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Lithuania
Social Sectors Public Expenditure Review

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FISCAL YEAR
January 1- December 31

WEIGHTS AND MEASURES
Metric System

ACRONYMS AND ABBREVIATIONS

ALMP	Active Labor Market Program	NMT	Non Means-Tested Benefits
CB	Child Benefit	OECD	Organization for Economic Cooperation & Devt.
CSD	Civil Service Department	PAF	Pension Accumulation Fund
EC	European Commission	PAYG	Pay As You Go
EU	European Union	PER	Public Expenditure Review
FAD	Fiscal Affairs Department	PIT	Personal Income Tax
GDP	Gross Domestic Product	PPP	Public Private Partnerships
GMI	Guaranteed Minimum Income	R&D	Research and Development
HBS	Household Budget Survey	S&T	Science and Technology
ICT	Information and Communication Technology	SA	Social Assistance
IMF	International Monetary Fund	SBP	Social Benefit Program
LT	Lithuanian Litas	SI	Social Insurance
M&E	Monitoring and Evaluation	SME	Small and Medium Enterprise
MES	Ministry of Education and Science	SODRA	"SOcialinis DRAudimas" - Social Insurance
MLS	Minimum Living Standard	SP	Social Protection
MOF	Ministry of Finance	SPF	State Patient Fund
MRI	Magnetic Resonance Imaging	SSI	State Supported Income
MSSL	Ministry of Social Security and Labor	STR	Student Teacher Ratio
MT	Means Tested	TS	Total spending
NMS	New Member States	VAT	Value Added Tax

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Executive Summary

After a decade of strong growth and remarkable economic and social progress, Lithuania is now facing its worst economic crisis since independence. GDP contracted by close to 10% quarter on quarter in 2009 (quarter 1) and it is projected to contract by 11% in 2009.[1] A key transmission mechanism of the global crisis to Lithuania was the large dependency on foreign capital to finance growth, as the combination of limited access to foreign capital and bad credit caused domestic credit to plummet.

A number of macroeconomic risks could exacerbate the downturn even further: (i) the required increase in savings to deleverage balance sheets will depress consumption and investment; (ii) rising credit defaults, including those in neighboring countries since the banking sector is mostly foreign-owned, will reduce further credit availability; (iii) and the economy-wide adjustment through the internal price mechanisms could lead to a negative spiral of lower prices leading to lower spending and this to lower prices and so on.

Despite planned counter-cyclical measures, the actual fiscal policy implemented in the period leading up to the crisis amplified the impact of capital flows on the economy and raised public spending to unsustainable levels. Public spending rose by 50% between end-2006 and 2008, following generous public wage and social benefit increases, which grew in real terms by nearly 28% and 39%, respectively. The result was a four-fold increase in the structural deficit during the boom period—from 1.6% of potential output in 2005 to a record high of 7% of potential output in 2008.

After the crisis hit at the end of 2008, the new Government took rapid action and introduced a large upfront fiscal adjustment for 2009 in an attempt to regain short term fiscal sustainability, and in light of the emerging financing constraints and the commitment to support the currency board regime and to join the *eurozone*. A large revenue shortfall, combined with the full-year impact of last year's spending increases, resulted in a general government deficit of 4% of full-year GDP by end-April. Since December 2008, the Government has introduced fiscal adjustment measures for about 7% of GDP and plans to implement further measures in June. This report shows that reduced tax compliance can exacerbate the revenue shortfall and some of this shortfall may be permanent.

Even with the additional fiscal adjustment proposed for June it will be hard to meet the Maastricht deficit criterion in the medium term, and too much adjustment can exacerbate the crisis. If the economic recession continues, the fiscal deficit could reach 6.5% and 7% of GDP in 2009 and 2010, respectively.[2] The fiscal deficit is projected to improve in 2011 as the economy recovers. However, this report shows that while there is room for further cuts in spending over the short run,

[1] European Commission–Spring Forecast 2009.

[2] This is based on the hypothetical scenario of GDP contracting by 14.5% and 4% in 2009 and 2010, respectively, which is around the predictions of the Bank of Lithuania. These estimates also take into the adjustment measures taken so far and the one proposed for June 2009, totaling 8.1% of GDP.

permanently lower revenues and lower potential growth imply that without further structural reforms, the fiscal deficit will remain at about 4% of GDP in 2013 and 2014. Lithuania is faced with the unenviable task of having to improve the structural fiscal position while avoiding contributing to a downward economic spiral.

Additional efficiency-enhancing structural reforms will be needed to regain fiscal sustainability and to ensure compliance with the Maastricht criteria. Given the rapid growth in social spending and the public sector wage bill (the two largest categories of public spending) in recent years, and the need to align public spending with permanently lower revenue, lowering the fiscal deficit over the medium run will require both short term cuts in spending and medium term structural expenditure reforms. And while the fiscal adjustment over the short- and medium term should be mostly expenditure-based, there may also be room for some revenue measures.

In this context, this report aims to provide technical assistance to the Government of Lithuania in preparation for the June 2009 budget amendment and beyond. This Public Expenditure Review (PER) includes a number of recommendations on short run fiscal consolidation (mainly through spending cuts) as well as efficiency-enhancing reforms that could eventually generate fiscal savings and reduce the fiscal deficit over the medium term. In the context of increased social needs arising from the crisis, this report also tries to identify the changes needed in social assistance benefits to better protect the poor and vulnerable during the crisis and beyond in a cost-efficient way. In agreement with the Government, social sectors (social protection, health and education) have been chosen as the focus of analysis, given the room for short and medium term adjustments and the large implications of those on the overall budget. The PER also analyses the public wage bill and public administration. Finally, macroeconomic risks as well as the overall fiscal scenario and risks (including an exploration of revenue measures that could bring fiscal savings over 2009-10) are also analyzed to provide the context for the subsequent sectoral sections.

Relative size of social sectors and the public wage bill in 2007

	% of TS	% of GDP
Public wage bill	28.5	10
Social sectors	59.6	35.2
Social protection	31.5	11.1
Health	13.2	4.6
Education	14.9	5.2

Source: Statistical Office. TS refers to total public expenditures. Social sector spending includes wages.

The rest of the executive summary elaborates on the proposed short term and medium term fiscal consolidation policies as well as the proposed changes in social assistance to better protect the poor and vulnerable during the crisis. The table at the end of the executive summary contains a summary of these proposed measures. On social protection, the Government may consider reforms to ensure the long run sustainability of contributory pensions by gradually raising the retirement age; tying the base and earning-related pension components to objective parameters and subjecting them to rules-based

indexation; and credibly restoring the full flow of contributions to the pension accumulation funds by the end of 2010. The Government could also consider reducing the maternity benefit receipt period, currently the most generous in the EU and the single most important relative contributor to SODRA's deficit, to 1 year. And further targeting of child benefits for children of ages 0-3 and lowering the eligibility threshold could generate significant fiscal savings.

The introduction of a unique payment system with a single beneficiary registry could significantly reduce transaction costs, allow for a more timely response to the increased demand for benefits and strengthen the control over benefits. To improve the protection of the poor during the crisis, the Government could consider meeting the additional demand for the Social Benefit Program (SBP), by increasing resources allocated to the program to reach up to 30% of the poor. This measure could be complemented by a temporary extension of the unemployment benefit receipt by 3 months and shifting the focus of active labor market programs (ALMPs) towards direct job creation programs.

To prevent the escalation of public sector wages observed in recent times, the Government could consider increasing central monitoring and authority over public pay and employment, including the introduction of a treasury payroll module. Lithuania has a good public administration with adequate institutions and procedures in place, but there are significant efficiency gains from streamlining the structure of public administration institutions, including the consolidation of government institutions under line ministers.

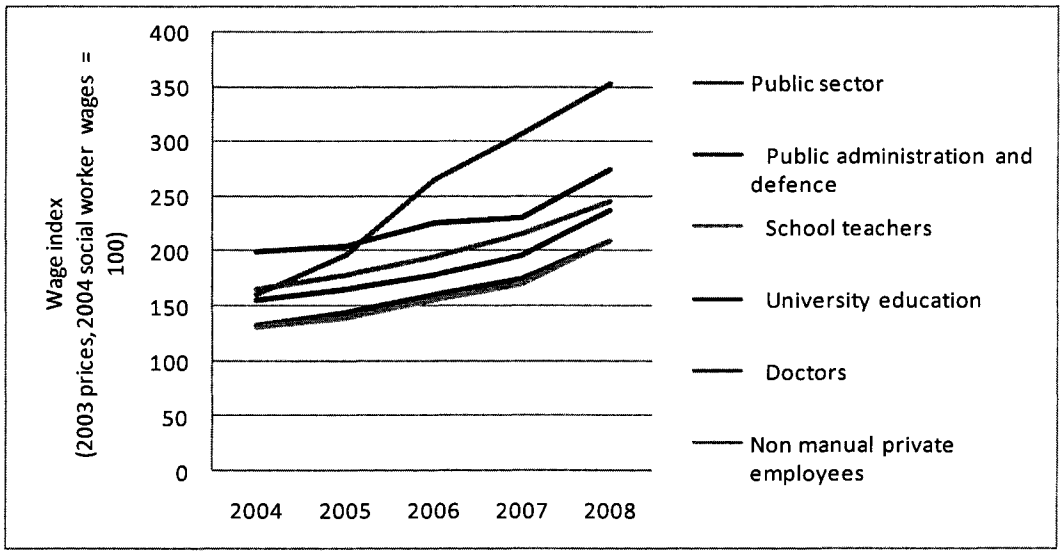
On health, progress achieved since the transition is remarkable, but there is considerable room for improving the efficiency and performance of the health system, which mostly requires medium term reforms. Downsizing hospital infrastructure and adapting it to the needs of the population would generate significant savings and contribute to improving patients' safety. The success of this reform requires strong political consensus among central and local authorities. The current economic crisis provides a unique opportunity to reach this consensus and to start pursuing the hospital restructuring agenda. A key component of the strategy to reduce the use of hospital services it to have primary care providers provide more services than they currently do. Accreditation and quality assurance mechanisms for health facilities need to be strengthened.

On education, more efficient utilization of teachers could yield major budget savings. Amending the per-student financing formula for general education so that declining student populations are matched by proportional reductions in the number of teachers, and gradually increasing class size to regional norms could yield budget savings of about 8 billion LT by 2020. Greater reliance on fee-financing of higher education and targeted budget support could generate significant savings and provide the necessary funding for improving the quality of higher education while ensuring equitable access. And financing science and technology based on competitive funding would generate savings from the rationalization of research institutes and lead to higher research quality.

The public sector wage bill and the public administration

The public wage bill has been growing rapidly in recent times, particularly in 2008, following sharp increases in public wages. Between 2004 and 2008, the public wage bill grew by 50% in real terms (19% in 2008), and accounted for 29% of the increase in public expenditures in 2008. Most of this increase is due to rising wages (60% between 2004 and 2008). All public sector wages grew at similar rates but wages of doctors more than doubled in real terms, and all public sector wages grew faster in 2008 than comparable private sector wages. In 2008 public sector wages were on average 15% lower than comparable private sector wages.

Monthly wages of public sector employees and comparable private sector employees



Source: Labor Force Surveys 2004-2008

The escalation of the public wage bill is partly driven by political pressures and prompted by the lack of a reliable system for managing and monitoring public sector pay policies. While improving public pay may be justified in some cases, across-the-board increases (as opposed to targeted increases tied to performance) are not a cost-effective way to attract, retain and motivate public employees. The escalation of public sector wages in recent times was also driven by political pressures. While the Ministry of labor and Social Security (MSSL) is responsible for ensuring balanced public sector pay policies, political pressures result in some public sector groups being favored over others. More so, the decentralized management of the public sector payroll without central monitoring creates incentives for expanding personnel expenditure

Civil servants have so far borne most of the burden of adjustment, but **if the Government wishes to undertake any significant reduction in the wage bill the adjustment would have to involve other public employees and explore alternative sources of savings.** Further cuts in civil service pay risk undermining the attractiveness and stability of the public administration. At the same time, the pay of other public employees increased even in 2009. Given that civil servants account for a small share of

the total wage bill, any significant reduction in the wage bill would need to involve other public employees. The Government could also consider other sources of savings: structural consolidation, reduction of scope of non-essential functions and tasks, temporary freezes on hiring, temporary withholding of pay increases related to seniority (length of service), discontinuing payment of bonuses and additional pay for expansion of the scope of work due to substitution of temporary absent employees.

