% in Lithuania, 38% in Latvia and 32% in Estonia compared with about 15% in western Europe. A high food share can be taken as a sign that households have relatively little money left for non-essential expenses.

Figure 2.1. **Latvia: wage distribution in the public and private sectors**



Source: Employer survey data for 2000, quoted from the Statistical Yearbook of Latvia.

Often, however, the concealed employment relationships have questionable legality in other respects as well, *e.g.* employers may fail to ensure that employment contracts are established or disregard regulations about health and safety at work. The three countries have recently developed their networks of local *Labour Inspectorates*, partly with international support (notably by PHARE and individual EU countries). In 2000, these institutions in Lithuania had 234 staff members of which 160 were inspectors, in Latvia 142 (100) and in Estonia 142 (88), whose tasks include the enforcement of both labour law and occupational health and safety.¹⁹ During the OECD's site visits in Latvia and Lithuania, it emerged that labour inspectors visited many of the larger firms

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The collection of taxes and social security contributions falls under tax authorities, not the labour inspectorates. In Latvia, however, a labour inspectorate visited by the OECD co-operated with tax authorities, making joint inspections in enterprises to check tax payments and employment conditions at the same time.

regularly, imposing fines on employers when employment contracts were lacking. Estonia's labour inspectorate until recently checked the legality of all new contracts reported to them, a practice currently being reconsidered. A feature found particularly useful in Estonia are the 18 labour dispute committees, set up in 1996. While these committees are tripartite, they operate under the auspices of labour inspectorates and handle many disputes about wage arrears and dismissals. Lithuania's new Labour Law in 2002 provides for the appointment of standing labour disputes committees in enterprises for up to two years.

Compared with OECD countries, the shortcomings are probably greatest in the area of occupational health and safety where, very often, technological changes that in principle are desirable to improve safety would require expensive investments by enterprises. Undoubtedly, a policy to raise industrial safety standards towards western European levels can only be implemented gradually.

As in many other countries, labour inspectorates in all Baltic countries appear to have found it practically impossible to conduct systematic controls in small firms, whether for employment contracts or safety. This is a potentially critical limitation because – as several labour inspectors underlined when visited by the OECD team – the low level of trade union activity in small firms means that many workers there are unlikely to benefit from any legal protection other than that provided by the inspectorate. The problems appear greatest in the service sector, in construction and in agriculture.

Informal work – on private land plots or otherwise – is typically a household activity, often involving some exchange between neighbours and relatives. Work on private plots is most widespread in Lithuania, which has around 300 000 farm plots of less than 3 ha and some 67 000 medium-sized farms of on average 10 ha. According to recent household budget surveys, in Lithuania, 32% of consumption by rural households had been earned in-kind, including over half of their food consumption (Table 2.2). Even for urban households, as much as 10% of total consumption and 20% of the food intake was derived from private land plots. The corresponding percentages in Latvia are lower, but also important.

From a policy perspective, the main reason for concern with informal work are the low incomes, and – as a result – the difficulty of financing social insurance. Subsistence farmers who depend on in-kind incomes are concentrated in the lowest deciles in a distribution of households by consumption expenditure (Table 2.3 for Lithuania). In particular, their monetary

incomes are very low. Indeed, to the extent that they have monetary incomes, these are frequently pensions (*cf.* the figures for Latvian farmers in Table 2.4).

Self-employed farmers in Latvia and Lithuania usually do not declare incomes. Many have pension entitlements built up during the Soviet period, but younger farmers and family helpers are at risk of having no social protection other than the basic provisions available to everyone. In Lithuania, there were about 140 000 self-employed farmers and family helpers in 2001, according to labour force surveys. An administrative farm register, introduced in the late 1990s, has recently recorded about 34 000 active farmers and helpers, but 75% of them are exempted from paying social insurance contributions for farm income because they have other jobs or are already pensioners.²⁰ The remaining about 8 000 registered farmers must in principle contribute to basic but not supplementary pensions (see Chapter III), and some 6 500 appear to do so. The poorest farms benefit from a 70 to 80% rebate on the contribution rate.²¹ Those who do not contribute at all receive only emergency health care and no pension entitlements.

In Latvia, about 16 000 farmers contributed to social insurance in 2001. Altogether, LFS data suggest that there were probably about 40 000 self-employed farmers and almost as many family helpers. Following special rules, their contributions are calculated to finance one-half of the minimum pension after a normal working life. The incentives to contribute are probably low in the eyes of many farmers because, in Latvia, both health care and some minimum pensions are available regardless of contribution records (see Chapter III).

In Estonia, by contrast, most of the approximately 12 000 self-employed farmers (as counted by LFS and the First Agricultural Census in 2002) probably contribute to social insurance, with a minimum based on one-half of the minimum wage. Many of the about 3 000 unpaid family helpers do not contribute, however, so they will receive only a minimum pension when they retire (currently 800 EEK per month).

²⁰ In addition to the 34 000 registered farmers, recent studies by the relevant authorities identified 54 000 working-age members of farm households, who did not work in the farms, and about 100 000 other "land users". The farm register covers few plots smaller than 3 ha.

²¹ Non-agricultural self-employed persons in Lithuania are mostly enrolled in social insurance, though seldom contributing for more than the minimum wage. This is a condition for licensing in the business register, which is compulsory for them but not for farmers.

Taxes and social insurance contributions

While social spending is not particularly high relative to GDP in the Baltic States, the combined rates of income tax and social insurance contributions charged on average wages in the formal parts of their respective economies would put Lithuania and Latvia among the top quintile of OECD countries, while Estonia also has above-average taxes (Table 2.5).

Income tax is payable at flat rates of 26% in Estonia, 25% in Latvia and 33% in Lithuania. Basic deductions exist but they are quite low: respectively, 1000 EEK, 21 LVL and 150 LTL (18 %, 13 % and 14 % of the average wages in 2001). Social security contributions are currently charged at 33% to 34.5% of the gross wage in all three countries, of which pensions alone represent 20 to 27 percentage points. Employers pay the biggest parts, workers contributing only 1 percentage point in Estonia (for unemployment insurance) and 3 percentage points in Lithuania (mostly for pensions). But Latvia has gradually shifted part of this burden from employers to workers, along with annual reductions of the total rate, with the aim that a combined rate of 33% should be equally shared between them from 2003.

Recognising the problems caused by high taxes on labour, Latvia has implemented a series of annual reductions of the social insurance contribution rate from 37% in 1999 to 33% in 2002. But the financial burden of social policy is still particularly heavy in Latvia if one considers that it finances health care almost entirely from the state budget, while the other two devote part of the social insurance contributions to health care.²²

In view of the limited capacity of Baltic households and enterprises to actually pay the stipulated taxes and contributions, it should be a priority to reduce them and to avoid taking policy steps that would require unnecessarily high taxes and contributions in the short term. This should be combined with measures to improve compliance, and so extend the tax base. The possible implications for social policy will be considered in the following, especially in Chapter III concerning pension policy.

²²

Lithuania devotes 3 percentage points of the insurance contributions to health care, along with funds from the state budget. Estonia finances health care almost entirely from social insurance contributions, of which 13 percentage points are devoted to health care and sickness and maternity pay, while 1.5 percentage points are earmarked for unemployment insurance.

The public employment service (PES) and its programmes

As in most OECD countries, most of the public spending on labour market programmes in the Baltic States is devoted to unemployment benefits (cf. Table 2.6, Panel C). Unemployment benefits are low by OECD standards in Lithuania, but more generous in Latvia and, from 2003, in Estonia. Active labour market programmes also play a role, though less so in Estonia than in the other two countries.

All Baltic labour market programmes have been developed after 1990, drawing on OECD experience in many respects. Before they are considered in some detail below, this section briefly reviews the international experience and the rapidly evolving policies of OECD countries, which often have been driven by negative as well as positive evaluations of their effectiveness.

The mixed international experience of ALMPs

While the early debate on active labour market policy (ALMP) in OECD countries often assumed that such policies could increase overall employment, and perhaps even enhance a country's macro-economic performance, the results achieved have seldom matched such high ambitions. Instead, the principal justification for ALMP spending nowadays is usually focused on the perceived need to develop better instruments than cash benefits to assist unemployed individuals. OECD governments have been increasingly troubled by a persistent bias towards "passive" unemployment benefit spending, a concern driven both by budgetary considerations and by the fear that generous benefits might distort work incentives.

However, it cannot be taken for granted that spending on ALMPs will reduce the need for "passive" spending. A policy statement by the OECD in 1990 (*Labour Market Policies for the 1990s*), summarising the experience of the 1980s, observed that, by that time, most Member governments had abandoned or much reduced their use of public works for the unemployed. Such programmes had been found particularly expensive and often ineffective. Certain transition countries such as Germany (in its eastern part) and Poland nevertheless launched new large-scale public work schemes in the early 1990s, but these were soon scaled down for much the same reasons as had applied earlier elsewhere.

More hope was often attached to training programmes, and also to various forms of recruitment subsidy to employers who hired jobless persons. During the 1990s, however, an increasing number of evaluation studies were

completed, and they showed very mixed results with respect to the effectiveness of many training and job subsidy schemes. Moreover, OECD reviews of the operations of public employment service (PES) agencies documented many problems with respect to the targeting of the programmes.²³

This evidence suggests in general that ALMPs, and especially training programmes for the unemployed, are unlikely to be effective unless they are well targeted on labour market needs. Identifying these needs requires careful analysis of the situation of individual job seekers, employers and local labour markets. To avoid expensive policy mistakes, it is advisable to implement active programmes on a scale that does not exceed the capacity of local PES offices to assess particular cases and circumstances. For this reason, there is a danger in setting quantitative targets for ALMP implementation on the basis of aggregate unemployment statistics.

Instead, programme evaluations have repeatedly found that job counselling and job-search assistance tend to be the most cost-effective type of "active" measure. It is not possible to solve the problems of every unemployed person with counselling alone, but experience shows that the best solutions are often foregone if a person's job chances are not carefully investigated before other interventions are proposed. Thus, apart from being itself cost-effective, counselling can be the key to higher efficiency in the use of other programmes such as training and public works. Job clubs, used in Latvia and Lithuania as well as in many OECD countries, permit the PES to provide intensified job counselling and assistance over some period of time for small groups of unemployed individuals.

The Baltic States have already drawn to a large extent on the experience of other countries and on the efforts of various bodies – not least the EU through the EES – to identify good practices. But it cannot be taken for granted that policy models developed elsewhere can be applied under different conditions. The situation in the Baltic States differs from that in western Europe in at least three fundamental respects of importance for the potential role of ALMPs.

First, unemployment benefits are quite modest (apart from the first three months of unemployment in Estonia and Latvia; see below). This means that one oft-mentioned reason for implementing ALMPs in OECD countries –

²³

Programme evaluations were reviewed in the OECD *Employment Outlook* (1993, Chapter II and 1994, Chapter I), OECD (1996a-b, 1997, 1998d). Key results were summarised and updated in Martin (1998) and Martin and Grubb (2001). OECD (1996c-e and 1998d) reviewed the public employment service in various OECD countries.

namely, the risk that generous benefits might otherwise distort work incentives – is less relevant in the Baltic States.

Second, the combination of relatively low living standards and widespread informal work means that it can be difficult to administer unemployment insurance correctly. A previous policy review by the OECD - *The Public Employment Service: Greece, Ireland, Portugal* (OECD, 1998c) - found it especially problematic to implement unemployment insurance in districts where many of the jobless had informal jobs and where the PES had few formal-sector jobs to offer. This probably holds in many parts of Lithuania and Latvia as well.

Third, the Baltic States' PES agencies do not have the same traditions as those of western European countries. The latter were developed in a period when most countries adhered to the previous ILO Convention No. 96, which used to require the dismantling of fee-charging employment agencies. As a result, and reflecting their previous monopoly position, the incumbent PES agencies in western Europe possess office networks that are well-endowed in terms of staff, know-how and equipment. Although the PES monopoly has now been abolished in practically all countries, their historical strength means that they often retain a powerful position as labour market intermediaries.

However, private-sector providers of employment services are becoming gradually more important in all countries. This trend is favoured by the increasing complexity of the labour market resulting from higher educational requirements, but it is also spreading out beyond the high-skill and managerial segments of the labour market. Furthermore, the advent of the Internet has vastly increased the scope for new initiatives by all kinds of potential actors in the job market.

In this new situation, it is neither possible nor perhaps advisable for the Baltic governments to emulate all activities performed until now by the former PES monopolies in western Europe. Clearly, this does not exclude that the Baltic PES agencies can learn much in the way of detailed know-how from their western counterparts. But for the future, policy makers in all countries need to consider a broader range of policy alternatives of which there is precious little experience at the moment.

The most fundamental role of government here concerns the need to deal with unemployed people who receive benefits. As long as unemployment compensation is a legal entitlement, the government has a responsibility, as well as a financial stake, in administering the benefits and in taking the additional steps that may be required to ensure that recipients find work as soon as possible. The OECD's PES reviews have indicated that the administration of unemployment benefits is usually most effective if it is combined with job

counselling in the same offices, and also, where relevant, managed together with the decision making about admitting individuals to ALMPs ("one-stop shops"), as is usually the case in the Baltic States.

Nevertheless, some countries such as Australia and the Netherlands have shown that it can be advantageous to contract-out all this individual "case management" and related job-counselling functions (including referrals to ALMPs) to private enterprises and NGOs.²⁴ Even where these functions remain in the hands of PES staff – as in the Baltic States – it will be increasingly important to develop more co-operation between PES agencies and other bodies that possess information about the labour market. The PES cannot know about all job openings in the labour market, so it should encourage the unemployed to seek jobs via other channels, including private contacts, commercial job agencies, the media and internet-based facilities.

Modest unemployment benefits

The 2000 *Economic survey of the Baltic States* noted that only Latvia of the three countries had an unemployment insurance (UI) programme comparable to those found in most OECD countries. The corresponding benefits in Estonia and Lithuania were very low and not income-related. Since then, Latvia has somewhat reduced its benefits while Estonia has begun to phase in a new UI programme that will begin to pay benefits in 2003. The Latvian UI still features a relatively high rate of income replacement during the first three months of unemployment: up to 65%, compared with 50% in Estonia; but benefits are substantially reduced from the fourth month in both countries, especially in Latvia (see Box 2). Some benefits are payable for up to 9 months in Latvia, while in Estonia the limit will be 6 months until 2007. (Estonia's UI law envisages to extend the benefit periods to 9 months, and eventually to 12 months – but only for persons with contribution records of 5 and 10 years, respectively, counted from 2002.) In any case, it is expected in Estonia that many of the unemployed in the near future will not fulfil the minimum contribution requirement of 12 months, and therefore receive only a low unemployment assistance benefit (EEK 400 in 2002).

²⁴

See *Innovations in Labour Market Policies: The Australian Way* (OECD, 2001) and Struyven and Steurs (forthcoming, OECD).

Box 2. Unemployment insurance in Estonia and Latvia

Estonia (new legislation: benefits require 12 months of contributions from 2002)

Maximum benefit period: 6 months. (After 5 years of contributions from 2002: 9 months; after 10 years of contributions from 2002: 12 months.)

Benefits: 50% of the lost wage for the first 100 calendar days, then 40%. Benefits are taxed.

Ceiling: The reference wage can be up to three times the average wage. As a result, the maximum benefit in 2003 will probably be around \$500 in the first 100 days, then around \$400.

Latvia

Maximum benefit period: 9 months.

Benefits: First 3 months: from 50% (after 1 to 10 years' work) to 65% (after 30 years' work) of the lost wage.

Fourth to sixth month: from 37.5% to 49% of the lost wage, with a *benefit ceiling* of 2 minimum wages (about \$190).

Seventh to ninth month: from 30% to 39% of the lost wage, with a *benefit ceiling* of 1 minimum wage (\$95).

Benefits are taxed.

Lithuania's unemployment benefits do not follow an insurance principle, and they are always much lower than the average wage. They can be either flat-rate at \$34 (135 LTL = the State Supported Income) or variable up to \$62 (250 LTL = twice the State-defined Minimum Living Standard), depending on the length of the individual contribution record. The maximum amount corresponds to about two-thirds the minimum wage of \$95 and less than one fourth of the average gross wage, which was \$266 in 2001.

Overall, the benefits paid to the unemployed in Latvia and Estonia (from 2003) are not out of line with the provisions found in many OECD countries. But they are less generous than in some western European countries, both in terms of levels and in terms of duration. In Lithuania, the present very low compensations can perhaps be regarded as appropriate in the short term, given the risk of benefit dependency among rural inhabitants, whose job-search activity is often difficult to monitor and control. However – even taking account of the special conditions in Lithuania's rural areas – it would probably be

possible to administer a higher, income-related benefit for insured persons if, as in Latvia, it were designed with significant benefit reductions already after a few months of unemployment.

Active programmes

As a likely consequence of the limited duration of unemployment compensation, most of the LFS-unemployed receive no unemployment benefits, and many of them are not even registered at the public employment service (PES; Table 2.6, panel A). The latter outcome is partly a result of country-specific requirements for registration, but it also has to do with the perceived advantages for individuals of being registered, including the quality of the placement services and the attractiveness of various programmes. Some registered individuals who do not receive unemployment benefits may visit the PES mainly in order to become eligible for social assistance benefits (see Chapter V). In Estonia, a new situation will arise in 2003 as a result of the phasing-in of UI.

In any case, it is relevant to consider to what extent the three countries' PES office networks are sufficiently equipped not only to administer unemployment benefits, but to provide effective job counselling and job search assistance. Lithuania has the best-equipped PES agency of the three countries, with about 1 400 staff in 46 local offices. By international standards, this suggests a high staffing level relative to the number of benefit recipients (around 50 per staff member), but less so if all the registered unemployed are taken into account (over 150 unemployed persons per staff member).²⁵ According to official records, the PES managed to "place" as many as 8% of the Lithuanian labour force in jobs during 2001. This outcome appears impressive by international standards, but it is not entirely clear to what extent it represents an actual outcome of PES activity.²⁶

The PES in Latvia has less than half as many employees (600 to 700), implying that the likely numbers of clients per staff member are a little higher

²⁵ A caseload of about 100 benefit recipients per job counsellor has been mentioned as a target in several previous OECD reviews of PES activities. The actual caseload per staff member probably exceeds this target in most OECD countries, but lower figures have been observed in the Czech Republic and Sweden.

²⁶ Some of the reportedly placed individuals probably found jobs by their own efforts.

than in Lithuania. Estonia's PES only has about 230 staff members, so its capacity to provide services to individual employers and job seekers is more limited. However, the numbers of persons who register as unemployed and claim benefits will most probably increase when UI becomes operational in 2003. Some additional resources would seem required in order to ensure that the country's PES offices can cope with this new situation.

Enrolment in active labour market programmes (ALMPs) appears substantial in Latvia and Lithuania, as measured in flow terms. But most participants stay relatively short time in the programmes, often only a month or two. The total inflow of ALMP participants in 2001 corresponded to 6% of the labour force in Lithuania and 4% in Latvia, with public works as a large item. The figure for Estonia was 2%, consisting mainly of training (Table 2.6, panel B). Expenditures are moderate as a result of the short duration of most activities (panel C). Thus, in 2001, ALMP spending was only 0.14% of GDP in Latvia and 0.12% in Lithuania, compared with around 1% of GDP in many EU countries. As mentioned already, the PES in the two countries organises many *job clubs*, an inexpensive and usually cost-effective form of intensified job counselling and job-search assistance.

The short duration of most training courses and public-work assignments is probably advantageous not only in cost terms. It reduces the risk that participants unnecessarily delay their job search – a disturbing effect of ALMP participation that has been observed in several OECD countries.²⁷ Nevertheless, with limited PES resources, a large-scale use of short courses can also have questionable effectiveness. There is a risk that too much of PES "placement" activity is devoted to placement in subsidised programmes and too little to placement in ordinary jobs.²⁸ (Cf. the figures for Lithuania in Table 2.6, panel B, which show almost as many "placements" in ALMPs as in ordinary jobs.) OECD experience suggests that PES office managers, in order to enhance efficiency, should take care that most of the available staff time can always be devoted to the most crucial functions: job-search counselling and placement in unsubsidised employment.

²⁷ Cf. evaluation studies in Sweden in Denmark, analysed in OECD (1996c) and Reutersward (1995).

²⁸ Cf. the review of Finland's PES in OECD (1996d). Conducted during a period with relatively high unemployment, this review found that ALMPs had become too predominant and that placement in ordinary jobs was at risk of becoming only a secondary concern for the job counsellors.

Other measures to improve workforce skills

Chapter I noted that the Baltic populations in general are relatively well-educated by international standards, at least as measured by the attained levels of formal education. But the recent OECD *Reviews of National Policies for Education* (OECD, 2001) in the Baltic States found the public provisions for adult education less well developed than youth education, apart from the usually short courses offered to unemployed persons.

No less important, however, is the extent to which employers arrange training for their employees. Eurostat surveys conducted in EU and candidate countries indicated that courses of *continuing vocational training* in 1999 accounted for only 1.1% of total labour costs in enterprises in Latvia and 0.8% in Lithuania (Nestler and Kailis, 2002b). This was less than in most of the covered countries except Poland and Romania. In Estonia, however, the corresponding proportion was slightly above the average of about 1.8% in the studied countries, though less than the 2.5 to 3% reported for the Nordic neighbours.²⁹ But Estonia's training effort appeared remarkably concentrated in the service sector and among groups with relatively high education: all three countries scored near the bottom in terms of training in manufacturing firms.

While such results are worrying, OECD countries have found that the chances of success in adult education and *life-long learning* depend crucially on the levels of initial education attained by the population. Against this background, the Baltic States should be in a good position to achieve a rapid improvement. Much of the current adult education appears to consist of language training, but in addition there is a need for more updating and refresher courses for adults whose initial education has become out-of-date. Regarding vocational further training, OECD experience suggests that the best results are achieved where it is initiated by individual workers and enterprises or by their associations. Some targeted support by public policy might be useful, but it is probably not essential: employers should in any case be aware of the need to invest in human capital.³⁰ With moderate adjustments and effective co-

²⁹ The cited figures include course costs and participants' wages, the latter representing one-third to one-half of the total in most cases.

³⁰ A few countries – notably Denmark and Germany – have for a long time administered extensive programmes for further vocational training of employed workers within the same policy framework as the courses for the unemployed. But with or without public support, these efforts depend more crucially on initiatives taken within various industry sectors (OECD 1996c d). Germany phased out most of the relevant public spending in the 1990s in favour of a stronger focus on the unemployed, as in most countries.

operation between the public and private sectors, the existing systems for general and vocational education of youth should be able to serve an increasing number of adults as well.

Concluding remarks

In keeping with the OECD Jobs Strategy, this chapter has taken a broad approach to labour market policy covering the institutional framework for employment as well as "active" and "passive" labour market programmes. With respect to labour market regulations, it finds that the key challenge is not so much to legislate about desirable market conditions as to enforce the rules that exist, and so to reduce the market distortions that can arise when rules are not consistently applied by all enterprises and workers.

Spending on active and passive labour market programmes is fairly low by OECD standards. Unemployment benefits are parsimonious in Lithuania, but moderately generous in Latvia and (from 2003) in Estonia. The public employment service (PES) in Estonia will need some additional resources to deal with the new situation that will result from the phasing-in of unemployment insurance (UI). The corresponding agencies in Latvia and Lithuania are more developed than in Estonia, and they also place more unemployed persons in training courses or public works, which however have short duration in most individual cases. Judging from OECD experience, any additional resources that may be found affordable might be most usefully devoted to job counselling, job clubs and related measures in connection with the administration of unemployment benefits. But in general, this chapter finds that the Baltic States have good reason to keep the scale and scope of both active and passive labour market programmes at a more modest level than most EU countries.

Table 2.1. Indicators of under-reporting of wages

A. Contribution wages compared with survey-reported wages

Average wage on which social insurance contributions were paid as percentage of average wage according to employer surveys

	1995	1996	1997	1998	1999	2000	2001
Latvia	93	94	92	92	91	91	91
Lithuania	88	90	90	89	86	86	na

Sources: Statistical agencies; Latvia: Social Report; Lithuania: SODRA.

B. Estimated proportion of private-sector employees whose wages are under-reported in employer surveys

Persons reported to earn less than a given amount who actually earned more
Per cent of all private-sector employees

Latvia				Lithuania		
	1998	1999	2000		1998	1999
Reported wages:				Reported wages:		
<50 LVL	19	2	1	<430 LTL	3 - 12	na
<80 LVL*	16	21	21	<800 LTL	18 - 27	1 - 9
<200 LVL	11	11	7	<1500 LTL	na	2 - 4

* For 1998: < 100 LVL.

Note: The minimum wage in Latvia was 42 LVL in 1998 and then 50 LVL; in Lithuania 430 LTL since June 1998. The "true" proportions of workers in each wage bracket was estimated by combining employer-survey data on the *public-sector wage distribution* with LFS data about *public-private wage differentials*.

Source : Calculations for Latvia based on employer surveys in October 1998 to 2000 and LFS in November 1998 to 2000; for Lithuania, respectively, May 1998 to 1999 and November 2000.

