



**Private Pensions
Series**



Pension Reform in the Baltic Countries



PRIVATE PENSIONS SERIES

Pension Reform in the Baltic Countries

No. 5



ORGANISATION FOR ECONOMIC CO-OPERATION AND DEVELOPMENT

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FOREWORD

Worldwide, insurance and pension reform is high on the political agenda and it will certainly remain so in the years to come. This is no less the case in the Baltic countries. The Baltics have made important progress in these sectors, with inter alia, thorough reform of the public pay as you go (PAYG) pension scheme, including the establishment of a complementary privately funded pension regime and important improvements in the regulation and supervision of insurance activities with a view to integration to the EU. Accordingly, Baltic private pensions and insurance (and particularly life insurance) markets have great growth prospects for the years to come.

Over the past five years, the core objective of the OECD Insurance and Pension Reform Activity of the OECD's Baltic Regional Programme has been to analyse the issues and conduct dialogue among Baltic and OECD members, in order to provide recommendations which can assist policy reform in these fields. Given this aim, the present project which includes two connected publications in the insurance and private pensions fields, gathers high-quality analysis of the Baltic insurance and pension markets situation and regulation as well as experts' reports focusing on key policy issues and OECD insurance and pension guidelines. The issues were selected in accordance with the Baltic economies' needs and requests that emerged from among the topics raised in the Baltic Regional Programme meetings.

The private pensions publication released under the Private Pensions Series n°5 initially focuses on the description and study of the new Baltic pension schemes, their benefits, remaining weaknesses and future challenges. A comparative analysis introduces this part followed by three detailed studies prepared by Baltic experts dealing with pension reform and its progress in each country. A second section presents selected private pensions policy issues, inter alia, the expected consequences of investment regulation of pension funds in the Baltic States and the role of pension funds in private equity in these economies. This publication includes perspectives on these issues that were debated during the Pension Conference held on 23-25 April 2003 in Tallinn, and prepared in co-operation with the European Union.

The insurance publication released under Policy Issues in Insurance n°7 focuses on insurance markets situation in the Baltic countries and includes revised versions of papers highlighting major insurance policy issues discussed in Baltic workshops and that were deemed particularly relevant for Baltic policy makers and insurance market players in the future. Accordingly, the first section is organised around three reports dealing with, respectively, the life insurance, non-life insurance and reinsurance markets and their regulatory and supervisory framework, in the Baltic countries. The second section of this publication highlights selected policy issues including: compulsory insurance, taxation of life insurance products, liberalisation of insurance markets, environmental risks and insurance and financial integration.

The synergies stemming out of the combination of concrete and analytical reports, high-level Baltic and OECD experts' point of view on private pensions and insurance issues as well as policy recommendations and "best practices" will certainly make these publications unique reference tools for Baltic countries' policy makers and market players.

The views expressed here are the sole responsibility of the authors and do not necessarily reflect those of the Insurance Committee, the Working Party on Private Pensions, the Secretariat or the member or non- member countries. The two publications have been prepared by Flore-Anne Messy and Juan Yermo, both working for the Insurance and Private Pensions Unit of the Financial Affairs Division. These publications are published under the aegis of the activities of the Centre for Co-operation with Non-Members and on the responsibility of the Secretary-General of the OECD.

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REVIEW OF RECENT PENSION REFORMS IN THE BALTIC REGION

David C. Lindeman

This publication is the private pensions component of the OECD project on insurance and private pensions in the three countries -- Lithuania, Latvia and Estonia – that border the Baltic Sea and, for that reason, are loosely grouped as the “Baltic” countries. It also follows on an earlier OECD publication on social issues that also touched upon pension reform. *Labour Market and Social Policies in the Baltic Countries* provides an in-depth discussion of pension policy and pension reform (Chapter III) and of the combined effect of income and social insurance contributions on those in the formal sector (Chapter II).

This book is the fifth volume of a continuing series on private pensions published under the auspices of the Working Party on Private Pensions prepared by staff of the Finance Division of the OECD Directorate for Financial and Enterprise Affairs. The first section of this publication contains four articles written by those who have been active participants or close observers of pension developments in the three Baltic countries. Three of those articles describe pension developments in the three respective countries as matters stand in the second half of 2003. A fourth article (Katkus) describes the capital markets in the three countries and is particularly valuable for its discussion of voluntary retirement savings in the three countries. In addition, we include an article on the possible role of pension funds in private equity (Strumskyte) and a comparison article (Whitehouse) that attempts to model the three pension systems – according to current law (or anticipated law in the case of Lithuania) for someone now entering the labour force.

Overview of Pension Reform in the 1990s in Lithuania, Latvia and Estonia

The story of pension reform in the Baltic countries parallels the larger story of similar reforms in Central, East and South-East Europe and, to some extent, Russia and ex-Soviet states. These three countries had been part of the Soviet Union and directly inherited the Soviet pension system. Countries in the Warsaw Pact often had features and complexities going back to their pre-WWII

histories or had been imported from non-Socialist countries. In the three Baltic countries, the inherited Soviet system was not sustainable, particularly in their much smaller economies and without the subsidies from what is now the Russian Federation. In the initial period right after independence pensions were compressed into basically flat benefits -- with little differentiation between a minimum benefit to protect recipients from dire poverty and a maximum benefit designed to hold down costs.

The 1990s saw all three countries try to unwind that compression in whole or in part, while still protecting the elderly, disabled and orphaned from destitution, and do so within very tight constraints. The decade also saw unprecedented “advice-giving” on pensions from several quarters: the World Bank, the International Labour Organization, and donor countries – in particular for this region, Sweden.¹

Lithuania was the pioneer in pension reform, not only among the Baltic countries but within the larger region of transition economies. It was the first country to enact a post-transition pension law that was intended to be a permanent fix. The law became effective in 1995 after extensive legislative discussions in 1994, including a decision by the Seimas (Parliament) to roll back the ambitious increases in retirement ages initially enacted. Though the reform was critiqued in one World Bank study for having been too generous in the recognition of accrued rights, the reform was notable both then and now for having eliminated special retirement privileges from the social insurance law. It is also notable for having no general provision for reduced early retirement (usually three years) for long-service workers (usually 30 or 35 years), a provision that is common throughout the region.

The reform also embodied a two-tier formula that results in an intentionally redistributive result. Unfortunately, this compromise – much along the lines of what the ILO often advises² – was neither satisfactory to those who wished a higher minimum benefit nor those who prefer an “insurance” pension tightly correlated with each individual’s past earnings. Only issues of affordability kept an additional top-up pension from being enacted in the years immediately following the reform. As it was, widow and widower pensions were enacted retroactively for those insured under the pre-1995 law. Though this amendment probably helped reduce the poverty gap in Lithuania, the political authorities at the time made no change in financing. When deficits began to appear (particularly in the wake of the Russian financial crisis), key political leaders chose to blame the pension administration (SODRA, as it is abbreviated in Lithuanian) for lax enforcement.

When enacted, the Lithuanian reform embodied not only at least one strain of ILO advice but also the then disposition of the World Bank in terms of pension advice in this region – to the extent it had congealed.³ Namely, keep the overall replacement rate target modest (and within that target make the replacement rate schedule redistributive to minimize poverty gaps), raise retirement ages as quickly as possible, expunge privileges, and develop laws for supplementary occupational and voluntary provision to “fill the pension space” over and above this constrained role for the state pension. As the Medaiskis and Morkuniene speculate in their paper the Lithuanian reform might be viewed as “too idealistic [in its] perception of ...social insurance itself” and not in sync with “the mentality of the Lithuanian public” that perceives “pensions as granted more or less on political grounds” and “not so much linked to contributions.”

On the other hand, the redistributive element in the Lithuanian formula is arguably inevitable in a country with a large rural population (about a third of the country). Its neighbor Poland has a separate, very flat benefit pension regime covering farmers. Lithuania instead incorporates that objective into the general scheme. Indeed, for farmers and other self-employed, the first tier basic benefit is the only mandatory benefit; only those under a labor contract must participate in the earnings-related tier.

The Lithuanian authors also may be overly critical about public policy in Lithuania for reintroducing privileges back into pensions in the form of budget-financed state pensions. Budget financed pensions amounted to 0.7 percent of GDP in 2001 (the difference between 7.5 percent for expenditures for all pensions and 6.8 percent for spending on social insurance pensions). Considering that this 0.7 percent of GDP includes pensions for the military, police, fire personnel, and airline pilots, the amount is comparatively low. The scrambling by various interests for state pensions is, of course, regrettable, and particularly troublesome are periodic discussions to introduce relatively generous pensions – separately from or supplementary to the general pension regime – for all or some government workers. But, again, this is not unique to Lithuania.

As noted earlier, the Lithuanian pension reform was formulated before the World Bank published its notable pension study, *Averting the Old Age Crisis*.⁴ Among other things, this book argued that the income replacement function (versus poverty prevention) in mandatory pension regimes should take place through “funded” defined contribution pensions. In the context of Central and Eastern Europe and Baltic countries, settled expectations, poverty alleviation concerns, and the fiscal costs of transition from pure pay-as-you-go constrained how much of the income replacement objective might be shifted to funded

accounts. A “mixed” or “diversity” model emerged first in Hungary, then Poland and since has spread to most of the transition economies.⁵

In Lithuania’s case there was little or no interest in this “diversity” model for most of the 1990s. Having undergone one wrenching pension reform, the politicians were loath to spend more political capital on yet another major change. Further, Lithuania, along with the other countries of the former Soviet Union, experienced an evaporation of ruble savings, which gave rise to popular demands for and political promises of “restitution,” limiting the fiscal space for any other large initiatives. In addition, Lithuania was relatively late in having to deal with a banking scandal and crisis in 1994, leading to large scale distrust of financial institutions. Lithuania’s Finance Ministry, moreover, has been unreceptive to any debt financing of transition costs to funding.

As the Medaiskas and Morkuniene article on Lithuanian pension reform recites, there was a long deliberative process before a law for even voluntary private pension savings could be developed in Lithuania. Partly this was because some industrial interests wanted a “book reserve” approach to occupational savings, a policy that was opposed by both domestic and outside experts. Eventually a law was enacted and was then amended to strip it of several inhibiting elements. At the end of the day, however, that law has been an operational nullity largely because the tax status of pension fund savings was not resolved until very recently. Separately, savings under the insurance law could enjoy tax free status -- not only tax exempt contributions and investment earnings, but also tax exempt withdrawals.

In the latter part of the 1990s, sentiment toward mandatory funded retirement savings became more positive, probably influenced by developments in Poland, Latvia and Estonia. More so, however, than in its neighbors, public and political opinion in Lithuania remains sharply divided on funded savings. Accordingly, Lithuania has enacted a diluted version of the regional version of “three pillars,” with only an election to divert some of the contribution rate to privately managed funded accounts. Unlike in Estonia, the funded accounts are not even mandatory for new entrants. Accordingly, Lithuania will look more like the UK “opting out” pension structure. Given that the second-tier earnings related benefit itself does not apply to the self-employed, this opting-out feature introduces yet another flexible element into an already flexible structure.

The Lithuanian opting-out differs from the UK precedent in two ways. First, finances allowing, there will continue to be a residual pay-as-you-go earnings related tier (9.5 percent of contributions falling to 4.5 percent per below). As discussed below, however, the costs and poverty prevention objective of the first tier basic benefit may eat into the financing for this residual

pay-as-you-go second tier. Second, Lithuania intends to apply the “fly paper” rule – that is, once an individual opts for a funded account, they cannot go back to a pure pay-as-you-go option.

Plans are to begin “opting out” into funded accounts in 2004 at a contribution rate of 2.5 percent, rising by one percent a year to an eventual amount of 5.5 percent in 2007 and thereafter. This schedule of increases may have to be revisited, depending on the degree of enthusiasm for the option. Countries generally have underestimated enthusiasm for funded accounts (at least in the initial period), and Lithuania continues to have compliance problems that linger in the aftermath of the economic reversals in the late 1990s.

Aside from using its lending leverage to enact (and then amend) a voluntary private pension law, the World Bank’s role in Lithuania was mostly focused on the pay-as-you-go pension law. In the early 1990s, the Bank helped provide technical assistance to develop the 1994 reform. During subsequent structural adjustment loans, the Bank promoted amendments to accelerate the phase-in higher retirement ages (consistent with the initial plans before the Seimas slowed down retirement age increases), changes to encourage work among older workers, and efforts via technical assistance (including two modeling exercises) to help policy-makers in the late 1990s to decide on overall pension policy – in particular, whether they wanted a funded component or not. In addition, the European Union provided substantial technical assistance and money to improve the administrative operations of the social insurance agency. Partly because of that EU help, Lithuania declined to borrow from the Bank for social insurance (or tax) administration infrastructure.

Latvia went through an initial stage of parametric reform similar to the first tier basic pension in Lithuania and the initial stage of the Estonian reform (discussed below). In the mid-1990s, after Lithuania had begun to implement its comprehensive reform, Latvia embarked on its comprehensive reform that remains a work-in-progress. By 1995, not only was the “three pillar” paradigm of Averting influencing pension debate, the Swedish “notional defined contribution” (or NDC) concept was beginning to take shape. Both of these concepts emphasized linking contributions and benefits – either in the form of funded personal accounts or in the form of what might be called “pay-as-you-go” bonds tied in some manner to the economy’s underlying growth rate.

Zilite suggests in her article on the Latvia pension reform, echoing the similar comment in the Lithuanian paper, that the Latvian reform overreached itself in ambition. The public was not well informed about the new pension system, and the transitional provisions led to more dispersion in benefits than was thought acceptable, leading to continual legislative tinkering over transition

benefits. The dispersion resulted from the decision to value pre-1996 years of service on the basis of individual wage histories in the period 1996-99. In contrast, Estonia and Lithuania opted to value earlier wage histories by average wage levels – that is, differentiate only at the margin for new years of service. Latvia does mitigate the strong earnings-related bias in its system with a “top up” minimum benefit – for example, for those with more than 30 years of service, they cannot get less than 150 percent of the budget-financed social assistance pension (the successor to the “social pension” in the old Soviet scheme). These minimums, however, are low relative to minimum consumer market basket and average gross salary (about 20 percent or less of the latter).

For the future, Latvia intends to divide the contribution rate used to credit NDC or funded accounts from today’s 18 percent NDC/2 percent funded to 10/10 by 2007. The reallocation, however, will not begin until 2007. On its face, it is hard to see how this ambitious reallocation can be accomplished in light of Latvia’s existing and forecasted dependency ratios (see later discussion). Latvia was the first of the three countries to start its funded component (“second pillar”) in July 1, 2001. However, for the first one and half years, the money was parked with the Finance Ministry and invested in government paper – which is de facto pay-as-you-go. As of January 1, 2003, individuals began to choose among private asset managers.

In Latvia, the World Bank provided assistance mostly in the form of a project loan to automate and improve operations of the social insurance agency. Sweden provided bilateral assistance in the form of technical assistance and modeling. The Swedish NDC reform was a major policy reference point for Latvian policy-makers.

Estonia arguably was the most cautious and deliberative in developing its pension reform among the three Baltic countries. Though key policy advisors in Estonia closely monitored pension reform innovations in the region and debates in the literature, the eventual three-pillar reform was a home grown product, although advice was occasionally sought from the World Bank and others.⁶ The article on Estonian pension reform by Oorn relates that the Estonian government decided upon this approach only in 1997 after discussions among the Finance Ministry, the Social Affairs Ministry and other experts. Estonia is notable in having substantial policy continuity in the 1990s with parallel continuity in very knowledgeable civil servants. As matters developed, this go-slow and very consensual approach allowed for parallel development of administrative institutions that, once developed, allowed for reforms, particularly the funded “second pillar,” without any noticeable complications.

The first pillar pay-as-you-go system reflects the legacy of compressed benefits in the wake of the Soviet Union's demise. There is a base amount plus two work-related amounts. The base amount is embedded in the pension payable to anyone who qualifies (15 years of service). The two work-related components reflect service before or after 31 December 1998. Each year's work before that date is valued by the same fixed amount for each individual (the same as Lithuania's first tier benefit). Work after that is valued according to each person's wage history. For new entrants their eventual benefit will reflect only the small base amount and a conventional earnings-related benefit based on lifetime wages and contributions. In addition, similar to Latvia but at a higher level, Estonia has a top-up pension (national pension) which operates as a minimum benefit guarantee. Because of the base amount in the social insurance formula, fewer people fall below the national pension level than otherwise.

In addition, Estonia, like Latvia and, less so, Lithuania decided to have a funded component, the precise features of which were finalized in 2001. Technically this component is mandatory just for new labor force entrants, a compulsion that was imposed only in the later stages of debate. Estonia, having perhaps the tightest fiscal regime among all transition economies, was loath to take on new debt to finance the transition. On the other hand, decision-makers initially wanted to have a funded component on the order of 8 to 10 percent of payroll. This implied two unwelcome alternatives: either having a very small second pillar, the economic advantages of which are uncertain even with tight control over fees, or having a more rapid increase in retirement ages than was thought desirable or even feasible.

To finesse these constraints the Estonians came up the innovation to "tax finance" part of the transition. Those in the labor force who decide to "switch" have to pay an extra two percent of payroll to have four percent of regular contribution rate diverted to the second pillar. In addition, Estonia appears to have higher compliance rates than Latvia or Lithuania, which permits both a lower contribution rate in general and (at least to date) balance in the social insurance accounts. Estonia, however, moved from ad hoc to periodic indexing of the first pillar. In addition, enthusiasm for the second pillar has outstripped all expectations with many more switchers than originally forecast. These are likely to create challenges for Estonia's pension financing which exceed its past experience.

Design of Funded Components

As suggested above, the funded components in the three countries have developed in somewhat different ways. This section will review some of the key differences.

Administration. All three countries have adopted some version of a “centralized” administrative model for the second pillar. This is line with similar reforms in the general region with the exception of Hungary (where employers must sort out contributions by workers’ choices and send them to the chosen pension fund administrators). The extent of centralization varies across the three countries for the main administrative functions: contribution collection, record keeping, and account management.

- Estonia – The Tax Board collects social insurance contributions as well as other direct taxes in Estonia. The Tax Board sends aggregate second pillar contributions to the Central Registrar for Securities, which then sorts out the money according to workers’ choices among the licensed pension funds. Despite having central recordkeeping with the Central Registrar, because of last minute lobbying, fund managers are allowed to know which individuals are subscribed with them.
- Latvia – The State Revenue Service collects social insurance contributions as well as direct taxes in Latvia. In Latvia, however, the State Social Insurance Agency, serves as the central record keeper and administrative intermediary among worker-participants and fund managers. Though similar to the Sweden centralized model for record keeping, for reasons owing to system implementation problems, the Latvian variant had to enlist banks and life insurance companies to help register individuals with their chosen fund managers. Because these companies are also sales channels for fund managers, the latter may know which individuals are subscribed with them.
- Lithuania – At this time, Lithuania has not yet fully combined social insurance contribution collection with the collection of direct taxes, though some combination is a matter of ongoing discussions – if only because the social insurance agency (SODRA), thanks to EU assistance, is more centralized and automated than the tax agency. Accordingly, SODRA is responsible for sorting out second pillar contributions among fund managers according to workers’ choices. There will be no attempt in Lithuania to maintain a central record keeper for the second pillar. Each fund management firm will maintain its own data base.

All three countries thus attempt to create an information barrier between employers and workers as to how the latter have chosen to invest their money. For reasons of policy and operational necessity, no such barrier between fund managers and worker-participants, along the lines of the Swedish model, completely exists in the Baltic countries, though Latvia may attempt to move back in that direction. Under these circumstances, time will tell if central second pillar record keeping in Estonia and Latvia adds value or not.

Estonia's implementation encountered few of the glitches that have plagued second pillar implementations in the general region. This was because it could build upon two already up-and-running agencies that were fully up to advanced system standards. Latvia's implementation was less successful, but because of the ability to "escrow" second pillar accounts with the State Treasury, it was possible to improvise in the system planning and proceed without major problems. Lithuania is placing a large burden on its social insurance agency if operations are to begin in 2004. Most outside observers have cautioned Lithuania's planners to stretch out the implementation period, perhaps by having an initial "escrow period" as was done in Latvia (and, on a lesser basis, in Croatia). As of this writing, it is unclear how Lithuania will deal with this challenge.

Regulation, legal formalities and investment alternatives. Both Estonia and Latvia have combined financial market supervisors. Also, Latvia and Estonia largely have used the legal structure of their investment company laws for second pillar providers (also used in their voluntary pension savings, along with insurance company providers). This has made their regulatory issues relatively easy to resolve, although each has had problems with breaches in the advertising rules. Both countries also require the use of custodians.

What distinguishes these two countries (and, as discussed later, Lithuania) from the general regional norm is that the asset management companies may offer more than one fund option. The scope for portfolio-style difference is considerably greater in Estonia. Latvia also retains the State Treasury as a possible investment manager, which can invest only in government paper, bank deposits and mortgage bonds denominated in Latvian currency, for those who do not affirmatively choose an asset manager or those who want a generally risk-free option. In Estonia, the default option for new entrants who do not affirmatively choose an asset manager and portfolio style is to randomly assign them one of the more conservative portfolios with an associated asset manager.

The situation in Lithuania is more complex. Though often discussed, there is not yet a combined financial market supervisor in Lithuania. Coupled with the decision to allow for "pension accumulation contracts" either under the

supplementary voluntary pension funds law (now amended yet again) or under the insurance law, this dual supervision leads to a more complicated structure. Recently enacted legislation, however, achieves a large degree of parallelism between using a pension fund vs. an insurance company. For example, if the insurance company route is chosen, there must be a legal separation between the company and the assets under management. In addition, a custodian has to be used. On the other hand, if the pension funds law is used and one of the portfolios offers a guarantee, it must set aside an appropriate reserve for the guaranteed benefit. As Lithuania moves into the EU and probably combines financial regulators, likely there will be a revisiting of whether this parallelism is useful – particularly if solvency margins and capital adequacy requirements are the same.

A useful byproduct of the latest revision of the pension funds law is the adoption of the “collective investment scheme” concept typically used in the EU – that is, a pool of assets in which members own units, but the pool has no legal personality as such. This represents a final break with the “mutual society” approach first imported to Lithuania at the beginning stages of transition. It is not clear, however, whether the amended law easily allows for employers to establish occupational schemes for workers.

Like Estonia, Lithuania has adopted a flexible approach to investment options, but with the proviso that any licensed provider must be one conservative portfolio along the lines described above for Estonia. Because Lithuania is “opt-out” – even for new entrants – there is no need for a default option: the pay-as-you-go second tier is the de facto default option.

All three countries have rules to prevent concentration in particular companies or issuers. These rules, however, will be tested given the limited number of assets available on the domestic markets. The Katkus paper discusses the general status of the capital markets in the three Baltic countries and the developments in what is loosely-labeled the “third pillar” – that is, truly voluntary savings over and beyond what the state mandates. As the paper discusses, insurance companies dominate the Lithuanian voluntary pensions market as a result of the original penetration of the insurance industry by German insurers. In contrast, the Estonian market is characterized by investment companies, perhaps reflecting Estonia’s more initial Anglo-American bias in capital market development.

Why have a funded component? The earlier 2003 OECD study on Baltic labor market and social policies raised doubts whether introduction of the funded pension components in the three Baltic countries was, at least at this time, necessary and even prudent. On many grounds, the case for a funded

component is problematic. The fiscal rectitude required to finance a move from a pay-as-you-go to a funded system can help increase national savings (assuming no full offsetting behavioral adjustments at the household level), but it does not justify such a reform. If public sector budgetary surpluses really contribute to national savings, then governments may want to strive for these regardless of their pension policy. Introducing mandatory pension savings can also raise national savings if households do not offset the increase by adjusting downwards their voluntary savings. In general, the empirical evidence from countries that have moved from pay-as-you-go to funded systems is that the reform itself had a small if any impact on national savings.

In small capital markets such as these three countries, it is also hard to argue that funded pensions are necessary in order to achieve more efficient capital market development (as in the much studied Chilean case). Even strong proponents for funded pensions will agree that capital market developments will take hold in Baltic countries in any event as a result of EU accession. In addition, the Baltic countries, as the Katkus paper demonstrates, are increasingly dominated by large foreign financial intermediaries who are well skilled in allocating capital among competing purposes. Pension funds could play a role as specialist investors in the local market, helping to gather information about new investment opportunities. In her article, Strumskyte argues that local pension funds could be a source of financing for new ventures and private equity, helping these countries to bridge the productivity gap with Western Europe. It may be some time before such developments take hold, however. Even in developed OECD countries, pension funds have only started to look into such investments lately. In the Baltic countries, the regulators concerns over liquidity and disclosure are likely to draw pension funds away from private equity.

There is also a misperception over the supposed welfare gains from higher returns from funded systems than pay-as-you-go ones that arises from ignoring the fiscal costs of the transition from pay-as-you-go to funding (including interest on any increased national debt) – these reductions in public or private consumption lower households’ “rates of return” even though the effects may not show in a household’s annual income statement of pension returns. And, as the earlier OECD study argues, the administrative charges on funded accounts are often more than reckoned or socially desirable.

On the other hand, a funded component may help the citizens of these small countries diversify their retirement savings beyond the borders of their countries. While investment abroad carries with it some currency risk, accession requirements to track the euro and its eventual adoption will eliminate that risk. Perhaps more important is the need to “de-monopolize” the state’s

mandate to contribute 20 percent or more to retirement savings. Although the pension contribution rates are lower than, for example, in Poland or Hungary, the total social insurance levies, combined with relatively high single income tax rates (less so in Estonia), creates a large tax wedge – regardless of the burden falls technically on the employer or the worker. Until now it has not been feasible in the post-socialist to simply lower contribution rates and assume that voluntary occupational or individual pensions will quickly develop to fill the gap. A halfway house, however, is to give individuals more responsibility for managing a portion of what the state mandates. Of course, only time will tell if this increase in household discretion will lead to a greater sense of “contribution” versus “tax” and, accordingly, higher household welfare and perhaps compliance. As in the case of any experiment, the results must be monitored and decisions reversed or modified in light of experience. In addition, as discussed below, fiscal realities impose a limit on the size of any such experiments – probably to no more than to a range of 5 to 6 percentage points of payroll.

Integration of pay-as-you-go and funded components and fiscal sustainability

As discussed above, all three countries have an earnings-related element in their pay-as-you-go system. On the surface, integration of pay-you-go and funded accounts seems easy. One can divert money from those pay-as-you-go accounts to funded accounts and make future pay-as-you-go entitlements that much smaller. This, however, supposes two doubtful future conditions. The first is a greater degree of demographic equilibrium across time than exists in these countries (or, for that matter, most all countries). The second is that the countries have found a sure and certain means to move their pay-as-you-go systems from defined benefit promises to something more akin to defined contribution in which “returns” are solely a function of available resources in the financing base in the future.

In principle Latvia has embraced a “notional defined contribution” system. This term has taken on several colorations. One is that the formula is expressed as a function of contributions rather than an accrual rate times some wage history.⁷ As Whitehouse demonstrates in his summary paper, this is just another way of expressing the same promise. In any pay-you-go system, there is equivalence between the following two expressions. The first is a conventional defined benefit (DB) formula of say, one percent for each year of service times a lifetime wage history adjusted (valorized or indexed) by average wage growth from each year to retirement. The second is a formula that valorizes a contribution history by average wage growth (the notional “rate of return” on contributions) times the product of the contribution rate (say, 20

percent) divided by the longevity factor (say, the factor associated with a life expectancy of 20 years after retirement).

Each formulation is the same promise, except in the second case, the longevity factor is, in theory, more adjustable than what occurs in many traditional DB formulas – adjustable in the sense that it varies from cohort to cohort as life expectancy increases, and in the sense that it decreases in amount should a person continue working after the first age of pension eligibility. Even this last difference evaporates if the DB alternative provides for a delayed retirement credit for those who choose to work longer or retire earlier than the full retirement age -- for example, the eight percent per year credit in Lithuania for delayed retirement or the 4.8 decrement in Estonia for early retirement. In addition, the choice of longevity factors may be just as politically determined in “NDC” schemes as have been retirement decrements and increments in conventional DB formulations (see, for example, China, Russia, Mongolia, Kyrgyz Republic). In Latvia, though a sophisticated longevity table exists in which, for example, the longevity factor has increased for those retiring at age 60 in 1996 from 18.25 to 18.94 in 2002-2003, it nonetheless must be approved by the council of ministers and, thus, may not be independent of politics.

More fundamental, however, is that even with ever increasing longevity adjustments, the explicit or implicit promised rate of return in the pay-as-you-go system during an individual’s work history may be create an obligation that is greater than what can be financed at an equivalent contribution rate in the future. Some argue that by adjusting contributions (or wage histories) by “wage sum growth” rather than “average wage growth,” long term balance at a fixed contribution rate will be achieved. The analytical jury is out on whether this balance at a fixed rate can be achieved in some “pure” case. But this condition cannot always exist (a) if there is any significant credit for “past service (“initial capital” in NDC parlance) or (b) if benefits-in-payment are adjusted by some combination of average wage growth or prices (vs. wage sum). Both are the case in Latvia.

In addition, it is hard to conceive of a pay-as-you-go system that does not give individuals a return on contributions that is consistently less than real wage growth (productivity gains accruing to labor) or that has replacement rates that are not reasonably consistent from one cohort to the next. Nor is reasonable to suppose that society will or can let individuals to retire at today’s retirement ages but with ever lower relative amounts (e.g., relative to average wage) or even real absolute levels.

Accordingly, despite the NDC label, Latvia’s earnings-related system closely resembles the “coefficient” (or point) formulas in Lithuania and Estonia

– that is, underlying the label there are defined benefit promises, although weaker and more contingent than what other pay-as-you-go DB systems. It is too early to tell whether sophisticated longevity tables vs. more ad hoc increments and decrements are politically more sellable to equalize internal rates of return and to encourage delayed retirement.

The above analysis also suggests that the three Baltic countries will have to revisit the retirement ages at which individuals are first allowed to retire. Only by that means will they be able to assure pay-as-you-go benefits that generally track productivity in replacement rates and that serve some clear social purpose -- either poverty prevention or predictable (non-volatile) earnings-replacement. In this regard, all three countries probably will have to revisit both retirement ages for women – both in terms of faster acceleration (particularly Estonia) and eventual equalization (particularly Lithuania).

In Latvia's case, the simulations in the Whitehouse paper demonstrate the implausibility of its current policy. The Whitehouse paper, using the same methodology that he has used for a variety of OECD and non-OECD countries, asks what will be the replacement rate for new entrants under current law. He assumes promised pay-as-you-go benefits under current law, regardless of whether current contribution rates as plausible or not. In the case of funded components (mandatory or opt-out), he assumes a real rate of return of 3.5 percent (net of expenses) compared to 2.0 percent real earnings growth. These assumptions yield 75 percent replacement rates (compared to gross wages).

The roughly 40 percent replacement rates from the 10 percent funded pillar in Latvia may or may not be obtainable. This partly depends on views about capital market returns relative to wage growth in the long run. But the residual 35 percent replacement rate (75 percent minus 40 percent) from the NDC component cannot result unless Latvia's average dependency ratio in the future is roughly 3 workers for each beneficiary. Latvia's dependency ratio is already below 2 workers to 1 retiree and falling. Either retirement ages have to be adjusted to a level such that a 3:1 dependency ratio is obtainable, or much less can be diverted to the funded pillar to maintain a noticeable pay-as-you-go benefit at lower retirement ages.

Similarly, the Estonian and Lithuanian simulations at today's retirement ages are higher than seem, on their face, plausible absent major changes in retirement ages or other factors that could affect basic dependency ratios. In the case of Lithuania, it calls into question whether there can be a residual pay-as-you-go earnings-related "medium tier" for those who opt for a funded component. That is, will the pay-as-you contribution rate have to be directed to just supporting the first tier basic benefit as something close to today's 15 to 20

percent of average wages, even assuming retirement age adjustments? If so, can the opt-out structure be maintained?

The same questions can be posed to Estonian policy-makers, again absent substantial increases in retirement ages? Estonia's replacement schedule falls between that of Lithuania and Latvia. If Latvia's forecasted is clearly implausible and Lithuania's questionable, then despite Estonia's greater compliance history, the same trade-offs have to be posed among maintaining the relative value of the basic benefit, retirement ages and how much can toward a residual earnings-related pay-as-you-go benefit.

Pension ceilings, retirement incentives and tax policy

The Whitehouse paper is also important in posing three more questions for Baltic policy-makers as they think about the future in pensions and, more generally, in tax policy.

First, the Whitehouse paper shows that the three Baltic countries are "ambitious" in the scope of the earnings distribution that they try to cover with mandatory pension contributions – either pay-as-you-go or funded. Ironically, as Whitehouse notes, historically it is the OECD countries with lower ceilings in their mandatory systems that have higher retiree to worker ratios in overall earnings distribution statistics. Only Lithuania with two-tier formula comes close the "middle bunch" in the OECD. By extending the reach of the mandatory system beyond 200 percent of average wages, the Baltic countries may be stifling development of voluntary provision and not focusing public policy enough on the provision of basic poverty-prevention benefits. Granted that this extensive reach is partly dictated by financing concerns and a desire to decompress an unacceptably compressed benefit schedule from the early 1990s, nonetheless this policy has the effect of imposing a high "tax" into an area of the income distribution where the demand for retirement savings (particularly in the form of annuities) is diminishing.

Second, the Whitehouse paper suggests that all three countries have very similar net replacement rate schedules. This is because of the interaction of their benefit schedules and the tax thresholds for those in retirement vs. those who are still employed. In Latvia's case, net replacement rates under current policy may exceed 100 percent. In Estonia and (less so) Lithuania, the redistributive aspects of the benefit formulas are undone by the tax allowances enjoyed by retirees. Again this demonstrates the importance of an integrated approach to tax and pensions policy. Over time taxation of the elderly, by necessity, will become less generous and net replacement rates will fall, suggesting again a review of how much afforded at what retirement ages.

Third, the Whitehouse paper notes that “actuarial neutrality” has different meanings. In Latvia, despite the longevity factor adjustments, because no real interest rate is assumed in those factors (unlike the Swedish NDC), the adjustments are not enough to compensate for a decision to delay retirement. Paradoxically, the Estonian and Lithuanian factors for early retirement (only Estonia) or delayed retirement (both Estonia and Lithuania) increase the retirement wealth of those who would choose to delay retirement. It remains to be seen if any of these schedules will have a behavioral effect. The analysis reminds us, however, that actuarial neutrality may not be enough to encourage additional work, especially if the time value of money is fully taken into account. Indeed, it may be necessary to provide incentives that exceed (real) market interest rates to delayed retirement (or, more directly, legislated increases in retirement ages).

The Pay-Out Phase

Public policy in all three countries is currently predisposed to require annuities from the funded components. In Lithuania and Estonia, lump sum withdrawals will be permitted (probably required) when accumulated amounts fall below some *de minimus* thresholds. Estonia contemplates allowing periodic withdrawals for amounts in excess of some relatively high levels.

The demand for annuities is satisfied at relatively low levels in OECD countries that have relatively modest state administered or mandated systems. Forcing “too much” annuitization may be perceived as a “tax” and counter the greater sense of discretion allowed in the accumulation stage. In addition, funded annuities come in many varieties, only some of which seem to have met market tests. Only a few occupational defined contribution schemes have managed to require, through compulsion or suasion, large scale annuitization. Notable in this regard are Denmark’s occupational schemes and the TIAA-CREF occupational system in the United States (a large service provider to employers and worker in the educational and not-for-profit sector). Both hedge their mortality bets by some degree of “participation” – that is, annuitants may get less than expected (typically less profit-sharing in excess of the minimum guaranteed benefit) if mortality gains in retirement are greater than originally estimated. In addition, increasingly common are annuities that allow individuals to invest in equity – if that is their preference. The Chilean experience in allowing a choice of programmed withdrawal (adjusted for longevity annually) and more conventional annuities seems to have worked well and provides another example where variety has been helpful. A fortunate aspect of EU accession is that the Baltic countries will gain access to insurers with world-wide experience and a sense of what is feasible at acceptable market prices.

More fundamental, however, is the question of whether annuitization is something that should be required in what might be termed the “young-old” period – the period stretching from the early 60s to, say, age 75 to choose a date where the probabilities of survival begin to approximate what they were a century or more ago when social insurance first began with retirement ages of 65 (or even 70). Arguably the preeminent social concern in old age pension mandates is to assure that households have set aside enough to buy deferred annuities to keep them above some “comfort” level should they survive to and beyond their life expectancy at, say, age 60-63 (or, in recognition of diminishing work capacities, to a point somewhat to the left of that survival distribution). If the “comfort” level is set at 25 to 30 percent of average gross wages and the chosen age is one around two-thirds survival probability (from age 60-63), then the costs of this deferred annuity requirement are on the order of 35 to 40 percent of an average worker’s retirement accumulation in even modest retirement systems.

In the period before that deferred annuity age, individuals almost certainly will have to combine some continued (part time?) work and some draw down of accumulated savings. This argues in allowing some flexibility in how second pillar accumulations are used – that is, it may be efficient to allow second pillar savings to be drawn down in the young-old period, reserving government’s pay-as-you-go obligations (in effect, what is longevity and poverty prevention insurance) to cover the old-old period – the period after which the deferred annuity requirement takes hold.

Final Observations

Unfortunately for policy-makers and politicians, pension reform these days is not a sometime endeavor. It remains a subject demanding continual modeling and policy review. The three Baltic countries probably have done as much, if not more, than other transition economies. Along with Central Europe, they are soon to join the European Union where they will find countries with similar pension debates and trade offs. In their cases, they have begun to grapple with the core issues of poverty prevention vs. income replacement, the need for higher retirement ages and the desirability of diversifying financing beyond their borders, and how to sequence different sources of retirement wealth. Policy-makers and analysts in these countries are surely not behind the knowledge and analytic curve; they may be ahead of it.

NOTES

- 1 For a discussion of the political economy of pension reform in transition economies and the role of the multilateral lenders and bilateral donors, see Katharina Mueller, *Privatizing Old-Age Security: Latin America and Eastern Europe Compared* (Edward Elgar Publishing, United Kingdom, 2003).
- 2 Social Security Pensions: Development and Reform, C. Gillion et al. (eds.), International Labour Office, Geneva, 2000.
- 3 *Labor Markets and Social Policy in Central and Eastern Europe: The Transition and Beyond*, Nicholas Barr (editor), Oxford University Press, September 1994.
- 4 *Averting the Old Age Crisis: Policies to Protect the Old and Promote Growth*, World Bank Policy Research Report, Oxford University Press, September 1994.
- 5 In the wake of its work in pension reform, several World Bank reviews and evaluations are underway. One of them that focused on Latin America has suggested that most of the reformed systems are overly ambitious in mandating funded savings but insufficient in their concern for minimalist poverty reduction goals. (Keeping the Promise of Old Age Income Security in Latin America Indernit Gill, Truman Packard and Juan Yermo, 2004). In effect, this is a movement back to the pre-Averting policy orientation present in the Bank's early work in Lithuania and other countries in the region.
- 6 Estonian policy-makers organized a seminar in Estonia in 1999 to which they invited World Bank staff and other pension experts to advise them on specific design issues. A similar seminar took place in Lithuania in 2000 as policy-makers debated exactly how to implement a funded component. Materials from those seminars were synthesized and expanded in "The Evolution of Pension Systems in Eastern Europe and Central Asia: Opportunities, Constraints, Dilemmas and Emerging Practices," published in *Financial Market Trends*, No. 80, Organization for Economic and Cooperation Development, October 2001.
- 7 The second and more interesting meaning for notional defined contribution is whether it is possible to construct a pay-as-you-go system where future commitments are bound to a fixed contribution rate, coupled with either a funded reserve (buffer fund) or disciplined borrowing authority from the budget or general capital markets. As the text suggests this constraint may or may not be facilitated with "wage sum" indexing, but, as the text also suggests, at what social price? The Swedish NDC system attempts to reconcile these various constraints and objectives by overlaying a "balancing mechanism." Discussion of that option goes beyond this paper.

COMPARING THE NEW PENSION SYSTEMS OF THE BALTIC STATES

Edward Whitehouse

Abstract

This paper uses a consistent method to compare pension benefits in the Baltic states. The approach is "microeconomic", looking at individual entitlements under the reformed retirement income regimes. The pension entitlements that are modelled are those that are currently legislated. There is no attempt at determining the affordability of these entitlements. The projections of benefits for full-career workers show that these new systems are well diversified, with around half of the net replacement rate coming from the funded schemes in Estonia and Latvia and one third in Lithuania. The new systems are also broadly neutral with regard to pension age and do not encourage early retirement to the degree of many OECD countries. On the other hand, the new systems are more generous and less redistributive than all but a couple of OECD countries. The treatment of pensioners under the personal income tax is also exceptionally generous in all three countries.

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Pension systems are very complicated and comparing them is consequently difficult. This paper uses a consistent method to compare the pension systems of the Baltic states. The three nations have moved in a similar direction in pension reform, albeit it at very different speeds.

First, they have already established or will shortly introduce mandatory contributions to funded pensions. These involve individual retirement-savings accounts, known in pensions jargon as ‘defined-contribution plans’, where the value of the pension depends on contributions made and investment returns earned. They contrast with the ‘traditional’ form of pension provisions, which has been publicly provided and pay-as-you-go financed with a defined-benefit formula.

Secondly, they have reformed their pay-as-you-go public schemes, typically in an attempt to reduce their burgeoning cost. The changes have also introduced a tighter link between the value of contributions made and the value of benefits received, which naturally reduces the degree of redistribution inherent in the programmes.

This paper adopts a ‘microeconomic’ approach to comparing retirement-income systems, looking at individual entitlements under the reformed retirement-income regimes. This method is an important complement and underpinning to models of the pensions picture at a macro level (*i.e.*, including demographic, labour-market and broader economic modelling to project the aggregate financial flows of the system). These microeconomic techniques were developed for the OECD’s retirement-income reviews of nine of its Member countries, the principal findings of which were published in OECD (2001)¹. Since the initial report, the analysis has been extended to some 15 countries.² Some comparisons between the Baltic states and OECD countries are made using these earlier results.

This microeconomic approach, while providing useful insights on the relative structure of retirement-income systems, invites a very important caveat. This is that the pension entitlements that are modelled are those that are currently legislated and that the financing of these retirement-income promises is not considered. It is easy, therefore, to regard a system with large pension benefits as ‘a good thing’, even though this means that the government may not be able to afford to meet these pension promises in the future. Moreover, the cost of these pension promises on current workers is not included in the analysis.

The rest of the paper is structured as follows. The following section sets out the basic methodology of the paper. Section 2 discusses the details of the

pension systems of the three nations in turn. It also includes information on the personal income tax schedule and social security contributions.

Sections 3 to 5 present the core empirical results: the value of pension benefits. The results are presented in a standard format and on standard assumptions. Pension benefits are calculated for a full-career worker earning various proportions of the economy-wide average: between 0.3 times and five times the average. Although most workers, of course, lie in the bottom part of this scale, a broad range of earnings was chosen to illustrate properly the impact of ceilings on pensionable earnings (or their absence). Section 3 shows results for gross pension benefits (that is, before the effects of personal income taxes and social security contributions). In Section 4, the impact of the relative tax treatment of pensioners and workers is assessed by comparing gross and net pension benefits (that is after tax and contributions) with gross and net earnings of workers.

Initially, people are assumed to retire at the standard pension age. Section 5, however, extends the analysis to consider the effect of retirement age on pension value. This gives some indication of the effect of the pension system on retirement incentives. Section 6 concludes and provides some preliminary observations on the policy implications of the results.

1. Methodology

The aim of this paper is to compare the structure of reformed pension systems. Thus, the parameters modelled are those when currently legislated reforms are fully in place. The results show pension entitlements (from all mandatory sources) for full-career workers. They are calculated for earnings between 0.3 times and five times the economy-wide average. Individual pay is assumed to follow the path of economy-wide earnings. Assumptions for macroeconomic aggregates *etc.* are as follows:

- earnings growth: two per cent;
- real rate of return on funded pensions: 3.5 per cent;
- discount rate: two per cent;
- mortality rates: World Bank/UN projections for 2025. (See Annex A for a detailed discussion).

The empirical results are presented in two main ways:

- relative pension value, that is, individual pension entitlement divided by economy-wide average earnings; and
- replacement rate, that is, individual pension entitlement divided by individual earnings.

1.1 *Pension entitlements and age of retirement*

These measures are ‘static’ in the sense that they consider the pension value of someone retiring at the standard pension age. Section 5, in contrast, presents ‘dynamic’ results, considering the effect of retirement age on the pension value. The model underlying these results looks at different levels of earnings — 0.5, 0.6...2.5 times the economy-wide average — and at different ages at which individuals might leave the labour force — from age 55 to age 70. In each case, it then calculates the flow of pension benefits at each age from 55 to age 110. For example, individuals leaving the labour force before the earliest pensionable age will obviously not receive a pension entitlement during this period. However, they will not earn any extra pension entitlement, unlike their contemporaries who remain in work. These flows of pension benefits conditional on retirement at a given age are then converted into a present value of ‘pension wealth’ using standard actuarial techniques:

$$K_t = \sum_{i=t}^T s_i p_i (1-r)^{i-t}$$

where K is pension capital at time t , p is the value of the pension benefit in a particular period, i , conditional on retirement at time t , r is the discount rate and T is some terminal age (taken to be 110).

The survival function, s , is calculated from the mortality data (see Annex

A) as:

$$S_t = \prod_{i=t}^T (1 - \lambda_i)$$

where λ is the mortality ‘hazard’ (the conditional probability of dying in a given year), indexed to time i .

The change in pension wealth from deferring retirement for a year is given by:

$$K_{t+1} \frac{(1-\lambda_t)}{(1+r)} - K_t$$

This formula compares pension wealth from retiring today, K_t , with pension wealth from retiring a year hence. However, K_{t+1} gives the value of pension wealth at time $t+1$. For comparison with pension wealth today, this must be discounted back (the $1+r$ term above) and must allow for the probability of dying in the current year ($1-\lambda$). In the results that follow, we normalise the change in pension wealth to earnings.

An alternative derivation of this result is to compare two income flows: the first from retiring in the current year, the second from retiring in a year’s time. The additional income from deferring retirement is given by:

$$w_t + K_{t+1} \frac{(1-\lambda_t)}{(1+r)} - K_t$$

Normalising by earnings, the additional income is simply one plus the change in pension wealth over earnings.

These equations imply that there are six important effects on an individual’s income stream from delaying retirement by a year in a defined-benefit plan:

- an extra year’s earnings;
- foregoing a year’s worth of benefits;
- accruing an extra year’s entitlement;
- any change in earnings as measured by the defined-benefit pension formula;
- the adjustment to formula earnings already accrued (in line with economy-wide average earnings, for example); and
- any actuarial adjustments that might be applied.

In defined-contribution plans, the effect is somewhat different:

- an extra year's earnings;
- foregoing a year's worth of benefits;
- the increased annuity rate from delaying retirement for a year;
- the extra year's investment returns earned on the accumulated capital; and
- the benefits deriving from an extra year's contributions.

1.2 Earnings data

The figures for average earnings are taken from national sources, giving the average earnings of covered workers.³ These are shown in Table 1, along with their value converted to Euros at market exchange rates.

Table 1. Average annual earnings, 2002

	National currency	Euros, market exchange rate
Estonia	73 300	
Latvia	2 400	
Lithuania	10 600	

Source: National statistics

Note: Values have been rounded for clarity

1.3 Implementation

The models are built primarily in the 'Stata' statistics and data programming language with cross-checks of the results in 'Excel' spreadsheets. (The models are available on request from the author.)

2. Description of pension systems

2.1 Estonia

2.1.1 Qualifying conditions

The pension age will be equalised (between the sexes) at 63 from 2016. The pension can be claimed up to three years before the standard age (*i.e.* from age 60 in the long term) provided that the individual retires.

2.1.2 Pension value: pay-as-you-go schemes

For periods of service up to and including 1998, the pension value is a flat amount per year of service. After that, the pension is earnings-related, using a formula akin to a points system. The value depends on individual earnings relative to the average pay of contributors in each year. The sum of these values is then multiplied by the ‘annual pension insurance coefficient’ to arrive at the pension entitlement. The coefficient was EEK 31.69 per month in 2002. Given the average earnings figure (see above), this is equivalent to an accrual rate of around 0.5 per cent per year of service ($31.69 / 6122$ — monthly average earnings — = 0.005). There is no ceiling to pensionable earnings.

A minimum retirement-income guarantee is provided by the national pension. This was EEK 867.20 per month in 2002. This is substantially above the social-assistance minimum (which has not therefore been modelled).

These two parameters are uprated annually, to one half of the increase in consumer prices and one half of the increase in total social-security-contribution revenues. (The latter is obviously equivalent to the growth in the covered wage bill.)

The pension value is reduced by 4.8 per cent for each year that an individual retires early. Deferring the pension claim earns an actuarial increment of 10.8 per cent per year.

2.1.3 Funded scheme

Individuals choosing the funded option must make an additional contribution of two per cent of earnings into their pension fund. Four percentage points of the total social security contribution is then also diverted to this fund. New labour-market entrants (that is, those born in 1983 or after) are required to take the funded option. Most current workers can choose this option (that is, those born in 1942 or after, *i.e.*, up to age 60).

2.1.4 *Personal income tax*

The personal income tax has a single, flat rate of 26 per cent. There is a general allowance of EEK 3,000 per month. Pension payments now count as taxable income, but only if they exceed three times the general allowance. Pensioners are also entitled to the general allowance.

2.1.5 *Social security contributions*

Employers pay social-security contributions of 33 per cent of gross earnings, of which 20 percentage points finance pensions. There is no ceiling to contributions. Pensions in payment are not liable for social security contributions. As noted previously, individuals taking the funded option must contribute two per cent of their earnings.

2.1.6 *Implementation*

The three components of the pension system are modelled as follows:

1. Earnings-related pension

This is calculated as:

$$\frac{w}{\bar{w}} \alpha (A_R - A_E)$$

where w is individual earnings and $\bar{w}$ average covered earnings, the A s represent retirement and entry age (63 and 20 respectively), α is the coefficient (just under EEK 32).

2. Funded pension

The accumulated balance at the time of retirement is:

$$c_F w e^{rT} \frac{e^{-rT} - 1}{-r} a$$

where c_F is the contribution to the funded scheme (six per cent) and r is the rate of return on the funded scheme (normalised to the growth in individual earnings). At retirement, I assume that members can convert their accumulated capital to an annuity using the annuity rate a . The standard mortality data give an annuity rate of 8.4 per cent at pension age (63), equivalent to an annuity factor of just under 12).

3. National pension

Should the other components fall below the level of the national pension (EEK 10,400 a year), then the pension is brought up to this level.

2.2 *Latvia*

2.2.1 *Qualifying conditions*

The pension age will reach age 62 for both sexes in the longer term. A full pension entitlement also requires ten years' service.

2.2.2 *Pension value: pay-as-you-go schemes*

The new pension system is based on 'notional accounts'. This is a pay-as-you go pension regime that is designed to mimic some of the features of funded, defined contribution systems. The pension value is determined by the sum of notional capital at retirement divided by the 'g-value'. Compared with funded pensions, these two variables are analogous to the fund balance at retirement and the annuity rate respectively. Notional capital is the sum of contributions paid uprated in line with the covered wage bill (that is, aggregate earnings of contributors to the system). The g-value is calculated using projected life expectancy at the age of retirement with a unisex lifetable. New values are determined annually.

There is a ceiling to covered earnings of Lat 17,300. In 2001, the average covered wage was around Lat 1,750 per year. Due mainly to the ceiling to covered earnings (but also to differences in coverage, definitions *etc.*), this is around three-quarters of the economy-wide average earnings figure.

The pension in payment is currently uprated by the consumer price index plus 25 per cent of real wage growth (again, earnings are defined as the sum of earnings of contributors). From 2011, it is envisaged that the share of real wage growth will increase to 50 per cent. The possibility of moving to 100 per cent earnings indexation is contemplated.

There is a range of different safety-net benefits for older people . First, a guaranteed minimum pension set at the same level as the general safety-net benefit: 50 per cent of the minimum wage (Euro 53). From 2002, this varies with the length of service in the pension insurance system, as follows:

Years of service:	20	30	>30
Multiple of minimum pension:	1.1	1.3	1.5

For those unable to build up sufficient rights in the public pension scheme, there is a safety-net benefit available for people whose age exceed the minimum pensionable age by more than five years.

2.2.3 *Funded scheme*

People under aged 30 must now contribute to a new funded scheme. Those aged between 30 and 49 can choose between remaining in the public, pay-as-you-go system alone or belonging to both the public and the funded scheme. The proportion of earnings diverted into the funded scheme is very small at first — just two per cent — but will increase over a ten year period, with the growth concentrated in later years. The envisaged path is as follows:

Year:	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Contribution:	2%	2%	2%	2%	2%	2%	4%	8%	9%	10%

At retirement, the accumulated capital must be converted to an income stream under these alternatives:

- adding the balance of the fund to the notional capital built up under the public scheme. The resulting income stream would therefore be the accumulated capital divided by the g-value, as defined above;
- buying a whole-life annuity from a life-assurance company. There are no restrictions on the type of annuity purchased (*e.g.*, for indexation or provision of survivors' benefits).

2.2.4 *Personal income tax*

There is a flat rate of 25 per cent on all income above a threshold. This is 252 Lats per year for people of working age and 1200 Lats per year for people of pension age. Pension income is fully taxable.

2.2.5 *Social security contributions*

The current overall contribution rate is 35 per cent, but this will fall to 33 per cent from 2003. Of the total, nine percentage points are levied on the employee and the remained on the employer. Social security contributions are deductible under the personal income tax.

Pension income is not liable for social security contributions. However, people of pension age who are working pay contributions on their earnings.

These are levied at the reduced rate of 28.56 per cent, reflecting their reduced entitlement to benefits.

2.2.6 *Implementation*

The three components are programmed as follows:

1. Notional accounts

$$\frac{c_{NA} w(A_R - A_E)}{g}$$

where c_{NA} is the contribution rate (10 per cent), w is individual earnings, A_R is the pension age (62), A_E is the entry age (20) and g is the g-value. Current mortality data give the g-value as 12.5 for retirement at age 62.

2. Funded scheme

The accumulated balance at the time of retirement is:

$$c_F w e^{rT} \frac{e^{-rT} - 1}{-r}$$

where c_F is the contribution to the funded scheme and r is the rate of return on the funded scheme (normalised to the growth in individual earnings). At retirement, members can convert their accumulated capital to an income stream either through the public scheme or with a private insurer. The calculation of the g-value when compared with an actuarial annuity calculation implicitly assumes an interest rate of zero. Assuming a positive interest rate, the income stream would be higher with a private annuity: at the standard discount rate of two per cent, the difference is nearly 15 per cent. The model therefore calculates the value of the funded pension using an annuity factor of 12.5 (compared with the g-value of 14.5).

3. Safety-net pension

The pension is increased to a minimum of just over 750 Lats (given 30 years or more of coverage).

2.3 *Lithuania*

2.3.1 *Qualifying conditions*

Pensionable age will reach 62.5 for men and 60 for women in the longer term. Individuals must have 15 years' coverage to receive a pension. To qualify for a contribution year, the individual must have made contributions equivalent to a full year at the minimum wage.

2.3.2 *Pension value: pay-as-you-go schemes*

The Lithuanian pension system is one of two tiers. The basic pension is a flat-rate contributory benefit. The full rate is earned with 30 years' contributions, with a proportionally reduced benefit available for people with shorter contribution histories. Its value is set at 110% of the government's minimum subsistence level, which is Lit 147 for 2002.