Lithuania has a good public administration with adequate institutions and procedures in place, but there is substantial for improving efficiency and quality. During the previous decade the Government focused its effort on designing rules and building new systems, which has produced reasonably well-performing institutions. The emphasis should now shift toward improving the efficiency and quality of the public administration. Fiscal tightening presents an opportunity to identify inefficiencies, reduce unnecessary expenditure, and streamline procedures. To this end, the World Bank recommends the following actions:

a. **Improving the performance focus of the public sector** by linking budgeting to priority policy results; strengthening systems for monitoring, evaluating and reporting of results; and increasingly involving citizens' feedback on service quality.
b. **Increasing central monitoring and authority over public pay and employment policies** by articulating and strengthening oversight roles of the Government Secretariat on policy outcomes, the Civil Service Department on staffing, the Ministry of Finance (Treasury) on monitoring payroll management, and the Ministry of Labor and Social Protection on overall labor remuneration policy.
c. **Streamlining the institutional system of government bodies to align it with the policy framework** by consolidating government institutions under line ministers to improve coherence and accountability for policy results, eliminating redundant structures, improving business processes and making more use of Information and Communication Technologies.

Social Protection

Social protection (SP) expenditures increased substantially in 2008 (34% in real terms), particularly maternity benefits. Social insurance benefits accounted for most of this increase: pensions account for 57% of the total increase (mostly due to the increase in the base pension) while maternity leave benefits increased by 127%. The bulk of social protection benefits go to social insurance (SI), particularly pensions and maternity. Social assistance (SA) benefits account for 14% of total SP expenditures, and means-tested (MT) benefits for the poor and vulnerable only account for 14% of SA.

The continuous deterioration of SODRA finances over the short and medium terms require significant adjustments in benefits. SODRA finances started deteriorating quickly in the last quarter of 2008 due to the contraction of the economy, and the significant increases in social insurance benefits. The deficit at the end of 2008 used up all the reserves accumulated in previous years. Without the cushion of reserves, SODRA's finances are deteriorating even further in 2009. Going forward, the number of

beneficiaries is expected to increase in the next few years while the number of contributors is expected to decline. So far SODRA has been able to cope but it will not be able to hold for much longer given the rapid deterioration of the economy and the structural nature of the deficit. Social security contribution rates in Lithuania are on the high side compared to other EU countries, so the bulk of the adjustment will have to come from cuts and reforms in social insurance benefits.

Social Insurance

Contributory pensions

The pension system provides reasonably adequate benefits but retirement ages are low, the benefit formula is subject to a lot of discretion and generates disincentives to contribute, making the system unsustainable over the long run. The share of the basic pension has been increasing, generating redistribution within the system and decreasing incentives to contribute. Lithuania also has an extensive system of state pension supplements that would benefit from better monitoring, integration and rationalization. It has also instituted a system of pension accumulation funds that could provide a substantial portion of retirement benefits in the future. However, this system is being threatened by reduced contributions to these funds to help pay for SODRA's pensions and the lack of a credible strategy to ensure that this reduction will be allowed to expire. The Government could consider the following actions to address these concerns:

a. **Gradual increase in retirement ages for both genders up to age 65**. Retirement age could increase by 2 months per year for men and 4 months per year for women, which would generate savings of 65mln Lt in 2010 and 130mln Lt in 2011 alone in addition to contributing to higher future pensions.
b. **Base the earnings-related pension component on the statistical average insured wage** (rather than the discretionary insured income parameter) **and subject it to a fiscally sustainable rule-based indexation**. These changes could be introduced in 2010 and would generate savings in the long run, contribute to sustainable pension growth and improve transparency, incentives to contribute and intergenerational fairness.
c. **Make the base pension** (currently at 360Lt) **equal to the value of the basket of basic goods** (currently 350Lt) that is calculated every year by the Department of Statistics. This would generate savings of 120mln Lt in 2010 and additional 40mln Lt per year for each 1% of real wage growth compared to the 2009 level. As a medium term reform, the Government could consider transforming the base pension and the social pension into a single *demogrant* financed from the State budget.
d. **Restore the full flow of contributions to the pension accumulation funds by the end of 2010**. The best strategy to make this credible is to commit to structural pension reforms to make them sustainable over the long run.
e. **Rationalize the system of state pension supplements** by shifting the administration of these benefits from line ministries to SODRA.

Maternity leave benefits

Maternity leave benefits more than doubled in 2008, as the period for receipt of maternity/paternity benefit was extended to 2 years, making it the most generous among EU countries. Maternity benefits experienced the largest proportional increase among all social protection programs in 2008. The benefit receipt period is the most generous among EU countries and effective replacement rates are higher than stipulated by law, as beneficiaries artificially inflate earning before leaving work. The cost of the current program in terms of fiscal sustainability and work disincentives far outweighs any potential benefit in terms of fertility and child care. The Government could consider the following options:

a. Option 1. Revert the benefit receipt period to what it was in 2007 (1 year after the birth of the child) at 100% replacement rate (higher than the 2007 rate). This would still leave maternity benefits in Lithuania among the most generous in the EU.
b. Option 2. In addition to option 1, limit the total leave period of the maternity benefit (currently 70 days before birth and 56 days after) and the maternity/paternity benefit (up to 1 year after the birth of the child with the proposed amendment) to 52 weeks (1 year) to be distributed between pre-birth and after birth by the beneficiary.

Estimated fiscal savings from options 1 and 2

	Fiscal savings in 2009	Fiscal savings in 2010
Option 1	266 million LT	355 million LT
Option 1 + Option 2	445 million LT	534 million LT

Note: Estimated fiscal savings if the change is effective from July 1, 2009

Unemployment benefits (UB)

As the Government discusses the new draft law on unemployment insurance, the Government should refrain from any cuts in unemployment benefits. This is because (i) by all measures, these benefits are not excessive (benefits are among the lowest in EU while the benefit receipt period is standard among EU countries); and (ii) UB provide a key social safety net to households to cope with the crisis.

The Government could consider a temporary increase in the benefit receipt period, as other EU countries are doing. Extending the unemployment benefit period by 3 months would cost an additional 141 million LT in 2009.

Social Assistance

19. **The social challenges faced by the SA system are increasing as a result of the crisis.** Reduced incomes and wealth will have a significant impact on household welfare. It is estimated that the number of people from households with per capita consumption

below the poverty line (350 LT month) could increase by 208,000 (48.6% increase), bringing the total number of poor people to 636,000 (18.9% of the population) in 2009.[3]

Means-tested SA programs are the main (potential) safety net for the poor and vulnerable to cope with the crisis. UB do not cover individuals who become unemployed but do not have sufficient insured employment history, nor the increasing numbers of working poor. Active Labor Market Programs (ALMP), particularly direct job creation programs (public works and subsidized employment in the private sector) can also provide complementary assistance.

But current SA benefits are too low and not adequately targeted to the poor, resulting in a small overall impact on poverty and vulnerability. About 25% of the poor do not receive any kind of social assistance, and the main benefit for the poor, the SBP, only covers 6.7% of the poor. Most benefits go to non-poor households (64%), reflecting the lack of means-testing of most SA benefits. And the value of SA benefits relative to the consumption level of poor beneficiaries is low (23%), reflecting the small expenditure on SA programs. Inadequate targeting of the poor and low relative SA benefits result in low overall impact on poverty and high efficiency cost.

Improving the financing and monitoring of SA benefits

The Government could consider bringing all SA programs under a central unique payment system with a single beneficiary registry that will pay all SA benefits directly to beneficiaries (instead of payments being channeled through municipalities). The planning, administration of benefits and monitoring of beneficiaries would still remain under local governments. Such a system would not reduce accountability of municipalities, as under the current system municipalities have very little control and discretion over SA funds, and would bring the following benefits:

- Reduced transaction costs in the financing of benefits.
- Much faster response to the increased demand for SA benefits during the crisis.
- More control over SA benefits through a single beneficiary registry.

An alternative to the creation of a unique payment system for SA benefits only would be to use SODRA, which would reduce costs and improve control over all SI and SA benefits and beneficiaries, compensating it for the increased administrative costs.

Social Benefit Program (SBP)

The SBP is the benefit of last resort for the poor—good design and implementation features result in good targeting performance and adequate benefits. About 66% of the beneficiaries are below the poverty line (the best targeting performance of any SP program) and benefits account for 29% of the consumption of the poor.

[3] Poverty simulations are based on the assumption of a 10% across-the-board reduction in labor income.

But the program has very low coverage among the poor (6.7%), resulting in a low overall impact on poverty. This low coverage may be partly explained by the introduction in 2004 of the value of household assets as an additional eligibility criterion. The introduction of the more generous social pension in 2006 also made some households with poor elderly ineligible. More likely, however, low coverage is due to low demand, but this is likely to change with the crisis, as more families fall below the poverty line and poor households face more limited income-generating opportunities. **The Government could consider the following actions to better protect the poor and vulnerable during the crisis**:

a. Raising the benefit to 100% of the difference between the SSI and household income per capita.
b. Improving or relaxing (at least temporarily during the crisis) the household assets eligibility criteria, given the little value added in terms of targeting performance relative to its cost in terms of reduced coverage of the poor.
c. Speeding up the application and verification process or even relaxing the verification process temporarily (beneficiaries would still be subject to reassessment).
d. **Meeting the additional demand for SBP by expanding program resources to cover up to30% of the poor.** Under a desirable and realistic coverage rate assumption (30%), the additional SBP spending in 2009 would be about 57 million LT.

Child benefits (CB)

The CB is the largest SA program for families and children. It has the largest coverage of the poor (70%) but most of the benefits go to the non poor (80%). This reflects the universal nature of this benefit, which also results in very high efficiency costs. The crisis management plan of December 2008 limited child benefits for children aged 3 and older to families with per capita family income less than 3 times the SSI. With no change in the program, the increase in spending resulting from the increased number of families falling below 3*SSI in 2009 would be 19.4 million LT for 2009.[4]

While the CB does not have a poverty-reduction objective, granting benefits to wealthy families for whom these benefits do not affect their decisions to have children or to invest in their well-being **results in large efficiency costs**. Even seeing this benefit as a right for all children, it is hard to justify the financing of such a right for all children in a context of limited fiscal space and increasing social needs. **The Government could consider the following actions**:

a. **Limiting the benefits for children under 3** to families with per capita family income is less than 3 times SSI. Assuming all families that qualify apply for the benefit and that the change would be implemented from July 1, savings between July and December of 2009 would be about 22 million LT (42 million on an annualized basis).

[4] Not all qualifying families will apply for the benefit, so this is an upper bound estimate.

b. **Lowering the income eligibility threshold to 2 times the SSI**. Assuming this applies to all children and the change is implemented from July 1, savings between July and December of 2009 would be around 89 million LT (178 million on an annualized basis).
c. Subject applicants to the same questions about income and information verification process as for SBP applicants to ensure effective targeting of benefits.

Health

Progress achieved since the transition is remarkable, but there is considerable room for improving the efficiency and performance of the health system, which mostly requires medium term reforms. By international standards, the amount Lithuania spends on health appears reasonable. But health outcomes, such as life expectancy and mortality from heart diseases and external causes (e.g. alcohol and tobacco), are poor compared with countries that spend similar amounts, and have not been improving in recent times despite public health expenditures increasing by 85% between 2004 and 2008. This suggests that there is considerable room for improving efficiency in the health system, which still relies too heavily on hospital-based care instead of more cost-effective prevention and primary care. Moreover, Lithuanians are generally dissatisfied with the health system which they consider to be prone to corruption.

Salaries of health workers, particularly doctors, have increased very rapidly and are significantly higher than the salaries of other public employees and comparable private employees—but any adjustment would be hard to implement. A 10% reduction of physicians' payroll would save about 60m LTL on a full year basis, but this might be hard to implement because of the complex transmission mechanisms of salary cuts: the State Patient Fund (SPF) purchases services and decisions on salary levels are made at the facility level. Reducing the *price* of health services (which would reduce outlays) may not automatically translate into reduction of salaries, and other critical inputs to the production of health services may suffer in the process. Since public health expenditures increased much less than salaries in the past few years, the budget share available for this input has already been decreasing. This could result in people having to purchase drugs and medical consumables that should be available free of charge at the facility. If such an option were pursued, since outpatient care needs to be further developed, efforts should be made to protect services whose production needs to be encouraged. In any case, future salary increases should be tied to the performance of health workers.

Restructuring the hospital infrastructure. Despite significant progress since independence, the number of hospital beds and hospitals relative to the size of the population and the inpatient admission rate are among the highest in the EU. And the number of births per year in each obstetric bed is too low to ensure adequate safety for patients. Downsizing hospital infrastructure and adapting it to the needs of the population would bring about savings and contribute to improving patients' safety. This requires a hospital master plan which is based on an analysis of the population needs and reasonable

access criteria to emergency and acute specialized services. The plan would establish a clear hierarchy of the levels of care (secondary and tertiary) each hospital is expected and allowed to provide and define referral protocols and systems. Departments and facilities which do not provide enough services and for which accessible alternatives exist would be closed. In addition, equipments could be allocated (and if necessary redistributed) to ensure hospitals can fulfill their redefined mission. The success of this reform requires strong political consensus among central and local authorities. The current economic crisis provides a unique opportunity to reach this consensus and to start pursuing the hospital restructuring agenda.