Table 2.2. Household consumption expenditure

	Estonia	Latvia			Lithuania		
		Urban	Rural	Total	Urban	Rural	Total
USD per capita per month	132	117	78	105	120	85	109
<i>Of which, in per cent:</i>							
Food	32	34	49	38	37	54	41
Goods earned in-kind (food and other)	7	7	20	10	10	32	16
Percentage of consumed food earned in-kind	17	13	37	20	20	53	31

Source: Household budget surveys. Estonia and Latvia: 2000; Lithuania: 1st quarter 2002.

Table 2.3. Lithuania: food shares and in-kind shares in household consumption by decile

Per cent of total consumption expenditure of households in the decile

	1	2	3	4	5	6	7	8	9	10	Average
Food share	65	56	52	49	49	46	44	42	36	28	41
In-kind share	34	30	22	19	20	14	16	15	11	10	16
Total in USD	33	50	63	74	86	98	113	132	163	267	109

Source: Household budget survey, 1st quarter 2002 (Economic and Social Development in Lithuania B111).

Table 2.4. Structure of disposable income (cash and in-kind)

Per cent distribution

	Latvia				Lithuania		
	Urban	Rural	Of which: Farmers	Total	Urban	Rural	Total
Wages etc.	62	44	8	58	61	31	54
Farm income	1	12	26	4	3	23	8
Other self-employment or capital income	4	2	3	3	5	2	4
Social transfers	26	35	57	28	22	35	25
Other transfers	8	7	6	7	10	9	10
Total	100	100	100	100	100	100	100

Source : Household budget surveys: Latvia 2000; Lithuania, 1st quarter 2002.

Table 2.5. Income tax and social insurance contributions for an average production worker in 2000

Annual wages in US \$ by PPP (OECD price estimates of 1999)

	Income tax	Employee contribution	Employer contribution	Total of tax and contributions [Col. 1+2+3]	Net wage		Gross wage		Labour cost		Tax wedge
					[(Col. 7)-(Col. 1+2)]		[Col. 1+2+5]		[Col.7+3]		[Col.4/9]
	1	2	3	4	5	6	7	8	9	10	11
	Per cent of gross wage				Per cent	\$PPP	Per cent	\$PPP	Per cent	\$PPP	Per cent
Belgium	28	14	33	75	58	24,767	100	31,662	133	42,216	56
Hungary	20	13	41	73	68	8,383	100	8,804	141	12,400	52
France	13	13	41	68	74	21,548	100	20,889	141	29,421	48
Sweden	25	7	33	66	67	21,119	100	23,759	133	31,678	50
Lithuania	29	3	31	63	68	5,411	100	7,958	131	10,425	48
Latvia	25	9	27	63	66	4,814	100	7,294	127	9,264	50
Italy	19	10	33	62	71	23,560	100	25,005	133	33,340	47
Germany	22	20	20	63	58	22,522	100	32,324	120	38,945	52
Finland	26	8	26	59	67	20,942	100	24,660	127	31,215	47
Austria	9	18	32	59	72	22,452	100	23,579	132	31,025	45
Slovak R	7	13	39	58	81	10,589	100	9,464	139	13,145	42
Czech R	11	12	35	58	77	13,735	100	13,196	135	17,832	43
Estonia	22	-	33	55	78	7,396	100	9,482	133	12,611	41
Netherlands	8	29	16	52	64	23,034	100	30,975	116	36,017	45
Poland	6	25	20	52	69	9,683	100	11,703	120	14,100	43
Spain	12	6	30	49	81	19,852	100	18,984	130	24,655	38
Turkey	14	14	19	48	71	17,275	100	20,315	119	24,185	40
Greece	3	15	28	46	82	15,468	100	14,705	128	18,852	36
Denmark	32	12	0	44	56	18,362	100	32,789	100	32,789	44
Portugal	6	12	23	42	82	11,871	100	11,801	123	14,569	34
Norway	21	8	12	42	71	19,984	100	25,126	112	28,231	37
Luxembourg	12	14	14	40	74	23,953	100	28,538	114	32,429	35
US	18	8	8	33	74	24,694	100	30,953	108	33,283	31
Canada	20	6	6	33	73	23,670	100	30,311	106	32,246	31
UK	15	8	10	33	77	23,788	100	28,141	110	30,924	30
Ireland	16	5	12	33	80	20,928	100	23,348	112	26,234	29
Switzerland	10	11	11	32	79	28,553	100	32,575	111	36,194	29
Japan	7	10	10	26	84	26,008	100	28,338	110	31,141	24
Iceland	21	0	5	26	79	18,726	100	22,534	105	23,720	25
Australia	23	0	0	23	77	24,433	100	31,731	100	31,731	23
New Zealand	19	0	0	19	81	20,282	100	25,039	100	25,039	19
Korea	2	7	9	18	90	30,430	100	31,032	109	33,730	17
Mexico	1	1	15	17	98	9,077	100	8,083	115	9,291	15

Note: Countries ranked by the total rate of income tax and contributions.

Source: Taxing wages 2000-2001, OECD. For the Baltic States: stipulated rates in 2000, in Estonia and Lithuania taking account of basic deductions for income tax. Since 2000, Estonia's contribution rates increased by 1.5% (for unemployment insurance), while those in Latvia were reduced by 3%.

Table 2.6. Labour market programmes

A. Unemployed persons and benefit recipients

Per cent of the labour force in 2001

	Estonia	Latvia	Lithuania
LFS unemployment	13	13	17
Registered unemployment	8	8	13
Benefit recipients	4	4	2

B. Participants in active programmes (inflows)

Per cent of the labour force in 2001

	Estonia*	Latvia	Lithuania
Job clubs	-	2.2	2.6
Training	2.0	0.8	1.0
Public works	-	1.4	1.9
Job subsidies	-	-	0.3
Start-up grants	0.1	-	-
Total	2.1	4.4	6.0

Memorandum:

Job placements by PES	3	na	8
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* First quarter of 2002, annualised.

C. Expenditure

Per cent of GDP in 2001

	Estonia	Latvia	Lithuania
Active programmes	0.06	0.14	0.12
<i>Job clubs</i>	-	0.007	0.004
<i>Training</i>	0.05	0.08	0.05
<i>Public works</i>	-	0.05	0.04
<i>Job subsidies</i>	0.004	-	0.02
<i>Start-up grants</i>	0.005	-	-
PES offices	0.02	na	0.09
Unemployment benefits	0.13	0.5*	0.15
Total	0.22	0.6*	0.36

*2000.

Source: PES agencies.

CHAPTER III

PENSION POLICY AND PENSION REFORM

Baltic pension systems are reasonably effective in preventing poverty in the present old generations, which were employed in the Soviet period. But with today's lower employment and frequent under-reporting of wages, more people in the present working-age generation may be at risk of becoming poor when they retire. In the long term, population ageing will accelerate. A key challenge is then to make it attractive for as many as possible to work in the formal sector and pay contributions.

The three countries are stepping up their retirement ages, and they have adopted systemic pension reforms that are more advanced than those found in many OECD countries. During the 1990s, Latvia adopted a notional defined contribution (NDC) programme, while Estonia and Lithuania added some income-related pension elements to their inherited pay-as-you-go (PAYG) schemes. The three countries have also legislated about a voluntary "third tier" of private pension saving.

Estonia and Latvia have begun to phase in a funded "second tier" that will replace part of present PAYG systems. A funded element is also being envisaged for Lithuania's compulsory pension scheme, though in this case only as an option. As a rule, a switch from PAYG to funding offers important advantages in the long term, but it involves a "transition cost" as well as administrative and financial problems. Given the potentially difficult and controversial nature of these problems – most noticeable in Lithuania – it appears pertinent to implement the second tier on a modest scale until it is more clear how effectively they can be resolved.

Introduction

Pension policy has special importance both in view of the high spending involved – over 10% of GDP in Latvia and 7 to 8% in Estonia and Lithuania – and the large number of households that depend on it. According to data for 2000 or 2001, public pensions represented 24% of the average household's disposable income in Latvia, about 20% in Lithuania and 17% in Estonia.³¹ In addition to the social and financial implications in the short term, policy makers need to consider a variety of possible developments in the future because pension systems involve long-lasting commitments that can be difficult to go back on. A key challenge is then to strike the right balance between short and long-term objectives.

An immediate concern is to protect the current old generation from poverty. Like most OECD countries, the Baltic States can be said to have achieved this objective in the sense that relatively few pensioners are in extreme poverty. However, average old-age pensions are worth only about one-half or less of the average after-tax wage, and, at least in Estonia and Lithuania, the lowest pensions fall below conventional poverty limits. Latvia's minimum pension was raised in 2002 so that it now exceeds the poverty level by some definitions – but only for persons with relatively long contribution records. Any more substantial increase of the lowest pensions will be difficult to finance as long as significant parts of the workforce do not pay taxes and social insurance contributions, or do so at reduced rates or for only part of their incomes.

A second short-term priority must therefore be to promote better contribution discipline and to encourage working in the formal rather than in the informal economy. This has been one of the goals of the pension reforms that began in the mid-1990s, which generally were designed to strengthen the links between contributions and individual pensions. Nevertheless, in all three countries, the burden of taxes and social insurance contributions remains disturbingly heavy for employers and workers in the formal economy, comparable only to the charges imposed by the most prolific welfare states in western and central Europe (see Chapter II, Table 2.5). Given that pensions account for the bulk of social insurance spending and about half of total social spending (*cf.* Chapter I, Table 1.18), options to limit this financial burden must be carefully considered.

³¹

See household budget survey data, as published by the national statistical agencies. The figures include old-age, disability, survivor and other pensions, although the latter types could only be approximately measured in Lithuania.

A key cost-saving element in recent pension reforms has consisted in a gradual increase of the statutory retirement ages, which in the days of the Soviet Union were only 55 for women and 60 for men. However, this chapter finds that the process may at the moment be near the limit of what is socially acceptable in the short term – given the life expectancy of old people and the labour market situation. Further pension-age increases may thus be possible only at a relatively slow rate, taking account of economic and demographic developments in the future.

The first wave of pension reforms, starting in the mid-1990s, has also made pensions more differentiated within the traditional pay-as-you-go (PAYG) framework. This change was most radical in Latvia, which replaced the inherited system with a notional defined contribution programme (NDC). Estonia and Lithuania have introduced earnings-related supplements to the basic pension elements, which depend only on the duration of previous employment.

However, much of the recent debate on pension reform – in the Baltic States as elsewhere – has focused on proposals for *funded pensions* based on saving in individual accounts. All three countries passed legislation about private pension saving as a voluntary "third tier", and Estonia and Latvia have begun to phase in compulsory "second tiers" into which certain proportions of the mandatory contributions are allocated. In Lithuania, too, the government has recommended such a reform, but its most recent proposal foresees funding only as an option.

Although, thus, some fundamental policy choices concerning the second tier have been made, questions about the need for such pension saving remain moot in all three countries. The groups to be compulsorily included – if any – and the size of contributions affected should be reconsidered from time to time. This chapter discusses some key problems that must be addressed if a funded second tier is introduced, including those of administration and the so-called "transition cost". The latter is – strictly speaking – not a cost, but a saving. But its financing will reduce the resources available for other purposes for a long period.³² This can have undesirable fiscal and labour-cost effects because it requires higher contribution rates than would be necessary otherwise. On the other hand, an accumulation of pension funds could possibly encourage the development of capital markets – but this is uncertain for several reasons.

³²

The transition period will last until the funded pension system is "mature", i.e. until most old people belong to the generations that have contributed and can draw pensions from the funds. Until then, there will be a need for separate financing of pensions to persons who have not contributed to the new system.

First, net saving may not increase if the additional pension saving is offset by increased public or private borrowing. Indeed, under some circumstances, borrowing may be a suitable way of financing the "transition cost".³³ Second, although pension funds could contribute to financing the high investment rates that will be justified in the years to come, the Baltic States are increasingly integrated in international capital markets and have shown that they can attract foreign capital for investments (see Chapter I). Worse, high contribution rates could impinge on other vital expenditures, including investments in human capital.

This chapter argues that to the extent that a second pension tier is introduced, the part of the contributions devoted to it should be kept at a low level until the problems concerning fund administration and investment have been resolved. In the meantime, the financing of adequate pensions for the present old generation must be a higher priority in budgetary terms. The lowest pensions may now be sufficient to keep most old people out of extreme poverty, but some increases at the lower end of the pension scale would be justified in the future if they could be afforded. The already-completed reforms that made first-tier pensions more income-related were well-motivated in view of the better incentive they give to pay contributions. But it remains necessary to use flat or near-flat rates for the lowest pensions, and it cannot be avoided that this will somewhat compromise the incentive to contribute. As a complement to the compulsory pension systems, it will in any case be justified to consider what can be done to improve the conditions for voluntary third-tier saving by those who can afford it.

The following sections consider the relevant policy issues in somewhat more detail on three topics: (i) the adequacy of current pensions, (ii) extending working life, and (iii) the move towards funded pensions.

The adequacy of current pensions

The average old-age pension in 2001 was worth, in approximate purchasing-power parity terms, \$250 in Estonia, \$235 in Latvia and just over \$200 in Lithuania. This was only between 29% and 37% of the average gross wages, a proportion that has changed little over the past half-decade

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It also has some relevance, notably in Lithuania, that current pension contribution rates have tended to yield a surplus over pension spending, which could be used to finance transition costs (implying lower public saving). But if a second pension tier is not introduced, the surplus will facilitate a reduction of the contribution rate.

(Table 3.1).³⁴ However, pensions are usually untaxed, so they are higher relative to average wages in after-tax terms: 51% in Latvia, 45% in Lithuania and 37% in Estonia. Lithuania's average pension is lower than the minimum wage, even after tax, but in the two northern countries it exceeds the respective minimum wages after tax.

These average benefits correspond to 70 to 80% of the average disposable household income per capita in each country. Using a conventional (but arbitrary) "poverty line" at 50% of the average disposable income per capita, they are thus sufficient to prevent "poverty" when households consist only of pensioners – but barely sufficient for pensioners with other family members to support (Table 3.2). About 5% of the old-age pensions in Latvia and 10% of those in Lithuania fall short of this poverty line, but few old-age pensioners depend on means-tested social assistance. *Disability* pensioners – 13 to 14% of all pensioners in Estonia and Latvia and 21% in Lithuania, not counting survivors – appear to receive lower pensions on average, especially in Estonia. But this difference mainly applies to persons with partial disability (group 3), who have some working capacity and therefore receive lower pensions until they reach the pension age.

At least when household incomes are measured per capita, as was done here, low incomes appear less prevalent among old-age pensioners than in families with many children (Table 3.3). This is partly a result of other incomes than pensions; in Lithuania, household budget surveys in 2000 indicated that pensioners on average received over 25% of their incomes from work, often on farm plots (including in-kind income). In both Latvia and Lithuania, the proportions of pensioners found in the two bottom quintiles of the income distribution were much lower than the 40% that applies on average for the whole population. The same holds in Estonia for pensioner couples, but not for single pensioners (mostly women), who often have low incomes.³⁵ The per-capita method tends to overstate the relative income position of pensioners, whose households tend to be small.³⁶ Nevertheless, these results suggest that the

³⁴ For several reasons, these *ratios of average pensions to average wages* tend to be lower than the *income replacement rate* for retiring individuals, which for example was 52% in Latvia. Part of the difference is due to under-reporting of wages for the purpose of social insurance (cf. Chapter II).

³⁵ A concentration of old single women at the bottom of the income distribution is also commonly found in OECD countries (Yamada and Casey, 2002).

³⁶ The relative income position of pensioners compared with large families would certainly have appeared less favourable if a so-called equivalence scale had been used to give less weight to children, as is common in OECD countries. However, the per capita method can be considered as more

existing pension systems are reasonably successful in maintaining the incomes of the old generation in relative, if not always in absolute, terms.

The lowest pensions

As a rule, pensions require at least 15 contribution years in Estonia and Lithuania and 10 years in Latvia. Lithuania has no guaranteed minimum pension other than a basic part of the pensions that are paid to old persons with such contribution records (Table 3.4). Old Lithuanians with less than 15 years of contributions are therefore likely to need means-tested social assistance benefits unless they can rely on families or have other incomes (*Cf.* Chapter V). But Estonia and Latvia administer special benefits to old persons with no contribution records, called, respectively, "national pension" and "state social security benefit".³⁷ Relatively few old persons depend on these last-resort benefits at the moment – around 7 000 in Estonia, less than 1 000 in Latvia – but the numbers may increase in the future as a result of the employment reductions recorded after 1990. For pensioners with contribution records, Latvia applies a variable minimum pension depending on how many years a person has contributed, and Lithuania's basic pension also varies with the length of service.

These minimum or basic pensions are lower than the above-mentioned "poverty lines" in Estonia and Lithuania, and the same is true in Latvia except for persons with relatively long contribution records. Nevertheless, apart from some cases in Lithuania, even the lowest pensions are generally higher than the income limits that apply to means-tested social assistance for single persons.

In any case, most pensions exceed the minimum amounts. In effect, these apply mainly when applicants have less than the minimum number of contribution years (in Estonia and Latvia), and when they have *both* very low reported wages and few contribution years above the limit (Table 3.5). Given the high employment rates that prevailed in the Soviet period, this means that relatively few of the current middle-aged contributors are likely to receive only minimum pensions when they retire. Indeed, this would be the case even if the minimum pensions were raised up to the poverty line (second panel of the

appropriate in the Baltic States in view of the higher food shares in their consumption.

³⁷

Estonia's national pensions and Latvia's state social security benefits are financed from general revenues. In Latvia, where 20 percentage points of the contributions finance "insurance-based" pensions, a further 6.93 percentage points finance "solidarity pensions" including minimum pensions.

table). The potential scale of social hardship resulting from low minimum pensions is therefore moderate in the short and medium terms.

In this respect, however, the situation is set to change for the worse in the long term, reflecting the recent lower employment levels combined with the widespread non-reporting and under-reporting of incomes (*cf.* Chapter II). At the moment, these factors are primarily an obstacle to the financing of current pensions, but in the future they will also – unless they are remedied – have problematic implications for the pension rights of an increasing proportion of the old population.

Extending working life

After strong reductions in labour force participation and employment rates for middle-aged and older groups in the 1990s, these rates have stabilised at levels that are similar to or slightly higher than in most EU countries. (See Table 1.14 above for an international comparison, and Table 3.6 for the development of employment/population ratios since 1989 in Estonia.) In the Baltic States as in OECD countries, the fact that most men leave the labour force before age 60 and most women already around age 55 is a major policy concern. This represents a burden on pension insurance, making it more difficult than necessary to finance adequate benefits after retirement. It is also likely that many individuals would prefer to work longer if possible, assuming that this could enhance their life-time incomes. Data for the past few years indicate a modest recovery in employment rates for older women in Estonia and Lithuania (Table 1.12). But no similar positive trend has been recorded in Latvia, nor does it seem to affect men in any of these countries.

This section first considers the policies to raise statutory pension ages, after which it looks at different forms of early retirement and how various reforms can affect the financial incentives to work longer.

Statutory pension ages are being increased...

As indicated already, a series of gradual pension-age increases were decided in the 1990s. Starting from the previous levels of 60 for men and 55 for women, or even lower for some "privileged" groups, they had by 2002 reached, for men, 63 in Estonia, 61.5 in Latvia and 62 in Lithuania, and for women 58.5 in Estonia, 59 in Latvia and 58 in Lithuania (Table 3.7).

For men, all pension-age increases legislated until now will be fully phased-in by 2003. But the process takes longer for women, who will be expected to retire at the same age as men from 2008 in Latvia (62) and from 2016 in Estonia (63). Lithuania has only decided to increase the pension age for women to 60 by 2006, compared with 62.5 for men.

Even after these reforms, the normal pension ages in the three countries will thus be lower than the 65 that prevails as a main rule for men in most OECD countries, and often for women as well. However, taking account of the shorter life expectancy of old people in the Baltic States, neither current nor legislated future retirement ages appear substantially out of line with OECD averages: the implied differences in years spent in retirement are small or negative (Table 3.8).

... but early retirement needs to be controlled

In many OECD and transition countries, the average *effective* retirement age – as measured, for example, by the age at which the labour force participation rate falls below 50% – is several years lower than the statutory pension age. This also holds in the Baltic States, although the difference does not appear as great as it is in some EU countries. The pension systems provide three main avenues to retirement before the statutory pension age, summarised in Table 3.9.

First, provisions inherited from the Soviet Union – at least temporarily retained – permit workers in certain occupations deemed onerous or hazardous to retire earlier than others. Second, and more significantly, the new pension laws allow persons with complete contribution records to retire up to three years early in Estonia and two years early in Latvia (until July 2005). Only Lithuania of the three countries offers no such widely accessible exemption from the rule. Third, all three countries permit the payment of pensions on grounds of incapacity to work, as assessed by commissions that are separate from the social insurance authority. While this is intended to ensure that only medical and not social factors are taken into account, persons facing job-related problems are among the most likely to apply for such pensions.³⁸ As mentioned, the proportions of disability pensioners in the three countries range from 13% to

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Pensions for incapacity to work (disability pensions) thus serve as a form of "early retirement" pensions when they are awarded relatively few years before the usual retirement age. But the term "early retirement" may be considered as less appropriate with respect to individuals who receive disability pensions for much or all of their adult lives.

21%; but in Estonia, over one-third of all recent decisions to award pensions were motivated by partial or complete "incapacity to work".

Clearly, all three forms of early retirement can play a role in making industrial restructuring more acceptable, and they have delayed the full effects of rising statutory retirement ages.³⁹ OECD experience confirms that a downward flexibility in pension ages is often needed for social and labour market reasons. However, such flexibility is most likely to serve the intended objectives if it is applied with discretion: the statutory pension age should be the norm.

The role of financial incentives

Detailed rules about pension age and early retirement become less important when there are strong links between individual contributions and benefits. Several of the recently adopted or proposed pension reforms have sought to strengthen this link, and so create more incentive to work longer.

Radical reforms with such purpose involve a switch from the traditional defined-benefit model to defined contributions. This requires either a funded pension programme (see the following section), a notional defined contribution (NDC) scheme, or a combination of the two, as in Latvia.⁴⁰ With pensions depending on accumulated contributions and life expectancy on retirement, decisions about the retirement age can in principle be left to individuals: if they choose to retire early they must carry the cost; if they work additional years they can benefit fully from the resulting enhancement of lifetime earnings. There may still be reason to stipulate a minimum pension age, *e.g.* to prevent that savings are consumed so early that other public benefits become necessary in old age. Latvia permits NDC benefits to be drawn from age 60 for men and 57 for women, while 55 is the limit (for tax reasons) for third-tier pension saving in the three countries.

³⁹ In Latvia, a study found a correlation of 0.51 between the local unemployment rate and the incidence of early pensioning (see MW, 2001, p. 28). In Lithuania, an 18% rise in disability retirements between 1998 and 2000 has been attributed not only to rising unemployment but also to an awareness that the raising of the pension age was to be accelerated after 2000 (MoSSL, 2001, p. 88).

⁴⁰ NDC is pay-as-you-go financed. But from the perspective of individual workers, it is identical to a funded pension scheme with the government acting as a bank, applying a rate of interest that matches the growth of the wage sum.

Following the less radical reforms adopted by Estonia and Lithuania, their first-tier pensions also include substantial elements that are proportional to previous contribution payments, adjusted for the trend in average wages (Table 3.10). However, in contrast to the Latvian system, these pension formulas include no automatic link to life expectancy on retirement. As a result, it can still be advantageous to draw pensions as early as possible. Estonia's first-tier pensions are reduced by 4.8% for each year of early retirement – a smaller reduction than an "actuarial" principle would justify. (To be neutral with respect to the chosen retirement age, pensions should probably – depending on the expected number of years in retirement – be reduced by 7 to 10% for every year of early retirement, and be increased by at least the same percentage for every year of deferred retirement.) Latvia applies a special 20% reduction of all pensions, including minimum pensions, for those who retire early – but only till they reach the normal retirement age.

Estonia and Lithuania have introduced provisions to make it attractive to *defer* retirement beyond the normal pension age (as, again, the Latvian NDC system does automatically). Pensions are enhanced by 10.8% per year of deferred retirement in Estonia and by 8% per year in Lithuania.

Working pensioners

Given the combination of low pensions and some incentives to draw them early, it is not surprising that many pensioners are working. Contrary to the situation in many OECD countries, employers generally cannot oblige workers to retire at the retirement age, and many probably continue working in their previous jobs for some time after being pensioned. In 2000, the labour force participation rate for men aged 65-69 was 23% in Estonia and 17% in Latvia, while the rates for women were much lower. In Lithuania, around 15% of all old-age pensioners and 20% of disability pensioners have recently been reported to have some work income, while in Estonia this concerns over 30% of the pensioners in all categories.

In Lithuania, pensions are reduced when recipients have work income. (Persons earning more than 1.5 times the minimum wage receive only basic pensions. With lower earnings, the supplementary pension is reduced for disability pensioners and, for old-age pensioners, if the earnings exceed the minimum wage.) In Estonia and Latvia, *early* pensions cannot be supplemented

by any work-related income.⁴¹ Evidently, such rules can be applied only to the extent that the earnings are reported to the social insurance authority.