The earnings-related pension offers 0.5 per cent of individual average pay for each year of coverage. Earlier years' earnings are updated in line with average earnings covered by the system. There is a ceiling to pensionable pay of five times system average earnings. Average covered earnings are Lit 886.

It is possible to defer the pension after standard age: both the basic and earnings-related components are increased by eight per cent for every year of deferral.

2.3.3 *Pension value: funded scheme*

The law establishing the mandatory funded scheme was passed in December 2002. This envisages a contribution rate initially of 2.5 per cent, with an eventual increase to 5.5 per cent should the finances of the social security programme prove sufficiently robust. The value of the pay-as-you-go components will be reduced proportionally to the amount of the contribution diverted to the pension funds. Thus, with the 5.5 per cent target, the pay-as-you-go pension will be reduced to $(25-5.5)/25$ of its current value, that is 78 per cent (where 25 per cent is the total pension contribution rate, see the following sub-section).

2.3.4 *Social security contributions*

The total social security contribution rate is 34 per cent of earnings, of which the employee pays three percentage points. Of the total contribution, some: 25 percentage points are earmarked for the pension system, of which the

employee pays 2.5 points. There is no ceiling to contributions (although there is a ceiling to benefits: see above).

2.3.5 *Personal income tax*

There is a standard allowance of Lit 290 per month (with higher allowances for the disabled and people with numerous children). The standard income tax rate is 33 per cent, although a lower, 15-per-cent rate applies to income from some forms of saving. Public pensions are not subject to tax.

2.3.6 *Implementation*

The three components of the pension system are modelled as follows:

1. Basic pension

With the adjustment for the funded scheme, the value is just under Lit 115.

2. Earnings-related pension

This is calculated as:

$$w\alpha(A_R - A_E)\rho$$

where w is again earnings, the A s represent retirement and entry age (62.5 and 20), α is the accrual rate (0.5 per cent) and ρ is the reduction factor for the funded scheme (0.78).

3. Funded pension

The accumulated balance at the time of retirement is:

$$c_F w e^{rT} \frac{e^{-rT} - 1}{-r} a$$

where c_F is the contribution to the funded scheme (5.5 per cent) and r is the rate of return on the funded scheme (normalised to the growth in individual earnings). At retirement, I assume that members can convert their accumulated capital to an annuity using the annuity rate a . The standard mortality data give an annuity rate of 6.9 per cent at pension age (62.5), equivalent to an annuity factor of 14.6).

3. Empirical results: gross replacement rates, retirement at standard age

Figures 1 and 2 and Tables 2 and 3 give two standard presentations of the results of the pension projections for the three Baltic states. As noted previously, pension benefits are calculated for a full-career worker earning various proportions of economy-wide average earnings, between 0.3 times and five times the average. People are assumed to retire at the standard pension age. The calculations use the mortality rates (and, where these differ, pension ages) for men.

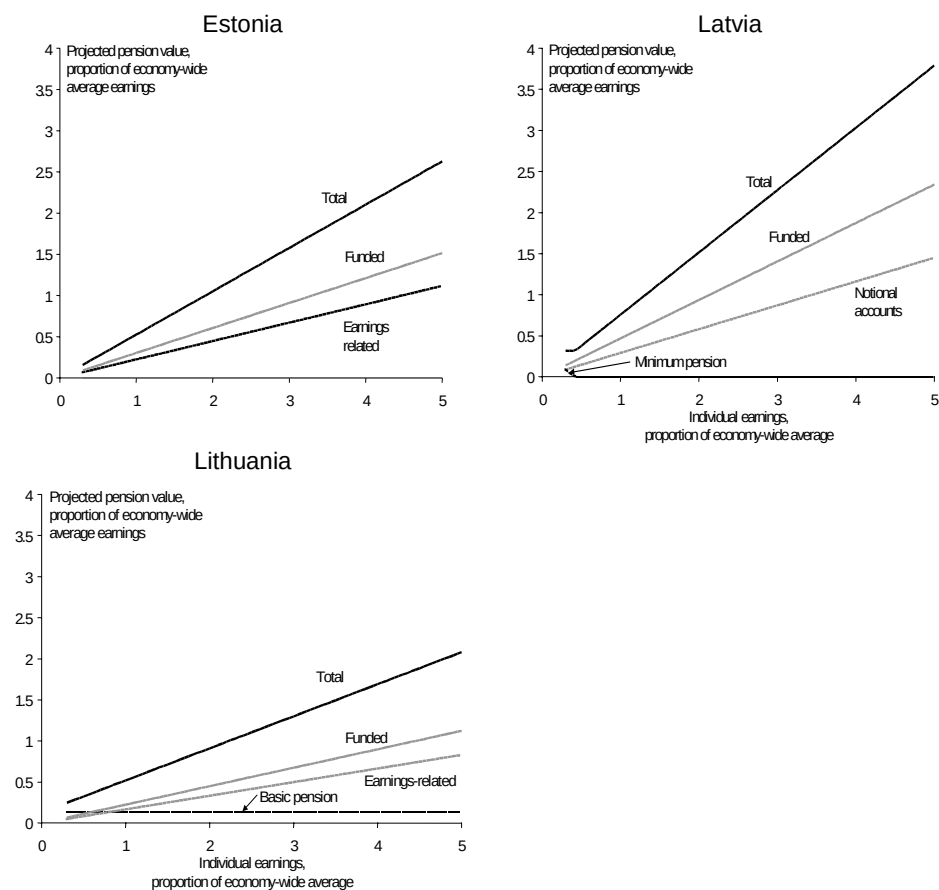
3.1 Pension values

The first set of results look at pension values, normalised to economy-wide average earnings. The vertical scale of the charts is the same to facilitate comparisons between countries. Figure 1 divides the total pension entitlement into its component parts, while Table 2 gives the total for selected earnings levels.

The level and pattern of pension values with earnings differs significantly between the three countries. Latvia promises the highest pensions across the income range, while Lithuania is at the other end of the spectrum. The difference between these two countries is more pronounced at higher income levels. This pattern with income is due to the effect of the basic pension in Lithuania. The notional accounts system in Latvia explicitly aims to tie the pension value more closely to contributions and hence to the level of earnings when working. At half of average earnings, the pension in Lithuania is 32 per cent of economy-wide average earnings compared with 38 per cent in Latvia: the ratio between the two is 0.85. But at double average pay, the pension is worth 152 per cent of average earnings in Latvia and 91 per cent in Lithuania: a ratio of 0.6.

Estonia lies somewhere between the other two Baltic states over most of the income range. The pattern of pension entitlements against earnings is similar to Latvia, in that it is linear. However, the size of the pension promise is rather smaller. However, the effective minimum pension in Estonia is worth only 14 per cent of average earnings, compared with nearly 32 per cent in Latvia. In Lithuania, the basic pension (currently nearly 17 per cent of average earnings) acts as an uplift rather than a minimum, meaning that low-income workers receive a rather more generous pension package than in Estonia.

Figure 1. Pension value by earnings



Source: author's calculations

Table 2. Pension value by earnings: summary

per cent	0.5	0.75	1	1.5	2	2.5
Estonia	26	39	53	79	105	131
Latvia	38	57	76	114	152	189
Lithuania	32	42	52	71	91	111

Source: author's calculations

3.2 *Replacement rates*

The second presentation is perhaps more familiar, showing the pension value as a proportion of individual (rather than economy-wide) average earnings, which I call the ‘replacement rate’ for short. Again, the charts show both the total projected pension entitlement and how it is built up from different components. They are to the same scale and each capped at 100 per cent. Summary data are given in Table 3.

As mentioned previously, the Latvian system is linear over most of the income range because of the funded and notional-accounts systems. Full-career workers with earnings of just over 40 per cent of average have sufficient entitlement to float them off the minimum pension. They therefore all receive a total replacement rate of just over 75 per cent. Note that rather more of this total comes from the funded component, because of the assumption that the net return on investments will exceed the growth rate of wages.

In Estonia, the system is entirely linear. The low level of the national pension means that full-career workers earning just 30 per cent of the average will have sufficient entitlement from the earnings-related and funded systems to float them off this minimum benefit.

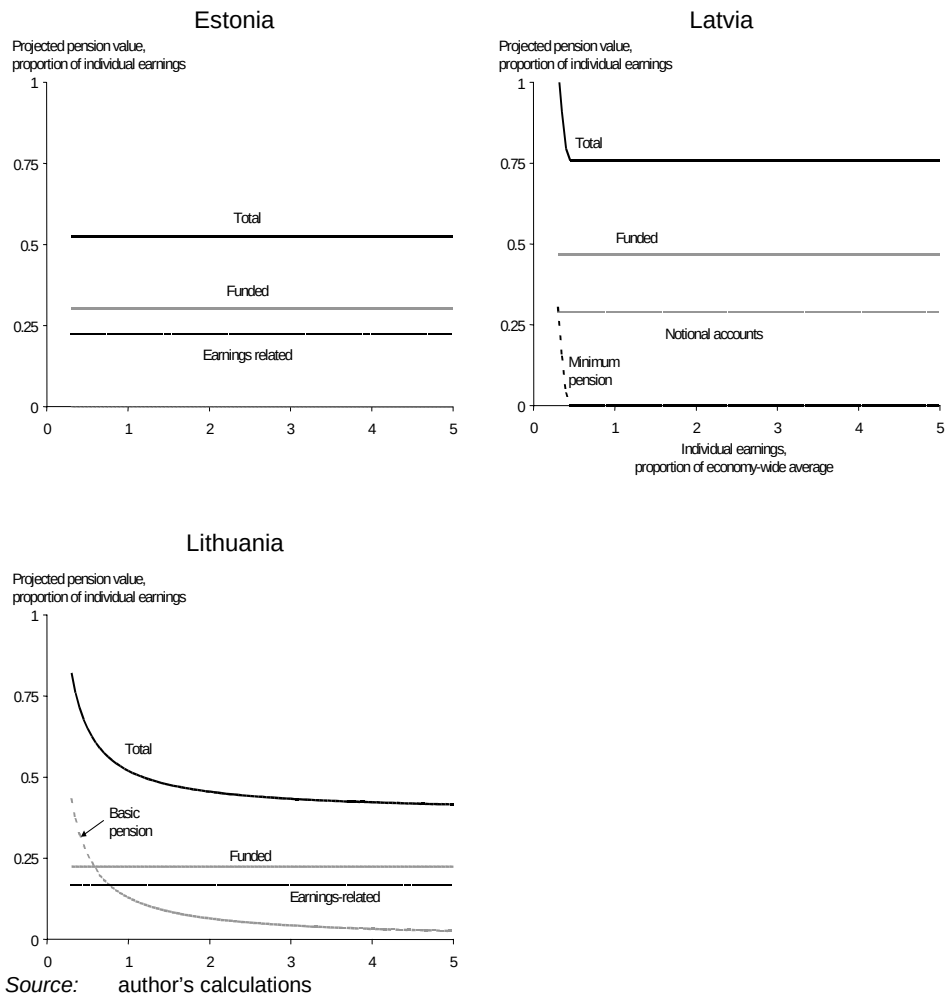
In Lithuania, the flat-rate basic pension is a rectangular hyperbola when shown as a replacement rate: it replaces a much smaller proportion of pre-retirement income for richer workers. The funded and earnings-related components pay a rather closer, linear benefit. But the overall replacement rates continues to decline at higher earnings.

Table 3. Replacement rate by earnings: summary

per cent	0.5	0.75	1	1.5	2	2.5
Estonia	53	53	53	53	53	53
Latvia	76	76	76	76	76	76
Lithuania	65	56	52	48	45	44

Source: author's calculations

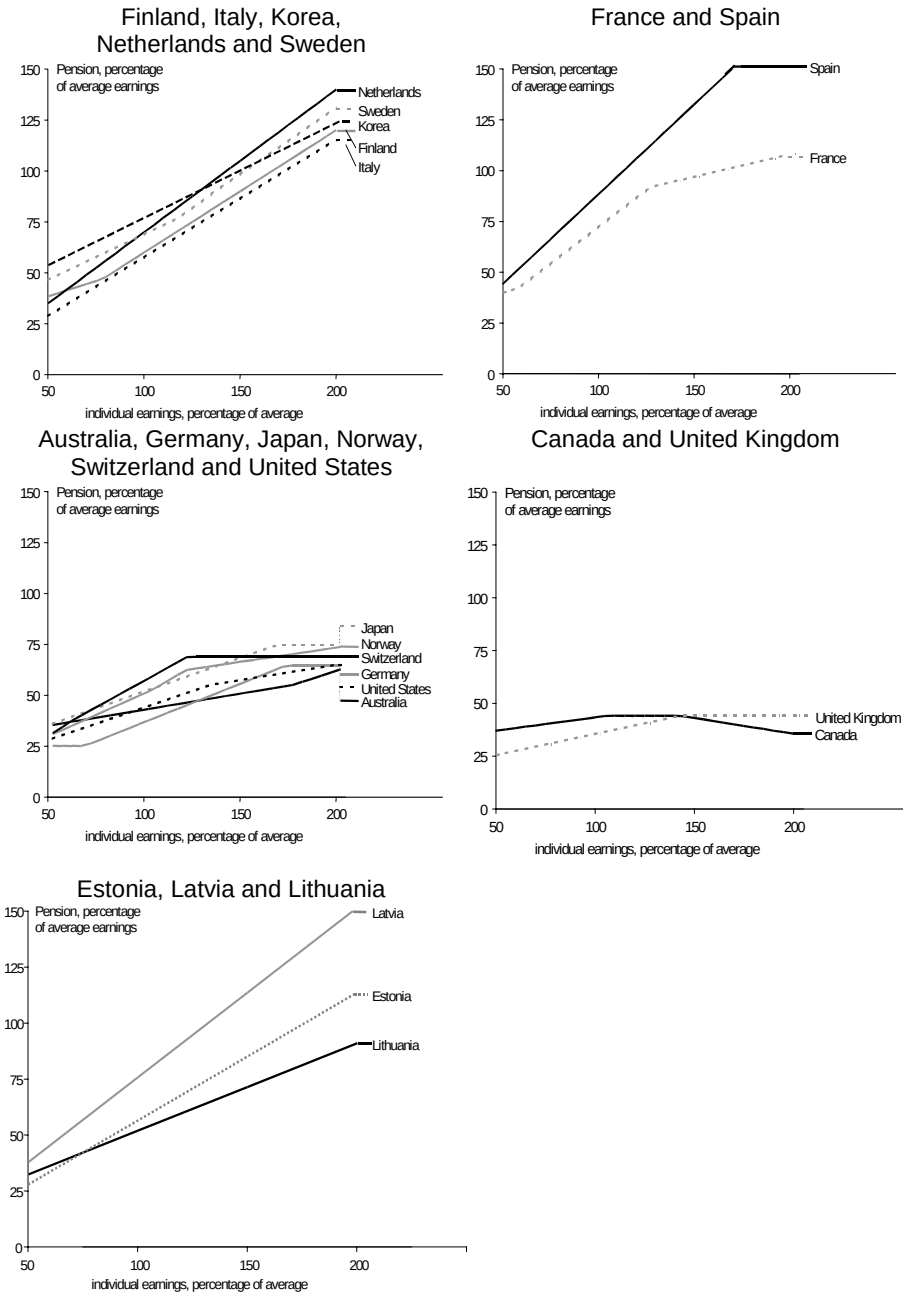
Figure 2. Individual replacement rate by earnings



3.3 *Comparison with OECD countries*

Figure 3 shows the results of similar projections of pension benefits for 15 OECD countries (from Whitehouse, 2002). Again, the charts look at individuals with different levels of earnings, but this time the maximum earnings shown are twice (rather than five times) average. This is to focus attention on the part of the earnings distribution in which the vast majority of employees lies. The vertical axis shows the corresponding individual pension value as a percentage of economy-wide average earnings (the analogue of the results in section 3.1 above).

Figure 3. Projected pension values as a proportion of economy-wide earnings for workers earning between one half and twice average



Source: Whitehouse (2002); author's calculations

In **Italy**, the public pension scheme has a high ceiling. It is designed to achieve a great degree of earnings replacement, even for high-income workers. A similar effect is achieved by the statutory occupational pension system in **Finland** and the quasi-mandatory occupational schemes in the **Netherlands** and **Sweden**. The Dutch and Finnish systems have no ceiling to benefits; in Sweden, the ceiling is very high. **Korea**'s severance pay scheme also has no ceiling. In these countries, there is some additional protection for low-income workers, but over much of the income range, projected pension values are linear.

At the other end of the spectrum, the philosophy of the Canadian and British systems is very different. These systems are more redistributive. They ensure that all pensioners achieve a basic standard of living rather than aiming to give everyone a certain level of earnings replacement. This has led to development of extensive voluntary private coverage, particularly among higher-income workers. Both **Canada** and the **United Kingdom** have mandatory earnings-related public schemes, but these have low ceilings and relatively low accrual rates.

France and **Spain** look similar to the first group of countries (over this income range, at least). Their pension systems are focused on a comprehensive-insurance objective, but ceilings are lower than they are in the countries in the first panel of the Figure.

Six countries make up an intermediate group. In **Germany** and the **United States**, the public pension systems have a redistributive formula, giving higher replacement rates to lower-income workers. Australia and Switzerland have systems of mandatory contributions to private pension plans at quite low levels along with sizeable basic pension programs. The two-tier Japanese public scheme is similarly redistributive.

Turning to the Baltic states, the new Latvian system looks close to the highly comprehensive systems of Finland, the Netherlands and Sweden. However, it is important to recall that in those three cases, the characteristics high pension levels for high-income workers are provided by occupational schemes. In Estonia, the projected replacement rate for a full-career worker is somewhat lower than in Latvia, but is still close to that of, for example, France, another system of comprehensive social insurance. Lithuania is nearer to the 'intermediate' systems of, for example, Germany, Switzerland and the United States, whose pension systems combine social insurance with a significant degree of redistribution.

3.4 *Pension scheme structures and pension outcomes*

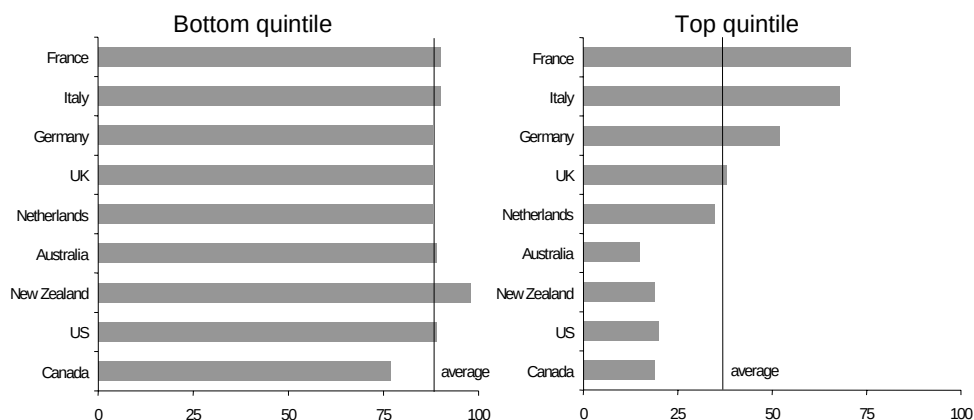
In interpreting these results, it is important to bear in mind two caveats. The first, which has been mentioned already, is that the financing of pension benefits has not been taken into account. Consequently, neither has the ability of countries to meet the pension promises that they have made. Secondly, there is no systematic relationship between the structure of mandatory pension benefits and basic measures of economic well-being of older people.

This is illustrated using income-distribution data for OECD countries. Canada and the United States, for example, typically have the highest empirical replacement rate (that is, the ratio of incomes of older people to incomes of people of working age). But their public pension schemes are much less generous than, for example, Italy, which has a replacement rate near to the average.

Voluntary retirement-income provision explains the contrast between the structure of public-pension systems and retirement-income outcomes. In particular, the more redistributive public schemes leave space for the development of private pension plans for middle- and high-income workers.

This is illustrated in Figure 4, which shows the proportion of income deriving from the state⁴ for the poorest fifth of pensioners (left-hand panel) and the richest fifth (right-hand). Countries are ranked by the overall average proportion of older people's income from state sources. Unsurprisingly, poorer pensioners everywhere rely on the state for the vast majority of their income. At the other end of the income distribution, the comprehensive social-insurance schemes in France, Germany and Italy mean that the richest pensioners still get the majority of their income from the state. Indeed, the proportion in France and Italy is only slightly below the proportion for the bottom income quintile. In the other countries, there are predominantly flat-rate public pension systems, or earnings-related public schemes with highly progressive formulae. In Australia, Canada, New Zealand and the United States, only around a fifth of the income of the richest quintile of the elderly derives from public pension programs. These results — confirmed by other studies, such as Disney, Mira d'Ercole and Scherer (1998), Börsch-Supan (1997) and OECD (2001) — show the substitutability of publicly provided benefits and private sources of retirement support.

Figure 4. Percentage of pensioners' income from public pensions and other state benefits by quintile of the income distribution, nine countries



There is much less variation in retirement-income outcomes (at least as measured average income-replacement rates and prevalence of poverty) than structural differences in pension systems might imply. The OECD (2001) has described this result as ‘convergent outcomes, divergent means’.

4. The effect of taxation

The personal tax system plays an important role in supporting people during retirement. Most countries' personal tax systems have concessions for pensioners or (less commonly) for pension income. Most do not levy social security contributions on pension income (or levy them at a very low rate relative to workers' contributions). Together, these policies imply that the tax burden on pensioners is much lower than that on workers.

In Lithuania, the public pension benefit is not subject to income tax. In Latvia, the tax-free allowance for pensioners is five times that for workers (and is worth around one half of economy-wide average earnings). In Estonia, the effective tax allowance is four times that granted to workers, almost double average earnings.

4.1 Gross and net replacement rates

As a result of these tax differentials, net replacement rates (net pension divided by net earnings) are higher than gross, as shown in Figure 5 and Table 4. However, the impact of personal taxation varies substantially between the countries.

The tax-free allowance for workers is very different between the three states. It is worth around half of average earnings in Estonia, compared with 30 per cent in Latvia and 10 per cent in Lithuania. Since neither low-paid workers nor low-income pensioners pay tax in Estonia and Lithuania, gross and net replacement rates are very close for the lowest income workers. The difference between the two then increases rapidly. In Lithuania, for example, workers pay 33 per cent of their income above the threshold (which is just over 30 per cent of average earnings) in tax. At average earnings, for example, the difference between the gross and net replacement rates is 18 percentage points. This implies that one quarter of the net replacement rate for workers on average earnings comes through the tax system, rising to one third for the richest workers. In Estonia, again, one quarter of the net replacement rate comes from the tax system rather than the pension system over much of the income range. The very high allowance for pensioners means that net replacement rates increase with earnings except at very high income levels.

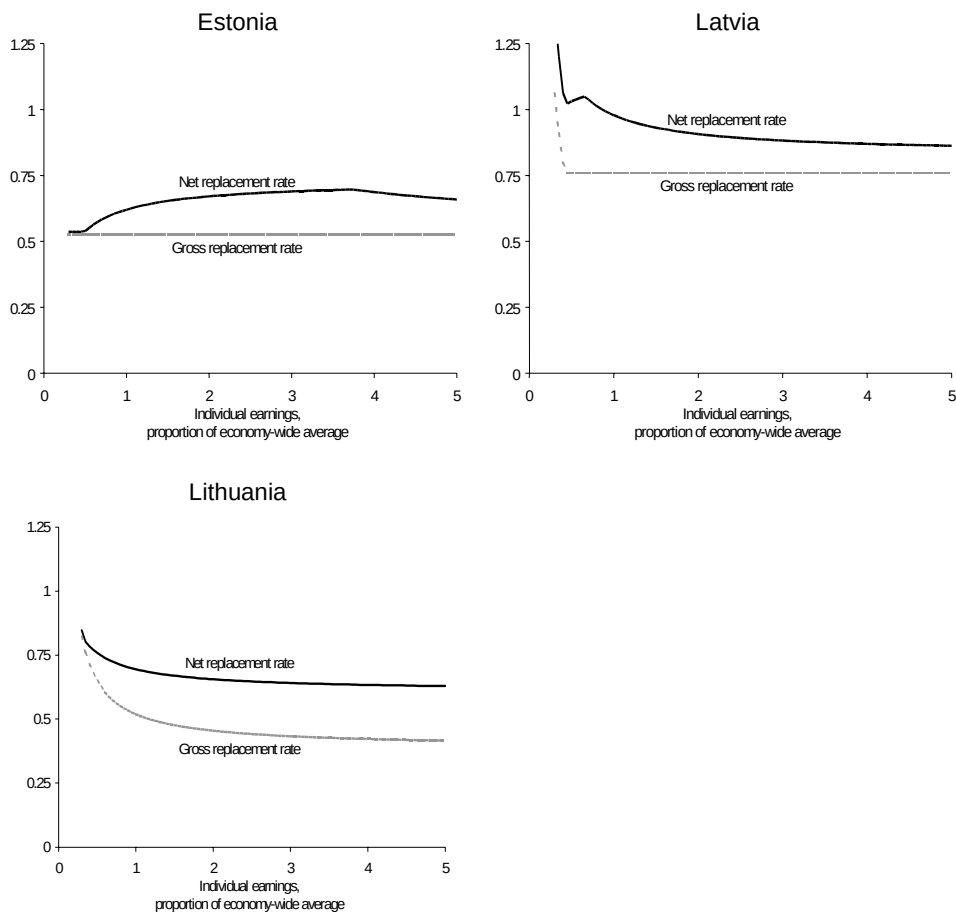
The effect of taxes in Latvia is rather more muted, although still quite large. For example, the additional tax-free allowance for pensioners means that a full-career worker earning just below 70 per cent of the average would be liable to some income tax. At this point, the net replacement rate is 104 per cent compared with a gross rate of 76 per cent. This shows that 28 per cent of the net replacement rate comes from the tax differential (the rest, of course, coming from the pension system). Note that the net replacement rate in Latvia exceeds 100 per cent for earnings up to 85 per cent of average. The fact that the pension is taxable (albeit with a very generous tax-free allowance) means that tax concessions play a lesser role in determining the net replacement rate for higher-income workers than in Estonia and Lithuania.

Table 4. Net replacement rate by earnings: summary

per cent	0.5	0.75	1	1.5	2	2.5
Estonia	54	59	62	65	67	68
Latvia	103	102	98	93	91	89
Lithuania	76	71	69	67	66	65

Source: author's calculations

Figure 5. The effect of taxation: gross and net replacement rate by individual earnings



Source: author's calculations

4.2 Comparison with OECD countries

Most OECD countries offer some concessions to older people in their tax systems: either through a basic relief granted to all pensioners or, more rarely, through a tax relief for particular sources of pension income. While workers pay social security contributions, these are typically not levied on pensioners or levied at a much lower rate. Table 5 summarises the tax and social-security-contribution treatment of pensioners in the OECD countries and the Baltic states.⁵

While space constrains me from a detailed discussion of the differences, two important points stand out:

- no OECD country entirely exempts public-pension income from the personal income tax, which is the current practice in Lithuania;
- all 12 OECD countries that offer additional basic relief to older people (through allowances, credits, zero-rate bands *etc.*) withdraw this concession from higher-income pensioners. This is not the case with the additional allowances in Lithuania and Latvia.

This means that pensioners pay no income tax (or at the most, very little) income tax in the Baltic states. In contrast, at the least a substantial minority of pensioners is liable for income tax in OECD countries.

Table 5. Treatment of pensioners by the personal income tax and social security contribution systems

	Extra tax allowance/credit	Full or partial relief for pension income		Social security contributions
		Public scheme	Private scheme	
Australia	✓	✓	✓	low
Canada	✓	✓	✓	zero
Finland	✓			low
France				zero
Germany		✓	✓	low
Italy	✓		✓	zero
Japan	✓			zero
Korea	✓	✓	✓	none
Netherlands	✓			low
Norway	✓			low
Spain	✓			zero
Sweden	✓			zero
Switzerland				zero
United Kingdom	✓			zero
United States	✓	✓		zero
Estonia		✓	✓	zero
Latvia	✓			zero
Lithuania		✓	✓	zero

Note: the information for the United States refers to the Federal income tax. 'Social security contributions' for Australia refers to the Medicare levy, which is charged on total income. Pensioners pay the same rate but there is a relief for low-income pensioners. Swiss cantons often grant pensioners an additional allowance but there is no extra allowance in the Federal income tax

Source: Keenay and Whitehouse (2002*b*; 2003*b*)

Table 6 shows, for comparison with Table 3, net replacement rates for fifteen OECD countries. It is worth re-emphasising the important role that the tax system plays in old-age support and the fact that this pattern varies between countries. The pattern of net replacement rates in the Baltic states is very different than that in most OECD countries. First, with the exception of low-

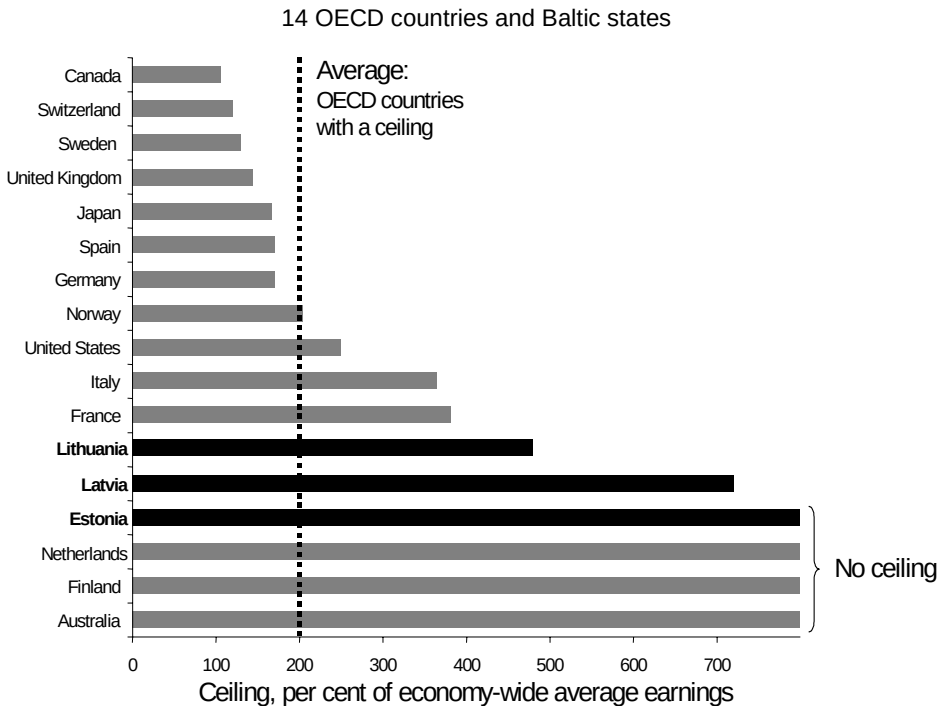
income workers in Estonia, projected net replacement rates are rather higher in the Baltic states than they are in OECD countries; in Latvia's case, substantially so. Secondly, the Baltic states' systems are close to proportional, granting similar replacement rates to both low and high-income workers. In contrast, OECD countries are generally more redistributive, giving lower replacement rates to higher-income workers. Thus, Estonia's net replacement rate is below the average for OECD countries for low-income workers, the same for average incomes and higher for higher earnings. Lithuania matches the OECD average at the bottom end of the earnings distribution but exceeds it higher up. This is due mainly to the very high ceiling on pensionable earnings (Figure 6) but also, as mentioned previously, because OECD countries withdraw tax concessions from higher-income pensioners, which Lithuania (and the other Baltic states) do not.

Table 6. Net replacement rate by earnings: OECD countries

per cent	0.5	0.75	1	1.5	2	2.5
Australia	83	66	55	45	41	40
Canada	93	70	60	42	27	19
Finland	85	70	66	66	67	67
France	95	88	87	79	66	59
Germany	67	56	60	51	41	32
Italy	70	67	68	68	68	68
Japan	81	68	61	53	44	36
Korea	121	99	87	81	75	71
Netherlands	89	92	92	89	88	88
Norway	77	72	71	65	56	47
Spain	96	97	96	96	83	68
Sweden	106	82	69	58	46	38
Switzerland	73	70	68	56	44	36
United Kingdom	61	52	47	39	29	24
United States	74	65	60	56	47	43
Average	77	68	64	58	50	45

Source: author's calculations

Figure 6. Ceilings on pensionable earnings,

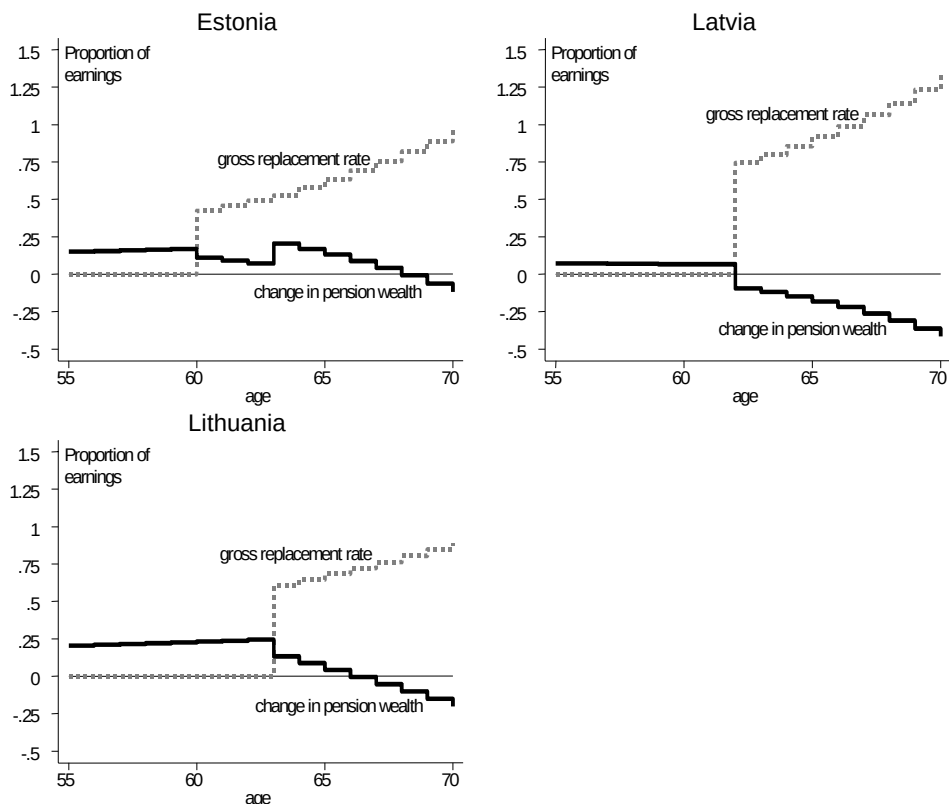


Source: author's calculations; Whitehouse (2002)

5. Choice of retirement age and pension entitlements

Pension eligibility ages for men will reach 62 in Latvia, 62.5 in Lithuania and 63 in Estonia in the long term. Estonia alone will allow pension claims before this age, from 60. Figure 7 shows how retirement at different ages affects the pension values. The grey, dotted lines show the gross replacement rate: the pension value divided by individual earnings. The gross replacement rates at the standard pension ages correspond to those in Figure 2 and Table 3 above. The charts are shown for an individual on average earnings, but given that the systems are broadly linear over much of the earnings range, the picture is the same or very similar for workers on most earnings levels. The gross replacement rate increases with the age of retirement in each case. This is because of actuarial adjustments in the public pension schemes of Estonia and Lithuania. In the Latvian notional accounts system, the 'g-value' calculation gives a higher pension for later retirement. In all cases, funded pensions increase with age of retirement because of additional investment returns on accumulated pension capital and because the annuity rate is higher for alter retirement.

Figure 7. Pension replacement rate and change in pension wealth from working an additional year by age



Source: author's calculations

The black, solid lines show the change in pension wealth from deferring retirement for a year. The Estonian pension system encourages people to retire early because the ‘actuarial’ reduction in the pension of just 4.8 per cent for each year of early retirement is relatively low (see below). However, the return on the funded component means that the change in pension wealth remains positive above 60, although at a lower level than before. The change in pension wealth then jumps up at 63 because the actuarial adjustment for deferring retirement beyond this age of 10.8 per cent is very generous. The change in pension wealth then declines with age because mortality rates are increasing with age.

In Lithuania, the actuarial increment for deferring the pension claim is eight per cent per year. This is quite generous at younger ages, meaning that the

change in pension wealth from deferral is positive. But at older ages, this then turns positive. In Latvia, the change in pension wealth is negative from the age at which the pension can first be claimed despite the automatic adjustments in the notional accounts structure. This is because the g-value calculation does not include a discount rate while the actuarial calculations underlying the model do. Table 7 shows the calculated g-value adjustments to pensions along with the actuarially neutral level. The model computes a g-value of 14.6 at age 63 and 13.9 at age 64. Thus, the increase in pension value from deferring for a year is $14.6/13.9 = 6.8$ per cent. However, the neutral adjustment, allowing for discounting, would be 8.3 per cent. Table 7 also gives the neutral and actual adjustments for Estonia and Lithuania.

Table 7. Actuarially neutral and actual adjustments to benefits for early and/or late retirement

	Estonia		Latvia		Lithuania	
	Neutral	Actual	Neutral	Actual	Neutral	Actual
60	7.5	4.8	—	—	—	—
61	7.7	4.8	—	—	—	—
62	8.0	4.8	—	—	—	—
63	8.4	10.8	8.3	6.8	6.7	8
64	8.7	10.8	8.7	7.2	7.0	8
65	9.1	10.8	9.0	7.5	7.2	8
66	9.5	10.8	9.4	7.9	7.5	8
67	9.9	10.8	9.8	8.3	7.8	8
68	10.3	10.8	10.3	8.7	8.2	8
69	10.8	10.8	10.8	9.2	8.5	8
70	11.3	10.8	11.3	9.7	8.9	8

Source: author's calculations

Note: the neutral adjustments are calculated as follows. Define the annuity factor as

$$A_t = \sum_{i=t}^T \frac{s_i}{(1+z)^i}, \text{ where } s \text{ is the survival function as defined above and } z \text{ is the discount rate.}$$

This shows the discounted present value of a flow of one unit per period. The neutral adjustment

factor is then $1 - \frac{A_t - 1}{A_t}$. $A_t - 1$ gives the net present value of a unit flow of benefits excluding the

benefit for the current year and so this adjustment equalises the value of a stream of benefits from this year and a stream of benefits from next year

6. Conclusions and policy implications

Pension reform in the three Baltic states has moved in very similar directions, with increases in pension eligibility ages, reforms to existing pay-as-you-go schemes and the introduction of a funded component to retirement-income provision. The projections of benefits for full-career workers show that these new systems are well diversified, with around half of the net replacement rate coming from the funded schemes in Estonia and Latvia and one third in Lithuania. This diversification should afford some protection to today's workers when they come to retire compared to monolithic systems of either the pay-as-you-go or the funded variety. The new systems are also broadly neutral with regard to pension age and do not encourage early retirement to the degree of many OECD countries. Nevertheless, there are two areas where the results point strongly to the need for future reform.

Firstly, the new systems are very close to linear, giving high replacement rates for all workers, even those on very high earnings. As a result, the new pensions are more generous and less redistributive than all but a couple of OECD countries. Although the paper does not include aggregate projections of the finances of the schemes, the very scale of the pension promises suggests that further change might be necessary to ensure that these can be afforded in the long term.

The most striking feature is the absence or very high level ceilings to pensionable earnings. OECD countries tend to leave higher-income workers and their employers to make pension arrangements to cover incomes above double average earnings or so. Introducing or lowering ceilings would thus protect the retirement incomes of the majority of workers while reducing the aggregate public pension burden. If ceilings for contributions are also reduced then there would be a problem due to reduced revenues, but many OECD countries have decoupled ceilings for pensionable earnings and ceilings for contributions, especially employer contributions which raise most or all of the revenues in the Baltic states.

Secondly, the treatment of pensioners under the personal income tax is exceptionally generous in all three countries. Income-tax differentials between pensioners and workers account for 15 per cent of the net replacement rate (at average earnings) in Estonia and around a quarter in Latvia and Lithuania. It is natural to question whether older people should pay less tax than people of working age *with the same income*. There are a number of issues. Pensioners no longer face the costs of work (commuting, clothing etc.). Marginal utility of income probably declines with age: for example, the very elderly may be unable to enjoy expensive leisure pursuits. Increased leisure time provides

opportunities for younger pensioners' home production. These factors reduce consumption needs during retirement relative to working. The costs of disability and health-care work in the opposite direction. It is therefore not clear whether consumption needs are higher or lower for older people than for those of working age. Hence, the relative taxable capacity of pensioners and workers on the same income is difficult to determine. Nevertheless, older people's incomes are on average lower than those of people of working age. Thus, the progressivity of the income tax ensures that pensioners pay less tax, without need for special treatment. Moreover, lower-income pensioners do not benefit from these concessions, because their income is below the general tax allowances accorded to people of working age. The gainers tend to be higher-income pensioners, because to obtain the maximum benefit from an allowance one needs to have an income at or above the allowance.

Estonia and Lithuania might gradually align the income-tax allowances for older people with the general allowance, while Latvia might bring pension income within taxable income. This would still be sufficient to ensure that most pensioners did not pay tax: low- and middle-income pensioners would be unaffected, but the government would gain some revenues from high-income pensioners. The current tax treatment, as the analysis above showed, substantially reduces the redistributive potential of the pension system and even, in the case of Estonia, reverses it.

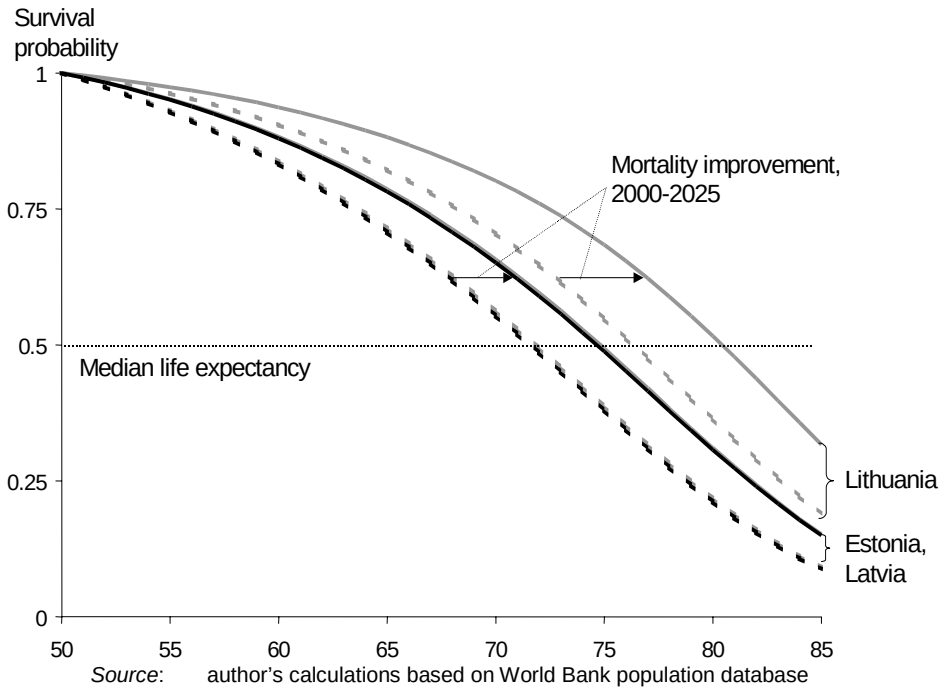
NOTES

- 1 See also the background papers Whitehouse (2003a) and Keenay and Whitehouse (2003a).
- 2 See Whitehouse (2002) on modelling pension entitlements and Keenay and Whitehouse (2002a,b; 2003a,b) on the tax treatment of pensioners.
- 3 Note that these are average covered earnings (*i.e.*, those up to the contribution ceiling). Where ceilings are low, these are obviously very different from average earnings (which includes earnings above the ceiling). However, as shown below, ceilings in the Baltic States are large multiples of average earnings meaning that the difference is tiny. Given significant non-compliance rates in these countries, it is better for an analysis of the pension system to use earnings of those covered rather than economy-wide data.
- 4 Note that the state-income proportion pensions and other benefits, such as minimum pensions, income guarantees, housing benefits *etc.*
- 5 Keenay and Whitehouse (2002a,b; 2003a,b) provide a detailed analysis.

ANNEX A. MORTALITY DATA

Life tables were taken from the World Bank's population database. The modelling uses the current projections for 2025. These are illustrated along with the life tables for 2000. Figure A.1 shows the survival probability by age, conditional on reaching age 50. Thus, at the left-hand side of the chart, the survival probability is one. The median life expectancy, shown by the dotted line, is reached when the survival probability is 0.5. Thus, life expectancy at age 50 in Estonia and Latvia is predicted to increase from around 71.5 now to nearly 75 by 2025. In Lithuania, the gain is from around 76.5 now to around 80.5

Figure A.1. Survival probabilities from age 50, 2000 data and 2025 projections



One problem with the data is that they are currently truncated at age 85. This has a significant effect on the results, since the projections imply that more than 30 per cent of Lithuanians that reach age 50 will go on to survive beyond the age-85 cut-off. I have therefore extrapolated earlier mortality data, and as noted above, the model uses this synthetic mortality pattern up to age 110.

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DEVELOPMENTS IN THE ESTONIAN PENSION SYSTEM

Kadi Oorn

Abstract

This paper provides a description of the reform of the Estonian pension system with a focus on the operation of the new funded scheme. One interesting aspect of the Estonian funded scheme is that it involves centralised contribution collection, account management and record keeping. The Tax Board collects contributions while the Central Registrar for Securities houses the central database where all information on members, their choices, and transactions is gathered. The mandatory pension funds are also protected with a guarantee fund that covers losses in the event of bankruptcy of the fund manager or losses generated by violations of regulations. After one year of operation of the industry, the fund industry shows patterns that are typical in other countries that have introduced such schemes, in particular a high degree of market concentration and investment portfolios invested predominantly in bonds.

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1. Background

1.1 *Why did Estonia need pension reform?*

There is no mystery why Estonia opted for pension reform rather than staying in the old single-pillar PAYG system. Our country faced the same problem as most of Western society – a changing demographic structure. The proportion of contributors is diminishing while the proportion of retirees keeps increasing. The four main reasons for this trend are the following:

- Fertility rates are low (around 1.3 children per woman);
- Average age is increasing (by approximately 1 year every 10 years);
- Employment rates have been decreasing;
- The effective pension age has decreased (as people have a chance to retire earlier, they tend to do so; options for early retirement should thus be eliminated).

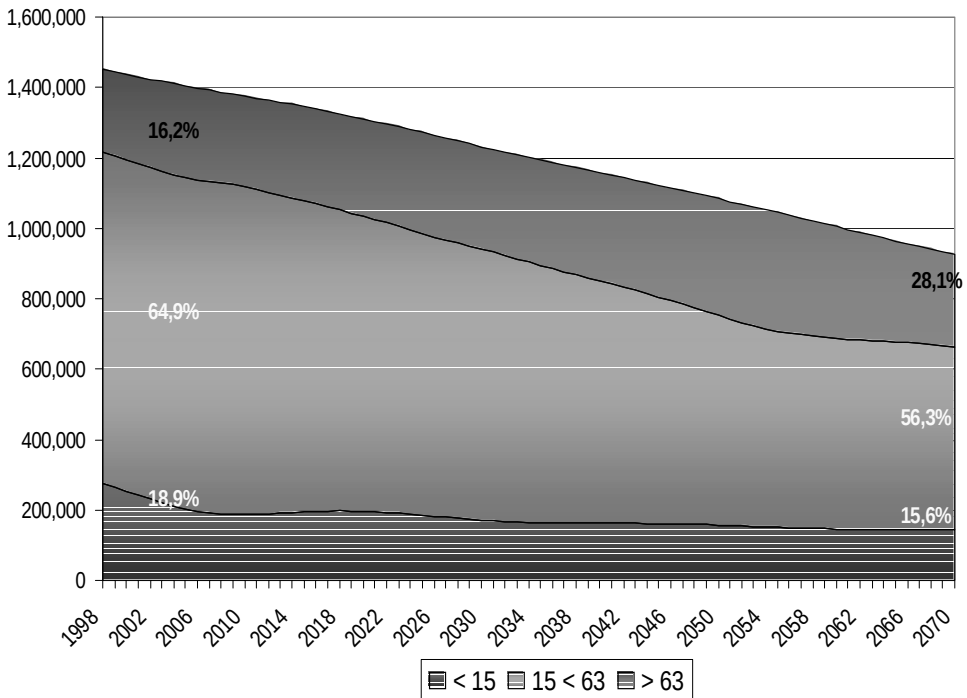
The graph below shows projections of Estonian population dynamics.

1.2 *A reformed pension system – what led us there?*

The first traces of state pensions in Estonia were established at the beginning of the last century. In 1920, pensions were assigned to veterans of the War of Independence as well as persons appointed for pensions by the Russian czarist system. The Pensions Act was adopted in 1936, aggregating separate legal acts in the pension field. There also existed voluntary pension insurance; in addition, some enterprises paid pensions or subsidies to their long-term employees. In 1939, it was decided to establish a general pension system, but just a year later a Soviet social insurance regime was introduced.

After gaining independence, Estonia needed to make quick changes to the social protection system it had inherited. In the early 1990s, Estonia was still in the Russian ruble zone, where inflation rates were extremely high (160% during the first two months of 1992). That made it impossible to implement the new Pensions Act, adopted the same year. It became pointless to calculate pension on both length of service and individual wages. Since 1993, Estonia has followed a balanced state budget policy, enabling it to pay pensions as permitted by budget discipline. Thus, at the beginning the real value of pensions dropped quite low. However, a comparison of average net wages to average pensions shows that the ratio has remained almost unchanged (38,8% in 1993, 42,6% in 1996, and currently 37%). The ratio of state pension payments to GDP has remained nearly constant, showing a small declining tendency.

Figure 1



Source: Central Statistical Bureau

In 1993, the state Living Money Act was adopted, determining pension payments.

Intense debate has arisen since independence on how best to reform the pension system. A Social Insurance Reform Committee was set up to propose different options for change and make relevant analysis. It was composed of the ministers of Finance and Social Affairs as well as many other high-ranking experts. The solutions offered were summarized in the Pension Reform Concept Paper approved by the government in 1997. It set the basis of the present three-pillar system. The paper resulted in a draft act to change the state pillar being withdrawn from Parliament. Work on new legislative acts to reform or set up pension pillars was begun.

Table 1. Ratio of pension contributions to GDP.

Year	'93	'94	'95	'96	'97
Pension payments	1439.6	1970	2865.6	3966.5	4619.3
GDP	21826.3	29866.7	40896.8	52442.8	64044.7

Year	'98	'99	'00	'01	'02
Pension payments	5205.3	6431.9	6473.8	6621.2	7282.7
GDP	73537.9	76327.1	87378.5	97894.5	108023.6
Ratio	7.08	8.43	7.41	6.76	6.74

Source: Ministry of Finance

1.3 *The features of a reformed system*

The reformed pension system resides on three pillars:

- The first, or state pension pillar, based on PAYG, was reformed in 1998. Some new features were added: individual collections are taken into account, pensions are indexed and the pension age was gradually raised to 63 for both men and women;
- The second, or mandatory funded pillar, was legislated in 2001 and began operating in 2002;
- The third, or voluntary funded pension pillar, was also legislated in 1998, allowing investments in both special third-pillar insurance contracts and voluntary pension funds. About 8% of contributors have joined that pillar.

The three pillars together aim to provide people with optimum pensions. They neutralize the risks that jeopardize the pillars individually (demographic, investment, political risks, etc.)

2. The State Pension Pillar

2.1 *The state pension pillar – what is new?*

A new State Pension Insurance Act was adopted in 1998 and fully implemented on 1 April 2000. The new Social Tax Act, which also regulates the state pillar, was passed in April 1998. Many new features were introduced to the state pension system:

- The pensionable age is being raised to 63, for men and women, by 2016;
- There is a provision for early retirement, with pension reduced by 0.4 % each month (4.8% each year) of early retirement;
- Another provision allows deferred retirement, with a 0.9% monthly increase (10.8 % yearly increase) in pension payments;
- A new pension formula has been introduced, composed of three units: the basic unit, the length-of-service unit, and the insurance unit;
- Calculated or paid social tax (the basis for the insurance unit) is now individually recorded, and a relevant register established;
- The option is provided of accumulating pension at retirement from taxable earnings;
- Criteria have been established for pension eligibility and length of pension insurance for survivors and the incapacitated.

State pension benefits are of two types: employment-related and national pensions. The first group comprises old-age pensions, workers' disability pensions and survivors' pensions. The past state pension for low-income earners may appear generous, as the amount did not depend on previous earnings. The process changed in 1999, when individual contributions began to be taken into account, moving the benefits system toward an earnings-related (individual responsibility) concept. The national pension guarantees a minimum income for those not entitled to employment-related benefits. Since both the economically active and the non-active are thus covered, overall coverage of state pensions is almost 100%.

2.2 *Financing of the state pillar*

First-pillar financing comes from the pension insurance part of the social tax, paid by the employer. The social tax is 33% of gross wage, with 13% going for health insurance and 20% for state pensions. There is no income ceiling for contributions or benefits, except in the instance of the self-employed, in which case the ceiling for both contributions and benefits is 15 times the minimum salary.

As mentioned, contributions paid on behalf of each employee are accounted individually to create a linkage between each individual's contributions and benefits. Contributions are calculated into coefficients, where the individual contribution is divided by the average during the year.

Contributing to the system is compulsory. The minimum contribution for a full-time worker is based on the minimum salary, which is EEK 2160 (EUR 138.5) a month. For part-time employees and the self-employed the minimum contribution is based on minimum earnings equal to EEK 700 (EUR 44.9) a month.

The national pension scheme is financed from the general state budget. National pensions are flat-rate benefits.

2.3 *Pension benefits*

The general old-age pension is payable irrespective of engagement in any gainful activity. However, an early-retirement old-age pension, granted up to three years before attaining the general pension age, is not paid to persons who are employed (earning income subject to social tax on the basis of an employment contract, service contract or civil law contract, or self-employed). The early-retirement old-age pension, once granted, is retained after attaining pension age and is not recalculated to a normal old-age pension.

The old-age pension consists of three additional elements:

1. the base amount;
2. the length-of-service component, calculated as the pensionable length of service multiplied by the value of one service year;
3. the insurance component, calculated as the sum of annual pension insurance coefficients multiplied by the value of an annual coefficient.

The base amount is the same for all retirees. As a rule, the amount changes only due to yearly indexation. There have also been exceptional pension raises (as happened this year).

The length-of-service component was calculated for periods up to 31 December 1998. Since 1 January 1999, the insurance component has been calculated on the basis of annual pension insurance coefficients, taking into account only the amounts of social tax registered after that date. Thus, for persons who ceased working by 31 December 1998, the old-age pension is the sum of the first two components, whereas for persons who began their working careers after 1 January 1999, the old-age pension will be a sum of only the first and third components.

The value of the monthly pension depends on two factors: the number of years of pensionable service and the sum of pension insurance coefficients, plus two universal factors: the cash value of the base amount and the cash value of the coefficient. One year of pensionable length-of-service has the same value as the pension insurance coefficient 1.0.

According to the State Pension Insurance Act, the old-age pension shall not be less than the national pension rate. The latter thus serves as a guaranteed minimum for the old-age pension.