Strengthening the accountability of health facilities. Quality management and control are weak, and health facilities are not effectively accountable for the quality of the services they provide. Hospital are funded on the basis of a list of services and pre-set prices, but those do not necessarily reflect costs. Accreditation and quality assurance mechanisms could be put in place and health technology assessed. Information about performance, including but not limited to quality, should be collected, and broadly disseminated. The Government may also consider allowing payments and contracting and tying those to performance. In particular, the hospital payment system could be revised to induce hospitals to use inputs more efficiently (including using fewer doctors) and to improve performance. And the SPF could also be allowed to selectively contract providers, and/or to not purchase all the services an institution is licensed to produce.

Accelerating efforts to strengthen primary care. Currently, only about 25% of physicians work in primary care settings. A key component of the strategy to reduce the use of hospital services it to have primary care providers provide more services than they currently do. Primary care providers tend to refer patients to higher level of care more than they should. One possible policy is to link the pay of primary care providers to performance in terms of coverage of key preventive services.

Developing a genuinely selective new health policy, with a strong M&E framework, and clearly linked to health priorities (prevention of non-communicable diseases). It could include a solid human resources component to better prepare the system to cater to the needs of the ageing population. The process of elaborating this new policy could be supported by broad consultations.

Education

There may be room to reduce teacher salaries but this will face strong political resistance. Average teacher salaries at the end of 2008 were still below those of other public-sector employees (particularly doctors) and comparable private sector employees, although this difference was reduced in 2009 by the 10% increase in teacher salaries and the reductions in civil service pay. Since teacher salaries account for the largest share of the public wage bill (34%), any significant reduction in the public-sector wage bill would need to include teacher salaries. **Some approaches to reduced salary outlays for teachers could be less contentious than an outright reduction in base salary**. Latvia, for example, has reduced salary expenditures for teachers by eliminating

supplementary payments for some categories of non-teaching activities, and proposes further expenditure reductions through an increase from 21 hours to 27 hours in the number of student contact hours that comprise a full teaching load.

Reductions already made in the 2009 education budget pose risks for education quality. In many municipalities, this reduction could be absorbed without adverse educational consequences by a judicious reduction in the number of teachers or a reduction in paid overtime teaching hours. However, indications from Vilnius municipality suggest that local governments will opt instead for reducing the already-small amounts provided for non-salary education inputs (e.g. textbooks, teaching materials, in-service teacher training, and internet connectivity), which have already been reduced from 6% in 2007 to 3% in 2009 to help make room for the teacher salary increases. To ensure adequate financing of these crucial inputs for education quality, it is recommended that the balance of salary and non-salary elements be restored to 6% of the student basket, which could be financed by an offsetting 3% reduction in the salary portion of the student basket.

More efficient utilization of teachers could yield major budget savings. Student/teacher ratios are lower than in most of the New Member States (NMS) and much lower than in most OECD countries. And the number of teachers has adjusted little in response to the declining general education enrollments in Lithuania. Declining school-age populations will offer the potential for additional budget savings in the medium term. The preferred approach for reducing education expenditures in general education is to reduce teacher numbers by changing the per-student funding formula. There are currently too many teachers and too many small classes in general education. **Several changes are proposed in the per-student financing formula**.

- base the adjustment for size-related cost differences on non-discretionary factors that affect class sizes and unit costs, rather than discretionary differences such as class size and school size;
- gradually and progressively raise the class size and teaching load assumptions on which the formula is based in order to motivate improved efficiency in teacher deployment, with the long-term goal of raising student/teacher ratios to OECD averages; and
- allow municipalities to spend salary savings under the formula for non-salary activities to improve teaching and learning.

These measures could yield budget savings of about 8 billion LT by 2020. Amending the per-student financing formula for general education so that declining student populations are matched by proportional reductions in the number of teachers (i.e. keeping unit costs constant at 2008 levels) would generate savings of 44 million LT in 2009 (assuming the changes are introduced at the start of school year 2009-10) and 275 million LT in 2010. Savings are predicted to increase each year until 2020 when they peak at 853 million LT. Gradually increasing class size by 1% each year would generate additional savings of 600 million LT by 2020. Some of these savings are expected to be invested in non-salary activities to improve teaching and learning.

Central financing and management of secondary vocational schools generates significant inefficiencies and disarticulation with general secondary education. Vocational schools are not attracting as many students as gymnasia and general secondary schools, and have higher unit costs and lower staffing efficiency. In order to promote better efficiency and better labor-market outcomes of vocational schools, **it is recommended that management of general secondary schools and vocational secondary schools be consolidated**, and that both types of schools be managed by municipalities under the same process and subject to the same performance criteria. Municipalities should be free to convert ineffective vocational schools to other uses that better meet local needs.

This system of budget financing in higher education consumes a large amount of resources. It covers about half of total higher education enrollments that could otherwise be used to improve higher education quality (expenditure per student is among the lowest on Europe); **it is inefficient** (because it finances a number of students who have the capacity to pay and the arbitrary manner in selecting specific fields and institutions for support); **and inequitable** (because tuition, scholarships and loans are exclusively allocated on the basis of performance, not needs).

The Ministry of Education and Science has proposed a higher education reform that would address most of these deficiencies—it is recommended that these proposed reforms be approved and implemented. Significant additional budget savings could be achieved through increased reliance on student fees, broader access to student loans, and targeted budget support.

Public spending on science and technology (S&T) institutes is high, but results in terms of innovation are below those of most other countries, which is part due to the financing system. Four-fifths of the S&T resources (managed by MES) are used to support the core costs of research institutes, which were inherited from the Soviet period. Only 20% of budget financing is used competitively to support specific R&D products. This approach to financing science and technology development embodies several important deficiencies: (i) it is supply-driven; (ii) it provides weak incentive for improved research productivity and relevance; and (iii) it prevents universities from playing the dynamic role that they should play in science and technology development.

It is recommended that budget financing for S&T development be changed to a competitive, internationally peer-reviewed approach. This would improve the efficiency and accountability of public support for S&T and would improve the quality and relevance of research products. This approach could be used to support solicited contract research on topics of agreed national priority and high-quality, unsolicited grant proposals. The same approach could support institutional contracts for specified research and technology products. Financing research products based on proposal quality should lead to a consolidation of research capacity among research institutes and universities. It is also recommended to reduce the number of research centers to be supported under "Sunrise Valleys" project from five to two, and use the remaining funds to support competitive research under this approach.

Summary of main proposed policy measures and their impact (million LT)

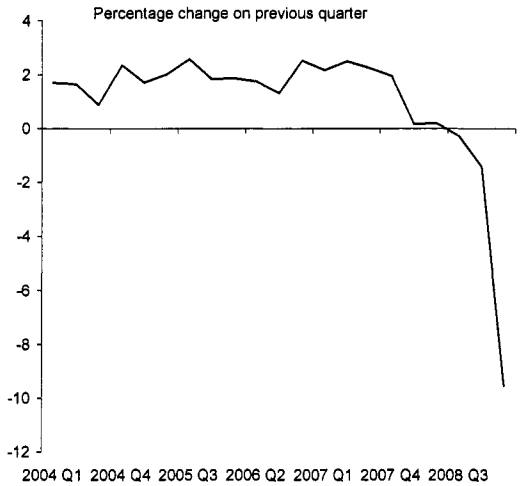
	Timeline	2009	2010	Medium and long term outcomes
Social protection				
Gradual increase in retirement ages up to age 65	2010		65	130mln LT in 2011 and higher future pensions
Earnings-related pension component based on the statistical average insured wage and subject to a fiscally sustainable rule-based indexation	2010			Savings and sustainable pension growth; improved transparency, incentives to contribute and intergenerational fairness
Base pension equal to the basic basket of goods	2010		120	40mln LT in each subsequent year for each 1% of real wage growth compared to the 2009 level
Restoration of full flow of contributions to the pension accumulation funds by the end of 2010	2010			Improved credibility of the second pillar and future pension complements
Rationalize the system of state pension supplements	2010			Improved control over overall pension growth
Limit total maternity leave period to 1 year	July 2009	445	534	
Lower the eligibility threshold of child benefit to 2 times the SSI and include children under 3	July 2009	89		Additional savings each year depending on how many families fall below 2*SSI
Introduce a central unique payment system with a single beneficiary registry for all SA benefits	2010			Reduce transaction costs; much faster response to demand; and more control over SA beneficiaries and benefits
Meet the additional demand for SBP, reaching 30% of the poor	2009	(57)		Increased protection of the poor during the crisis and beyond
Education				
Amend the per-student financing formula for general education so that reduced student populations are matched by proportional reductions in teachers and gradually increase class size	2009-2010 school year	44	281	Increasing savings each year until 2020 when savings peak at 963 million LT. Some of these savings are expected to be invested in non-salary activities to improve teaching and learning.
Greater reliance on fee-financing of higher education and targeted budget support	2010			Budget savings, improved efficiency and equity
Competitive financing of S&T	2010			Improved efficiency, greater quality of research, and savings from fewer research institutes
Health				
Rationalization of hospital infrastructure	2010/2011			Significant savings from hospital downsizing and improved quality of care
Strengthen primary care (e.g. by linking pay of primary care providers to performance in terms of coverage of key preventive services)	2010/2011			Savings and efficiency from reduced use of hospital services
Introducing proper accreditation and quality assurance mechanisms for health providers and revising hospital payment system to induce more efficient use of inputs and greater performance	2011			Greater accountability, improved efficiency and quality of care
Public administration				
Streamline the structure of public administration institutions (Sunset committee recommendations)	Sept 2009			Savings from improved efficiency from the elimination of redundant tasks and improved services by adjusting staffing for priority tasks
Control wage bill by empowering a central agency to control all personnel expenditures, and introducing a treasury payroll module to monitor public wages	From 2010			Control of the public wage bill growth, better coordination of pay and employment policies across groups of public employees
Improve the effectiveness of strategic planning by monitoring main policy indicators	By 2012			Improved accountability and performance
Revenue measures				
Increases in VAT and real estate taxes to regional norms	July 2009	543	1,086	
Enhancing monitoring of revenue collections and developing a tax compliance strategy				This will help reduce revenue loss during the crisis

Note: Numbers in brackets represent additional spending. Numbers without brackets represent fiscal savings

1. Macroeconomic outlook and risks

1. **After a period of strong growth following EU accession, Lithuania is now facing its worst economic crisis since independence.** GDP contracted by close to 10% quarter on quarter in 2009 (quarter 1) and projections for the remainder of the year and 2010 indicate ongoing weakness (Figure 1 and Table 1). Data for Q4 and partial high frequency data indicate that the decline has been mainly explained by falling domestic investment and exports, with consumption growth also weakening.

Figure 1: Quarterly change in real GDP (seasonally adjusted)



Source: Statistical Office

Table 1: Macroeconomic indicators

Annual percentage change (unless indicated otherwise)

	2005	2006	2007	2008	2009	2010
Real GDP	7.8	7.8	8.9	3	-11	-4.7
Private consumption	12.2	10.6	12.4	4.7	-17.5	-7.2
Public consumption	3.5	3.7	3.3	4.3	-9.9	-3.2
Gross fixed capital formation	11.2	19.4	20.8	-8	-22.1	-7.3
Exports	17.7	12	4.3	11.3	-15.1	-0.2
Imports	16.4	13.7	11.6	10	-23.8	-3.7
Employment	2.5	1.8	2.8	-0.5	-7.7	-2.4
Unemployment rate %	8.3	5.6	4.3	5.8	13.8	15.9
Unit labour costs	6	10.1	10.3	10.6	-7	-6.6
GDP deflator	6.6	6.5	8.8	10.3	2.3	-1.2
Current account balance % of GDP	-7.1	-10.4	-15.1	-12.2	-1.9	0.7
General government balance % of GDP	-0.5	-0.4	-1	-3.2	-5.4	-8

Source: European Commission–Spring Forecast 2009

2. **The severity of the contraction can be explained by a sharp fall in external and domestic demand and tightening credit conditions:**

- **Financial markets**. Following EU accession, growth was fueled by massive capital inflows, which peaked at almost 23% of GDP in mid 2007.[5] These inflows fueled domestic credit and created excess demand, which resulted in significant overheating and large current account deficits. With the sharp deterioration in the global economy in 2008 (quarter 4), the collapse of capital inflows and the bursting of the property market bubble, banks started to tighten credit conditions, resulting in negative capital inflows into the banking sector in early 2009 (Figure 2 and 3). Non-performing loans started rising in the fourth quarter of 2008 (Table 2).