Questions concerning funded pensions

Plans for introducing funded pension programmes, including a "second tier" within the compulsory pension insurance as well as a "third tier" of voluntary saving, have been under preparation in the three Baltic countries since the mid-1990s. Each country passed legislation in 1998 to regulate the third tier, and Latvia and Estonia have also begun to implement compulsory second tiers, starting, respectively, in mid-2001 and early 2002. But Lithuania's Parliament decided in mid-2002 to postpone this reform, and the government has subsequently proposed to introduce the second tier as an option within the compulsory insurance, which would be applicable from 2004.

A central feature – distinguishing both the second and the third pension tier from the first – is that contributions are not only recorded on individual accounts (as in the NDC model), but allocated to funds that are managed independently of the state, with some choice of investment options. When a person retires, the accumulated capital is converted into a pension entitlement for the remainder of his or her life.

For several reasons, the introduction of a compulsory second tier is bound to raise more controversial policy questions than a voluntary third tier. First, the second tier, as planned or proposed in the Baltic States, is likely to involve more money than the third tier in the foreseeable future. Second, its compulsory nature requires the government to issue more detailed regulations, *e.g.* to determine which workers must contribute and how much they are to contribute, and such decisions will probably need to be reconsidered from time to time. Third, even with independent fund administration, the fact that second-tier saving is compulsory could involve a risk that the government might be seen, in a political if not in a legal sense, as partly responsible for the pension outcomes (Casey, 1998). Against this background, it is hardly surprising that the three countries chose to introduce the voluntary third tier first. It is also notable that Members of the Lithuanian Parliament, in mid-2002, rather than endorsing a previous proposal for mandatory second-tier pension saving, requested a renewed inquiry into the possibility of making funded pension saving more attractive on a voluntary basis (*cf.* Morkūnienė, 2002). Lithuania's

⁴¹ Latvia also introduced a cap on pensions for working persons in 2000 as a short-term measure to reduce spending, but this was declared unconstitutional in 2002. It reportedly affected 4% of the pensioners (see MW, 2001, p. 28).

government has subsequently put forward a new proposal, this time with funding as an option within the compulsory pension insurance. In Estonia and Latvia, too, participation in the second tier is voluntary for most workers in a transition period, being compulsory for those currently aged under about 30 in Latvia, and only for those aged under 20 in Estonia (Table 3.11).

It is too early to assess how successful the reforms adopted until now have been. Some indications of their popularity are provided by the numbers of participants in the third tier, and also in the second tier insofar as it is voluntary. In Estonia, preliminary information for the autumn 2002 indicates that over 20% of the workers for whom the second tier was voluntary had opted for it, while 8% participated in the third tier – up from 4% at the beginning of 2002. For Latvia, estimates in early 2002 indicated a second-tier take-up of around 6% in the group that could choose this as an option (age 30 to 49).⁴² Only some 2% of the Latvian workforce was engaged in third-tier saving, of which over two-thirds were employees in four large firms. No third-tier pension plans had begun to operate in Lithuania.

While, thus, the launching of the third tier has at least initially been unsuccessful in Lithuania – partly for tax reasons (see below) – the take-up rates are encouraging in Estonia, and perhaps also in Latvia (for which the cited figures refer to an earlier point in time). In none of the countries is the take-up rate as high as the 50% that was envisaged, for example, in some early Latvian projections; but this is hardly surprising for such new programmes, especially in the present market situation. In Latvia, in particular, the first-tier NDC scheme has recently paid higher returns than the second tier (8.4% compared to 5 to 6% in 2001).⁴³

The remainder of this section will consider, in turn, the broader economic implications of funding including the transition cost, the possible impact on capital markets, administrative costs and the development of voluntary pension saving.

⁴² This proportion (6%) is about the same as was recorded by mid-2002 in Germany, where a similar voluntary scheme had also begun to operate in 2001.

⁴³ NDC returns correspond to the nominal growth of the wage sum. The figures for 1998 to 2000 were 12%, 11.7% and 6.9%. For Latvia's second tier, the range of placement options is limited to bonds and bank deposits during the first 18 months after its introduction in mid-2001.

Complex financial consequences in the transition period...

Introducing a funded programme implies that contribution revenues are put aside for *future* pensions, so they can no longer be used to finance *current* expenditure. Latvia initially reallocates 2 percentage points of the mandatory contributions from pay-as-you-go (PAYG) to funding, rising to 10 by 2010, while Estonia reallocates 4 percentage points. In Lithuania, the government first proposed to switch 5 percentage points to funding, but its most recent proposal envisages a voluntary transfer of initially 2.5 percentage points, to be increased to 5.5 by 2007.

Estonia also charges an additional 2% employee contribution from those enrolled in the second tier – thus raising the total rate of social insurance contributions to 36.5% for them, compared with 34.5% for other workers. This increases the likelihood that the new system will eventually provide higher pensions than the previous one. By implication, it appears that Estonia – in contrast to Latvia – has aimed to keep the PAYG pensions it must finance in the transition period at a somewhat lower level compared with the expected future pensions in the new system.

Latvia's second-tier reform was not accompanied by any new contribution charges. The total contribution rate will even be reduced in 2003, down to 33%. Any difference between the old and new systems in terms of pension levels will therefore depend on how the respective rates of return develop in the funds compared with NDC. Recent market developments suggest, as mentioned, that the NDC scheme can be rather attractive as a "placement" option when there is a choice.⁴⁴

In both countries that adopted the second tier, much of the required pension spending will remain unfunded during a long transition period (lasting until all citizens with entitlements under previous rules are dead). To the extent that the governments do not want to cover this spending via borrowing, they will need to keep contribution rates or taxes higher than would otherwise be the case.

The loss of contribution revenues in the first tier due to the switch to the second tier (the "transition cost") can be estimated at about 2% of GDP per year by 2010 in Latvia, and nearly 1% in Estonia (Table 3.12). The latter figure

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While this positive evaluation of NDC as a "placement" option appears to hold in the short run, the long-term perspectives may be less favourable, considering that the employed population will probably begin to shrink at some point in time.

would also have been approximately applicable to the Lithuanian government's first proposal. By 2020, the accumulated "transition cost" may be over 20% of GDP in Latvia and 10% in the other two countries, before eventually reaching a peak at nearly 25% of GDP in each country.

To cover these deficits, several possible sources of finance have been suggested including World Bank loans, existing or expected social-insurance fund surpluses and privatisation proceeds (Table 3.13). Some increase in the government's *explicit* borrowing can probably be regarded as unproblematic, given that the switch to funding will simultaneously reduce the *implicit* pension debt that characterises the PAYG system. But the other mentioned sources of financing could be used for other purposes if they were not devoted to pensions. A further possibility that has been mentioned is to rely on the greater "dynamic efficiency" that hopefully will result from better compliance and other incentive effects. However, it has proved difficult to quantify the possible importance of these and other means of finance. The resulting vagueness of the financial plans has raised questions about the sustainability of the proposed changes, particularly in Lithuania, where concerns about transition costs were a principal factor leading Parliament to defer the first proposal for second-tier pension reform.

...and in the long term

As discussed in Chapter I, population ageing in the Baltic States is set to proceed largely in parallel with other European countries in the long run, although the impact will be less dramatic until after 2010. Projections suggest that, in the second half of the 21st century, pensions at current levels relative to wages will require much higher contribution rates than at present.⁴⁵ Switching to funded pensions will not itself reduce the required contribution rates. (This would only be the case if returns turn out to be relatively high, which is possible but cannot be taken for granted.) But it reduces the government's possibilities to influence the income distribution. Assuming that a strong rise in contribution rates will eventually be necessary for demographic reasons, it may indeed be

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Projections made for Estonia's Ministry of Finance indicated that, by 2075, pension contributions would have to rise from 20 to 35% of payroll to finance pensions with the current income-replacement rate of 40%. Similar projections for Latvia suggest a contribution rate rising eventually towards 40% if the income-replacement ratio were held constant. But this should not happen with the NDC formula, which has been designed to adjust pensions automatically – and to incite individuals to avoid this effect by working longer.

desirable to avoid the additional concentration of economic power in the hands of government that would result if all contribution revenues were to be managed on a PAYG basis. Nevertheless, governments may have legitimate reasons to be concerned about the income distribution.

Returns on the funds will probably be lower than expected during some periods and for some individuals, depending on what investment options they choose, when they earn their highest wages, when they retire and other factors. This will have unpredictable implications for income distribution and, potentially, for spending on minimum pensions and other social benefits. For those investing in the stock market, in particular, the value of a portfolio can vary greatly from one year to the next.

Projections made in connection with the second-tier reform proposals assumed annual returns at a rate of 6% in Estonia (until 2035), 5 to 6% in Latvia and 4 to 5% in Lithuania. In Estonia, these returns were assumed to be 1.5 percentage points higher than real GDP growth, but it was recognised that a reduction of them by only one percentage point would yield 20 to 30% lower pensions after 40 years of saving (*Cf.* below concerning the impact of administrative fees). In any case, the projected returns are only averages.

Alternative strategies in capital markets

It has often been argued that pension saving can play a positive role for the development of capital markets (*cf.* Groza, 2001; MoSSL, 2000, p. 67). It has been expected not only to enhance saving in general, but to foster a move towards more durable forms of saving suitable for long-term investments, whether in business or in the public sector, *e.g.* for infrastructure.

But the necessary regulation and supervision of fund management must aim, above all, to protect the assets of individuals and to ensure transparency and accountability. An administrative framework for this is being gradually put in place. General rules to restrict certain types of placement can play a role, but the main focus needs to be placed on qualitative requirements, *e.g.* concerning liquidity and accounting standards. Requirements for approval of securities for investment have been largely aligned with EU and international standards, but their monitoring and enforcement will require sustained efforts.⁴⁶

⁴⁶

To be "investment grade", a company must be officially listed, have a market capitalisation of at least EUR 15 million with at least 25% of listed shares publicly traded (or less if sufficient liquidity is guaranteed, according to an

Given the links with the EU, Estonia and Latvia do not formally restrict investments abroad, while Lithuania appears under pressure to drop an existing 30% cap on foreign investments under the third tier.⁴⁷ Domestic investment options are limited, with a stock market capitalisation worth only some EUR 4 billion in the three countries together (14% of GDP, see Table 3.14). About two-thirds of this is considered as investment grade. Some 60% of the companies are listed in Estonia and four companies alone account for 85% of the capital (two telecommunications companies, an energy company and a bank). Bond markets represent a further EUR 1bn, but it is unclear how much of this is investment grade.

The pension funds' investments until now have been cautious. Placements in domestic banks and government bonds have played a prominent role, even apart from Latvia's second-tier funds, which cannot invest in the stock market until 2003. Judging from discussions held with officials as part of this review, the authorities expect this pattern to continue to prevail for some time (*cf.* MoSSL, 2001, p. 97). The general public's trust in stock markets has evidently suffered as a result of the experience of privatisation and subsequent strong share-price fluctuations, the Russian crisis in the autumn 1998, and the recent international stock market decline.

However, the governments in the three Baltic States, as in many OECD countries, have declared intentions to limit their borrowing, a policy that can put upward pressure on bond prices and reduce yields. Domestic banks may also have limited room for deposits, depending on what investment opportunities they have. It will therefore be important for pension funds to have access to foreign capital markets, which offer a much wider range of options and more competition. But with similar demographic trends and interdependent macro-economic conditions in most countries, investments abroad may not render the pension saving much less vulnerable to long-term risks.

Administrative charges

Ultimately, the costs and benefits of fund management can only be assessed ex-post. But in the meantime, most governments have found it appropriate to monitor administrative charges. High fees may sometimes be

EU directive), and make financial statements in line with the International Accounting Standards (IAS).

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Investment rules for Lithuania's third pension tier are decided at the administrative level (the Securities Commission).

justified, but they are often a sign of insufficient competition – a problem with potentially severe effects on the quality of the fund management as well.

Small countries face a particular risk of insufficient competition, unless their capital markets are very open and transparent. In early 2002, only six private providers of pension-fund management were active in Estonia and four in Latvia. Potential fund managers often set a minimum size of assets they would want to manage, not least if they are operating from abroad. However, the total pension capital in the Baltic States will be modest by international standards even by 2020, when most workers will contribute to the second tier (assuming that it will be implemented). Part of the pension funds will probably always be left as bonds or deposits under state administration, so the capital to be actively managed will be yet smaller (Table 3.15).

Estonia applies limits to all main types of charges in the second and third tiers (*i.e.* charges placed on contributions, asset administration and withdrawals). The other two countries only limit some charges (Table 3.16). Instead, Latvia intervenes directly to reduce costs in the system, centralising key administrative functions in the second tier to the social insurance authority.⁴⁸ This central administration includes the recording of contributions, information about individual accounts and communications with asset managers.

To illustrate the importance of administrative charges in general, it can be estimated that an annual 1% charge on assets will reduce total value of the savings by about 10% over 20 years, and by 20 to 25% over a full working life of 40 years (Table 3.17). Actual charges will not be lower than in this example. It is remarkable, against this background, that the projections presented by the respective Ministries in the Baltic States have generally referred to *gross* rates of return, taking no account of administrative charges.

A further substantial cost can arise on retirement, depending on what arrangements are in place to *annuitise* the withdrawn capital into a pension. Markets for annuitisation hardly exist in the Baltic States, and elsewhere they are often criticised as costly – even in countries with well-established private pension systems such as the United Kingdom and the United States. [With individual purchase of annuities, administrative fees may well take around 1% of the assets. In addition, "asymmetric" access to information tends to lead annuity providers to exaggerate applicants' remaining life expectancy, which

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This administrative centralisation resembles the procedures in Sweden's mandatory funded pension scheme. But the Latvian authority permits individuals to choose fund managers, rather than offering any direct choice of funds.

reduces their pensions by up to 10% (Murhti *et al.*, 2000).] In consequence, there would seem to be good reason to centralise the annuitisation in the Baltic States, especially for the compulsory second tier. In the Latvian context, the procedures used on retirement in the NDC system will essentially be sufficient, perhaps with some adjustments (*e.g.* concerning the calculation of life expectancy for men and women).⁴⁹

The development of voluntary pensions

Contrary to the mandatory programmes, a voluntary third tier will not be used if it is not attractive. It competes with more flexible forms of saving such as bank accounts, life insurance policies and the purchase of various assets. None of these alternatives require the owner to wait until age 55 before consuming the savings, as the third pension pillar does. From a policy perspective, pension saving can be preferable to other forms of saving because, due to the age limit, it reduces the need for public income transfers to old people in the future.

But any financial incentive to save in pension funds – tax advantage or subsidy – will have a budgetary cost. This can be especially controversial if it is assumed that many of the potential beneficiaries are relatively well off. Nevertheless, if the third pension tier is to play any significant role in the future, its tax treatment must probably be at least as advantageous as that afforded to life insurance policies, as is the case in Estonia and Latvia (Table 3.18). But in Lithuania, the lack of success in introducing the third tier until now appears to result, at least partly, from the very favourable tax rules the country applies to life insurance products. It appears justified to remove this different treatment of the two forms of saving.

As indicated already, Latvia's third pension tier is promoted by certain employers, as is common in many OECD countries (often on the basis of collective agreements).⁵⁰ This can increase the chances that it will cover not

⁴⁹ Latvia's NDC system uses a "unisex" formula for annuitisation, while private companies may likely take account of the gender difference in life expectancy. However, giving individuals a choice between these options could distort the pension financing because it would encourage women to choose the state and men to choose private annuitisation agents.

⁵⁰ Contrary to the two other countries, Latvia permits "closed" pension funds serving only the employees of specific enterprises. Such funds covered about half of all third-tier participants at the beginning of 2002. This can reduce administrative and marketing costs. During the OECD's visits to pension

only high-income earners. But with strong links to individual employers, it will be important to ensure that the detailed provisions do not discourage labour mobility between enterprises.⁵¹ In some contrast to the Latvian situation, Estonia's regulations were not designed to encourage employer involvement in pension plans, and the country allows tax deductions only for employee contributions.

Concluding remarks

The Baltic pension systems are reasonably effective in preventing poverty in the current old generation, although average pensions are modest relative to average earnings. Lithuania has no guaranteed minimum pension, while the lowest pensions fall short of conventional poverty limits in all three countries. But most old people now receive more than the minimum because pensions take account of years of work recorded in the Soviet period, when almost all working-age citizens were employed.

The resulting pension spending relative to GDP is not particularly high by OECD standards, though it is somewhat higher in Latvia than in the other two countries. Nevertheless, pension contributions now represent a heavy burden for those who work and declare their incomes, due to lower employment than in the Soviet period combined with widespread non-reporting of incomes. Moreover, there is a risk that an increasing proportion of future pensioner generations will have only minimal pension entitlements. Incentives to contribute have improved as a result of reforms that strengthened the link between contributions and benefits. Further measures to promote better contribution discipline should have high priority. But some of the difficulties faced in collecting contributions have more fundamental economic reasons, especially in Latvia and Lithuania, where many farmers earn too low incomes to pay more than a symbolic amount.

Retirement ages have risen, and this trend is set to continue. Further increases in statutory pension ages have been legislated (mainly for women) and

funds, concerns were expressed that a rapid spread of closed funds – which could also take in employees in firms that the original sponsor merged with – might distort competition and reduce the scope to offer profitable pension plans to other groups.

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In Latvia, it generally appears possible for persons who change jobs to move the capital to another pension plan, or to leave the capital while not paying any more contributions. But the latter option is likely to cause some administrative charges.

other reforms give financial incentives to work longer. However, as Chapter I showed, the Baltic labour markets in general are not very favourable to elderly workers. The scope for further policy action to push up effective retirement ages will therefore be limited in the short term.⁵²

The growth of markets for funded pensions offers undeniable systemic advantages in the long term, including a diversification of risk and less concentration of economic power in the hands of government. But within the compulsory pension system, a move from PAYG to funded pensions has complex financial implications in a transition period, which probably require higher contribution rates than otherwise would be needed. To avoid this, some additional borrowing may however be acceptable, considering that a switch to funding reduces the implicit pension debt of the PAYG system.

To the extent that a funded second pension tier is introduced, the governments also need to address difficult problems regarding the administration of pension funds. Given the small size of the Baltic markets and other difficulties, the solution chosen by Latvia with a partly centralised administration appears as a good practical solution, provided, however, that it can be combined with a sufficiently competitive market for the crucial function of managing individual funds. These developments will need to be carefully monitored.

By and large, the arguments that can be raised for and against introducing a mandatory second pillar are the same in most countries. But this Chapter identifies some factors of special relevance to pension reform in the Baltic context.

First, although population ageing is a reality in the long term, it is occurring with some time lag – perhaps about 10 years – compared with most OECD countries. This gives Baltic policy makers somewhat more time to develop their financial infrastructure and to try out the administrative organisation.

Second, the burdens of taxes and social insurance contributions are already among the heaviest in the world, while informal work and under-

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This does not mean that the process must be as slow as it was in the USA, where the raising of the pension age from 65 to 67 is spread over 22 years and only started 17 years after it was initially announced. Nor need it be as slow as the raising of the female retirement age from 60 to 65 in the UK, which was legislated in 1995, started in 2000, and will not be completed until 2020.

reporting of incomes are more widespread than in most OECD countries. Any additional per cent of employer or employee contributions required to finance "transition costs" will have some negative effects in the short term, notably by complicating the efforts to promote better contribution discipline and to encourage working in the formal rather than in the informal economy.

Third, the small size of the Baltic countries can pose additional difficulties for the fund management. The range of domestic investment objectives is limited and there is a risk that the markets for fund management are not sufficiently competitive. These problems can undoubtedly be overcome in the long run, as international markets become more and more integrated, but they will exist in the near future.

None of these problems can be said to exclude that a second-tier pension reform might be advantageous. But they strengthen the case for moving slowly towards a funded system, with or without compulsory elements, while continuing the present efforts to develop capital-market supervision and control and to standardise financial reporting. A small second tier, based for some time on a relatively low proportion of the pension contributions, could then be justified as a stimulus to the development of relevant capital-market instruments and to enhance the population's awareness about such issues.

Table 3.1. Old-age income replacement

Average old-age pensions as per cent of
average and minimum wages

	1995	1996	1997	1998	1999	2000	2001
Estonia							
Av. pension/Av. gross wage	28	32	31	30	35	31	29
Av. pension/Av. net wage	35	41	40	39	45	41	37
Av. pension/Minimum wage after tax	na	na	na	na	na	118	110
Latvia							
Av. pension/Av. gross wage	34	38	35	39	41	39	37
Av. pension/Av. net wage	41	48	48	53	56	53	51
Av. newly granted pension/Av. gross wage	39	37	38	40	39	37	32
Av. pension/Minimum wage after tax	135	133	148	163	155	154	129
Lithuania							
Av. pension/Av. gross wage	31	31	31	31	31	32	32
Av. pension/Av. net wage	41	41	42	42	43	45	45
Av. pension/Minimum wage after tax	na	92	81	87	90	93	94

Table 3.2. Average pensions and poverty in 2001

Monthly amounts

	Estonia	Latvia	Lithuania
Poverty line (50% of average household income per capita)	1 145 EEK	36.5 LVL	205 LTL
Old-age pensions	1 583 EEK	58 LVL	318 LTL
Proportion of old-age pensions that were lower than the poverty line	NA	5%	10%
Old-age pensioners receiving means-tested social assistance	2%	1% (1999)	1% (1999)
Disability pensions	1 057 EEK	54 LVL	280 LTL

Source: Statistical agencies, NORBALT.

Table 3.3. Incidence of low incomes in 1999

Old-age pensioners compared with families with many children

Per cent of households in the category found in the two lowest quintiles (Q1 and Q2) by per capita income

		Q 1	Q 2	Q 1 or 2
Estonia	Single pensioner	8	33	41
	Pensioner couple	5	24	29
	Two parents, 3+ children	53	19	73
Latvia	Single pensioner	1	22	23
	Pensioner couple	4	18	21
	Two parents, 3+ children	54	18	72
Lithuania	Single pensioner	7	23	30
	Pensioner couple	6	17	23
	Two parents, 3+ children	60	17	78

Source: NORBALT.

Table 3.4. Comparison of the lowest pensions with various poverty limits

Monthly amounts in the first quarter 2002

	Estonia	Latvia	Lithuania
Minimum pension for old persons	800 EEK (national pension; \$46 – or \$129 by PPP)	30 LVL (state social security benefit;\$48; \$122 by PPP)	None
Minimum pension for persons with minimum contribution records (EE and LT 15 years LV 10 years)	800 EEK	33 LVL with 10 to 20 contribution years (\$53; \$134 by PPP) 39 LVL with 20 to 30 contribution years 45 LVL with 30+ contribution years	69 LTL with 15 contribution years (\$17; \$45 by PPP) up to 138 LTL with 30+ contribution years
Income limit for subsistence benefit	500 EEK after paying for housing	21 LVL after housing costs of up to 7 LVL	135 LTL after paying for heating and water
Poverty line (50% of average household income per capita)*	1 162 EEK	36.5 LVL	211 LTL
Minimum wage after tax	1 629 EEK	45 LVL	338 LTL

*For Latvia: 2001.

PPP= purchasing power parity.

Source: see Table 3.2.

Table 3.5. Conditions when a minimum old-age pension is applicable

Duration of employment at the indicated wage levels

A. Under current rules

Wage level	Estonia	Latvia (from 2002)	Lithuania
Minimum wage	< 15 years	Any duration	15 to 21 years
0.5 average wage	< 15 years	Any duration	15 to 20 years
0.75 average wage	< 15 years	< 25 years	15 to 17 years
Average wage	< 15 years	< 16 years	Any pension will exceed the minimum

B. Assuming that the minimum pension were increased to the "poverty line" (50% of average household income per capita)

Wage level	Estonia	Latvia (from 2002)	Lithuania
Minimum wage	< 25 years	< 20 years	15 to 33 years
0.5 average wage	< 25 years	< 20 years	15 to 30 years
0.75 average wage	< 25 years	< 20 years	15 to 26 years
Average wage	< 24 years	< 17 years	15 to 23 years

Note: These calculations were based on the poverty line of 2000 and assume a flat age-earnings profile.

Table 3.6. Employment/population ratios for older people in Estonia

Gender, age	1989	1992	1995	1998	2001
Men					
50-54	93	89	80	79	70
55-59	85	75	71	69	67
60-64	63	49	36	45	42
Women					
50-54	90	82	77	80	75
55-59	54	46	42	52	50
60-64	46	28	22	23	30

Source: Statistics Estonia.

Table 3.7. The statutory pension age

	Estonia		Latvia		Lithuania	
	Men	Women	Men	Women	Men	Women
Soviet system	60	55	60	55	60	55
First reform*	63 by 2001	63 by 2016	62 by 2003	62 by 2008	62½ by 2009	60 by 2009
Second reform (2000)					62½ by 2003	60 by 2006
Current (2002)	63	58 ½	61½	59	62	58

* Estonia, 1993; Latvia, 1995 but starting 2000 for men and 1996 for women; Lithuania, 1994.