The Funded Pensions Act introduced the taxation of pensions. From 2002, state pensions have constituted taxable income. For taxing purposes, first- and second-pillar benefits are summed up. However, that pension amount which is less than three times the non-taxable minimum is not subject to taxation. Accordingly, a 26% income tax is payable only on the part of pension exceeding the three times non-taxable minimum. If the pensioner has no other income, an additional non-taxable income rate applies, to which every person is entitled. In conclusion, tax is paid above sums exceeding four times the non-taxable income level. Currently, only a very small group of people actually pays taxes on their pensions, primarily former members of Parliament. No social security contributions are deducted from state pensions.

Increasing pension amounts had been largely a political matter. With the introduction of the new pension formula, Parliament fixed the base amount of pensions in the state budget, while the government determined the value of one year of pensionable length of service and of an annual pension insurance coefficient depending on budgetary constraints. Beginning in April 2002, pensions have been indexed annually on 1 April. The index is based 50% on the increase of the CPI and 50% on the increase of social tax revenues. The national

pension rates and all components of the old-age pension are calculated by multiplying their values by the index.

3. Mandatory Funded Pension

3.1 *The mandatory funded pension – for whom and how much?*

The term “mandatory” is used to describe the second pillar, though at present the second pillar is mandatory only for new labor-market entrants – contributors born in 1983 or later. People born from 1942 to 1982 can choose whether to join the system or not. But their time to decide is limited -- by law, the upper age limit for choosing the second pillar is reduced by a year each year, beginning in 2004. The right to join the system goes down linearly until 2024 (see the table for a precise timetable). People older than 60 are not eligible to join the mandatory funded pillar. Contributions are not counted from social taxes paid by the state for certain groups (students, women on maternity leave, etc.). Also, sole proprietors whose only revenues are business-derived income cannot contribute to the mandatory funded pillar. In the new draft of the Funded Pensions Act, the self-employed will no longer be exempted.

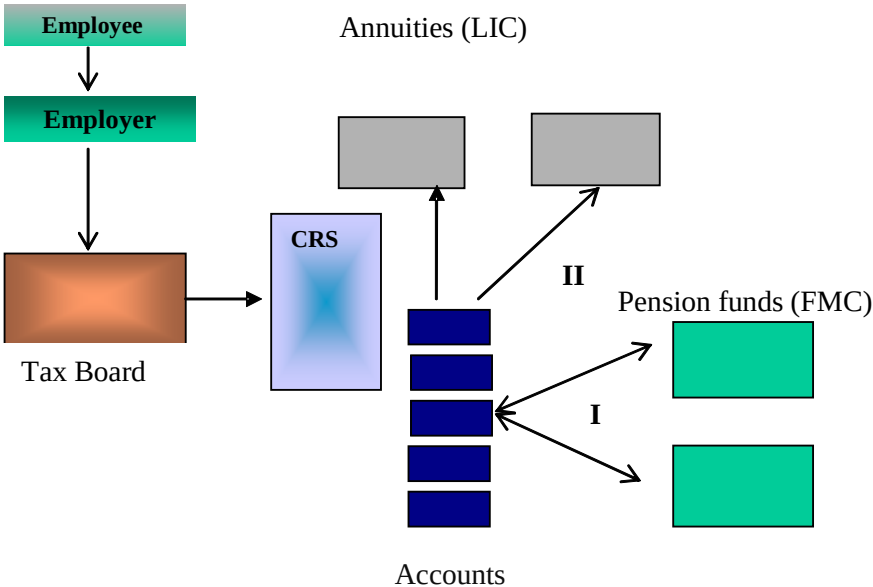
People who have joined the second pillar are obliged to pay an additional 2% of their gross wage (withheld by the employer) to a chosen pension fund. In addition to the 2%, 4 percentage points of the 33% social tax are paid by the employer. In sum, 6 percent of the employee’s gross wage is invested into the second pillar. At the same time, due to lower contributions to the state pension pillar, the state pension for members of the funded system is reduced (although somewhat less than proportionally).

3.2 *The mandatory funded system – how does it work?*

The logistics of the system are not complicated, as shown in Figure 2 below. An employee’s taxes and mandatory pension contributions are withheld by the employer, who declares them and sends the declarations and the payments to the Tax Board. The latter checks the data on taxes paid and sends the information with the relevant sums (the 6% contribution) to the Central Registrar for Securities, or CRS. The CRS houses the central database where all information on persons, their pension choices, payments, and so on, is gathered. When money arrives, the CRS issues shares in the amount of the person’s contribution to the chosen fund. In the case of mandatory participants, if they have not signed the contract to join the second pillar but tax has been withheld for them, the CRS directs the money to a randomly chosen pension fund. It is distributed among conservatively managed pension funds in alphabetical order.

In the contribution period sums are invested only in pension funds. In the pay-out phase, pensions as a rule are paid from insurance companies. In certain cases (described below) it is possible to withdraw money from pension funds as programmed withdrawals or even in lump sums.

Figure 2



In creating the system, experts aimed for means that would ensure a reliable, efficient and smooth-functioning system. The Tax Board was good at collecting taxes (Estonia’s tax-collection rate is as high as 98%). At the same time, the CRS, with its proven expertise in issuing shares and working with financial institutions, had the skills and motivation to work in the mandatory funded pillar network. One important early element in the system was to balance confidentiality against the need of fund-managing companies to know who their clients are. In devising strategies, two countries -- Poland and Sweden -- had recently implemented the second pillar with quite different reform options and results. Poland witnessed extremely high marketing costs and had problems with sales personnel providing misleading information to the public. Sweden, meantime, devised a system in which information on clients was limited to fund managers, thus cutting sales expenses. In the final stage of drafting the law in Estonia, market players lobbied successfully for disclosure of this previously restricted data. They argued that targeted marketing strategies

would help lower costs and possibly increase the total number of switchers, which is tempting for the state. The use of sales personnel was allowed, which was of keen interest to insurance companies with their strong networks of agents.

In reality, the predictions of lower costs and hordes of satisfied switchers did not entirely materialize. First, there were certain legal uncertainties regarding sales personnel and the requirements for truth in advertising (there was a legal prohibition, however, on promising any level of future returns from the fund, and a ban on dissemination of misleading information). Nevertheless, there were many problems with misleading or inaccurate advertising, reversing contracts that by nature are irreversible, and so on. Drafters of a new version of the Funded Pensions Act are attempting to resolve these questions.

3.3 *The second pillar -- terms and conditions*

Many restrictions apply to the second pillar, but it was also made as flexible as possible to apply to individual requirements. Of key importance to the system is that once you have chosen the second pillar you cannot reverse your decision. To ensure the stability of the system, it is important for people to consider the choice seriously, and not be enticed by salespersons' one-time offers of Mediterranean resort vacations or colorful T-shirts. It was surprisingly common for people to respond positively to several offers from fund management companies. Even some highly educated people wondered whether to choose Fund A, which offered a small starting sum for your pension account, or Fund C, which provided some other service at lower prices.

Collections can be allocated to only one fund at a time. Still, funds can be switched (contributions flow to another fund) or changed (shares of one fund are changed for shares of another). These actions are subject to limits by time and quantity of shares. Both kinds of changes are allowed only once a year. If the relevant application is submitted by 1 November of a given year, the fund or shares are changed by the CRS on 1 January of the following year.

One very important feature for many people is that shares are inheritable, though only to physical persons. The inheritor can withdraw shares from the fund as cash, paying income tax at the 26% rate, or add shares to his or her personal account and take it as a normal pension benefit upon retirement. Accumulations in the payout phase are not inherited as shares of a pension fund. In the case of an insurance agreement in the payout phase, one can choose the contract with a guarantee period of at least five years. During that period, benefits are paid to the beneficiary specified in the contract.

There are also minimum guarantees in the system. Different options were considered but this one was chosen for two reasons:

1. People needed some sort of guarantees to provide confidence, after negative experiences in the past with equity market crashes and financial institutions' bankruptcies;
2. Low guarantees were chosen to keep system costs low – otherwise, the very need for the funded system would have become questionable.

Pension funds are not required to buy insurance. Pension fund management companies that manage mandatory pension funds are, however, obliged to make quarterly contributions to a Pension Guarantee Fund, a sub-fund of the Guarantee Fund. In the event of bankruptcy, or losses generated by violations of investment restrictions set by law or pension fund rules, the following steps are taken to cover members' losses:

1. The pension fund management company's mandatory participation in the pension fund is used to cover the loss;
2. The pension fund management company's own capital is used;
3. The Guarantee Fund covers the loss to scheme participants;
4. The state has the right to guarantee a loan taken by the Guarantee Fund if needed.

The first EUR 10,000 is totally covered for investors; above that level, 90% of losses are covered.

Special attention has been paid to the supervision of funds, which normally is more important than providing certain guarantees. The main functions of supervision are stated in Appendix 2.

The fee structure of funds is set up so as to keep them as low as possible and promote competition among funds (Appendix 3).

3.4 *Second-pillar benefits*

Certain requirements have been set for receiving second-pillar benefits. A person is entitled to receive payments only after fulfilling all the three conditions named below.

1. The person has attained the old-age pension age;
2. State-pillar benefits or any other pensions due the person by law have started being paid to the person (except for foreigners);
3. At least five years have passed since the person subscribed to the funded pension.

Nevertheless, under the law first payments from Pillar 2 funds will be made after 1 January 2009. Thus, the person will not be able to receive the funded pension before the state pension. However, if he or she has decided to take state pension benefits but continues to work, the person may postpone receiving funded pension benefits.

As a rule, to receive a mandatory funded pension, a person entitled to such pension should enter into an insurance contract for a mandatory funded pension with an insurer chosen by this person. Upon entering into a contract, the person pays the insurer, as a single premium, the redemption price of all the redeemed units of the mandatory pension funds that belong to the person. The transfer is not made by the person himself. Upon request, the CRS converts units in a person's account(s) into cash and then transfers the sums electronically to an insurance company designated by the person.

Payments are made in the form of annuities, that is, periodically payable amounts based on the insurance contract. They can be of equal or increasing amounts, payable at least once a quarter.

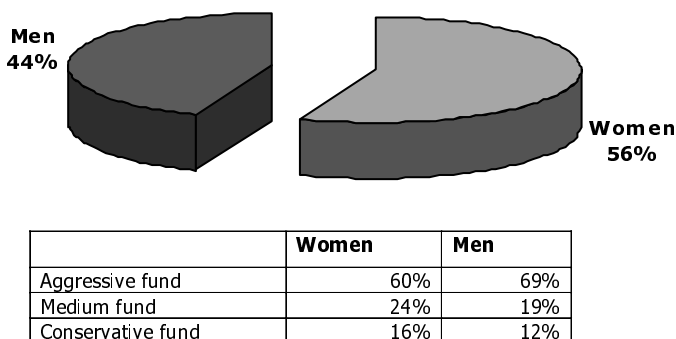
If the monthly annuity exceeds three times the amount of the national pension, the person is entitled to choose periodic payments from the pension fund without entering into an insurance contract to the limit of the amount exceeding three times the national pension amount. If the monthly annuity -- that is, the amount of monthly periodic payments -- is less than one-fourth the national pension, the person is entitled to receive periodic payments from the pension fund to the limit of one-fourth the national pension per month. If the total units are less than twice the national pension rate, the person may request the redemption of all units as a single payment.

3.5 *The second pillar in action*

Parliament passed the Funded Pensions Act in September 2001. The first round of switching was to have started 1 April 2002, but legal and political questions delayed the launch to 3 May 2002, when most of the funds from which people could choose were registered.

Six fund management companies received licenses to hold second-pillar pension funds, and 15 funds were registered. By law, every financial management company has to have a fund permitted to invest only in fixed-income instruments, and not in stocks. Additionally, such companies can operate funds that invest either up to 25% or up to 50% in stocks. The latter has proved most popular among second-pillar members (see the graph below):

Figure 3: Statistics on Choice of Fund

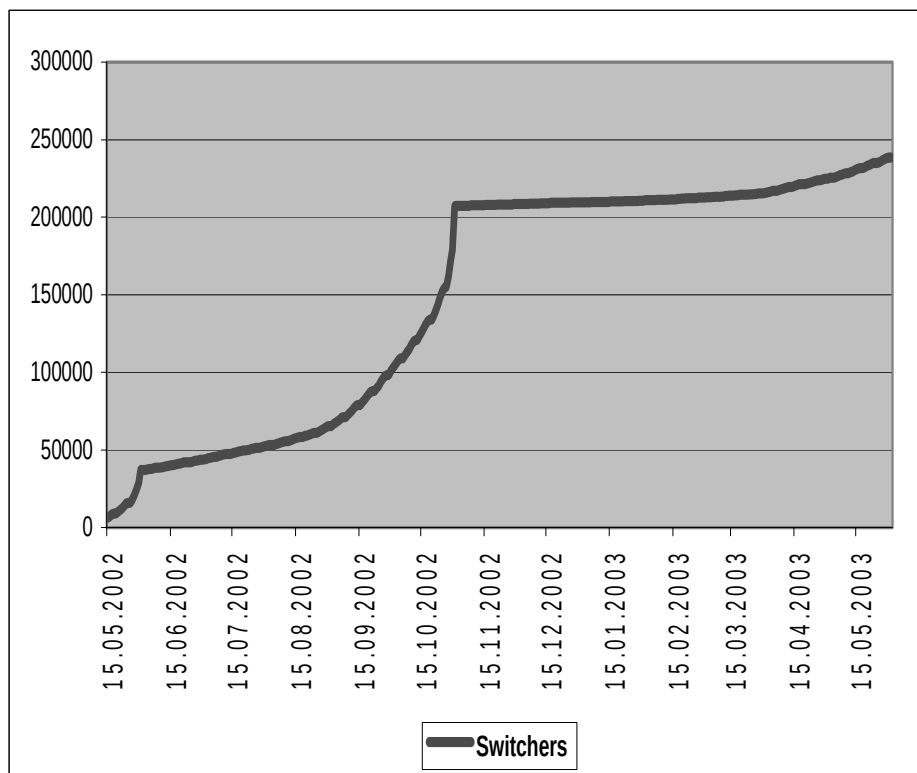


Source: Ministry of Finance

The first round of switching to the second pillar ended May 31, with an unexpectedly high number of members: 37,055 people had applied for it, and there were about 3,000 contributors for whom the system was mandatory but who had yet to sign a contract.

The second round in 2002 ended Nov. 1. By the end of September, the total number of second-pillar members had reached 94,000. But the ultimate total came as a surprise for most: 207,200.

Figure 4. Number of switchers in dynamics

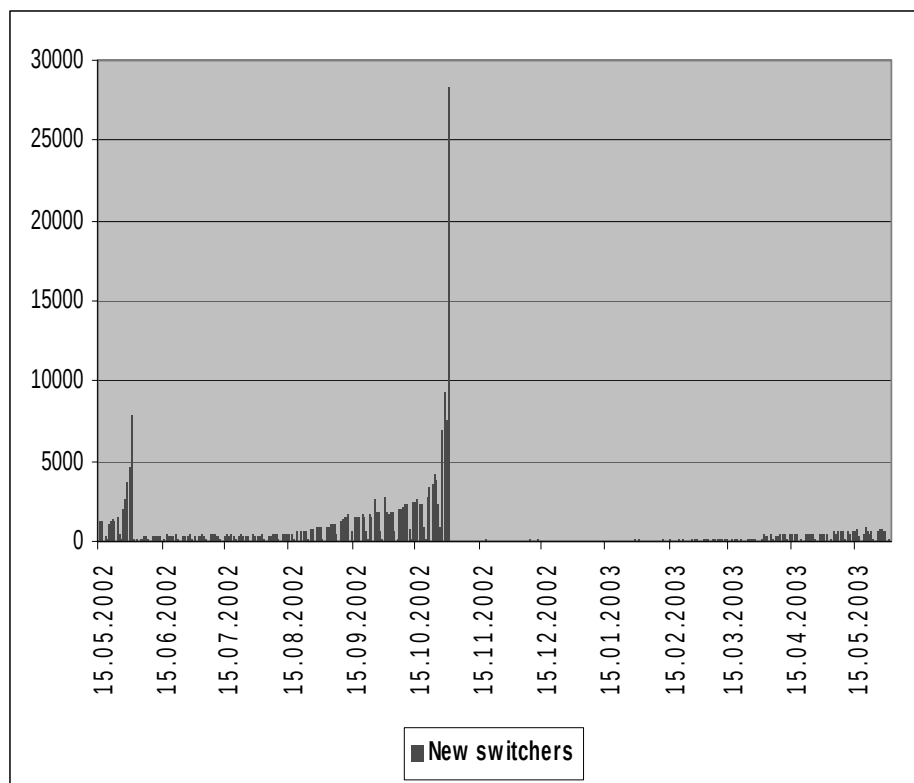


.Source: Ministry of Finance

It was originally projected that at least 50,000 people would join the new system in the first year. To ensure the stability of the state budget (from which the deficit is financed), it was proposed that a maximum of 200,000 be set. It was hoped that the number of fund members would reach 250,000 (half of current taxpayers) by 2007, five years after the start.

About 316,000 switchers are expected to join the second pillar by the latest deadline, 31 October 2003. The number had hit 263,000 by the end of July. As shown in Figure 5, switching activity is low after each deadline (1 June; 1 November), but it increases in time. On 31 October 2002 (the last day of second-round switching), there were 28,354 switchers, constituting up to 2.6% of all people allowed to switch. First projections for the next deadline were around 260,000 switchers, but expectations were raised because switching activity has been higher than expected.

Figure 5 . New switchers by day.



Source: Ministry of Finance

3.6 Statistics on the mandatory funded pillar

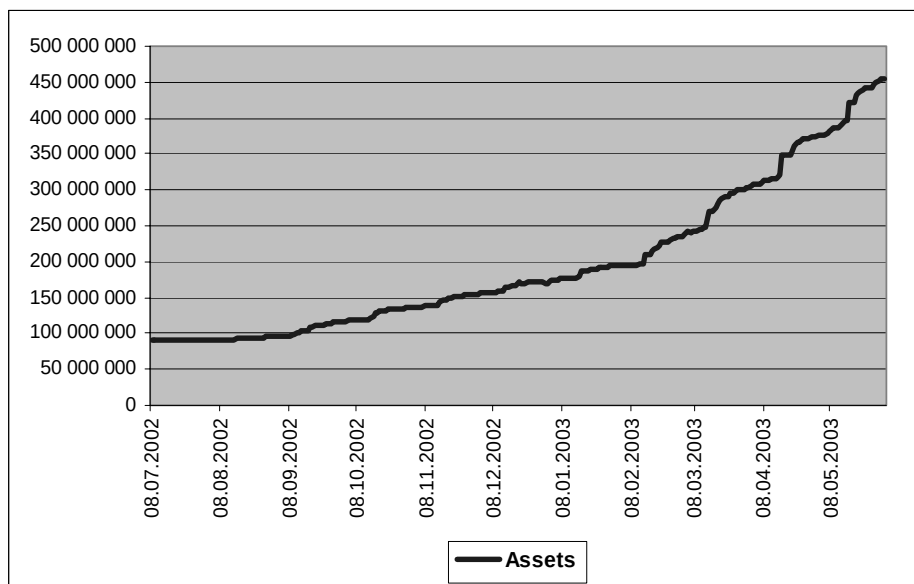
There were no big surprises in switching behavior, but the statistics show interesting results. Women appear to trust the system more than men, or else are less likely to seek out other means of investment for old age -- 56% of switchers are women. Men are more adventurous: 69% of men chose the aggressive fund (in which 50% of assets are invested in shares), and only 12% chose the conservative fund (100% of assets in bonds). Among women, 60% chose the aggressive fund and 16% opted for the conservative fund.

Although some pension funds hold tiny market shares, six pension fund management companies nonetheless operate in the market. They manage a total of 15 different mandatory pension funds. Each pension fund management company has at least two pension funds, one with 100% of assets invested in fixed-income instruments and one with 50% in bonds and 50% in shares. Three

management companies have funds with assets invested 75% in bonds and 25% in shares.

Total assets of mandatory pension funds are approaching a half-billion Estonian kroons. Total assets are increasing by about EEK 75 million a month and are expected to reach 1 billion EEK (0,9% GDP) by the end of the year (see Figure 6).

Figure 6. Total assets accumulation



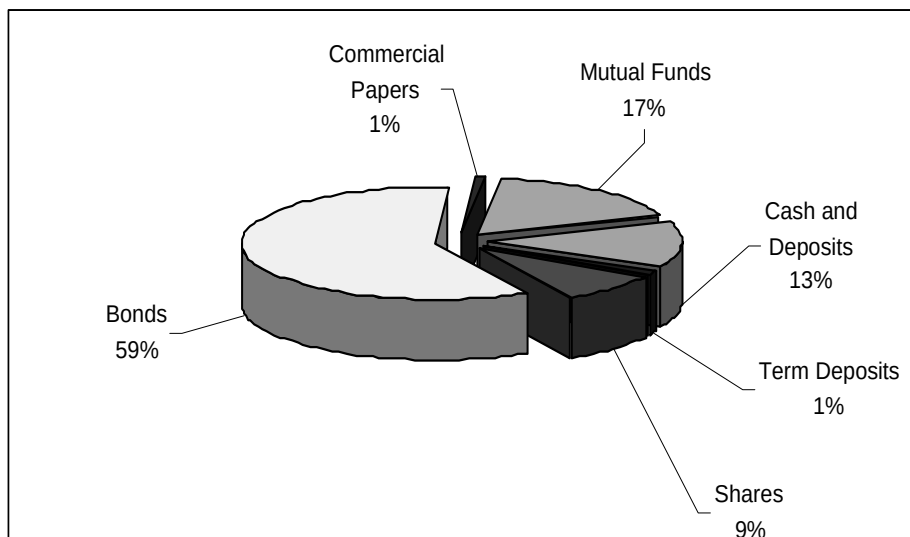
Source : Ministry of Finance. The mandatory pension funds market is quite concentrated. The largest bank in Estonia, Hansabank, has around 50% of assets as well as members of the second pillar. Three pension fund management companies have more than 90% of the market both in switchers and assets.

Figure 7. Mandatory pension fund management companies' market shares by switchers and assets.

	% of switchers	% of payments
Seesam	1.97	1.33
LHV	1.54	3.89
Sampo	14.1	9.56
Hansapank	50.64	51.20
Ühispank	28.41	29.44

Source: Ministry of Finance

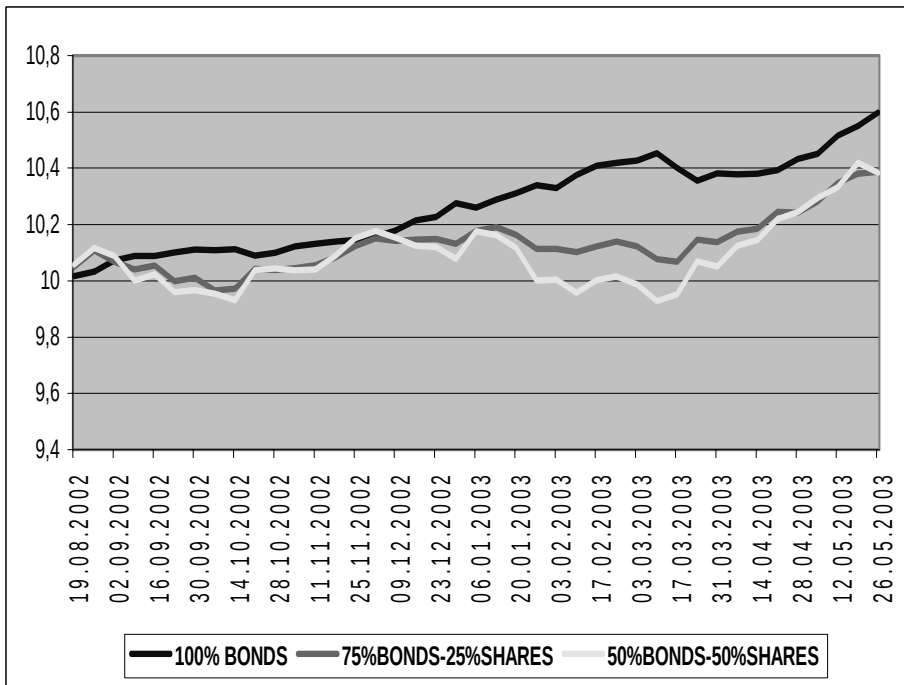
The majority of assets are invested in bonds and in other low-risk assets. This is due first to requirements set by law and second to the fact that bonds have shown higher returns than shares (see graph below). Figure 8. Second-pillar fund investments by asset type.



Source: Ministry of Finance

The latter trend can be observed as well in Figure 9, which shows the average NAV of different types of mandatory pension funds. Most investment is in foreign assets. (Estonian legislation sets no limits on investing in EEA contracting countries, OECD member countries or certain other countries. The reasoning was that as the local market is tiny, a bubble can easily grow, causing negative system-wide results if it bursts. Many people opposed this decision, saying that assets would flow out of the country, reducing economic growth. Still, it was decided to have one goal: securing pension assets to provide sustainable benefits for participants.) Only 3.7% of assets are invested in enterprises listed on the Tallinn Stock Exchange.

Figure 9. NAV by pension fund type.



Source: Ministry of Finance

3.7 *Financing reform*

The costs of reform have been a major concern of experts and politicians establishing the new system. Many options for splitting the state pillar contribution or raising the overall contribution level were discussed, in a quest to find the optimum balance between costs and benefits. The main combinations discussed were 12+8, 16+6 (the first figure representing tax to the state pillar, and the second the switcher's contribution to the second pillar), 14+4+4 and 15+5+3 (respectively, tax to the state pillar; the part of first-pillar tax going to the second pillar; and the switcher's contribution to the second pillar). Even a 10+10 split was considered, for faster second-pillar growth. The reasoning was that a second-pillar contribution is a deferred income, the employee himself has to pay the contribution, and the rate of social tax is reduced by that amount. The latter, reducing an employee's costs, should have provided inducement to hire

more people, thereby increasing employment. Three-sided negotiations between representatives of the state, employers and employees were held to seek agreement on the new scheme, with some compensation proposed for workers for lost net income. As no agreement was reached, it was decided to leave social taxes unchanged, but allocate 4 percentage points of it to the second pillar, making employees pay an extra 2%.

The table below shows the costs of reform, using different models for how much goes to the state pillar.

Table 2. Initial calculations on cost of different reform options.

	Total transition cost	
	Bln kroons	% of GDP
16 %	24.2	33.6
14 %	36.3	50.4
12%	48.4	67.2
10%	60.5	84.0

Source: Ministry of Finance

As seen, the smallest reduction in the state pillar would of course result in the lowest costs. A mere 4% would not have sufficed to secure sufficient second-pillar benefits (due to various costs and smaller economies of scale). That is why an individual 2% contribution was added.

Although state social tax revenues have decreased, because 4% of switchers' social tax goes to the second pillar, the state pension system budget is currently in surplus and other resources are not needed to finance Pillar II implementation. A surplus remains because Pillar I payments are smaller than revenues. The main reasons for that are a conservative indexation of state pillar benefits and a favorable demographic situation (many of the "baby boomers" born in the early days of Estonian independence are beginning to enter the labor

force, even as the retirement age has been increased). The surplus may diminish this year with a greater number of switchers. Political will also plays an important role, however. One of the three parties in the current governing coalition has set a goal of raising the replacement rate of pensions by 10 percentage points, without providing any source of financing for the raise. Pensions were augmented by 100 kroons this July after politicians found the state-pillar surplus too large.

Implementation costs according to official projections for switchers are shown below. As mentioned, the number of switchers has been adjusted to reflect continued high interest in switching.

Table 3 . Finances of reform.

	2002	2003	2004	2005	2006
Switchers	40.000	207.000	260.000	310.000	350.000
Social tax to the II pillar					
Million EEK	57	597	828.2	1079.9	1329.5
% of GDP	0.05	0.52	0.65	0.77	0.86
Deficit in I pillar					
Million EEK	714.8	94.5	114.5	199.3	283
% of GDP	0.67	0.08	0.09	0.14	0.18

Source: Ministry of Finance

4. Voluntary Funded Pension

The third pension pillar is the voluntary private pension scheme, where the state encourages participation by providing tax incentives. It was implemented before the second pillar in order to gain experience in managing pension funds and solving problems that might arise with such schemes.

The legal framework of the third pillar was enacted by the Pension Funds Act (effective from 1 August 1998). The law also made substantial amendments to the Insurance Act and the Income Tax Act.

The third pillar's principal characteristics are:

- Voluntary participation;
- An individual-centered nature;
- Private management;
- A pre-funding financing principle;
- Free choice between insurance and the fund instrument;
- Free choice between the defined-benefit and the defined-contribution type schemes;
- Strong tax incentives provided by the state.

Individual participation in the voluntary schemes can take two forms:

1. Special pension insurance policies are offered by licensed private insurance companies (allowing income tax reduction);
2. Units of pension funds managed by private asset managers can be acquired.

Statistics show that those who choose the first option are mainly average and lower earners who make payments regularly. The second is generally chosen by higher earners who usually contribute once a year, in December (leaving them with the shortest time before tax reimbursement).

To encourage participation in the voluntary private pension schemes, the following tax incentives have been introduced:

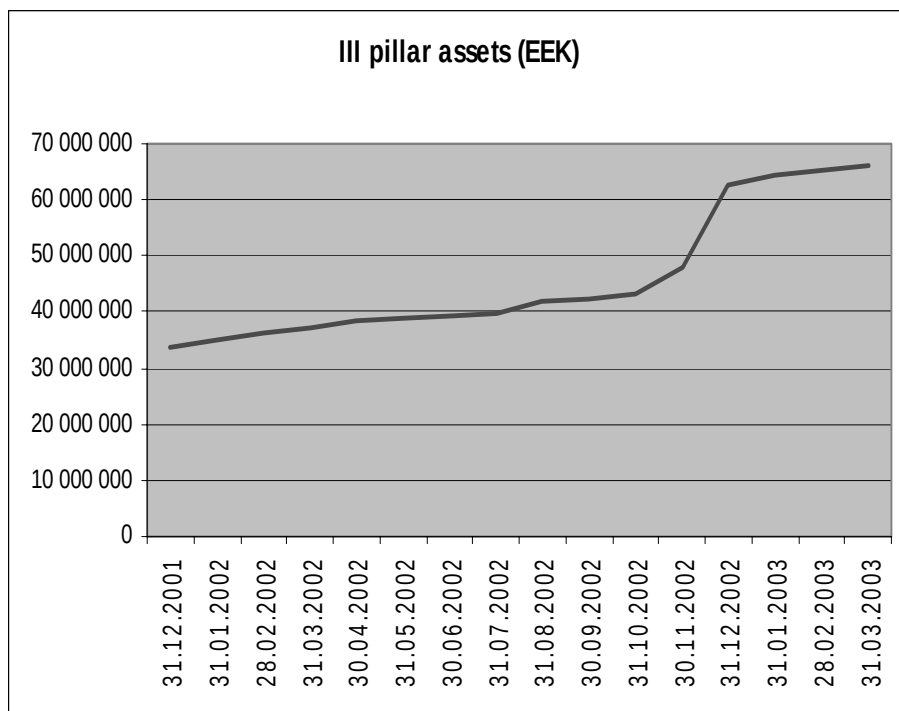
- Contributions (premiums paid on the basis of pension insurance policy or sums paid to purchase units of a private pension fund) are deductible from taxable income, with the income tax up to 15 % of total annual income;
- Benefits paid on the basis of a private pension insurance policy or from redemption of the units of a pension fund are subject to a lower 10% income tax rate, instead of the normal 26%;
- Benefits paid regularly lifelong, on the basis of defined-benefit type pension insurance policy in equal or increasing amounts, are not taxable.

This means that an unusually favorable EEE taxation scheme applies to Pillar III when the person chooses to take benefits as lifetime annuities.

In the voluntary schemes, the pension age is a matter of contract between the person and the insurance company, except that the minimum contractual age in which the tax exceptions apply is 55 years.

There are currently five life insurance companies in Estonia which have licenses to sell pension insurance policies under favorable tax treatment. There are now about 50,000 Pillar III insurance contracts. In March 1999, the first fund manager (Hansa Asset Management) obtained a license to run a private pension fund (Hansa Pension Fund). There are now four Pillar III pension funds operating. They collect total sums reaching EEK 67 million.

Figure 10 . Pillar III pension fund assets in dynamics.



Source: Ministry of Finance

Although tax incentives are very favorable, around 10% of employed people take part in the third pillar. Due to heavy advertising and increased understanding of the need to save for retirement, we expect interest in the third pillar to grow.

APPENDIX 1. SCHEDULE FOR JOINING THE SECOND PILLAR.

Persons born before 1983 are entitled to make contributions to a mandatory funded pension and to acquire units of a mandatory pension fund if they submit an application as follows:

1. persons born in 1942–1956, before 1 November 2002;
2. persons born in 1957–1961, before 1 November 2003;
3. persons born in 1962, before 1 November 2004;
4. persons born in 1963, before 1 November 2005;
5. persons born in 1964, before 1 November 2006;
6. persons born in 1965, before 1 November 2007;
7. persons born in 1966, before 1 November 2008;
8. persons born in 1967, before 1 November 2009;
9. persons born in 1968, before 1 November 2010;
10. persons born in 1969, before 1 November 2011;
11. persons born in 1970, before 1 November 2012;
12. persons born in 1971, before 1 November 2013;
13. persons born in 1972, before 1 November 2014;
14. persons born in 1973, before 1 November 2015;
15. persons born in 1974, before 1 November 2016;
16. persons born in 1975, before 1 November 2017;
17. persons born in 1976, before 1 November 2018;
18. persons born in 1977, before 1 November 2019;
19. persons born in 1978, before 1 November 2020;
20. persons born in 1979, before 1 November 2021;
21. persons born in 1980, before 1 November 2022;
22. persons born in 1981, before 1 November 2023;
23. persons born in 1982, before 1 November 2024.

Persons born before 1942 are not allowed to join the second pillar of funded pension.

APPENDIX 2. MAIN FUNCTIONS OF THE FINANCIAL SUPERVISORY AUTHORITY (FSA).

Since 1 January 2002, Estonia has had a unified supervisory agency, replacing three former entities in the banking, insurance and securities sectors. The unification was deemed necessary to increase the efficiency of financial-market supervision and because some companies were closely linked, judicially and through ownership rights.

In the context of pensions the FSA supervises the activities of pension fund management companies and pension funds. It is an agency of the Bank of Estonia, with autonomous authority and a separate budget. The Financial Supervision Authority Act sets out the procedures for its management and reporting requirements. The FSA conducts financial supervision in the name of the state and is independent in the conduct of financial supervision.

As concerns financial supervision, the FSA has the authority to:

1. Issue and cancel activity licenses and other matters related to activity licenses;
2. Give consent, approval or permission;
3. Decide over issues concerning the registration of entities and the administration of the registration list;
4. Issue precepts, apply coercive administrative measures, and impose administrative penalties;
5. Order special audits or expert assessments;
6. Establish a moratorium or special regime to file a bankruptcy petition and to carry out related activities.

To carry out its supervisory objectives, the FSA regularly monitors the financial sector and supervised entities. Monitoring as a supervisory process implies constant observation and analysis of the operations and the status of supervised entities, identification of the main risk areas and supervision of compliance with the law. The FSA conducts on-site inspections of the supervised entities. It can also issue advisory guidelines in order to shape a common practice for implementing legislation, as necessary.

APPENDIX 3. FEE STRUCTURE OF MANDATORY PENSION FUNDS

There are two types of fees: those payable from the account of the fund and those payable by the fund management company. The first group includes:

1. a fee to the fund management company for managing a pension fund (management fee);
2. fees to a depository for the provision of depository services (depository's charge);
3. transfer charges and service charges directly related to transactions performed from the pension fund as issuing and redemption fees (transaction costs).

The second group includes:

1. A depository fee related to management of the pension fund;
2. A registrar's charge for issuing and redeeming units, keeping pension accounts and performing other services set by law;
3. mandatory contributions to the Guarantee Fund.

The size of the management fee is determined as a proportion of the market value of the assets of the pension fund and must be indicated in the pension fund rules for a full year, where a year equals 365 days. The management fee should not exceed the limit established by the Minister of Finance. The limit may differ depending on the market value of the assets of mandatory pension funds or the structure of investments of the pension funds.

The rate of the total management fee of a mandatory pension fund investing also in equities should not constitute more than 2% of the market value of the pension fund assets. In case of a type of pension fund investing only in fixed-interest instruments the maximum management fee is 1,5% of the market value of the pension fund assets.

Depository and registrar's charges are determined as a proportion of the market value of the assets and are set in the rules of the fund.

Until 1 January 2005, the rate of units' issue fee of pension funds should not exceed 3% of the net asset value of the unit. The rate of the redemption fee for a unit of a pension fund should not exceed 1% of the net asset value of the unit.

Below you can see an example of fees of “aggressive” pension funds (investing up to 50% in equities), charged by pension fund management companies and advertised as a table on Internet site:

	Eesti Ühispanga pensionif. progress	Ergo Tuleviku Pensionifond	Hansa Pensionifond K3	LHV Aksia- pensionifond	Sampo Pension 50	Seesami Kasvu Pensionifond
Management fee	1.5%	1.25%	1.59%	2%	1.85%	1.88%
Issuing fee	1.5%	3%	1.5%	1%	1%	2%
Redemption fee	1%	1%	1%	1%	1%	1%

Source: Pension Fund Management Companies

REVIEW OF PENSION REFORM IN LATVIA: HOW IT WAS CARRIED OUT AND WHAT THE RESULTS SHOW IN 2003

Laima Zilite

Abstract

This paper highlights the main reforms that have affected the Latvian pension system since 1991. It focuses on the three-tier model approved in 1995, which led to the introduction of voluntary funded schemes in 1998 and mandatory pension funds in 2001. The reform also led to the establishment of a new first tier where benefits are financed on a PAYG basis, but are based on individual actuarial principles. This is one of the few cases in the world of the so-called notional defined contribution system. As in Estonia, contribution collection, account management and record keeping are centralised. Banks and insurance companies can be pension fund managers but have only partial information about the affiliates. Supervision is carried out by the Financial and Capital Markets Commission.

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Introduction

From a formal point of view, we can say that the pension reform in Latvia is complete: its new legislative foundation has been developed, the new three-tier pension system implemented. In many aspects Latvian reform is considered revolutionary, and an example for other countries to follow. Latvia is often praised for being a pioneer in replacing its PAYG First Pillar with a Notional Defined Contribution (NDC) system in 1996. The Second and Third Pillars have been implemented, demonstrating the country's intention to provide an optimal private/public mix in old-age provision. However, discussion of the material difficulties facing current pensioners can spoil any good impression of the Latvian pension system.

The purpose of this report is to provide a critical evaluation of the pension reform process, analyzing current results of the reform and future developments in old-age provision in Latvia.

I. Background

The pension reform process in Latvia began soon after the re-establishment of national independence. The reform of 1991 involved the approval of a new pension law and the introduction of a social tax that constituted 38% of earnings (37% paid by the employer, 1% by the employee). The first pension reform was meant to be generous (to show that independent Latvia can provide more than the former Soviet Union) but failed mainly because of this very reason – the generous reforms were not in line with the declining and fast-changing economic situation and the new capitalist ideology. Rising unemployment, hyperinflation and structural changes in the economy made the pension reform of 1991 obsolete. Although the first pension reform ended up with flat-rate benefits for almost all pensioners, the reform itself can be viewed as “a good try”. The pension reform did not survive, but the introduction of social tax (later: social insurance contributions) in 1991 was the first step toward the social insurance system that today forms the basis of the Latvian pension system.

The second attempt to make a “parametrical” pension reform was carried out in 1993, when the so-called Temporary Regulation for the Calculation of Pensions was adopted. This act provided that the amount of old-age pension should be calculated according to two main variables: the individual length of service and the national average wage. There was no connection between the social tax paid (or amount of salary) and the amount of individual pension. To be sure, this did not contribute to tax-payment discipline and individual incentive for old-age provision; the pension benefits, moreover, were rather

similar. One reason the pension benefits were calculated as a factor of national (not individual) average wage was that no individual tax payment register existed.

The retirement age remained the same as it was in the Soviet Union: 55 for women and 60 for men. Besides this “normal” retirement age, many exceptions existed for numerous groups of society, allowing them to retire much earlier.

How and why a three-pillar pension system was developed

The main reason for the radical pension reform of 1995 was the unsuccessful experience with the first reforms. There was an expressed demand for a new pension reform “from both sides of the front”: pensioners as well as politicians and economists. The low (and almost flat) level of pension benefits was only one factor signaling the necessity of reform. The increasing demographic burden, the need for a long-term sustainable pension system, and the necessity to make individual initiatives much stronger (a link between contributions and benefits) were among the main reasons for the reform. The above-mentioned reasons also signaled the weak points of the existing system that required “repair” via the new reform.

The reform was developed in collaboration with World Bank (WB) experts. The result of this collaboration was the Pension Reform Concept developed and adopted by the Parliament (Saeima) in 1995.

The reform concept envisaged some radical and some parametrical changes:

- The establishment of a clear link between the social tax (contributions) paid and the amount of benefit. This link was formulated in the new pension formula, *Pension = Accumulated Capital / Estimated Period during which the pension will be paid out*.
- The introduction, in order to ensure the link between contributions and benefits, of individual social taxpayers’ accounts (notional pension capital accounts). All contributions paid starting from 1996 are registered in a personal account register with the State Social Insurance Agency (SSIA).
- The introduction of a multi-pillar pension system. The original text of the Pension Reform Concept proposed introducing a four-pillar pension system: The First Pillar was designed as an NCD scheme, the second as a fully funded mandatory system, the third as a fully funded

voluntary system, and the fourth as a transition pillar for those who have up to 10 years before retirement and will not save enough additional pension capital in the second and third pillars. The Fourth Pillar was a good idea, but it “died” because of unclear financing.

- A gradual increase in the retirement age for women (equalizing it with the age for men).

As many of the WB experts were from Sweden, they suggested using the concept of NDC originally developed for the new Swedish pension system. Other components of the new pension system were also in line with reform proposals in developed countries as well as in Central and Eastern European countries.

The reform ideology and underlying principles were completely new for Latvian society. The ministerial experts and politicians were not ready to explain the reform (as mentioned, this was more the World Bank experts' reform than their own). Moreover, its authors did not predict the many sensitive aspects of the reform (that led to a huge quantity of amendments within just a few years after the First Pillar reform was introduced). The lack of a governmental public relations tradition in explaining political decisions to society also played a role in popular dissatisfaction with the reform in early 1997. Therefore, one of the main problems of Latvian pension reform was the poor (or even non-existent) public awareness of the reform principles and the reasons behind the reform. That contributed to mistrust and led to numerous attempts to revert to old system.

Public discontent was largely due to the so-called Transition Provisions of the new Law on State Pensions (1st Tier). These provisions apply to calculations of the pension for anyone with at least one year of working history before 1996. In practice, all pensions are granted according to these provisions. The most severe problem with the Transition Provisions became visible in early 1997 with the fact that the amounts of pensions were extremely diverse, since only the salary for 1996 was considered in calculating old-age pension. As the result, the law (Transition Provisions) was amended; since 1997, the Transition Provisions have been amended almost every year.

While these amendments have been regarded as small steps toward more social justice, the overall low level of pension benefits (and other social benefits) has caused constant discussion in society and the mass media.

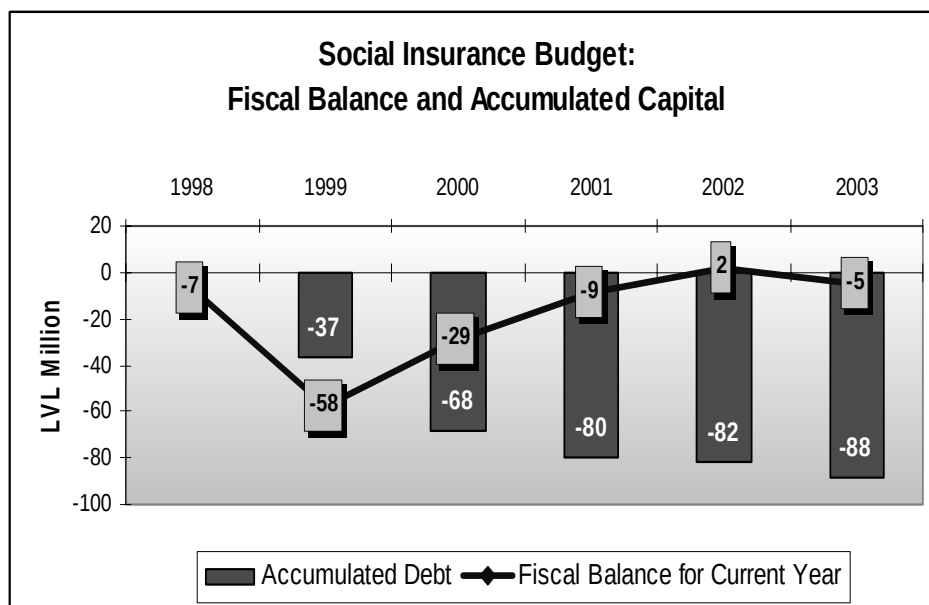
As the result of the First Pillar reform (mainly due to the increased retirement age) the number of old age pensioners has decreased during the last

three years (from 521,000 in 1999 to 497,700 in 2002). The average amount of old-age pensions is also increasing gradually, though it is still below the official survival minimum.

II. Financing of Pension System

One of the main reasons current pensions are so low is the financial state of the pension budget. Old-age pensions are paid out of the special state pension budget, which is a part of the state special social insurance budget. The social insurance budget is formed exclusively from social insurance contribution payments. If spending of the social insurance budget exceeds income, the deficit is covered by loans from the state basic budget. Interest for this loan is to be paid from the same pension budget.

Since 1998, the pension budget has accumulated a significant deficit. The accumulated pension budget deficit was almost 86 million LVL as of March 2003. However, the budget situation is slowly improving, and in 2003, income is expected to exceed expenditures by about 3.4 million LVL. Although this is a positive sign, the accumulated deficit will not be repaid for a long time.



Source: State Social Insurance Agency

In the beginning of 1998, the total accumulated reserve in the state social insurance budget was LVL 26 million. Due to rather generous indexing of

pensions in May 1998, and because of the influence of the economic crisis in Russia, this reserve was diminished and by the end of 1998 it constituted LVL 20.2 million. Since 1999, the social insurance special budget has had an accumulated debt. The difference between the revenues and expenditures of the social insurance budget is financed by a loan from the state basic budget. The social insurance budget has to repay the loan with interest.

In 2002, revenue of the state pension special budget was LVL 427.5 million and expenditures were LVL 429.5 million.

As mentioned, the social tax was introduced in 1991. The total contribution rate was 38% of working income. Of this the employer had to pay 37%, and the employee contributed the remaining 1%.

Collected social tax payments formed the state special social insurance budget (fund), which was separated from the state basic budget. In 1993, the social insurance budget was merged with the state basic budget, but in 1995 they were again separated.

In 1996, a new Law on Social Tax took effect. This act envisaged enhancing the employee's responsibility and reducing the employer's tax burden. The plan was to gradually reduce the social tax rate from 38% in 1996 to 33% by 2001, and to redistribute the tax rate between the employer and the employee – from 37% for the employer and 1% for the employee to, respectively, 18% and 15 % in 2000.

Following the legislation a redistribution of the social tax rate between the employer and the employee began in 1996. On 1 July 1996, the division of social tax rate was changed to 5% for the employee and 33% for the employer. The total rate remained unchanged at 38%.

This first step to redistribute the social tax rate drew strong protest from employees and especially from trade unions, as it caused employees' net earnings to drop by 4%. The government reacted by passing a regulation obliging all employers to compensate their employees in the amount of 4% of employees' earnings. In reality, the employers' costs were not reduced. After intense discussions, employers' organizations agreed with this regulation.

The next step in reducing the social tax rate and redistributing the rate between employer and employee came on 1 January 1997. The distribution of the social tax rate became 9% for employees and 28 % for employers. The total rate was reduced from 38% to 37%. The government set no compensation this time. Employers were free to increase their employees' salaries or not.

The planned pace of reduction and redistribution of the social tax rate was stopped in 1 January 1998, when the law titled On State Social Insurance replaced the law On Social Tax.

The reduction of the total contribution rate was resumed, but the employees' part was not increased. In 2000, the employers' part was 27% (total 36%); in 2001, 26% (total 35%); and in 2002, 25% (total 34%); but from 1 January 2003, the total contribution rate finally reached 33%, a goal set in 1995. However, the goal on distribution between the employer and the employee was not achieved. Employees will still pay only 9% of salary and the employer will pay the rest: 24%.

The above-mentioned contribution rates are total contribution rate for all types of social insurance. Of this contribution rate for one's pension the amount constituting 20% of work income is registered in the individual pension account.

With the introduction of the pension Second Pillar, the total contribution rate for pensions (20%) is split between the 1st and 2nd Tier (no additional contributions are required for 2nd Tier).

Contribution Rates for Pension 1st and 2nd Pillar

Year	1 st Tier	2 nd Tier	Total
2001-2006	18%	2%	20%
2007	16%	4%	20%
2008	12%	8%	20%
2009	11%	9%	20%
2010 -	10%	10%	20%

Source: State Social Insurance Agency

On 13 March 2001, the Constitutional Court of Latvia held that all contributions that are reported by the employee (whether paid or not) should be registered in the person's individual social insurance account. That means that as of 14 March 2001, all benefits (and contributions to the Pension Second Pillar) that are calculated to reflect a person's social insurance contributions are calculated using the amount of contributions reported by the employer.

Social insurance contributions are calculated as a percentage of contribution earnings (object). For employees, the contribution earnings is equal to salary/wage. For other categories of social insured persons the object is either the amount of the benefit or a sum stated by the legislation. For employees there

is no minimum contribution object (it can be as small as LVL 0.01). For the self-employed since 1998 a minimum of contribution earnings is set.

Minimum Annual Contribution

Earnings for Self-employed

Year	Minimum Contribution Earnings (LVL)
1998	504
1999	540
2000	540
2001	480
2002	480
2003	540

Source: State Social Insurance Agency

Since 1997 the maximum (ceiling) of social insurance contribution earnings is set for all categories of socially insured persons. This means that social insurance contributions have to be paid only from earnings not exceeding this maximum. If contributions during the particular year have been made from earnings that are higher than the stated maximum, the amount overpaid is paid back to the insured person and his employer proportionally to the contribution rate.

Maximum Annual Social Insurance

Contribution Earnings

Year	Maximum Contribution Earnings (LVL)
1997	12000
1998	12000
1999	14000
2000	15000
2001	16000
2002	17300
2003	18400

Source: State Social Insurance Agency

The maximum annual contribution object for the particular year is determined by regulations of the Cabinet of Ministers. The ceiling on social insurance earnings exceeds average social insurance contribution earnings by about nine times, leaving little room for voluntary contributions to private pension funds (Third Pillar).

Average Contribution Earnings

Since 1997, the amount of average contribution earnings (wage) in the country has been calculated. The average contribution wage (calculated by the State Social Insurance Agency) differs from the average gross wage of the employed in the economy (calculated by the Central Bureau of Statistics). This is because the average social insurance wage is calculated only using the data about the ***paid*** (reported since 14 March 2001) social insurance contributions. The figure is lower also because for a significant number of socially insured persons, the contributions are made out of the state or special social insurance budgets. For those categories of socially insured persons, the contribution wage is the amount of received benefit or an amount stated by the legislation (currently LVL 50).

Average Monthly Social Insurance

Contribution Wage (1996-2002)

Year	Average Contribution Wage (LVL)
1996	92.41
1997	111.16
1998	122.57
1999	128.00
2000	136.62
2001	145.36
2002	154.57

Source: State Social Insurance Agency

III. What is Latvia's Three-Tier Pension System?

Even though the pension reform concept developed in 1995 envisaged the introduction of a full multi-pillar pension system, in fact the separate pillars were legislated and introduced at considerable intervals:

- The First Pillar (NDC PAYG system) was legislated in 1995 and introduced as of 1 January 1996.
- The Third Pillar private voluntary fully funded pension scheme was legislated in 1997 and took effect on 1 July 1998. The first private pension fund was licensed in October 1998.
- The Second Pillar: the state mandatory fully funded pension scheme was legislated in February 2000. The first stage (with one state asset manager) of the Second Pillar was introduced on 1 July 2001, the second stage (with multiple private asset managers) began operating on 1 January 2003.

This gradual introduction played a dual role in the success of the Latvian pension reform. It allowed the relevant administrative and supervisory

institutions to be better prepared for each step of the reform. But at the same time, it “blurred” the reform. The population did not perceive it as one reform but as several not very closely related reforms. The “divided” reform also contributed to the difficulties of building public awareness of the system’s benefits among the working population. The late introduction of the Second Pillar (more than five years after the First Pillar) made it difficult to link with the NDC system. That was particularly important as the Second Pillar “takes” a part of pension contributions that until the introduction of the Second Pillar was registered in the First Pillar account.

First Pillar. As mentioned, the First Pillar of the Latvian pension system is the so-called NDC scheme, introduced in 1996 as the first step of reform.

In the NDC scheme only information on individual contributions is registered in personal accounts, but paid money is paid out to current pensioners. At the same time, the system provides a clear link between contributions paid throughout the working life of the insured person and the amount of pension ($P=K/G$). The longer the contributions have been made, the larger the pension capital and, consequently, the pension. The individual pension capital is indexed by annual (pension) capital growth. Notional capital growth (that is, the contribution salary index for the country) has been calculated every year since 1997. The annual contribution salary index is calculated (using the data registered in the State Social Insurance Agency) as the growth of the total amount of contribution earnings in the whole country.

Second Pillar. The Second Pillar of the Latvian pension system is the State Funded Pension Scheme. It is designed as a fully funded defined contribution mandatory pension scheme. The operation of the 2nd Tier is very similar to that of the private pension funds.

According to the Second Pillar Concept document developed in 1999, the purpose of the state funded pension scheme is to:

- Achieve growth of pension capital and an increase in the pension amount by investing part of the contributions while not increasing the total social insurance contribution rate for state old-age pensions;
- Facilitate the formation of financial reserves promoting the development of national economy.

Affiliates of the Second Pillar do not have to pay additional contributions. The total 20% contribution rate is divided between the First and Second Pillars.

The contribution rate to the Second Pillar is 2% from 2001-06, 4% in 2007; 8% in 2008; 9% in 2009; and 10% from 2010.

Participation in the Second Pillar is mandatory for those born after 1 July 1971, while those born between 2 July 1951 and 1 July 1971 are allowed to choose whether to participate in the Second Pillar or stay with all pension contribution in the First Pillar.

At the end of 2002, the only manager of Second Pillar assets was the State Treasury. The State Treasury managed one state-funded pension investment plan – the State Treasury Investment Plan. Beginning in 2003, affiliates of the 2nd Tier have been allowed to choose the asset manager of their Second Pillar pension capital. Specially licensed investment companies are allowed to act as private asset managers. Private asset managers are allowed to offer several investment plans. However, the affiliates may choose only one investment plan at a time. Affiliates may change their asset manager once a year.

The **Third Pillar** pension scheme is regulated by the law titled On Private Pension Funds (adopted by Parliament on 5 June 1997). It came into force on 1 July 1998. The law allows two kinds of private pension funds (PPF):

- A closed fund, which is only for employees of a company or companies that founded the PPF;
- An open fund, which is formed by a bank of a life insurance company to sell pension coverage as collective or individual affiliation plans.

There are three choices for receiving benefits at retirement. The PPF pension benefit can be:

- Paid as a lump sum;
- Transferred to the life insurance company, which subsequently provides whole life annuity; or
- Transferred to the state PAYG pension system.