[5] the gross external debt amounted to 72% of GDP in the third quarter of 2008, as bank credit to the private sector more than double in the last 5 years

- **Exports**. Exports have fallen by 28% in February 2009 year on year, partly on account of severe weakness in EU and Russian demand.[6]

Table 2: Non-performing loans of the banking system (compared to a respective loan portfolio, %)

	Total loans	Business Loans	Mortgage Loans	Consumer Loans
06/30/08	2.45	2.82	1.47	3.03
09/30/08	2.65	2.95	1.75	3.70
12/13/08	4.55	5.64	1.94	5.23
03/31/09	8.23	10.45	3.23	8.80

Note: NPLs are the sum of overdue (non-impaired loans) and impaired loans. This definition is broader than the one traditionally employed (e.g. loans overdue 90 days or more only).

Figure 2: Bank loans to the non-financial sector

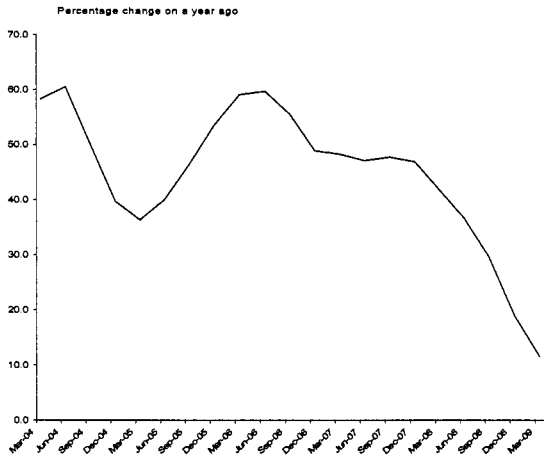
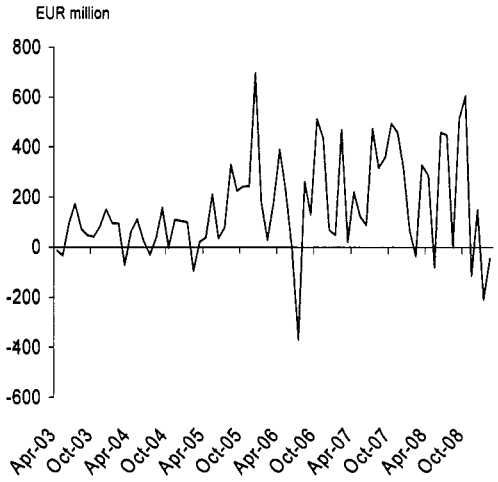


Figure 3: Capital inflows into the banking sector



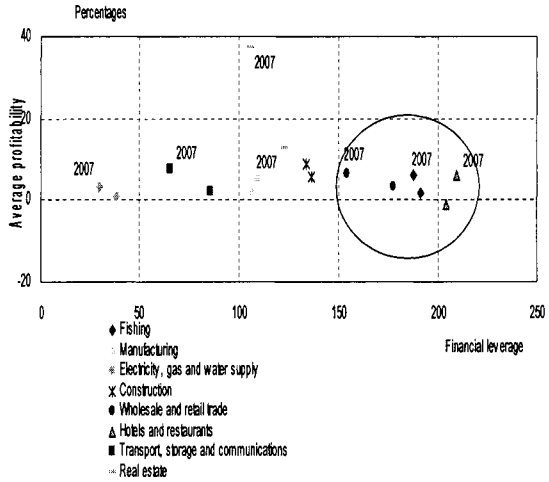
Source: Bank of Lithuania

3. **And the downturn could be more protracted than anticipated because the required increase in savings to deleverage balance sheets will depress consumption.** Indebtedness, although still less important than in the neighboring Baltic economies, has increased considerably in recent years and may need to be unwound. With little prospect of rising incomes or higher inflation, increased savings will be necessary for balance sheets to deleverage. This could depress consumption and investment for some time to

[6] Exports to Russia made up 16% of Lithuanian exports in 2008—this share declined to 11% in early 2009. Exports to the EU account for 70% of total Lithuanian exports.

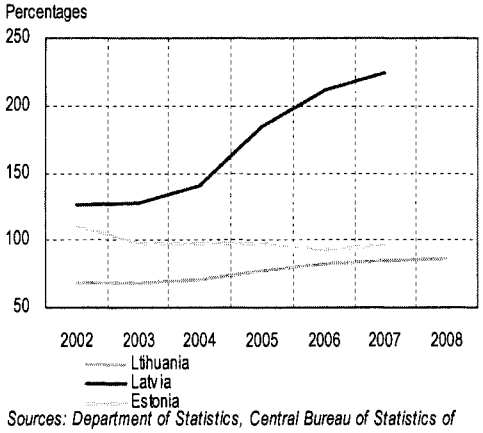
come. In some parts of the corporate sector (e.g. wholesale, retail, fishing, hotel and restaurants), profitability declined in 2008, while financial leverage—though still in aggregate well below levels observed in Latvia—was either high (over 150% of GDP) or rising (Figure 4 and 5). Household debt doubled relative to GDP between 2006 and 2008 (Figure 6). About 10% of indebted households in 2007 had a housing loan. Meanwhile, house prices declined by 25% year on year in March 2009, and household and banking surveys indicate that a majority of respondents expect further declines in the next 12 months to come (Figure 7). This suggests that more and more households are likely to fall into negative equity, encouraging savings further and depressing growth.

Figure 4: Profitability and financial leverage in the corporate sector - 2007 and 2008



Sources: Departemnt of Statistics and Bank of Lithuania calculations.

Figure 5: Financial leverage of enterprises in the Baltic states



Sources: Department of Statistics, Central Bureau of Statistics of Latvia, Statistics Agancy of Estonia and Bank of Lithuania

Note: Leverage is defined as company debt to equity.

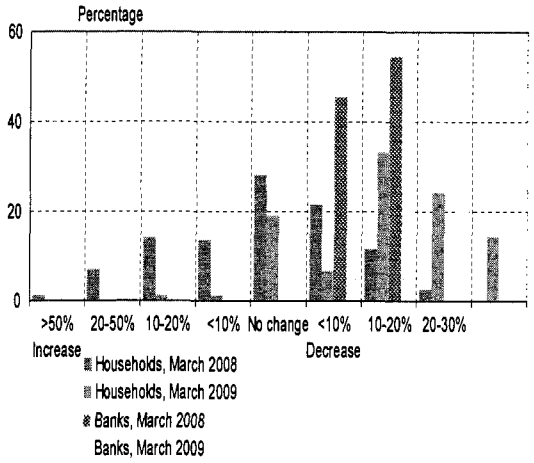
4. **The behavior of local banks will also be affected by rising credit defaults, including those in neighboring countries, which could also prolong the recession.** The banking sector is mostly foreign-owned. Exposures are concentrated in two Swedish banks with large operations in all three Baltic States and also in the Ukraine. These banks will face credit risk pressures not just on their exposures in the Baltic States (roughly worth 19% of GDP), but also in their home country and elsewhere. The Swedish economy is expected to enter recession in 2009. The European Commission in its latest Spring Forecast (May 2009) expects unemployment in Sweden to rise from 6.2% in 2008 to 10.4% in 2010.

5. In April 2009, the rating agency Fitch downgraded the Swedish banks and their Baltic subsidiaries on account of the deteriorating credit outlook. According to its estimations, one bank in particular would face considerable pressure on its capital base if the downturn turns out to be sharper than anticipated.[7] In such an event, the credit squeeze could take longer, prolonging the downturn. Moreover, the Lithuanian economy

[7] See Western European Banks' exposure to Eastern Europe and the CIS – Fitch Ratings, April 2009

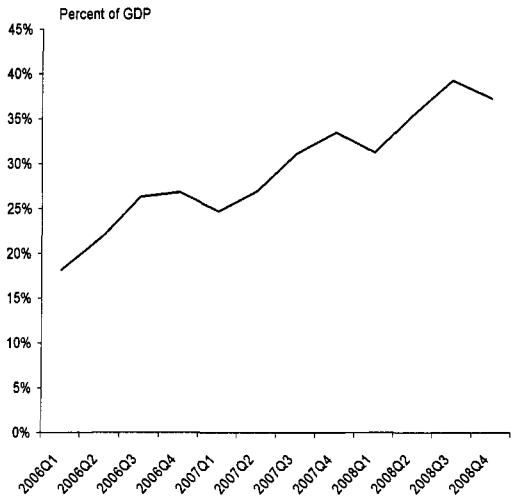
is directly exposed to spillovers of liquidity risks faced by Swedish banks: everything else equal, given the constraints posed by the currency board, failure of foreign banks to rollover local banks' large external debt (for example in a situation where they themselves faced a sudden increased demand for liquidity) would negatively affect FX reserves and hence domestic money supply, further shrinking the domestic economy.

Figure 6: House price expectations for the next twelve months



Sources: Household and bank surveys conducted on behalf of the Bank of Lithuania.

Figure 7: Household debt over GDP



Source: Bank of Lithuania

6. **And the economy-wide adjustment through the internal price mechanisms could generate negative feedback loops.** Unlike the Czech Republic, whose currency has depreciated sharply recently—helping to lower the real effective exchange rate, in Lithuania—as in the other Baltic states—domestic wage and price inflation need to be lower compared with that of its competitors (Figure 9). But this could lead to a deflationary spiral, where low or negative inflation discourages consumption and investment, placing further downward pressure on prices. The example of Hong Kong, a small open economy with a currency board, illustrates these risks. It was hit by a range of severe internal and external shocks in the late 1990s. Unit labor costs fell by 10-15% and remained at the lower levels for a prolonged period (Figure 8). Domestic consumption remained depressed for many years, as households struggled with negative equity and falling house prices.[8]

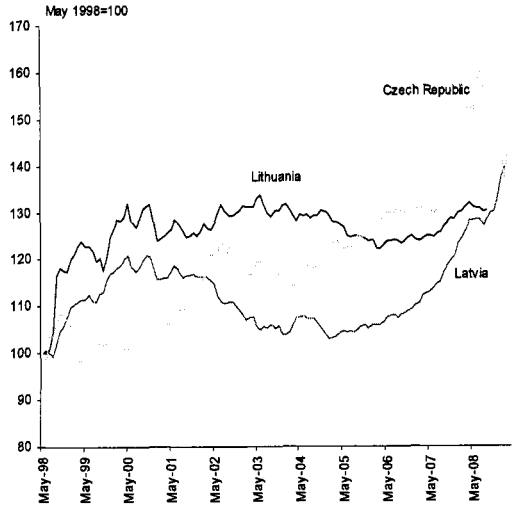
7. **Finally, although constraints posed by the exchange rate regime and the desire to rebuild credibility require strict fiscal policy, overly restrictive policies could prolong the economic downturn.** In April 2009, the government adopted a supplementary budget with expenditure reducing measures of around 4% of GDP. Still,

[8] Jao Y.C: *The Asian Financial Crisis and the Ordeal of Hong Kong*, Quorum Books, 2001

the European Commission in its latest Spring Forecast expects the fiscal deficit to widen to over 5% of GDP in 2009. The government now plans an additional adjustment in June to bring the deficit down to around 5% of GDP. While it will be important to strengthen Lithuania's structural fiscal position and ensure that expenditures are well targeted, fiscal policies must avoid contributing to a downward economic spiral.

Figure 8: Unit labor costs in Hong Kong - 1998-2003

Figure 9: Real effective exchange rates



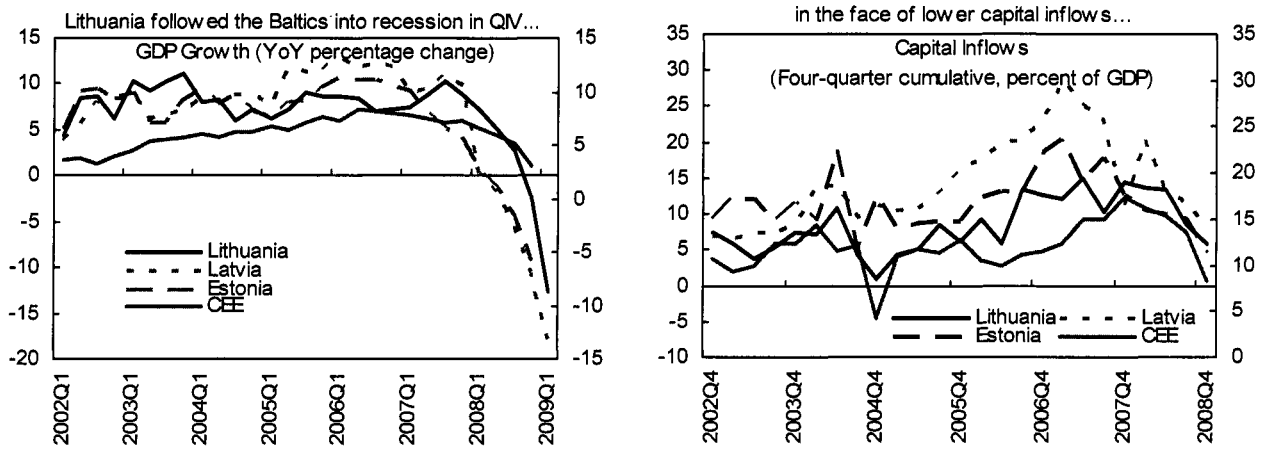
Source: Datastream

2. Overall fiscal scenarios and risks[9]

The Role of Fiscal Policy in Managing Volatility

8. **Managing capital flow volatility has proven to be the main challenge facing the Lithuanian economy.** Following the EU accession, rapid growth was fueled by a surge in capital inflows, which peaked at almost 23% of GDP in mid-2007 and remained high in 2008. These massive inflows fueled domestic credit and created excess demand, which resulted in overheating and macroeconomic imbalances. With the sharp deterioration in the global economy in the last quarter of 2008, a near sudden stop in capital inflows and the bursting of the property market bubble have brought an abrupt end to the foreign financed credit boom and caused a rapid adjustment in macroeconomic imbalances (Figure 10).