Table 3.8. Life expectancy for older people

	At age 60		At age 65	
	Men	Women	Men	Women
Estonia	75	81	78	82
Latvia	76	81	77	83
Lithuania	77	83	na	na
Unweighted average for 9 OECD countries*	79	84	81	85
Difference Baltic average - OECD	-3.5	-2.3	-3.6	-2.5

*Canada, Finland, Germany, Italy, Japan, the Netherlands, Sweden, the UK and the USA.

Sources: OECD Health Statistics and national statistical offices.

Table 3.9. Provisions for early retirement and disability pensions

	Estonia	Latvia	Lithuania
"Privileged" pension	Arduous work, police and military etc: 5-10 years early		
Early age pension	Legislated 1998: 3 years early. Pension reduced by 4.8% <i>p.a.</i> (14.4% for 3 years).	Legislated 1995, applicable until mid-2005: 2 years before age 62 for men; 2 years before the increasing pension age for women.	None
Disability pension	1998 law replaced designated disabilities with incapacity to work. Min 40% incapacity required.	1995 legislation replaced designated disabilities with incapacity to work. Three levels of incapacity.	1994 legislation replaced designated disabilities with incapacity to work. Three levels of incapacity.

Table 3.10. Terms of first-tier old-age pensions

	Estonia	Latvia	Lithuania
<i>Soviet system</i>	30% of national average wage (if 30 years' service), plus 0.4% of national average wage per year of service		
<i>New system:</i>			
Benefit formula	Three parts: 1) Flat rate; 2) Related to years of service before 1999; 3) Related to earnings relative to national average from 1999	NDC benefits depending on contributions and life expectancy on retirement	Two parts: 1) Basic pension related to years of service; 2) Supplement based on earnings relative to national average
Minimum qualifying period	15 years	10 years	15 years

Table 3.11. Terms of funded second tier-pension systems

	Estonia	Latvia	Lithuania (proposed)
Eligibility	Mandatory for those now under 20; voluntary if aged 20-49; closed to people 50 and over	Mandatory for those now under 30; voluntary if aged 30-49; closed to people 50 and over	Voluntary
Contributions	4 percentage points of mandatory employer contributions transferred to 2 nd tier. The workers concerned also pay an additional 2% of wages.	2 percentage points of mandatory contributions transferred until 2006, rising to 10 percentage points by 2010.	2.5 percentage points of mandatory employer contribution to be transferred

Table 3.12. Transition cost of introducing second-tier pension schemes

Per cent of GDP

	2005	2010	2015	2020	Peak level
<i>Cost in a single year</i>					
Estonia	0.6	0.75	0.83	0.83	0.84 (2016-2018)
Latvia	0.5	2	2	2	2 (2009-2030)
Lithuania (first proposal)	1	0.8	0.5	0.6	1 (2005-2010)
<i>Accumulated costs by the mentioned year</i>					
Estonia	2	5	7	10	25 (2054-2057)
Latvia	1	7	15	22	25 (2026-2035)
Lithuania (first proposal)	2	6	9	12	23 (2035-2040)
<i>Single-year cost as percentage point reduction in social tax rate</i>					
Estonia	2	3	3½	4	
Latvia	1	2	5	10	
Lithuania (first proposal)	5	4½	2¾	4	

Source: Calculations based on data supplied by national authorities. For Lithuania, they refer to the government's previous proposal, with 5 percentage points of contributions transferred to the second tier.

Table 3.13. Proposed ways of meeting transition costs

	Estonia	Latvia	Lithuania
Surplus in social security funds			Using expected surpluses in the short and medium term
Proceeds from privatisation	Possibly		✓
Transfers from "stabilisation fund"			✓
Borrowing by social insurance funds of which,	From abroad	From exchequer, with interest	✓
from World Bank	✓		✓
Improved contribution collection and higher employment		✓	✓

Table 3.14. Stock market capitalisation as percentage of GDP

Estonia	Latvia	Lithuania	UK		USA		Netherlands		Italy		Germany	
2001	2001	2001	1995	2001	1995	2001	1995	2001	1995	2001	1995	2001
29	10	10	90	160	55	155	70	160	23	55	17	53

Source: Baltic Exchanges and PwC.

Table 3.15. Expected size of funds under private management

Million/US\$

Estonia		Latvia		Lithuania (with mandatory 2 nd tier according to the first proposal)	
2010	2020	2010	2020	2010	2020
170	830	240	2330	260	1500

Note: Excluding state-managed "default funds". The figures assume 30% private management in 2010 and 50% in 2020, 6% returns, 1% management fees and no pensions paid out.

Source: Calculations based on submissions by national authorities.

Table 3.16. Legislated restrictions on administrative charges

Estonia		Latvia		Lithuania
2 nd tier	3 rd tier	2 nd tier	3 rd tier	3 rd tier
Max 2% of assets p.a. (if equities) or max 1.5% p.a. (if bonds). Plus max 3.5% on contributions and max 1% of accumulated sum on withdrawal	All fees must be expressed as % of assets and not exceed 3% p.a.	The social insurance agency can charge up to 2.5% on contributions. Otherwise no limit	No limit	Exit fee= the larger of interest in last 3 years and 5% of sum withdrawn. Otherwise no limit

Table 3.17. Impact of administrative charges on accumulated savings over 20 years and over 40 years

Expected accumulated savings as per cent of the theoretical amount with no charges, calculated at alternative interest rates and charge rates

	4% interest		5% interest		6% interest		7% interest	
	20 years	40 years	20 years	40 years	20 years	40 years	20 years	40 years
<i>Charge rates:</i>								
1% of assets per year	90	79	90	78	89	77	89	76
1.5% of assets per year	85	70	85	69	84	68	84	67
1 percentage point deducted from contributions*	83	83	83	83	83	83	83	83

* Assumes a 6% contribution rate.

Table 3.18. Taxation of third-tier pension saving and life insurance

		Estonia		Latvia		Lithuania	
		<i>Pension</i>	<i>Life insurance</i>	<i>Pension</i>	<i>Life insurance</i>	<i>Pension</i>	<i>Life insurance</i>
Contributions	<i>By employees</i>	Deductible up to 15% of wage	Deductible up to 15% of wage	Deductible up to 10% of wage (in total)		Deductible up to 25% of wage	Deductible up to 400% of wage
	<i>By employers</i>	Not deductible (so not paid)	Not deductible (so not paid)			Ditto (in addition to employees' deductions)	Ditto (in addition to employees' deductions)
Withdrawals	<i>Employee</i>	Taxed at 10%, not the normal 26%	Taxed at 10%, not the normal 26%	Taxed at normal 25%	Taxed at normal 25%	Taxed at normal 33%	Tax free

CHAPTER IV

LONG-TERM CARE AND SERVICES FOR THE ELDERLY

More and more old people will be likely to require long-term care in the future. This appears inevitable not only for demographic reasons, but also in view of an expected increase in labour-force participation in the age groups that currently provide most of the care informally.

Public policies should ensure that old people can obtain the care they need. But to make this goal realistic, it will be essential to promote new forms of service provision and financing that do not rely too much on public spending. A continued respect of individual and family responsibilities should be encouraged as far as possible. Moreover, both the elderly and their families will have more money to pay for services in the future, so it will be important to develop the regulatory framework for service provision on market conditions. The governments should dismantle or restructure a number of large public institutions that do not appear cost-efficient. When public bodies provide care, they should as a rule charge fees that cover the costs, while allowing for reductions when recipients cannot pay.

Introduction

As noted above in Chapter I, the proportions of elderly persons in the Baltic populations are set to increase in the long term, but this ageing will progress less rapidly than in many OECD countries until about 2010. Chapter III identified two key policy objectives that will become more important as a result of population ageing: extending the productive working life, and ensuring adequate incomes for those who no longer work. This chapter focuses on the additional challenge of assisting and taking care of a growing number of frail elderly persons.

Many of these responsibilities are now carried by the family. The social care services provided by public authorities have been rather limited until now, and they draw heavily on infrastructures inherited from the Soviet period, including some large institutions that are relatively expensive to run. But the financing and management of social care has been mostly decentralised, a change that has resulted in more varied services and greater efficiency, while policies have become more different from one municipality to another. As population ageing proceeds, it will be important to set clear criteria for public intervention.

A growing part of the need for social care can and should be met by procurement in competitive markets. However, the Baltic markets for such services are still at an early stage of development. The national governments have a role to play, not only in setting quality standards and in promoting fair and efficient competition, but also in ensuring that potential scale economies can be reaped. Some further reforms appear justified in each country with respect to administrative structures and modes of financing, for example, to reduce conflicts of interest and to promote consistency and equal access to services.

In the long run, the combination of demographic change and higher labour force activity among the middle-aged will probably reduce the numbers of persons who can provide care informally within families. To fill this "carer gap", the procurement of care services in the market will need to expand further. It will then be important to seek new means of financing, including varying degrees of co-payment by beneficiaries and relatives as well as by public bodies.

Existing provisions: an overview

As in several EU countries – but in contrast to, for example, the Nordic countries and the United Kingdom – civil or family law in the Baltic States is considered to oblige a spouse and any adult child to provide care and assistance to the elderly partners and parents who need it. Only when such close relatives do not exist or are physically and financially unable to assist can public bodies be expected to step in.

This public responsibility has been entrusted to municipalities, which enjoy a high degree of independence on such matters. Every municipality must provide some social services, but it can usually decide about their extent and nature and how much of its budget it allocates to them. In other words, social care is not a “right” to which elderly individuals can raise legal claims, except in the most general terms – unlike cash social assistance, which municipalities must pay under specific conditions (*cf.* Chapter V).⁵³

Long-term care services probably cover somewhat lower proportions of the older populations in the Baltic States than in most EU countries, although such comparisons are fraught with definitional problems. Available data from around 2000 suggest that about 3% of the population aged 65 and over in Estonia and 1 to 2% in Latvia and Lithuania lived in special dwellings with care services, including nursing homes, social care homes and service flats (“semi-sheltered” accommodation). This is comparable to the situation in Spain and Portugal in the mid-1990s, but less than the about 5% reported for Germany and Ireland and much less than the around 10% found in the UK, the Netherlands and the Nordic countries (summarising across the three first columns in Table 4.1). But in addition, considerable efforts have been made since the early 1990s to develop flexible alternatives such as day care and care in elderly people’s own homes, which in 2000 were recorded to benefit at least about as many clients as did the full-time residential institutions for social care (Table 4.2, bottom line).

As elsewhere, the scarcity of places in social care homes often leads to some over-use of more expensive forms of treatment in the *health-care* system, including not only nursing homes but other hospital beds as well. (Some nursing homes are dedicated to long-term health care, but the figures given for Estonia and Lithuania in Table 4.1 include all hospital beds used for long-term care of elderly persons.)

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By contrast, municipalities must provide social care to children and people with mental handicaps.

The larger institutions for *social care* of elderly persons, inherited from the Soviet period, are also – or were until recently – relatively well equipped with both medical and non-medical staff. This can be advantageous for those who stay there, but with the usually low turnover of residents in such institutions the system has proved rigid and cost-ineffective. Moreover, many elderly persons probably find it unattractive or impossible to benefit from institutional care when it requires them to move permanently, perhaps relatively far from their previous homes. Over the past ten years, the largest institutions have been partly replaced by smaller ones, which typically are less well equipped with specialised staff – and less expensive to run – but nevertheless relatively attractive because they are located closer to most residents’ homes and relatives. As a result, the average size of institutions for social care has declined substantially (Table 4.2). Indeed, the typical new institution for social care in Estonia and Lithuania has about 25 places. However, the replacement of large institutions by smaller ones must usually proceed gradually in view of the required investments.⁵⁴

For the future, a key policy challenge is to enhance flexibility so that more elderly persons can be offered social and medical care when and where they need it, given a limited number of qualified staff. Social workers and nurses are increasingly called upon to visit old people’s own homes. However, while the municipal departments in charge of social care can already meet a significant part of this demand, the health-care system’s capacity to provide services in old people’s own homes is less advanced. One constraint – often mentioned during the OECD’s site visits – consists of the relatively high petrol prices and other travel costs compared with social and medical workers’ wages. But the particularly slow development of home-nursing services may also be attributable to the separate financing and administration of health care, which does not favour close co-operation with the municipal bodies that manage social care. (Some steps towards more flexible solutions have recently been taken in Tallinn – see below.)

Day-care centres for the elderly have been established in all three countries, but they are still relatively few in number, especially in rural areas. In Latvia, more flexibility has been achieved by a possibility for municipalities to pay *care benefits* to elderly persons so that these can pay neighbours or family members to look after them at home. In 2000, this concerned about 80% as many old persons in Latvia as did the municipally-procured services, with a

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In some localities, existing large institutions are also seen as important employers, making it politically difficult to close them.

high incidence both in the capital and in some rural areas (where travel costs can be particularly high).

So-called *social housing* with *service flats* is relatively important for old people in Estonia, while its role is more limited elsewhere. The objective is primarily to make municipally-owned flats available to old persons without resources, but this may also be accompanied by service provision. As seen in Table 4.1, this concerns one-fourth as many old people as the residents of social care homes in Estonia.

The next section considers the rules of access, standards, pricing and other conditions, followed by a section devoted to financing and administrative organisation.

Defining rules of access and setting quality standards

Within municipalities, decisions to provide social care – in institutions or at home – are made by special commissions in larger cities, otherwise by social workers. Although national regulations do not specify detailed entitlement rules, the general principle of family responsibility means that municipalities will primarily consider applicants' own resources and family situation, as well as their needs and wishes. In consequence, recipients of care are typically widowed, without adult children and not so well off, while other factors have more variable importance.

The place of residence can be crucial for an individual's chances of receiving care, depending on each municipality's priorities and resources. In Estonia's 15 counties, the number of places in social care homes per 1000 persons aged 65 and over ranges from 9 to 30 (the average being 16), not counting the variation between municipalities in each county (Howe, 2001). During the OECD's visits to national and local authorities in the three countries, it was often suggested that some municipalities gave lower priority to old people than they did to children or people with disabilities. The *location* of specific institutions, especially large ones, also plays a role because they tend to be most attractive to nearby inhabitants, even if they aim to serve large regions.

Recent efforts to standardise

Since about 2000, all three countries have taken steps to set national guidelines and promote consistent practices, while still recognising the leading

role of municipalities and the need to involve a variety of private-sector care providers.

The national government retains somewhat more decision powers in Lithuania than in the other two countries, mainly because it still finances the larger social-care institutions. The Ministry of Social Security and Labour has adopted a set of requirements for institutional care, covering admission criteria and some quality standards. These are binding for state-financed institutions and – from 2003 – for municipal institutions, while they are only recommended for NGOs. The corresponding requirements for non-institutional care will probably be adopted before the end of 2002. Regarding quality standards and their monitoring, the Ministry intends to propose more elaborate legal regulations to be applied from 2004.

Similarly, Latvia adopted national guidelines and standards for care of the elderly in 2000. But these guidelines left considerable discretion to municipalities, while the standards will not be applicable until 2005. In Estonia, the Ministry of Social Affairs presented a “Social Services Development Paper” (2000) that underlined the need to reduce regional differences and to develop uniform eligibility criteria. It discussed the possibility of establishing a national agency that would allocate resources to care homes and set standards as a condition for receiving funds. At present, however, standards for care of older people exist only in the form of recommendations.⁵⁵

Widening the range of care providers

Since the fall of the Soviet Union, when the state ran all social care homes, most of these have been moved to lower levels of government or the private sector. Only in Lithuania does the national government still (via county administrations) control and finance several large care homes, accounting in 2000 for almost half of the total number of residents, while about 40% of the latter were in municipal care homes and 10 to 15% in homes run by NGOs. According to current plans, the Lithuanian government envisages a gradual shift of responsibilities from the county level to municipalities, combined with some incentives for municipalities to engage NGOs.

Latvia's larger care homes have generally been transferred to municipalities, while, in Riga, NGOs run care homes with over 40% of the places. Municipal institutions are also common in Estonia, where however the

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However, Estonia has adopted national standards for institutions for people with mental handicaps.

role of NGO-run care homes is less significant and the larger care homes are usually controlled by county governments.

Although the municipal administrations are expected to procure social care in the market, relatively few of the currently active providers are companies that operate on a for-profit basis. Some major cities, especially Tallinn, Tartu and Riga, have opened service provisions for competitive tender, and at least one district in Riga has contracted out its home-care services to a for-profit company. However, most private care providers are non-profit NGOs such as charities, churches and foundations. In addition to the already-mentioned NGO-run care homes in Latvia and Lithuania, NGOs organise day-care centres in all three countries, sometimes with foreign support (especially for capital costs) and some of them provide care at home, particularly in larger cities.

A potentially difficult question that needs to be addressed by municipal policy makers concerns the duration of sub-contracting contracts. Municipalities operate on annual budgets, and they may have reason to retain a flexibility to renegotiate contracts, *e.g.* to introduce new standards, or simply to put competitive pressure on incumbent contractors. However, potential providers might be discouraged by the uncertainty of contracts lasting for too short periods, especially in the case of residential care that requires investments.

Notwithstanding the positive role of NGOs, it may prove difficult in the long run to attract a sufficient supply of care services unless this market is also perceived as attractive by *for-profit* enterprises. The present scarcity of for-profit provisions probably reflects the low monetary incomes of many households as well as various institutional features. But the for-profit care market should grow in the future. The national governments have a role to play in monitoring these developments and in auditing the relevant public institutions, and they should intervene to forestall anti-competitive practices if necessary.

Financing and pricing

Municipalities must finance social care out of their incomes, which mainly consist of certain shares of the local tax revenues plus some general transfers from the state or between municipalities. The latter take account of the percentage of older people in each municipality, but they are not earmarked for social care. Within a municipal budget, a broad allocation is typically devoted to social welfare, so that the care of the elderly has to compete with measures for other groups such as children and the disabled.

The chief exception from the rule that municipalities finance social care consists of the above-mentioned state-funded care homes in Lithuania. Inevitably, the possibility for municipalities to shift costs to the state by placing old people in these institutions can distort municipal policy priorities and decisions in individual cases, and it reduces the potential size of the competitive market.

Residents of care homes must usually cover part of the costs. Latvia has retained a rule from the Soviet period that fixes the resident fee at 85% of individual pensions, while the other two countries permit municipalities and institutions to apply varying charges. Fees that correspond to the previous rule are probably still common in Estonia. In Lithuania, fees for "basic" services have been maximised at two basic pensions or 80% of the pensions, and most municipalities probably charge these maximum fees, plus additional amounts for optional services, where relevant. These fees seldom cover more than a fraction of the costs; but the currently high proportion that must be covered from public sources will probably decline as a result of a gradual move towards less expensive types of institution, led by NGOs and municipalities (see Table 4.3 concerning Lithuania).

By contrast, recipients of services in their own homes seldom pay for these. Lithuania has adopted a sliding price scale for non-essential services over and above the free "basic" services (whether at home or in institutions), stipulating co-payment rates that depend on individual incomes. But such additional services are seldom requested, suggesting that they are either not needed or better provided by family members.

When elderly people have adult children who do not provide care – *e.g.* because they live too far away – the municipality may ask them to contribute. In principle, this applies to both institutional and domiciliary care. But the incidence of such payments is low. Many municipalities probably do not make very strong efforts to enforce them – perhaps mainly because, until now, most old people have in any case been living near some family members who accepted their legal responsibility to provide assistance in-kind, if not in cash.

Municipalities often complement their social care provisions in institutions or at home with nursing provisions. They must then meet the cost, either by employing medical staff or by purchasing services from the health-care system – an obligation sometimes found unjust by municipalities, considering that the sickness insurance would have covered the cost if the same services were provided in regular health-care facilities. In Tallinn, the city's social service department has reached an agreement with the national sickness

insurance fund to the effect that, from 2003, the latter will take over the city's costs of providing nursing care at home.

The health-care system also provides long-term care in its own institutions, at least in Estonia and Lithuania (*cf.* the column "nursing homes" in Table 4.1 above). It is financed from the same sources as other health care for up to four months in Lithuania, and in Estonia for one month plus a second month at a reduced fee, but only for two weeks in Latvia.⁵⁶ After that, the patient or the municipality must cover the costs. Very often, elderly patients who have undergone acute hospital care are subsequently placed in nursing wards before moving to institutions for social care. If there are not enough places in long-term care institutions, these persons are liable to overstay in the hospitals – thus "blocking beds" that could be used for more acute cases. The Estonian authorities recently estimated that about 25% of the acute-care beds (including nursing wards) were occupied by persons who should be in long-term care, of whom a majority were elderly, while almost as many stayed in nursing hospitals devoted primarily to old people.⁵⁷ In all three countries, wards and hospitals for long-term care tend to be most used in the winter, often, apparently, because old people find it difficult to heat their homes adequately.

Concluding remarks

The policies considered in this chapter should primarily ensure that old people receive the care they need – but not expand the role of public provision or subsidies if this can be avoided. A key question for the future is therefore how the traditional family responsibility for the elderly can be upheld and supported under changing economic and demographic conditions.

Until now, the burden of informal care of elderly family members has probably rested to a disproportional extent on women aged about 55 to 64, while the persons most likely to need long-term care are aged 80 or more. The ratio between these two demographic groups is currently at least 3 in each Baltic country, but it is set to decline to 1.5 or less by 2050 (Table 4.4). The demographic change will be slow initially; but with rising effective retirement ages (notably for women), the numbers of persons who might be ready to provide informal care could well decline already in the short term.

⁵⁶ In Estonia, the second month is charged at a rate of 80 per cent of the minimum wage.

⁵⁷ Such nursing hospitals contain about 850 beds, adding about 25 per cent to hospital capacity.

As a rule, municipalities are most likely to step in and provide care when no family members are available. Given the modest incomes of most Baltic households, it is still not very common that old persons or their families purchase any care in the market. In this respect, the situation will probably change. With substantial upward trends in wages, labour force participation and pensions, private-sector demand for care can and should increase – unless the Baltic tradition of family responsibility is broken in the process. To reduce the risk of the latter outcome, governments might consider further what they could do to improve the functioning of the markets for private as well as public care provisions, including those that operate on a for-profit basis.

The governments should speed up the dismantling or restructuring of the cost-ineffective large institutions, which unnecessarily reduce the size of the competitive markets. More generally, their monitoring and auditing of public institutions involved in care provision should aim to ensure that the entry of new market participants is not unnecessarily prevented by market-distorting practices. Another key role of the national governments is to define and promote some generally acceptable quality standards. With numerous small municipalities, more co-operation and co-ordination between them may also be desirable in order to reap scale economies. At least in some instances, counties or regions might be a preferable level of procurement.

Elderly persons' housing conditions often seem to represent an obstacle to effective care. Many probably want to stay in their own homes, but the authorities could do more to promote alternative forms of housing such as semi-sheltered accommodation, as has recently been done in Estonia and in several OECD countries. In such programmes, the dwellings *per se* may not require subsidies, but they can be located and adapted to reduce the cost of providing care to those who need it.

Long-term care also interacts with hospital systems, in which the recent and on-going reforms have often aimed to centralise acute care into larger units. However, the potential benefits of such reforms may prove difficult to reap unless other institutions have sufficient capacity for non-acute medical and social care. At the same time, the disciplines of geriatrics and gerontology within hospitals need to be recognised as the basis for many individual decisions on how and where to provide long-term care.

In public-sector care, the fees for numerous services will need to be adapted as an increasing proportion of potential consumers of care will be able to pay for it – or have relatives who can pay. The principle should be to set fees that cover the costs, while awarding rebates to poor persons if necessary.

Finally, various policy options tried elsewhere to limit the reliance on public financing could be worth considering in the Baltic States as well. If the role of public-sector provisions becomes more substantial in the future, as in western Europe, it will be important to improve the chances that municipalities will actually be paid for their services. For example, municipalities could be given the right to collect unpaid fees at the point of inheritance, as has been done in France (see OECD, 1996 and 2000b). Another possibility may be to introduce a long-term care branch to the social insurance system, as in Germany and Japan (Arahira and Onishi, 1999; Schneider, 1999).

But in the Baltic States it is preferable, as mentioned, to continue to rely as far as possible on family care and other private-sector provisions. This raises further questions about the adequacy of future old generations' incomes and savings, *e.g.* for the voluntary third pension tier (see Chapter III). Sometimes, old persons who own houses could be offered "reverse mortgages" to unwind their housing wealth gradually, so as to finance care during their final years (Eschtruth and Tran, 2001). Such financial options may not appear relevant to many Baltic citizens in the short term, but they will be so more frequently in the future. Above all, public policies should aim to enhance the chances that old people will receive the care they need without public support.