The minimum retirement age to receive the PPF benefit is 55. The lump sum is taxed at normal rates. Contributions are tax-exempt for the employee. For the company, contributions made to the PPF for the benefit of company employees are treated as a tax-deductible business expense if they do not exceed 10% of the salary calculated for the employee. Contributions to the PPFs are not subject to state social insurance contributions.

IV. Operation of the First Pillar

The law On State Pensions took effect on 1 January 1996. Parliament has amended the law nine times in the past six years. The law was also adjusted in line with two decisions of the Constitutional Court. All these amendments have changed the rules of pension benefit calculation for those now retiring. The main reason for these amendments was the low level of pension benefits granted using the Transition Regulations of the law On State Pensions (all old-age pensions are granted according to these Transition Regulations). The Transition Regulations stipulate that for those who have insurance (service) period prior to 1996, the pension benefit is calculated using a modified pension formula: pension capital is the sum of accumulated capital after 1996 and so-called initial capital.

$$P=(K_s +K)/G$$

where:

P = the annual pension, of which 1/12 is the monthly pension.**K** = the pension capital of the insured person, which is composed of the amount of pension insurance contributions registered in the personal account of the person and annual capital growth.

$$K_s \text{ (initial capital)} = 0.2 \times A_s \times V_i$$

A_s = service record prior to 1996

V_i = average salary during 1996-99

G = the period (in years) during which the old-age pension payments are planned to be made after the old-age pension is granted. The Cabinet of Ministers reviews this figure each year according to the demographic statistics.

The registration of the person's pension individual pension capital is carried out since 1996.

Annual (pension) capital growth (the contribution salary index for the country) has been calculated every year since 1997. The annual contribution salary index is calculated (using data registered in the State Social Insurance Agency) as the growth of the total amount of contribution earnings in the whole country.

Annual First Pillar Pension

Capital Growth Index

Year	Index
1997	1.03
1998	1.12
1999	1.117
2000	1.069
2001	1.0835
2002	1.0453

Source: State Social Insurance Agency, Author's calculations.

The main principle of the NDC pension system is unchanged, but this will be valid only for those with no insurance period prior to 1996.

Currently, the total number of old-age pensioners is 497,700 (approximately 21% of the population). The number of old-age pensioners has decreased gradually during the last years.

Changes in the Number of Old-Age Pension Recipients

(thousand; end of year)

Year	Number of Old Age Pensioners	Change from Previous year
1995	497	
1996	504	1.41%
1997	511.2	1.43%
1998	512.5	0.25%
1999	521	1.66%
2000	513.7	-1.40%
2001	504.8	-1.73%
2002	497.7	-1.41%

Source: State Social Insurance Agency

The average monthly old-age pension is 64.25 LVL. The distribution of old-age pensioners by amount of monthly pension benefit shows that more than half of all old-age pensioners receive pensions below LVL 60.

Distribution of Old-Age Pensioners by the Amount of Pension (end of 2002)

Amount of Pension (LVL)	% of Pensioners
20.00-30.00	2.2%
30.01-40.00	7.0%
40.01-50.00	7.9%
50.01-60.00	52.8%
60.01-70.00	19.0%
70.01-80.00	4.1%
80.01-90.00	1.9%
90.01-100.00	1.1%
100.01-150.00	2.5%
150.01-200.00	0.8%
200.01-400.00	0.6%
>400.00	0.1%

Source: State Social Insurance Agency

Safety Net

The main characteristics of the social security net are the mechanisms of social protection for persons:

- Not entitled to social insurance pensions;
- Not supposed to receive some minimum pension amount when using a “pure” pension formula for calculation of pension.

State social security benefits

Persons not entitled to a social insurance pension have the right to receive a state social security (maintenance) benefit. The law titled On State Social Benefits regulates the state social security benefit as one state social assistance benefit. This benefit was introduced in 1996, replacing social pensions.

The state social security benefit is a monthly benefit paid out of the state basic budget (with a different financial basis than social insurance pensions and benefits). The cabinet of ministers determines the amount of the state social security benefit. The amount is increased periodically (at irregular periods), depending mainly on government budgeting possibilities, not the consumer price index. The state social security benefit was last increased in April 1998. The amount of the social security benefit determines the minimum amount of social insurance pension.

Several groups of people are entitled to social security benefit (the elderly, orphans, those disabled since childhood). The so-called old-age social security

benefit is granted to persons not entitled to the state social insurance pension who are at least 5 years older than the retirement age.

Amount of state social security benefits

(LVL per month)

Date	General (old age, survivors, disability)	For disabled since childhood
1 January 1996 – 30 September 1997	25	25
1 October 1997 – 31 March 1997	25	30
Since 1 April 1998	30	35

Source: State Social Insurance Agency

Minimum guaranteed pension

Another aspect of the security net provided by the legislation is the stated minimum amount of social insurance pension. This amount is related directly to the amount of state social security benefit.

The minimum amount of old-age (general cases) pension is tied to the amount of state social security benefit. The minimum amount of old-age pension for women who retire before the legally provided retirement age is 80% of the state social security benefit.

Minimum Amount of Old Age Pensions

Insurance Record	Minimum pension (formula)	Current amount of minimum pension (LVL)
≥ 30 years	150% of state social security benefit	45 LVL
20-30 years	130% of state social security benefit	39 LVL
10-20 years	110% of state social security benefit	33 LVL

Source: State Social Insurance Agency

Pensions and the minimum level of living standards

On 8 April 1991, the Council of Ministers approved the contents of the *complete minimum consumer basket of goods and services*. The basket consists of the amount of goods and services that meet the minimum living standard accepted by society. The Central Statistical Bureau calculates the value of this basket on a monthly basis. This figure places no obligations on the employers of the providers of social services. Analyzing the distribution of old-age pensioners by the amount of monthly pension benefit shows that many pensioners receive pensions below the survival minimum calculated by the Central Bureau of Statistics.

Average monthly amount of old age pension in comparison with the value of the minimum consumer basket, minimal salary and average salary (LVL)

	1996	1997	1998	1999	2000	2001	2002
Value of minimum consumer basket of goods and services per capita*	73.78	78.78	82.15	83.18	84.47	86.93	88.76
Average payable amount of old-age pensions**	37.82	42.24	51.26	58.18	57.79	58.16	64.25
% of consumer basket	51.3%	53.6%	62.4%	69.9%	68.4%	66.9%	72.4%
Minimal gross salary**	35.50	38.00	42.00	50.00	50.00	55.00	60.00
% of consumer basket	48.1%	48.2%	51.1%	60.1%	59.2%	63.3%	67.6%
Average gross salary**	98.73	120.03	133.30	140.99	149.53	159.30	172.78
% of consumer basket	133.8%	152.4%	162.3%	169.5%	177.0%	183.3%	194.7%

Source: *Central Statistical Bureau

**State Social Insurance Agency

Indexation of pension benefits

Rules for the indexation of pension benefits have changed several times since the introduction of the law titled On State Pensions (1 January 1996). Currently that law stipulates that the amount of social insurance pensions should be adjusted annually to reflect actual changes in the consumer price index and 50% of the changes in social insurance contribution earnings.

Indexation of State Pensions (1996-2002)

Date of Indexation	Index
1 May 1996	1.069
1 November 1996	1.031
1 May 1997	1.054
1 November 1997	1.073 (for pensions granted until 31.10.1997) 1.046 (for pensions granted between 01.11.1997 and 30.04.1998)
1 May 1998	1.1587 (for pensions granted until 31.12.1995) 1.0570 (for pensions granted after 01.01.1996)
1 November 1998	1.0334
1 May 1999	1.0031
1 November 1999	1.0072
1 October 2000	1.0033
1 October 2001	1.03
1 October 2002	1.0232 (for monthly pensions up to LVL 90) 1.0089 (for monthly pensions between LVL 90.01 and LVL 150)

Source: State Social Insurance Agency

The Transitional Provisions of the state pension law stipulate that from 1 January 2002 until 2005 (inclusive), pensions that do not exceed the amount equal to triple the amount of the social security benefit (currently 3 * LVL 30 = LVL 90) are reviewed yearly if the change in the consumer price index (CPI) is less than 5% a year, and every six months if the inflation rate exceeds 5% a year. The index in these cases is equal to CPI plus 25% of the change in social insurance contribution earnings. For indexation of pensions that are between

three and five times the social security benefit (currently pensions between LVL 90 and LVL 150), only the consumption price index is taken into account. Pensions exceeding five times the social security benefit will not be indexed until 1 January 2006.

Taxation of pensions

Since January 1997, pensions have been subject to the income tax. The rate is 25% from the amount exceeding the non-taxable minimum. The non-taxable minimum for pensioners who retired before 1996 equals the amount of pension. For pensioners who retired after 1 January 1996, the non-taxable minimum is LVL 100. In reality, this means that only pensions granted under the new legislation are subject to income tax.

Administration

The administration of First and Second Pillar of the pension system is the responsibility of the State Social Insurance Agency (SSIA). Other responsibilities of the SSIA include the administration of social insurance budgets as well as state social benefits (birth grants, social security benefits, family state benefits, etc.) and social insurance benefits (sickness, maternity, disability, unemployment benefits). The organizational structure of SSIA consists of the central level administration, 33 regional local offices and the Information Technology Service Center (IT center). By the end of 2002, the total number of employees at the SSIA was 1,183, of whom 80% were working in local offices.

V. Operation of the Second Pillar

Operational model

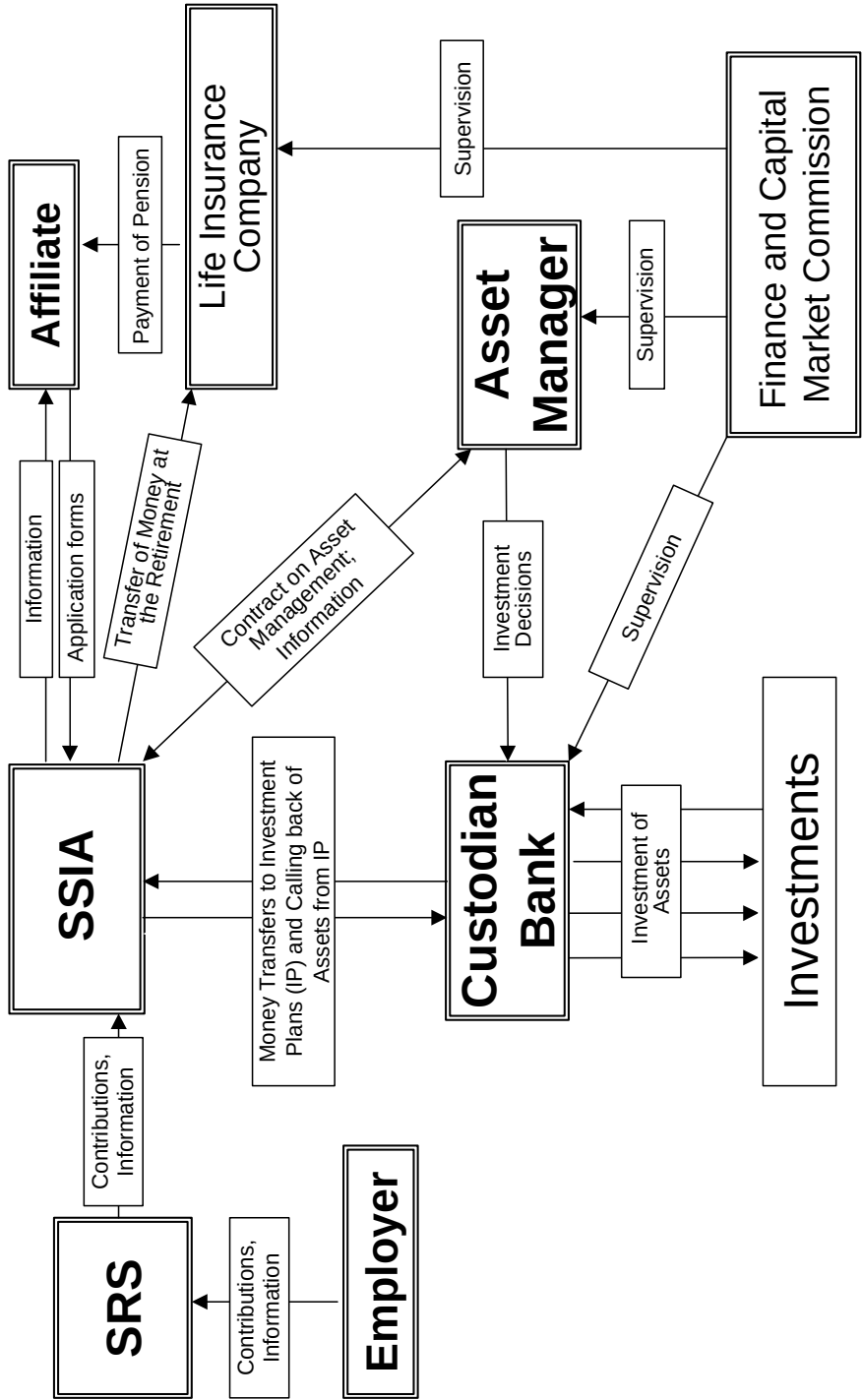
The main organizations involved in the operation of the second pension pillar in Latvia are:

- State Social Insurance Agency (SSIA). The SSIA is the administrator of the system. It signs contracts with asset managers, receives social insurance payments and information on individual contributions from State Revenue Service (SRS); maintains participants' individual accounts; ensures a regular information flow between SSIA and asset managers, and a cash flow with custodian banks. The SSIA gathers and analyzes statistical information on the operation of the pension Second Pillar. It is the only organization with full and updated information on individual accounts as well as individual choices of

asset managers and investment plans. The SSIA registers applications of existing and potential affiliates to join the Second Pillar, to choose or to change the asset manager and investment plan. It has partially outsourced the acceptance of application forms to several commercial banks and insurance companies. These banks and insurance companies also serve as sales channels for asset managers. In Latvia, the Second Pillar of the pension system is constructed similarly to the Swedish PPM system. However, some differences exist: banks and insurance companies, which serve as intermediaries between the affiliate and the SSIA, have partial (and not updated) information about those affiliates that have submitted applications through them.

- The asset manager (asset management company) makes decisions about the investment of Second Pillar assets. The assets of a particular investment plan must be invested according to the investment rules set by law, and the investment plan prospectus. There are two types of asset manager: the state asset manager (State Treasury) and private asset managers – specially licensed investment companies established according to the law titled On Investment Companies. The State Treasury manages Second Pillar assets accounting to one investment plan, whereas private asset managers may offer one or several investment plans to Second Pillar participants. Each participant may choose one investment plan at a time. The law also sets restrictions on the change of investment plans.
- The custodian bank (based on agreement with the asset management company) holds assets of an investment plan and executes orders of the asset manager on the operations with these assets. Another important function of the custodian bank is to perform everyday supervision of the asset manager. Assets of each investment plan are held separately from the assets of other investment plans, the bank's own assets, assets of an asset management company and the assets of the bank's other clients
- The Finance and Capital Market Commission (FCMC) performs supervision of asset managers and custodian banks. The FCMC issues regulations on licensing of Second Pillar asset managers and sets reporting standards for investment companies.

Chart 1. State Funded Pension Scheme Operational Model



- After retirement, the affiliate will be allowed to buy an annuity from a life insurance company. The Cabinet of Ministers regulates the design of these annuity contracts. By current plan, the first annuity contracts will be sold to Second Pillar affiliates no sooner than 2013.

Legal requirements for second pillar asset managers

The state has developed a strict regulation and supervision mechanism for managers of Second Pillar assets. The main goal of these regulations and restrictions is to eliminate the risk of mismanagement, fraud and other illegal actions that could adversely affect the future well-being of pension savers. However, from an asset manager's perspective, it is vital to get familiar with these requirements and develop an action plan on how to obey these rules. Therefore, this chapter is devoted to the legal framework of the Second Pillar private asset management business: the licensing process and supervision mechanism.

In order to become an asset manager the following steps should be taken:

1. To become an investment company:
 - 1.1. The investment company should be established according to the law titled On Investment Companies.
 - 1.2. A license from the FCMC allowing investment company operations to be performed should be obtained.
2. To become a Second Pillar asset manager:
 - 2.1. At least one year of experience in the management of private pension fund assets or investment fund assets should be proven by the investment company or its mother company.
 - 2.2. A license should be obtained from the FCMC allowing the management of state-funded pension scheme assets.
 - 2.3. An agreement should be signed with the State Social Insurance Agency (SSIA).

The following paragraphs provide a detailed discussion of the requirements regarding asset managers.

Licensing of second pillar asset managers

The State Funded Pension Law stipulates that only the State Treasury and investment companies can act as asset managers of Second Pillar pension assets. Further, investment companies have to be established, licensed and operating in compliance with the law titled On Investment Companies, and have obtained a special license for Second Pillar asset management. Delegated by the State Funded Pension Scheme, the FCMC issued the Regulations on Licensing State Funded Pension Scheme Asset Managers.

According to these regulations an investment company can obtain a license for Second Pillar pension asset management if it:

1. Has obtained an investment company license.
2. Has managed investment fund or private pension fund assets for at least a year.
 - 2.1. Exceptions are investment companies which:
 - 2.1.1. Are founded by a bank, insurance company or brokerage company registered in Latvia that has managed private pension fund assets for at least a year;
 - 2.1.2. Are founded by a bank, insurance company, brokerage company or asset management company which is registered in the European Union or European Economic Area and which (itself or a daughter company) has opened a branch office in Latvia and which (itself or a daughter company) has managed the assets of pension (private pensions or state funded pensions) schemes for at least a year.
3. Have not, during the last year, received an FCMC warning for non-compliance with legal acts.
4. Have submitted a well-grounded operations plan.

Similar to the investment company license, licenses for state funded pension scheme asset management are issued for an indefinite time.

The main documents to be submitted with the application for the Second Pillar asset management license are:

1. An operations plan for the next three years describing how the investment company plans to ensure the management of state funded pension assets:
 - 1.1. Information about future investment plans to be introduced.
 - 1.2. Estimated income and costs related to the management of funded pension assets and sources to cover cost.
 - 1.3. Information on how the investment company will ensure compliance with the requirements regarding its capital and own assets.
2. Documents ensuring that the investment company has established an internal control system:
 - 2.1. The organizational structure of the investment company which includes a clear description of the duties and authorities of members of the Supervisory Council, board members and other official persons of the investment company.
 - 2.2. The accounting policy and the main principles of an accounting organization.
 - 2.3. Financial risk management policy.
 - 2.4. Description of management information system.
 - 2.5. Investment systems security regulations.
 - 2.6. A description of internal audit system.
 - 2.7. A procedure for identification of suspicious financial deals.

The main reasons why the FCMC can annul granted license are:

1. The investment company has reported to the FCMC or has publicly disseminated false information.
2. The investment company has systematically violated legal acts and rules by which the investment company has undertaken the obligation to manage state funded pension scheme assets.
3. The investment company in one year's time has not signed an

agreement with the State Social Insurance on the management of the state funded pension scheme assets.

If the license has been annulled it cannot be re-issued to the same investment company.

Security deposit

According to the State Funded Pension Law the Second Pillar pension asset manager should deposit (in a bank unrelated to the investment company) an amount equal to at least 1% of the Second Pillar assets under its management. The minimum security deposit is LVL 50,000 and it should be paid before the agreement with the SSIA is signed.

Agreement with the state social insurance agency

After the license is obtained, the investment company signs the asset management contract with the State Social Insurance Agency. The major steps in this process are:

1. Develop prospectuses of investment plans to be offered to the state funded scheme affiliates. The number of investment plans is not regulated by any legal act; it is up to the investment company to choose how many plans to offer. New investment plans can be added to existing ones later (after the asset management contract is signed).
2. Sign the agreement with the custodian bank.
3. Pay the security deposit.
4. Negotiate the terms of contract with the SSIA. The content of the asset management contract is set by the regulations of the Cabinet of Ministers, but the investment company and the SSIA should also agree upon procedures regulating the cash and information flow between the asset manager and the SSIA. These requirements are similar for all asset managers, but the investment company must ensure that it is able to perform according to these requirements. In cases where the asset manager has no relevant technical infrastructure, it may require additional financial investment as well as employee training.

Before the signing of the asset management contract, the draft contract and investment plan prospectuses (investment plan prospectuses are appendices to

the contract) should be approved by the FCMC. The FCMC has 15 working days to approve the documents or to ask for necessary amendments in order to comply with the legal acts. Any investment plan can be offered to affiliates only if it is approved and registered by the FCMC.

Investment regulations and possible investment plans

One of the main managerial decisions of an investment company is how many and what kind of investment plans to offer to Second Pillar pension affiliates. This decision is heavily influenced by the investment regulations that govern Second Pillar private asset management. Legal acts impose rather strict regulations regarding permitted investment objects for Second Pillar assets, leaving little room for differentiation of investment plans. While some countries apply the so-called prudent person rule for pension fund investments, the Latvian government decided to set predefined investment rules. The State Funded Pension Law sets both quantitative and qualitative investment regulations. The law titled On Investment Companies and the State Funded Pension Law require strict separation of assets. Assets of each investment plan should be held in the custodian bank separately from the assets of other investment plans, the bank's own assets, assets of an asset management company and the assets of the bank's other clients.

The law sets different investment regulations for state asset management (the State Treasury) and private asset managers. The investments of the State Treasury Investment Plan are restricted to Latvian government securities, bank deposits and mortgage bonds. It is allowed to invest these assets only in financial instruments denominated in LVL.

For private asset managers, the law stipulates more liberal investment rules. However, in comparison to other countries (Estonia and Sweden, for example) that have introduced state-funded pension schemes, the Latvian approach appears very conservative.

Investments are allowed in the following asset classes:

1. Government and municipal securities.
2. Corporate debt and equity securities.
3. Open-ended investment funds.
4. Bank deposits.

5. Derivatives.

The investment regulations also set qualitative restrictions – equity, corporate and municipal debt securities should be listed on the official (or equal) list of stock exchanges registered in a Baltic country or a member country of the EU or European Free Trade Area (EFTA).

There are no formal limits for investment in foreign assets. Investment is allowed in Baltic countries, EU, EFTA and OECD countries with investment-grade credit ratings. However, the law sets a 70% currency matching rule. This means that at least 70% of assets should be invested in securities denominated in the currency in which the liabilities are accounted (currently in LVL). There is also a 10% limit for each non-matching currency.

The diversification rules provide:

1. Maximum exposure to class of securities from a single issuer:
 - 1.1. Equity – 5%
 - 1.2. Investment fund units – 5%
 - 1.3. Corporate debt securities – 10%
 - 1.4. Bank deposits – 10%
 - 1.5. Total exposure to equity related securities -- 30%
2. Maximum exposure to single issuer:
 - 2.1. Governments and multinational financial organizations – 35%
 - 2.2. Banks – 15%
 - 2.3. Corporations – 10%
 - 2.4. Municipalities – 5%
3. IPOs -- 20%.

If an investment plan's assets are less than LVL 100,000, compliance with the diversification rules can be postponed up to six months after the first contributions are paid into the investment plan.

The funded pension scheme assets are not allowed to:

1. Invest in real estate.
2. Be granted as a loan.
3. Invest in securities emitted by the asset manager of the investment plan.
4. Invest in investment funds managed by the asset manager of the investment plan.

Theoretically, one could create an enormous number of investment plans under the investment rules. However, there is not much room for creativity.

The main considerations in building an investment plan are:

1. What proportion to invest in fixed-income instruments (from 70% to 100% of investment plan assets) and what proportion to invest in equity (from 0% to 30%).
2. What proportion to invest in assets denominated in LVL (from 70% to 100%) and what proportion to invest in non-matching currencies (from 0% to 30%).
3. Geographic placement of investments (for example, solely in Latvia or only in Europe).

Every quarter, the Finance and Capital Market Commission publishes the actual distribution of total Second Pillar pension assets among different financial instruments. The data for first-quarter 2003 show that by 31 March 2003, almost 77% of all assets were invested in fixed-income securities, 23% in bank deposits, and less than 0.05% in equity, derivatives and mutual funds. Almost 98% of assets were invested in Latvia, 1% in the Netherlands and the rest in other countries. In analyzing these figures one should bear in mind that private asset managers started to operate only in January 2003, and the majority of assets are still with the State Treasury (which by law has a conservative investment policy).

The return of each investment plan can be calculated as the change in the net asset value of an investment plan unit. The results of the first months of operation of private investment funds can in some cases be misleading. This is because investment plans are allowed not to comply with diversification rules

for the first six months of operation if the plan's assets are less than LVL 100,000.

The rate of return of the State Treasury Investment Plan in 2002 was 6.26% (4.36% above inflation). The data for second-quarter 2003 show that during this period the annual weighted return (after the deduction of management fees) on Second Pillar pension investments was 8.03%. However, the returns of individual investment plans vary from 2.52% to 9.18% for the corresponding period.

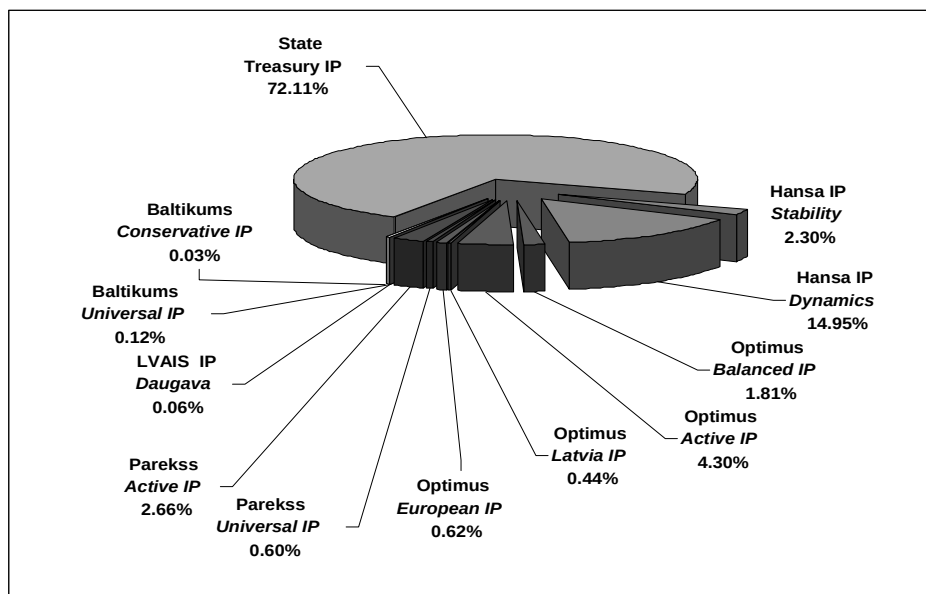
Asset managers

The development of new, and expansion of existing, investment companies in 2002 and 2003 indicate that the Second Pillar asset management business is considered to be profitable in the long term. This development has mainly been facilitated by the changes in the legal environment allowing investment companies to take part in Second Pillar pension asset management.

As of 30 April 2003, total accumulated Second Pillar assets were LVL 16.33 million.

By 30 April 2003, eight investment companies were established and six of them were licensed as Second Pillar asset managers. The State Treasury is a default investment fund for those Second Pillar participants who have not chosen any investment plan offered by private asset managers. The participants are also allowed to choose the State Treasury as their asset manager (for example, if the person has chosen a private asset manager this year, he or she is allowed to switch back to State Treasury next year). Several recently established investment companies are also analyzed as potential Second Pillar asset managers. Existing and potential asset managers can be divided into four main groups: the "big three", small private asset managers, the state manager and newly established investment companies.

Chart 3: Pension Second Pillar Asset Management Market Share (30 April 2003)



Source: State Social Insurance Agency

Group I: the “big three”

The “big three” private asset managers are characterized by innovative strategy, strong (mainly established) brand names, high marketing investments and the largest market share among Second Pillar private asset managers). This group includes Hansa Funds (17.25% of the entire Second Pillar pension market, or 61.87% of the Second Pillar private asset management market), Optimus Funds (7.17% or 25.72% market share) and Parex Investment Co. (3.25 % or 11.67% market share). However, as regards the characteristics of the sales channels used, there are significant differences between the first two (Hansa Funds and Optimus Funds) and Parex Investment Co. Both Hansabanka (sales channel for Hansa Funds products) and Unibanka (sales channel of Optimus Funds products) have a much higher proportion of resident clients than Parex Bank (sales channel of Parex Investment Co. investment plans). In this aspect, the “big three” could be split into two separate strategic groups.

Group II: small private asset managers

This strategic group is characterized by a significantly smaller market share and less innovation, as well as lower marketing costs. This group currently consists of two asset managers: Leading Latvian Insurers Investment Co. and Baltikums Asset Management.

Group III: recently established investment companies

At the end of 2002 and beginning of 2003 three new investment companies were established. Because of the legal requirement for one year asset management experience prior to receiving a license to manage Second Pillar assets, only one of these companies (Suprema Funds) will offer Second Pillar asset management services in 2003. The other two will most likely enter this business in 2004.

Group IV: state treasury

The State Treasury has a special legal status as the manager of state-funded pension scheme assets. For the first year and a half, the State Treasury was the only asset manager. The State Treasury may manage only one investment plan: the State Treasury Investment Plan. As the result, all Second Pillar pension affiliates were saving their funded pension capital in the State Treasury Investment Plan. Pension savers were allowed to opt out from the State Treasury Investment Plan beginning 1 January 2003. The administrative costs of the State Treasury as an asset manager were covered from the state budget in 2001 and 2002. That allowed the State Treasury not to invest its own money in developing an asset management infrastructure. The subsidizing of costs for the first years has allowed the State Treasury to offer a lower asset management fee than investment plans with a similar investment policy.

Although the State Treasury no longer has exclusive status, it retains another advantage. According to the regulations of the Cabinet of Ministers, all persons who have registered as mandatory Second Pillar affiliates but who have not chosen an investment plan within two months are placed in the State Treasury Investment Plan. This has put the State Treasury in a much more favorable situation than other asset managers. Private asset managers have two major options: to try to take affiliates away from the State Treasury or to persuade those who have not yet decided to be in the Second Pillar to join it (this applies only to persons in the so-called voluntary group).

Market size

In general it is possible to say that the Second Pillar asset management market in Latvia is a finite (although huge) amount of money. The market size is determined by legal, behavioral, demographic and economic factors.

The legal acts constitute:

1. The potential pool of affiliates (the most important factor in the short to middle term is the fact that about 500,000 people can choose to join (or not to join) the system).
2. The contribution rate.
3. The possibility of switching asset managers once a year.
4. Investment regulations that largely determine the potential rate of return from investments.

The most important behavioral factors are those that determine how many people will choose to join the system and how many affiliates will choose private asset managers. Also important will be the actual switches made by affiliates (will they be active or passive in changing the asset manager?).

Demographic factors (birth rates, mortality rates, migration, etc.) determine how many affiliates there will be in the system. These factors are particularly important in respect to the potential number of mandatory affiliates.

Economic factors like the inflation rate and interest rates determine the real value of money in the Second Pillar and can influence the decisions (behavior) of the affiliates. But the unemployment rate helps determine the amount of contributions flowing into the system (affecting the number of active contributors).

Market share can be measured in two dimensions: number of affiliates and amount of assets under management. Since asset management fees are calculated as the percentage of assets under management, this is the most important market-share measure for the profitability of the asset management company. The market share of a particular asset manager is determined by the ability to attract and keep the affiliates with the highest accumulated capital (in other words, with the highest taxable income). The number of affiliates is determined by the demand for particular investment plans offered by the asset manager.

Behavioral factors include the intention to choose an asset manager and the intention to join the system. In 2001 and 2002, only some 5% of the group eligible to join the Second Pillar voluntarily actually did so. However, with the entry of private asset managers, the number of new joiners has doubled. As of 30 April 2003, 71,680 persons (14.3% of those eligible) were participating voluntarily in the system. A public opinion poll conducted in the third quarter of 2002 showed that about 40% of this population (those born 1951-1971) had no intention of ever joining the system. The majority of these people, moreover, showed no interest in receiving additional information about the system. The following were the main reasons they cited for their disinterest in joining the system: lack of trust in the system (cited by 44.9% of eligible respondents who have not joined the system), low salaries (cited by 13.2%), and lack of a clear benefit in joining (12.5%). A focus-group survey in 2001 found that one reason for not joining the Second Pillar was the lack of positive experience, as pension benefits are very low. A number of potential affiliates appear to have adopted a cautious, wait-and-see approach to the system.

One can assume that for at least the first three to five years of operation by private asset managers, the potential market will not reach more than 60% of those born 1951-71 (300,000 people).

Arguments for choice of private asset managers

According to the SKDS public opinion survey (2002), the main reasons people have chosen private asset managers or intend to switch to private asset managers are (respondents could choose more than one answer): the possibility of earning more retirement income (46.8%); trust in private organizations (30.6%); and a corresponding lack of trust in the state (30.3%). The arguments tend to be more emotional than rational. This leads to the conclusion that private asset managers can gain by using emotional arguments in persuading potential clients.

Potential target groups

By analogy with the securities market, one can divide the Second Pillar pension asset management market into “primary” and “secondary” markets. In the primary market, existing or potential participants make their first choice of an asset manager (either they are already with the State Treasury or they join the system and choose an asset manager). In the secondary market, participants change the asset manager chosen earlier (first changes will be allowed on 1 January 2004). For an asset management company, both markets are important, though at the beginning, when no switches between private asset managers are allowed, the primary market is more attractive.

The table below summarizes the main characteristics of several possible target groups in the primary and secondary markets. The major target groups are formed according to age group and persons' status in relation to the Second Pillar pension system. The table analyzes the common characteristics of separate target groups, but it should be noted that none of these groups is homogenous. A more detailed analysis (which is beyond the scope of this report) could well lead to a different classification of target groups.

Main Characteristics of Target Groups

Primary	Mandatory participants already in the system	▪ Have already accumulated capital ▪ Lower average salaries than in the "voluntary" group ▪ Majority of those already in the system (279,900 have not switched to private asset managers) ▪ Low motivation for action because of long period before retirement
Primary	Voluntary participants already in the system	▪ Have already accumulated capital ▪ Higher average salary than for mandatory participants ▪ Only 17,890 are still with the State Treasury ▪ By joining the system have demonstrated motivation to save for pensions
Primary	Mandatory participants new to the system	▪ Are given 2 months to choose the investment plan, or else will be registered with the State Treasury. ▪ Approximately 20,000-45,000 (depending on the age cohort) new mandatory participants will join the system each year during the next 10 years ▪ No historic statistics available on the activity of this group to choose private asset manager/ presumably rather passive
Primary	Potential voluntary participants (not in the system)	▪ Big market (200,000-450,000 people) ▪ Closer to retirement age, therefore potentially more interested in retirement savings ▪ More conservative ▪ Lower level of trust in private institutions
Primary	Potential mandatory participants (aged 15-31 but not registered as taxpayers)	▪ Mainly students ▪ Potentially higher-than-average earnings ▪ May choose their asset manager before being registered as taxpayer
Secondary	Mandatory and voluntary participants already with other private asset managers	▪ Approximately 101,000 ▪ Higher than average accumulated capital ▪ More active ▪ No data about possible intention to switch to other asset managers

Current market data and estimates for the future

By the end of April 2003, there were 381,547 Second Pillar pension affiliates (38% of the socially insured population) and the total assets in the system were 16.33 million LVL (or 0.31% of the previous year's GDP). Ministry of Welfare estimates show that total Second Pillar assets will grow as the accumulation period increases and the contribution rate increases from 2% to 10% by the year 2010. One rather significant variable of the total assets in the system – the number of voluntary participants -- is, however, unknown. As the behavior of perhaps 430,000 people who have not yet joined the system cannot readily be predicted, only rough estimates are possible. Most likely, the number of voluntary participants will increase gradually (as popular awareness about the product grows and the first positive investment results are seen), perhaps reaching 40%-45% by 2010.

Estimated Pension Second Pillar Market Size (2001-08, End of Year)

Year	Voluntary Participation Rate (%)	Total Number of Participants	Annual Contribution ⁷ (LVL)
2001	5%	274 548	2 807 166
2002 ⁹	6%	336 047	8 356 362
2003	20%	459 748	12 256 130
2004	25%	525 206	14 679 285
2005	27%	565 389	16 475 025
2006	30%	610 664	18 548 675
2007	32%	645 848	40 853 722
2008	34%	680 371	89 765 869

Year	Accumulated Contributions ⁷ (LVL)	Total Assets (LVL) with Annual Rate of Return 6%	% of GDP
2001	2 807 166	2 853 694	0.06%
2002 ⁹	11 163 528	12 293 008	0.24%
2003	23 419 658	26 022 086	0.47%
2004	38 098 943	43 143 453	0.74%
2005	54 573 968	63 195 587	1.03%
2006	73 122 642	86 648 917	1.33%
2007	113 976 364	135 152 797	1.96%
2008	203 742 233	238 413 786	3.27%

Source: Ministry of Welfare

Choices of investment policies

Based on the volatility of chosen financial instruments, investment plans may be divided into active, conservative and balanced investment policies. In general, those investment plans with a majority of investments in equities (company shares) are referred to as having active investment policies. Investment plans investing in fixed-income financial instruments are termed conservative. Those having a mix of both are balanced investment policies, as they balance the possible volatility of the two types of instruments. In Latvia, the legal framework determines the local interpretation of active and balanced investment plan policies. As the maximum investment in equities is 30% of an investment plan's assets, the investment plans that invest in equities up to this maximum are labelled active. Those falling between the conservative and the active are balanced investment plans.

According to this classification, the conservative investment plans (no investments in equities) are:

1. Hansa Pensions Investment Plan *Stability*.
2. LLIIIC Investment Plan *Daugava*.
3. Parex Universal Pension Plan.
4. Baltikums Conservative Investment Plan.
5. State Treasury Investment Plan.

The balanced investment plans (investments in equities up to 15%) are:

1. Optimus Balanced Plan.
2. Optimus Latvia Plan.

The active investment plans (investments in equities up to 30%) are:

1. Hansa Pensions Investment Plan *Dynamics*.
2. Optimus Active Plan.
3. Optimus Europe Plan.
4. Parex Active Pensions Plan.
5. Baltikums Universal Investment Plan.

A detailed analysis of investment policies of all Second Pillar pension investment plans is provided in the Appendix.

In defined contribution plans (such as the Second Pillar of the Latvian Pension System), the plan sponsor (government institutions, in the Latvian case) provides education but the participant is responsible for choosing a risk and return objective within the participant's constraints.

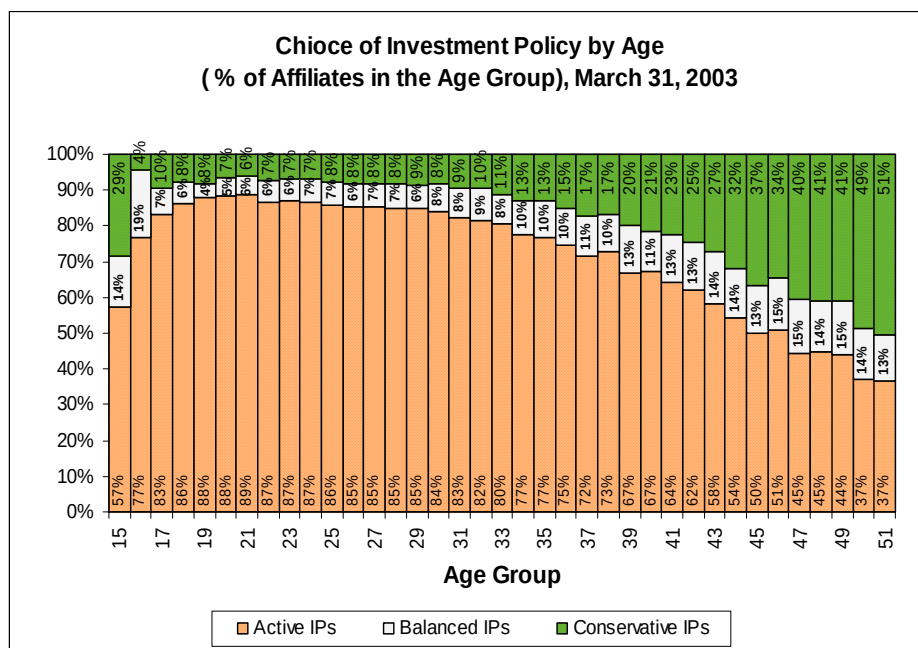
DC plans require intensive education programs not only by government institutions but by asset managers and their sales channels. That is particularly true in transition countries like Latvia, where no investment culture has existed for at least a half-century.

Analysis of current preferences

The analysis of first choices made by Second Pillar affiliates shows that active plans are the most popular (data from first quarter 2003). By the end of March 2003, almost 90,000 people had chosen investment plans offered by private asset managers.

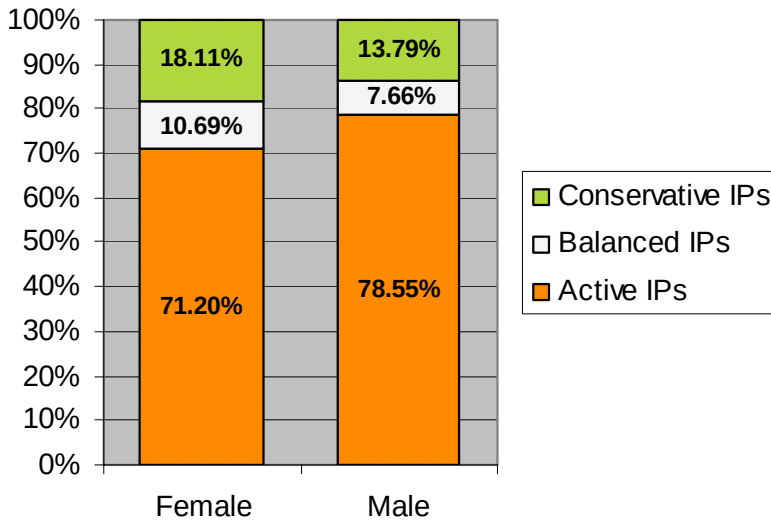
Almost 74.4% of these people selected one of the five investment plans with active investment policies. In all, 16.23% had chosen conservative investment plans and 9.37% had decided to invest their pension capital in one of the two balanced investment plans. This information seems greatly to favor active investment plans. However, a more detailed analysis of demographic data shows that there is a clear correlation between the participant's age and his or her chosen investment policy.

The data show that men prefer more active investment policies, while a higher proportion of women choose balanced and conservative investment plans.



Source: State Social Insurance Agency

Choice of Investment Strategy by Gender (March 31, 2003)



Source: State Social Insurance Agency

A further analysis of the data (details of the calculations are available from the author on request) shows that only in seven of 37 age groups did a lower proportion of females choose conservative investment plans. Conversely, in only four age groups did a higher proportion of women choose active investment plans. In all but four age groups, a higher proportion of women chose balanced investment plans.

Potential future development of preferences

Although at the time of writing, private asset managers had been working for less than five months, some trends in the future choice of investment plans can be predicted.

Theoretical findings about the most suitable investment policy suggest:

1. In the short and middle term, stable demand will continue for all three types of investment plan.
2. In the longer term, demand for conservative plans will grow among

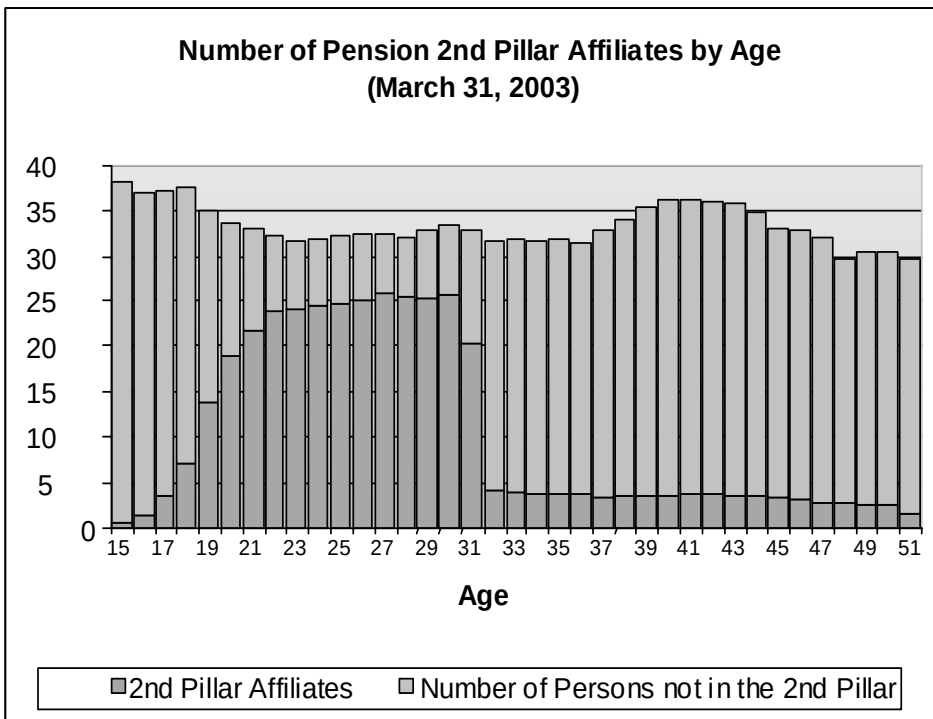
participants approaching retirement age.

3. There will be stable and growing demand for active investment policies in the short to middle term.
4. Demand for active investment plans will decline over the long term because current affiliates will begin approaching retirement age just as the number of new labor-market entries drops off, due to the low fertility rates of the 1990s.

Saturation of the market

A comparison of the demographic data for the entire Latvian population with data on members of the Second Pillar shows that many people in all age groups are still not participating in the Second Pillar.

Even considering that not all these people are currently socially insured (unemployed people, students, housewives and others not paying the social tax) almost all of those not in the Second Pillar can be viewed as potential participants.



Source: State Social Insurance Agency

Investment plans and sales strategies used

Investment regulations allow each asset manager to develop and offer several investment plans. By definition an investment plan is an investment policy applied to a certain pool of Second Pillar assets. This means that each investment plan offered by the same asset manager has a specific investment policy. Asset managers now in operation have developed from one to four different investment plans. The possible dimensions of investment plan differentiation were discussed above. This section discusses investment plans offered by operating asset managers and marketing strategies used by asset managers to attract affiliates.

To analyze the marketing strategies of different asset managers, let us start with a simple exercise: review the list of all currently available investment plans grouped in three major categories by the risk level of investment policy. (See the list of investment plans in the section titled *Choice of Investment Policies*).

What conclusions can we draw from this simple exercise? First, the names of several investment funds are misleading. Some use the word “active” in their names, yet, all these plans are active under Latvian legislation. Use of the word “universal” adds to the confusion. (Parex Universal Plan has a conservative investment policy, while Baltikums Universal Plan is an active plan.) Although Optimus Funds offers four different investment plans, it has no conservative investment plan. Among all asset managers, Hansa Funds has chosen the most appropriate and marketing-oriented names for its investment plans: Stability and Dynamics. Other asset managers have chosen technical (and not market-oriented) names that do not appeal to the “average Latvian”. Another exception could be LLIIC, which uses names of rivers for its investment plans. LLIIC’s own brand name, however, is long and opaque.

These sometimes misleading investment plan names may pose a smaller problem than the way the plans are marketed. The primary stress is on the asset manager first to persuade a potential affiliate to trust the asset manager and only then for him to choose an investment plan. A common rule of thumb is that active investment plans are more suitable for younger people (with more than 15 years to retirement), and conservative plans for those with less than 10-15 years to retirement. Balanced plans are for those who want to balance risk and profit (risk-averse younger people). That is almost the only rational basis used by asset managers to register a person for one investment plan or another.

Short description of marketing strategies

While most asset managers offer more than one investment plan, the marketing campaigns they have created are asset-manager-centered (not stressing differences between investment plans). The first marketing campaigns started in mid-October 2002. This timing coincided with a direct mailing campaign by the SSIA in co-operation with asset managers licensed by October 2002 (Hansa Funds, Optimus Funds and Parex Investment Co.). Direct mail was sent to all Second Pillar affiliates (both mandatory and voluntary). It contained a leaflet on the possibility of choosing a private asset manager, guidelines for choosing an investment plan, an application form and information about available investment plans. By mid-October 2002, the SSIA had signed agreements with the three largest banks in Latvia – Hansabanka, Unibanka and Parex Bank. The banks initiated these agreements, which allow them to work as middlemen for the submission of investment-plan choice applications from current and potential Second Pillar affiliates. The investment companies were able to use their mother companies or custodian banks as sales channels. The first results of investment plan choices made by the end of February 2003 shows that almost 90% of applications were submitted through banks.

Sales channels. As the existing and even the potential number of Second Pillar affiliates in Latvia is rather small it is not useful for asset managers to develop their own sales forces (as was done in Poland). Another reason for not having special pension sales agents is that asset managers do not have information on individual affiliates (their current choice of investment plan or the amount of their contributions). This does not allow the asset manager to evaluate the effectiveness of a sales force (especially individual) and build an appropriate reward system. The most effective approach is to use existing distribution channels: banks, insurance companies and perhaps post offices. The main criterion for choosing a distribution channel is its direct contact with a significant number of potential affiliates and small additional costs for attracting new affiliates for investment funds. That strategy is followed by all the asset managers.

Marketing messages. One Second-Pillar specific problem for marketing is the absence of any historical information about the performance of asset managers and Second Pillar investment plans. Therefore, a strategy of strong argumentation cannot be used for advertising campaigns. The only possible arguments rely on estimated rates of return based on historical experience from the United States and other foreign markets. As a result, almost all campaigns were centered on emotional appeals (being able to look forward to a comfortable retirement, for example).

Marketing goals and brand names. The goal of the first-year marketing campaigns is to attract affiliates (by switching from the State Treasury or persuading new voluntary affiliates to join the Second Pillar). That is done mainly using the brand name of parent companies or custodian banks. Hansabanka, Unibanka and Parex are the best examples with strong (and mainly positively accepted) brand names. At the same time Optimus Funds has begun to build its own brand name using its partnership with Unibanka.

As an affiliate may switch between asset managers once a year, campaigns in later years most likely will rely on persuading their own affiliates to stay with the asset manager, while seeking to attract affiliates from other asset managers. This will involve more rational arguments, such as: “Our investment plans brought the highest rate of return in the last year of all asset managers” (or, “Our active plan is the most profitable among all active plans”).

Asset management fees and operating expenses of asset managers

Asset management companies are financed from the fees deducted from the assets under management. In Latvia, asset managers are allowed to deduct only one type of fee from Second Pillar pension assets: an asset management fee. The method for calculating this asset management fee is defined in the regulations of the Cabinet of Ministers. The fee is set as a percentage of average annual assets of the investment plan.

The maximum amount of this percentage must be stated in the prospectus of a particular investment plan. Neither front-load (entry), nor back-load (exit) or success fees are allowed in Second Pillar pension asset management. For buy and sell operations of investment plan units, the net asset value (NAV) is used. This means that in Latvia, different buy and sell prices are not allowed. For different Second Pillar pension investment plans, the maximum annual management fee (not including the fee for custodian bank services) varies from 0.85% (State Treasury) to 1.52% (Hansa Funds) of assets. The total maximum management fee (including the fee for the custodian bank) varies from 0.85% to 1.93%. The management fee for all Second Pillar pension investment plans is shown in Appendix IV.

The rather low level of asset management fees means that asset management companies cannot afford expensive marketing campaigns. In reality, marketing campaigns are sponsored by the mother companies of asset management (investment) companies. As a result, no data are available on the money spent for Second Pillar marketing. From an affiliate’s point of view, this situation is much more favorable because his or her pension capital is not reduced for marketing expenses. However, banks (and other investment

company owners) expect to gain long-term profit. Calculations on asset growth show that the Second Pillar pension asset management business is not expected to become profitable before 2007. However, asset managers' revenues will grow as the amount of assets in the system grows.

Current issues

In Latvia, the Second Pillar has been operating for less than two years. The main current issues regarding the Second Pillar are:

1. Do we need the State Treasury as an asset manager?
2. Aren't investment regulations too conservative?
3. How can the performance of different investment plans be evaluated or compared?
4. What can be done about the poor financial literacy of the population?

VI. Operation of the Third Pillar

According to the Pension Reform Concept the Third Pillar of the pension system in Latvia is represented by private pension funds (PPFs). Private pension funds are special legal entities established under the law titled On Private Pension Funds. However, several life insurance companies have been marketing special life insurance contracts as pension products. The legal requirements for the two different types of products (PPFs and life insurance contracts) are rather different, as life insurance companies do not comply with the law On Private Pension Funds. The strict investment regulations for PPFs, for example, do not apply to life insurance "pension" contracts, making it almost impossible to compare the two financial products. The rather specific nature of life insurance pension contracts also means that it is almost impossible to get transparent and reliable statistical and financial information on these products. This report analyzes mainly PPFs, however some basic information on life insurance pension contracts is given.

Legal status of PPFs

Only a legal entity (an employer) that signs a collective affiliation agreement with this pension fund is allowed to establish a closed PPF. A closed pension fund can be founded by one or several employees. The shareholders of open PPFs may only be banks that are allowed to receive deposits of private persons in Latvia or life insurance companies registered in Latvia.

The law allows three types of pension plans:

- Collective affiliation plans.
- Individual affiliation plans.
- Special plans (for specific professions according to the regulations of the Cabinet of Ministers. These plans apply to 16 professions that, under previous legislation, were entitled to special retirement provisions).

The first private pension fund, which was established according to the law On Private Pension Funds was founded on 17 December 1997 and licensed on 23 October 1998. This was the private pension fund *Saules Stars* (Sun Beam). Later, the financial group *Baltikums* bought this company, and it is currently named *Pension Fund Baltikums*. It is the smallest private pension fund in Latvia according to both criteria (number of affiliates and amount of assets).

Private pension funds are not-for-profit joint stock companies. The main activities of a pension fund (as a company) are marketing, product development, individual account keeping and customer relations. According to the law, private pension funds have to outsource asset management and custodian functions. PPFs are financed from a front load fee (currently the front load fees are 1.5%-2% of contributions). Asset managers (banks, brokerage companies or investment companies) receive a fee from assets under management. The method (front load fee, exit fee, success fee or a combination of several methods) of asset management fee depends on the pension plan. Similar to Second Pillar asset managers, private pension funds are not allowed to guarantee the rate of return.

Investment regulations

The law On Private Pension Funds sets investment regulations for Third Pillar pension assets. In general, the investment objects for Third Pillar assets are similar to those for the Second Pillar, with one main exception: assets of PPFs can be invested in real estate (up to 15% of the pension plan's total assets). Diversification rules are also similar to those for Second Pillar assets. The only exception is that there is no limit for investments in equity. There is an additional requirement: investments in financial instruments issued by companies that are mother or sister companies of a private pension fund or in financial instruments issued by companies that have signed collective affiliation agreements with the PPFs are limited to 5% of pension plan assets. A 30% currency matching rule applies to investments of Third Pillar pension assets.