Figure 10: GDP growth and capital inflows

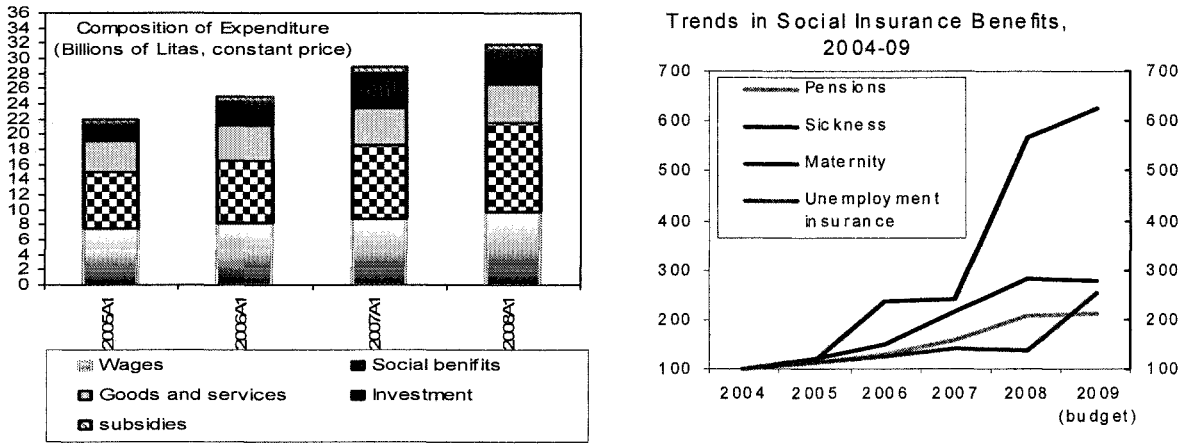


Source: Statistical Office, Bank of Lithuania. The average of CEE countries includes Czech Rep., Hungry and Poland.

9. **Despite planned counter-cyclical measures, the actual fiscal policy has been pro-cyclical during the capital flow boom, leaving a legacy of unsustainable public spending** (Figure 11). Spending rose by 50% between end-2006 and 2008 following generous public wage and social benefit increases, which grew in real terms by nearly 28% and 39%, respectively. Spending on pension benefit grew on average close to 30% per annum in 2006-2008, reflecting ad hoc increases in 'non-contributory' base pensions. Maternity benefit spending more than doubled between 2007-2008 to almost 1% of GDP, which reflected the extension in maternity leave to 2 years and an effective replacement rate in excess of 100%. Spending on sickness benefits grew nearly 40% between 2007-2008 reflecting strong wage growth (average benefits rose by 53% in between 2006 and 2008) and a 14% increase in claimants due to lax certification.

[9] This section was prepared by IMF staff Nina Todorova Budina, assisted by a larger IMF team, for the World Bank Public Expenditure Review. The findings and recommendations do not necessarily represent the views of the IMF.

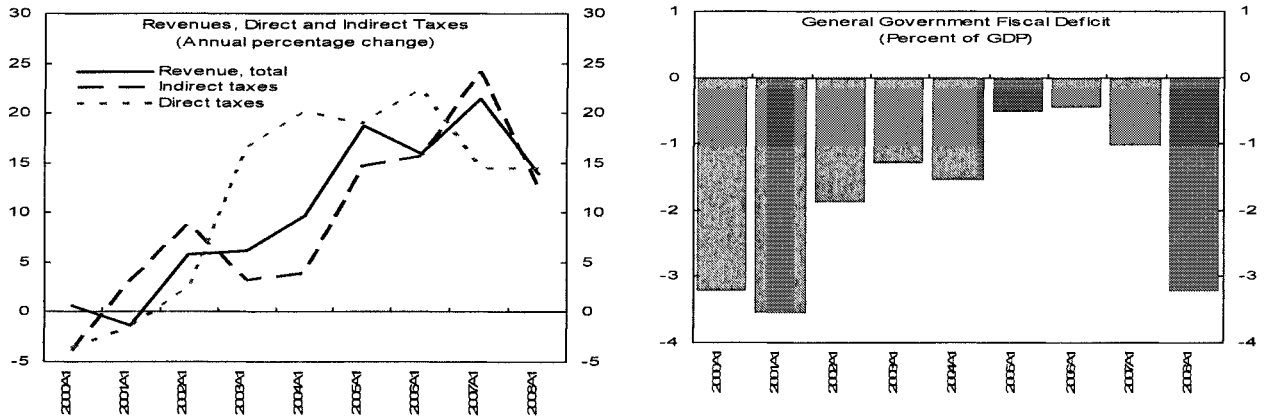
Figure 11: Public Spending during the Absorption Boom: Composition and Trends.



Source: Statistical Office; Ministry of Finance; and IMF staff estimates.

10. **The fiscal expansion was masked by cyclically-high fiscal revenues and large windfall receipts related to domestic absorption boom.**[10] For example, rapid growth in domestic demand has resulted in windfall VAT receipts of about 1 percent of GDP. Similarly, rapid wage growth, well in excess of the productivity growth resulted in a high share of labor in GDP. This implied windfall receipts and high effective rates of PIT and social security contributions as well. Strong revenue growth and the presence of windfall receipts kept the general government deficit low until 2007 (Figure 12). But when the economy slowed down in 2008, the headline fiscal deficit widened to 3.2% of GDP, despite the buoyant fiscal revenue. The social security (SODRA) deficit, caused by the growth in social benefits in 2008, represented about one third of the general government deficit in 2008 and was financed by exhausting accumulated reserves.

Figure 12: Trends in Public Sector Revenue Growth and General Government Deficit (% GDP).

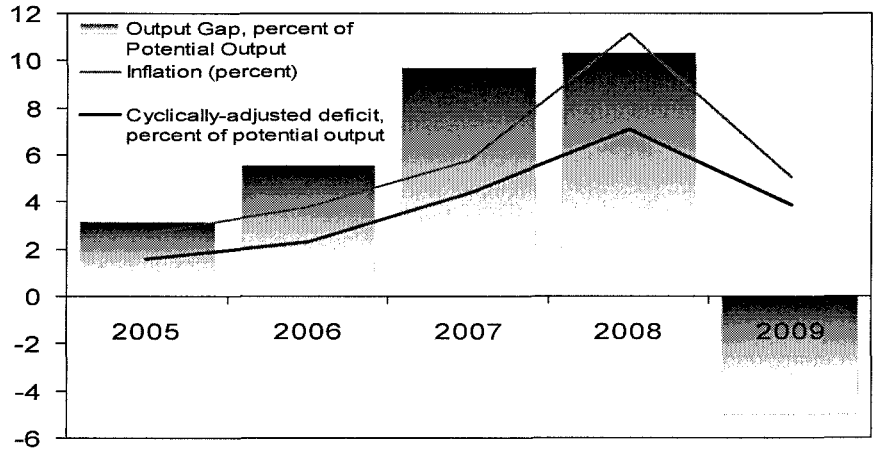


Source: Statistical Office; Ministry of Finance; and IMF staff estimates.

[10] For the revenue estimates during the absorption boom see Kangur (2009), "Impact of the Colapse of the Absorption Boom on Revenue", mimeo, Washington DC.

11. **Going forward, the fiscal management of capital flow volatility needs to be improved.** The new fiscal rules framework introduced only became effective for the 2009 budget planning process. The previous budgetary framework lacked comprehensive fiscal rules and was not effective in controlling spending during the boom—expenditure grew rapidly, passively following rapid revenue growth. The result was a four-fold increase in the structural deficit during the boom period—from 1.6% of potential output in 2005 to a record high of 7% of potential output in 2008 (Figure 13). The failure to implement planned countercyclical fiscal measures generated positive fiscal impulse and exacerbated domestic demand pressures during the boom period. Strengthening fiscal institutions to promote fiscal discipline and savings in good times can create a cushion against future downturns.

Figure 13: Output Gap, Structural Deficit and Inflation



Source: Statistical Office; Ministry of Finance; and IMF staff estimates.

The Economic Crisis and the Shortfall in Tax Revenue

12. **As the crisis hit, revenues associated with the credit boom dissipated and a large revenue shortfall emerged in 2009.** Tax revenue collections of the central government were down by 27% year-on-year in January-March 2009, far in excess of the nominal drop in the tax bases (nominal GDP and private consumption decreased by 15.6% and by 8.6% year-on-year, respectively). All types of revenues have been affected, including social security contributions. The largest drop so far is in VAT revenue, despite the increase in the standard VAT rate from 18% to 19% and the elimination of most exemptions in January 2009. Revenue shortfalls are common during downturns (Box 1). With the end of the absorption boom, the large windfall receipts from VAT (nearly 1 percent of GDP) will cease and will likely result in permanently lower VAT tax receipts. Furthermore, as a result of the recent PIT tax cut and the downward adjustment in wages, PIT collections can be expected to decline by 0.6-0.8 percentage points in an effective PIT rate vis-à-vis GDP.[11]

[11] See Kangur (2009), mimeo, Washington DC.

13. **There is evidence of worsening tax compliance in a downturn, as firms and consumers facing cash flow problems delay tax payments.** In particular, the VAT compliance had begun to deteriorate earlier in 2008 before the recession truly deepened, suggesting pre-existing problems in administration—an assessment also supported by rising stock of arrears. The compliance ratio (the ratio of the net VAT proceeds over the maximum collectable amount at the headline rate), an indicator of the efficiency of collection was very high, especially towards the peak of the boom - at about 70% compared to an EU average of 63%- while VAT collection is difficult in small transit countries. However, stocks of unpaid VAT refunds of 1% of GDP in Lithuania boosted this ratio. These refunds are likely to be more quickly claimed by firms as the downturn deepens and this should negatively impact headline VAT collections.

Fiscal Sustainability and Risks to the Baseline Scenario

14. In 2009, as the crisis hit with full force, sizeable expenditure commitments could not be met with the much lower fiscal revenue and a large upfront adjustment was introduced to regain short term fiscal sustainability. Without adjustment measures, the general government deficit would have reached 15% of GDP. Since the beginning of the year, the authorities implemented discretionary fiscal adjustment measures for about 6.5% of GDP and plan to implement further measures in June this year.

Box 1. Economic Downturns and Revenue Shortfalls: Lessons for Lithuania

The global financial and economic crisis presents a major challenge for tax revenues in many countries. Three out of four high profile crises of the 1990s suffered revenue losses (See Table 1). Turkey, for example, suffered a large revenue loss (4 percent of GDP) in the year following the 2001 financial crisis. In four out of six countries with IMF programs in Europe and former Soviet Union, there have been sharp revenue shortfalls in 2008 and 2009 relative to original program revenue targets. Most of these countries are also suffering severe economic downturns and there have been significant downward revisions to macroeconomic parameters. Furthermore, large structural changes in the economy (e.g. collapsing import and consumption and "disappearance" of key economic sectors of the economy) have led to a decline even disappearance of tax bases during recession.