Table 4.1. Coverage of the elderly population by social care and related provisions

Numbers per 1000 persons over the pension age in 2000

	Places in nursing homes	Places in social care homes	Service flats (semi-sheltered)	Recipients of social services in their own homes	Home nurses	Day-care places
Estonia	11	16	4	22	very low	some
Latvia	0	13	1	26	none	some
Lithuania	7	9	2	8	none	some
Norway	51	14	46	 43.....		some
Sweden	18	29	40	72	some	some
Denmark	53	11	32	some	some	5
Finland	21	32	20	17	9	1
Germany	13	11	32	9	some	some
Netherlands	26	64	23	20	6	6
Austria	25	21	10	10	some	10
Ireland	22	25	4	26	3	some
UK	18	31	50	80	60	50
Portugal	over 16.....		very low	some	some	some
Spain	28.....		very low	some	some	some

Source: Calculations from Howe, 2001, Pacolet et al, 2000, and national statistics.

Table 4.2. Structure of social service provisions for the elderly

	Estonia		Latvia		Lithuania	
	early 90s	2000	early 90s	2000	early 90s	2000
Number of social care homes	22	96	42	62	11	93
Number of residents	1492	3276	4657	4709	2224	4348
Average size of homes	68	34	111	76	202	47
Recipients of services in their own homes	0	4503	0	6818	0	4237
Ratio of In own home : In institutions	0	1.4:1	0	1.4:1	0	1:1

Note: "early 90s" = 1991 for Lithuania, 1993 for Estonia and 1994 for Latvia.

Source: MSA, MW, MoSSL (various years).

Table 4.3. Cost of institutional care in Lithuania

Owner	Total cost, LTL per month	Of which: covered by municipality or the state (state institutions)	Met by residents, e.g. from pensions, or otherwise
State (county)	1162	991	171 (15%)
Municipality	823	626	197 (24%)
NGO	480	163	317 (66%)

Note: Most care-home residents probably have less than the average pension of 312 LTL. The fee is often 80% of the pension. Data for 2000.

Source: Institute for Labour and Social Research.

Table 4.4. Demographic indicators of care needs and the potential supply of informal carers

	Estonia		Latvia		Lithuania	
	2000	2050	2000	2050	2000	2050
65+ as % of total population	15%	30%	15%	28%	14%	29%
80+ as % of the 65+ population	17%	27%	18%	29%	18%	33%
Ratio of Women aged 55-64 to Men and women aged 80+	3.3:1	1.5:1	3.0:1	1.4:1	3.5:1	1.3:1

Source: UN population projections.

CHAPTER V

MEANS-TESTED SOCIAL ASSISTANCE BENEFITS

If well administered, means-tested benefits of the *guaranteed minimum income* (GMI) type permit more precise targeting of the poor than is possible with alternative policy instruments. All three Baltic States have adopted such programmes, partly to replace “categorical” benefits (targeting groups of persons or kinds of expenditure). But these reforms need to be consolidated and the relevant rules applied more consistently, especially in Latvia and Lithuania.

Current income limits for benefits are modest compared with average wages and minimum wages. This situation can be regarded as broadly appropriate, not only in view of budgetary implications but because higher benefits could distort work incentives in low-wage groups. However, some modest increases of the basic benefit amounts in Estonia and Latvia might be justified, if this can be afforded. Further policy efforts will be required to develop the methods for assessing actual incomes, and, not least, for determining what further steps might be required in individual cases, *e.g.* to overcome obstacles to employment.

Introduction

Social assistance in the form of cash benefits as a last resort is a new phenomenon in the Baltic States. Practically all social benefits known in the Soviet period were "categorical" – i.e. reserved for certain groups or specific events – so there is hardly any tradition of means-testing as a criterion for benefits, and even less of the related principle of a "minimum income guarantee". But each Baltic country has since adopted legislation that enables municipalities to pay means-tested subsistence benefits to the poor, based on nationally specified income limits under which individuals can claim support. These limits are similar in the three countries: around 30\$ per month for a single person (\$80 to \$90 in purchasing power parity terms), not counting housing costs. But implementation has been uneven, especially in Latvia and Lithuania where the means-testing is sometimes combined with the use of other criteria for support.

This chapter considers the key policy issues, drawing on OECD experience as well as the limited results known from the Baltic States. It looks first at the level of the basic benefits and their adequacy, taking account of the economic and social situation in the Baltic States. Subsequent sections consider the case for municipal financing and municipal discretion on various matters, followed by a discussion of the incidence and targeting of benefit receipt.

Standardising the benefits

The most simple and general form of means-tested benefit is often thought of as a "minimum income guarantee", or even a "negative income tax", implying that the benefits might depend only on actual incomes compared with the specified minimum. However, judging from a recent study of social assistance benefits in ten OECD countries, the administration of subsistence benefits usually involves at least a partial assessment of more particular needs in applicant households (*The Battle against Exclusion*, OECD, 1998a-b and 1999). The statutory benefits may then be combined with additional amounts to cover the actual cost of certain items that are deemed necessary, often including not only housing and heating but also some occasional expenses, e.g. medical care or the purchase of furniture. Such individual treatment appears relatively common in countries where municipalities administer social assistance benefits, as in the Baltic States. The potential for co-ordination with social services was

mentioned as a principal advantage of entrusting this administrative role to municipalities (OECD, 1998a, p. 128).⁵⁸

Taking account of prices, wages and the budgetary situation...

But if the benefit administration relies too much on individual assessments made at local level, there is a risk that the outcomes will be perceived as unpredictable and unfair. Most national governments have standardised at least a basic benefit amount as a means to promote consistency and transparency.⁵⁹ It is typically intended to cover a range of regular living expenses other than housing, heating and energy, notably food, clothing, personal hygiene, transport, newspapers etc.

However, in OECD countries, the policy decisions that determine the level of the basic benefit have been influenced by conflicting objectives.⁶⁰ The actual cost of the consumption items it is supposed to cover is evidently one important consideration, but this must be weighed against budgetary objectives and concerns with the labour market impact. Much of the recent OECD debate on social assistance has focused on the risk that low work incentives might lead people into a "poverty trap" and long-term benefit dependence. To avoid this, some governments explicitly seek to maintain a desirable relationship between social assistance and average or minimum wages, or – more specifically – to

⁵⁸ On the other hand, the cited OECD study found that more centralised benefit administrations, as in Australia and the United Kingdom, were relatively effective in terms of co-ordination with social insurance and other public bodies.

⁵⁹ The relevant income limits were determined at national level in eight of the ten countries studied in *The Battle against Exclusion*. But in Canada this was done by provinces, and in Switzerland by cantons, within certain limits that applied nationally.

⁶⁰ Only a few countries, *e.g.* the Czech Republic, appear to have fixed their basic benefits primarily with a view to the price of a specific consumer basket. A standard benefit in Belgium was originally so determined, but has since been updated on other criteria. In Finland and the United Kingdom, increases in social assistance are linked to other social benefits that, in turn, are indexed to consumer prices. Elsewhere, social assistance may depend on average wages (Australia) or minimum wages (the Netherlands). Canada's provinces and Switzerland's cantons were found to make such decisions mainly on the basis of budgetary considerations (OECD, 1998a-b and 1999).

keep the benefits lower than the earnings in typical low-wage jobs that may be available to benefit recipients.⁶¹

... and the more difficult situation in the Baltic States

As indicated above in Chapter I, household incomes in the Baltic States are not only lower than in most OECD countries, they are also more unequally distributed. In 2000, the reported Gini coefficients in the three countries (around 0.35) were higher than in any EU country except the United Kingdom (Table 5.1; for international comparison see Table 1.1). In Estonia and Latvia, inequality has recently increased as measured by the ratio between top and bottom deciles in a distribution of households by income (Table 5.1, panel B).

An unequal income distribution means that a relatively high proportion of the population is likely to be "poor" by most definitions. However, while this may be so, it cannot be concluded that all this "poverty" can and should be a target for social assistance. As shown in Chapter I, the unequal incomes are partly a result of low employment, but there is also a prevalence of low incomes in significant parts of the *employed* population. For this reason, social assistance must probably be relatively low compared with average wages if negative effects on work incentives are to be avoided. In this situation, social assistance can be used, at best, to relieve extreme poverty: it is not an appropriate instrument to alter the overall income distribution.

Moreover, quite apart from the distribution, the modest *absolute* incomes earned by most Baltic households mean that the qualitative poverty conditions are incomparably different from those found in richer countries, as illustrated by much higher food shares in household consumption. In 2000 and 2001, the poorest quintile (*i.e.* the poorest 20%) of Latvian households and the three poorest deciles (the poorest 30%) of Lithuanian households spent over half of their total incomes on food alone (Table 5.2).⁶² By contrast, in the United Kingdom – where the Gini coefficient is slightly higher than in the Baltic States – the food shares in consumption were only 20 to 22% for each of the three

⁶¹ In Germany, federal law instructs States to set social assistance norms so that the total benefit for a family with three children is lower than the average net wages of certain low-wage groups (*Bundessozialhilfegesetz*; cf. *The Public Employment Service: Austria, Germany, Sweden*, OECD, 1996c).

⁶² The cited food shares refer to cash and in-kind consumption expenditure on food and non-alcoholic drinks.

poorest deciles. A discussion about the appropriate income limits for subsistence benefits in the Baltic States should therefore take more account of food costs than is the case in OECD countries. In fact, the basic benefits barely seem to cover even the food parts of the consumer baskets used to calculate certain unofficial or semi-official "subsistence minimum" incomes in the three countries (Tables 5.3 and 5.4).⁶³

In the Baltic States as elsewhere, the basic benefits (and income limits) are not linked to any particular consumer baskets. They have all been fixed on a discretionary basis, undoubtedly with budgetary constraints as a central concern. The same also holds for Latvia's so-called "crisis subsistence minimum", another official standard which (as seen below) determines the total of basic and housing benefits. None of these benefit limits in the Baltic States are indexed. In Latvia, where it has been constant in nominal terms since 1995, its real value has declined substantially (Table 5.5).

As Tables 5.3 and 5.4 also show, the basic benefits are lower than the relative "poverty lines" that may be drawn at 50% of the average household income per capita, and for small households they are also lower than the minimum wages. In effect, the basic benefit alone corresponds to around 60% of the respective "poverty lines" in Latvia and Lithuania and less than half of the "poverty" line in Estonia. With housing and heating benefits included, it can be estimated that the social assistance benefit for a single person in Latvia will typically represent 82% of the "poverty" level and somewhat less in Lithuania, but only a little more than 50% in Estonia.

Given the modest benefits compared with average and minimum wages, the question of their impact on work incentives – much discussed in OECD countries – may appear somewhat less crucial in the Baltic States. The only Baltic households for which the basic social assistance benefit would likely exceed even the minimum wage are those with over three members of whom only one is available for work. However, as discussed further below, municipalities often pay additional benefits; and some groups might prefer benefits over work incomes even if they are lower.

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The Lithuanian government uses an official "subsistence minimum" that was defined, in the early 1990s, to cover the mentioned consumer basket. But it has not been fully adjusted to price changes, *e.g.* it has been constant in nominal terms since 1998. In the other two countries, "subsistence minimum" incomes based on certain consumer baskets are used only for analytical purposes.

Housing and other special items

In Latvia, where almost 50% of the households do not own their homes, municipalities must pay an additional housing benefit if the per-capita income before paying rent, heating and utility costs is less than about 28 LVL (75% of the "crisis subsistence minimum"). No special benefits are payable for rent in the other two countries, perhaps mainly because at least 80% of the homes there are owner-occupied. But Lithuania's municipalities must compensate for heating and utility costs under certain conditions (Table 5.4). Estonian law foresees no special benefit for any form of housing cost – except, however, in the sense that expensive housing (or heating) can make a household eligible for the basic benefit, given that the 500 EEK income limit is counted net of housing costs. It has been estimated that this may explain about one-fourth of Estonia's expenditures on social assistance benefits.

In Lithuania, where the state pays general *child benefits* only up to the age of 3 and for the largest families, municipalities grant free *school meals* to the children of poor households. Here the income limit is somewhat higher than for the general subsistence benefit. Undoubtedly, access to free school meals can be particularly important in Lithuania's rural areas, where numerous families have very low monetary incomes.

The questions of municipal financing and discretion

As mentioned in Chapter IV, municipal budgets in the three countries depend predominantly on block grants that are not earmarked for particular programmes. However, only Latvia obliges municipalities to finance the mandatory subsistence benefits. This was previously the rule in Lithuania as well, but in 2002 the central government there began to reimburse municipalities for these expenses. In Estonia, the central government compensates municipalities in advance, using a grant formula that takes account of past expenditures for mandatory benefits. In all three countries, however, municipalities must finance any additional benefits they decide to pay.⁶⁴ In OECD countries, by comparison, municipal financing is most common but

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Before 2001, Estonia's central government also compensated municipalities for additional benefits, some of which have now been replaced by categorical state benefits (*e.g.* for disability).

more centralised systems are found in Australia, France and the United Kingdom.⁶⁵

Lithuania's decision to centralise the financing was driven by concern with local budgets, which sometimes appeared unable to support the cost of meeting national policy objectives.⁶⁶ In principle, the country's general system of fiscal redistribution could probably have solved the financial part of the problem; but the government appears to have found the regional variations too great in terms of actual implementation. These regional variations are probably also considerable in Latvia, although few statistics are available in either country. A recent study in Latvia found that social assistance spending per poor person in 8 out of 15 regions was less than half of the national average (Milanovic, 2000), with the highest benefits paid in Riga and other relatively rich municipalities.

Estonia's experience seems to confirm that state financing can favour a more equal implementation in the whole country. According to administrative data for the 15 counties in 2001 and the first half of 2002, the highest monthly subsistence benefits per recipient household (paid in Ida-Virumaa, followed by Tallinn) were only 1.3 to 1.5 times the lowest one. However, in response to policy concerns about the effectiveness of social assistance, Estonian authorities have recently discussed proposals that would involve more sharing of the financing responsibilities between the state and municipalities.

Additional benefits at municipal discretion

Municipalities in the three countries – as in most OECD countries – are free to pay higher benefits than the law requires. This appears most common in Latvia, where there is still a strong tendency in municipal administrations to pay benefits for specific purposes. Municipalities in Estonia and Latvia may pay separate grants towards education costs and school meals, and sometimes for other items such as clothing and medical expenses, notably pharmaceuticals. In all three countries, it appears relatively common that municipalities pay some

⁶⁵ OECD (1999, Vol. 2) pointed out that placing the burden on local budgets exposes municipalities to more risk if the local economy deteriorates, but it also gives them an incentive to promote economic efficiency.

⁶⁶ The financing reform in Lithuania was favoured by the national association of municipalities. But some local governments appear to have resisted it, resenting the loss of freedom for them to allocate these resources to other activities.

benefits to persons who do not pass the means-test, or, perhaps, introduce higher income limits than the law requires. Some municipalities, such as Riga, apply substantially higher income limits across the board, and pay correspondingly higher benefits.

In Lithuania, long-term unemployed persons who have exhausted their right to unemployment benefit have no legal right to claim social assistance benefits. They can receive such benefits only at the discretion of the respective municipality, which has to bear the cost if it decides to pay them.⁶⁷

Who should receive benefits?

Administrative statistics show that about 7% of the households in Estonia received subsistence benefits in the average month of 2000. But the NORBALT surveys in 1999, using questions phrased to measure the extent of more substantial benefit dependence, found that this concerned only about 2.5% of the households in Estonia and Latvia and 5% of those in Lithuania (Table 5.6, Panel A). In Lithuania but not in the other countries, benefit dependence appeared much more common in rural than in urban areas.

These overall figures appear modest if related to conventional measures of poverty. However, given the markedly low income limits that have been stipulated for the benefits – and the policy priorities these limits must be assumed to reflect – the benefit administration should undoubtedly aim to concentrate the limited available resources on a comparatively small group, consisting of households in the most extreme poverty. In such a perspective, it is relevant to consider how well the benefits are actually targeted, and how the targeting could be improved.

NORBALT indicated that large families (5 or more persons) and single parents were the groups most likely to receive support, especially in Lithuania. At least on a superficial inspection, this appears to correspond well to the observation in the same survey that most large families in each country and over 40% of the single parents belonged to the poorest household quintile (Table 5.6, Panel B). On the other hand, few retired persons were in this bottom quintile – and very few of them depended on social assistance. Nevertheless,

⁶⁷ Lithuania's government decided in early 2000 to grant social assistance benefits to registered unemployed persons who had exhausted their unemployment benefit rights. But it reversed this decision by the middle of the year, citing "an increasing number of unemployed individuals and [...] the financial situation of the country" (MoSSL, 2001, p. 105)

some pensioners receive occasional benefits. It emerged during the OECD missions that a few cities, including Riga, paid occasional support to numerous pensioners, often for medical costs and for heating in the winter.

Most benefit recipients – with or without children – are undoubtedly of working age. Benefit administrators must then assess their labour force status and work incomes. Long-term unemployed persons who have exhausted their unemployment benefit rights are eligible for social assistance in Estonia and Latvia, while in Lithuania, as mentioned, this depends on municipal discretion. In any case, when benefit claimants are able-bodied but not working, benefit administrators should always discuss possible measures to solve this problem with them. Any benefit paid to such persons should be conditional on their active co-operation, especially in terms of job search. However – just as Chapter II observed with respect to unemployment insurance – it is often difficult to enforce a job-search requirement in rural areas with few formal-sector job openings. In view of this difficulty, it will probably be justified in Lithuania to continue the present policy of letting municipalities decide about the eligibility of the long-term unemployed, at least for some further years, even though this can be said to contradict the principle of a minimum income guarantee.

At least in Latvia and Lithuania, the large size of the informal economy and the widespread under-reporting of work incomes (*cf.* Chapter II) raises serious questions about the possibilities for social workers to assess the actual situation of some households. *In-kind* incomes do not appear to be taken into account as a rule, although they are known to represent a high proportion of rural incomes. Regarding monetary incomes, Lithuania has yet to implement a proposal for universal income declaration, which the Ministry of Social Security and Labour now regards as a potential instrument for improving the assessment of social benefit needs. Such a system for income declaration is in place in Latvia, but the social assistance administrators there do not have access to the relevant records, although this has been recommended by the Ministry of Welfare. In any case, international experience does not suggest that official income declarations can solve more than, at best, a limited part of the problem of assessing actual benefit needs in countries with large informal sectors.

It is not surprising in the present situation that many working-age benefit claimants report no incomes – thus claiming full benefits – or declare very low incomes, permitting them to establish a right to complementary benefits. A household with one wage-earner earning the minimum wage will probably be eligible for benefits in Latvia and Lithuania if there are two additional household members, and in Estonia if there are three additional

household members. But it falls upon the front-line staff members, usually social workers, to assess the likely level of the actual incomes.

One apparent consequence of lacking information about individuals is the continued use of "categorical" benefit criteria, targeting groups rather than individuals. This is particularly common in Latvia, where municipal policies often aim expressly to favour such categories as the disabled, large families and single parents. Estonia, by contrast, has moved the responsibility for most categorical benefits from municipalities to the state. To promote means-testing as an overriding criterion for municipal social assistance, Latvia conducted an experiment in selected municipalities during part of 2000, when only those who could prove that their per capita incomes after paying for housing were less than 21 LVL per month could receive benefits (the GMI or "guaranteed minimum income" project). However, the GMI principle has yet to become fully established in Latvia. It has been resisted not only by Riga and some other relatively rich municipalities, which at the time of the OECD missions pursued more generous benefit programmes than the law required, but also by less wealthy rural communities.

A possible reason why some municipalities may want to exercise discretion in defining target groups – encountered by the OECD team during site visits – is the perception that some groups of benefit claimants are not sufficiently motivated to seek jobs. Evidently, legislators have foreseen that a lack of effort to seek work might lead to the decision to refuse benefits for the individuals concerned. But such decisions require, in principle, that the social workers make difficult judgements about individual behaviour. A possibility to use general rules that target groups rather than individuals can thus facilitate the administration; but there is a danger that this might violate the clients' right to individual treatment. Such general targeting should therefore be applied with care, especially when there is a risk that they are perceived as discriminatory by some groups.⁶⁸

To reduce the risk of unfair decisions being made, it may be appropriate to create more possibilities for clients to contest decisions. The governments could also consider establishing an independent office to which individuals could turn in order to obtain information about their rights in the area of social support.

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Some sociological studies have reported examples of actual or potential clients suspecting that the authorities might treat them unfairly, *e.g.* Dudwick *et al.* (1998).

Regardless of how benefit rights are defined, social workers also need to consider what can be done to obtain a long-term solution of the problems that lead individuals to claim benefits in the first place. With many able-bodied applicants, a key task is obviously to encourage job search and to propose training or other measures when this appears useful. Following the examples of some OECD countries – notably the United States and Germany – municipalities in the three Baltic countries can also oblige benefit recipients to perform certain types of work for the community. This may consist of socially useful work for a few hours per week, or more substantial "public works" of the type organised for recipients of unemployment benefits in some municipalities, especially in Latvia. International experience suggests that such works can be relatively expensive, and, furthermore, that they should always be combined with counselling and job-search assistance to ensure that able-bodied clients seek ordinary jobs.⁶⁹

Concluding remarks

This chapter finds that the social assistance benefits paid in the Baltic States are markedly low by any standards. For the future, it appears desirable to ensure that the basic amounts per person will at least cover the estimated food requirements when non-agricultural households are concerned. Some increases could thus be justified in Estonia and Latvia, where the basic benefits do not even seem to meet this target. In rural households, which receive benefits most often in Lithuania, some of the more pressing financial needs probably relate to non-food expenses that must be paid in cash, especially in families with children in school age. However, to achieve a fair treatment of such households, it appears especially important to improve the methods used to assess their actual incomes, including in-kind incomes.

Policy decisions about the benefit levels must take account of budgetary and labour market implications as much as of any estimates of benefit needs. It is necessary to take account of the relatively uneven income distribution in the Baltic States' employed populations and the role of the

⁶⁹

While job counselling is primarily the task of the Public Employment Service (PES), OECD experience suggests that the PES can seldom perform it effectively for social assistance clients, especially if they are not highly motivated to seek jobs. It may therefore be most appropriate for municipalities to organise this in their own offices. In Germany and the United States, the legal responsibilities of municipal social assistance departments have been defined to cover job-search assistance to their clients, and they often provide it separately from the PES.

informal economy. In order to reduce the risk of undesirable incentive effects under such conditions, it is appropriate to keep social assistance benefits at a modest level, while seeking to target them on the most needy households.

In practice, this means that the targeting should follow the GMI principle as far as possible. To do this effectively, social assistance administrations need to develop their procedures for assessing household incomes and assets. Co-operation with tax authorities can play a role here, but the potential value of official income declarations for the purpose of social assistance should not be exaggerated. To the extent that categorical benefit criteria are still used in the meantime, they must not be unduly discriminatory and there should always be some room for more individual treatment.

Last but not least, social work is emerging as a distinct profession, covering social services and benefit administration. The degree of specialisation is often low in small municipalities, where staff must be polyvalent, pointing to the need for professional supervision by bodies at national or county level. On the other hand, officials in big cities visited by the OECD team mentioned as a disadvantage for them that they had less close contacts with clients than was common in small municipalities. However, too close client contacts can also be a threat to objectivity, especially if the local administration is too small to develop the desirable checks and balances.

Social workers in all jurisdictions should seek to enhance co-ordination between the benefit administration and social services, making the best possible use of their professional skills. For the future, it will be an important task for national and county-level administrations to enhance coherence and to improve administrative reporting, so that decisions can be better monitored and analysed. The continued coexistence of different policy priorities from one municipality to another should be no disadvantage, provided that it is combined with a consistent professional approach that inspires decision makers to learn from experience.

Table 5.1. Income inequality

	1988	1996	1997	1998	1999	2000
<i>A. Gini index for household expenditure</i>						
(consumption expenditure per person equivalent)						
Estonia	0,23	na	0,34	0,35	0,35	0,36
Latvia	0,23	0,30	0,31	0,32	0,33	0,34
Lithuania	0,23	0,32	0,32	0,31	0,34	0,34
<i>B. Income ratio between top and bottom deciles*</i>						
Estonia	4,4	9,4	12,5	11,9	8,9	13,2
Latvia	4,2	na	9,9	8,9	10,4	na
Lithuania	4,1	8,3	8,5	8	8,1	7,9

Note. The "OECD" equivalence scale (1:0.7:0.5) was generally applied, but the Lithuanian Gini coefficients reflect per capita expenditure. With the per capita method, the Gini coefficients would have been about 1 point higher in Estonia and 2 points higher in Latvia.

* For Lithuania: expenditure ratio.

Sources: Calculations based on household budget survey data from national statistical agencies; Milanovic (1998).

Table 5.2. Food shares in poor and rich households' consumption

Per cent food in total consumption expenditure of households in the quintile or decile

Quintile (LV)	1		2		3		4		5		Average
Decile (LT and UK)	1	2	3	4	5	6	7	8	9	10	
Latvia	59		48		44		39		25		38
Lithuania	65	56	52	49	49	46	44	42	36	28	41
United Kingdom	20	22	20	18	17	17	16	16	15	13	16

Source: Household budget surveys. Latvia, 2000; Lithuania, 1st quarter 2002 (Economic and Social Development in Lithuania B111); UK, ONS, Family Spending 2000-01.