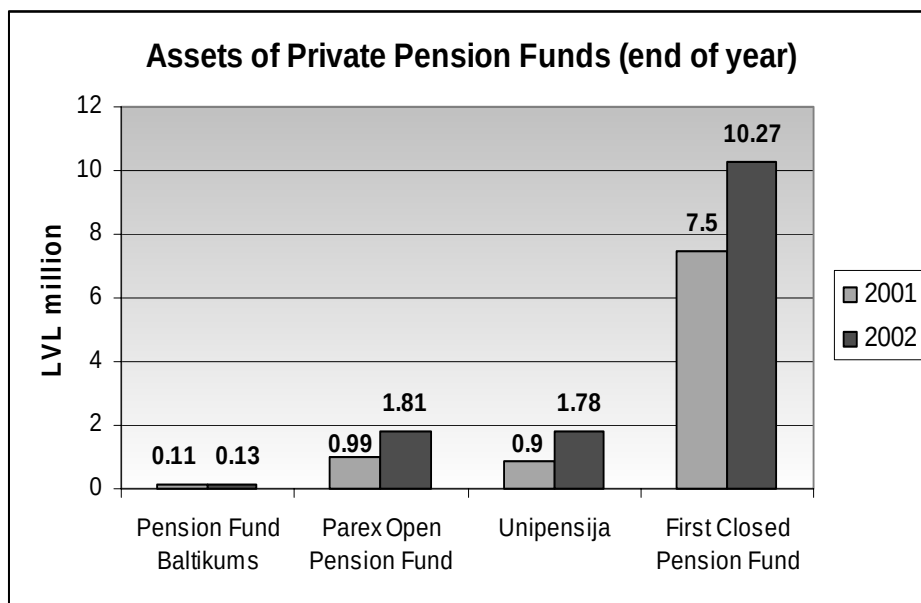
Current market situation

Currently, there are five private pension funds operating in Latvia. Four of them are open pension funds and one is closed. The closed pension fund was established exclusively for employees of the telecommunications company *Lattelekom*. Later, the pension fund was reorganized and now it administers private pension savings of employees of *Lattelekom* and the energy giant *Latvenergo*.

Private Pension Funds in Latvia (as of 1 June 2003)

Name	Date of Licensing	Type
Pension Fund Baltikums	23 October 1998	Open PPF
Parex Open Pension Fund	12 October 1999	Open PPF
First Closed Pension Fund	29 November 1999	Closed PPF
Unipensija	30 May 2000	Open PPF
Hansa Open Pension Fund	9 May 2003	Open PPF

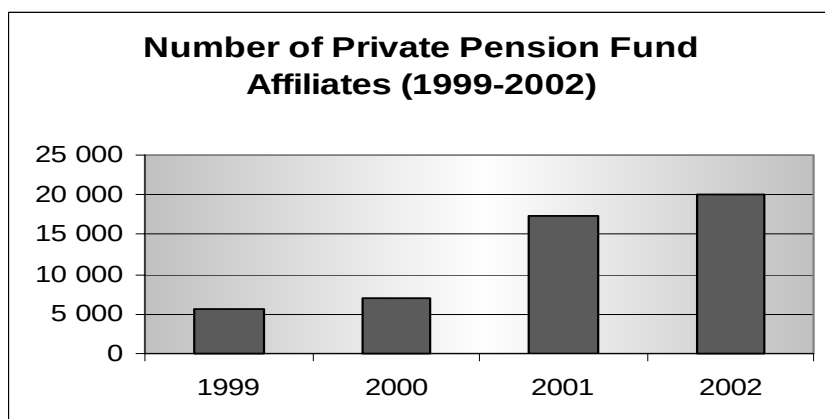
Source: Financial and Capital Markets Commission



Source: State Social Insurance Agency

Once the *Hansa Open Pension Fund* was licensed in May 2003, the top three banks in Latvia (Parex Bank, Unibanka and Hansa Bank) had all established private pension funds as their daughter companies.

The private pension fund industry has experienced significant growth in recent years (total assets increased by more than 70% in 2001 and by 40% in 2002). Although these figures look impressive, we should bear in mind that growth in absolute figures is much less significant, even for an economy as small as Latvia's. Total private pension fund assets increased by more than LVL 4 million in 2002. However, the number of private pension fund affiliates is still low – 20,000 (2% of the working population).



Source: State Social Insurance Agency

Licensing and supervision of PPFs

Licensing and supervision of PPFs is the responsibility of the Finance and Capital Market Commission (FCMC). FCMC is an integrated financial supervisor operating since 1 July 2001. Before then, the supervision of private pension funds and insurance companies was carried out by the Insurance Supervision Inspectorate, and the supervision of banks by the Bank of Latvia (the central bank), but investment companies were supervised by the Securities Market Commission.

In supervising private pension funds and investment companies, the FCMC evaluates the compliance of a company with policies, procedures and legal restrictions. The supervision is done using not only on-site visits but also *off-site procedures*, involving regular reporting.

VII. Other long-term savings

Other long-term savings opportunities are life insurance contracts, investment funds, bank deposits and private investments in real estate or financial instruments. Some of these opportunities are described in the following paragraphs.

Life insurance pension contracts

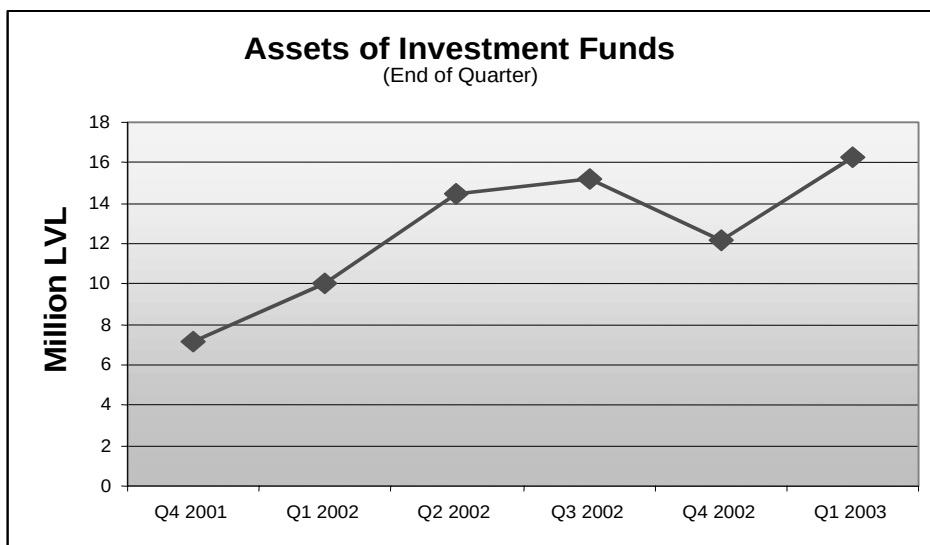
As mentioned, some life insurance companies offer a so-called pension insurance product. Even if referred to by insurance company marketers as “pension” products, these are not separated from other life insurance contracts in the statistical and financial reports of life insurance companies. Oftentimes, these are combined insurance contracts covering several risks: pension, life and accident insurance. Contrary to the Second Pillar pension investment plans and private pension funds, life insurance contracts have a guaranteed rate of return. These investments are less transparent because there are no legal requirements regulating the reporting to policyholders.

Investments in securities and investment funds

The total amount of investment fund assets has grown significantly over the last year and a half. Local investment companies mainly offer investment funds that invest in the Latvian financial market. These investment funds can be divided into three main groups: money market funds, balanced funds and real estate funds. By far the most popular (with the largest amount of assets) are the money market funds.

For clients willing to invest in foreign financial markets, the largest banks offer investment funds operating outside Latvia. Thus, for example, *Unibanka* offers a variety of SEB investment funds registered in Luxembourg.

Although experience from developed financial markets shows that investment funds (particularly money-market funds) are regarded as a substitute to bank deposits, currently in Latvia investment funds are not regarded as a retail product. In Latvia, the main clients (investors) of investment funds are “high net worth” individuals and corporate clients (mainly financial institutions, like insurance companies). Bank deposits are the most popular retail products for individual customers.



Source: Financial and Capital Markets Commission Bank deposits

Currently there are 22 banks and one foreign-bank branch office operating in Latvia. Bank deposits are one of the most popular savings products. By 31 March 2003, the total amount of private resident deposits in Latvian banks was LVL 748 million. This is 22.7% more than the year-earlier figure. In May 2003 the interest rates for bank deposits in LVL ranged from 3.5% to 6.25%, in USD from 0.65% to 3.5% and in EUR from 1.70% to 4.5%. Private persons pay no tax on income from bank deposits.

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**APPENDIX I. PERIODS DURING WHICH OLD-AGE PENSION
PAYMENTS ARE TO BE MADE (G) (YEARS 1996-2003)**

	G (in							
	1996	1997	1998	1999	2000	2001	2002	2003
40	33.60	33.36	33.55	34.31	34.92	35.48	36.14	36.14
41	32.76	32.48	32.67	33.43	34.02	34.56	35.22	35.22
42	31.90	31.63	31.81	32.53	33.11	33.61	34.28	34.28
43	31.04	30.78	30.94	31.64	32.19	32.65	33.33	33.33
44	30.20	29.95	30.12	30.79	31.32	31.75	32.44	32.44
45	29.35	29.14	29.32	29.95	30.44	30.82	31.51	31.51
46	28.57	28.36	28.53	29.14	29.60	29.96	30.64	30.64
47	27.82	27.54	27.75	28.33	28.78	29.10	29.78	29.78
48	27.08	26.75	26.92	27.49	27.92	28.23	28.90	28.90
49	26.30	25.98	26.12	26.66	27.09	27.37	28.04	28.04
50	25.51	25.24	25.37	25.90	26.29	26.54	27.20	27.20
51	24.72	24.50	24.61	25.12	25.51	25.73	26.40	26.40
52	23.95	23.75	23.86	24.34	24.72	24.91	25.57	25.57
53	23.18	23.01	23.11	23.57	23.92	24.09	24.75	24.75
54	22.44	22.27	22.39	22.82	23.14	23.29	23.94	23.94
55	21.69	21.56	21.68	22.09	22.39	22.50	23.13	23.13
56	20.07	20.85	20.97	21.34	21.63	21.71	22.34	22.34
57	20.28	20.17	20.29	20.63	20.88	20.93	21.54	21.54
58	19.61	19.48	19.60	19.91	20.14	20.16	20.77	20.77
59	18.93	18.79	18.90	19.20	19.41	19.41	20.00	20.00
60	18.25	18.13	18.23	18.51	18.71	18.71	18.94	18.94
61	17.58	17.46	17.55	17.82	18.02	18.02	18.23	18.23
62	16.93	16.81	16.90	17.15	17.34	17.34	17.54	17.54
63	16.28	16.17	16.25	16.49	16.67	16.67	16.86	16.86
64	15.64	15.54	15.62	15.82	15.98	15.98	16.16	16.16
65	15.02	14.97	15.04	15.20	15.32	15.32	15.49	15.49
66	14.42	14.43	14.49	14.62	14.70	14.70	14.74	14.84
67	13.83	13.86	13.92	14.03	14.09	14.09	14.21	14.21
68	13.25	13.30	13.34	13.42	13.46	13.46	13.57	13.57
69	12.69	12.75	12.78	12.85	12.86	12.86	12.95	12.95
70	12.13	12.14	12.21	12.27	12.29	12.29	12.36	12.36
71	11.60	11.54	11.61	11.69	11.72	11.72	11.78	11.78
72	11.07	10.96	11.04	11.11	11.15	11.15	11.21	11.21
73	10.56	10.40	10.48	10.53	10.57	10.57	10.64	10.64
74	10.05	9.85	9.93	9.96	9.99	9.99	10.07	10.07
75	9.55	9.34	9.39	9.40	9.42	9.42	9.49	9.49
76	9.09	8.88	8.91	8.91	8.90	8.90	8.97	8.97
77	8.64	8.39	8.43	8.42	8.40	8.40	8.46	8.46
78	8.20	7.94	7.97	7.95	7.92	7.92	7.96	7.96
79	7.79	7.51	7.53	7.50	7.46	7.46	7.49	7.49
80	7.38	7.09	7.11	7.06	7.01	7.01	7.03	7.03

Source: State Social Insurance Agency

APPENDIX II. INCREASE IN RETIREMENT AGE

Year	Women	Men
1995	55	60
1996	56	60
1997	56.5	60
1998	57	60
1999	57.5	60
2000	58	60.5
2001	58.5	61
2002	59	61.5
2003	59.5	62
2004	60	62
2005	60.5	62
2006	61	62
2007	61.5	62
2008	62	62

Source: State Social Insurance Agency

APPENDIX III. INVESTMENT COMPANIES IN LATVIA
(as of 30 April 2003)

Name	Established	Investment Company License	Share Capital (LVL)	Main Shareholders	Investment Funds/Private Pension Funds Under Management	Pension 2 nd Pillar License	Agreement with SSIA	Pension 2 nd Pillar Investment Plans	Custodian Bank	Main Sales Channels
Hansa Funds	16.04.1997	13.04.1999	435 000	100% Hansabanka	■ Open IF <i>Money Market Fund</i> (20.10.1999) LVL 7.4 million	21.07.2002	17.09.2002	■ <i>Stability</i> LVL 376 thousand ■ <i>Dynamics</i> LVL 2.44 million	Hansabanka	<i>Hansabank</i> a branch offices, Internet bank <i>hanza.net</i> , telephone banking

Name	Established	Investment Company License	Share Capital (LVL)	Main Shareholders	Investment Funds/ Private Pension Funds Under Management	Pension 2 nd Pillar License	Agreement with SSIA	Pension 2 nd Pillar Investment Plans	Custodian Bank	Main Sales Channels
Latvian Leading Insurers Investment Company (LLIIC)	24.09.1998	01.07.1999	200 000	36.89% Bastions ZS 4.98% Insurance Company Balta 11.95% Parex Insurance Company 4.98% Insurance Company Latva 4.98% Riga Insurance Company Other shareholders are private persons	■ Closed IF Latvian Leading Insurers Money Fund (31.03.2000) LVL 4.41 million ■ Closed IF Securities Fund (15.02.2002) LVL 0.52 million	04.10.2002	16.12.2002	■ Daugava LVL 10.1 thousand	Parexx Bank	Insurance company Balta
Baltikums Asset Management	01.09.1998	29.03.2000	150 000	98% - Baltikums Bank Group	■ Open IF Baltic Index Fund (30.06.2000) LVL 0.23 million ■ Open IF Government Bond Fund (27.07.2001.) LVL 1.82 million	01.11.2002	16.12.2002	■ Baltikums Conservative Investment Plan LVL 4.2 thousand ■ Baltikums Universal Investment Plan LVL 19.2 thousand	Commercial Bank Baltikums	Commercial Bank Baltikums

Name	Established	Investment Company License	Share Capital (LVL)	Main Shareholders	Investment Funds/Private Pension Funds Under Management	Pension 2 nd Pillar License	Agreement with SSIA	Pension 2 nd Pillar Investment Plans	Custodian Bank	Main Sales Channels
Optimus Funds	29.12.2000	20.02.2001	300 000	71.17% Māras Bank	- Open IF Lats Reserve Fund (15.02.2002.) LVL 1.23 million - Closed IF Real Estate Fund (02.08.2002.) LVL 0.12 million - Private pension fund Unipensija LVL 2.1 million	07.06.2002	30.09.2002	- Optimus Active Plan LVL 0.7 million - Optimus Balanced Plan LVL 0.29 million - Optimus Europe Plan LVL 0.1 million - Optimus Latvia Plan LVL 0.07 million	Unibanka	Unibanka branch offices, internet bank <i>ibanka</i>
Hansa Funds	16.04.1997	13.04.1999	435 000	100% Hansabanka	Open IF Money Market Fund (20.10.1999) LVL 7.4 million	21.07.2002	17.09.2002	- Stability LVL 376 thousand - Dynamics LVL 2.44 million	Hansabanka	Hansabanka a branch offices, Internet bank <i>hanza.net</i> , telephone banking

Name	Established	Investment Company License	Share Capital (LVL)	Main Shareholders	Investment Funds/ Private Pension Funds Under Management	Pension 2 nd Pillar License	Agreement with SSIA	Pension 2 nd Pillar Investment Plans	Custodian Bank	Main Sales Channels
Latvian Leading Insurers Investment Company (LLIIC)	24.09.1998	01.07.1999	200 000	36.89% Bastions ZS 4.98% Insurance Company Balta 11.95% Parex Insurance Company 4.98% Insurance Company Latva 4.98% Riga Insurance Company Other shareholders are private persons	■ Closed IF Latvian Leading Insurers Money Fund (31.03.2000) LVL 4.41 million ■ Closed IF Securities Fund (15.02.2002) LVL 0.52 million	04.10.2002	16.12.2002	■ Daugava LVL 10.1 thousand	Parexx Bank	Insurance company Balta
Baltikums Asset Management	01.09.1998	29.03.2000	150 000	98% - Baltikums Bank Group	■ Open IF Baltic Index Fund (30.06.2000) LVL 0.23 million ■ Open IF Government Bond Fund (27.07.2001.) LVL 1.82 million	01.11.2002	16.12.2002	■ Baltikums Conservative Investment Plan LVL 4.2 thousand ■ Baltikums Universal Investment Plan LVL 19.2 thousand	Commercial Bank Baltikums	Commercial Bank Baltikums

Name	Established	Investment Company License	Share Capital (LVL)	Main Shareholders	Investment Funds/Private Pension Funds Under Management	Pension 2 nd Pillar License	Agreement with SSIA	Pension 2 nd Pillar Investment Plans	Custodian Bank	Main Sales Channels
Optimus Funds	29.12.2000	20.02.2001	300 000	71.17% Māras Bank	- Open IF Lats Reserve Fund (15.02.2002.) LVL 1.23 million - Closed IF Real Estate Fund (02.08.2002.) LVL 0.12 million - Private pension fund Unipensija LVL 2.1 million	07.06.2002	30.09.2002	- Optimus Active Plan LVL 0.7 million - Optimus Balanced Plan LVL 0.29 million - Optimus Europe Plan LVL 0.1 million - Optimus Latvia Plan LVL 0.07 million	Unibanka	Unibanka branch offices, internet bank ibanka
Parex Investment Company	11.01.2002	15.02.2002	150 000	Parex Bank – 99.99%	- Open IF Lats Bond Fund (30.08.2002) LVL 0.24 million - Open IF Baltic Sea Balanced Fund (30.08.2002) LVL(0.47 million - Closed IF Baltic Real Estate Fund (31.01.2003) - Open IF	20.09.2002	10.10.2002	- Parex Active Pension Plan LVL 0.43 million - Parex Universal Pension Plan 97 thousand	Parex Bank	Parex Bank branch offices

Name	Established	Investment Company License	Share Capital (LVL)	Main Shareholders	Investment Funds/Private Pension Funds Under Management	Pension 2 nd Pillar License	Agreement with SSIA	Pension 2 nd Pillar Investment Plans	Custodian Bank	Main Sales Channels
					<i>Eastern Europe Bond Fund</i> (28.02.2003) LVL 1.24 million ■Open <i>Lats Liquidity Fund</i> (14.03.2003)					
Astra Funds	02.10.2002	15.11.2003	120 000	n.a.	-Closed <i>IF Capital Security Fund</i> (17.04.2003)	-	-	-		-
Suprema Funds	23.07.98	31.01.2003	210 000	Suprema 100%	-	14.03.2003	-	-		-
Prudentia Investment Management Company	02.01.2003	21.02.2003	115 000	n.a.	-Closed <i>IF Prudentia Global Fixed Income Securities Fund</i> (16.05.2003)		-	-		-

Source: Pension Fund Management Companies

**APPENDIX IV. ANALYSIS OF SECOND PILLAR PENSION
INVESTMENT PLANS INVESTMENT POLICY (as of 30 April 2003)**

					Maximal Manage- ment Fee		
					Total	Asset Manager	Custodian Bank
	Hansa Pensions Investment Plan <i>Stability</i>	0 %	Not less than 50%	Up to 30%	1.48%	1.2%	0.18%
	LIIC Investment Plan <i>Daugava</i>	0 %	Not specified	Up to 30%	1.375%	1.2%	0.175%
	Parex Universal Pension Plan	0 %	Not specified	Up to 30%	1.25%	0.85%	0.15 (or 0.125% for part of assets above 0.5 million Ls)
	Baltikums Conservative Investment Plan	0 %	Not specified	Up to 30%	1.46%	1.1%	0.16%
	State Treasury Investment Plan	0 %	Not specified; de facto 100%	0%	0.85%	0.85%	0%
Bal- anced	<i>Optimus Balanced Plan</i>	Up to 15 %	Not less than 70%	Up to 30%	1.5%	1.32%	0.18%
	<i>Optimus Latvia Plan</i>	Up to 15 %	100%	Up to 20%	1.3%	1.12%	0.18%
Active	Hansa Pensions Investment Plan <i>Dynamics</i>	Up to 30 %	Not less than 50%	Up to 30%	1.93%	1.65%	0.18%
	Optimus Active Plan	Up to 30 %	Not less than 70%	Up to 30%	1.7%	1.52%	0.18%

					Maximal Manage- ment Fee		
					Total	Asset Manager	Custodian Bank
	Optimus Europe Plan	Up to 30 %	Not specified (100% of assets will be placed in EU member and accession countries including Latvia)	Up to 30%	1.7%	1.52%	0.18%
	ParexActive Pensions Plan	Up to 30 %	Not specified	Up to 30%	1.5%	1.1%	0.15% (0.125% for part of assets above 0.5 million Ls)
	Baltikums Universal Investment Plan	Up to 30 %	Not specified	Up to 30%	1.71%	1.35%	0.16%

Source: Prospectuses of State Funded Pension Scheme Investment Plans

THE DEVELOPMENT OF PRIVATE PENSIONS IN LITHUANIA

Teodoras Medaiskis

Audronė Morkūnienė

Abstract

The Lithuanian pension system experienced two major reforms, one in 1995, which introduced social insurance principles, and a second one in 2000 which established a voluntary funded pension pillar. Strict regulatory measures, an unfavourable tax regime, and high social security contributions largely explain the failure to attract investors in fund management companies. After a long debate, a new law was approved in December 2002 to be implemented in January 2004. Workers will be able to choose between making their full social contribution to the PAYG tier and diverting part of it (up to 2.5% of their salary in the first year, increasing up to 5.5% in later years) to mandatory pension funds and specific life insurance contracts.

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1. The political economy of pension reform

The Lithuanian pension system has experienced two major reforms. The first, executed in 1995, introduced social insurance principles into the system and replaced the old Soviet pension laws. The second, more recent, reform contemplates the start of partial funding in the system. In this paper we will provide an overview of the two reforms with a main focus on the more recent one: the introduction of the funded tier into the Lithuanian pension system.

1.1. The introduction of the new system in 1995

While Lithuania's main law on social security was adopted in 1991, pensions, which constitute the major part of it, were granted until 1995 under the old Soviet law, which dated to 1956. Laws governing the whole pension system took effect 1 January 1995, laying the groundwork for benefits based on social insurance principles. The main new features were the introduction of a pension formula consisting of two parts – a flat, basic formula and a supplemental, earnings-related formula, covering the whole working career of 25 years and stressing the benefits-contribution link through contribution periods. All the Soviet-era privileges embedded in the pension law were moved to the separate state pensions system, financed from the state budget, not social insurance. Remarkably, the new law abolished all early retirement provisions, leaving only very minimal transition arrangements. The retirement age is being increased for both genders.

This “purification” of the social insurance system was considered a major achievement. However, it became clear later that not all necessary changes had been made, and that society was not fully prepared to accept these changes.

1.2. Achievements and failures of the reformed system

The reform of 1995 tried, with notable success, to separate, or “purify”, social insurance from all other elements of benefits or principles not inherent to insurance. This was considered a great achievement. However, in succeeding years it became evident that to maintain such an approach would be very difficult, if not impossible. Even at the beginning the 1995 package was not fully “pure”, and it since has been amended in ways pushing it toward amalgamation.

In the attempt to purify social insurance, all Soviet-era privileges were moved out of the social insurance pension system. A clear-cut, universal system was created. It was believed that this would help to make the system

transparent, more reliable, and politically less exposed. However, with the exception of early-retirement provisions, the former privileges were mostly preserved outside of the social insurance system.

In this way Lithuania introduced a very specific type of so-called state pensions. Level I and II pensions replaced the “personal” pensions of Soviet nomenclature. In the beginning the number of possible-to-grant pensions was limited strictly to 15 cases of Level I and 45 cases of Level II pensions per year. It was only partially true that people prominent in the fields of culture, art or science in the Soviet era were not paid enough to ensure a decent living standard in old age. In fact, in virtually every case in which a person was well known, he or she had a decent social insurance pension. There appears to have been a real chance in 1995 to do away with such Soviet privileges, but unfortunately it was not exploited. Now it is almost impossible to change the situation, as these pensions are regarded as lifetime awards for people with honorable employment records. The number of possible-to-grant pensions was increased by an amendment of the law.

Another example of purification, which may have turned out even worse, is privileges granted persecuted people. Such privileges were once double- or triple-counted for insurance records, the application of larger coefficients and so on. In 1995, it was decided to move all such privileges into the state budget and to establish separate pensions. Initially, the amount per individual was kept the same, while paying double benefits. This did not last long, and double insurance counting reappeared with the preservation of separate benefits from the state budget. Now a constant broadening of the scope of the recipients of such pensions is evident; having separate pensions may make it easier to introduce new groups into the list than to develop sophisticated procedures to increase ordinary pensions for particular groups.

To preserve the integrity of the social insurance system, civil servants and other special groups, such as military personnel and policemen, were included in the same universal system. Accordingly, social insurance contributions are calculated and deducted from their salaries and transferred to the universal social insurance fund separate from the state budget. These groups are eligible for special professional pensions payable after a specified number of years of service -- usually much earlier than the official retirement age (due to the earlier retirement ages in the military and police professions) and much higher than ordinary social insurance pensions (an inheritance of the difference in pension amounts from 1994, which was impossible to abolish). As a consequence, at retirement they receive at least two pensions – the special one which was payable earlier, and the social insurance pension granted on the same grounds as for all other insured. Both pensions are rather high, usually three times the average, so it

is reasonable to ask whether the system is worth the “purity”. There are propositions to extend this special pensions system for all civil service (all people working for Government), but until now it was not discussed in the policy making levels and was not accepted. However, recently a special pension system similar to the one described above was extended to cover judges.

The same reason lay behind the introduction of widow/widower pensions. It was considered fair, under the principles of pure insurance, to transfer at least part of the accumulated pension rights to a surviving spouse. Under Soviet law, and until 1995, no such pensions existed. Similar pensions were paid only to those who lost a breadwinning spouse. A survivor could choose between his or her own pension and the survivor’s pension. A new type of widow/widower pension was introduced only for those deaths that occurred after adoption of the law on 1 January 1995. It was thought that the difference in amounts between the old and new pensions would not be overly large, but the change led to many complaints of discrimination. After a year and a half, the government was forced to introduce widow/widower pensions for the successors of all deceased insured, regardless of date of death. Initially, these pensions were quite generous – 50% of the pension of the deceased. The social insurance budget was not able to pay such pensions for all widows and widowers, however. It was decided to lower the amount to 20% and to pay a rather low, fixed amount (25% of the basic pension) to widows or widowers of the insured who died before 1995. Currently, there are three types of pensions for widows and widowers in Lithuania, paying significantly different amounts. There is also a legal provision that only those widows or widowers who were of retirement age, or within five years of it, when their spouses died are eligible for any such pensions. This provision has given rise to many complaints as well. People cannot understand the logic of the five-year limit, or why those who were a bit younger when their spouses died receive no pension supplement. Unfortunately, there appears to be little chance of solving this problem.

It was decided in 1995 that state pensions would follow the same pattern as social insurance pensions, being granted to people reaching retirement age, becoming disabled or being widowed. So the problem with widow/widower pensions becomes more complicated, as some people may receive up to three types of state widow/widower pensions.

It was believed that if the main system appeared fair, people would better recognize the contribution-benefit link and have more trust in it. However, this led to people who receive the state pensions perceiving them as something extra, but not pensions. Such people complain about low pensions, not taking into account these benefits, which they consider as special benefits, not for old age. The budget expends money to support the elderly, but it is not reflected in the

pension system. In some cases, a single individual could be eligible for as many as four payments. While each may be small, they can add up to a sizable total. State expenditures for state pensions are no more than 7%-8% of the total cost of social insurance pensions. So this is less a problem of money than of social justice, and people who receive no supplementary payments feel discriminated against. The issue of state pensions arises at virtually every public meeting, and every Lithuanian government has promised to make the system fairer.

The strong belief in a contribution-benefit link led to some double benefits in the social insurance system itself. In case of work-related injuries, people receive benefits both from this type of social insurance and from disability pensions, though suffering a single health problem. The argument for this was that the person had paid contributions for both types of insurance -- work-related injury and disability -- and if he or she became disabled there were two insurable events: the work injury and the incapacity to work. While the reasoning may be understandable, having so many small, separate benefits makes it difficult to supervise and manage the policy, and it makes for an irrational situation.

One serious question in the transition to the new system was how to treat previously acquired rights. Latvians and Estonians decided not to deal with Soviet-era wages, and instead calculate pensions based only on years of service. Lithuanians also considered such an option, but instead switched to applying an earnings-based formula even for the years preceding the reform. In 1995, it should be remembered, the Labour Party, led by former Communists, ruled the government. Because they once had quite decent salaries, the leveling of all pensions only by length of employment seemed unacceptable. The decision, however, had doubtful consequences. As it was impossible to present individual wage records for entire careers, one had to decide on which period to take into account for pension purposes. The decade to 1995 was selected. As with all things arbitrary, this period did not make sense for all. Some people had had lower wages in this period for various objective reasons; the result was lower lifetime pensions. People know well how salaries were determined under the planned Soviet economy, when individual effort was not the main factor. Many people, especially those who had had lower incomes, wanted length of service to play the main role in calculating the amount of the pension. They are still waiting for amendments in the law, promised by the government, that would give greater weight to years of service.

The question of differentiation comes up in any debate on pensions. The Lithuanian pension formula includes two types of pension indexation: to inflation and to wage growth. The two instruments used to perform this function make the system clear, easy to use and flexible. However, with the flexibility comes vulnerability. The basic part of the pension was meant to reflect the minimum

living standard, and so it has to be indexed to inflation, while the supplemental earnings-related part had to be linked strongly to the average wage in the economy. However, with a deficit in the social insurance budget, the government broke this relationship, and as a result, pensions were not increased while wages grew. After a four-year freeze, only the basic part of pension was increased, giving the same nominal increase to all pensions. The indicator of proportion of individual wage to the average wage in the pension formula thus becomes increasingly misleading if there is no reflection of the real growth of the average wage. Wage indexation does give a progressive pension increase, but this is not acceptable to politicians and to beneficiaries with below-average pensions.

A significant policy measure to abolish all early retirement provisions is an achievement in which Lithuanian pension experts take pride. This was done in 1995 with a single cut. Acquired rights were respected by making established compensation payments to those who had collected at least half of the record required before the reform. The one-cut approach, however, now appears to carry dangers if not supported by other measures. Already, in 1998, the government established a special type of flat benefit payable to ballet dancers quitting their careers. This step undoubtedly was a distortion, taken because it was simply easier than making the effort to create a system of professional retraining of former dancers, providing them with additional professional insurance, and applying other measures. It was expected that some type of retraining would be established in the future for those too old for the profession but too young to retire. However, nothing was done. Pilots, too, are in line, and it is likely that early pensions eventually will be restored to them. There is a serious risk that the positive achievements of 1995 may be lost. More than 60,000 signatures were collected on petitions demanding the introduction of early retirement for the unemployed. This, too, is a real problem, because structural unemployment is rather high and people in pre-retirement age are the most vulnerable. It is difficult to assess but it appears that some smoother transitional arrangements taken while increasing the retirement age might not lead to a reversible situation.

Eight years after the reformed pension system began operating, it is evident that not everything has turned out as the reformers expected. This was perhaps partly due to an overly idealistic perception of social insurance, and partly due to the mentality of the Lithuanian public, which, it seems, has not changed much. People still perceive pensions as being granted largely on political grounds only loosely linked to contributions. One reason for this could be the constant broadening of the scope of state pensions, low social insurance pensions if taken singly, and a high amount of redistribution in the system. Or perhaps it is that every reform seems optimal in the start, before practice reveals its negative aspects. However, in real life no experiment can demonstrate what could be done better.

1.3. The introduction of the private pillar

As regards the introduction of the funded pillar, advance planning and preparatory work, still not fully accomplished, took several years. The development of these provisions can be divided into the following stages. The preparatory works, especially in early stages, were consulted with the World Bank, the OECD and other external experts during numerous visits, seminars and workshops.

First stage: establishment of the voluntary participation tier (1994-99). The first debates on the introduction of a private funded pension provision in Lithuania began in 1994. At that time the state pay-as-you-go pension system was reformed in line with social insurance principles. Reformers declared that this was only the first step of full reform, and should be followed by the introduction of an additional voluntary funded tier. The Democratic Labour Party was then in power, and social-democratic views on preserving social insurance principles naturally prevailed. But in 1994, the financial infrastructure and banking system of the country were not sufficiently developed to ensure the secure functioning of large-scale savings and investment activities. (The collapse of two big banks in late 1995 buttresses this opinion.)

Major Lithuanian employer organizations felt that funded occupational pensions, as formerly applied in the Western world, could form a good source of cheap money for their enterprises. They advocated the development of the voluntary funded provision but in line with the German-style book reserve tradition. However, they were not the only advocates of funded pensions. The private non-governmental and liberally oriented Lithuanian Free Market Institute promoted private pensions as well, but it favoured the Chilean model.

There was no provision under Lithuanian law for establishing an institution for the accumulation of funded pensions. The drafting of the law took a long time, as the drafters strove to establish a concept of trust -- non-existent in the Lithuanian legal tradition. Several working groups were tasked with the draft. They sought to accommodate the varying views of the main pension reform promoters.

The Ministry of Social Security and Labour did not take any concrete position in the debates. A difficult situation arose when two drafts were presented on the Pension Funds Law – one from the Lithuanian Industrialists Confederation, the other from the Free Market Institute. The industrialists' draft clearly favoured employers' interests; it was vague, and offered real possibilities for manipulating the money. The Free Market Institute draft was much more transparent and tried to protect participants' interests. However, the ruling conservative party at the time had an agreement with the Industrialists Confederation, which influenced the ministry's decision.

Eventually, the draft was handed over to the Ministry of Finance on the ground that funded pensions were much more a financial issue than a social one.

On 1 January 2000, the Law on Pension Funds finally came into force. It introduced legal provisions for voluntary funded pension accumulations supplemental to state social insurance. Strong protective measures (a requirement of 4 million Lt of equity capital, and the obligatory provision of yearly fixed investment return¹), an unfavourable tax regime, and a rather high compulsory social insurance contribution rate made the law unattractive for the potential founders as well as for possible participants (See Chapter 2.3). In 1999, Lithuania suffered the consequences of the Russian economic crises. Not surprisingly, the income level of the society was such that it was difficult for people to save.

So while the Law on Pension Funds was evaluated by both local and foreign pension experts as reasonably good, it had no chance to be realized in real life, and to date not a single pension fund has been established.

Second stage: concept and plan of mandatory savings tier (1999-2000). In the circumstances described above, social security experts and politicians began to talk about the necessity to introduce a mandatory provision of the funded pillar (or to reform the current pension system).

The main argument was not only to supply additional savings for old age and supplement any state-provided pensions. There were concerns about whether the Lithuanian pension system, in future, would be able to deliver reasonable income for the working population at retirement age. Partial “privatization” or introduction of mandatory savings for old age for every working person seemed to be one way to lessen the burden for future generations.

In the autumn of 1999, the new government of the same ruling Conservative Party came into power. It was very liberal and initiated several reforms in different fields. It had only a year to work before the general elections. In addition, the ruling party was rated so low in society that few people doubted it would lose the elections. Not surprisingly, many reforms were initiated not taking into account any political considerations but the reasonable needs of the society.

In April 2000, the government adopted the Pension Reform Concept, which entailed the creation of the so-called three-pillar pension system. The concept clearly aimed to introduce mandatory saving by splitting the existing social insurance contribution rate. Such a reform was a significant expression of

political will. However, with only one year, it was impossible to think about its implementation, except to start an academic preparation. A White Paper on Pension Reform was ordered; it was to explore possible scenarios for reform, and calculate transition costs accordingly. The reform idea had few opponents, but the question of transition costs was repeatedly raised and needed to be dealt with. The White Paper was presented to the government in October 2000.

Third stage: revision of the second tier concept (2001-02). After general elections in 2000, the new government, formed from liberals and social-liberals, strongly committed itself to the implementation of funded pension reform. To explore opinions in Parliament and secure political approval before undertaking detailed amendments of existing legislation, it was decided to draft a short law on the concept of the reform. Experience confirmed the wisdom of this approach; the draft raised heated debates and led to significant amendments later.

The first government pension reform proposal was similar to one adopted in other countries introducing the funded pillar. It entailed a mandatory switching to the funded pillar for insured people under 40 years of age, a voluntary choice to join it for people aged 40-50, and no participation for persons above 50 years old. The contribution rate for the funded pension was to be the same for all age groups, that is, 5% diverted from the existing social insurance contribution. The total social insurance contribution rate did not have to be increased. Reform was envisaged to begin on 1 January 1st 2003. The system of accumulations had to be based on the adopted Law on Pension Funds.

The transition to the multi-pillar pension system was expected to cost about 1% of GDP, assuming two-thirds of the insured in the 40-50 age group would switch to the new system. The proposal was to finance the contribution gap in the social insurance budget partly through inflows from privatization assets, and partly from a special-purpose World Bank loan and state budget means.

Parliament hotly debated the government pension reform proposal. Arguments centred on how the reform should be financed, and what the possibilities were for fulfilling other state obligations. The reform proposal competed for financial resources with the so-called savings restitution program of 1997, which was also supposed to use privatization means. This program was politically very sensitive. Some population groups had already begun receiving replacement payments for savings lost in Soviet banks during the transition, but because of the country's poor financial situation, it was suspended in 1999. In the end, no single political party could stop the program, but it required significant financing.

At about the same time, the government was starting to talk about another large budget item that would have to be financed: co-financing of the EU accession programs.

Fourth stage: a modified, modest proposal for a mandatory tier (2001-02). In July 2001 the coalition of liberals and social-liberals fell and the new coalition of social democrats and social-liberals formed a new government. Social democrats raised the issue of whether it was necessary to introduce mandatory private savings into the state pension system and actually privatize the system in part. They preferred having a purely supplemental and voluntary tier, which meant no reform at all, but only some stronger initiatives for employers and employees to save more. This opinion prevailed among the social democratic faction in Parliament, but the government did not change its basic position for full reform.

The issue of financing the reform was brought up again. Parliament ordered a presentation of the full picture of state obligations, and the prospects for fulfilling them in the coming 10 years. The Ministry of Finance expressed the opinion that it would be possible both to proceed with the savings restitution program and to implement pension reform, though the latter would have to be effected on a reduced basis.

The Ministry of Social Security and Labor adjusted the reform proposal. It reduced the age group for mandatory participation in the new system from 40 to 30 and postponed the start of the reform by one year. The contribution rate to the second pillar was not reduced; the ministries of finance and social security agreed not to touch the initial 5%.

Parliament, however, was divided. Symptomatically, the Social Affairs Committee actively supported the voluntary provision, while the Budget Committee stood behind mandatory private pensions. The debates revealed differences not just on financial concerns but on ideological approaches. People with clearly formulated social-democratic views disliked the notion of changing the social security system itself, fearing that privatization would weaken it. Others opposed the new approach, saying that voluntary provision actually meant that social security contributions would be increased as people or their employers paid additional amounts.

Parliament supported the Social Affairs Committee, and the government had to change the proposal. The Ministry of Social Security and Labor drafted one more proposal at the end of 2002. It tried to accommodate dissenters' main points while preserving the general line of the reform. Taking parliamentary opinion into account, participation in the funded tier was declared voluntary.

However, the overall contribution rate had not changed; the essence of the reform -- that funding is based on part of the existing social insurance contribution -- was preserved. Compulsory participation now meant that those who started to save in the funded pillar could not go back.

With the provision for completely voluntary participation, it was not possible to restrict free access to the new system or to exclude any group. It was politically unacceptable to forsake some people without clear and obvious grounds for doing so. Traditional, economics-based reasoning, along the lines of "there will be no participation by people above age 50 because it is not beneficial for them", was not enough. With a sizable redistribution in the social insurance system, those individuals with reasonably large salaries could very successfully participate in the funded pillar even if they did so shortly before retirement. Of course, the bulk of people in this age group would appear unlikely to gain from such a decision. However, the voluntary system usually resides on individual cases and preferences, not on group behaviour, and this has to be taken into account when designing a model. Therefore, the only requirement for participation in the new pension system is to be registered with the State Social Insurance Agency as an insured person. In proposing this, the government clearly understood the responsibility for full disclosure, especially for this group.

To lower transition costs, it was decided to start the reform at a low contribution rate of 2.5%, increasing it yearly up to 5.5%. As no population groups were mandated to participate, and the contribution rate stipulated for initial years was rather low, institutions had to be sought to act as providers of such small business. Remembering the bad experience with pension funds, the authorities turned to existing entities, namely life insurance companies. Life insurance companies now offer a united-linked life insurance and investment product, quite similar to what is intended under the pension funds law. Therefore, the proposal was made to allow both pension funds and life insurance to perform a pension accumulation from mandatory social insurance contributions. As a consequence, two supervisory institutions -- the Securities Commission for investment funds and the Insurance Supervisory Service for the insurance market -- were appointed under the law.

The reform is to take effect on 1 January 2004.

Parliament adopted the Law on Pension Reform, based on these principles, in December 2002.

Fifth stage: development of the legal system of a mandatory savings system and preparation for its implementation. After the adoption of the Law on

Pension Reform, the Co-ordination Committee to prepare implementation of the reform was established. In the first four months of 2003, this committee drafted the main Law on Pension Accumulation, as well as necessary amendments of the other legal acts. The main propositions of these laws will be described in following sections.

2. The pension system today

The Lithuanian pension system today (May 2003) is dominated by the first pay-as-you-go pillar. The second pillar of mandatory savings will come into effect in 2004. This pillar can be viewed as mandatory savings arrangements, though workers can choose between contributing solely to the PAYG pillar and contributing a portion of their salary to the funded scheme. The third pillar, despite a developed legal basis of pension funds, is operated not by pension funds but mainly by life insurance companies. This pillar is rather modest in scale, but increasing.

Expenditures for state social insurance and state pensions compared to GDP are presented in the following table:

Year	GDP (mln. litas)	Expend- itures for old age social insurance pensions	Expend- itures for all social insurance pensions	Expend- itures for all pensions			
		Mln. litas	% of GDP	Mln. litas	% of GDP	Mln. litas	% of GDP
1993	11590	435.2	3.8%	541.9	4.7%	570.4	4.9%
1994	16904	856.8	5.1%	1072.3	6.3%	1135.5	6.7%
1995	24103	1144.5	4.7%	1455.4	6.0%	1568.5	6.5%
1996	31569	1494.2	4.7%	1919.0	6.1%	2196.8	7.0%
1997	38340	1884.9	4.9%	2461.6	6.4%	2690.9	7.0%
1998	42990	2255.6	5.2%	2997.2	7.0%	3254.1	7.6%
1999	42655	2429.4	5.7%	3232.4	7.6%	3565.9	8.4%
2000	44698	2428.4	5.4%	3264.6	7.3%	3590.9	8.0%
2001	47498	2362.4	5.0%	3245.9	6.8%	3557.5	7.5%

Source: Data of the Department of Statistics and State Social Insurance Fund

The table shows some stabilization of pension expenditures in recent years. This may be explained by the increase in the retirement age and a changing demographic situation as people born during World War II retire. The growth of the percentage of GDP in 1999 results from the fall of GDP caused by the Russian economic crises. Expenditures for pensions that year increased less

than before, but the percentage of GDP was higher due to the fall, or low growth, of GDP itself.

The growth as a percentage of GDP in 1998 may be explained mainly by the increase of the expenditures for widow(er)'s pensions: in 1997 these pensions were worth less than 3% of social insurance pensions expenditures, and in 1998 almost 4%.

In coming years a continuation is expected in the favourable demographic trend in retirement: people of smaller demographic cohorts will retire, and young people of more numerous demographic cohorts will enter the labor market. This situation will essentially change when postwar baby-boomers begin to retire².

Pensions are still the main source of income for retired or disabled people. According to the 2002 household survey, 14.6% of average household income is old age pensions (57% in pensioners' households); almost 25% of income is pensions and other social protection benefits (78.6% in pensioners' households). Income from property does not exceed 0.2% of average household income (0.1% of pensioners' household income).

The difference of expenditures for all pensions and for social insurance pensions in the last year was around 0.7% of DGP. State pensions (see p.1.2) take around 0.5 percentage points of this amount, and more than half of it is paid for persecuted people's pensions. The rest (0.2 percentage points) is paid as a social pension (social assistance pension, but not a means-tested one) for the elderly, disabled people and survivors who have no social insurance rights due to "valid" reasons (they never entered the labour market being born disabled, took care of 5 and more children, etc.).

2.1. *The first pillar*

The most developed is the first (public) pillar based on the pay-as-you-go principle.

Coverage. Persons employed under labor contracts as well as civil servants and self-employed persons are subject to state social insurance. While people working under labor contracts are insured to full social insurance pensions (both flat and earnings-related components), self-employed persons were obliged until 1 January 2002 to insure themselves, though not to the full social insurance pension but to a flat basic amount. Following an amendment to the law, those self-employed who earn more than 12 times the minimum wage per year insure themselves to full

pensions. Only people working under so-called licenses (which allow lump sum income tax payments) are still subject to the basic amount of pension. Farmers have been exempted since April 2003 from contributing at all.

Financing. Social insurance pensions are paid from the independent state social insurance fund, separate from the national (as well as state and local) budget. The social insurance pensions contribution rate for people working under labor contracts -- and those, like civil servants, in similar situations -- is 25.9% of the payroll. The share payable by the employer comprises 23.4%, and the remaining 2.5% is payable from the salary of the insured person. The contribution rate for self-employed people, who insure themselves to full pension, consists of a payment for the basic pension (set at 50% of the basic pension) and payment for the earnings-related part (set at 15% of their annual taxable income).

Benefits. A person is eligible for an old-age social insurance pension if he or she is of retirement age and has reached a minimum length for the obligatory insurance record.

The legal retirement age is set at 60 for women and 62.5 for men, but this is being (or was) reached gradually, by adding six months per year to the existing retirement age for both genders. In 2003, the retirement age reached 62.5 years for men and 58.5 for women. The final women's retirement age of 60 will be reached in 2006.

The minimum obligatory length of social insurance record is 15 years.

The pension consists of two parts: the flat main part and the earnings-related supplementary part. The main part is equal to the basic pension if a person has a full obligatory insurance record (30 years of insurance). Otherwise, the main part is proportionally reduced. The earnings-related part depends on the retiree's years of insurance and former wage, with an accrual rate of 0.5%. In calculating the supplementary part of pension, wages for the five years before 1994 and for all years after that year are taken into account. In the future, pensions will be calculated based on wages for one's entire working career.

The whole old-age pension is calculated according to the formula:

$$P = \alpha B + 0.005 * S * K * D + 0.005 * s * k * D,$$

where:

B - stands for basic pension. If the recipient has not acquired the obligatory period, then $\alpha = (S+s)/30$, otherwise $\alpha = 1$.

S - stands for the insurance period acquired while working under an employment contract up to 1994; **s** - stands for the period after 1994;

D - stands for the insured income, which is calculated as the monthly average wage from which pension insurance contributions are collected, as well as state social insurance sickness, maternity and unemployment benefits. The government, following a recommendation of the State Social Insurance Fund Council, approves the annual official insured income.

K - stands for the so-called rate of individual insured income for the period up to 1994, which is calculated by dividing the annual wage of the insured individual by the annual Lithuanian average wage. As pre-1994 wage data are unreliable, a pensioner is allowed to choose the five most favourable consecutive years from 1984 to 1993.

k – stands for the “rate of individual insured income” for the period from 1994, calculated according to State Social Insurance Fund data of the person's insured income. The wage upon which the pension contribution was paid is divided by the insured income **D** of that year, and the average for the whole period from 1994 is calculated.

From 2009, data prior to 1994 shall be excluded and the middle part of the formula will disappear.

Pursuant to the law, **K** and **k** cannot be higher than 5 despite the fact that pension insurance contributions are collected from the full wage even if it exceeds five times the insured income.

The coefficient 0.005 reflects the 0.5% accrual rate of the earnings-related part of pension.

The pensioner, subject to the obligatory insurance period, can defer his or her application for pension. The pension shall then be increased by no less than 4% of the amount calculated at the moment of application for each full year after the right to draw pension is acquired. This percentage, which can be modified by decision of the State Social Insurance Council, is currently being raised to 8%. The change was intended to encourage people still able to work to retire later and get increased old-age pensions. After a recent decision by the Constitutional Court that a full social insurance pension should be paid for all

working pensioners, the 8% increase lost much of its intended incentive to encourage later retirement.

Indexation. Two components of the social insurance pension reflect two ways of indexing pensions. The basic pension was designed to provide minimal subsistence and had to be increased to reflect inflation. The supplemental part of the pension was designed to reflect growth in wages (more precisely, the growth of average earnings on which social insurance contributions were paid). But since the 1995 reform, when the pensions formula was established, this pattern has not fully been followed. The basic pension was increased by rates exceeding inflation, and insured income was frozen in the last few years for financial and social reasons. From January 1995 to mid-2003, the basic pension was increased from 75 to 152 litas (103%), and insured income was raised from 352 to 886 litas (152%). But data for the last three years show that the basic pension was increased by 10% from January 2000, and insured income by 0%. Additionally, small pensions were increased artificially by raising the smallest rates of individual insured income (K).³

In the beginning of 2003, the law was changed to empower the government to adjust the basic pension and insured income. Upon consultation with the Social Insurance Council, the government has the discretion to choose which part of the pension should be increased. It allows a choice between higher and lower differentiation of pensions. There is only one requirement: that the basic pension should not fall below 110% of the minimal subsistence level (itself set by the government). Priority is given to adjusting the basic pension; adjustment of insured income is based on the residual principle. While in theory, both increases and decreases in pension size are possible, pensions have never been reduced.

Organization and governance. The State Social Insurance Fund performs all the administrative work of collecting contributions and paying pensions. The Fund is governed by a tripartite Social Insurance Council, representing employers' organizations, labor unions and the government. The Council is *ex-officio* chaired by the Minister of Social Security and Labor.

Plans are well along to shift contribution collection to the State Tax Inspectorate.

Tax treatment. All first-pillar pensions are tax-exempt. Contributions are for the most part exempt as well. The employer pays the major share of the social insurance contribution, deducting it from taxable income. The employee contribution is not deducted and is taxable by personal income tax.

2.2. The private funded pillar: a system with mandatory elements

As mentioned above, insured workers are allowed from 2004 to opt out partially from the first pillar, taking 2.5 percentage points of their pension insurance contribution into their personal account managed by pension accumulation companies. The system is mandatory only in the sense that it is based partly on mandatory contributions, and insured persons are not allowed voluntarily to leave this system once entered.

The system is expected to be in operation from 2004. The basic laws governing the provision of second-pillar accumulations have been drafted but not adopted. In this and the following section we will discuss the intent of the proposed regulations, as opposed to the law as currently practiced. However, there is little risk that the suggestions in the drafts will be altered significantly during debate in Parliament.

Coverage. All people insured for full social insurance pension (see above) are allowed to join the system voluntarily. No age or other limits are established. People are allowed to make their decision every year: anyone who did not enter the system in 2004 may decide to do so in 2005 or in succeeding years. However, once someone joins the system, he or she may not leave it before retirement age.

Organization and governance structure. The Lithuanian approach on the second pillar calls for two types of providers for the accumulation of the social insurance contribution: pension funds management companies and life-insurance companies. The model was chosen when adopting the Law on Pension System Reform in December 2002, the main reform framework. The decision was backed by a clear understanding that the initial scope of the reform would be quite small, due to voluntary participation in the second pillar, with no deadline for making the choice and a low initial contribution rate – only 2.5%. In turn, the decisions on both voluntary participation and the low contribution rate flowed from the effort to avoid high transition costs, at least in the first years of second-pillar operation.

The choice of double providers is not surprising, given the Lithuanian experience, with the nonexistence of pensions funds and a flourishing life insurance market. This is especially true when one considers that life insurance offers unit-linked products so similar to those intended under the second pillar. It was considered safer, in terms of existing providers, and cheaper, in terms of existing products, to switch to life insurance. However, it was understood that the nature of the two types of providers, pension funds and life insurance, was very different, and that this might not only cause serious difficulties in

regulating and supervising uneven activities, but lead to the development of completely incomparable second-pillar products. Still, to start the reform, such a choice seemed almost inevitable. The real challenge for the drafters of the implementing laws was to try to secure a level playing ground for both types of accumulation providers. In many cases they succeeded. Almost all requirements for licensing, registration, investment and fee regulation are the same.

Regulations during accumulation of funds. The contribution rate from the beginning of 2004 will be 2.5%, with a 1% increment yearly until 2007. In that year the contribution rate will be 5.5% (shared by employee and employer). A participant in the accumulative system is allowed to take this contribution from the state social insurance pension system and put it into a personal pension account governed by a licensed pension accumulation company. Under the proposed draft, so-called pension accumulation companies are pension funds management companies and life insurance companies (see Section 3).

The law stipulates certain investment and safety regulations (Section 3).

To ensure a proper investment return for participants, maximum limits are being considered on deductions from pension funds assets in favor of management companies. Only two types of deductions will be allowed – deductions from contributions and deductions from assets. To have as universal and homogenous a system of administrative deductions as possible, it was decided to set a quite low limit on deductions from assets, allowing management companies to compete on the deductions on contributions. Limits on deductions from contributions would be easier for participants to compare, and cheaper in the long run than deductions from assets. The maximums will be 10% from contributions and 1% from assets. The only other deductions possible will be fund-switching charges. All these limits apply equally to both types of pension accumulation companies, that is, pension funds management companies and life insurance companies performing the accumulation of part of the social insurance contribution. Notably, there are no such limits on administrative charges for the purely voluntary pension funds based on supplemental contributions.

To promote a competitive market of second-pillar providers – pension accumulation companies -- participants will have a right to switch to another pension fund or provider at the lowest cost. If the participant chooses another pension fund within the same management company, it costs nothing for the first switch in a given year. For the second and subsequent times, the management company may charge for the actual cost of the switch, but no more than 0.2% of the assets under the transfer. If the switch is to another provider, the cost could be larger – actual costs no greater than 0.2% for the first switch in a year and 4% of assets for every subsequent switch.

Frequent switches are not particularly welcomed. They not only raise costs to the management companies, encouraging them to enhance their marketing practices, but are costly to the participants themselves. Therefore, the Law on Pension Reform stipulates that a participant's first switch can be executed only after three years of participation in second-pillar accumulation. After this term, switches can be as frequent as a participant wishes and is prepared to pay for.

Payout regulations. Benefits from the funded system are payable when the person reaches the official retirement age (the same as in the PAYG pillar). Assets in second-pillar accounts should be diverted into obligatory annuities. The law requires that annuity payments not decrease in size (at least in nominal terms).

Considering that in Lithuania's second-pillar model there are no age limits for participation, and even persons of pre-retirement age can start to accumulate their personal pension, the obligation to acquire an annuity is not always pursued. In the case of very small amounts (annuities less than half the state basic pension), one can take lump sums or make periodical withdrawals. If the accumulated personal amount is bigger than needed to purchase the annuity equal to three times basic pension, than the extending amount may be taken as a lump sum.

After the accumulation period, the social insurance old-age pension for the participant is calculated taking into account the proportion of contribution channeled to the second pillar. The main flat-rate (basic) part of the first tier *payg* pension is left intact. Only earnings-related component (i.e. supplementary part of pension)) will be decreased in proportion to the contributions paid to the funded system and the years of participation.

The supplementary part of the pension is calculated as a sum of components $0.005(d_t/D_t)W_T$ for each year t of insurance (d_t stands for person's insured income, D_t for country average insured income in the year t of contributions payment, and W_T stands for average insured income in the year T of pension payment). If a person joins the accumulation pillar with a contribution rate r_b , and the pension insurance contribution rate for the supplementary part of the old-age pension is R_b , then the earnings-related component for each year of participation is proportionally reduced, and instead of d_t in the formula mentioned above it is counted as $d_t(R_t - r_t)/R_t$.