Developments in Government Revenue during Crisis Cases				
	1997	1998	1999	2000
Russia (Jul 98)	30.8	34.6	32.9	36.2
	1998	1999	2000	2001
Brazil (Nov. 98)	28.1	30.5	28.9	30.2
	1994	1995	1996	1997
Mexico (Dec. 94)	11.3	9.3	8.9	9.8
	2000	2001	2002	2003
Turkey (Feb 01)	30.4	33.0	28.7	28.2

Revenue shortfalls are generally larger than what can be explained by deviations in macroeconomic parameters. A recent FAD board paper on fiscal policy in crisis presents econometric evidence that links tax collections to asset prices. Structural change (e.g., increase in demand for large VAT credits outstanding) or worsening compliance with the tax laws exacerbate the revenue loss from the crisis. To help mitigate the compliance decline and associated revenue loss, tax agencies are encouraged to develop a *tax compliance strategy* for the crisis by expanding assistance to taxpayers, refocusing enforcement on emerging compliance risks, enacting legislative reforms that facilitate administration, and improving communication programs.

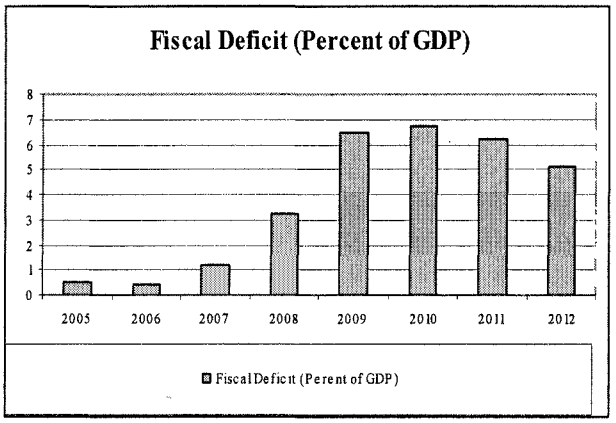
So far most of crisis countries have been forced to take expenditure measures but some implemented revenue measures as well. Evidence based on a sample of 66 successful fiscal adjustments, defined as no or small reversal in the first three years, show that on average, expenditure measures comprise 76 percent of total fiscal adjustment.[1] However, some countries also implemented emergency stop gap measures (e.g. rate increases) in response to widening fiscal deficits. These could be used if justified by fiscal sustainability, tax system efficiency and fairness reasons (e.g. getting marginal tax rates right) or structural reasons (e.g. impact on labor market incentives could be improved, problems in the social security addressed). However, these revenue-increasing measures should use the opportunity to implement more fundamental structural reforms.

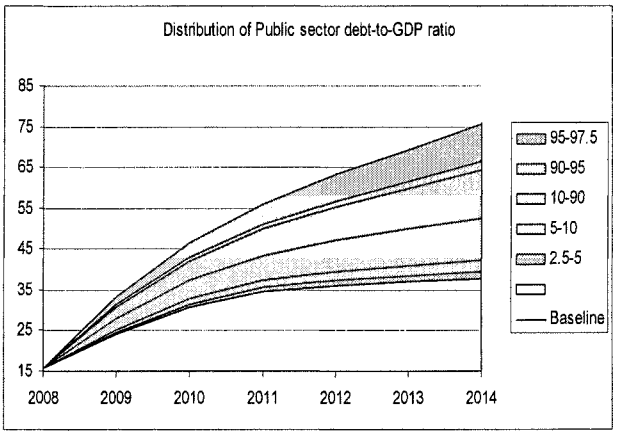
Source: FAD, IMF

15. **Even assuming additional fiscal adjustment, it will be hard to meet the Maastricht deficit criterion in the medium term.** Under a hypothetical scenario in which GDP contracts by 14.5% and 4% in 2009 and 2010, respectively (which is around the projections made by the Bank of Lithuania), the fiscal deficit is likely to reach 6.5% and 7% of GDP in 2009 and 2010, respectively.[12] The fiscal deficit is projected to improve in 2011 as the economy recovers. (Figure 14). However, permanently lower revenues and lower potential growth imply that without further structural reforms, fiscal deficit will remain at about 4% of GDP in 2013 and 2014, well above the Maastricht deficit threshold of 3% of GDP.

16. **Such a fiscal strategy is also not risk-free in terms of fiscal sustainability.** With fiscal deficits within the 6 ½-7% of GDP range, public debt is projected to increase to 40% in 2011. Beyond that, public debt will continue to increase, but will still be below 50% in 2014. However, given the uncertainty surrounding key macro variables in projecting the debt dynamics, stochastic simulations show that the maximum likely debt limit in 2012 is already well above the Maastricht debt-to-GDP criterion of 60% of GDP. Beyond 2012, public debt would rise rapidly and there is more than 10% chance that public debt will breach the Maastricht debt-to-GDP criterion of 60% of GDP by the end of the projection period (Figure 5).

Figure 14: Baseline fiscal strategy and impact on fiscal sustainability





Source: Statistical Office; Ministry of Finance; and IMF staff estimates.

17. **Additional efficiency-enhancing structural reforms will be needed to regain fiscal sustainability and to ensure compliance with the Maastricht criteria.** Given the rapid growth in social spending and the public sector wage bill (the two largest categories of public spending) during the absorption boom, and the need to align public spending with permanently lower public sector revenue, fiscal adjustment should mostly rely on structural expenditure reforms for fiscal savings. For example, reforms to bring pension benefits in line with contributions would be needed to eliminate the deficit of the social security (SODRA). Furthermore, fiscal risks from contingent liabilities in banks,

[12] These estimates incorporate fiscal measures already implemented, and an additional adjustment in June for 1.5% of GDP.

SODRA, local governments and guarantees related to SMEs and PPPs may further undermine fiscal sustainability. Fiscal institutions should therefore align incentives and capacity to monitor, disclose and manage risks and integrate them in fiscal policy analysis. Finally, going forward, changes in fiscal rules could be considered, to allow a role of fiscal policy in smoothing volatility.

18. **While the fiscal adjustment should be mostly expenditure-based, there may be room for achieving fiscal savings through some revenue measures**. A full assessment of the scope for additional revenue measures would require an overview of the tax system. The next section provides some preliminary ideas/options for revenue measures that could bring fiscal savings over 2009-10.

Reducing the Fiscal Deficit: Possible Revenue Measures

19. **There may be room for fiscal savings through some revenue measures.** A tentative list of possible revenue measures affecting VAT and property taxes could yield up to 1% of GDP on a full-year basis, or 0.5% for the remainder of 2009 if implemented as of Jul 1, 2009 (Table 3). Other options could include user fees and the (politically very difficult) reversal PIT tax cut. Both indirect and direct tax collections are below the average for the Baltic countries and the sample of nine new EU members for which data is available. Enhancing monitoring of revenue collections and developing a tax compliance strategy for the crisis could help minimize revenue risks.

20. **Value-added tax (VAT).** Lithuania's standard VAT rate remains modest by international standards, despite the recent 1 percentage point increase to 19%. This could be increased to 21% without exceeding the standard rates now levied in Latvia or Poland. It is estimated that the full year effect of a 2 percentage point increase of the standard VAT rate (from 19 to 21%) would affect about 0.6% of GDP. This calculation incorporates estimated declines in the tax compliance ratio and the tax base (consumption) of 1% as a result of the 2 percentage point increase in the VAT rate. However, the fiscal savings may be overestimated if tax compliance weakens during the crisis. The estimate does not account for the cyclical impact of the economic downturn on the VAT receipts. Data from 2007 also point to inefficiencies in VAT collections in Lithuania (Table 5). The phasing out of concessional VAT rates will help raise efficiency but more steps may be needed.[13]

21. **Personal income tax (PIT).** Following tax cuts over the past decade, including in the 2009 budget, the PIT standard rate is now 15% (20% for dividend income). Abstracting from the inclusion (until this year) of health insurance contributions in PIT, revenues from PIT (as a percentage of GDP) have been below the average for the Baltics and for the sample of nine new EU members even before the most recent tax cut. A reversal of the most recent cut in PIT rates, i.e. increasing the flat tax rate from 15 to

[13] While it is not possible to quantify near-term revenue gains that could be achieved from improvements in tax administration; the Fund's Fiscal Affairs Department has considerable experience in improving VAT administration in other countries in the region and could be available to give technical assistance, if requested.

18%, could yield fiscal savings of about 0.8% of GDP on a full-year basis.[14] Such a measure, however, would also have some negative effect on consumption.

22. **Property taxes.** International comparisons show that in 2007, Lithuania's property tax revenue as a share of GDP was the second lowest amongst the sample of 9 new EU members. While recognizing that increasing property taxes in the midst of falling real estate prices may not help economic recovery, an increase in revenue from property taxes may provide some scope for fiscal savings in the medium term. Therefore, the authorities may consider ways to bring property tax revenues closer to its average for the region, which could yield a full year effect of 0.4% of GDP. However, in view of current constraints, it is assumed that the scope of such an increase would be limited in 2009 and can perhaps result from a small increase in transaction taxes/duties which may yield about 0.1% of GDP.

Table 3: Possible composition of fiscal adjustment

	Full-year savings	Impact in 2009
	(% of GDP)	
Possible Revenue Measures (1+3)	**1.0**	**0.5**
Indirect Taxes		
VAT (1)		
Increase of the VAT rate by additional 2 percentage points to 21%	0.6	0.3
Direct Taxes		
PIT (2)		
Reverse income tax decline in 09 budget (e.g. through a reversal of the recent PIT tax cut)	0.8	...
Real Estate and Property Taxes (3)		
Increase revenue in line with the average for the new EU member countries	0.4	0.2
Other revenue (fees, dividends)		
Possible increase in fees, other (4)	0.5	0.3

Note: Assuming implementation as of Jul 1, 2009. Calculations are based on a nominal GDP of Litai 108587 million for 2009. The figure for real estate taxes is a back of the envelope estimate (it may overstate the yield during the crisis)

[14] In Table 3 such a measure is not assumed to be effective in 2009, but some impact in 2009 may be possible if the authorities are able to overcome any legal and/or logistical administrative obstacles to increasing the PIT rate in the middle of the year (or applying a surcharge).

G G m Op

	Bulgaria	Croatia	Czech Republic	Estonia	Latvia	Hungary	Poland	Romania	Slovak Republic	Slovenia	Lithuania
Total Revenue	41.6	46.1	41.6	38.2	35.5	44.9	40.0	34.7	32.7	42.9	33.9
Tax Revenue	26.1	26.7	...	21.7	22.2	25.9	23.1	19.7	17.3	...	20.9
Direct taxes	7.9	7.2	...	8.1	9.8	10.7	9.2	7.4	6.3	...	9.5
Taxes on income, profits, and capital gains	6.4	6.8	...	7.8	9.2	9.9	8.1	6.6	6.0	...	9.2
Income tax	3.2	3.6	...	6.1	6.4	7.2	5.3	3.6	2.9	...	6.7
Corporate profit tax	3.2	3.2	...	1.7	2.9	2.8	2.7	3.0	3.0	...	2.6
Other taxes	0.1	0.0	...	0.0	0.0	0.0	0.0	0.0	0.0	...	0.0
Taxes on property	1.5	0.4	...	0.2	0.5	0.8	1.1	0.7	0.4	...	0.3
Indirect taxes	17.9	18.7	...	13.6	12.2	14.8	13.1	12.0	10.9	...	11.3
VAT	11.7	13.8	...	9.2	8.6	10.3	8.4	8.3	6.8	...	8.1
Excises	5.9	4.4	...	3.8	3.2	3.4	4.1	3.1	3.5	...	2.9
Other	0.3	0.5	...	0.6	0.3	1.2	0.7	0.6	0.6	...	0.3
Other tax revenue	0.3	0.7	...	0.0	0.3	0.3	0.8	0.3	0.0	...	0.0
Social contributions	8.7	13.5	...	11.1	9.1	13.6	12.0	10.7	11.8	...	9.3
Grants	2.1	0.2	...	...	3.3	0.9	0.6	0.5	0.4	...	1.8
Other revenue	4.7	5.7	...	5.4	0.9	4.5	4.3	3.8	3.2	...	1.9
Total Expenditure	41.5	43.2	12.6	35.5	35.5	49.8	42.0	37.3	34.6	42.4	35.2
Expense	36.6	39.2	10.4	31.9	30.2	49.3	40.1	33.6	32.9	...	32.4
Compenstaion of employees	8.2	11.3	...	10.0	10.0	11.5	9.7	9.2	6.8	...	9.6
Wages and salaries	6.5	9.6	...	6.8	7.6	8.5	8.3	7.1	5.2	...	7.4
Social contributions	1.7	1.7	...	3.2	2.4	3.0	1.4	2.2	1.6	...	2.2
Goods and services	7.0	5.5	...	6.5	5.7	6.7	5.9	6.4	4.5	...	5.4
Grants	0.0	0.6	...	...	1.0	0.7	1.0	1.0	0.8	...	0.7
Subsidies	1.4	2.7	...	0.8	7.2	1.4	0.5	1.6	2.2	...	0.9
Interest payments	1.1	2.0	...	0.2	0.4	4.0	2.1	0.8	1.6	...	0.7
Social benefits	13.3	17.7	...	10.4	7.8	18.1	16.3	9.6	15.8	...	11.4
Other expense	5.7	-0.7	...	4.0	-1.9	6.8	4.6	5.0	1.2	...	3.7
Net acquisition of nonfinancial assets 2/	4.9	4.0	2.2	3.6	5.3	0.5	1.9	3.7	1.7	...	2.8
Net lending (+) / borrowing (-)	0.1	2.9	-1.0	2.7	0.0	-4.9	-2.0	-2.6	-1.9	0.5	-1.3
Memorandum item:											
Nominal GDP	56,520	275,078	3,551	238,929	13,957	25,406	1,167,796	404,709	1,851,787	8,261	98,139

Sources: IMF GFS, IFS, WEO, and EUROSTAT. For Bulgaria, Croatia, Latvia, Slovak Republic, and Slovenia, cash basis is used for all revenue and expenditure data, u l :s: otherwise stated. Cash basis for Bulgaria, Croatia, Czech Republic and Latvia. Cash basis for Bulgaria, Croatia and Latvia.