Table 5.3. Alternative poverty limits

	Estonia	Latvia	Lithuania
"Poverty line": 50% of average household income per capita 2001	1 145 EEK	35 LVL	208 LTL
"Subsistence minimum" and related limits 2001 or early 2002	1 359 EEK (minimum consumer basket)	87 LVL (minimum consumer basket)	203 LTL (minimum consumer basket)
	675 EEK (food basket)	38 LVL ("crisis subsistence minimum")	102 LTL (food basket)
			125 LTL (official subsistence minimum, fixed by the government)
Minimum wage (after tax) 2002	1 629 EEK	45 LVL	338 LTL

Source: see Table 3.2.

Table 5.4. Conditions for subsistence benefit and some other benefits

	Estonia	Latvia	Lithuania
Income limit per capita for <i>basic benefit</i> (net of housing costs) 2001 and 2002	500 EEK (\$29; \$81 by PPP) for the first person, 400 EEK for each subsequent person	21 LVL (\$33; \$85 by PPP)	135 LTL (\$34; \$89 by PPP)= "state supported income" = subsistence minimum + 10 LTL (Benefit covers 90% or < 121.5 LTL)
Other nationally defined benefits that municipalities must pay	None, but housing costs of up to 500 EEK can be covered by basic benefit (because deducted from income)	Housing benefit to ensure that total income before housing costs >75% of "crisis subsistence minimum" (28 LVL)	a) Heating allowance if costs > 25% of difference between income and 125 LTL (subs.min.). b) Hot-water allowance if costs > 5% of the same difference. c) Cold-water allowance if costs > 5% of the same difference. d) Free school meals if < 1.5 "state supported income" (<202.5 LTL)
Non-eligible persons	Able-bodied unemployed not registered as job-seekers	Able-bodied unemployed not registered as job-seekers	Able-bodied unemployed not registered as job-seekers. The long-term unemployed - unless financed by municipality
Discretionary benefits	Education costs, food and clothing	Municipalities can set higher basic benefit. Free school meals; assistance with food purchase; help with education costs and medical expenses.	Municipalities can set higher basic benefit
Child benefit	Universal	Universal	Only for first three years unless 3 or more children (means-tested for third child)
Unemployment benefit	Insurance benefit, max 12 months	Insurance benefit, max 9 months and declining	Max 6 months but extensions for older people

PPP= purchasing power parity.

Table 5.5. Income limits for subsistence benefits: trends in nominal and real value

Amounts per month for one person

Real value (1995=100) as deflated by the consumer price index

	1995	1996	1997	1998	1999	2000	2001
<i>Estonia</i>							
Nominal amount, EEK	320	384	468	500	500	500	500
Real value (1995=100)	100	97	107	105	102	98	93
<i>Latvia</i> ("Crisis Subsistence Minimum")							
Nominal amount, LVL	38	38	38	38	38	38	38
Real value (1995=100)	100	85	78	75	73	71	70
<i>Lithuania</i> ("State Supported Income")							
Nominal amount	81	101	121	133	135	135	135
Real value (1995=100)	100	100	110	115	116	115	113

Table 5.6. Low incomes and social assistance receipt in 1999

A. Incidence of social assistance dependence

Per cent of households

	All	Rural	Urban	Retired	Single parent	Couple, 1 or 2 children	Couple, 3+ children
Latvia	2.5	2	3	1	9	3	22
Lithuania	2.7	3.5	2.5	1	10	5	8
	4.6	7	3	1	18	4	31

B. Incidence of low incomes

Per cent of households in the lowest income quintile

	All	Rural	Urban	Retired	Single parent	Couple, 1 or 2 children	Couple, 3+ children
Estonia	20	27	17	5	42	29	53
Latvia	20	33	14	4	42	31	54
Lithuania	20	29	14	7	42	24	60

Note: Several figures are not statistically significant. These survey data are probably most likely to cover households that depend substantially on social assistance for some period. Administrative data indicate that on average 7% of the Estonian households received subsistence benefits in 2000.

Source: NORBALT II.

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ANNEX 1

UNEMPLOYMENT RISK FACTORS⁷⁰

This annex investigates the relationship between unemployment and individual characteristics. Multivariate regressions, using unemployment by labour force survey (LFS) definitions as dependent variable, estimate the impact of various risk factors. "Risk" is defined as the expected unemployment rate in a given category of persons when other variables are controlled. The importance of each background variable then comes out as a relative difference in unemployment risk compared with a reference group, here expressed in nominal terms – assuming, for simplicity, an initial value of 14% in all cases (close to the actual unemployment rate in the three countries in 2000).

In the Baltic States as elsewhere, the population groups most likely to be unemployed include:

- New entrants to the labour market.
- Persons with little education.
- Non-married men.
- Ethnic minorities.

Other background factors have more varying impact from country to country. For example, *education* can interact in different ways with experience and other age-related factors. As it appears, most forms of education offer the most general protection against unemployment in Estonia – and, conversely, it is in Estonia that the negative effects of poor education are most difficult to

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This and the following two Annexes report results of research conducted for the OECD by Mihails Hazans, Eurofaculty and University of Latvia, Raul Eamets, Eurofaculty and University of Tartu, and John Earle, Upjohn Institute for Employment Research, Kalamazoo. More detailed results, available on request in the OECD Secretariat (DELSA/NEIM), will be published on www.oecd.org.

remedy with work experience. Education is also important in Latvia and Lithuania, but there its role is more linked with individual chances of being hired in sectors with stable employment.

Educational effects increased from 1999 to 2000 in all three countries (Figure A1.1, Table A1.1). Higher education generally reduced the expected unemployment rate by as much as 8 to 10 percentage points compared with basic education.⁷¹ In Estonia, non-vocational secondary education also reduced the unemployment risk by 7 to 8 points in 2000, and vocational education reduced it almost as much. But in Latvia and Lithuania, the effect of general (comprehensive) secondary education was insignificant in 1999 before rising to 5 points in 2000, while the impact of vocational education was not statistically significant in any of the two years.

When education dummies were split by age (e.g. above and below age 30; not shown), it emerged that secondary education in Latvia and Lithuania (and vocational education in Latvia) generally has most value for youth, while for older persons – who usually finished their education a decade or more ago – it hardly reduces the unemployment risk at all. Higher education, by contrast, appears to be at least as valuable for older persons as it is for youth.

Age and experience. The average unemployment risk is high for youth (if they are in the labour force), but in Latvia and Estonia the higher risk mainly concerns new entrants to the labour market. If new entrants are excluded from the analysis, prime-age workers bear the highest risk in those two countries.⁷² The same also holds in Lithuania if one looks separately at men and women or urban and rural areas (not shown here). On average, however, youth face a relatively high unemployment risk in Lithuania (Table A1.1, Model 2). Possibly, this largely reflects a tendency for young men in Lithuania's rural areas to leave school relatively early and to enter employment of short duration, e.g. in agriculture.

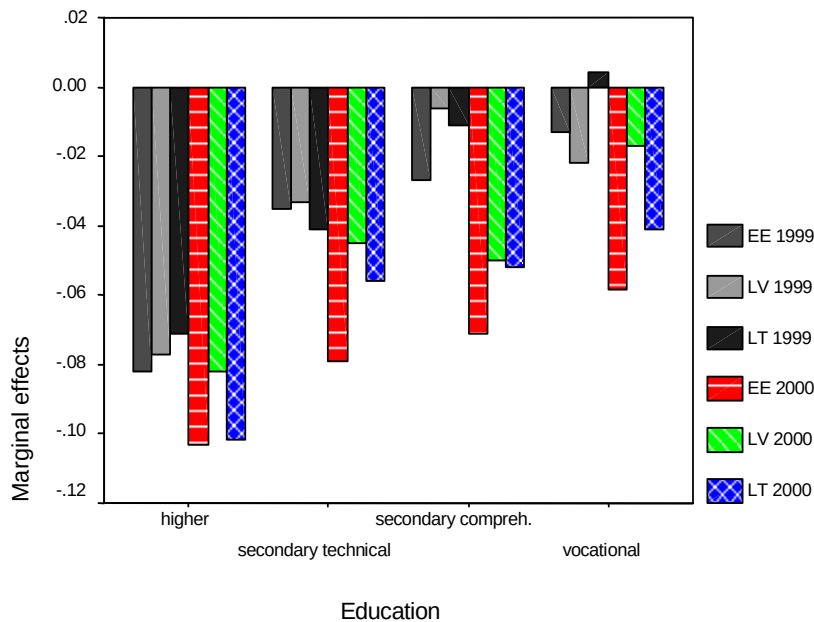
Once a person has become employed, the unemployment risk is much smaller already after one year of work. With accumulating experience, the risk reduction then continues at a slower pace for several years (Figure A1.2). In Latvia, the expected unemployment rate is under 2% after 15 years of experience, and the reduction continues more or less throughout the working

⁷¹ Most educational effects increase if experience is not controlled for (Models 2 and 3) and they are greatest in Model 3, which does not control for occupation.

⁷² The model that excludes new entrants is not shown in the tables. But the result is similar if one controls for effects of occupation and being a new entrant, but not for experience (Model 2 of Table A1.1).

life. But in Estonia, only the first 5 to 10 years seem to reduce the unemployment risk, so that it never falls below 10% for persons aged up to 45 and never below 7% for the 45 to 54-year group. (Here the data do not permit comparison with Lithuania.)

Figure A1.1. **Marginal effects of educational attainment on unemployment risk**



Note. Reference category: basic or less than basic education. See Table A1.1, Model 3.

Gender. The Baltic States are somewhat unusual in that unemployment tends to be higher for men than for women. This also holds when other factors are controlled (Figure A1.3). The unemployment risk in 2000 was 7 percentage points lower for Estonian women than for men with otherwise identical characteristics, and 2 percentage points lower for comparable Latvian and Lithuanian women.

In the previous year, 1999, these “gender gaps” had been wider in Lithuania but weaker in Estonia and insignificant in Latvia. Both cyclical factors and country-specific industrial developments appear to play a role. The results in 1999 were more influenced by the Russian economic crisis, which in Estonia and Latvia led to job losses mainly in food and textile industry – with many female workers – while Lithuania suffered more job cuts in wood, machinery and electrical equipment industry.

Ethnicity. In 2000, belonging to an ethnic minority increased the unemployment risk by 6 percentage points in Lithuania and by 4 to 5 percentage

points in Latvia. In Estonia, the ethnic effect was significant in the crisis year of 1999, but not in 2000.⁷³ Where such an effect exists, it is less significant for young new-entrants to the labour market, perhaps because their language skills are better. The ethnic effects in Latvia and Estonia become stronger if occupation is controlled for, suggesting occupational segregation (*i.e.* minority members are both more likely to work in occupations with high unemployment risk *and* more likely than other workers in those occupations to lose their jobs).

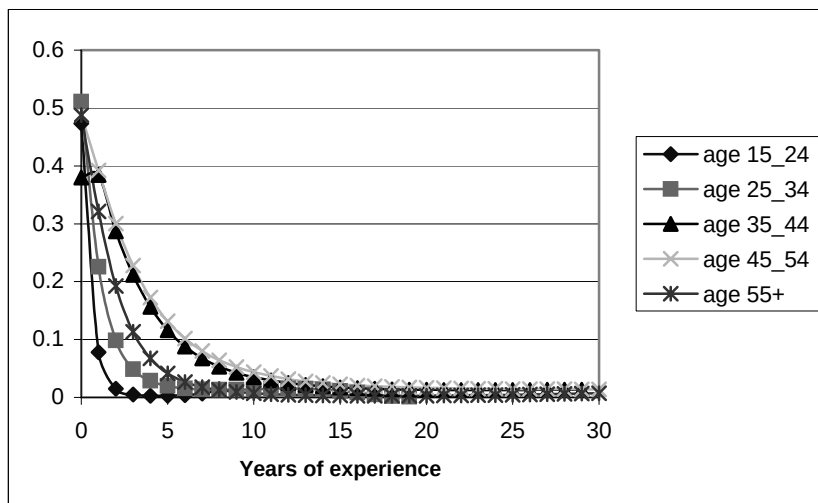
Place of residence. The relatively low unemployment rates recorded in the capitals and some other cities are often a result of special factors, *e.g.* higher education attainment and different types of work.⁷⁴ Controlling for such factors, only Vilnius of the three Baltic capitals presents substantially lower unemployment risk than the national average (Table A1.1, Model 3). Living in Tallinn actually involves an above-average risk; living in urban Riga has no significant effect although the surrounding Riga district reduces the unemployment risk (Model 1). Urban areas with particularly high unemployment risk are found in Ida-Viru, Estonia (16 percentage points) and Latgale, Latvia (8). In Lithuania, only one of the relatively big cities – Siauliai – appears to present unusually high unemployment risk. But living in Lithuania's *rural* areas involves as much as 5 percentage points *lower* unemployment risk than small towns, a difference not found in Estonia and Latvia.

In sum, Baltic labour markets in general attach high value to education. This especially concerns higher education, while persons with only secondary education are less well protected against unemployment in Latvia and Lithuania. By contrast, long work experience has rather limited value, with the effect that young people face about the same unemployment risk as most adults already after a few years of employment. Each Baltic country has some regions with markedly high unemployment risk. But many regional variations in unemployment – including those between the capitals and other regions – become much smaller if one controls for individual factors. This shows that the geographic variations in unemployment rates do not necessarily result from economic problems of a regional nature: they can also reflect a nation-wide shortage of jobs combined with a preference among unemployed individuals for staying in areas with low living costs.

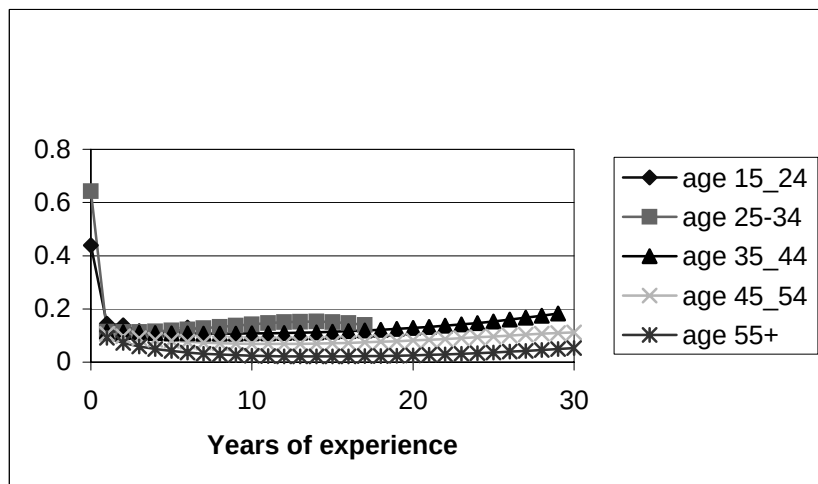
⁷³ That the ethnic risk factor is highest in Lithuania is remarkable, considering that the minority populations there are smaller and largely native to the country. However, this result must also be seen against the background of a much greater ethnic effect on wage differentials in Estonia (see Annex 3).

⁷⁴ This appears to hold for the capitals and other big cities in most transition economies; *cf.* Puhani (2000).

Figure A1.2. **Unemployment risk and work experience by age**
Latvia

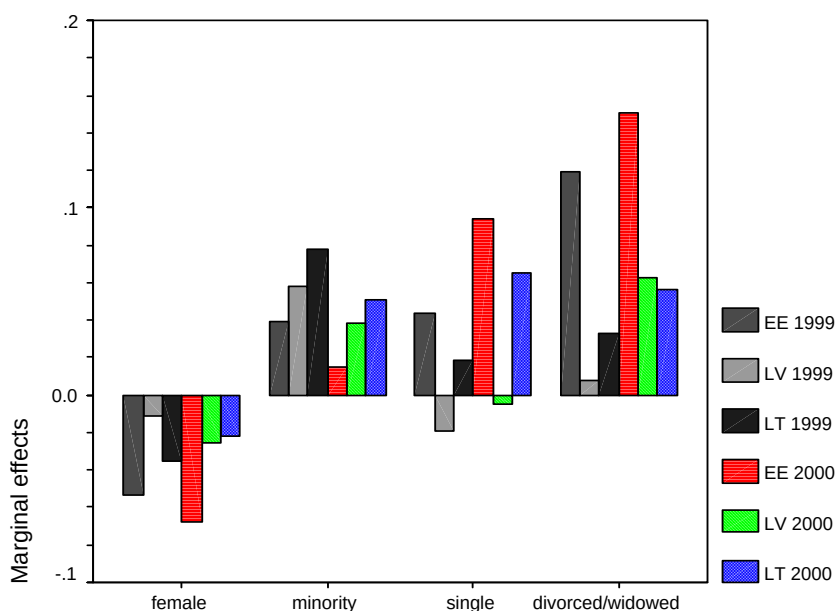


Estonia



Note. Education, gender, ethnicity and place of residence are fixed at their mean values. In Latvia, persons who did not work in the past three years are counted as having no experience. In Estonia, all the unemployed are assigned their actual experience, no respondents older than 34 having less than one year's experience.

Figure A1.3. Marginal effects of gender, ethnicity and marital status on unemployment risk



Note. Reference categories: males; native Balts; married. See Table A1.1, Model 2.
Source: Labour force surveys.

Technical explanations

Table A.1.1 shows logit estimates of the marginal unemployment risk associated with each variable, based on LFS data. Three alternative models are used. For the variables *Experience* and *Local unemployment rate*, the marginal effect is the difference in unemployment probability that would result from a unit change in the variable concerned, other things being equal. All other variables are dummies, and the *marginal effect* is the difference (again, keeping other variables constant) compared with the reference group, e.g. compared with *Basic education* for other education groups, *Employees* for employers, *Small cities* for other regions. For comparability, these relative effects are expressed in nominal terms as calculated for individuals with an initial unemployment probability of 0.14 (close to the actual unemployment rate). A more complicated model (not shown) was used to estimate effects of *work experience* in Figure A1.2.

Table A1.1. Marginal effects of unemployment risk factors

Variable	1999							
	Model 1		Model 2			Model 3		
	EE	LV	EE	LV	LT	EE	LV	LT
Higher education	-0.039*	-0.036	-0.048**	-0.022	-0.038	-0.082***	-0.077***	-0.071**
Secondary techn/special educ.	-0.012	0.021	-0.017	0.018	-0.022	-0.035**	-0.033**	-0.041
Secondary comprehensive educ.	-0.009	0.035*	-0.012	0.026	0.003	-0.027*	-0.006	-0.011
Vocational education	0.003	0.006	0.000	0.009	0.021	-0.013	-0.022	0.004
Female	-0.053***	-0.011	-0.052***	-0.003	-0.035**	-0.050***	0.001	-0.037**
Minority	0.039**	0.058***	0.040**	0.064***	0.074***	0.059***	0.068***	0.086**
Age 15_19		-0.118***		-0.071***	-0.081**		-0.066***	-0.088**
Age 15_24/Age 20_24/ Age 20_24	0.052	-0.101***	-0.017	0.009	-0.012	-0.017	-0.006	-0.016
Age 25_34	0.041	-0.078***	-0.001	0.006	0.012	-0.003	0.006	0.013
Age 45_54	-0.062***	0.191***	-0.038***	0.005	-0.029	-0.036***	0.009	-0.030
Age 55+/Age 55_re/Age 55+	-0.105***	0.231***	-0.077***	-0.045**	-0.081***	-0.072***	-0.0371*	-0.083***
Age re_64		0.058		-0.058**			-0.044	
Age 65+		0.320***		-0.023			-0.006	
New entrant	0.788***	0.223***	0.786***	0.304***	0.672***	0.820***	0.373***	0.737***
Experience, years	0.004**	-0.014***						
Single	0.044*	-0.019	0.037	0.001	0.019	0.048*	0.013	0.022
Separated	0.119***	0.008	0.119***	0.011	0.033	0.136***	0.025	0.051*
Children	0.013	-0.027	0.009	-0.026		0.007	-0.027*	
Children 3+	0.024	-0.051**	0.023	-0.045*		0.027	-0.037	
Female+Children	0.002	0.066**	0.002	0.061**		0.007	0.062**	
White collar	-0.093***	-0.096***	-0.095***	-0.115***	-0.088***			
Sales worker	-0.029	-0.095***	-0.032*	-0.108***	-0.066**			
Skilled worker	-0.074***	-0.09***	-0.075***	-0.114***	-0.069***			
Operator or assembler	-0.065***	-0.087***	-0.065***	-0.113***	-0.077***			
Employer	-0.089***	-0.087**	-0.089***	-0.088**	-0.010	-0.107***	-0.108***	-0.024
Self-employed	-0.071***	-0.129***	-0.071***	-0.123***	-0.092**	-0.072***	-0.130***	-0.099***
Family worker		-0.138***		-0.137***	-0.102		-0.138***	-0.106
Public sector	-0.052***	0.033*	-0.052***	-0.009		-0.052***	-0.027*	
Agriculture (AB)	-0.036*	-0.097***	-0.036*	-0.111***	-0.081**	-0.037**	-0.112***	-0.082**
Construction (F)	0.075**	-0.072***	0.077***	-0.090***	-0.018	0.059**	-0.101***	-0.019
Trade+Hotels (GH)	-0.049***	-0.069***	-0.048***	-0.090***	-0.024	-0.053***	-0.103***	-0.025
Transport+Energy (IE)	-0.012	-0.093***	-0.012	-0.104***	-0.053*	0.004	-0.111***	-0.062**
Finance+Business activities (JK)	-0.046**	-0.09***	-0.047**	-0.100***	-0.099***	-0.046**	-0.109***	-0.103***
Public services (LMNO)	-0.064***	-0.115***	-0.063***	-0.121***	-0.110***	-0.066***	-0.122***	-0.111***
Capital city	0.038*	0.017	0.039*	0.008	-0.052**	0.037*	0.010	-0.052**
Capital district	0.017	-0.048**	0.017	-0.018	-0.026	0.020	-0.018	-0.019
Jurmala/Shauljaj		0.136***		0.138***	0.039		0.130***	0.039
Other big cities		0.036*		0.036*	-0.031		0.041**	-0.029
Ida-Viru/Latgale urban	0.072**	0.082***	0.074***	0.086***		0.065**	0.086***	
Rural outside capital district	0.028	-0.006	0.027	0.010	-0.047*	0.036*	0.027	-0.040
Number of observations	7160	8652	7160	8652	4588	7160	8652	4588

Notes: a. Effects were converted into probabilities, expressed as variations against the standard probability 0.14 (=actual unemployment rate in 2000). Method: logit. Data: LFS. Variables significant at levels 0.1, 0.05 and 0.01 are denoted by *, ** and ***. Blank cell=the variable is not included in the model. N=no unemployed person in the category.

Table A1.1 Marginal effects of unemployment risk factors
(Continued)

Variable	2000							
	Model 1		Model 2			Model 3		
	EE	LV	EE	LV	LT	EE	LV	LT
Higher education	-0.078***	-0.047**	-0.090***	-0.026	-0.079***	-0.103***	-0.082***	-0.099***
Secondary techn/special educ.	-0.065***	-0.010	-0.071***	-0.008	-0.022	-0.079***	-0.045***	-0.052***
Secondary comprehensive educ.	-0.061***	-0.030*	-0.065***	-0.030**	-0.034	-0.071***	-0.050***	-0.049**
Vocational education	-0.045***	0.028	-0.051***	0.021	-0.017	-0.058***	-0.017	-0.034
Female	-0.068***	-0.025*	-0.067***	-0.020	-0.024*	-0.062***	-0.017	-0.020
Minority	0.015	0.038***	0.015	0.042***	0.060**	0.025	0.054***	0.062***
Age 15_19		-0.124***		-0.063***	0.071		-0.071***	-0.076**
Age 15_24/Age 20_24/ Age 20_24	0.045	-0.120***	-0.072***	-0.045**	0.043*	-0.066***	-0.054***	-0.061***
Age 25_34	0.089**	-0.095***	-0.004	-0.019	0.028	0.000	-0.024*	0.008
Age 45_54	-0.054***	0.147***	0.006	-0.021	0.022	0.005	-0.020	0.014
Age 55+/Age 55_re/Age 55+	-0.109***	0.248***	-0.035	-0.063***	-0.032	-0.027	-0.057***	-0.037
Age re_64		0.149**		-0.079***			-0.066**	
Age 65+		-0.092		-0.110***			-0.109***	
New entrant	0.803***	0.253***	0.798***	0.339***	0.323***	0.802***	0.424***	0.477***
Experience, years	0.008***	-0.015***						
Single	0.094**	-0.005	0.082**	0.012	0.053***	0.086**	0.019	0.059***
Separated	0.151***	0.063***	0.154***	0.056***	0.061**	0.163***	0.048***	0.064**
Children	0.003	-0.024	-0.000	-0.023		-0.001	-0.033**	
Children 3+	0.036	-0.051**	0.031	-0.049**		0.039	-0.045*	
Female+Children	0.098**	0.047*	0.099**	0.037		0.097**	0.049**	
White collar	-0.073***	-0.096***	-0.074***	-0.114***	-0.093***			
Sales worker	0.018	-0.068***	0.015	-0.086***	-0.067***			
Skilled worker	-0.052***	-0.070***	-0.050***	-0.101***	-0.110***			
Operator or assembler	-0.063***	-0.072***	-0.062***	-0.105***	-0.078***			
Employer	-0.082**	-0.067**	-0.084***	-0.066**	-0.067	-0.097***	-0.097***	-0.079
Self-employed	-0.112***	-0.128***	-0.111***	-0.122***	-0.112***	-0.111***	-0.129***	-0.123***
Family worker		-0.138***		-0.136***	N		-0.137***	
Public sector	-0.060***	0.030	-0.062***	-0.006		-0.064***	-0.023	
Agriculture (AB)	-0.038	-0.074***	-0.035	-0.091***	-0.082***	-0.036	-0.092***	-0.078***
Construction (F)	0.120***	-0.059***	0.122***	-0.081***	0.014	0.113***	-0.089***	-0.003
Trade+Hotels (GH)	0.009	-0.052***	0.012	-0.079***	-0.064***	-0.000	-0.087***	-0.053***
Transport+Energy (IE)	-0.010	-0.068***	-0.006	-0.088***	-0.086***	0.026	-0.098***	-0.084***
Finance+Business activities (JK)	-0.041	-0.090***	-0.036	-0.103***	-0.105***	-0.039	-0.108***	-0.103***
Public services (LMNO)	-0.063***	-0.103***	-0.059***	-0.111***	-0.124***	-0.056***	-0.114***	-0.112***
Capital city	0.039	0.022	0.041	0.013	-0.043**	0.038	0.010	-0.047**
Capital district	-0.028	-0.048	-0.026	-0.039	-0.051**	-0.023	-0.040	-0.045*
Jurmala/Shauljaj		0.077*		0.062	0.013		0.061	0.018
Other big cities		0.040**		0.041**	-0.017		0.043**	-0.013
Ida-Viru/Latgale urban	0.159***	0.084***	0.167***	0.088***		0.160***	0.088***	
Rural outside capital district	0.028	-0.016	0.027	-0.009	-0.044**	0.030	0.001	-0.046**
Number of observations	4406	8617	4406	8617	4451	4406	8617	4451

Notes: ^aEffects were converted into probabilities, expressed as variations against the standard probability 0.14 (=actual unemployment rate in 2000). Method: logit. Data: LFS. Variables significant at levels 0.1, 0.05 and 0.01 are denoted by *, ** and ***. Blank cell=the variable is not included in the model. N=no unemployed person in the category.