As the second-pillar scheme is intended to provide accumulations for the old-age pension, disability and survivorship benefits are left in the pay-as-you-go social insurance system. This means that a second-pillar participant who becomes disabled is entitled to the social insurance pension and retains his or her savings account until retirement.

In the event of disability, a person gets a full social insurance (first pillar) disability pension. If this person works, he or she continues participating in the funded system, paying social insurance contributions, and part of these contributions are accumulated according to the general rules. When the person reaches retirement age, his or her old-age social insurance pension is calculated according to the following rules:

1. Total years of being not disabled are taken into account with decreased yearly components, as described above.
2. Total years of being disabled are taken into account with the components used to calculate the disability pension in these years (if an income from a disabled person's work would permit an increase in this component, then the increased amount is taken into account).

Under these rules, an old-age pension may be lower than a disability pension received before retirement. On the other hand, the participant will have accumulated pension assets. The draft law allows him or her to decide to pay back accumulated assets into the social insurance fund and to receive an old-age pension equal to the previous disability pension.

Pension rights acquired prior to participation in the funded pillar will not be affected by the reform.

In the event of the participant's death before retirement, pension assets belonging to the participant can be inherited under the rules of the Civil Code or transferred to the account of the successor in the pension fund, as he or she wishes.

The second-pillar administrative system is laid on the existing system of the administration of social insurance. A decision was made to avoid major changes in the existing system rather than to exploit its possibilities. So employers will pay the same amount of social insurance contributions and provide the same information to the Social Insurance Agency as before. Potential participants, who could include every person insured with the State Social Insurance Agency for the entire pension, could sign contracts with the accumulation providers on an individual basis. Providers will supply the names of participants and funds to the State Social Insurance Agency, which will keep them in a register. Employers, therefore, will not know who the participants are and what pensions funds they have chosen.

Example.

Let us take the person who for the first 10 years of his professional career did not participate in the accumulation system, then joined the system and participated for the next 20 years. Assume that this person every year earned 120% of the country's average insured income, so his/her $dt/Dt = 1.2$ for the first 10 years of the career. Let us also assume that the contribution rate for the earnings-related part of the old age pension was $R = 11\%$, and that this person paid to the accumulation system rate $r = 5.5\%$, i.e. his or her $dt/Dt = 1.2 \cdot (11 - 5.5) / 11 = 0.6$ for the 20 years of participation. Let us now assume that this person is disabled for the last five years (from 31 to 35) of the career. During these years he or she gets a full disability pension, so his or her $dt/Dt = 1.2$ despite 20 years of decreased contributions. The disability pension is calculated as $B + 0.005 \cdot 1.2 \cdot WT$ (B – basic pension). After five years, the old-age pension is calculated to replace the disability pension. Now taken into account are the 10 years with $dt/Dt = 1.2$; the 20 years with $dt/Dt = 0.6$, and the five years with $dt/Dt = 1.2$. As a result, an old-age pension will be granted which takes the average value of $d/D = (10 \cdot 1.2 + 20 \cdot 0.6 + 5 \cdot 1.2) / 35 = 0.857$. The old-age pension in this case will be calculated as $B + 0.005 \cdot 0.857 \cdot WT$; this is less than the previously received disability pension. However, a person has pension assets accumulated during 20 years of work, and probably more, if he or she worked with a partial disability. In the latter case, if this disabled person earned from work more than 120% of the country's average insured income, the dt/Dt will be increased for the appropriate years.

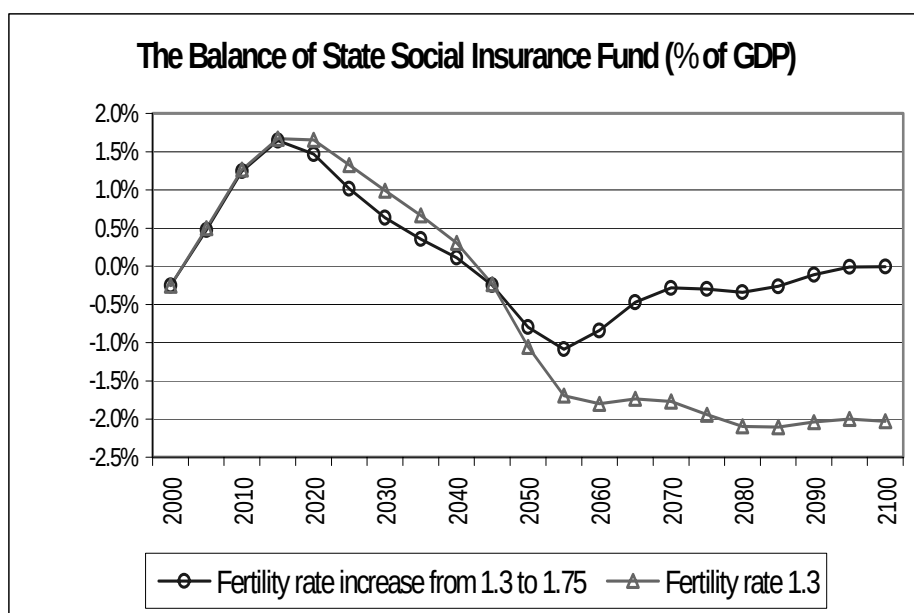
The State Social Insurance Agency, based on information from the participants' register and information on contribution amounts provided by employers, will deduct due second-pillar contributions from the total amount and distribute them to the accumulation providers' funds. As personal information on employee wages is reported quarterly, the State Social Insurance Agency is able to transfer money to accumulation companies only quarterly. Because of this, second-pillar contributions should be kept in a separate account of the Social Insurance Agency until distributed to the funds.

However, the State Social Insurance Agency will not perform a clearinghouse function, as it is sometimes understood. An account of the personal assets of every participant will be executed by the providers (life insurance and pension funds management companies) themselves, and they will have an obligation to inform the participants on the status of their accumulations. The accounts will be held in units. There should be separate accounts for the accumulation of second-pillar contributions and any voluntary supplements on the behalf of the participants.

People are free to choose a pension accumulation company (but only a licensed one) and may change companies once a year (after the first three years of participation).

Tax treatment. As part of social insurance contributions, employer contributions to funded system are exempt from taxation, and personal contributions are taxed. The benefits from *payg* and accumulation systems are not taxed. A current proposal would apply the same tax scheme to the second pillar as to the first one. Such a regime would be more favourable to participants than the tax regime applicable to third-pillar provisions, which also get some tax relief from government (see Chapter 2.3).

Transitional arrangements. Demographic forecasts of the Lithuanian population show a favourable period for the pension system in the years ahead. Starting in 2004 and up to 2010 the ratio of working age population to retirees will improve. This will be due to the rather numerous cohorts of workers born during the period of high fertility rates in the 1960s and 1970s, who will be in the labor market, and to the low numbers of persons born during World War II, who will reach retirement age. It is anticipated that the pension system could be in surplus for several years.

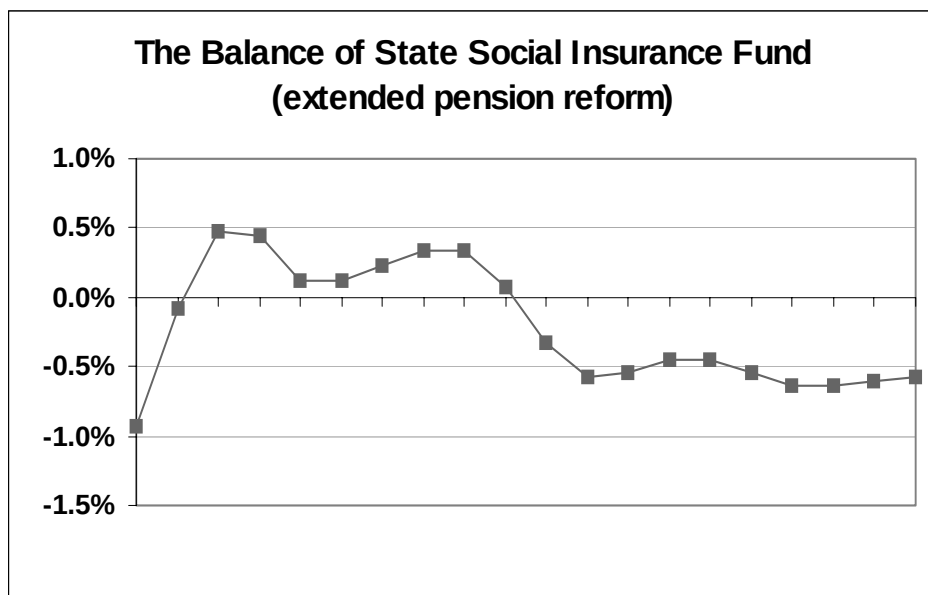


However, this situation will not last long. Beginning in 2015, the pension system will spend more than it collects (see the graph). It will experience deficits of around 2% of GDP per year in 2055. That would actually mean the bankruptcy of the system, as pensions now consume about 7.5% of GDP though they are very low. If the surpluses are spent to increase benefits, as is likely, the future deficits will be even higher.

The question arises if it is possible to use predictable surpluses to cover future deficits in the system. It would be wise to reserve these moneys. However, state-managed reserves rarely survive political pressures for spending (including on rising pension expenditures). Practically, there is no means to protect the money and to fully earmark it for pensions except to channel it into individual accounts where it will be untouched until someone's retirement. That is the most serious argument for the introduction of mandatory individual saving accounts for old age. Temporary surpluses in the *PAYG* system could share transition costs of the transfer of part of the contributions into the individual savings.

Calculations show that with extended reform, it is possible to smooth the balance of the Social Insurance Fund. The following graph shows the accumulated balance of the Social Insurance Fund under the following assumptions:

- Participation in a funded system for workers before 30 is compulsory; workers from 30 to 50 participate voluntarily (it is assumed that 50% of them decide to participate).
- Retirement age will rise gradually for men and women until it reaches 65 in 2020.



- Replacement rate of social insurance pensions (the average pension ratio to net average wage is being gradually increased to 60% up to 2010).
- The fertility rate gradually increases from its current 1.3 to 1.75 in 2050.

As the graph illustrates, the surpluses and deficits of the State Social Insurance Fund are lower.

The balance should be found between the interests of current pensioners, who expect benefit increases, and the expectations of current workers (contribution payers) that they will receive at least modest pensions when they retire. The current pension reform plan takes into account the increase of the social insurance pension replacement rate (average pension related to the net average wage) from its current 40% to 60% in 2009. This appears possible due to the rather modest scale of reform in the initial years. The following table shows the expected transition cost in 2004-10. The expected and maximum cost (figures in parentheses) of transition differs by the assumptions on participation rate (from 6% to 40% of insured in 2004 until 25% to 60% in 2010).

Table. Transition cost of pension reform

Year	Expected SSIF surplus (mln. lt.)	Net replacement rate (<i>payg</i>)	Expenditures for <i>payg</i> pensions increase	SSIF part in transition (mln.lt.)	Expected (maximal) cost of the transition (mln.lt.)	State subsidy (mln.lt)
2004	100	0.475	94	6	21 (136)	15 (130)
2005	145	0.494	129	16	45 (230)	29 (214)
2006	190	0.513	134	56	69 (332)	13 (276)
2007	240	0.534	139	101	118 (400)	17 (299)
2008	290	0.555	145	145	140 (413)	-5 (268)
2009	340	0.578	150	190	163 (425)	-27 (235)
2010	380	0.601	156	224	186 (440)	38 (216)

2.3. The private funded pillar: voluntary system

As mentioned, voluntary pensions savings were expected to extend from 1 January 2000, when the Law on Pension Funds took effect. The law envisaged only voluntary funded pension accumulations supplemental to the state social insurance. The accumulations were performed in the individual accounts based on the defined contribution scheme. As private pension provision was a novelty, it was deemed necessary to include as many measures as possible to protect participants' interests -- thus, the requirement of LTL 4 million of equity capital, and the mandatory provision of yearly fixed investment return. The minimum investment return requirement was formulated such that every pension fund was obliged to incorporate it in its rules. These new rules then had to be approved by the supervisory authority -- the Securities Commission -- and they comprised a part of the individual pension accumulation contract. In one sense, this requirement was rather flexible, as it was up to pension fund managers to declare the exact amount of the return due to participants. However, this minimum then became obligatory and special reserves had to be formed to fulfill this liability. Perhaps the worst aspect of this was to have such a minimum yearly, which made the system of supplemental accumulation very rigid. Having this obligation to provide the minimum fixed return yearly, the law was not particularly attractive to potential investors.

Unfortunately, it was also less than attractive to possible participants, in this case mainly for tax reasons. The Pension Funds Law did not offer any special relief on social insurance contributions for employers to induce them to pay additional contributions to private savings for their employees. This is understandable, because the social insurance budget in 1997-2000 experienced deficits, and for a long time there was no increase in any social insurance benefit, even pensions.

The requirement to provide pension-program participants a minimum investment return in 2001 was repealed, and other improvements were made. But these amendments did not change the fundamental situation. The market for supplemental pension insurance in Lithuania remains too small, another reason for the non-existence of private pension funds. The full mandatory social insurance contribution rate is rather high (34%), wages are relatively low, and practically there is no space for the supplemental insurance. No single pension fund has been established. The common reason for displacement of funded provisions -- the generosity of state-provided pensions -- was not the case in Lithuania. State pensions are actually rather low -- the average replacement rate is less than 40%, but the contribution rate for the full package of state social insurance, which includes pensions, sickness and maternity leaves,

unemployment, labor accidents and professional diseases, and in part health insurance, is high enough to discourage any additional savings.

Since 1994, when the first debates on the funded pillar began, the life insurance market has developed significantly. Having a very favourable tax regime, with contributions non-taxable up to a set ceiling and fully non-taxable benefits, it became a serious competitor in the long-term savings market. During that time the major state-owned insurance company, Lietuvos Draudimas, was sold to the Danish company Codan, and other international investors entered the market as well. All the financial institutions that were expected to engage in the pension accumulation business through pension funds in fact already did so, through their life insurance subsidiaries.

At present, only private life-insurance companies are operating in the voluntary pension savings market. Private life insurance offers supplemental pensions, and this market is developing. About 33,000 contracts signed to date deal with pension insurance. More than 20,000 contracts were signed in the last quarter of 2002. Written premiums in this quarter nearly reached LTL 12 million.

Based on the shortcomings of the existing law and in preparation for pension reform, the new Law on Supplementary Voluntary Pensions Accumulation was drafted to replace the previous Law on Pension Funds (see Chapter 3). As the name says, it will regulate third-pillar savings pension funds, but will also serve as a basis for the main second-pillar regulations, while leaving some peculiarities to the special Law on Pension Accumulation.

Taxation, once the main obstacle to development of private pension funds, was changed at the beginning of 2003. The new Personal Income Law established the same tax regime for both savings products, whether provided by life insurance or pension funds. Individual contracts have to be for a term of no less than 10 years in order to enjoy favourable tax treatment. Contributions to individual accounts in the private pension funds or premium payments to life insurance are tax-exempt up to 25% of annual personal income. Up to the same amount, the employer can deduct his contributions on behalf of an employee. After the contract term expires, taxes are to be charged only on the part of the accumulated amount comprising contributions paid. This means that the investment return on these contributions is not taxed at all. In addition, the taxable contribution amount is taxed by a tax rate of 15% instead of the 33% rate for ordinary income.

3. The supervision of the private pension system

Having two types of providers for the accumulation of part of the social insurance contribution, it is necessary to pursue a level playing field for both types where possible. In the following we will discuss regulations applicable to private companies – life insurance and pension funds management companies performing the accumulation of part of the social insurance contribution, that is, second-pillar accumulation. These entities are not specialized companies. They may perform third-pillar savings programs as well, but for second-pillar accumulation they have to meet special requirements.

The Law on Pension Funds, in force since 2000, may be revised to relax some of its main provisions. Pension funds will be considered to be money pools without the status of a legal entity. The assets of these pools will belong to the participants as joint owners. Pension funds will be governed by the management companies – legal entities. Management companies will be life insurance companies or investment funds' management companies. These companies may have several pension funds under their management, both second and third pillar, but these must be distinct by their investment strategy and possibly other provisions of participation. The regulation of life insurance participating in the second pillar will be based on the new concept of pension funds as well. The main intention is to put the regulation of two providers on the same grounds and to secure the interests of participants in both types of providers.

The assets of pension funds, that is the assets belonging to participants, should be separated from the assets of the management company itself, a novelty for life insurance companies. Therefore, no management company liabilities can be covered by pension assets accumulated on behalf of participants. Every pension fund should be accounted separately as well, and second-pillar funds cannot be supplemented by additional third-pillar contributions. Following the logic of investment funds, there will be a requirement to have separate custody for the assets of pension funds, which is also unusual in life insurance. The custodian will be a bank licensed for this activity and it will have the duty to supervise transactions of the management company.

In order to start pension accumulation, providers shall obtain a license from the supervision institution. For life insurance, the requirement of own capital is the same as for ordinary life insurance activities and is set at LTL 4 million (about Euro 1.15 million). For pension fund management companies, the capital requirement is double what is required by the EU Directive applicable to investment management companies, and is

Euro 300 000. Not less than Euro 250,000 of this sum has to be invested in a diversified portfolio. This amount cannot be spent for initial business expenses. The life insurance companies also have a requirement to have an additional LTL 1 million (Euro 290,000) for covering expenses to set their business.

The second requirement is to register with the supervision institution the rules of the pensions fund or funds established by the provider. The rules shall contain essential information governing the fund. The most important of it should be the investment strategy and deductions charged by the accumulation provider.

As regards the other capital requirements, they will differ for two types of providers in their nature but not in principle. For life insurance it will be formulated as a solvency reserve, and for investment management companies, as capital adequacy. The purpose of both is to ensure sufficient own capital in line with acquired liabilities.

The separation of assets and the requirement to keep them in the custody bank are envisaged to be the main instruments to ensure a safety of accumulations. No special provision on investment return is foreseen, but the requirement for every management company to provide at least one pension fund pursuing conservative investment strategy. The conservative investment strategy is meant to be investments in the bonds of the government of Lithuania, the governments of European Union member states and OECD states, or bonds issued by their central banks and the European Central Bank.

However, if a particular management company takes a liability to pay a fixed investment return, it has an obligation to form a special guarantee reserve in case of investment funds, or technical reserves in case of life insurance companies.

Other investment regulations for the second-pillar pension funds are identical to the regulations for the supplemental third-pillar funds, and they are not restrictive in terms of quantity rather than quality. There are commonly agreed requirements for the subjects of investments and diversification of the portfolio. Investments in real estate are not allowed. There are no special quantitative limits on investments into shares. As regards foreign investments, there are regulations on their quality but not quantity. In principle it is possible to invest all the assets abroad if these investments meet quality requirements measured mainly by ratings.

The drafts envisage quite strong supervision of marketing practices. Advertisements may contain only the information provided in the rules of the

fund registered by the supervising institution. The very design of marketing campaigns must be approved by the supervising institution. To ensure the integrity of the information provided to potential participants, the calculation of expected second-pillar benefits will have to be done using a single computer program. This program, developed by the Ministry of Social Security and Labor, allows comparisons of output from the single pay-as-you-go first-pillar system and the mixed first- and second-pillar pension system.

As the so-called accumulation companies are dual in nature so is their supervision. The decision to allow a choice of two types of providers was backed by the consideration that it would be cheaper and easier for the market to adopt the function using the existing infrastructure rather than creating completely new institutions.

The same consideration led to the dual supervision structure. As the scope of reform is expected not to be large in the first years of operation, it would not be wise to create a separate institution to oversee the new system. Therefore, the Lithuanian Securities Commission, which is responsible for the regulation of capital market and investment funds, within its ordinary tasks is handed the supervision of possible pension-fund management companies, and the State Insurance Supervision Service will supervise life insurance in the pension system reform.

So far, only the State Insurance Supervision Service has experience in acting as a supervisor. No pension funds have yet been set up in Lithuania and there is only one operating investment fund, so one can only theoretically compare the practice of supervising the purely voluntary and mandatory pension accumulation funds.

The regulation of private life insurance is quite strong in Lithuania. The Supervision Service regulates fees, discount rates (indirectly), and investment policies. However, the regulation of those companies that intend to offer an accumulation of part of the social security contribution is supposed to be even stronger. After the adoption of the Law on Pension System Reform, preparation is under way of all necessary amendments to existing laws that would enact the provisions of the main reform law. As these “implementation” laws and by-laws have not yet been adopted, one can talk only of the suggested regulations that apply to the performance of private pension providers.

As annuities will be provided only by life insurance companies, the common supervision procedures used for such contracts will apply.

Several institutions will be involved in the new pension system processes. For contribution collection, this will be the Social Insurance Agency, which will distribute the defined amount of contributions to private pension providers. The Ministry of Social Security will also have a role in supervising the performance of the new pension provision system. It will have no power to impose sanctions, but rather to monitor the system and formulate future policy changes. The ministry will collect information on the performance of pension accumulation providers from the supervising institutions. It will analyze this data and prepare reports to the general public. The supervision institutions will receive obligatory, periodic reports from the providers, but the Ministry of Social Security and Labor is perceived by the general public to be in charge of the functioning of the pension system.

4. Conclusions

After prolonged debate, the decision to reform the Lithuanian pension system by introducing the funded component was finally made in December 2002. The preparatory work and accommodation of different reform view had taken almost eight years, starting in 1995.

In 1995, the main laws modernizing the first pillar pension system were adopted. They dealt only with social insurance based on pay-as-you-go principles. It was felt that voluntary private provisions could supplement state pensions to make the system complete. Later, both politicians and experts concluded that some mandatory elements were needed in order to ensure the long-term sustainability of the pension system. This decision did not come easily.

Lithuania's pension reform, using a model reached through compromise, can be valued both as an achievement and a failure. Nevertheless, the main objective – to switch part of the state pension system to partial funding -- is preserved, as the accumulation will be based on the existing social insurance contribution rate. One advantage: the reform will not jeopardize public finances, but will grow in scope step by step. Reformers admit, however, that this will not create a firm basis for the serious structural change needed over the long run.

The Lithuanian reform should, nonetheless, be regarded as a first step or smooth introduction to later, more extensive, measures. Some discussion of the scope of the contribution rate and participation doubtless will arise, at least in 2007, when the final contribution rate for the funded pillar (5.5%) will be reached. If the reform is regarded as a painless start, the contribution rate should be increased further. Some mandatory participation elements could occur as

well, first for new labor-market entrants. The reform model allows all such amendments.

We understand that the scope of the pension reform depends very much on the state's ability to finance the transition costs and priorities set for state financing. The state social insurance fund, which is separate from the state budget, is now running a surplus, which should continue for perhaps a decade. Pension reform takes advantage of this opportunity to make the transition of the pension system to a partially funded one. However, amid the transformation one should bear in mind that current pensions in Lithuania are too low to permit a decent living. The state social insurance surplus cannot be spent solely on ensuring benefits for future pensioners. Part of it should go for reasonable increases in current pensions. This means, of course, that future obligations will become even larger, putting the sustainability of the pension system at even greater risk – a criticism that has been spelled out by some international financial institutions. We should mention, however, that the Lithuanian pension system differs from other systems in Eastern and Western Europe suffering from aging problems. Lithuanian pension levels are low, unlike in Poland or Hungary – we spend only 7.5% of GDP on pensions. It therefore looks reasonable to increase current pensions by a certain extent (60% replacement rate, as mentioned above.) A compromise has to be found to accommodate both the needs of ensuring poverty elimination among the elderly and securing the sustainability of the system. The proposed reform pension tries to do that, even if not all experts have taken note.

All the necessary pension reform implementation laws have now been prepared. They will take effect as soon as they are published, but the transfer of contributions will start from 1 January 2004. This period will be used to issue by-laws, grant licenses for pension accumulation providers, adopt rules for pension fund management and establish all other necessary supervision procedures. The introduction of the new pension system will be a great challenge for the supervisory institutions because some of them have little experience, another argument for modest reform. The novelty in Lithuanian pension reform is allowing life insurance companies to perform second-pillar pension accumulations. This may cause new challenges for supervision and result in both good and bad practices. The coming months and years will show whether the Lithuanian model of pension reform proves successful.

NOTES

- 1 According to the Law, every “pension programme” should have an approved investment return. There were no legal requirements on what exactly this investment return should be. This law has since been replaced, and there are no requirements of minimum investment return (see p.2.3 for details).
- 2 See the discussion on the financial consequences of this process in Chapter 2.2 under the title, Transitional Arrangements.
- 3 The average net wage increased from 316 litas in January 1995 to 743 litas in January 2000, and to 820 litas in first-quarter 2003 (by 159% from January 1995, and by 10.4% from January 2000). The consumer price index from December 1994 to December 2000 was around 77%; it was 1.4% in 2000, 2% in 2001 and -1% (deflation) in 2002.

PENSION FUNDS AND THEIR ROLE IN THE FUTURE OF THE BALTIC STATES' ECONOMIES

Valdemaras Katkus

Abstract

Private pension funds systems have developed at different paces, and with different structures, in the three Baltic states. In Estonia and Latvia, a three-pillar pension system was established. Lithuania introduced a two-pillar system without mandatory pension saving. The pension funds systems in the Baltic states are in the early stage of development and vary because of differing financial system structures in each country. The Baltic financial sectors are still less developed than the financial sectors of EU countries. Financing in the Baltics is dominated by the banking sector, which is highly concentrated and owned by international financial conglomerates. The Baltic securities sector has been stagnant, even during the recent period of growth. The regulations of the pension funds portfolios in Estonia and Lithuania reflect the situation in the financial market. In Latvia, regulations on pension funds policy reflect a government wish to keep money at home. Banks in these countries are the main power behind the development of the pension funds system. The Baltic countries will become EU members on 1 May 2004. Their future economic, financial and pension funds system will be shaped by EU legislation and the EU integration process.

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Introduction

The pension funds system is part of the reformed pension system. Its shape depends on government social policy and the economic environment at the time of reform.

The Baltic states, as transition countries, are in a state of permanent reform: pension system reform is just one reform in a line of reforms. Estonian, Latvian and Lithuanian policymakers are heavily influenced by the past – especially, by their positive or negative experiences in the field of enterprise privatization.

Pension system reform also depends directly on the state of the financial sector and its infrastructure, the demographic situation in a country and the economic growth rate. As the number of stable and different types of financial institutions increases, the preconditions for launching the more radical types of pension system reform are improved.

This explains why Baltic policymakers have chosen different approaches to the privatization of their pension systems and the role of the pension funds system.

The use of the term “pillar” has raised some problems, because international organizations, such as the World Bank, the OECD and the International Labor Organization use similar terminology, but divide the pillars in different ways. In the Baltic states, the pension model is usually interpreted as consisting of the following three pillars:

1. First pillar: A mandatory public PAYG social insurance pension, fully indexed against inflation and subject to a ceiling that provides a reasonable replacement rate. This pillar can be interpreted as the defined benefit pillar;
2. Second pillar: A fully funded defined contribution scheme, privately managed, supplementing the public scheme. This includes individual schemes, the operation of which is to be closely monitored and regulated. This pillar is mandatory up to a defined age group;
3. Third pillar: A voluntary, privately managed pillar. This would include individual and occupational schemes.

This paper will present a short analysis of the establishment and operation of the Baltic pension fund markets in their first two years, and will concentrate

on describing the situation of the financial sectors as they relate to pension system reforms. A general overview will be provided of the current size, the pension funds investments structures, and the channels of financing pension contractual savings in the Baltic countries. There will be a particular focus on the initial regulation of the pension funds as it shapes the functioning of the current pension funds system.

1. Setting the economic framework on the eve of the operation of the pension funds systems in the Baltics

The Baltic economies are small and extremely open. Annual nominal GDP in 2002 was about EUR 6.8 billion in Estonia, EUR 8.0 billion in Latvia and EUR 14.7 billion in Lithuania. The combined value of exports and imports in 2002 was 128% of GDP in Estonia, 101% in Latvia and 96% in Lithuania. Baltic populations are small compared to neighbouring Scandinavia countries, with 1.37 million Estonians, 2.37 million Latvians and 3.47 million Lithuanians.

1.1. *Macroeconomic stability price: the sharp decrease in output*

Macroeconomic stability and low inflation are essential because neither the securities markets nor institutional investors can function efficiently under high and volatile inflation. Although inflation-indexed instruments may help mitigate problems caused by moderate inflation, indexation mechanisms tend to break down amid high and accelerating inflation. Stabilization also plays a crucial role in expanding GDP growth, consumption and investment.

Inflation. The region chose stabilization, based on the exchange rate, by introducing currency boards in 1992-1994. The Bank of Latvia has pegged its national currency to the SDR basket. Since the beginning of 2002, the Estonian and Lithuanian national currencies have been re-pegged to the euro. The Baltic countries were first among the former Soviet republics to reduce inflation. As early as 1998, the Baltic states had brought the inflation rate down to single digits, by introducing national currency and currency board arrangements.

On the eve of operation of the pension funds system in the Baltic states (2002), the inflation rate was 2.7% in Estonia and 1.4% in Latvia; Lithuania had a deflation rate of -1.0%.

Growth. Growth rates in the Baltics were extremely high in 2002, considering the uncertain economic environment in Europe and the United States. In Lithuania, the GDP growth rate was 6.7%; in Latvia, 6.1%; and in Estonia, 5.8%. However, the three economies today are considerably shrunk

from the beginning of reforms in 1989-1990: in 2001, real GDP in Estonia comprised 87% (1989 = 100), and in Latvia and Lithuania, 69% of earlier GDP.

Current account and Government budget balances. The Baltic states established the full convertibility of current accounts at the same time (1994). All three decided to liberalize their capital accounts before they had a fully developed and supervised financial system. The strategy was very risky, because of possible external shocks to banking systems.

From the very beginning of economic reforms in 1997, the Baltic states have improved their government budget situations. In Estonia, the government budget surplus was 2.2%, in Latvia it was 0.2%; Lithuania had a budget deficit of 1.8%. The Russian financial crisis of 1998 had a negative effect on all the Baltic government budget balances, as deficits increased in 1999 by 4%. The external shock was accommodated within a year. In 2002, the Estonian government budget had a 1.2% surplus; the Latvian budget deficit was 2.5%, and Lithuania's, 2.0%.

External debt, in particular public debt, remains small, as the Baltic countries started with zero debt. This has made it easier to run quite sizable foreign deficits without an overt loss of credibility. Relative to GDP, Baltic foreign debt has risen since then. Most of this debt is private and the largest debt is in Estonia. Lithuania has represented something of an exception. Due to larger budget deficits, the country has bigger government securities markets than its northern neighbors. Still, debt burden relative to export revenue remains modest in all countries. In 1994, the cost of external debt service relative to current account revenue was 1.6% in Estonia, 3.9% in Latvia and 2.3% in Lithuania. In 2001, the figures were 7.2% for Estonia, 14.7% for Latvia and 28.0% for Lithuania (EBRD, 2002).

The current economic situation in the Baltic states has created a favorable environment for the functioning of the new pension funds system.

1.2. *The main types of financial institutions in the Baltics*

The success of pension funds depends on the financial structure at the time the new system is established. A core of sound and efficient banks and insurance companies is important for the handling of pension contributions and other payments, for the maintenance of individual records and accounts, for the provision of robust and efficient custodial services, and for the offer of reliable insurance contracts, especially with regard to term life.

The Baltic countries started to construct their financial sectors 12 years ago, almost from scratch. The financial sectors in the Baltic countries have developed rapidly, and there currently are no medium-term threats to their stability. Despite positive developments in the last few years, the Baltic financial sectors are still clearly less developed than the financial sectors in EU countries (see Table 11).

1.2.1. The banking system is the core of the financial sector

The restructuring of the financial system in the Baltic states began after a two-tier banking system was set up, through the establishment of central banks and commercial banks. Relatively low entry barriers existed during the early transformation of the banking system in the Baltics due to the need to promote a larger private-sector share in banking and to increase competition among banks. Many new institutions were established, and state-owned banks were privatized. Estonia completed the process of bank privatization in 2000, Lithuania did so in 2002, whereas in Latvia the process continues.

To summarize, at least three forces underlie the recent changes in the Baltic states banking industry: domestic deregulation and the external opening-up of financial sectors, changes in corporate behaviour, and banking crises.

Allen and Gale (2000a) have argued that in addition to the legal system and political factors, financial crises have had a significant impact on the historical development of financial systems. The Baltic states illustrate how this type of problem can affect emerging economies.

Most systematic banking crises in the transition economies were caused by poor lending. Banking crises in Estonia (1992-1994), Latvia (1995) and Lithuania (1995-1996) have not been particularly severe. In the Baltics, the authorities took different approaches depending on the source of problems and the size of the troubled banks. Some banks were liquidated, others recapitalized. Estonia liquidated banks that had gotten into trouble through management problems, while those that suffered external shocks were merged and recapitalized. Lithuania liquidated private banks and restructured and recapitalised state banks. Latvia widely liquidated problem banks. These measures apparently softened rigid currency pegs.

The banks were small, so restructuring costs were low despite the high percentage of bad loans in overall loan portfolios. This explains why banking crises were not accompanied by excessive financial sector instability. In 1991-1999, the costs to the Baltic governments of bank restructuring were from 1.7%

of GDP for Estonia to 3.1% of GDP for Lithuania. By comparison, the U.S. banking crisis of 1984-1991 cost the government 5% to 7% of GDP (Tang).

A prime consequence of the banking crises in transition economies has been the resultant changes in bank ownership structure. The Baltic governments encouraged bank mergers and foreign takeovers because of fears of bank runs and a vicious circle of credit contraction. Beginning in 1997, a trend toward consolidation gradually took hold in the region.

As a result of privatization and of mergers, the Baltic banking sector has become highly concentrated and largely foreign-owned, with the concentration evident not only within countries but across the three states. Foreign owners control nearly all sizable banks in the Baltics, and most of these banks operate in all three countries. In addition, foreign banks have brought concentration to other Baltic financial intermediaries (leasing, insurance companies and investment holding companies) by establishing subsidiaries in these financial markets. Bancassurance is the dominant financial organization structure in Estonia and Lithuania.

Foreign banks brought the highest concentration to the Estonian banking sector, where the three largest banks have 91% of total banking-sector assets, and to Lithuania, with 79% of the total. Consolidation is still under way in the Latvian banking system. Assets of the three largest banks account for 52% of total assets of the whole banking sector.

The foreign capital penetration ratio in the banking sector, measured in terms of major foreign ownership in total assets, is highest in Estonia (98%) followed by Lithuania (86%). Financial conglomerates of Swedish and Finnish origin hold the majority of the banks' share capital in the Baltic states. In euro-area countries, in contrast, foreign ownership is highly limited. Only about 20% of the banks' capital in euro-area countries is foreign-owned, and only in four countries does the ratio reach 30% or more (ECB 2002).

The Baltic region remains "under-banked" in terms of banking assets and deposits. In Latvia, the ratio of banking assets to GDP is 73%; in Estonia, it is about 72%. At the other end of the spectrum is Lithuania, with a ratio of only 32%. In the euro area, in contrast, bank assets amount to about 265% of GDP.

Banks in the Baltics are universal banks, allowed to offer a wide range of financial products and services to a vast number of customers. They not only take deposits and make loans, they may sell and underwrite securities and insurance and may own equity interests in firms, including non-financial firms. Banks, therefore, can own leasing companies, insurance companies and pension

funds. For example, banks in Estonia held a 99.1% share in leasing companies, a 73% share in life insurance companies, and a 95.2% share in investment funds (2002). In Latvia, banks are more nearly neutral in terms of participation in other financial intermediaries. In the Baltic region, especially in Estonia and Lithuania, universal banks act as catalysts for the emergence of financial conglomerates.

Banks in the Baltic states have become the main organizers of the financial sector. The accelerated restructuring of the banking sector may, indeed, have contributed to helping establish a more efficient banking system.

The banking sectors, which dominate financial intermediation in the Baltic countries, are still relatively small (total bank assets are about EUR 17 billion), even when the countries' lower income levels are considered. Banking industry domination of the financial sector exceeds that in euro-area countries.

Latvian bank assets are the largest (EUR 6.8 billion) in the Baltic states; whereas the ratio of bank loans to the private sector to GDP is largest in Estonia, at 27%. Lithuania has the lowest level of bank assets (EUR 5.0 billion) and the smallest banking sector activity, at 12%.

Estonia, Latvia and Lithuania are future EU member states, and EU integration is seen as carrying important implications for financial markets. EU accession will mean important structural change for the banking sector. It could accelerate a trend toward transforming foreign-bank subsidiaries into branches to reduce costs and avoid constraints on exposure limits (this is because when a parent bank lends, it does not reach exposure limits as soon as a subsidiary would).

1.2.2. Insurance companies: Lithuania takes a lead

In most reforming countries in Central and Eastern Europe, including the Baltic states, insurance companies play a leading part in the private pillar of the new multi-pillar pension systems.

The first private insurance companies appeared in the Baltic countries in 1991 and 1992. Private insurance businesses developed quickly. Insurance markets in the Baltic States were established in only 12 years, a short period for such a development.

Lithuania passed laws to regulate insurance activities in 1990, Estonia did so in 1992, and Latvia followed a year later. Originally, Ministries of Finance supervised insurance business. Estonia established a permanent insurance supervision authority in 1993, as did Latvia and Lithuania in 1995.

Privatization of the state companies that had taken over the liabilities of *Gosstrah* was an important problem. All the Baltic countries completed this process in 1995-1997.

In the mid-1990s, the Baltic countries acted to improve insurance legislation and supervision. Lithuania passed new insurance laws in 1996, and Latvia did so in 1998. Life insurance was separated from non-life insurance in Estonia in 1992, in Latvia in 1994, and in Lithuania in 1996. Solvency controls as applied in the EU were introduced. Insurance accounting now complies with EU requirements in Estonia, Latvia and Lithuania.

To fully understand the evolution of insurance markets in the Baltic states it is useful to examine penetration rates. They measure insurance activity in terms of premium volume as a share of GDP in the host country, thus indicating the significance of the insurance industry in comparison to a country's domestic economic activity. The measure is useful because it is unaffected by currency fluctuations; the calculation uses only the host country's national currency with respect to premium income and GDP.

For the 1999-2002 period, Estonia and Lithuania had higher penetration rates for life insurance as a percentage of GDP than did Latvia. At the end of 2002, the penetration rate of life insurance business in Estonia was 0.4% of GDP, the highest in the Baltic states. The penetration rate in neighbouring Latvia was the smallest of the three Baltic states at 0.08% of GDP. Lithuania, the fastest growing market, held second place at 0.26% of GDP (Table 2). Overall, the insurance penetration rate for life activity was very low in the Baltics. By comparison, the EU life insurance penetration rate for total insurance activity accounted for 5.6% of GDP at the end of 2002.

Since January 2002, Latvian legislation has guaranteed several tax breaks for employers making life insurance payments in favour of employees, and private pension funds. Beginning in 2002, individuals can get tax breaks when insuring their health. These legislative amendments paved the way for a rapid development of the life insurance sector in Latvia in 2002. Some years earlier, completely opposite legislative changes had led to a shrinking life insurance market.

Twenty life insurance companies and 44 non-life insurance companies operate in the Baltic countries. Lithuania has the strongest life insurance market in the Baltics, comprising half of the total market. At the end of 2002, total gross written premium in the Baltics comprised EUR 511.7 million (Table 2). This explains why in Lithuania, insurance companies played the crucial role in establishing pension funds.

The Baltic insurance markets tend to be as concentrated as the banking sector. There are two forces responsible for this trend in the Baltic states: the role of former state insurers and that of insurers with foreign capital.

The Baltic life insurance market is controlled by Nordic financial groups; their control reached 72% as of the end of 2002. The five largest life-insurance groups have 88% of the overall Baltic life-insurance market (Table 5).

In the Baltic financial market, strong commercial banks have established subsidiary life-insurance companies. Attempts to develop bank-assurance have been obvious as well, particularly in Estonia and Lithuania. In Latvia, where the commercial bank concentration is not that high, life insurance companies established by foreign insurance companies are prevalent.

1.2.3. Non-banking financial institutions: Estonia has the best investment funds culture

The process of disintermediation began slowly in the Baltic countries. Outside banks, leasing and factoring companies are the fastest-growing financial intermediates. The total leasing and factoring portfolio reached EUR 2.3 billion at the end of 2002, half of this in Estonian assets. Because the three biggest leasing companies are owned by banks, this market has the same high concentration as the banking market.

Total investment funds assets in the Baltics account for about EUR 330 million. The investment funds industry in Estonia is the largest, comprising more than 80% of the Baltics' investment funds assets, meaning that that country has the highest investment funds culture in the Baltic states. The share of money market funds reached 58%, and that of interest rate funds hit 31% as of the end of last year. The launch in 2002 of the last phase of pension reform – mandatory funded pensions, that is, the second pillar of the reform – affected the fund market as well. The reforms brought two new management companies from insurance companies; the market now includes 15 pension funds and six management companies in the Pillar II fund market.

In Latvia, pension funds are at the core of the investment funds. There are 21 pension funds with a total of EUR 50 million in assets. Lithuania has two investment funds, with total assets of EUR 1 million.

Experience with investment funds has facilitated the quicker establishment of the pension funds system. This has been the case in Latvia and Estonia.

1.3. *Baltic stock markets: de-listing diminishes their role in the economy*

Baltic securities markets developed late in the transition process due to the higher inflation environment. The National Stock Exchange of Lithuania (to be renamed the Vilnius Stock Exchange, or VST) opened operations in 1993 with a short list of privatized and new companies. The stock exchanges in Latvia and Estonia were even slower getting started. The Riga Stock Exchange (RSE) opened in 1995, and the Tallinn Stock Exchange (TSE) in 1996. The exchanges moved from a daily call auction to the gradual introduction of a continuous trading system. These exchanges created an infrastructure for the Baltics' securities market.

As of the end of 2002, average stock market capitalization in the Baltic countries was only about 20% of GDP, ranging from 34% in Estonia to 8% in Latvia. This compares to average capitalization of nearly 87% in the EU and 72% in the euro area. The development of viable securities markets is often constrained both by supply and demand factors.

Despite a large number of initial listings, only a small number of actively traded stocks remain in the Baltic states markets. The official list (most liquid stocks) ranges from seven companies in the VST to three companies in the RSE. As of the end of 2002, the shares of 62 companies were listed on the RSE, 46 on the VST and 14 on the TSE (Table 7). Relatively few shares were trading on the stock exchanges. Each stock exchange has two companies whose average turnovers comprise about 70% of the stock exchange turnover. In Estonia, for example, two companies comprised 90% of total stock market liquidity. Over the years, capital market capitalization has fluctuated considerably as share prices have changed.

In Estonia, the structure and framework of the securities market have evolved over the last four years. The opening of the Tallinn Stock Exchange in 1996 was backed by local and foreign investors' interest. From November 1996 to September 1997, the number of traded companies increased fivefold. Due to excessive optimism of local investors, abuses of leverage and changes in the external environment, the stock index increased threefold in a year, but after the Asian and Russian crises it returned to its starting point. The Russian crises in 1998 hit the TSE harder than the other Baltic exchanges. The liquidity of the TSE -- measured as the ratio of stock market turnover to capitalization -- dropped from 161% in 1998 to 16% in 1999, and it remains at that level today.

Subsequently, the relatively low price levels of stocks led foreign investors -- mainly from Finland and Sweden -- to acquire majority stakes in resident companies, which led to the delisting of several shares from the stock exchange.

In 1999, when Eesti Telecom's shares were listed, the capitalization of the stock exchange increased 2.5 times. In 2002, the number of listed securities decreased to 14, due to takeovers of companies.

In Latvia, the Riga Stock Exchange developed slowly until 2000, when market capitalization doubled and total turnover rose eight-fold. The market capitalization of the RSE amounted to EUR 644 million (8% of GDP) at the end of 2002, the smallest in the region. But stock market liquidity, at 26%, was the highest. This year, share turnover has been around two-fold lower than two years ago.

Official list companies were the leaders in equity market, contributing 93% of total equity trading volume. Banks are the main investors in the stock market, as in the bond market. Delisting is a slower process in Latvia than in the other Baltic states because of slower privatization there.

At the end of 2002, the Lithuanian stock market was the largest in the Baltics, in capitalization terms, amounting to EUR 2.9 billion, or almost 20% of GDP. Listed stocks constitute only 10% of GDP and, therefore, are not a vital pillar of the financial intermediation process in Lithuania.

Until the end of 1997, the VST had the most listed companies of the Baltic stock exchanges. At the end of 1996, market capitalization was EUR 946 million; more than 400 shares were listed on the VST, but only half of them were quoted. Of these, only 30 to 40 companies are actively traded. The number of listed companies increased during 1997, but changes in listing requirements then drastically decreased the number, and as of the end of 2002, only 46 companies were listed on the VST. In 1998-2002, the number of listed companies decreased due to takeovers by foreign companies, as happened in Estonia.

In Estonia and Lithuania, the delisting of some of the larger stocks after takeovers by multinationals has been the chief factor reducing the list of most liquid stocks in the Baltics. The national stock exchanges clearly are needed for companies issuing securities for the first time. However, the number of IPOs has been very low.

As mentioned, the Baltic stock markets were dominated by only a few big companies, leaving little room for investor diversification or the financing of medium-sized enterprises.

1.4. *The Baltic debt market: dominated by government bonds*

The Baltic debt market was shaped in two ways by government attitudes: in Latvia and Lithuania, the emphasis in the securities markets has been on treasury bills and government bonds. At the end of 2002, outstanding Latvian debt in the local market amounted to LVL 357 million (EUR 549 million). Government debt comprised 82% of the total outstanding amount. The remainder was in corporate bonds.

In Lithuania, the outstanding stock of domestic debt instruments (with capitalization of 7% of GDP) is dominated by government securities; corporate debt securities are only 6% of the total debt amount.

Unlike in Latvia and Lithuania, government debt securities in Estonia have not been a driving force in capital markets development, since the central government is constitutionally barred from running budget deficits. Therefore, the Estonian debt market has developed only due to the issuance of corporate debt instruments. At the end of 2002, debt market capitalisation was EEK 3.2 billion (3% of GDP) and government outstanding securities comprised only 4% of the total amount.

Latvia and Lithuania have 10-year-maturity bonds. Estonia has issued only 5-year bonds. There are no indexed bonds in the Baltic states.

In Estonia, municipalities are active players in the debt market. There are no municipal securities in Latvia and Lithuania (Tables 8 and 9).

In Latvia and Estonia, the majority of borrowers on the corporate fixed-income market are financial entities. Manufacturing, real estate and retail trade sector companies are also present in this market. In the Lithuanian corporate fixed-income market, the main issuers are telecommunications and energy companies. There are only 20 issuing companies in all, 12 of them Estonian.

Declining production and varying forms of privatization in the Baltic countries created, at the micro level, different paths to development in Estonia, Latvia and Lithuania. Big government concessions in tax relief for foreign investors, and tax exemptions on reinvested profit, pushed many companies to rely more on internal financing. This created additional limits on the development securities markets in the Baltics. Different fiscal policies in Estonia, Latvia and Lithuania presumably influenced the establishment of different securities markets structures. Today's Baltic security markets are small and dominated by bond trading. Marketable government debt as a share of GDP amounts roughly to one-fourth the euro-area level. Development of that sector

has been stagnant even during the recent growth period. This limits pension funds investment choices.

The capital markets (with total stock market capitalization of EUR 5.9 billion and a debt market of EUR 1.7 billion) are even smaller than the banking sectors and less relevant to the respective economies. Many experts agreed that survival was an open issue for the Baltic stock markets, whereas bond markets had a much more positive outlook (ECB, 2002).

1.5. Globalization trends in the Baltic capital markets

In the Baltics, key elements of the globalization trend have been the delisting, and in a smaller sense the migration, of some stock exchange activities abroad, affecting national stock exchanges. If this process were to continue, it could leave local exchanges without the domestic activity necessary to sustain them.

The delisting of some larger stocks after takeovers by multinationals has reduced the list of most-liquid stocks in the Baltics. In Lithuania, for example, after the banks privatized, their stocks disappeared from the Vilnius Stock Exchange's most-liquid stocks list.

After the 1998 Russian crisis, some previously privatized firms in the Baltic states were purchased by foreign or local private investors that bought out minority shareholders and converted the firms into closely held companies, sometimes delisting them from the exchanges. Controlling shareholders may have been seeking to maximize income.

The second element of the globalization trend has been the migration of capital-raising, listing and trading activity to international exchanges. Depository Receipts (DRs), for example, are popular instruments. Foreign investors interested in regional stocks favour buying them through the more liquid American or global depository receipts listed in London, New York or Frankfurt. Cross-listing involves a large fixed cost, bearing most heavily on small companies. Thus, larger companies appear more likely to cross-listed. This is the case in Baltic states. Since 1996, about eight big Baltic companies have been issuing DRs. The degree of migration to international exchanges rather is negligent.

National stock exchanges certainly are needed for companies issuing securities for the first time. The number of IPOs is very low, however.

With a few big companies dominating the Baltic stock markets, little room was left for investor diversification and the financing of medium-sized enterprises. The corporate debt market is small and of little significance in the three economies.

The decline in trading volumes in the Central and Eastern European exchanges, along with investor apathy, has led some analysts to question whether every country should have a stock exchange. Increasingly, geographical location will diminish as a determinant of where companies choose to list, and firms increasingly will list their securities on more than one market. The globalization of securities trading is pushing traditional stock exchanges to consolidate in order to offer competitive services to investors and issuers. These tendencies are reflected in the growth of cross-border listings. As a first step, the three Baltic exchanges established a common Baltic list in early 2000; it has 15 most-liquid stocks. This helped harmonize regulations and trading facilities. It is hoped that the common Baltic list will make the Baltic markets more attractive to foreign investors.

Most securities markets are under strong pressure for convergence and integration. Liquidity benefits encourage a centralization of market activities in a small number of locations. Over the years, the Baltic exchanges have discussed many plans to merge, form a regional exchange, or co-ordinate with one another with a view to create a one-stop shop for Nordic and Baltic financial instruments.

In the Baltic states, real consolidation began in the Helsinki Stock Exchange (HEX). During 2001, the HEX acquired a strategic majority in the TSE, and in 2002 it did so in the RSE, with the main aim being to offer trading facilities for Estonian and Latvian securities in the HEX trading system. The controlling majority in the VST belongs to the Lithuanian government, which has decided to privatize VST.

Recently Sweden's OM AB, which owns and operates the Stockholm stock exchange, decided to join with the Helsinki bourse. This process would create Northern Europe's largest securities market. OM HEX would be an integrated Nordic and Baltic market for listing, trading, clearing, settlement and depository of securities. The Stockholm, Oslo, Copenhagen and Reykjavik bourses already cooperate in a loose alliance called Norex.

1.6. Financial supervision in the Baltic states

There is a long tradition in many countries of regulating individual banks and securities markets. The primary justification usually given for bank

regulation is the avoidance of systemic risk, which is to say, the avoidance of financial crises. With securities markets, it is usually argued that the main purposes of regulation are investor protection and enhanced market efficiency.

The changing structure of the emerging-economies financial systems – and in particular the supervisory regime -- has implications for systemic stability.

Today, Baltic banks, insurance companies and brokers' companies have become an integral part of the international conglomerates. The emergence of financial conglomerates providing a wide range of services adds at least two dimensions to the supervision and regulation of such entities. One is the issue of consolidated supervision; the other is the architecture of the institutions in charge of supervision. The emergence of financial conglomerates has challenged traditional demarcations between regulatory agencies, making the business of regulation more complex. The convergence of the Baltic markets to a universal banking paradigm suggests that the consolidation of regulatory agencies in charge of banks, securities and insurance companies would be appropriate, mirroring the evolution of the industry. The case for a single regulator is based on considerations similar to those that drive the financial services industry: to exploit economies of scale and scope, to take advantage of scarce supervisory and regulatory expertise, to internalize linkages across different activities, to avoid duplication and regulatory burden, and to improve accountability and/or governance.

Estonia and Latvia derived useful lessons from the experience of the Scandinavian countries (Denmark, Norway and Sweden) with integrated financial supervision. We argue that the Baltic markets share many of the features crucial to the success of the Scandinavian experience with integrated financial supervision: they are relatively small economies that can exploit economies of scale and scope in supervision, and they have banks that offer a wide range of financial services -- in particular, growing bank-assurance businesses.

Moreover, we must note the experience of Finland, where the existence of a compulsory private pension funds sector led to the establishment of two agencies: one for insurance and pension funds and another for banks and securities. Among the Eastern and Central Europe markets that have established a single agency is Hungary. In 2002, Poland merged supervision of the security and insurance markets into one financial authority.

In Latvia, the unified financial supervisory authority, the Financial and Capital Market Commission, started its activities on 1 July 2001. The new independent supervisory authority took over the responsibilities of the Bank of

Latvia Credit Institutions Supervision Department, the Insurance Supervision Inspectorate and the Securities Market Commission. Estonia unified its three financial-sector supervisory authorities – the Banking Supervision Department of Eesti Pank, the Securities Inspectorate and the Insurance Supervisory Agency – into the Estonian Financial Supervision Authority (EFSA). The EFSA started to operate on 1 January 2002. In Lithuania, three separate institutions supervise the banks, insurance companies and securities market (pension funds).

International financial conglomerates also force the Baltic financial supervisory authorities to intensify international co-operation with foreign supervisory authorities. This is an additional argument for the unified financial supervisory authority.

The unified financial supervisory authorities are better positioned to handle the successful establishment of the second and third pillars of the pension system by coordinating processes in all parts of the financial system: the bank sectors, insurance business and securities market. This is the case in Latvia and Estonia.

2. The road to the multi-pillar pension system

Widely known World Bank proposals on the establishment of compulsory accumulative pension schemes have had a strong impact on the reforming of pension systems in the Baltic states. Meanwhile, every state has chosen its own way to establish a multi-pillar pension system.

2.1. The second pension pillar: rules of the game

Latvia was the first Baltic state to begin establishing an additional compulsory participation pension scheme, the so-called Pillar II, launched in July 2001. It is a state pension scheme, administered by the State Social Insurance Agency. A share from 20% of the social insurance contribution rate for old-age pension into the NDC scheme is invested into financial assets.

Pension accumulation is based on the unitization principle, that is, individual contributions are invested depending on the individually chosen portfolio and are marked in units. The units are used to compute objectives, taking into account accumulated assets and the contract term. Depending on the success of the investment, the unit value is computed as a ratio of asset value and the number of units at the time of computation.

The State Social Insurance Agency makes contracts with asset managers and insurance suppliers on behalf of the state. Until January 2003, the only

assets administrator in Pillar II was the State Treasury, which was entitled to invest assets only in Latvian securities and time deposits in a bank. Later, Pillar II participants will be able to choose private asset managers with a broader range of investment instruments. A person may change asset managers no more than once a year. Private asset managers (investment companies, licensed in Latvian territory, shall possess a separate license for the second pillar).

Pillar II is being implemented without an increase of the overall pension contribution rate, but it will influence the computation of NDC payments, which will be smaller than if there had been no funding of Pillar II. A gradual increase in contributions to Pillar II is planned, with a proportional reduction of the contributions in Pillar I. To start, only a 2% contribution is being paid to Pillar II, but by 2010 the rate should reach 10%, at which time equal shares will be paid to both pillars. (A 2% contribution rate is expected to be paid until 2006; in 2007, the rate should reach 4%; in 2008, 8%; in 2009, nearly 9%; and in 2010, 10%).