Table 5: VAT Revenue Productivity in European Countries

	Current Standard VAT Rate	Current Other Positive Rates	Total VAT revenue (In percent of consumption)	Total VAT revenue (In percent of GDP)	Revenue Productivity 2/ Based on Consumption	Revenue Productivity 2/ Based on GDP	Year
	(In percent)						
Albania	20.0		8.7	8.3	0.437	0.415	2006
Austria 3/	20.0	10.0; 12.0;16.0	10.6	7.7	0.529	0.385	2006
Belarus	18.0	10.0	17.4	12.3	0.964	0.682	2006
Belgium 3/	21.0	6.0; 12.0	9.6	7.3	0.457	0.349	2005
Bosnia and Herzegovina	17.0		13.0	14.2	0.767	0.835	2006
Bulgaria 3/	20.0		13.6	11.9	0.678	0.593	2006
Croatia	22.0		18.3	13.9	0.830	0.632	2006
Cyprus 3/ 4/	15.0	5.0; 8.0	12.6	10.4	0.840	0.691	2006
Czech Republic 3/	19.0	5.00	9.5	6.7	0.499	0.351	2006
Denmark 3/	25.0		13.7	10.3	0.548	0.410	2006
Estonia 3/	18.0	5.00	12.7	9.1	0.703	0.506	2006
Finland 3/	22.0	8.0; 17.0	11.8	8.7	0.538	0.394	2006
France 3/	19.6	2.1; 5.5	9.4	7.6	0.477	0.386	2006
Germany 3/	16.0	7.00	8.3	6.4	0.518	0.399	2006
Greece 3/	19.0	4.5; 9.0	7.9	6.0	0.418	0.318	2005
Hungary 3/	20.0	5.0; 15.0	13.1	10.0	0.654	0.501	2006
Iceland	24.5	14.00	13.6	11.5	0.553	0.468	2005
Ireland 3/	21.0	4.8; 10.0; 13.5	12.7	7.8	0.606	0.371	2006
Israel 5/	15.5		11.9	9.6	0.768	0.619	2006
Italy 3/	20.0	4.0;10.0	8.0	6.3	0.398	0.315	2006
Latvia 3/	18.0	5.00	10.2	8.3	0.566	0.463	2006
Lithuania 3/	18.0	5.0; 9.0	9.0	7.5	0.497	0.417	2006
Luxembourg 3/	15.0	3.0; 6.0; 12.0	10.6	5.6	0.708	0.372	2006
Macedonia	18.0	5.0	9.0	8.8	0.503	0.487	2006
Malta 3/	18.0	5.0	4.1	3.4	0.226	0.188	2006
Moldova	20.0	5.0; 8.0	11.9	13.8	0.596	0.692	2006
Montengro	17.0		12.2	12.7	0.716	0.747	2006
Netherlands 3/	19.0	6.00	10.2	7.6	0.537	0.398	2006
Netherlands Antilles	5.0	3.0	6.6	5.3	1.319	1.055	2005
Norway	25.0	8.0; 13.0	13.3	8.0	0.532	0.322	2006
Poland 3/	22.0	3.0; 7.0	9.5	7.7	0.430	0.351	2005
Portugal 3/	21.0	5.0; 12.0	9.5	8.0	0.451	0.382	2004
Romania 3/	19.0	7.00	9.4	7.8	0.496	0.413	2006
Russia	18.0	10.00	8.5	5.6	0.475	0.311	2006
Serbia	18.0		11.6	10.6	0.645	0.589	2006
Slovak Republic 3/	19.0		9.8	7.6	0.517	0.397	2006
Slovenia 3/	20.0	8.50	12.2	9.1	0.612	0.455	2006
Spain 3/	16.0	4.0; 7.0	8.4	6.4	0.528	0.401	2006
Sweden 3/	25.0	6.0; 12.0	12.5	9.4	0.499	0.376	2006
Switzerland	7.6	2.4; 3.6 /	5.57	4.01	0.733	0.527	2006
Turkey 7/	18.0	1.0; 8.0	9.0	7.2	0.502	0.399	2006
Ukraine	20.0		11.9	9.3	0.593	0.463	2006
United Kingdom 3/	17.50	5.00	11.91	10.46	0.681	0.598	2006
Unweighted average (All)	18.76		10.77	8.60	0.594	0.475	
(Excluding European Union countries)	18.74		11.70	9.72	0.635	0.527	
(Excluding OECD countries)	17.8		11.16	9.36	0.659	0.551	

Sources: IMF, Country documents; Government Finance Statistics (IMF); World Economic Outlook (WEO); Revenue Statistics Database(OECD); National Account Database (OECD); International Bureau of Fiscal Documentation (IBFD); Taxation and Investment in Central and East European Countries (IBFD); Corporate Taxes, Worldwide summaries(PricewaterhouseCoopers);and Fund staff estimates. Figures refer to General Government; 2/Revenue productivity = Total VAT revenue as percentage of consumption or GDP, divided by the VAT standard rate; 3/ European Union countries; 4/ Central government; 5/ State Budget; 6/ The reduced 3.6 percent rate applies to the supply of accommodation; 7/ In Turkey 26 percent and 40 percent rates apply to luxury goods.

3. Public Administration and Public Wage Bill

Public Administration

23. **Lithuania is a regional leader in developing its civil service among the new EU members.** According to the 2009 SIGMA report,[15] Lithuania achieved the highest fit with the European principles of public administration and continued civil service reforms after its accession to the EU. The main challenge now, exacerbated by the economic downturn, is to improve the performance of the civil service and achieve better value for money, while preserving the merit system that upholds professionalism and ethics in the public administration.

24. **Lithuania has a credible system of strategic planning that informs allocation of public resources through the budget, but there is no monitoring system for policy outcomes.** This enables the Government to make better informed decisions on core policy issues and presents a good foundation for developing performance informed budgeting. However, a system for monitoring policy outcomes is not yet in place, which hampers accountability of public officials and government organizations.

25. **The decentralized institutional system functions well but there are too many agencies reporting directly to the government and limited use of Information and Communication Technology (ICT) hampers the integration of government services.** The institutional system is built around the principle of vertical hierarchy with decentralization of tasks to agencies reporting to ministries and decentralization of service delivery function to local authorities. The large number of agencies reporting directly to the government (as opposed to sector ministries) creates problems with management and accountability. The poor use of ICT limits the integration of government services, resulting in inefficiencies and lower-standard services to citizens and businesses.

26. **The size of the civil service is not too big but it has increased significantly recently.** According to the Law on Civil Service of 2002, the civil service in Lithuania is narrowly defined, covering 30,144 administrative personnel at the central and local level with responsibilities for management or government policies and execution of state budget. Additionally, almost 35,000 officials in police, customs, diplomatic service, and national defense form a statutory civil service, which is governed by special laws. In early 2009 the total civil service employed 1.4% of the total labor force (3.1% including statutory civil servants). The size of the general civil service has increased by 40%

[15] Meyer-Sahling, J.-H. (2009) *Post-Accession Sustainability of Civil Service Reform in Central and Eastern Europe.* Paris: OECD-SIGMA Publications.

between 2002 and 2008 from 19,000 to over 30,000 persons.[16] This increase is partly explained by the direct impact of EU membership, which required that some functions be performed by civil servants under a stricter legal regime than that of a Labor Code.

The public wage bill

27. **The public wage bill has been growing rapidly in recent times, particularly in 2008, following sharp increases in public wages**. Between 2004 and 2008, the public wage bill grew by 50% in real terms (19% in 2008), and accounted for 29% of the increase in public expenditures in 2008. Most of this increase is due to rising public wages (60% between 2004 and 2008). All public sector wages grew at similar rates but wages of doctors more than doubled in real terms, and all public sector wages grew faster in 2008 than comparable private sector wages (Figure 15). In 2008, doctors were by far the best paid public employees, followed by public administration officials, and both groups had significantly higher wages than non-manual private sector workers. University staff had wages similar to non-manual private sector workers, while teacher salaries were significantly below. Since teachers are the main group of public employees (Figure 16),[17] overall, the average public sector wage was 15% lower than the average comparable private sector wage.[18]

28. **The evolution of public sector pay has been partly motivated by increased EU labor mobility**. Freedom of movement of persons in the EU created pressures for leveling salary levels with the EU averages for core professional groups, such as qualified doctors. However, with increasing pay levels in the health sector, other occupational groups, such as teachers, used their union to push for higher pay.[19] Also, despite the increases in the salaries of doctors health services and outcomes have not improved. And despite the high salaries relative to comparable private sector workers, there were over 600 vacancies in the public administration before the freeze imposed in December 2008. While improving public sector pay may in some cases be justified, increasing salaries across-the-board (as opposed to targeted increases tied to performance) is not the most cost-effective policy to attract, retain and motivate public employees.

29. **The escalation of the public wage bill is partly driven by political pressures and prompted by the lack of a reliable system for managing and monitoring public sector pay policies.** While improving public pay may be justified in some cases, across-the-board increases (as opposed to targeted increases tied to performance) are not a cost-effective way to attract, retain and motivate public employees. And the escalation of

[16] The highest increases took place in the systems of interior (265%), labor and social protection (187%), agriculture (174%), and courts and prosecution (114%). Municipal agencies added 38% of new civil servants to a total of 6,488.

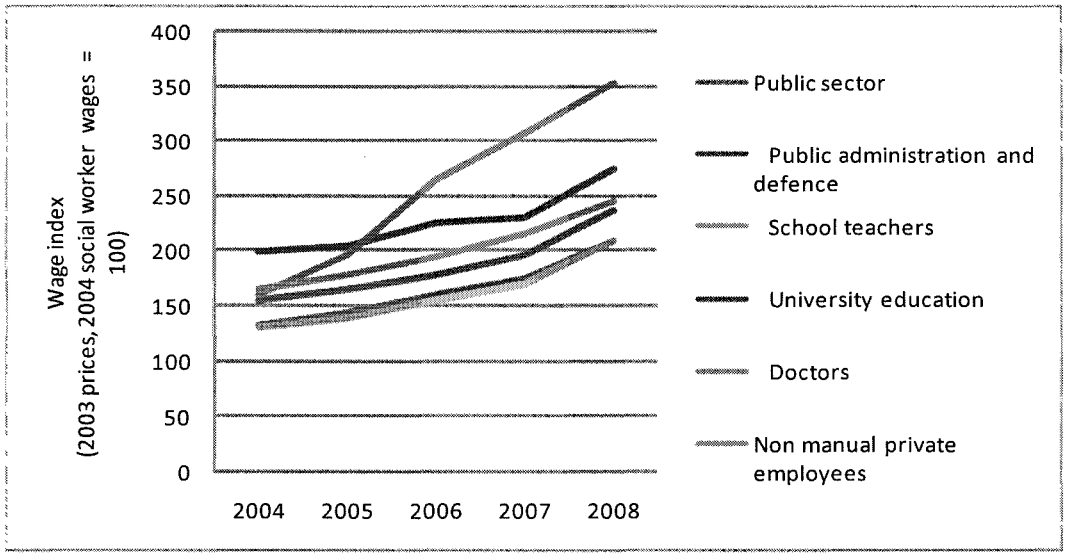
[17] This public wage bill reported in Figure 16 only includes employees paid from the state and municipal budgets. It does not include those paid by SODRAS (e.g. health staff) or employees from public and state enterprises.

[18] In order to identify whose wage is above the market rate an analysis of wage differentials taking into account difference in worker and job characteristics would be needed.