ANNEX 2

LABOUR FORCE DYNAMICS

This Annex studies flows of individuals between the three possible labour force states – employed, unemployed and not in the labour force (also called inactivity) – and, for employed persons, mobility between economic sectors. Annual labour flows were estimated on the basis of LFS micro-data, focusing on individuals included in the samples during two consecutive years. This was possible from 1997 to 2000 in Estonia and Latvia, but in Lithuania only in 1999 and 2000.⁷⁵ In addition, the Annex estimates long-term labour flows on the basis of data from the New Baltic Barometer (NBB, cf. Rose, 2000), covering the period 1990 to 2000.

A preoccupying result for all three countries – in recent years and over the past decade – is that many of those who left agriculture and industry became unemployed or left the labour force rather than taking up jobs elsewhere, for example in the growing service sector.

A closer look at mobility between 1999 and 2000, covering moves between 2-digit economic sectors,⁷⁶ shows that Lithuania experienced by far the most intensive labour reallocations.⁷⁷ About 12% of the employed in Lithuania but only 8% in Latvia and 5% in Estonia changed sectors in the 12-month period under study. This contrasts to previous observations (*e.g.* in the

⁷⁵ The relevant surveys in Estonia were conducted in January each year, in Latvia and Lithuania in May. Linkages were possible to the extent that the same individuals were sampled in two surveys, but only 12-month links were used.

⁷⁶ At 2-digit level, NACE (*Nomenclature des Activités dans la Communauté Européenne*) includes 59 sectors of relevance in the Baltic States, of which 23 under manufacturing and 26 under services. Agriculture is a 2-digit sector, separate from forestry and fishing.

⁷⁷ Data about *job-changing* (not analysed here) also suggest declining labour mobility in Estonia, where it was previously high. The proportion of employed workers reported to change employers fell from 12% in 1997-98 to 10% in 1998-99 and 9% in 1999-2000.

2000 *Economic Survey of the Baltic States*) that Lithuania's economic restructuring had been somewhat slow in the early transition years. Apparently, Lithuania is well in the process of recovering the previous delays in restructuring compared with the northern neighbours. This development is associated, at least temporarily, with a relatively high rate of unemployment.

Flows between employment, unemployment and inactivity

A substantial proportion of the employed in any year – typically around 10% – were not employed one year later (Table A2.1). Flows to employment were smaller, except in 1997, resulting in declining employment rates especially from 1999 to 2000. (The table for each country and year shows the distribution of the adult population in the preceding year in the rightmost column, and for the current year in the bottom row.)

Approximately one-half of the flows out of employment usually went to unemployment, the other half going out of the labour force. But from 1999 to 2000, the flows out of employment in Latvia and Lithuania went predominantly to inactivity. Many job losers were probably discouraged and did not seek new jobs, although other reasons for non-activity also play a role, *e.g.* child rearing and retirement. The impression of a "discouraged worker" phenomenon in Latvia and Lithuania is strengthened by results concerning outflows from unemployment: rather than finding work, relatively high proportions of the long-term unemployed eventually stopped seeking jobs and left the labour force. From 1999 to 2000, about 40% of the total outflow from unemployment in Latvia and 33% in Lithuania went out of the labour force, compared with 20% in Estonia.

The flows from inactivity to unemployment are also considerable. From 1999 to 2000, over one-third of those who entered the labour force in Estonia and Lithuania began with a stint of unemployment; in Latvia this proportion was then less than 25% but it had been higher in previous years.

In general, unemployment is often persistent or recurrent for those it concerns. This appears to hold particularly in Estonia, where the proportion of the unemployed who were still unemployed a year later rose to nearly two-thirds in last period. The proportion was a little under 50% in Latvia and Lithuania, and declining in Latvia. The higher persistence of unemployment in Estonia must also be considered against the background of somewhat lower incidence of long-term unemployment there (see Table 1.17 in the main report, and below). Taken together, these results suggest that Estonians often experience repeat spells of unemployment and that the rate of job finding has

declined. In Latvia, on the other hand, a declining persistence of unemployment has been associated with increasing flows both to employment and to inactivity. Much of the observed employment problems in both Estonia and Latvia appear to affect a limited part of the labour force – a "stagnant pool" of hard-to-place workers who persistently face the greatest difficulties. Such tendencies can also be discerned in Lithuania, but to a lesser extent.

Low mobility between the main sectors

Considering that agricultural employment will probably continue to decline, it is disturbing to observe that the recent gross labour flows out of farming went predominantly, and increasingly, to non-employment (A-U and A-O in Table A2.1.) Only in the first year covered, from 1997 to 1998, did more than half of those who left agriculture in Estonia or Latvia take up jobs (A-I and A-S). Among the farmers who did find work, a majority in Estonia went to industry (including construction) while in Lithuania about as many went to service jobs as to industry. Only in Latvia did they predominantly enter the service sector.

Inflows to agriculture were generally small, but still significant in Lithuania. Of those who did take up farming, remarkably high proportions had previously been unemployed (U-A). Unemployed Lithuanians who found work between 1999 and 2000 did so more often in agriculture than in industry, and almost half as often in agriculture as in the service sector. The flow from *inactivity* to work even went more often to agriculture (O-A) than to service jobs (O-S). However, because relatively few of the unemployed in Lithuania had their last work experience in farming (*cf.* Table A1.1), it is likely that many of the unemployed who took up farming in the late 1990s did so only as a last resort, *i.e.* because other jobs were not available.⁷⁸

Outflows from industry lead mostly to non-employment, but there are also significant flows from industry to service jobs. Given the size and diversity of the service sector, it is not surprising that this sector itself has the lowest outflow rates at aggregate level. The recorded outflows from the service sector led essentially to non-employment.

⁷⁸

The role of small-scale farming as a last resort is probably declining in Lithuania. In 2001, a strong reduction of agricultural employment coincided with a rise in unemployment, suggesting that many individuals by then had found their farming inadequate as occupation, even if the alternative was to be unemployed.

Workers with only elementary education were the most likely to become unemployed and to leave the labour force, but not to move between sectors (Table A2.2). In Lithuania, which experienced the highest mobility between 2-digit sectors between 1999 and 2000, the low-educated had about as high inter-sector mobility as other groups. In Estonia and Latvia the low-educated groups were less likely to change sectors, suggesting a limited ability to adapt to restructuring (especially, perhaps, if they had white-collar jobs).

Changes between 1990 and 2000

In the context of the New Baltic Barometer (NBB), retrospective survey questions were asked about labour market activity in 1990 as well as in 2000. The answers show that those employed in *agriculture* in 1990 were most likely to have changed their status by 2000, and most often towards non-employment (Table A2.3). Both the proportions who became unemployed and those who left the labour force were highest for the former farmers, of whom only about 40% in Latvia and Lithuania and 60% in Estonia had any kind of work in 2000.

Moreover, among those employed in farming in 1990 who were still employed in 2000, only one-third to one-half in each country worked in agriculture. Surprisingly, the proportions still employed in agriculture were comparable in Estonia and Lithuania, despite the much stronger reduction of agricultural employment in the former country. With respect to Lithuania, these results would seem to support the above-noted impression of agriculture as a transient form of employment for some individuals who would like to work elsewhere.

Among those who worked in industry or services in 1990, the proportion still employed in 2000 was generally a little higher than it was for former farmers. Furthermore, in these cases, the majority of those still working had stayed in the same main sectors. Least mobile were the public service employees.

In sum, there has been substantial movement over the past decade, while around 2000 the types of mobility studied here were most frequent in Lithuania. Employment declines in agriculture and industry have given rise to much unemployment and early retirement, as job losers frequently found it difficult to compete for jobs with young labour market entrants. On average, persons who were in the service sector already in 1990 have experienced the best outcomes, while those who stay in agriculture often have small chances of finding other jobs.

Table A2.1. Annual flows between agriculture, industry, services, unemployment and out of the labour force

Stayers and movers as proportions of the stocks at the beginning of the period

Estonia

Jan. 1997-Jan. 1998

	A	I	S	U	O	1997
A	0.886	0.037	0.023	0.028	0.028	0.056
I	0.006	0.877	0.034	0.047	0.036	0.195
S	0.002	0.021	0.913	0.024	0.041	0.334
U	0.020	0.128	0.183	0.599	0.069	0.063
O	0.004	0.022	0.043	0.025	0.907	0.352
1998	0.051	0.195	0.334	0.064	0.356	

Jan. 1998-Jan. 1999

	A	I	S	U	O	1998
A	0.866	0.021	0.023	0.046	0.044	0.051
I	0.006	0.842	0.033	0.072	0.047	0.195
S	0.002	0.019	0.897	0.038	0.044	0.334
U	0.030	0.107	0.183	0.604	0.077	0.064
O	0.002	0.014	0.035	0.021	0.928	0.356
1999	0.045	0.191	0.324	0.078	0.361	

Jan. 1999-Jan. 2000

	A	I	S	U	O	1999
A	0.870	0.026	0.018	0.034	0.054	0.045
I	0.002	0.843	0.036	0.067	0.052	0.191
S	0.001	0.009	0.906	0.048	0.036	0.324
U	0.019	0.100	0.161	0.652	0.069	0.078
O	0.004	0.011	0.037	0.027	0.920	0.361
2000	0.043	0.177	0.327	0.091	0.362	

Note: See p. 158.

Table A2.1. Annual flows between agriculture, industry, services, unemployment and out of the labour force (cont.)
 Stayers and movers as proportions of the stocks at the beginning of the period

Latvia
 May 1997-May 1998

	A	I	S	U	O	1997
A	0.726	0.053	0.097	0.105	0.019	0.110
I	0.005	0.868	0.040	0.056	0.030	0.128
S	0.002	0.020	0.878	0.056	0.044	0.270
U	0.004	0.078	0.190	0.586	0.142	0.096
O	0.001	0.007	0.041	0.038	0.913	0.398
1998	0.095	0.137	0.274	0.087	0.407	

May 1998-May 1999

	A	I	S	U	O	1998
A	0.668	0.029	0.099	0.092	0.112	0.095
I	0.006	0.802	0.056	0.096	0.040	0.137
S	0.005	0.013	0.919	0.036	0.028	0.274
U	0.016	0.074	0.175	0.544	0.191	0.087
O	0.005	0.010	0.028	0.029	0.927	0.407
1999	0.086	0.130	0.286	0.082	0.416	

May 1999-May 2000

	A	I	S	U	O	1999
A	0.734	0.043	0.067	0.047	0.110	0.086
I	0.009	0.866	0.036	0.045	0.045	0.130
S	0.007	0.015	0.893	0.033	0.051	0.286
U	0.047	0.105	0.152	0.483	0.213	0.082
O	0.012	0.016	0.033	0.017	0.922	0.416
2000	0.070	0.130	0.286	0.081	0.432	

Note: See p. 158.

Lithuania
 May 1999-May 2000

	A	I	S	U	O	1999
A	0.769	0.027	0.027	0.044	0.132	0.117
I	0.010	0.794	0.065	0.085	0.046	0.147
S	0.007	0.028	0.872	0.057	0.035	0.289
U	0.093	0.059	0.203	0.466	0.178	0.063
O	0.029	0.015	0.028	0.043	0.885	0.384
2000	0.110	0.136	0.277	0.090	0.388	

Note: A=agriculture (incl. hunting, forestry and fishing); I=industry and construction; S=services; U=unemployment; O=out of the labour force. For Estonia: age 15-74. The transition matrix for Lithuania uses sub-samples producing insignificant errors. But the sums in the bottom row and the rightmost column show actual results.

Source: Calculations based on LFS.

Table A2.2. Flows by worker and employer characteristics

Stayers and movers as proportions of employment the beginning of the period

Estonia
January 1999 – January 2000

	EEs	EEm	EU	EO
Male	0.849	0.053	0.063	0.035
Female	0.858	0.048	0.043	0.051
Tallinn	0.852	0.063	0.053	0.033
Urban	0.861	0.050	0.045	0.044
Rural	0.850	0.051	0.057	0.042
Minority	0.850	0.053	0.065	0.032
Estonian	0.855	0.049	0.048	0.048
Agriculture	0.852	0.061	0.034	0.053
Industry	0.819	0.062	0.067	0.052
Services	0.874	0.042	0.048	0.035
White collar	0.899	0.043	0.030	0.029
Blue collar	0.820	0.056	0.071	0.053
Higher education	0.901	0.055	0.020	0.024
Secondary education	0.845	0.055	0.057	0.043
Vocational education	0.871	0.046	0.051	0.032
Basic education or less	0.798	0.042	0.086	0.074
Age 15-24	0.688	0.120	0.111	0.081
Age 25-49	0.878	0.053	0.049	0.019
Age 50-74	0.861	0.014	0.040	0.085
Age 15-19	0.515	0.092	0.170	0.223
Age 20-24	0.711	0.124	0.103	0.063
Age 25-29	0.840	0.069	0.046	0.045
Age 30-34	0.870	0.050	0.056	0.024
Age 35-39	0.873	0.072	0.039	0.015
Age 40-44	0.908	0.030	0.056	0.006
Age 45-49	0.897	0.046	0.049	0.008
Age 50-54	0.907	0.016	0.052	0.026
Age 55-59	0.840	0.018	0.036	0.105
Age 60-64	0.814	0.004	0.045	0.137
Age 65-74	0.821	0.010	0.000	0.169
Public sector	0.908	0.018	0.036	0.038
Private sector	0.830	0.065	0.061	0.044
TOTAL	0.854	0.051	0.054	0.042

EEs = stayed in the same 2-digit NACE sector

EEm = moved to another 2-digit NACE sector

EU = moved from employment to unemployment

EO = moved from employment to non-participation

Table A2.2. Flows by worker and employer characteristics (cont.)

Stayers and movers as proportions of employment the beginning of the period

Latvia
May 1999 – May 2000

	Ees	Eem	EU	EO
Male	0.814	0.091	0.054	0.042
Female	0.833	0.064	0.021	0.082
Riga	0.854	0.060	0.041	0.045
Urban (excl. Riga)	0.848	0.064	0.037	0.051
Rural	0.771	0.113	0.034	0.082
Minority	0.831	0.081	0.042	0.046
Latvian	0.817	0.076	0.036	0.070
Agriculture	0.724	0.119	0.047	0.111
Industry	0.833	0.077	0.045	0.045
Services	0.850	0.066	0.033	0.051
White collar	0.877	0.059	0.019	0.045
Higher education	0.869	0.080	0.002	0.049
Sec. technical or special	0.803	0.092	0.053	0.052
Secondary comprehensive	0.844	0.064	0.037	0.055
Vocational education	0.816	0.086	0.015	0.083
Basic education or less	0.779	0.055	0.061	0.106
Age 15-19	0.619	0.082	0.100	0.198
Age 20-24	0.768	0.090	0.083	0.060
Age 25-34	0.826	0.095	0.041	0.038
Age 35-44	0.842	0.093	0.035	0.030
Age 45-54	0.877	0.062	0.041	0.020
Age 55-64	0.789	0.051	0.005	0.155
Age 65+	0.651	0.000	0.000	0.349
Public sector	0.867	0.057	0.030	0.046
Private sector	0.796	0.092	0.043	0.069
TOTAL	0.823	0.078	0.039	0.061

EEs = stayed in the same 2-digit NACE sector

EEm = moved to another 2-digit NACE sector

EU = moved from employment to unemployment

EO = moved from employment to non-participation

Table A2.2. Flows by worker and employer characteristics (cont.)

Stayers and movers as proportions of employment the beginning of the period

Lithuania
May 1999 – May 2000

	EEs	EEm	EU	EO
Male	0.744	0.143	0.064	0.048
Female	0.778	0.094	0.057	0.071
Vilnius	0.682	0.177	0.094	0.047
Urban (excl. Vilnius)	0.780	0.117	0.063	0.040
Rural	0.785	0.087	0.039	0.089
Minorities	0.688	0.151	0.111	0.050
Lithuanians	0.775	0.112	0.052	0.062
White collar	0.820	0.119	0.033	0.028
Blue collar	0.729	0.119	0.076	0.076
Higher education	0.824	0.131	0.026	0.019
Secondary special/technical	0.763	0.106	0.074	0.057
Secondary comprehensive	0.782	0.119	0.063	0.036
Vocational education	0.785	0.075	0.037	0.103
Basic education or less	0.681	0.130	0.084	0.105
Age 15-19	0.553	0.158	0.053	0.237
Age 20-24	0.721	0.135	0.058	0.087
Age 25-34	0.776	0.125	0.078	0.022
Age 35-44	0.798	0.113	0.071	0.018
Age 45-64	0.791	0.121	0.057	0.032
Age 55-64	0.701	0.104	0.015	0.179
Age 65+	0.476	0.000	0.000	0.524
TOTAL	0.761	0.118	0.060	0.060

EEs = stayed in the same 2-digit NACE sector

EEm = moved to another 2-digit NACE sector

EU = moved from employment to unemployment

EO = moved from employment to non-participation

Table A2.3. Ten-year flows between sectors and labour market states

Stayers and movers as percentage of the stocks in 1990

Estonia

		Situation in 2000						
Situation in 1990		Agriculture	Industry	Private Services	Public Services	Unemployed	Out of the labour force	Total
	Agriculture	25.5	7.0	19.7	9.6	8.9	29.3	15.4
	Industry	2.4	41.3	20.9	4.7	8.3	22.4	25.0
	Private Services	3.6	9.8	47.2	8.3	8.3	22.8	19.0
	Public Services	2.5	4.4	13.1	55.6	5.6	18.8	15.7
	Too young	4.4	8.8	29.8	13.3	7.7	35.9	17.8
	Not employed	1.4	4.2	11.1	2.8	5.6	75.0	7.1
	Total	6.5	15.8	25.4	15.5	7.7	29.1	100

Latvia

		Situation in 2000						
		Agriculture	Industry	Private Services	Public Services	Unem- ployed	Out of the labour force	Total
Situation in 1990	Agriculture	13.8	5.2	8.0	10.9	21.8	40.2	18.2
	Industry	0.5	21.1	15.7	5.9	20.5	36.2	19.4
	Private Services	1.2	4.8	40.0	6.1	11.5	36.4	17.3
	Public Services	1.2	1.8	12.1	43.0	11.5	30.3	17.3
	Too young	5.9	14.5	24.3	15.1	13.8	26.3	15.9
	Not employed	1.8	7.1	8.0	4.4	4.4	74.3	11.8
	Total	4.2	9.3	18.3	14.6	14.7	38.9	100

Lithuania

		Situation in 2000						
		Agriculture	Industry	Private Services	Public Services	Unem- ployed	Out of the labour force	Total
Situation in 1990	Agriculture	19.2	6.0	9.9	5.3	23.8	35.8	13.6
	Industry	1.1	37.0	14.5	6.2	15.6	25.7	24.9
	Private Services	1.3	6.0	32.2	8.7	17.4	34.2	13.5
	Public Services	1.5	4.0	4.5	55.3	8.5	26.1	18.0
	Too young	1.1	9.7	24.0	21.7	13.7	29.7	15.8
	Not employed	-	7.0	3.2	3.2	7.6	79.0	14.2
	Total	3.5	14.1	14.4	17.3	14.3	36.5	100

Note: Agriculture includes hunting, forestry and fishing. Industry includes construction. Private services: transports and communications; commerce; financial and real estate and other services, work for households. Public services: public administration, education, science, culture, social and health care, defence and police.

Source: Calculations based on the New Baltic Barometer, which collected data in the spring 2000.

ANNEX 3

HUMAN CAPITAL AND EARNINGS

This Annex considers the relationship between human capital and individual wages. It uses the conventional technique of estimating multivariate earnings functions, permitting comparisons with several previous studies in transition countries.⁷⁹ Three models are used, all with net monthly earnings of full-time employees as dependent variable (in logarithmic form). Data were obtained from labour force surveys (LFS) in 1999 and 2000.

Tables A3.1 and A3.2 show the full results for 2000. These cover a variety of variables, but the discussion below concentrates on the estimated impact of education, age, work experience and gender when the other variables are controlled (including ethnicity, regional effects, unemployment and enterprise characteristics).

Education appears more important than work experience

A key result is that higher education has greater impact on wages in the Baltic States than in several other countries, while the opposite holds for age and experience. Apparently, job-related skills acquired under the Soviet system have lost much of their previous value, while some of the characteristics most often found among young people have become more important: language and computer skills, market orientation, general adaptability and capacity to learn.

⁷⁹

The literature about earnings functions in transition economies includes Paternostro and Sahn (1999), Kroncke and Smith (1999), Reilly (1999), Brainerd (2000), Orazem and Vodopivec (2000), Pailhé (2000), and Newell and Reilly (2001), which mostly use data from early transition years, or at best 1995-96. Juraida (2000), Puhani (2000), Blanchflower (2001), Newell (2001), Vecernik (2001) reach to 1997 or 1998 data. Baltic data from 1997-98 are analysed by Chase (2000), Abolins and Bockarjova (2000), and Smith (2001). But the former deals only with Latvia and uses Household Budget Survey data with poor wage measures and questionable sampling (key variables differ strongly from LFS), while the two last-mentioned papers only consider rough wage intervals. The results presented here are based on much larger samples and better-fitting models than many previous studies of earnings functions in transition economies.

The *educational attainment* is generally quite high in the Baltic States. According to the LFS data for 2000 used here, the proportion of all full-time employees having university education was 25% in Lithuania, 22% in Latvia and 17% in Estonia – compared with about 10% in the Slovak Republic, 13% in Poland, 15% in the Czech Republic and 18% in Sweden.⁸⁰ Secondary education had been completed by 60% to 70% of the employees in each Baltic country. Women have on average higher education than men.

In theory, schooling may affect wages 1) by improving productivity, 2) by facilitating access to better-paying enterprises and 3) by facilitating promotion to better-paid occupations. The estimation model that does not control for occupation (Model 1 in Table A3.1) can be assumed to cover the full effect – *i.e.* effects on job finding as well as the direct effect on productivity. It suggests that *higher* education (here defined as. university) increased the wage by 66 to 80% compared with basic education. Most of this was due to a premium paid for higher vs. secondary education (of any kind), which alone varied from 44% in Latvia to 59% in Lithuania. The wage premium for secondary vs. basic education was only 13 to 14% in Latvia and Lithuania and 19% in Estonia. If the occupational group is controlled for – thus removing the indirect effects that operate via job finding – the marginal effect of each education type is reduced by approximately one-half, but still highly significant (Models 2 and 3).

University education has greater effect on wages in the Baltic States than in several other transition countries when no control is done for occupation (but the effect appears even greater in Romania's urban areas; see Figure A3.1). If the occupation is kept constant, however, only Lithuania's higher education appears to have unusually strong effects, while the corresponding effect appears stronger in, for example, Poland and the United States (Figure A3.2). The returns to secondary education are much lower by any measure in the Baltic States than in most transition countries, and also lower than in some advanced economies.⁸¹ This is possibly a result of the relatively small proportion of workers with less than secondary education in the Baltic States.