For the first year and a half, the state will cover the cost of running and administering pension funds. Later on, a maximum threshold of 2.5% is planned for administrative fees, but no restrictions shall be applied to its administration.

Participation in Pillar II of persons who were under 30 years old on 30 July 2001 shall be binding. Persons who at the moment the law took force were 50 and older shall be prohibited from participating in funds saving. Persons aged 30-49 may join the accumulation pension scheme on a voluntary basis at any time. Gradually (by about 2035), Pillar II will include all persons under state pension insurance.

The total number of Pillar II participants on 1 April 2003 amounted to 374 647 (36% of the overall population insured by state social insurance).

No guarantees on the rate of return of invested pension assets are provided in Latvia, due to the strict investment rules and the possibility of choosing the state fund.

After retirement there are two possible alternatives, and the participant may choose for the accumulated capital in Pillar II to be:

1. Added to the Pillar I pension for the computation of the general old-age pension on the basis of the NDC scheme formula, provided that the capital shall be accumulated (in the NDC reserve fund) with the NDC rate of return, or

2. Transferred to the life-insurance company which will provide life annuity later.

In the course of refunding savings in Pillar I, Pillar II contributes to the long-term prospects of the Pillar I budget. This is characteristic of the Latvian system. It can improve NDC scheme liquidity and provide for more flexible use of the Pillar I reserve fund.

Any capital left after the participant's death shall be transferred to the state pension budget for the survivor's benefits (payments to children), under the Law on Pillar I. Spouses have no right to survivor's payments in either Pillar I or Pillar II.

Pillar II provides for a wider choice after retirement than does the NDC scheme. For example, life insurance provides for a possible joint-annuity to be paid to the spouse in the event of death of the insured persons; the size of pension payments can be increased by postponing payments thereof for up to 10 years; by election, different sizes of pensions can be paid over different chosen periods, etc. In case of refunding to the NDC scheme, the savings variant also has its advantage, as it guarantees a stable indexation of pension to price and salary increases.

Pillar II pension taxation rules depend on the selected variant, and shall be done according to either the Pillar I pension taxation rules or valid life-insurance regulations.

Estonia began establishing a compulsory additional pension scheme one year after Latvia. The financial basis for this scheme was additional contributions, paid by the employed together with the share of the social insurance pension contribution. Employed persons shall transfer 2% of their income to selected insurance funds. In addition to this is an additional 4 percentage points for the social tax. The Tax Board transfers 16% of the social tax to the State Pension Insurance Fund, 13% of that tax to the State Health Insurance Fund and 4% of it to the bank account of the registrar of the Estonian Central Register of Securities.

Compulsory participation in the Second Pension Pillar is foreseen for persons who began working in 2001. All persons born after 1 January 1983 and beginning work shall participate in the accumulative pension insurance.

The accumulative pension for older persons shall be voluntary (dates are set for persons born in certain years when they are supposed to present their applications for participation in the Second Pension Pillar: for example, those

born in 1942-1951 may submit their applications by 1 June 2002, those born in 1982, by 1 November 2024, etc.).

Total Pillar II participants amounted to 213,596 as of 1 April 2003.

The insured may pay contributions into only one compulsory pension fund. When paying contributions to such a fund, a person receives a number of units issued by the pension management company, corresponding to the amount of the contribution.

The only owners of units who will receive the compulsory accumulative pension are those of pension age, who are recipients of state pensions stipulated by the state pension insurance or other laws of Estonia (if they are legally entitled to it), and who have paid contributions for no less than five years. Insurers shall apply the same mortality rate table for males and females in making the contract.

Compulsory pension fund units may be replaced once per year, on the first calendar day after January 1. Compulsory pension fund units may be replaced only with units of another compulsory pension fund. To change compulsory pension units, an owner shall have at least 500 units. All compulsory pension fund units of one owner shall be replaced per one time.

Under the Law on Accumulative Pension, contributions for a compulsory accumulative pension shall be deducted from the personal taxable income. However, payments from a compulsory pension fund to the inheritor of the units' owner shall be taxed, and the payment shall be based on the insurance contract.

Under current legislation, a pension fund is an investment fund under contract, the main objective of which is to provide the fund's depositor (shareholder) with the possibility of receiving additional income when he or she is 55 years old or is incapable to work.

The pension fund may be administered only by a fund administrator properly licensed for such activities, or, following provisions of the Law on Investment Funds, acting as a bank of accumulative pension fund. An operating license is granted for an unlimited period.

Separate operation licenses are issued for the administration of voluntary and compulsory pension funds. A compulsory pension-fund administration license grants the right to administer any type of pension fund, manage other investment funds, and provide securities portfolio management services.

Under the Estonian legislation, each management company shall establish at least one pension fund, the assets of which are invested exclusively in securities (bonds, commercial papers, etc.) and bank deposits. Such a fund shall be prohibited from investing in shares. Minimum share capital required is EUR 2.9 million, and shareholder equity must be 2% of net assets.

In Lithuania, a pension system reform concept presented in 26 April 2000 provides for the introduction of compulsory accumulation in private pension funds. October 25 of the same year the White Book on pension system reform was published, analyzing the needs, possibilities, modes and possible consequences of pension reform implementation. On the basis of these documents, a draft Law on Pension System Reform was prepared in 2001, and was later amended and improved on.

The pension reform concept (14 January 2000) maintains that the main objective of the new pension reform is to “change the pension system in such a way that persons of pension age could get higher income than until now, meanwhile to ensure that the reallocation would not be increased, but reduced and to ensure the long-term sustainability of the system, which will include all the inhabitants”. To achieve this objective, there is a need to change the pension system financing mode and reorganize state social insurance pensions. The reform shall ensure that the social insurance pension system can avoid financial deficit, as occurred recently. The new pension system is expected to have a long-term impact on the national economy: to promote savings in the country, curb tax avoidance, strengthen capital markets and finance infrastructure growth.

The concept provides for the establishment of a three-pillar pension system. The aim of Pillar I is to ensure minimum protection for each citizen against poverty and to compensate a share of lost income due to old age or incapacity for work. Pillar II should guarantee old-age pensions, the size of which would correspond more exactly to the lost income. Pillar III provides conditions for insurance for those who want better old-age protection than they could receive from Pillars I and II. This insurance could be executed by pension funds and/or insurance companies. The concept also emphasizes a weakening over time of the compensation function of Pillar I, with its gradual transfer to Pillar II.

New documents on pension reform illustrate the changes in objectives of the Pension Reform Concept, which have been narrowed to an aspiration to ensure higher income for older persons than is now provided, so as to guarantee a living standard similar to that during the working period.

In November 2001, the government of Lithuania approved the draft Pension System Reform Law. Parliamentary readings of the draft law continued for six months, and the draft law was returned to the government. The government proposed abandoning the principle of compulsory participation in private pension funds, while seeking to motivate people to pursue further voluntary accumulation of their additional pension. The new pension reform draft law also requires the government to provide employer-sponsored pension schemes.

On 3 December 2002, the Lithuanian Parliament adopted the Law on Pension Reform, which is to take effect from 1 January 2003.

The new law entitles Lithuanians holding compulsory state social insurance to join pension accumulation and receive additional income after retirement.

The law stipulates that persons insured for a full state social insurance pension may elect to accumulate pension contributions in pension accumulation funds (companies). Those who join such a scheme will not be able to withdraw from it except in case of full disability.

Under the law, persons will be able to conclude a pension accumulation contract with a pension fund until 1 September 2003, and in every calendar year, from January 1 to July 1. These rules shall not apply to newcomers to the labor market who receive a social insurance certificate for the first time.

The insured will be free to choose between a pension saving funds and switching to another fund, but not in the first three years after concluding a pension saving contract. Each participant's contribution will comprise 2.5% of his or her income on the basis of which contributions are calculated in 2004, 3.5% in 2005, 4.5% in 2006, and 5.5 percent% from 2007 on.

Pension contributions will be calculated and transferred to the opted pension funds from 1 January 2004.

Unlike other pension system reform variants, this one suggests that the accumulation function should be implemented not only by pension funds but also by life-insurance companies, with their necessary infrastructure and operational experience.

The main shortcoming of the model is its uncertainty as to how many persons (as in Estonia) would participate in the accumulation. Furthermore, the relatively small scale might delay the establishment of pension funds. Yet, its

small size could also constitute an advantage; the funds to be withdrawn from the Social Insurance Fund would not be considerable, and the amount could easily be met from the state budget. It is unclear, however, how much budget money will be needed to cover losses in the Social Insurance Fund.

Lithuania basically is planning a two-pillar pension system comprising the First and Third Pillars. The Second Pillar, establishing compulsory accumulative insurance pensions, is anticipated in the distant future.

Thus, each of the Baltic states is looking for its own way to create additional pension schemes. Estonia does not restrict itself to the privatization of a part of social insurance pensions, but provides for additional participants' contributions to the compulsory participation accumulation scheme. The Latvian system refuses to establish private pension funds in the initial stage of creating the compulsory accumulative pension scheme; accumulation begins in the social insurance system itself. Lithuania, meantime, has suspended compulsory participation in private accumulative pension schemes and indefinitely postponed a decision.

2.2. The third pension pillar is established in all countries

Private pension fund (PPF) schemes were impossible, of course, before the restoration of independence in the Baltic states. In the first years of independence, attention was paid primarily to the privatization of industry, and in the pensions field the key point was social insurance reform. Thus, the first draft laws on regulating additional voluntary pension accumulation were designed only in 1995-97.

2.2.1. The legal background

Latvia in 1997 designed the laws and supervision infrastructure needed to implement private voluntary pension insurance (Pillar III), which took effect in July 1998. There are two types of private pension funds (PPF) – open funds, which may offer services to all the population, and closed funds, whose members can only be employees of the pension fund establishing body. No restrictions applied to the closed PPF establishing bodies, whereas for open PPF, the establishing bodies may only be commercial banks and life insurance companies registered in Latvia. Only commercial banks, life insurance companies, broker companies or investment companies possessing licenses from the Finance and Capital Market Commission may manage PPF assets.

PPF are described as financial and “credit stock” non-profit companies. All of them operate on the principle of defined contributions and provide no

guarantee as to the size of the contributions. Assets managers should meet certain investment restrictions and special financial requirements (required size of capital of establishing body). The Financial and Capital Market Commission performs the function of strict supervision.

The following restrictions apply to investment by the pension plans:

1. Investment in one issue of securities shall not exceed 10% of the overall value of pension fund assets and 25% of the overall value of such a securities issue (except for government or municipality securities, in which investment is not limited).
2. Investment in a real estate unit shall not exceed 15% of a pension fund assets' value, and the overall share of investment in real estate shall not exceed 25% of the overall value of pension fund assets.
3. Investment in foreign countries shall not exceed 15% of the overall pension fund assets' value.

Pension payments from PPF may be made for persons who are 55 years old. However, four possibilities are provided for making payments prior to that age:

1. A person is recognized as permanently disabled.
2. An employer who has been making contributions on behalf of a pension plan member becomes bankrupt.
3. A pension plan member dies prior to the age defined in the pension plan.
4. A person has entered into an agreement on term-membership in a pension plan in order to transfer its capital into another plan or fund.

There are three possibilities of receiving pension payments from PPF. The accumulated pension capital may be:

1. Paid in a lump sum.
2. Transferred to a life-insurance company which will provide the lifetime annuity.
3. Transferred to the state pension budget (that is, added to Pillar I capital), in which case the aggregate pension shall be computed by applying the NDC scheme formula in the same way as the Pillar II refunding variant.

By the end of 2002, 20,064 people had voluntarily joined pension funds.

In Estonia, the Third Pillar was regulated by the Pension Funds Act from 1 August 1998 to 1 October 2001. The same act applies to the First and Second Pillars.

People can participate in Pillar III either by implementing a pension insurance policy from a licensed private insurance company, or via pension funds units managed by private fund administrators.

Pension fund units may be purchased only by natural persons, pension managing companies or persons acting as a pension managing company. The unit is not dividable and shall not belong to several persons. However, pension fund units may be jointly owned by spouses. Units purchased in a voluntary pension fund may be changed, but only into units of another voluntary pension fund.

To change a pension fund, the owner is supposed to have at least 1,000 pension fund units. However, pension fund regulations may restrict the number of units changed at one time, the minimum period for changing units, and the period after which a person is allowed to change his or her units again. This period may not be longer than two years. When changing the pension fund for a pension management company, a person shall pay a defined redemption and issue fees.

The accumulated capital of units' owner shall be inherited. If a policy owner dies, payment to the appointed successor shall be in accordance with the terms of the insurance contract.

The voluntary supply of accumulated pensions is provided by those voluntary pension funds possessing operational licenses for voluntary pension fund management. The stock capital of a pension management company administering the activities of a voluntary pension fund shall be no less than EEK 12 million, and the company's net assets shall be at least of the same size. According to the Pension Funds Act of Estonia, in its first year the fund may invest up to 30% of its capital in companies' shares, and next year it may increase its investment up to 40%.

By the end of 2002, 2,400 people had joined supplementary or voluntary pension funds.

In Lithuania, legal PPF regulation began only at the start of 2000 after the enforcement of the Pension Funds Law. The objective of the law was to prepare

the legal and institutional background for the establishment of private pension funds in which the population could voluntarily accumulate additional pensions.

The law provided for the establishment of open pension funds; the establishing parties are supposed to comply with the authorized capital and managers' qualification requirements. Minimum share capital required for the pension fund is EUR 0.3 million.

During the three years in which the Pension Funds Law has been in force, no pension funds were established in Lithuania. One reason may be the discussions, ongoing for years, of compulsory participation in a private pension scheme. The government designs legal acts on the basis of which the partial privatization of social insurance pensions is planned. Potential pension-fund establishing bodies may be expecting a pension reform to begin shortly, and this would require quite a different strategy from a voluntary participation scheme.

Another possible reason no private pension funds have been established in Lithuania is a more favorable treatment of life insurance in the tax legislation. In the case of life insurance for a period exceeding 10 years, neither premiums nor payments are taxed.

Data from the State Insurance Supervision Authority show that at the beginning of 2003 there were about 200,000 valid life-insurance contracts in Lithuania. More than half of them were for wedding insurance, to save funds for children. The remainder could be used to accumulate future pensions.

Thus, through autumn 2002, Third Pillar private voluntary pension schemes were in their formative stage. Several pension funds began operations in Estonia and Latvia, while in Lithuania additional security is ensured through life-insurance products.

2.2.2. Taxation on the third pension pillar

All the Baltic countries provide tax allowances for the private voluntary pension schemes of the Third Pillar.

The largest personal income tax incentives are granted in Estonia, where neither contributions nor payments are taxed, provided they are made in the form of defined payments as non-decreasing lifetime annuity. If paid in other ways, they are taxed at a reduced 10% rate, well below the ordinary income tax rate of 26%.

According to the Estonian Income Tax Act, contributions for voluntary pensions shall be deducted from taxable income, provided these contributions amount to 15% of personal annual income. The minimum contract age for which tax privileges are granted is 55, but no less than five years after the beginning of the contract. Tax privileges for pension fund payments shall be applied if a person is recognized as permanently incapacitated.

In Latvia, private pensions fund payments are taxed according to the general procedure, applying relevant tax rates. However, several privileges apply to contributions. First, an employer's contribution on behalf of an employee shall be deducted from taxed profit. Second, 10% of annual taxed personal income not exceeding the contribution shall be deducted from personal taxable income. Third, if the aggregate amount of an employer's contributions into a private pensions scheme, as well as premium payments for life, health and workplace accident insurance, does not exceed 10% of the insured personal gross salary, then these expenses shall not be taxed by the compulsory private social insurance contributions. Latvia is thus the only Baltic country to grant privileges for contributions to private pension schemes at the expense of the social insurance contributions.

It is anticipated that in Lithuania, employers' premiums paid to pension funds for their employees shall be included in company expenditures, and personal contributions to the pension funds shall be deducted from taxable income. Employers' and personal contributions, which are granted the above-mentioned privileges, shall not exceed 25% of the personal salary. Capital increases in funds shall not be taxed; however, private pension payments are liable to taxation according to the general procedures (see Table 13).

2.3. National regulations on pension funds portfolios

In Estonia and Latvia, the Second Pillar will be based exceptionally on the mandatory defined contribution pension program. Every program participant will have only one account with the pension fund. Under the reformed pension systems in Estonia and Latvia, government institutions will directly manage First Pillar contributions, whereas contributions to the Second Pillar will be managed by private pension funds. As mentioned, there is no Second Pillar in Lithuania.

Participants in the pension funds system have a free choice of managers and may switch once per year.

2.3.1. Requirements for pension fund managers

In all Baltic countries, special licenses are required for pension funds management, and separate licenses are required for the Second Pillar.

Only a person holding a valid certificate for the corresponding qualifications may operate as a fund manager. The issue and revocation of certificates are decided by local authorities in each Baltic state. In Estonia, for example, the Minister of Finance is such an authority, and in Lithuania, the Securities Commission is.

Common requirements for fund managers in the Baltic countries are as follows:

1. Higher education.
2. Adequate professional experience – a fund manager must have, within the last three to five years, operated as a fund manager for at least one year or have been involved in the provision of securities portfolio management services or have experience in a financial institution or financial supervisory agency for at least three years. The requirements for professional experience in each country depend on financial institution structure. Estonia, for example, emphasizes experience in securities portfolio management, while Lithuania, because of the lack of investment funds, stresses general experience in financial institutions.
3. Impeccable business and professional reputation.
4. Fund managers may be employed by one management company. The same person may be the fund manager of several funds managed by one management company.

A fund manager may not be a member of the supervisory board or management board, or an employer of another management company.

The requirements for pension funds managers are similar in all the Baltic countries, and the small differences in requirements reflect different experiences with national financial institution structures.

Currently in the Second Pillar, six asset managers operate in Latvia, and only one is owned by a foreign investor. In Estonia, on the other hand, five funds managers out of six are owned by foreign banks or insurance companies.

2.3.2. *What role do asset structures play?*

With mandatory schemes, governments have an obligation to ensure that pension plans are safe and ready to protect pension program participants from the bankruptcy of any pension fund. The arguments justify those portfolio regulations that encourage diversification and ensure the liquidity of underlying assets. Put another way, the most basic aim of investment is to achieve an optimal trade-off of risk and returns by allocating the portfolio to an appropriate combination of assets.

Blake, Lehmann and Timmermann (1999) found that during the 1980s and 1990s the most important task for pension fund managers was to establish and maintain the strategic asset allocation. The median total return earned by the UK pension fund over the sample period, 99.47% of the total, was due to this essential asset structure. This indicates to regulatory authorities how sensitive the quantitative regulation of pension-fund portfolio structure is. When regulatory authorities establish a quantitative structure between shares and bonds, they take responsibility for the mean of the rate of return of the pension funds industry.

2.3.3. *Quantitative investment regulations*

In the Baltic countries, pension funds investments regulations are based on quantitative restrictions. As a rule, the regulation of mandatory pension funds and voluntary pension funds differs – the more stringent regulation is applied to mandatory funds because of the important role they play in each country.

The main objectives of investment regulations in the Baltics are:

1. *Informational asymmetry.* A mandatory DC system creates a retail market with a large informational asymmetry between pension fund operators and pension program participants. As regards the information asymmetry, if a purchaser of a financial service finds it difficult or expensive to obtain sufficient information on the quality of a particular service, he may be exposed to exploitation. This may entail fraudulent, negligent, incompetent or unfair treatment as well as failure of the relevant institution.
2. *A sizable proportion of personal wealth and long-term investment horizon.* These phenomena are particularly important for such retail users of financial services as personal pensions, because clients seek investment of a sizable proportion of their wealth, and contracts are one-off and involve a commitment over as much as 40 years. Such

consumers are unlikely to be able to make a full assessment of the risks to which pension plans are exposed, including the solvency of the pension funds.

3. *Inexperience.* Market participants and supervisors are inexperienced with long-term investments in the foreign securities markets.
4. *Markets limitations.* The local Baltics markets are thin and volatile. Pension funds investments will affect local market development and capital outflow through pension funds investment in foreign markets on a macroeconomic level.

First, pension fund investment strategies must be developed and implemented. A primary decision is to choose the asset categories to be included in the portfolio -- usually money market instruments, equities, bonds, real estate and foreign assets. The Baltics' pension funds investment strategies are constrained by quantitative government regulations.

Estonia has the most liberal approach to pension funds portfolio regulations on the Second Pillar investments portfolio if we take as a measure the share of equity and investment funds units in the total portfolio. Latvia, unlike Estonia, has no restrictions on investments in government securities. This Estonian attitude reflects a general approach to the government budget deficit.

We cannot compare Lithuanian regulations because there is no Second Pillar. But Lithuanian authorities as a safeguard require establishing a bond fund as a first fund, and only afterward can a management company launch a fund with investment in shares. Other principal regulations of the pension funds are based on the regulation of UCITS (Undertakings for Collective Investment in Transferable Securities).

In the Baltics as a rule, investments should be effected through organized exchanges and by listed, highly rated, and actively traded securities. Pension funds are mainly allowed to invest in OECD markets. This helps avoid excessive concentration of risks in overseas emerging markets.

Latvia puts direct limits on foreign investments. Estonia has a different approach, regulating foreign currency exposure by establishing currency matching limits. Because of the higher ratings of many OECD countries, and as the Estonian national currency was pegged on 1 January 2002 to the euro, there should be no exchange risk on euro investments. This attitude approaches a EU proposal on pension funds regulations. Lithuania has not limits on foreign investments and currency matching (see Table 14).

All the Baltic countries take the same approach to minimum diversification requirements (see Table 15).

Self-investment restriction is an appropriate way to prevent the concentration of risk, and financial-sector concentration is particularly high in the Baltic countries. For example, in Estonia, for mandatory pensions funds, the value of securities issued by a person belonging to the same group may not total more than 5% of the market value of the assets of the pension fund (10% for voluntary pension funds). In Lithuania and Latvia, self-investment is not allowed.

The regulation of pension funds investments in IPO's is crucial, because of the small number of securities traded on the Baltic securities exchanges. Latvia allows 20% investments in IPO's and Lithuania is amending regulations on investments in IPO's.

In principal, portfolio regulations in each Baltic country reflect a number of basic factors. Estonia and Lithuania recognize the small number of investments products in "home" markets allowing more investment in foreign markets, but Latvia puts stricter rules on foreign investments. Because of bigger government securities markets in Latvia, more investment freedom is provided for investment funds in these markets than in Estonia. The approach to minimum diversification requirements is the same in all Baltic countries, but self-investments regulations follow different patterns in each.

2.4. The resources for second and third pillar

Currently after banks and insurance companies, the third institutional-investors structure has been growing through the partial privatization of the state pension system. The pension system reform began with the implementation of the voluntary Third Pillar in 1999, and of the quasi-compulsory Second Pillar, more recently, in 2002.

The principal resource for the Second Pillar is social insurance contributions from wages. The structure of contributions for pensions varies considerably in the Baltic states. In 2002, Estonia, for the funded part, used 4+2% of wages (PAYG – 16% of wages); Latvia, 2% (PAYG – 28.86%) of wages; and Lithuania, no funded part (PAYG – 25%) of wages (see Table 12).

In a long-term perspective, Estonia has the biggest contribution rate of pension insurance – 6%, and the accumulated amount will grow fastest of any in the Baltic states. Estonia is expected to have the biggest pension funds industry in the Baltics in the near future. In Latvia, the private pensions accumulation

process started moderately (from 2%), but from 2007 it will become the most radical (up to 10%) in the Baltic states. Lithuania chose a cautious approach to private pension accumulation (from 2.5% to 5.5%) and over the long run its private pension pillar will be the smallest in the Baltics (see Table 16). Since Estonia and Latvia have Pillar III pension funds, we can forecast that Lithuania's pension industry will be smallest of the three.

The pension funds systems in the Baltics are in their early stages. The mandatory pension funds collected about EUR 45.5 million of contributions, and voluntary contributions in Pillar III reached EUR 27.32 million (see Tables 17, 18).

2.5. How the Baltic pension fund industry operates

Latvia was the first of the Baltic states to begin pension reforms. As of the end of March 2003, 374,647 people had joined the funded pension system. The total of Second Pillar funds was EUR 26 million.

Until January 2003, the only assets administrator in the Second Pillar was the State Treasury, which was entitled to invest assets only in Latvian securities and time deposits in banks. Later, Second Pillar participants were able to choose private assets managers with a broader range of investment instruments.

At the end of March 2003, there were six fund management companies, operating a total of 12 investment plans. Five private fund management companies comprise 25.6% of market share, a share won by private pension funds operators in just three months. In future, the assets allocation policies of the private pension funds will diverge from the state-controlled pension fund.

Supplementary pension funds assets are the same size as the mandatory pension funds. But in terms of investment strategy, only 6% of assets are allocated in equities, and 12% are invested in foreign markets. Latvian pension funds can be characterized as very conservative. One shareholder dominates in the fund management companies market.

At the end of December 2002, about 20,000 persons had joined voluntary pension funds (see Tables 19, 20).

In Estonia, as of the end of March 2003, 215,596 people had joined the funded pension system or Second Pillar since its introduction in 2002. It is a good result, considering that the Estonian system is built partly on a voluntary basis: it is compulsory only for young people entering the job market. About

half of all those who potentially can join the system have already voted in favor of the additional pension saving system.

The amount of money in the Second Pillar funds was EEK 303 million (EUR 19 million) as of the end of March 2003. Analysts expect this amount to reach EEK 800 million (EUR 51 million) by the end of 2003.

Today there are six fund management companies, operating a total of 15 pension funds with three investment strategies (conservative, balanced, aggressive). The conservative pension funds invest 100% of their assets in bonds, a strategy chosen by 20% of Estonian pension contribution payers. Meanwhile, funds with a balanced strategy -- investing 75% in bonds and 21% in shares -- were chosen by 21% of pension contribution payers. Pension funds with an aggressive strategy of investing 50% of assets in bonds and 50% in shares were chosen by almost 59% of all payers of pension contributions.

At the end of March 2003, 63% of persons who had joined the funded pension system had chosen equity funds; 21%, balanced funds; and 16%, fixed-income funds. The number of persons selecting an aggressive investment strategy might appear to be waning; however, about 60% of contribution payers chose investment in shares.

The three fund management companies comprise 95% of the market share of fund managers. Two shareholders – both banks – dominate in this, as in the insurance and bank market.

The supplementary funded pension, or Third Pillar, is a part of the Estonia pension system. The supplementary funded pension is based on each person's voluntary decision to start saving either by contributions to a voluntary pension fund or by entering into an insurance contract on the supplementary funded pension with an appropriately licensed life insurance company.

The supplementary funded pension differs from the funded pension or the Second Pillar mainly in that making contributions is voluntary for all persons and the state does not limit the amount of contributions. The Third Pillar was started in 1998.

As of the end of 2002, only 2,400 persons had joined the voluntary pension funds. Today there are four fund management companies, each operating a pension fund. The Third Pillar funds total EUR 4 million. They invest approximately 64% in fixed-income assets and 19% in equities. The small assets of supplementary pension funds reflect competition with insurance companies for voluntary savings.

The supplementary pension funds invest 62% of their assets in the Estonian market. This figure is twice the 31% level of domestic investments by mandatory pension funds assets. Such investment behavior reflects the small size of the Estonian security market (see Tables 19 and 20).

The behavior of the supplementary pension funds portfolio is close to that of the life insurance portfolio (see Tables 3, 4, 19 and 20). They compete in the Third Pillar pension market.

The fee structure of Pillar II differs little in the Baltic states: maximum entry fees vary from 2% to 3%; maximum management fees, from 1.5% to 2% of NAV (see Table 21). Currently in Latvia, the management fees of asset managers are covered from the First Pillar, but from 2004, management fees of up to 2.5% will be charged from contributions.

In Estonia, in addition to depository and central register administration fees, there are supervisory fees and guarantee scheme contributions that cover up to EUR 10,000 in case of pension fund bankruptcy. Such fees do not exist in Latvia or Lithuania.

There are no guarantees on the rate of return of pension funds in the Baltic states and no indexation against inflation.

The Estonian pension funds system is totally based on a private infrastructure, and this is reflected in the fees structure. In Latvia and Lithuania, some pension funds infrastructure costs are partly financed by governments.

3. Corporate governance

The Baltic corporate world was shaped by two complementary processes: disorganization and privatization. These processes created preconditions for establishing a new type of company management boards. Privatization and FDI help to put more foreign management expertise into companies. A consequence is that the legal background of corporate governance in the Baltics reflects different influences, representing a mixed system compared to major systems of corporate governance.

3.1. *First stage: disorganization, privatization and the foreign experience of corporate governance*

Disorganization is defined as the breakdown of economic relations of an old regime, relations that cannot be replaced overnight by new ones. The main concept underlying this view is “specificity” in economic relations between

firms. The period of central planning was one of extreme specificity, as firms were locked in relationships with a small number of other firms, in many cases with only one. Firms did not need to accumulate information on other firms and had no information on their customers' ability and willingness to pay. Production chains linked firms to several suppliers, depending on the complexity of production (higher complexity implies a larger number of inputs). In the decentralized system, prices are set through a bargaining process. Customer firms, generally state enterprises at the start of reforms, make an offer price to their suppliers. If the price is below the reservation price of the supplier (the outside option for the supplier), the latter does not provide inputs to the state firm and, thus, output falls. Assuming strong complementarities in production, even the lack of one input implies the impossibility to produce.

It took from two to five years for the Baltic countries to find new suppliers and new markets for their products. After the initial collapse of foreign trade in early 1990, exports in both goods and service have recovered well. Since the start of the transition in 1990-91, Baltic trade has changed direction dramatically. Europe has become the Baltics' trading partner, as the collapse of trade with Russia and the other FSU countries was replaced by exports to new countries. In 1996, over 51% of Estonia's exports, 44% of Latvia's, and 33% of Lithuania's went to EU countries, compared to almost none at the start of the transition. In 2002, all the exports of the Baltic countries made up more than 50% of total exports to the EU.

The trading pattern in products has changed gradually. Initially, the Baltic states with EU countries exchanged raw materials – their own, such as wood, or re-exported materials, such as petroleum and metals – for machinery and other consumer goods. Trade related to the processing of goods, such as textiles and clothing made from EU raw materials, has emerged in all three countries. In addition to textiles, various machinery products are now processed in Estonia, Latvia and Lithuania, exploiting their low-cost but highly skilled labor force. With the gradual increase in real wages and productivity, the trade structure is gradually moving toward that of industrial countries.

Exports from “old industries” (food, textile, machinery) have recovered, suggesting that restructuring took place during transition, and that preceding market links and know-how were exploited. Restructured “old industries” are still at the heart of export-oriented industry. The share of “new industries” (telecommunication, biotechnology, software) has begun to slowly increase.

The changes in supplies, customer numbers and a reorientation of the import-export flow have made management more complex, providing the

background for changes in corporate governance practices and the establishment of new boards of management.

Initial approaches to privatization were shaped significantly by political considerations. In the region, two approaches prevailed on how to handle privatization. In one, large-scale privatization was built on voucher-based programs and generous concessions made to insiders (existing managers and workers) as a way to ensure support for continued reforms.

The second approach focused on economic factors. This form of privatization, which has clearly contributed to improving the performance of enterprises, is the sale of assets to strategic investors. The first way was chosen by Latvia and Lithuania, and the second by Estonia.

For instance, the slower, more individualized (by firm) Estonian approach appears now to have been more successful than the more rapid Lithuanian voucher scheme. The improvement in post-privatized company governance is being driven largely by the changing behavior of controlling shareholders and managers, who are beginning to act in ways that increase share values rather than to strip corporate assets and income for private gains.

The key to success was the higher concentration of shareholders in privatized enterprises, and foreign investors helped speed the process. In Lithuania, after mass privatization with vouchers, the concentration of shareholders took longer, delaying the restructuring of privatized companies.

The concentration of shareholders has negative consequences as well. Many privatized firms in the Baltic states were purchased by foreign investors who bought out minority shareholders, converting them into closely held companies, in many cases de-listing them from the exchanges.

Privatization left a large number of companies under the control of foreign investors while at the same time opening channels on foreign experience of corporate governance to the Baltic corporations' management boards.

3.2. Second stage: companies' capital accumulation from internal resources

A central challenge of transition is the replacement of old capital stock with new stock. Thus, new investment in physical capital represents the main engine of growth in transition economies. Enterprises can finance gross fixed-capital formation by retained earnings, by obtaining new credit or by issuing new equity or bonds on the capital markets. The two private financing sources

external to the firm (new credit and capital market financing) can be further divided by origin into domestic and foreign financing.

Corporate investment is now financed mostly through internal sources. Companies in the Baltic states put the financing hierarchy in the following order: financing internally is preferred over local bank borrowing, local bank borrowing is preferred over issuing bonds in the local capital market, and issuing bonds is preferred over issuing shares in the local market. Non-bank funding sources are not open to all companies, particularly small- and medium-sized firms.

The capital income taxation system has had considerable impact on the development of the capital market in the Baltics. A capital income taxation system is usually characterized by interest, dividends and reinvested profit tax rates. If the rates of the latter taxes differ, it means that the capital taxation system is not neutral. For example, if the tax rate on received interest is relatively lower than other capital revenues, then investors are stimulated to invest in fixed-payment financial instruments (bonds, bank deposits, etc.), instead of shares. As a result, a “shallow” capital market is developed. In other words, capital income tax rates change the relative prices at the capital market, therefore influencing the size and composition of savings and investments.

A company's profit may be divided into the profit paid to shareholders (dividend) and profit to be left in the company (reinvested profit). For example, Estonia and Lithuania applied a zero tax rate to reinvested profit. In 2001, however, this tax rate was increased to 15% in Lithuania, while remaining unchanged in Estonia. Such a fiscal policy stimulated the use by enterprises of internal financial resources, impeding the development of the capital market.

FDI into the Baltic states has been attracted by government promises of exemptions on capital income taxes and reinvested earnings taxes. These governmental regulations gave competitive advantages in local markets to companies with foreign capital. FDI also has helped to create “shallow” capital markets in the Baltic countries.

A tax system that promotes reinvestment of company profits instead of the issuance of new shares creates a lock-in effect, which is useful for established companies but encumbers new companies' financing. Thus, the capital market becomes less flexible. Such a capital market is directed more toward the past than the future, namely by supporting existing companies rather than promoting the establishment of new enterprises.

These constraints upon the development of securities markets, and the small size of the Baltic economies, help explain why deep and liquid markets for non-bank funding are not developed in the three countries.

3.3. The legal framework for corporate governance in the Baltics

The legal framework for corporate governance is easier to understand if we compare four prevailing systems (the Anglo-Saxon, Germanic, Japanese and Latin American) to the Baltic system. (Generalizations about Baltic corporate governance systems are not unreasonable, since the differences between them are minor.)

We compare the Baltic system of corporate governance to the four major systems of corporate governance on the basis of five characteristics (see Table 22):

1. The prevailing concept of the firm.
2. The board system.
3. The salient stakeholders ability to exert influence on managerial decision-making.
4. The ownership structure (concentration).
5. The extent to which executive compensation depends on corporate performance.

The prevailing company concept in the Baltic states can be characterized as institutional, as opposed to the instrumental Anglo-Saxon model, in which a firm is an instrument for the creation of shareholder wealth. In the Baltics, institutional means that members of managing bodies must be loyal to the company, but not to its shareholders. Only some companies declare an objective of seeking to benefit shareholders in their Articles of Association. Managerial decision-making is influenced by other stakeholders (mainly by creditors). A shareholder is liable for the obligations of a legal person if they appear to be due to his dishonest actions. Access to company information is rather limited. Labor law in Latvia and Lithuania is social-oriented. Minority shareholders are not sufficiently legally protected from exploitation by dominant shareholders.

Integration of the Baltic states into the EU would promote institutionalization of the concept of the company.

In general, public companies are free to choose between one-tier and two-tier boards, and most are one-tier, as in the Anglo-Saxon model. There is no legal distinction between executive and non-executive directors (as in the Latin American model). In public companies, most directors are non-executives and non-independent, being *de facto* representatives of major shareholders (as in Latin America).

The Supervisory Board (or Management Board if a Supervisory Board is not formed) is elected by cumulative voting and may be revoked by a simple majority of shareholders' votes. The Supervisory Board elects and dismisses a Management Board by a simple majority of votes (like the German model).

A Supervisory Board has a legal duty to monitor the operation of the Management Board and to advise on major policy decisions (like the German model). If the Supervisory Board is not formed, its functions shall not be transferred to other managing bodies.

The Management Board must resign if a general meeting of shareholders does not approve its report on the company's activities. There are restrictions on interfering with the shareholders' meeting.

In the Baltic companies, salient stakeholders are able to exert influence on managerial decision-making. Managers can influence companies without major shareholders. Employees are not institutionalized, unlike in the German approach.

Due to the limited market, a single larger customer/supplier is often able to influence a company's policies.

Because of limited participation of the banks in non-financial institutions limited by the laws, they may exert influence while granting loans. According to the law, a company's future activities (investments, reorganization, money lending, etc.) must be consistent with creditors' interests. This trend is closely related to bank lending and bond market development.

The significant rise in market concentration has stimulated the formation and development of various corporate groups, and increased their importance to corporate governance. Legalized lobbying may increase its dominance in the future.

Generally, concentration of ownership means that nearly 70% of the outstanding shares in a public company are held by the largest three to five

shareholders or through cross-shareholding. This means that concentration of ownership is very high.

The main shareholders are national and foreign natural legal persons. The government is the main shareholder in strategic companies. Banks do not hold large blocks of shares.

Executive compensation is only moderately dependent on corporate performance. In the Baltics, performance-related executive compensation is not very common (as in the German, Latin American and Japanese systems). However, members of managing bodies may receive annual payments (bonuses) from the net profit, meaning only if the company operates successfully. Stock options plans are not used. Executives in foreign capital companies are subject to executive compensation more frequently than executives in domestic capital companies.

The legal framework for corporate governance in the Baltics is mixed, but closer to the German corporate governance model. This is consistent with a bank-based financial system.

3.4. Pension funds and corporate governance

Pension reform will mainly affect company governance through bond markets. The leverage of Baltic pension funds on company management is regulated by investment diversification requirements. The requirements on Baltic pension funds assets structure clearly shows that one pension fund will not be able to affect a company management board. Also, as a rule, there is a clear expressed intention by regulators in all the Baltic states that pension funds cannot play any role in the corporate governance of the companies in which they invest. But currently there are no explicit descriptions (proxy voting, independent directors, etc.) of such a policy because of the early stage of pension funds system development. In the future, however, several pension funds having purchased an amount of shares within the legal boundaries may, together, be able to influence a company's decision-making. In particular:

1. Pension funds investments will be concentrated in companies that have achieved the best operating results.
2. The management of the best companies may be taken-over by pension funds, enhancing the financial discipline and control of these enterprises.
3. Pension funds will not fund small and medium-sized enterprises;

In the medium term perspective, pension funds investments can easily be absorbed by the Baltic fixed income securities market, and later by the IPO market, because of the small investment volume.

4. The influence of pension funds on the financial sector

The establishment of a pension fund system will *gradually* change the structure of the Baltic states financial markets and will influence companies' management.

Capital market development. Due to a high foreign capital concentration level in the real sector and a low demand for new shares emission, the capital markets of the Baltic states will expand owing to fixed income securities, as follows:

1. Pension funds will promote securities with fixed-income market development: new types of companies, and municipality (Latvia and Lithuania) and government bonds will be introduced.
2. Pension funds will lengthen the term structure of the bond market (for example, the longest term of government bonds in Lithuania and Latvia is 10 years, and in Estonia, five years).
3. If pension funds are allowed to invest a share of their assets into IPO, then their investment will raise Baltic capital markets liquidity.
4. The importance of the listing process and of stock exchanges will increase.

Commercial banks sector development. Pension funds (in Estonia and Latvia) and life-insurance companies (in Lithuania) may influence commercial banks in two markets: the savings and loans markets. The impact of pension funds savings on the market is expected to be as follows:

1. Mandatory accumulated pension funds and life insurance companies will increase the amount of deposits in commercial banks, as the first ones shall have to keep a share of liquid assets in the form of bank deposits. In other words, compulsory saving will not cut down the number of deposits, as current contributions will be redistributed from Pillar I into Pillar II.
2. Pillar III, or voluntary pension accumulation, will reduce the amount of bank deposits, as accumulated or future savings will be distributed among the banks and voluntary insurance pension funds and life-

insurance companies.

3. Competition in the savings market may stimulate banks to create new savings instruments for persons, such as certificates of deposit (CDs).

The expected impact of pension funds on the loans market will be as follows:

1. Pension funds will compete with commercial banks in the large enterprise financing market.
2. Competition among enterprises in the bond market and commercial banks loans market may reduce interest rates. As a result, due to decreased income from interests, bank profitability may decline.
3. Due to increased competition between pension funds and life insurance companies, the quality of commercial banks' loans portfolio may deteriorate.

Pension funds will put pressure on the commercial banks sector only in the long-term perspective.

5. Economic growth and governmental policies toward pension funds role

Economic growth in the Baltic countries and the process of catching up with EU requirements will depend on continued high investment and rapid technological change and may be associated with sizable domestic savings-investment gaps in these countries. Growth accounting exercises suggest that increases in total factor productivity are the main explanatory variable behind candidate countries' post-transition growth performance. Given the still considerable scope for structural reforms, this situation is likely to continue. Nevertheless, gross fixed capital formation plays a major role, too.

Two major trends in the Baltic economies will have a major influence on the structure of pension funds investment strategies shaped by government regulations:

1. The size of savings-investment gap.
2. The size of current account deficits.

The Baltic countries foresee an increase in their investment-to-GDP ratios in 2002-05.

5.1. The savings-investment gaps in the Baltic states

In spite of accelerated growth, domestic savings may not keep pace with these investment needs. The establishment of the pension fund system may increase domestic savings and provide additional investment resources to prevent prospectively negative private savings-investment balances from inducing unsustainable economy-wide savings-investment gaps. Such an economic prospect and the current economic situation will affect the shape of pension funds investments regulations: the deeper savings-investment gap will push government to introduce higher restrictions on investments in foreign markets and to keep money at home.

Future growth will depend on continued high investment-to-GDP ratios. This ratio has varied from 20.3% of GDP in Lithuania to 27.3% of GDP in Latvia at end-2001. Investments levels were hit by Russian financial crises in 1998 and remain lower in Estonia and Lithuania, as they were before the crises (see Table 23).

Estonia has a good savings-investment balance. In addition to bank deposits, an institutional investors' structure that is better than in the other Baltic countries will provide additional resources for investment financing. Pension funds are small, but they will grow in the medium term. This situation may make the Estonian government more liberal toward pension funds regulations.

In Latvia, domestic savings do not fully cover increasing investments. Domestic bank deposits have increased rapidly since the beginning of 2000, and the savings rate, which fell sharply in 1999, is likely to have returned to about the same level as before. However, investments are also increasing rapidly, and the share of enterprise loans that is covered by household deposits has declined. Investments may be expected to continue favourable development in the medium term, and financing will have to continue to rely on foreign capital to some degree.

Only over the medium term, domestic savings will benefit from the introduction of a Second Pillar in the pension system. However, domestic demand for securities is still very limited, as institutional investors play a marginal role in Latvian finances. Premium income of Latvian insurance companies amounted in 2002 to 2.0% of GDP, and life insurance alone to only 0.1%. Total investments of insurance companies reached only 1.8% of GDP in 2001. Investments funds are small and comprised 1% of GDP in 2002, but they might benefit from the pension reform.

In Lithuania, the improvement of the domestic savings-investment balance is partly due to a decrease in investments. The share of gross fixed capital formation to GDP decreased from 24.3% in 1998 to a relatively low 18.8% in 2000, but rose somewhat in 2001 to 19.4% of GDP. Although the improvement of the savings-investment balance is positive, the fall in the investment ratio is worrying in light of Lithuania's long-term adjustment and growth capacities. The rate of capacity utilization rose sharply in 2000 and the first half of 2001, and unless the investment share increases, it will be difficult to realize expected growth. However, an increase of the investment share will probably result in a worsening of the savings-investment balance. In the medium term, in order to keep the investment-savings balance at sustainable levels and to allow investment to grow to levels supportive of higher growth, domestic savings will have to grow faster. The increasing volume of premium in the insurance sector will provide additional financial resources for sustainable growth. The savings-investment gap has narrowed and can be sustained at a higher level than now.

The establishment of the pension fund systems can increase domestic savings and provide additional investment resources.

5.2. *The current account deficit: basis for government policies toward pension funds regulations?*

The savings-investment gap is closely related to the current accounts deficit: the reduction in domestic savings must be compensated by foreign inflows. The Baltic countries persistently have large current accounts deficits.

A major macroeconomic policy challenge consists of keeping prospectively high current account deficits within the range where sound external financing can be secured. Over the years, the current account imbalances have been, as in 1998, rather large and offsetting measures, with detrimental effects on growth. In 1997-2001, average annual FDI inflows in Baltic countries ranged from 8.2% of GDP in Estonia and 4.5% of GDP in Lithuania to 3.4% of GDP in Latvia. However, as the privatization process is coming to an end in Estonia and Lithuania, current account deficit financing may have to rely increasingly on debt-creating, more short-term, and easier-to-reverse capital inflows. One major policy challenge is, therefore, to further improve the business environment in order to attract non-privatization-related FDI. In the long term, pension funds money can help replace part of FDI.

To the extent that there is a lack of domestic bank and non-bank intermediation of domestic and foreign funds, direct foreign financing of companies plays a major role in some Baltic countries. This may substantially

increase the foreign debt burden of companies and potential external vulnerabilities of the countries in question. In the short run, this situation can strengthen governments' conviction to keep pension funds at home.

The complete liberalization of capital markets could exacerbate potential vulnerabilities if capital inflows should be poorly intermediated by the domestic financial sector and/or exceed the absorption capacity of the economy. Experience shows that some of these capital inflows will be more short term and more reversible and, hence, very sensitive to macroeconomic and structural policy stances. *The capital liberalization process will be completed upon accession, given that the Baltic countries as accession countries have not requested any transition periods in relevant areas.*

In the medium term there are more arguments for, than against, governments keeping pension funds money at home as "stabilization funds", and putting restrictions on investments in foreign markets or providing more valuable securities, such as government indexed bonds.

Conclusions

All three Baltic states have introduced pension funds as part of the partial privatization of the state pension system. In Lithuania, the pension system reform began with the implementation of the voluntary Third Pillar in 1999, and of the quasi-compulsory Second Pillar in 2002. In Estonia and Latvia, three-pillar pension systems were established. These systems are based on individual capitalisation accounts managed by private pension fund managers. The Latvian State Treasury, however, was the only Pillar II asset manager from 1 July 2001 to 31 December 2002.

Rules of the game depend on needs. Regulations on pension funds in the Baltic states reflect policy-makers' attention to the problems of the early stage of accumulation of the private pension pillar: putting Pillar II infrastructure in place, introducing capital and competence requirements for asset or fund managers, establishing reporting requirements to the supervisory institutions system, giving quantitative guidance for pension fund investments, regulating advertising costs, etc. Some problems, such as establishing an annuities system, were put off for later. Because of the negligible size of the pension funds industry and their lack of influence on corporate governance for now, the policy-makers did not describe in detail the relations between pension funds and company governance. They simply set out basic principles in the regulations. This problem will be addressed later, and regulations will be extended. In the future, the development of the financial and pension funds system in the Baltics will also be shaped by EU legislation and the EU integration process.

The pension fund systems in the Baltics have been operating only a few years. The mandatory pension funds have collected about EUR 45 million of contributions. In the medium-term perspective, the pension funds investments can be easily absorbed by the Baltic fixed income securities market, and later by the IPO market, because of the small volume of investments. In the longer term, the pension funds can help close the savings-investment gap and promote economic growth. One major concern is the high concentration of the financial sector. A handful of international financial conglomerates own local banks, insurance companies and pension fund managers. Pension fund and financial regulations must be tailored to this industry structure, where conflicts of interest may be rife.

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TABLES

Table 1 Application of the OECD Pension Plan Taxonomy to Baltic Countries

	Estonia	Latvia	Lithuania
Social security	Yes	Yes	Yes
Personal, mandatory plan	Yes	Yes	No
Personal, voluntary plan	Yes	Yes	Yes

Table 2 Structure of Insurance Markets in the Baltic States, 1999-2002

	1999	2000	2001	2002
Estonia:				
insurance penetration, per cent	1.8	1.9	2.0	2.0
incl. life insurance, per cent	0.3	0.4	0.4	0.4
number of non-life insurance companies	11	8	8	8
number of life-insurance companies	6	6	6	5
total number of insurance companies	17	14	14	13
total number of gross written premiums, EUR million	83.3	97.7	114.2	138.2
including life-insurance contributions, EUR million	12.5	17.6	21.7	28.5
Latvia:				
insurance penetration, per cent	2.4	2.2	2.0	2.0
incl. life insurance, per cent	0.15	0.10	0.06	0.08
number of non-life insurance companies	19	17	15	14
number of life-insurance companies	8	8	6	6
total number of insurance companies	27	25	21	20
total number of gross written premiums, EUR million	145.4	147.1	150.0	158.9
including life-insurance contributions, EUR million	11.2	6.7	5.2	6.5
Lithuania:				
insurance penetration, per cent	1.0	0.9	1.0	1.5
incl. life insurance, per cent	0.17	0.17	0.19	0.26
number of non-life insurance	27	22	22	22

	1999	2000	2001	2002
companies				
number of life-insurance companies	5	5	9	9
total number of insurance companies	32	27	31	31
total number of gross written premiums, EUR million	100.7	110.8	125.4	214.6
including life-insurance contributions, EUR million	18.1	18.8	23.8	40.3
Baltic States:				
total number of gross written premiums, EUR million	329.4	355.6	389.6	511.7
including life-insurance contributions, EUR million	41.8	43.1	50.7	75.3

Source: Estonian Insurance Supervisory Authority; Financial and Capital Market Commission (Latvia); State Insurance Supervisory Authority (Lithuania).

Table 3 Investments Structure of the Baltic States Life Insurance Companies, %

	Estonia	Latvia	Lithuania			
	2001	2002	2001	2002	2001	2002
Bonds, fixed-income securities	43.1	59.4	41.0	54.0	80.1	89.1
Shares, other variable-yield securities	23.5	11.2	15.0	13.0	1.7	1.0
Real estate	2.0	1.0	4.0	1.0	1.5	0
Deposits with credit institutions	30.8	24.7	25.0	23.0	11.2	4.9
Investment shares in investment pools	0	0	9.0	6.0	0	4.0
Mortgage loans	0	0	1.0	0	0.7	0
Cash	0	0	0	0	4.4	0
Other investments	0.6	3.7	5.0	3.0	0.4	1.0
Total investments	100.0	100.0	100.0	100.0	100.0	100.0

Source: Estonian Insurance Supervisory Authority; Financial and Capital Market Commission (Latvia); State Insurance Supervisory Authority (Lithuania).

Table 4 Geographical Breakdown of Life Insurance Companies' Investments, 31 December 2002, %

	Estonia	Latvia	Lithuania
Local market	n.a.	98 %	87 %
Foreign markets	n.a.	2 %	13 %

Source: Estonian Insurance Supervisory Authority; Financial and Capital Market Commission (Latvia); State Insurance Supervisory Authority (Lithuania).

Table 5 Five Largest Life Insurance Groups in the Baltic Countries

Life insurance company	Group	Country
Latvia(Latvia) Lietuvos draudimo gyvybės draudimas (Lithuania)	Codan	Denmark
Hansapanga Kindlustus (Estonia)	Swedbank	Sweden
ERGO Elukindlustus (Estonia) Ergo Latviadziviba (Latvia) Ergo Lietuva Gyvybės draudimas (Lithuania)	Alte Leipziger Europa	Germany
Uhispana Elukindlustus (Estonia) VB Gyvybės draudimas (Lithuania)	SEB	Sweden
Seesam Elukindlustus (Estonia) Seesam Life Latvia Seesam Lietuva Gyvybės Draudimas (Lithuania)	Pohjola Group	Finland

Source: Estonian Insurance Supervisory Authority; Financial and Capital Market Commission (Latvia); State Insurance Supervisory Authority (Lithuania).

Table 6 Three Biggest Banks in Each Baltic State

Baltic State	Bank	Group	Country
Estonia	Hansabank Eesti Ühisbank Nordea Estonia	Swedbank SEB Nordea	Sweden Sweden Sweden/Finland
Latvia	Parex Bank Unibank Hansabank	Parex SEB Swedbank	Latvia Sweden Sweden
Lithuania	Vilniaus Bankas Hansabankas NORD LB/Lietuva	SEB Swedbank NORD LB	Sweden Sweden Germany

Source: Bank of Estonia; Bank of Latvia; Bank of Lithuania.

Table 7 The Baltic Stock Markets, 1996-2002

	1996	1997	1998	1999	2000	2001	2002
Tallinn Stock Exchange (Estonia)							
Stock market capitalization to GDP (%)	15	20	11	37	36	28	34
Stock market capitalization (EUR million)	508	837	531	1,809	1,982	1,687	2,315
Stock market turnover (EUR million)	147	1,396	853	286	352	262	266
Stock market turnover to capitalization (%)	29	167	161	16	18	16	11
Number of stock listed (end of period)	8	22	25	23	20	16	14
Riga Stock Exchange (Latvia)							
Stock market capitalization to GDP (%)	3.0	6.1	6.3	5.9	8.0	9.3	8.0
Stock market capitalization (EUR million)	122	303	341	368	623	782	644
Stock market turnover (EUR million)	10	74	61	40	302	184	167
Stock market turnover to capitalization (%)	8	24	18	11	49	24	26
Number of stock listed (end of period)	34	50	69	68	63	63	62
Vilnius Stock Exchange (Lithuania)							
Stock market capitalization to GDP (%)	15	23	28	30	27	22	20

	1996	1997	1998	1999	2000	2001	2002
Stock market capitalization (EUR million)	946	1,950	2,681	3,000	3,285	2,943	2,917
Stock market turnover (EUR million)	n.a.	n.a.	198	290	219	235	188
Stock market turnover to capitalization (%)	n.a.	n.a.	8	10	7	8	6.5
Number of stock listed (end of period)	460	607	60	54	54	49	46

Source: Tallinn Stock Exchange; Riga Stock Exchange; National Stock Exchange of Lithuania.

Table 8 Debt Securities Market in the Baltic States, 2001-02

	Estonia	Latvia	Lithuania			
	2001	2002	2001	2002	2001	2002
Debt market capitalization to GDP	5 %	3 %	5 %	5 %	4 %	7 %
Debt Market:	EEK 4,387 m	EEK 3,176 m	LVL 306m	LVL 357m	LTL 3,045 m	LTL 3,408 m
Government Debt Market	11 %	4 %	83 %	82 %	92 %	94 %
Municipal Debt Market	7 %	3 %	0 %	0 %	0 %	0 %
Corporate Debt Market	82 %	93 %	17 %	18 %	8 %	6 %
Debt market capitalization (calculated in EUR)	EUR 281m	EUR 203m	EUR 471m	EUR 549m	EUR 883m	EUR 988m
Debt market turnover (calculated in EUR)	EUR 106m	EUR 287m	EUR 652m	EUR 291m	EUR 290m	EUR 399m
Debt market turnover to capitalization	38 %	141%	138%	53 %	33 %	40 %

Source: Tallinn Stock Exchange; Riga Stock Exchange; National Stock Exchange of Lithuania.