⁸⁰ For the Czech Republic and Slovakia: own calculations referring to 1998 based on Juráida (2001), Tables A-2, A-3; for Poland in 1998: Puhani (2001), Table A1; for Sweden in 1997: Hansen and Wahlberg (2000), Table 1.

⁸¹ Recent estimates for Ireland suggest considerably higher returns to education, while estimates for Sweden suggest generally much lower returns to education (Barrett *et al.*, 2000; Hansen and Wahlberg, 2000).

Flat age-earnings profiles

Age can be taken as a proxy for the length of *work experience*. A typical “western” age-earning profile for men in most education groups is steadily increasing up to about age 50-52, after which it decreases; for women it often peaks somewhat earlier.⁸² This pattern is less clear in transition economies, including the Baltic States.⁸³ In fact, the Baltic age-earnings profiles are almost flat for workers without higher education (apart from the small group of working teenagers; see Figure A3.3). To the extent that peaks can be discerned at all, they occur already at age 20-24 or 25-34 in Estonia and Latvia, but in Lithuania at age 35-44 for men and 45-54 for women.

The age-earnings profiles remain similarly flat if they are based not on actual wages (as in Figure A3.3) but on the earnings function of the above Model 1 (Figure A3.4). In this case, the peaks for all education groups tend to occur around age 35 to 40 – much earlier not only than in western countries but also than in, for example, the Czech and Slovak Republics.⁸⁴ The Estonian male profile stands out as an extreme case, with steeper slopes before and after the peak than is found either for Estonian women or for men or women in Latvia and Lithuania.⁸⁵

The positive impact of *tenure* – *i.e.* length of time in particular jobs, often considered a proxy for firm-specific skills – is also likely to have declined as a result of the high pace of change in transition economies. In 2000, the tenure effect on wages was significant but modest, at 0.5% per additional year of tenure in Estonia and 0.3% in Lithuania (Table A3.1, Model 3).⁸⁶ These figures are a little higher than in some Central European countries (Pailhe, 2000). In Estonia, women and Russians were found to benefit more from long tenure than did men and ethnic Estonians.

⁸² See e.g. Ehrenberg and Smith (1997), pp. 301–303.

⁸³ See Hazans (2002) for a discussion and empirical evidence.

⁸⁴ In the Czech and Slovak Republics, such peaks were found at age 46 to 47 in the private sector and 53 in the public sector based on 1998 data (Juraida, 2001).

⁸⁵ As elsewhere, however, new entrants to the labour market face a disadvantage in the Baltic countries. Based on Model 3, having worked less than one year reduces the wage by 10 % in Latvia and 18 % in Estonia.

⁸⁶ The Lithuanian data source uses a different definition of tenure: length of time “in the same activity”.

As elsewhere, the gender-wage difference appears hard to explain

Baltic women are better educated than men on average, and they have on average at least as long experience and tenure as men. Nevertheless, their average wages in 2000 were 80 to 90% of the male averages in Latvia and Lithuania, and about 75% in Estonia. These pay gaps are similar to those found in Poland, but not as wide as in, for example, the Czech Republic.

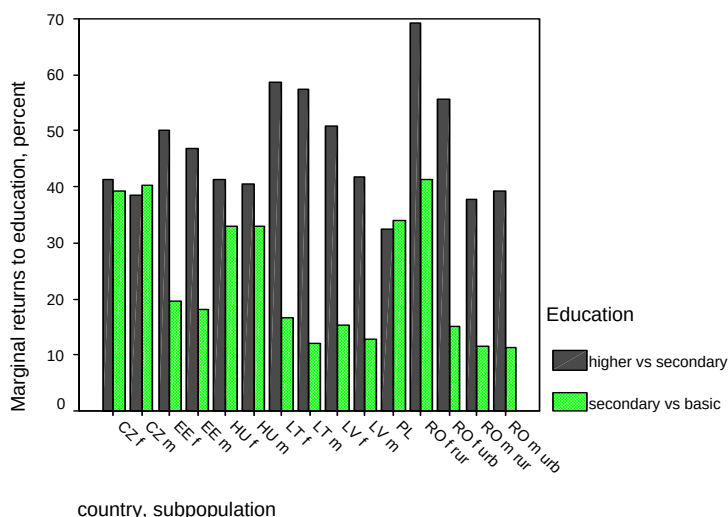
Men often work in sectors with above-average wages for comparable jobs, *e.g.* in transports and communications; and full-time jobs last on average 1.5 to 2.5 hours longer for men than for women.⁸⁷ But taken together, all the factors controlled in the models explain only a limited part of the wage gap – or, as in Lithuania, they do not explain it at all (Table A3.3). The unexplained wage difference may thus be seen as a result of discrimination and occupational segregation (within the distinguished categories) or they may be due to other unobserved factors.

⁸⁷

Estimates for Latvia, not shown, suggest that including working time in the model would reduce the unexplained wage differential by about one-third.

**Figure A3.1. Returns to education by gender
(no occupation control)**

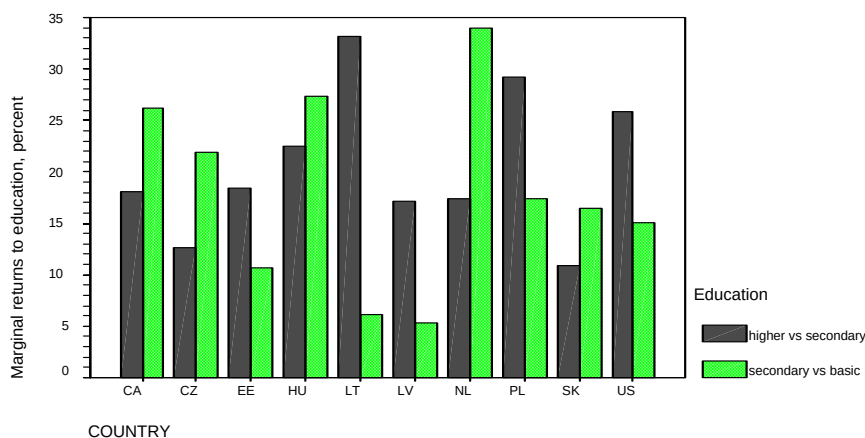
Baltic States (2000), Romania (1994), the Czech Republic, Hungary
and Poland (1996)



Notes: f=females, m=males, rur=rural, urb=urban. For Hungary, excluding the state budget sector.
Sources: EE, LT, LV: authors' calculations based on LFS data; RO: Paternostro and Sahn (1999); CZ, HU, PL: Vecernik (2001).

**Figure A3.2. Estimated returns to education
(controlling for occupation)**

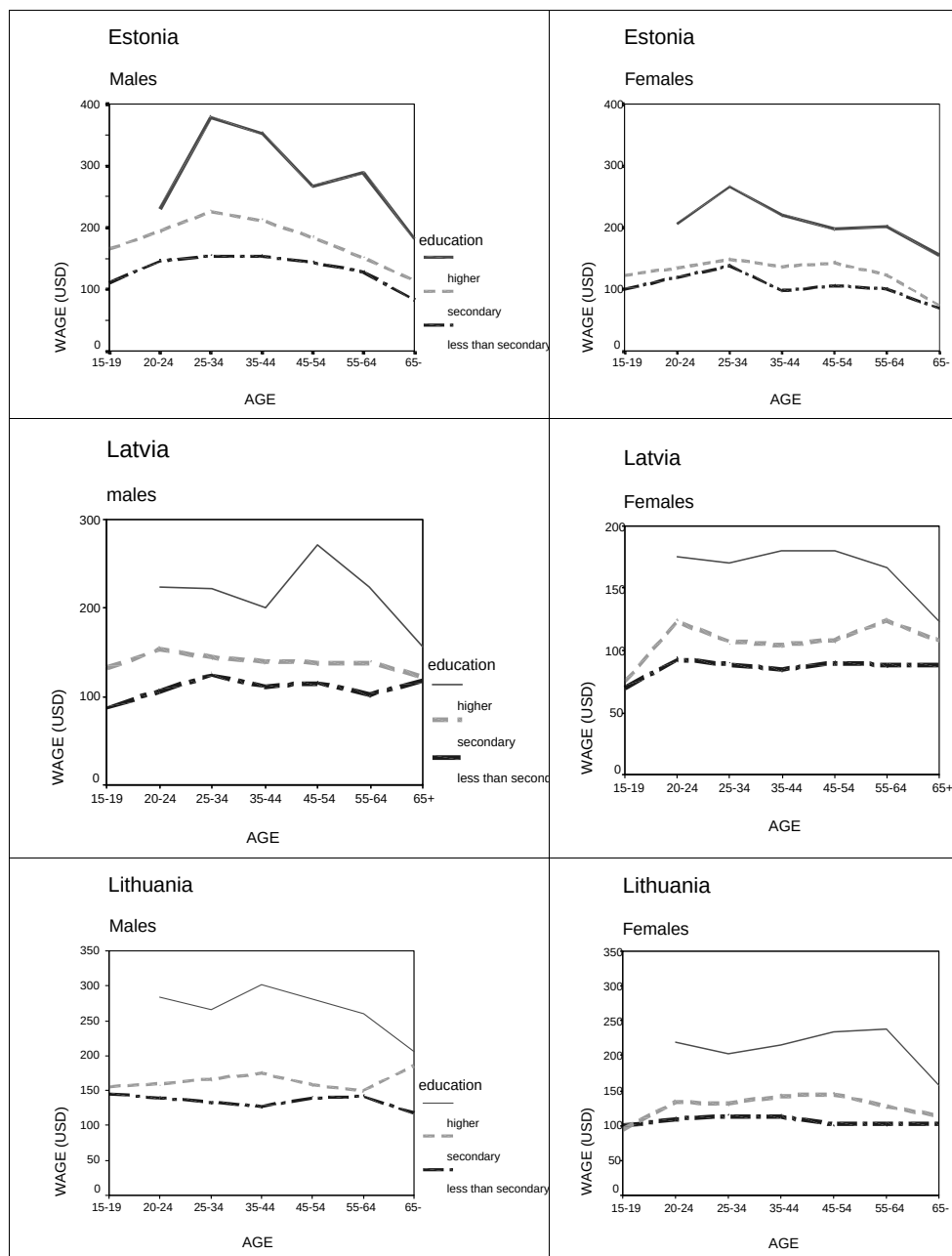
Baltic States (2000), Poland (1998), Czech Republic, Slovakia,
Hungary (1992), Canada, Netherlands and US (1986-1991)



Sources: CA (1986), NL (1987-91): Blanchflower and Oswald (1996); PL: Newell (2001); CZ, HU, SK - Pailhé (2000); US (1990): Hellerstein et al (1999); EE, LT, LV: authors' calculations based on LFS.

Figure A3.3. **Actual age-earnings profiles in 2000**

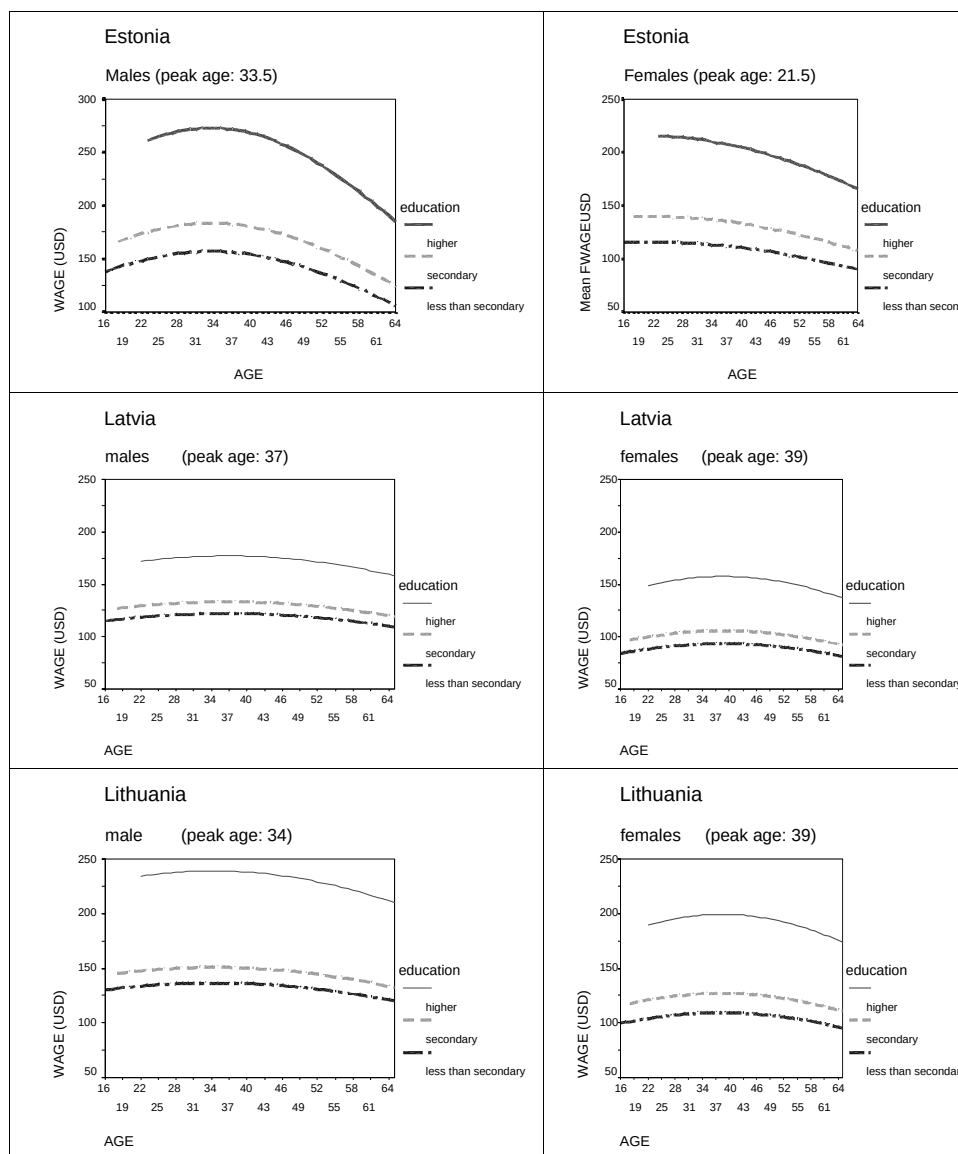
Observed after-tax earnings of full-time employees



Source: Calculations based on LFS data.

Figure A3.4. *Ceteris paribus* age–earnings profiles in 2000

Estimated after-tax earnings of full-time employees when other factors are controlled



Notes: Controlled variables: see Table A3.1, Model 1.

The Latvian male profile refers to 1999. The corresponding data for 2000 also give a peak at age 37, but are not significant for all categories.

Sources: Calculations based on LFS data; for Latvia, partly, employer surveys.

Table A3.1. Estimated earnings functions for full-time employees, 2000

Males and females together

	Model 1			Model 2			Model 3		
	EE	LV	LT	EE	LV	LT	EE	LV	LT
Education (vs. less than secondary)									
Higher	.572***	.507***	.590***	.279***	.210***	.346***	.276***	.208***	.354***
Secondary	.175***	.127***	.126***	.088***	.052**	.060**	.077***	.049*	.067***
Female	-.229***	-.145***	-.170***	-.237***	-.149***	-.178***	-.235***	-.149***	-.183***
Ethnic minority	-.215***	-.085***	-.088***	-.162***	-.057***	-.051*	-.175***	-.054***	-.048*
Age	.018***	.009*	.010*	.016***	.009**	.008*	.008	.008*	.004
Age squared (x 100)	-.027***	-.014**	-.013**	-.024***	-.013***	-.011*	-.018**	-.012**	-.009*
Marital status ^a (vs. Married)									
Single									
Divorced or Widowed							-.036		-.043*
New entrant ^b							-.000		.007
Tenure ^c							-.203**	-.105*	n.a.
Was previously registered as unemployed	n.a.	-.119***	n.a.	n.a.	-.074***	n.a.	.005***	n.a.	.003***
Temporary or seasonal job	n.a.	-.151***	-.126***	n.a.	-.101***	-.082*	n.a.	-.101***	-.042
Occupation (vs. Elementary) ^d									
Legislators and senior officials				.586***	.746***	.594***	.573***	.745***	.640***
Corporate managers				.586***	.688***	.497***	.573***	.682***	.503***
Managers of small enterprises ^e				.586***	.436***	.291***	.573***	.440***	.311***
Professionals				.554***	.503***	.410***	.527***	.499***	.401***
Technicians etc.				.372***	.383***	.305***	.364***	.383***	.299***
Clerks				.212***	.274**	.246***	.199***	.275***	.237***
Service and sales workers				.045	.058**	.103***	.057	.055*	.098***
Skilled farm and fishery workers				.293***	.123*	.208***	.306***	.118*	.218***
Craft and related trades workers				.166***	.197***	.151***	.159***	.194***	.144***
Plant, machine operators, assembly				.165***	.164***	.185***	.149***	.158***	.170***
Public sector	.122***	.084**	.108***	.111***	.074**	.078***	.075**	.067**	.051*

(continued on the next page)

Table A3.1. (cont.)

	Model 1				Model 2				Model 3			
	EE	LV	LT	EE	LV	LT	EE	LV	EE	LV	LT	LT
Industry (vs. Other community, social and personal services)												
Agriculture, hunting and forestry												
Fishing [†]	-.052	-.067	-.015	-.101*	-.072	-.021	-.168**	-.075				-.067
	.077	.151*		.030			.002					
Mining and quarrying [‡]	.538***		.155*	.537***		.192**	.421***					.176*
Manufacturing	.183***	.211***	.121**	.192***	.207***	.107**	.125***	.195***				.069*
Electricity, gas and water supply	.331***	.339***	.306***	.312***	.347***	.286***	.262***	.344***				.246***
Construction	.195***	.248***	.149***	.181***	.248***	.133**	.144**	.240***				.108**
Wholesale and retail trade etc.	.066	-.051	.075*	.119**	-.007	.062	.125**	-.012				.069*
Hotels and restaurants	.001	-.059	.108*	.126*	.053	.138*	.127*	.045				.160**
Transport, communication	.288***	.154***	.195***	.280***	.160***	.165***	.247***	.160***				.144***
Financial intermediation	.595***	.817***	.344***	.492***	.760***	.339***	.510***	.751***				.332***
Real estate, renting, business activities	.092	.229***	.042	.039	.216***	.040	.032	.212***				.036
Public administration and defence	.171**	.265***	.216***	.099*	.225***	.191***	.100*	.223***				.185***
Education	.018	-.088*	.038	-.054	-.120***	.030	-.078	-.123***				.015
Health and social work	-.012	-.007	.040	-.053	-.055	.021	-.076	-.059				-.009
Job location (vs. other cities)												
Capital city	.209***	.205***	.113***	.191***	.205***	.098***	.197***	.206***				.101***
Capital district (without capital city)												
Port city (Ventspils, Klaipeda)		.159**	-.075*		.148**	-.088**		.151***				-.087**
Kaunas		.139*	.162***		.137**	.156***		.136**				.149***
Rural area			.052*			.060**						.062**
Regional unemployment rate ^a	-.115***	-.080***	-.075**	-.098***	-.076***	-.080***	-.057**	-.081***				-.058**
Firm size (vs. over 50 workers)	-.010***	-.006***		-.011***	-.005***		-.012***	-.005***				
Less than 10 workers							-.194***					-.098***
10 to 19 workers							-.106***					-.109***
20 to 49 workers							-.081***					-.038*
(Constant)	7.497***	4.269***	5.929***	7.398***	4.104***	5.878***	7.728***	4.133***				6.007***
Number of observations	2678	3620	2440	2670	3581	2400	2627	3563				2400
R square	.307	.459	.405	.391	.568	.499	.413	.575				.513

Table A3.2. Estimated earnings functions for full-time employees, 2000

Males and females separately

	Estonia		Latvia		Lithuania	
	Males	Females	Males	Females	Males	Females
Education (vs. less than secondary)						
Higher	.290**	.261***	.182***	.203***	.353***	.310***
Secondary	.100**	.062*	.071**	.000	.060*	.049
Ethnic minority	-.165***	-.162***	-.043*	-.036*	-.061*	-.037
Age	.024**	.009	.003	.013**	.010*	.008*
Age squared (x 100)	-.035***	-.015**	-.007	-.016**	-.014*	-.011*
Has been registered as unemployed in the past	n.a.	n.a.	-.089***	-.060***	n.a.	n.a.
Temporary or seasonal job	n.a.	n.a.	-.141***	-.101**	-.091*	-.058
Occupation (vs. Elementary occupations)						
Legislators and senior officials ^e	.532***	.643***	.801***	.703***	.599***	-
Corporate managers	.532***	.643***	.597***	.825***	.473***	.538***
Managers of small enterprises ^e	.532***	.643***	.359***	.600***	.333***	.232*
Professionals	.449***	.621***	.506***	.534***	.419***	.418***
Technicians and associate professionals	.283***	.442***	.336***	.440***	.29***	.332***
Clerks	.291**	.230**	.207***	.323***	.315***	.236***
Service workers and shop and market sales workers	.055	.080*	.034	.092***	.192***	.050
Skilled agricultural and fishery workers	.186*	.289***	.210*	.148*	.221***	.152
Craft and related trades workers	.125**	.191***	.170***	.185***	.125***	.214***
Plant and machine operators and Assemblers	.132**	.187***	.137***	.190**	.17***	.265***
Public sector	.201***	.033	.100**	.006	.081**	.07*
Industry (vs. Other community, social and personal service activities)						
Agriculture, hunting and forestry	-.132	-.038	-.075	-.106	.009	-.006
Fishing ^f	.158	-.216	-.140			
Mining and quarrying ^g	.603***	.193			.333***	.121*
Manufacturing	.198**	.179**	.145**	.265***	.122**	.071
Electricity, gas and water supply	.308**	.285***	.267***	.439***	.347***	.215***

Table A3.2. (cont.).

	Estonia		Latvia		Lithuania	
	Males	Females	Males	Females	Males	Females
Construction	.207**	.190*	.183***	.103	.153**	.331*
Wholesale and retail trade; repair of motor vehicles, personal and household goods	.195**	.040	-.020	-.009	.074	.070
Hotels and restaurants	.151	.078	.051	.035	.180*	.134*
Transport, storage and communication	.312***	.215***	.090	.274***	.204***	.104
Financial intermediation	.904***	.221**	.763***	.675***	.400***	.231**
Real estate, renting and business activities	.100	-.028	.222***	.260***	.023	.071
Public administration and defence; compulsory social security	.076	.085	.172**	.299***	.163**	.223***
Education	-.066	-.051	-.214***	-.055	.002	.037
Health and social work	-.128	-.046	.011	-.006	.134	-.002
Job location (vs. other cities)						
Capital city (Tallin (EE); Riga (LV); Vilnius(LT))	.154***	.217***	.194***	.183***	.127***	.068*
Capital district (without capital city)			.135*	.133*	-.077*	-.094**
Port city (Ventspils(LV); Klaipeda(LT))			.342***	.041	.189***	.115**
Kaunas					.103**	.027
Rural area	-.112**	-.082**	-.147***		-.101**	-.053*
Regional unemployment rate ^a	-.015***	-.007**	-.010***	-.003*		
(Constant)	7.313***	7.249***	4.331***	3.818***	5.810***	5.717***
Number of observations	1279	1391	1699	1835	1153	1247
R squared	.326	.440	.501	.661	.477	.524

Notes. Dependent variable: logarithm of monthly earnings. Method: Survey linear regression with White's heteroskedastic standard errors.

Variables significant at 0.1 (respectively, 0.01, 0.001) level are denoted by *, **, ***, Outliers and influential observations removed for each model.

a. *Marital status* variables for Latvia and Estonia and *Regional unemployment rate* for Lithuania are not significant; controlling for them does not change the results substantially but makes the estimates less accurate.

b. New entrant=less than one year's experience.

c. Number of years with current employer (Estonia); number of years with current employer or in current activity (Lithuania).

d. e. These occupations were merged with corporate managers in Estonia.

f. Too few respondents in *Fishing* for Latvia and Lithuania.

g. Too few respondents in *Mining* for Latvia.

Sources: Calculations based on LFS (January for Estonia, May for Latvia and Lithuania) and (in Latvia) wage imputation from the survey on occupations.

Table A3.3. Male-female differentials in gross wages and in possible explanatory factors, 2000

Percent

	Gross wage differential	Explained gender pay gap (without occupation controls)	Explained gender pay gap (with occupation controls)
Estonia	24	3	5
Latvia	19	7	10
Lithuania	14	-1	0

Notes: Wage differentials were calculated, following a conventional decomposition method, as $\exp(d) - 1$, where d is the difference between mean log net monthly wages of males and females. Outliers and influential observations were removed from the samples. The *explained gender pay gap*, sometimes called the productivity differential, refers to (geometric) mean predicted wages, using earnings functions estimated over pooled sample.

Sources: Calculations based on LFS, for LV also enterprise census data.

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