Table 9 Bond Markets in the Baltic States, 31/12/2002-31/3/2003

	Estonia	Latvia	Lithuania			
	31 12 2002	31 03 2003	31 12 2002	31 03 2003	31 12 2002	31 03 2003
Government Debt Market						
by currency:						
foreign	EUR 100m	EUR 100m	EUR 425m	EUR 425m	EUR 1,425m	EUR 1,575m
local	EEK 120m	EEK 120m	LVL 293m	LVL 336m	LTL 3,203m	LTL 3,480m
by maturities in local currency:						
< 12-month	25 %	25 %	37.5 %	22.1 %	37 %	30 %
1-3 years	50 %	50 %	20.8 %	18.2 %	29 %	38 %
3-5 years	25 %	25 %	41.6 %	43.8 %	23 %	22 %
5-10 years	0%	0%	0 %	15.9 %	11 %	10 %
Municipal Debt Market						
local currency	EEK 96m	EEK 109.6m	0	0	0	0
Corporate Debt Market						
by currency:						
local	EEK 2,960m	EEK 2,790m	LVL 64.2m	LVL 71.2m	LTL 204.8m	LTL 205.2m
foreign	0	EUR 300m	0	0	EUR 40m	EUR 26m
	0	0	0	0	USD 12m	USD 12m
Number of issues	39	39	12	13	8	8

Source: Tallinn Stock Exchange; Riga Stock Exchange; National Stock Exchange of Lithuania.

Table 10 The International Ratings of the Baltic States' Debts

	Estonia	Latvia	Lithuania			
	Long- term foreign currency debt rating	Long- term local currency debt rating	Long- term foreign currency debt rating	Long- term local currency debt rating	Long- term foreign currency debt rating	Long- term local currency debt rating
Standard & Poor's	A-	A-	BBB+	A-	BBB+	A-
Moody's Investors Service	A1	A1	A2	A2	Baa1	Baa1
Fitch IBCA	A-	A+	BBB	A	BBB	A-

Table 11 The Baltic States' Financial Sector Structure (% of GDP)

	Estonia	Latvia	Lithuania			
	2001	2002	2001	2002	2001	2002
Assets of:						
Commercial banks	70	77	77	85	32	34
Insurance companies	2	2	2	2	1	2
Leasing and factoring companies	15	20	6	5	3	4
Investments holding companies	3	4	0	1	0	0
Capitalization of:						
Listed stocks	28	34	9	8	10	10
Bond market	5	3	5	7	4	7
Total	123	140	99	108	50	57

Source: Tallinn Stock Exchange; Riga Stock Exchange; National Stock Exchange of Lithuania; Bank of Estonia; Bank of Latvia; Bank of Lithuania; Estonian Insurance Supervisory Authority; Financial and Capital Market Commission (Latvia); State Insurance Supervisory Authority (Lithuania).

Table 12 Privatization of Pay-as-you-go Pension Schemes in the Baltic States

Country and first year of assets accumulation	Transfers of contributions	Rules of participation
Estonia 01 01 2003	13% health care + 20% pensions 4 % social insurance + 2 % participant	Compulsory for new employees in 2001 and born after 1983 & Voluntary for older
Latvia 01 07 2001	30.86 % pensions 2% 10% (in 2010) social insurance	Compulsory for young employees under 30 & Voluntary for 30-49
Lithuania 01 01 2004	22.5%+2.5% pensions 2.5% 5.5% (in 2007) social insurance (employees)	Voluntary for all employees without age constraints

Source: Katkus, Valdemaras, Lazutka, Romas (2002). The establishment of the pension funds system in the Baltic States, East-West Management Institute.

Table 13 Natural Person's Income Tax Privileges Under Private Voluntary Schemes in the Baltic States

	Estonia	Latvia	Lithuania
Contributions	Up to 15% of personal income is not taxed	Up to 10% of personal taxable income is not taxed	Up to 25% of personal income from salary is not taxed
Capital increase	Tax-exempt	Tax-exempt	Tax-exempt
Payments	From 0 to 10% depending on the form payment	Taxed according to the general procedure	Taxed according to the general procedure – 15%

Source: Katkus, Valdemaras, Lazutka, Romas (2002). The establishment of the pension funds system in the Baltic States, East-West Management Institute.

Table 14 National Regulations on Pension Funds (Pillar II) Portfolio, % (up to)

	Estonia	Latvia	Lithuania*
Equity	50 ¹	50	
Bonds	35	50 (corporate) No limits (if government or mortgage bonds)	No limits
Money Market instruments	25		No limits
Real Estate	10	0	No limits
Investments Funds	Set up by pension fund rules	50	0
Bank deposits	35	50	0
Loans	Pension funds are not permitted to lend, but they can borrow up to 10% of NAV in case it is allowed by the fund's rules	0	Pension funds are not permitted to lend, but they can borrow up to 10% of NAV in case it is allowed by the fund's rules
Derivatives	10	Assets may be invested in derivatives only for the purpose of hedging foreign exchange risk	Assets may be invested in derivatives only for the purpose of hedging

Investments in the units of other investment funds which may, directly or through other investment funds invest in shares are also considered as investments in shares;

*Regulations under discussions.

Table 15 Other Regulations of Pension Fund Assets (Pillar II) in Baltics, % (up to)

	Estonia	Latvia	Lithuania*
Minimum diversification requirements	35 (state bonds) 5 (bank deposits) 5 (shares) 5 (bonds) 2 (real estate) 5 (investment fund)	35 (government securities) 15 (bank deposits) 5 (shares) 10 (corporate debt securities) 25 (mortgage bonds) 5 (open-end investment fund units)	35 (government securities) 20 (bank deposits) 5 (shares)
Self-investments	5	Not allowed	Not allowed
Currency matching limits	30 No limits for Euro and EEK	70	No limits
Direct limits on foreign investments	No limits	15	No limits
Allowed investments countries	OECD EEA The share of investments made in other countries should not exceed 30% of the market value of the fund's assets	OECD EU EFTA Baltic States	Preferable OECD, but in principal no strict limitations

*Regulations under discussions

Source: National Stock Exchange of Lithuania; Estonian Insurance Supervisory Authority; Financial and Capital Market Commission (Latvia); State Insurance Supervisory Authority (Lithuania).

Table 16 Contribution Rate for Pension Insurance, %

Year	Estonia	Latvia	Lithuania			
	Pillar I	Pillar II	Pillar I	Pillar II	Pillar I	Pillar III
2001	20	-	18	2	19.6 ¹	-
2002	16	4 + 2	18	2	19.6	-
2003	16	4 + 2	18	2	19.6	-
2004	16	4 + 2	18	2	17.1	2.5
2005	16	4 + 2	18	2	16.1	3.5
2006	16	4 + 2	18	2	15.1	4.5
2007	16	4 + 2	16	4	14.1	5.5
2008	16	4 + 2	12	8	14.1	5.5
2009	16	4 + 2	11	9	14.1	5.5
2010	16	4 + 2	10	10	14.1	5.5

Table 17 The structure of II pillar in the Baltic States, April 1, 2003

Country	Asset or Fund Managers	Investment Plans or Funds	Accumulated Assets, EUR million	Members of II Pillar
Estonia	6	15	19.3	213,596
Latvia	6	12	26.2	374,647
Lithuania	-	-	-	-

Source: Estonian Insurance Supervisory Authority; Financial and Capital Market Commission (Latvia);

Table 18 Pillar III Structure in the Baltic States, 31 December 2002

Country	Asset or Fund Managers	Investment Plans or Funds	Accumulated Assets, EUR million	Members of Pillar III
Estonia	4	4	4.02	2,400
Latvia	4	9	23.30	20,064
Lithuania	-	-	-	-

Source: Estonian Insurance Supervisory Authority; Financial and Capital Market Commission (Latvia);

Table 19 Structure of Pillar II and Pillar III Pension Funds in Estonia and Latvia (31 December 2002), %

	Estonia	Latvia		
	Pillar II	Pillar III Pillar	II Pillar	III Pillar
Cash and bank accounts	13,1	12,1	0	1
Term deposits	0,9	3,8	25	34
Equities	8,8	18,9	0	6
Fixed income bonds	58,7	52,1	75	57
Commercial papers	0,9	10,0	0	0
Other funds' units	17,4	2,9	0	0
Other	0,1	0,3	0	2
Total:	100,0	100,0	100,0	100,0

Source: Estonian Insurance Supervisory Authority; Financial and Capital Market Commission (Latvia);

**Table 20 Geographical Breakdown of Pension Funds Investments
(31 December 2002), %**

	Estonia	Latvia		
	Assets of Pillar II	Assets of Pillar III	Assets of Pillar II	Assets of Pillar III
At Home	31.4	61.6	100.0	88.0
Abroad	68.6	38.4	0	12.0
Total	100.0	100.0	100.0	100.0

Source: Estonian Insurance Supervisory Authority; Financial and Capital Market Commission (Latvia);

Table 21 Fee Structure of Pillar II in the Baltic States

	Estonia	Latvia	Lithuania*
Redemption fee	max: 1%	No fee	max: 10%
Entry fee	max: 3%	No fee	max: 2%
Management fee	max: 2% of NAV	No max regulations. In practice 0.85%- 1.93% of NAV	max: 1%

Source: Estonian Insurance Supervisory Authority; Financial and Capital Market Commission (Latvia);

* Projects.

**Table 22 Baltic System of Corporate Governance in Correlation with Major
Systems of Corporate Governance**

	Anglo- Saxon	Germanic	Japan	Latin	Baltic
Concept of firm	Instrumen- tal	Institutional	Institutional	Institutional	Optional, institutional oriented
Board system	1-tier	2-tier	3-tier	Optional	Optional in general 1- tier
Salient stakeholders	Sharehold- ers	Banks / employees	Banks / employees	Financial holdings; government families	Stake- holders
Ownership concentra- tion	Low	Moderate / Low	Low/Moder- ate	High	High
Executive- compensa- tion	High	Low	Low	Moderate	Moderate

Table 23 Investment and Savings in the Baltics (1998-2001)

	1998	1999	2000	2001
Estonia				
-5 Investment in real sector (in % of GDP)	29.6	24.9	25.5	26.1
-6 Deposits (in % of GDP)*	26.3	30.0	34.5	38.8
Latvia				
-7 Investment in real sector (in % of GDP)	27.3	25.2	26.5	27.3
-8 Deposits (in % of GDP)	16.2	15.9	19.5	22.2
Lithuania				
-9 Investment in real sector (in % of GDP)	24.3	22.1	18.5	19.4
-10 Deposits (in % of GDP)	12.8	14.6	17.2	20.3

*Domestic non-bank clients' deposits

Source: N° 11 - November 2002, Update of the Report on Macroeconomic and Financial Sector Stability Developments in Candidate Countries, Directorate General for Economic and Financial Affairs

PRIVATE EQUITY IN THE BALTICS: WHAT ROLE FOR PENSION FUNDS?

Sigita Strumskyte

Abstract

A key policy goal in the three Baltic countries is to bridge the productivity gap with Western Europe. This requires increased investments into corporate innovation and efficiency enhancement. While reinvested profits and bank credit will continue to be their primary source of funds, Baltic companies will find it desirable to diversify their financing instruments. Governments in the region expect that the recently introduced mandatory pension funds will eventually play a major role in the financing of private sector growth. Following the experience of some OECD countries, private equity may be an attractive vehicle to channel pension funds money into innovative firms. To do so, government policy could act as much on the supply as on the demand side by improving information flows between investors and investees, streamlining tax policy as well as adapting relevant pension fund regulations.

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Introduction

Pension reform in the three Baltic countries, like in most other Central and Eastern European countries, has involved the introduction of mandatory pension funds. In the short term, the fiscal costs of the transition from a pay-as-you-go to a funded system may crowd out pension fund investment in the private sector. However, governments in the region rightly expect that these funds will eventually play a major role in the financing of the private sector. They may seek inspiration in the experience of some OECD countries such as Australia, Canada and the United States, where pension funds are playing an increasingly important role in the financing of new ventures and helping to develop innovative technologies.

The private sector - and in particular newly created small-medium sized enterprises (SMEs)¹ - have been a powerful engine of growth in the Baltic countries by constantly outperforming privatised and restructured enterprises in terms of productivity, which in turn by far outperformed old enterprises (World Bank, 2002). SMEs are expected to play a central role in the common European market into which these countries will be integrated. High investment rates in these companies will be required over the coming years in order to bridge the productivity gap with Western Europe.

Finance will be of a great importance in this process. The European Observatory of SMEs survey results for 1999 and 2001 (EC, 2002) indicate that about 15 % of small firms² in the European Economic Area and Switzerland feel that finance is the major constraint to the development of their business. Moreover, in a survey carried out by Eurostat (2002), respondents, accounting for 28% of medium-sized firms and 22% of large firms, reported that a shortage of finance is holding back innovation in their enterprises³. Access to finance, therefore, seems to be a key factor determining the feasibility of corporate innovation and productivity enhancing investment. It is, therefore, crucial to consider ways to improve capital markets in the Baltics if these countries are to reach Western European levels of development.

It is often argued that to secure an adequate supply of capital to companies, countries should develop liquid capital markets with publicly traded securities as a culmination. The Baltic markets are far behind in achieving this goal: currently there are only 3 companies on the official list of the Riga Stock Exchange (RSE), and 6 in both the Vilnius Stock Exchange (VSE) and the Tallinn Stock Exchange (TSE). The two largest listings in Estonia (Hansapank and Eesti Telecom) account for around 70% of annual trade on the Baltic list. This may question whether the Anglo-Saxon model of financing companies

through dispersed public ownership and frequent trading is applicable to the Baltic markets, where most of companies fall under the international definition of SMEs. Instead, it is possible that efforts to improve access to finance for SMEs and, as a result, contribute to the economic growth, should be focused on the development of other financial instruments, such as private equity.

The goal of this paper is to assess the feasibility of developing a private equity market in the Baltics and of attracting the recently established mandatory pension funds as the primary source of finance. Section 1 presents the industrial landscape in the Baltics, the key features of the institutional environment, and the main sources of company finance. Section 2 discusses which financial instruments might be suited best to maximise the growth of the firms given available sources and taking into account global trends. It considers the potential role that pension funds and other institutional investors can play in the provision of company finance and their role is compared with that of banks, the traditional providers of external financing to companies in the Baltics. Section 3 provides some guidance to develop a better business and institutional environment in which private equity can thrive providing capital for firms' growth and channelling pension funds money into profitable investments.

1. Potential for company growth

1.1 A stable macroeconomic environment

The Baltic states have small economies that during the past decade and especially the last few years have shown healthy economic development. In 2002, Estonia's GDP was EUR 6.8 bln (EUR 4 857 per capita), Latvia's GDP was EUR 8 bln (EUR 3 333 per capita), and Lithuania's GDP was EUR 14.7 bln (EUR 4 200 per capita). Despite poor global economic conditions in 2002, the Baltic states recorded the highest growth rates in Europe - 5.5% in Latvia, 5.7% in Estonia and 6% in Lithuania (EBRD, 2002) - and these rates are expected to stay at similar or even higher levels over the next few years, according to the EIU 2003 country reports.

These high growth rates seem sustainable as inflationary pressures are well under control in all three countries. In 2002, the inflation rate was 2.7% in Estonia, 1.4% in Latvia, and close to 0% in Lithuania. Inflation has rapidly converged to euro levels - a practical consequence of the currency board regimes that the Baltics introduced as a nominal anchor and which they are expected to maintain until the adoption of the euro. A firm monetary policy has been accompanied by relative fiscal soundness, especially when compared to the rest of the CEE region. The Estonian government had a fiscal surplus of

1.2% of GDP in 2002, while in Latvia and Lithuania the fiscal deficits were respectively 3% and 2.1% of GDP (EIU, 2003a,b,c).

Economic performance in the Baltics is highly dependent on the external sector. Estonia's ratio of exports plus imports to GDP in 2002 was 128%, that of Latvia was 87%, and that of Lithuania was 97%⁴. The trade partners have been gradually diversified from the neighbours in the East, and now exports to the EU account for over 50% of total exports. The composition of exports, on the other hand, is still largely dominated by traditional industries, such as machinery, wood/paper and textiles. In recent years, higher value added sectors, such as telecommunications, biotechnology and software, have been gaining ground, accounting in 2001 for 19% of exports in Estonia and 3% and 5% in Latvia and Lithuania, respectively. Only Estonia, however, compares favourably with the EU average of 20% (UNDP, 2003).

One source of possible instability is the growing trade deficits, a natural consequence of catch-up growth in an open economy. All three Baltic countries have been running current account deficits over the last decade. In 2002 the deficit reached 12.6% of GDP in Estonia, 7.8% in Latvia, and 5.3% in Lithuania. These deficits were mainly covered through privatisation related FDI. Between 1997 and 2001 annual FDI flows averaged 8.2% of GDP in Estonia, 3.4% in Latvia and 4.5% in Lithuania. Due to the positive economic outlook and the lowered risk ratings for Estonia and Lithuania⁵ the Baltic region can continue to attract FDI. As the privatisation process gradually comes to a halt, however, deficit financing may have to rely increasingly on the more volatile portfolio capital. One major policy challenge is therefore to further improve the business environment to attract non-privatisation related FDI and to encourage domestic savings in order to replace part of FDI by local capital such as that of pension funds.

1.2 A slowly emerging high tech sector

In 2001, the private sector's share of GDP was 75% in Estonia, 66% in Latvia and 70% in Lithuania⁶. In all three countries the economy is dominated by the service sector, which accounted for over 65% of GDP in all three countries. Manufacturing accounts for over 20% of GDP, while less than 10% of GDP comes from agriculture (EIU, 2003a,b,c).

The average number of employees per enterprise in the Baltics is larger than in the rest of Europe, but a larger share of Baltic companies are SMEs and these account for a larger share of employees and revenues than in the average EU country (SME Observatory). Current SMEs are mainly involved in

commerce, and they are unlikely to achieve high growth rates due to small fragmented markets.

Employment in high-tech sector was still well below the EU average of 4.8% in 2000. Except for telecoms, where large companies prevail, SMEs are leading in the high tech sector. Some of the industries where SMEs have a marked presence are biotechnology and software. These are typically attractive sectors for private equity investors.

1.3 Entrepreneurship and the knowledge based economy

An entrepreneurial culture and the ease with which new companies can be set up has long been recognised as a fundamental aspect of some of the most successful OECD economies. These, in turn, depend not only on the entrepreneurial spirit of the population, but also to a large extent on the government policies towards innovation and institutional environment⁷.

The success of innovative entrepreneurship is determined to a large extent by investment in human capital and research and development (R&D). An explicit target of the Lisbon Process (March 2000), in which accession countries are already benchmarked, is to increase total expenditure on R&D in the EU to 3% of GDP by 2010. The Baltics countries are far behind this target spending an average of 0.5% compared to the EU average of about 2% in 1998-2000, and, except for Estonia, this spending is little structured (World Bank, 2003a). Receipts of royalties and license fees in 2001 were USD 0.1 per inhabitant in Lithuania, USD 0.4 in Latvia and USD 0.8 in Estonia compared to well above USD 100 per inhabitant in the United States and Western Europe (UNDP, 2003).

Human capital endowments in the Baltics are usually considered to be a competitive advantage. Labour costs are still relatively low compared to the EU⁸, while educational attainment is quite high. In 2000, the proportion of full-time employees with a university degree was 25% in Lithuania, 22% in Latvia and 17% in Estonia compared to an average 13% in CEE and 18% in Sweden (OECD, 2003). However, without increased investment into developing professional management capacity and technological education this advantage is likely to deteriorate. Some of the skills acquired before 1989 need to be upgraded to meet the needs of the market economy.

The Baltics have a substantially lower proportion of scientists and engineers working in R&D compared to advanced economies: in 1996-2000 scientists and engineers accounted for slightly over 1000 per million inhabitants in Latvia, over 2000 per million inhabitants in Estonia and Lithuania, compared

to over 4000 per million inhabitants in the United States and 5000 in Finland (UNDP, 2003). Moreover, with the eventual liberalisation of labour flows after accession into the EU, brain drain is likely to present a serious threat if these countries do not offer attractive conditions to the most qualified people.

The Baltic countries, therefore, face an opportunity and a challenge. They have the necessary basic requirements in terms of human capital to trigger sustainable growth in high technology sectors, but they lack adequate managerial training and R&D investment. Developing financial instruments like private equity that are recognised for positive spillover effects on managerial education and innovation support may help these countries capitalise their human resources into economic well-being. The introduction of performance related executive compensation and employee stock option plans could also help develop a professional management culture.

1.4 Institutional challenges

1.4.1 Legal infrastructure

Though the government has lagged behind the progress made in the private sector in developing the legal framework and institutions, the basic infrastructure for successful private and financial sector growth is in place. In Estonia and Latvia the commercial code is largely in accord with the German code and conforms to EU standards. Though Lithuania was slower in meeting the EU standards, it has also recently adopted new laws on financial institutions, foreign currency, labour, takeovers and public trading and securities, which makes capital markets more efficient and in line with the EU *acquis communautaire*.

Studies (which do not reflect enforcement standards) show that already back in 1998 the Baltics had higher levels of creditor and shareholder protection than in most of the EU countries (Pistor, 2000; La Porta et al., 1999). Recent surveys on investment climate show that investors in the Baltics come third in CEE after the Czech Republic and Hungary in their confidence degree that their contractual and property rights will be defended under the legal system (Synovate, 2003a,b).

1.4.2 Corporate governance

The Baltic countries have a low ratio of publicly to privately held firms, closer to that of small countries such as Austria or Belgium (10%) than Germany (50%) or indeed the United Kingdom (close to 100%) (La Porta et al., 1999). Ownership concentration is very high - often over 50% of company

shares belong to one largest investor - with a strong presence of financial groups. This situation has been largely determined by the privatisation-led FDI boom of the mid to late 1990s and a view of the firm that tends to put great emphasis on the balance between stakeholders, rather than being exclusively focused on maximising shareholder value.

The main shareholders are banks. In all three countries, commercial banks may establish enterprises, be co-owners or shareholders, subject to basic prudential regulations⁹. Due to the reliance on bank financing, managerial decisions are heavily influenced by them. This situation resembles that of many continental EU countries.

1.4.3 Taxation

In Estonia, corporate tax rate is 26%. In Latvia, since 2003 corporation tax has been at 19% and will be lowered to 15% in 2004. In Lithuania, corporate tax and capital gains are taxed at 15%. In Estonia and Latvia reinvested capital gains are not taxed until the actual or hidden distributions.

Some tax breaks are offered to SMEs and high tech industries. In Estonia, investments into high-tech industries are encouraged on a governmental level through the activities of the Agency of Technology of the Enterprise Estonia. In Latvia, taxes on small companies (<25 employees) will be reduced to 10% by the end of 2003. The Latvian Government also offers tax breaks for large investment projects in excess of EUR 18mln, on a case-by-case basis. In Lithuania microenterprises (<10 employees) are taxed at 13%.

The tax treatment of financial instruments tends to favour banks. In all three countries, income earned from bank deposits is tax-free. Income from interest and fees related to leasing and factoring activities is subject to VAT, resulting in double taxation of this income and, therefore, placing them at a disadvantage relative to bank financing. Private equity investors are taxed at various levels: the private equity fund itself, the investee company and the investors (through dividend and capital gain taxes).

1.5 A bank-based financial system

Bank credit is the main source of finance in the Baltics. Despite its key role and increased availability of banking services, the banking sector is still small relative to the size of the economy. At end-2001, the ratio of total banking assets to GDP was 73% in Latvia, 72% in Estonia and 32% in Lithuania, compared to the 265% of the euro banking system (IMF, 2003). In 2001, less than half of banking assets went to non-financial private sector, accounting for

27.3% of GDP in Estonia, 23.2% in Latvia and 11.5 % in Lithuania compared to 139% in the UK (World Bank, 2003b). In Estonia 41% of loans outstanding at end-2001 were real estate loans, and only 16.2% were loans to industry. In Latvia, banks primarily fund the trade sector (23%) and manufacturing (18%). Lithuanian banks provide 26% of loans to manufacturing and 24% to trade (IMF, 2003).

A heavy foreign presence is bringing about necessary improvements in management and a clear separation between shareholders and borrowers. Efforts are also well under way to modernise the supervisory framework for the banking system. A sign of improving efficiency in the Baltics' banking systems are the declining net interest margins which are down to historically low levels, though they are still higher than in most OECD countries. Latvia had the lowest margin in 2001 - 3.3% - while Lithuania and Estonia had a margin close to 4%¹⁰.

Leasing. The Baltics, in particular Estonia, experienced a surge in lease financing, with leasing often directly substituting bank loans (mainly financial leasing). It accounts for 12.7% of GDP in Estonia, 4% in Latvia and 3% in Lithuania (IMF, 2003).

Market debt. The capitalisation of bond markets in the Baltics is rather small: in Estonia and Latvia it is 5%, and in Lithuania only 4%¹¹. Only in Estonia, corporate debt instruments dominate the market (because the government is constitutionally barred from running budget deficits). Both in Latvia and Lithuania, government securities accounted for about 95% of total capitalisation at the end of 2000 (ECB, 2002).

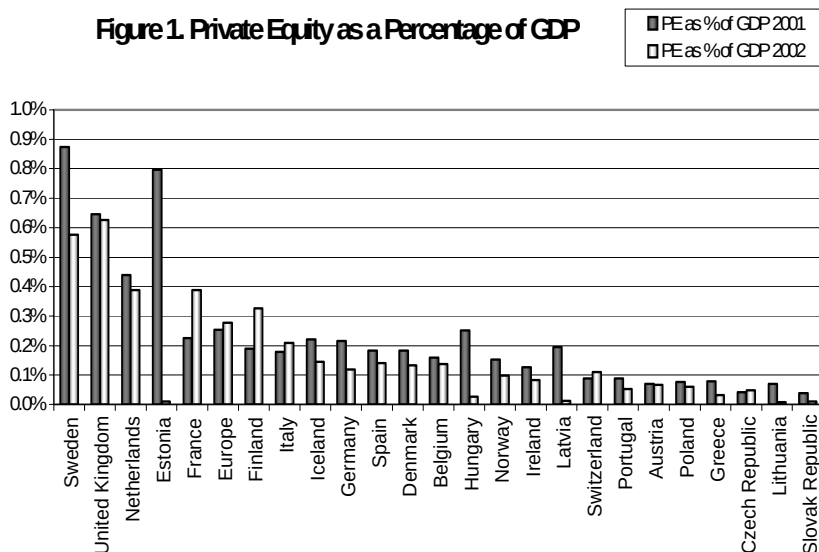
Equity markets started developing in the Baltics after the 1995 banking crises in Latvia and Lithuania. The authorities aimed at diversifying the sources of financing for firms and reducing their indebtedness. It was also believed that the creation of incorporated companies would improve corporate governance and, therefore, encourage companies to operate more efficiently. However, in reality, stock exchanges contributed less to the development of a sound financial system and economic growth than they were expected to.

The Baltic stock markets saw a rapid increase in listings and active trading early on (reaching 607 listed companies in Vilnius in 1997) but soon lost momentum. A delisting process started in the late 90s as foreign companies bought out recently privatised enterprises. There have been no new IPOs since 2000. The stock markets in 2002 looked as follows¹²:

	Tallinn	Riga	Vilnius	London
Market capitalization as % of GDP	34%	9%	25.3%	115%
Average daily turnover (EUR mln)	1.1	0.7	0.7	15 878
Nb of listed companies	14	62	46	2 272

Currently the Baltic equity markets have little short of stalled. Trading is at very low levels and dominated by the largest companies. This experience is similar to that of other CEE countries.

Private equity is rather insignificant in the Baltics as a source of company finance (see Figure 1). In 2001, Estonia received EUR 36.5 per capita of private equity investment, Latvia EUR 9.1, and Lithuania EUR 2.6 compared to an average of EUR 9.8 in CEE countries and EUR 64.56 in the EU. This totalled to EUR 51.155 mln in Estonia, EUR 21.914 mln Latvia and EUR 9.602 mln in Lithuania.



Source: EVCA, 2002a, 2003

Baltic private equity funds have almost no local capital compared to the EU funds where domestic investors provide well over 50% of capital (EVCA, 2002a, 2003). The main providers of risk capital in the Baltics are multilaterals (EBRD, IFC, EIF; US and EU institutions) and Nordic financial institutions. Such financing structure creates an unpredictable, difficult fundraising environment - foreign investors are more likely to pull out during a global

market downturn. Furthermore, few of the private equity funds that invest in the Baltics have a local presence, making the investment process inefficient.

Most private equity funds are subsidiaries of larger financial services groups – independent partnerships or common equity funds are rare. This structuring of the Baltic funds makes financing of start-ups negligible since risk is less tolerated by established parent corporations – almost 100% of investments in the Baltics go to the expansion stage (IMF, 2003). Funds in the Baltics mainly invest into common equity since other forms of equity or quasi-equity are either not allowed or not enforced by the Baltic legal system (World Bank, 2003a). In general, Baltic private equity funds rarely have a particular industry focus. For example, in Latvia in 2002 the few private equity funds with low activity mainly had real estate investments and made some small investments in the communications, services, and chemicals industries. Exits from investments tend to take place through private equity sales (mainly trade sale to a strategic investor and less often buybacks with an MBO element or sale to financial institutions) rather than IPOs¹³. Even in Estonia, the most liquid Baltic market, the local stock exchange is considered reserved for established companies.

2. Future financing sources and investment vehicles

Over the past decade economic growth in the Baltics derived mainly from a reallocation of existing factors of production - that is, increases in efficiency by restructuring the economy. This process relied more on privatisation-related investments, especially in the form of strategic investors, and internally generated financing rather than on the financial system itself. However, now that the privatisation process is almost completed, future sustained productivity growth will depend on how new technologies are being adopted. The financial system will play a central role in this regard, determining the allocation of capital in the economy. This chapter looks at the main sources of capital in the future and evaluates two key players, foreign targeted capital and local pension fund savings.

2.1 Financing sources in the future

2.1.1 Foreign capital

Joining the EU implies that accession countries will benefit from the free movement of capital by either raising it abroad through foreign issues, or by getting it in home countries from foreign investors. This should reduce financing costs, in particular for SMEs. The European Union has recently approved a simplified prospectus for new issues of less than EUR 50 000, which

will particularly benefit SMEs. Also, for bond issues in excess of EUR 1 000, the issuer can now choose the country in which the prospectus will be approved, which can then be used in any EU country. The move to adopt a common European platform for payments and settlements is expected to further reduce costs for securities transactions.

For foreign investors, the adoption of a unified framework and common enforcement rules will bring significant economies of scale in obtaining information on the small Baltic countries, and this will eliminate the risk premium caused by institutional differences. As a result, more foreign investors may invest in the Baltics, reducing the cost of capital. However, foreign portfolio institutional investors such as pension and mutual funds are likely to prefer larger, more liquid markets. To the extent that they invest in the Baltic markets, their preference will be for the more liquid, larger listings. Nonetheless, foreign institutional investors may still be attracted by already proven investments in high growth companies which private equity funds may wish to divest.

2.1.2 Local capital

As a result of the mandatory nature of the new funded pension systems, local pension funds will soon become the second most important financial institution after banks in terms of financial assets under management. The relatively low level of income implies that households are unlikely to substantially increase their voluntary savings under the third pillar. Under the second pillar, however, expected pension capital accumulation by the end-2003 is expected to reach EUR 64 mln in Estonia, EUR 50 mln in Latvia but only EUR 1 mln in Lithuania. Though it is tiny as a percentage of GDP¹⁴, it is expected to grow to over EUR 2 bln in 10 years in Latvia and Estonia and more than twice that amount in Lithuania¹⁵. Since the pension reform has taken place at a time when the domestic capital market is substantially underdeveloped, some concerns may arise over the market's ability to absorb the new funds. Pension fund investment into the stock market could put substantial upward pressure on asset prices. A lenient investment regulatory framework could help deflate these pressures by offering alternative investment opportunities to the pension funds both at home and abroad.

Foreign investment has been permitted in Estonia and Lithuania from the inception of the new pension systems. Estonia imposes no restrictions on whether the funds are invested domestically or abroad, as long as the investment takes place in the euro area. According to Lithuania's legislation, passed in 2002, pension funds will be free to invest abroad. In Latvia, on the other hand, pension fund investment in foreign assets was not permitted during the first one

and a half years of operation. Thereafter a ceiling of 15% of total assets will apply and there will also be a currency matching rule of 70%.

All three countries have limits on domestic investments by asset class, but in general they are not very restrictive (they are still under discussion in Lithuania). In Latvia, pension funds can invest in government securities, time deposits in domestic banks, mortgages, or deposit certificates. Public equity investments limits are 50% in both Estonia and Latvia. Investment in corporate bonds is limited to 35% in Estonia, and 50% in Latvia, and there are no limits on government bonds in Latvia. Portfolio allocation to investment funds is limited to 30% in Estonia, and 50% in Latvia. Also, in Latvia, pension funds can invest up to 20% of their portfolio in IPOs but this is not the case in Estonia. On the other hand, pension funds cannot invest in non-listed equity.

Baltic pension funds are also subject to diversification requirements and ownership limits. The first are limits on the percentage of a pension fund that can be invested in a single issuer or issue (5% in the equity investments in all three countries). The second are limits on the percentage of the market value of a company's debt or equity that a pension fund can own. The latter regulations can restrict the ability of pension funds to influence a company's management board and are typical in non-Anglo-Saxon OECD countries¹⁶. Their primary goal is to ensure a high degree of liquidity in pension fund portfolios. Nonetheless, such a goal may not be compatible with the needs of a small economy with an underdeveloped financial system and subject to the vagaries of volatile foreign capital. Pension funds may also miss out on investment opportunities in the high growth end of the business sector, where unlisted SMEs tend to predominate.

Other institutional investors are insignificant in the Baltics and likely to remain so in the short term. Insurance companies' assets amounted to 2.5% of GDP in Estonia, similar in Latvia, and slightly less in Lithuania at the end 2001 (IMF, 2003). Also, being more conservative even in developed countries (Thompson, 2002) they are likely to abstain from risky investments such as private equity. Total investment fund assets in the Baltics are EUR 330 mln or 1.1% of the region's GDP, 80% of which is in Estonia.

2.2 Investment vehicles

2.2.1 Debt finance

Historically bank credit has been the most important type of external financing instrument for companies in the Baltic countries. Increased competition in the banking sector as a result of entry by foreign players could

make such financing even more attractive, particularly for SMEs. Moreover, if banks in the Baltics properly adopt the Advanced Internal Rating Approach of Basel II, capital charges on SMEs could become lower¹⁷. An even greater dependence of company finance on bank credit may be welcome, as long as appropriate regulations and supervision are in place. Indeed, both market and bank-based financial systems can be conducive to economic growth. Rather than the financial structure per se, the growth channel appears to function through the overall development of the financial system and the presence of a sound legal framework, including contract enforcement and investor protection (Levine, 2002).

However, lack of diversification of financial instruments can be risky, especially if it leads to the development of monopolistic banking structures that are inefficient and expensive, and can increase the likelihood of systemic failure at times of financial fragility. In addition, in the absence of developed corporate debt markets, firms have to rely on the generally shorter term funding provided by banks. By doing so, they may either incur sizable maturity mismatches, or they may tilt their investment portfolios towards short-term projects, which may hamper growth prospects (BIS, 2002). Furthermore, banks do not tend to engage actively in improving the practices of company management. Though today many SMEs in the Baltics are well suited to bank financing (industries with low growth and predictable profit margins), bank capital is less fit for innovative start-ups that have a high, but volatile long-term potential.

2.2.2 Public equity

Stock exchanges are important financial tools in developed markets because they help allocate savings, share risks among investors, and price securities. They give publicity and a heightened profile for companies, offer them access to the public market for future capital increases and acquisitions, provide incentives for employees through stock options as well as present a liquidity exit for investors. However, there is increasing evidence that the standard paradigm of dispersed stock ownership and liquid markets do not apply equally well to all countries and all companies¹⁸.

Moreover, experience has shown that even in developed markets stock exchanges rarely impose tougher disclosure or corporate governance requirements than national law and regulations require because tough requirements and monitoring discourage firms from listing and directly hit revenues for stock exchanges. Also, majority shareholders might be interested in delisting companies if the minority shareholders become too active and their protection is enforced. Recent corporate scandals in the United States shed

further doubt on the superiority of public equity markets in terms of transparency and corporate control.

The Baltics are relatively small economies by international standards, and so are their companies. On the Baltic list, consisting of only 15 largest companies, the average capitalisation is EUR 0.2 bln compared to the average of all companies on the London Stock Exchange (LSE) of EUR 1.7 bln and the EUR 6.1 bln on the LSE international list. An ideal traded company must have turnover big enough to have credibility with potential investors and be able to present a convincing future growth story. In the Baltics, except for a handful of big players, most companies are likely to remain local SMEs or limited niche players.

Due to the narrow investor class and the relatively small size of companies, market liquidity is likely to remain low. The small size of the majority of Baltic companies does not allow them to gain necessary economies of scale to be listed¹⁹. Further, a small number of companies listed does not allow the brokerage community and the financial press to reach economies of scale in conducting regular research on listed companies and to provide adequate coverage. As a result, the flow of information to investors that creates an interest is very limited and shares cannot be actively traded. In turn, foreign investors are shunned off from these markets, preferring instead the larger, more liquid emerging markets. This vicious circle is compounded by high ownership concentration in the Baltics, which discourages outside investors afraid of being exploited by insiders. Finally, relative deficiencies in innovative financial products and advanced credit rating services consequent of small market size will also deter larger and more sophisticated investors from small exchanges.

Given these prospects, the move to some degree of consolidation in stock markets may be welcome. Consolidation will benefit large corporations with a global orientation, who will have greater access to pools of capital in international exchanges. The EU integration comes as a solution to the Baltic Exchanges by accelerating this process. In 2001, the HEX acquired a majority stake in TSE and in 2002 in RSE. After OM AB joined HEX, OM HEX will integrate Nordic and Baltic markets for listing, trading, clearing, settlement and the securities depositary. The VSE is expected to be privatised soon and will join Euronext via the Warsaw Stock Exchange. Listing on international exchanges will give Baltic companies additional benefits such as more liquidity and more credibility with investors. However, companies need to assess carefully the costs of listing abroad.

The development of pension funds could help improve liquidity in the integrated Baltic Stock Exchanges through their trading strategies. The pension

fund industry in small countries, however, tends to be highly concentrated, and there is a high degree of herding in investment strategies which may increase volatility. Nonetheless, in Latvia, where workers will be able to choose investment portfolios, the right conditions may be created for a market with a large number of small investors, with differentiated opinions, and hence more market trading.

2.2.3 Private equity

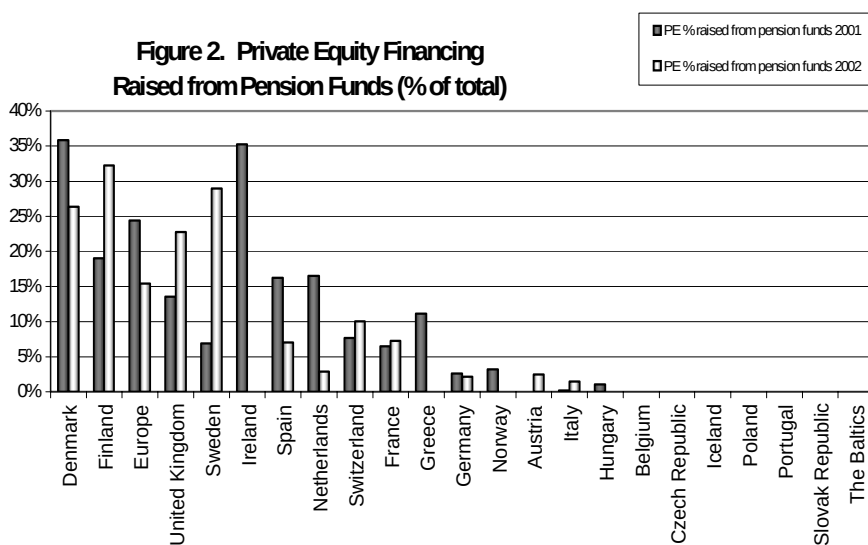
In the absence of developed public markets the long-term capital needed for companies to grow could be obtained through private equity. Private equity tends to require concentrated ownership structures that reduce agency costs for controlling shareholders and therefore lead to more effective monitoring of company management. Private equity is also an efficient business solution since it provides new businesses with strategic advice, management ideas and employee training while larger businesses can solve through it the issues of strategic fit, succession difficulties, or spin-offs without destroying value. Regardless of economic cycle, private equity helps to restructure the economy, leading to better than average performance and competitiveness, and increased employment²⁰.

Today in the Baltics, lack of strong demand for private equity is one of the major obstacles for the development of the industry. Only a few high tech companies in the Baltics are benefiting from investment by private equity funds. Similar to other European countries the main recipients of these funds are later stage projects, particularly in the common goods and industrial products sectors. This situation contrasts with the United States, where most venture capital is channelled into high tech. A broader role for private equity could be envisaged for early stage projects in the Baltics.

Lack of funding sources in the Baltics is another reason for underdeveloped private equity finance. For foreigners, the main impediment to invest in the Baltic private equity is the small size of countries, which makes the cost of obtaining information too high. The low liquidity of secondary markets and the last financial crisis have also helped to keep investors away from new markets. Though foreigners might eventually come into the markets after the Baltics join the EU, the presence of domestic sources makes fundraising more predictable since local venture capitalists understand better the local investment environment as well as investment strategies, and it is easier to forge relationships with local fund managers. Therefore, the development of domestic risk capital sources will be crucial in boosting the Baltic private equity market and, together with it, technological innovation and economic growth.

The experience from the OECD countries shows that pension funds can have a positive effect on the development of the private equity industry boosting fundraising²¹ and shifting investment strategies towards early stage projects. The most important source of private equity finance in the United States in 1995-2000 were pension funds accounting for 46.7% of the total (Thompson, 2002). In other Anglo-Saxon countries such as Australia, Canada, New Zealand, and the United Kingdom, pension funds accounted for between one third and one half of the total funds raised for private equity between 1995 and 2000.

In Europe, on the other hand, banks have historically played a more important role, and private equity capital raised from them accounted for 26.3% of the total in Europe in 2002. Except for 2001, when pension funds overtook banks, the share of private equity raised from pension funds' is rather small and volatile in the majority of European countries (See Figure 2). A possible explanation for the bias towards later stage investment in Europe may be the bigger role played by banks, who tend to be subject to stricter investment regulations than pension funds. Moreover, the private equity operations of banks tend to be more attracted to buyouts and investments close to the IPO stage, since they generate related revenues for the banking group through traditional capital market transactions (Thompson, 2002).



Source: EVCA 2002a, 2003

The lesser role played by pension funds in European private equity market cannot only be explained by the size of the pension fund industry. In countries such as the Netherlands and Switzerland the pension fund industry is as developed as in Anglo-Saxon countries (pension fund assets represent over 110% of GDP), yet pension funds accounted for less than 12% of total funds raised in 2002.

Part of the explanation for the limited interest among pension funds in these countries may be solvency regulations that force pension funds to maintain a high degree of matching between their assets and liabilities and to correct any underfunding situation in a relatively short period (Thompson, 2002). In fact, in these countries pension funds are regulated in a similar way as insurance companies. In the Netherlands, pension funds are required to maintain a buffer above their technical provisions for equity investments, including private equity. Funding rules are also present in Anglo-Saxon countries, but in general there is much more flexibility in cases of underfunding and no additional capital requirements are applied on equity investments. Nonetheless, some observers consider that minimum funding standards may reduce the attractiveness of private equity for pension funds. In the United Kingdom, these rules have been heavily criticised for their likely negative impact on private equity (Myners, 2001).

The outlook for private equity investment by pension funds in EU countries will be also determined by investment regulations. The recently approved European Directive on pension funds (called Institutions on Occupational Retirement Provision) will force countries to at least permit investment in private equity. Countries will not be able to restrict investments in unlisted securities below 30% of the pension fund's assets. The role of investment regulations, however, should not be overemphasised. Currently, several European countries have limits on equity investments and in unlisted equity, but these limits were well above the extremely small amounts currently invested in venture capital. Pension fund investment in private equity as a percentage of assets under management is also much higher in the United States than in the United Kingdom (8% vs. 1%) despite the fact that they both apply a prudent person rule principle to investment regulations.

Other possible determinants of the role of pension funds in private equity investment are maturity of the plan and the extent of individual choice in defined contribution plans. More mature plans tend to have greater liquidity needs, while individuals may be more risk averse than the trustees of defined benefit plans (which are in case backed up by the capital of the sponsoring employer).

The growth of pension funds in the Baltics could boost the financing available for private equity. However, regulators need to overcome their

preoccupation with local public market liquidity and acknowledge the alternative of private equity for long-term investment. Pension funds cannot invest directly in non-listed equity, except IPOs on the official list in Latvia and Lithuania. Pension funds can, however, invest in non-listed equity through funds. The start up cycle of 5 to 10 years, into which private equity funds invest, could, in principle, correspond to a pension funds' investment horizons. However, in the Baltics, as in most other CEE countries, pension funds resemble more mutual funds that compete for members with one another rather than the large funds of Anglo-Saxon countries or the Netherlands and Switzerland that are limited to a particular employer or a group of employers (industry wide funds). Therefore, pension funds in the Baltics, are likely to focus on a short-term performance. This will create a bias against private equity funds, even if they could achieve higher rates of return than through less risky investments²².

Pension fund attraction to private equity will also depend critically on the liquidity of these assets. Lack of exits for private equity investments could be an obstacle for the development of the industry. The integration of the European market could partially solve this problem for the most successful companies who will qualify for listing abroad²³. Trade sales could also be a viable alternative for exiting these investments.

3. Facilitating private equity investment in the Baltics

Private equity has as yet received little attention in the three Baltic states. Neither foreign capital nor local institutional investors have met the right conditions to invest in new growth companies. Private equity funds manage negligible amounts of money. By depriving companies from access to risk capital, this situation hinders new business creation and growth. Moreover, firms cannot benefit from spillover effects created by private equity such as improved managerial capacity and competitiveness that can drive up profitability. Based on the experience of OECD countries, private equity could be an important financial tool to enhance companies' growth and innovation - key goals for economies that will be soon integrated into the European Union. Whether private equity takes off in the Baltics will depend to a large extent on a set of policy preconditions that we now turn to²⁴.

3.1 Fostering entrepreneurship and innovation

Policymakers can facilitate the creation of investment opportunities by improving the general business climate, and in particular establishing the right conditions for entrepreneurship to thrive. Private equity funds in the Baltics find few projects that meet investment criteria. The main problems that fund managers

have identified are lack of managerial talent and market-oriented innovation. While the Baltics have a high proportion of scientists and engineers, only a minority works in R&D in companies or universities. Bringing this skilled workforce into innovative activities requires a concerted effort by the private sector and the educational establishments. Professional management education and targeted technological training are essential for high value added business creation.

Communication between entrepreneurs and the private equity community should be encouraged. The owners/managers of Baltic companies are often reluctant to dilute their control and typically do not perceive the potential value addition of private equity investment groups. This is due partly to their lack of experience in dealing with the investors' community.

Regulations also play a central role in the process of establishment of new businesses. The legal environment can sometimes place an excessive administrative burden on entrepreneurs, particular in registration, patent protection and liquidation procedures. These institutional rigidities create transaction costs that reduce returns on risk capital, especially early stage venture capital.

Finally, tax policies can be designed so as to encourage entrepreneurship and risk capital investment. Several reforms may help promote investment into innovative businesses. First, company tax rates for SMEs can be further reduced in order to enable domestic entrepreneurs to accumulate the capital for restructuring and development. Second, fiscal incentives can be provided for R&D. Third, stock options should be taxed only when capital gains are realised.

3.2 Developing the private equity industry

The current legal framework in the Baltics, and in particular tax policy, is biased towards bank credit. Equity financing is only attractive for large, publicly listed companies. Neither instrument, however, is ideal for the high-growth, knowledge-based companies that these countries wish to promote.

There are several hurdles to the development of the private equity industry in the Baltics. First, for funds established domestically, taxation occurs at several levels. The lack of suitable domestic structures (or impractical fund structure) encourages private equity firms to establish in offshore tax heavens to stay competitive. This is inefficient, costly and questions the fund's credibility. A more transparent tax structure that avoids multiple layers of taxation would be more appropriate. An optimal tax policy towards private equity funds should also take into account their role in matching entrepreneurial talent with new growth sectors and the spillover gains from bringing high skilled workers into innovative activities.

Further, private equity funds in the Baltics can invest only in common equity, because other forms of equity such as preference shares, convertible debt or warrants are either restricted or not enforceable. Private equity firms have therefore less flexibility to mitigate risks and this makes it more difficult for investee companies to raise capital. Stock options are little used, which does not allow start-ups to attract talent and align incentives, which makes them less attractive for investors.

Finally, markets in seed and early-stage SME finance are less than perfect and require an effective protection of investors' rights. Regulatory reform can bring about the necessary improvements in corporate control and bankruptcy to improve the allocation of capital in the economy.

3.3 Channelling long term finance into private equity

With the recently implemented pension reforms, the Baltic states have a new type of institutional investor that could be expected to play a central role in the development of private equity markets. Pension funds will quickly accumulate a sufficient level of assets that will permit them to diversify away from fixed income securities and search for higher yielding assets, such as private equity. Pension fund investment regulations, however, tend to be geared towards liquid assets, which in the case of Baltic equity investment can leave the pension funds highly exposed to a very small group of companies and sectors. A trade-off needs to be found between the need for liquidity and diversification within domestic markets.

Pension funds are particularly well suited for risk capital investment because of their long term, relatively illiquid liabilities. Yet, current regulations set limits to the percentage of a company's capital that can be owned by pension funds. These regulations can hamper the role of pension funds in corporate governance. Pension funds in the Baltics could become a powerful voice in corporate affairs only acting as a group, especially in companies with highly concentrated shareholdings.

The relationship between pension and private equity funds is complex even in the developed markets. Pension funds tend to be subject to strict disclosure requirements, particularly with respect to their performance. Public disclosure among private equity funds, on the other hand, tends to be rather poor. If private equity funds are to attract pension funds they need to deliver performance, build a reliable track record and become more transparent.

Conclusion

Capital market development is one of the key policy goals shared by the three Baltic countries. The growth of capital markets is expected to improve the allocation of capital in the economy and spur growth and innovation. However, the optimal structure of capital markets in small open economies like those in the Baltic countries may not be necessarily similar to those of large developed economies. In particular, in the Baltic countries most industrial output and employment is accounted for companies that fall under the EU definition of SMEs. For these companies, access to the international financial markets may not be always feasible. Instead, private equity may be an attractive source of finance to complement bank credit, the main source of external financing.

Private equity is particularly suited for early stage projects, since it requires a medium to long term commitment from the part of investors while ensuring close control over the activity of the new venture. Technological start-ups in the United States and other OECD countries tend to be financed in this way. While currently there are few companies in the Baltics working on high tech, there is a large pool of skilled labour. The development of the private equity industry in the Baltic countries could, therefore, help capitalise on the existing pool of human capital, and shift resources towards technological innovation.

Government policy could act as much on the supply as on the demand side. On the demand side, policymakers can help facilitate closer co-operation between industry and the educational establishment, helping to identify high tech projects that could have commercial viability. Tax policy can promote investment in R&D and facilitate financing for SMEs. On the supply side, an important development has been the establishment of mandatory pension funds systems. In principle, pension funds could play an important role in private equity financing, as they do in many other OECD countries. However, investment regulations and the competitive structure of the industry could discourage such investments. It is, therefore, not obvious that pension funds will emerge as a natural investor in private equity in the Baltics.

Finally, regulators will need to weigh the advantages of private equity in terms of diversification and high long-term returns against liquidity concerns. They will also need to assess the responsibility of pension funds in corporate governance and consider whether pension funds could play a more active role as minority or even controlling shareholders. These are issues that OECD countries are also tackling, as their markets emerge from a period of upheaval.

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NOTES

- 1 Defined as enterprises with less than 250 employees.
- 2 Less than 50 employees.
- 3 For most companies, financing difficulties were only secondary to lack of skilled labour. The majority of SME identify human capital as the key impediment to a successful business performance.
- 4 Lithuanian Department of Statistics; Latvian Development Agency; Bank of Estonia.
- 5 S& P's long term foreign currency rating for Estonia is A-; for Lithuania BBB+, and for Latvia BBB+.
- 6 Statistical Office of Estonia, Central Statistical Bureau of Latvia, Department of Statistics of Lithuania.
- 7 Regulations, tax treatment and other institutional features are treated in the next section.
- 8 Gross wages averaged to less than EUR 400 in the Baltics compared to the EU average of over EUR 2300 (EIU, 2003a,b,c).
- 9 In Estonia, the limit on equity holdings in non-financial enterprises is 60% of capital, maximum exposure to single borrower is 25%, and related party lending limits is 25%. In Latvia, the total investments cannot exceed the total funds of the credit institution and at least 30% of assets should be in liquid assets. In Lithuania, investments in non-financial firms should not exceed 40% of banks assets, or 10% of banks assets in one company.
- 10 World Bank Financial Structure Database, 2001.
- 11 Stock Exchanges of the Baltic States
- 12 Stock Exchanges of the Baltic countries, Securities Commission of Lithuania, the World Federation of Exchanges
- 13 This is in line with European practice. According to the EVCA/PriceWaterhouseCoopers survey (EVCA, 2003), the major exit mechanism in Europe since 1998 was divestment by trade sale, accounting for over 36% during the period 1998-2002, compared to less than 15% of divestments through IPOs.
- 14 Less than 1% in the most developed economy – Estonia - compared to 148% in UK Source: Ministries of Finance of the Baltics
- 15 Zilite (2003). Projections for Lithuania and Estonia are made by the author based on official GDP and salary projections and legislated contribution rates.

- 16 In the US, institutional investors and in particular pension funds use their ownership concentration as a powerful instrument to raise corporate governance standards.
- 17 Hommel and Schneider (2003) and Dietsch (2003) argue that The Basel II proposal would lead to a lowering of capital requirements on loans to SMEs through two channels. First, SME lending will be treated as part of retail credit portfolio for exposures of up to EUR 1 mln. Retail credit requires lower capital requirements than corporate credit due to their greater scope for risk-reducing diversification. Second, the revised proposal introduces new formulae for the computation of default correlations. SME loans will tend to have lower default correlations and hence lower risk weights.
- 18 La Porta, Lopez-de-Silanes, and Shleifer (1999) show that except in a handful of countries such as United Kingdom, Japan and United States even the largest publicly traded firms have a controlling shareholder (controlling more than 20% of the votes). Concentrated ownership and ultimately delisting is also seen often by securities analysts as a sign of commitment and therefore tends to improve long term financing prospects.
- 19 The costs include listing and annual fees as well as time consumption for compliance such as the due diligence procedures for listing and the preparation of quarterly reports.
- 20 An OECD study (1996) shows a positive strong correlation between private equity and R&D investments. Kortum and Lerner (1998) show that venture capital investments accounted for 15% of industrial innovations in the past decade in the United States. An EVCA study (2002) shows that European private equity backing helps firms to enhance their employment, R&D and investment at all stages.
- 21 Gompers and Lerner (1999) show that venture funds in the US grew significantly after pension fund restrictions were eased. Jeng and Wells (2000) found evidence that capital provided by pension funds boost significantly the overall volume of new funds raised over time.
- 22 The long-term returns of private equity represent a premium to the performance of public equities. This has been the case in the United States for over 20 years and also in Europe, following an increase in the number of private equity funds, for over 10 years. (EVCA, 2002c)
- 23 A study by Jeng and Wells (2000) indicates that IPOs are the strongest driver of private equity investing. However, IPOs have no effect on early stage venture capital investing across countries, but are a significant determining of later stage venture capital investing.
- 24 Jeng and Wells (2000) show that along with the levels of IPOs and private pension fund levels for some countries, government policies have the strongest impact on the development of the private equity industry in all countries.

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