[19] Also, judges, usually a well-paid group to compensate for corruption risks in the justice system, have been given significant pay increases, setting the high standard for other sectors to follow

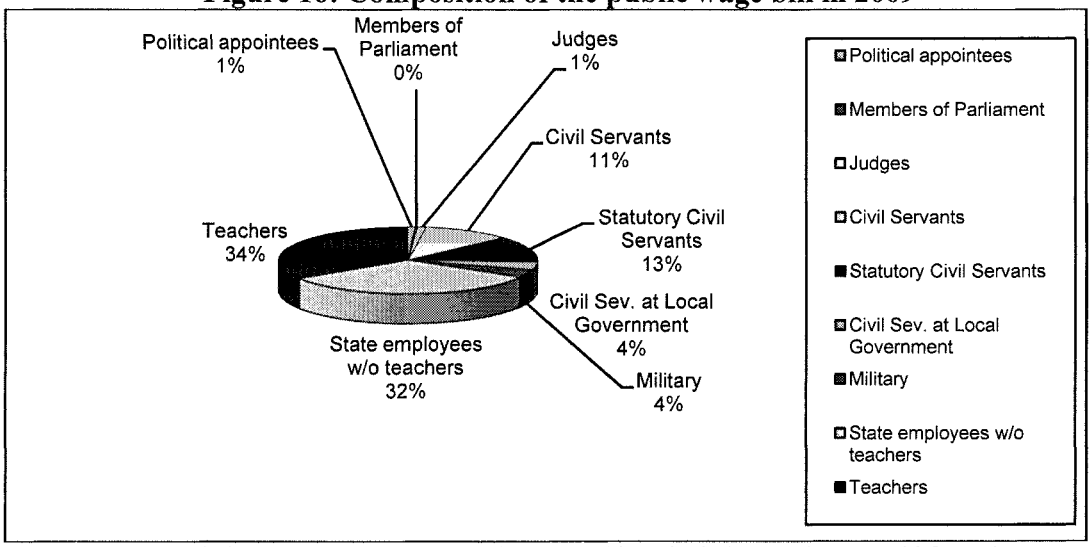
public sector wages in recent times was also driven by political pressures. While the Ministry of labor and Social Security (MSSL) is responsible for ensuring balanced public sector pay policies, political pressures result in some public sector groups being favored over others. And the decentralized management of the public sector payroll without central monitoring creates incentives for expanding personnel expenditure.

Figure 15: Wages of public sector employees and comparable private sector employees



Source: Labor Force Surveys 2004-2008

Figure 16: Composition of the public wage bill in 2009



Source: Ministry of Finance. The public wage bill reported here includes employees paid from the state and municipal budgets. It excludes those paid by SODRAS or employees from state enterprises.

30. **In 2009 the Government has cut the public administration wage bill as part of the fiscal adjustment, but further adjustments in the wage bill will also have to consider other public employees and alternative sources of savings.** The 2009 budget appropriations for salaries were reduced for some categories of public officials

31. Table **6**): political appointees (17%), general civil servants (10%), and the military (6%). The appropriation for statutory civil servants has remained practically unchanged despite their average pay being roughly the same as that of general civil servants.[20] The April 2009 budget amendment included a reduction in pay levels for civil servants of rank 15 and above of 10% on average. At the same time, the appropriation for educational employees increased in 2009 by LTL 0.5 billion (or 28%), accounting for 36% of the total public sector appropriation for salaries at level I and II in 2009.[21]

32. Given that civil service only accounts for 27% of the total public wage bill and the wages of other public employees have even increased in 2009 in some cases, any significant reduction in the wage bill would have to involve other public employees and explore alternative sources of savings. To generate additional savings, the Government could also consider structural consolidation, reduction of scope of non-essential functions and tasks, temporary freezes on hiring, temporary withholding of pay increases related to seniority (length of service), discontinuing payment of bonuses and additional pay for expansion of the scope of work due to substitution of temporary absent employees.

Table 6: The composition of the pubic wage bill and changes

		2007	2008	2009	Change 09/08
Level I	Political appointees	70,799	79,670	65,739	-17%
	Members of Parliament	8,497	9,596	20,875	118%
	Judges	56,788	62,639	77,170	23%
	Civil Servants	653,529	853,454	772,046	-10%
	Statutory Civil Servants	730,141	934,617	925,815	-1%
	Civil Serv. at Local Govt.	202,568	263,339	256,387	-3%
	Military	281,817	314,372	295,796	-6%
	Total at level I	**2,004, 139**	**2,517,687**	**2,413,828**	-4%
Level II	**State Budget Employees**	**1,288,814**	**1,560,141**	**1,562,305**	0.14%
	of which teaching staff	n/a	254,341	217,505	-14.48%
	w/o teaching staff	n/a	1,305,800	1,344,800	2.99%
	Municipal employees	**2,179,294**	**2,606,754**	**3,212,707**	23.25%
	of which teachers	1,412,320	1,665,631	2,249,024	35.03%
	without teachers	766,974	941,123	963,683	2.40%
	Total inc. teachers	**3,468,108**	**4,166,895**	**4,775,012**	14.59%
	Total teachers	n/a	1,919,972	2,466,529	28.47%
	other employees		2,246,923	2,308,483	2.74%
Level I+II	**Total public wage bill**	**5,472,247**	**6,684,581**	**7,188,841**	7.54%

Source: Ministry of Finance. The public wage bill reported here includes employees paid from the state and municipal budgets. It excludes those paid by SODRAS (e.g. health staff) or employees from public and state enterprises. Level I refers to state officials performing core administrative functions of the

[20] The size of the civil service wage bill was reduced by 10% at the central level and by 3% at the local level (without social insurance contributions) (Ministry of Finance).

[21] No disaggregated information is available for health workers.

state and local governments, while level II covers public employees (including teachers). The total state budget is 26.9 billion LTL including the EU funds (5.46 billion LT).

33. **Government plans to further adjust public expenditure and improve business opportunities in the short run based on the recommendations from various commissions.** The Government Crisis Management Plan (December 2008) envisaged expenditure and revenue adjustments, as well as measures to improve business environment by reducing administrative barriers. Two types of commissions have been set up: a Sunset Commission and a Sunrise Commission. The former was tasked with trimming the public expenditure through structural adjustments: revising government programs, identifying institutional redundancies and inefficiencies, developing a methodology for review of budget programs with the aim of improving efficiency and cutting expenditure. The tasks of the Sunrise Commission are aimed at improving the growth prospects through deregulation and government efficiency. Both commissions are expected to provide a pathway for immediate and medium-term efficiency gains for encouraging growth. To look at further potential structural adjustments within sectors, ministries have set up their Sunset Commissions to review the sources of savings and improve efficiency. Their results are expected by June, the period after the Presidential elections which would coincide with changes in the Government.

Proposed action for improving the efficiency of public administration and the control over the public wage bill

Civil service and public administration institutions

34. **Improving the skills of the civil service.** Enhancing civil service performance requires improving the professional qualifications in some parts of the civil service. To do that, an analysis of a required skill mix for the attainment of organizational objectives could be carried out, along with the preparation (and subsequent central monitoring) of a plan to improve the skill mix through targeted training, better staff allocation, revised job descriptions and performance appraisal aligned with organizational goals.

35. **Introducing a strategic staffing policy**. The staffing levels should be better aligned with the scope of work, to avoid misbalances in the workload across the civil service. The Government could consider introducing a strategic staffing policy, aligning skills and staffing levels with organizational priority objectives. In the process of the review of current functions, tasks, and structures to identify work areas that are no longer priorities being conducted by the Sunset Commissions, it is important to pay attention to the relevance of job descriptions to the organizational tasks. Staffing levels should be reviewed accordingly to match them to the business demands of each organizational unit.

36. **Strengthening the mechanisms for central supervision of the civil service to ensure the effectiveness and unity of the civil service.** The Civil Service Department (CSD) under the Minister of Interior is responsible for setting the methodological norms, drafting legislation, and maintaining civil service statistics, while the implementation of the civil service policy is a responsibility of organizational managers (i.e. staffing levels,

qualification requirements and individual salary levels). While formally the government sets the maximum staffing levels for institutions based on proposals of managers, the justification presented by managers is not subject to scrutiny by the CSD or the Ministry of Finance. This may lead to organizational expansion, fueled by the in-built incentives to generate wage bill savings for the allocation of bonuses.

37. Thus, central supervision and monitoring should be conducted to ensure that (i) an appropriate level of civil service employment is maintained; (ii) job descriptions reflect organizational needs; (iii) civil servants' performance is realistically assessed, and (iv) incentives for improved professionalism and performance are in place. And to maintain the quality of public administration, the government needs to ensure proper legal regime, monitor merit based recruitment and promotion, enforce civil service discipline, protect professional independence of civil servants, uphold ethical standards, monitor the performance of the civil service as a whole and assure career and professional development opportunities for the civil service. All this requires a stronger central civil service management function.

38. **Strengthening central monitoring of employment and wage bill to improve efficiency of public expenditure.** The CSD maintains a database that can be used for a more rigorous monitoring of staffing levels in the central public administration and suggesting action regarding vacant positions. Currently, the Law on Civil Service does not give the CSD authority to monitor staffing levels. However, it is recommended that the centralized civil service establishment control be exercised by the CSD. This would include the review by the CSD of the staffing plans, their relevance to the business needs, adequacy of civil service post grading, compliance with the professional development and promotion criteria. While approval of maximum staffing by the Government shall remain, the CSD should be asked to review the proposals for introducing changes and providing an opinion on the appropriateness of proposals to change staffing.

39. **Monitoring the adequacy of civil servant grading based on job responsibilities.** When unconstrained, managers will have incentives to assign higher job grades than might be justified by the job description. This is a source of wage bill inflation. The CSD has identified, through its database, instances when the salaries for supposedly lower grade civil servants were higher than determined by law. Also the State Audit when reviewing the annexes for justification of institutional wage bills found cases where calculations did not comply with methodology, developed by the Ministry of Finance in 2003, for determining the size of the wage bill. In the context of weak central control and absence of externally imposed financial restraints, staffing may not reflect actual institutional requirements, resulting in lower efficiency of the civil service.

40. **Authorizing the CSD to inspect the compliance of organizations with personnel policies.** Based on risk assessment and using information in the civil service database, the CSD should have a right to review personnel arrangements in civil service organizations. This would be compatible with the role of monitoring the implementation of provisions of the civil service legislation. It would also facilitate uniform application of the civil service rules throughout the public administration.

41. **The Government should protect the professionalism of the civil service.** The proposed amendments of the Civil Service Law, which envisage that, as of July 1 2009, some senior positions in ministries (currently under secretaries) would become political, may lead to weakening civil service professionalism. The potential negative impact of this measure could come from the possible loss of the senior professional staff with management experience in ministries. Moreover, introducing the Vice Ministers to replace the state secretaries will mean that merit principles for selection of senior managers may not be as relevant, and the continuity of the public administration could suffer as a result of the loss of management capacity incurred during likely changes in management with every new government.

42. **The consolidation of public administration through reducing the number of central agencies directly subordinated to the Government is a good step.** Currently 20 agencies directly reporting to the Prime Minister are being considered for inclusion into ministerial structures. The rationale for this consolidation stems from the Constitution, which allocates political responsibility for management of the executive to the members of government, or to ministries, each with a specific policy mandate. But beyond the legal consideration, there is an important consideration of improving accountability for policy design and attainment of policy goals. As political appointees, ministers bear all the responsibility for effective management of the policy sector assigned to them. This responsibility is met through managing public administration institutions operating within the sector and ensuring their accountability to the minister for achieved results. If this accountability line is broken and institutions are not accountable to the sector minister, the basis for ministerial accountability is incomplete, potentially leading to government inefficiencies. And it is easier to allocate resources to priority areas if policy implementation is consolidated under a single political leadership.

Strategic planning system

43. **Introducing a robust system of monitoring policy implementation is likely to improve the accountability and government performance.** While providing important directions and facilitating better allocation of resources, the system of centrally coordinated strategic planning can have a stronger impact on government performance if policy implementation is systematically monitored, and evaluated. Without monitoring core performance indicators it is difficult for the public administration to stay focused on outcomes. The budget process should also be driven by plans based on a system of performance targets, which set the management and accountability framework for public organizations.

44. **The Government Secretariat has prepared an EC-funded project to improve the system of monitoring of policy results.** This project would support a system of recording and monitoring indicators of the core government programs in an IT-supported environment. Currently the government manages about 700 programs through some 50 main budget appropriators. Developing methods of program evaluations (ex ante and ex post) and training would be also a useful component of the proposed initiative. These

plans should be supported as they are likely to improve information for policy management based on well defined indicators. The outcome of the project is likely to be a significant enhancement of government performance in the medium term. Having clearly stipulated and measurable program indicators which are monitored will help identify expenditure inefficiencies and assess public sector performance in a more objective way. Moreover, budget allocations may be better aligned with planned results. Realistically, the results of such initiative will be discernible in the medium to long term. However, in combination with quality management, introduction of performance management may eventually place Lithuania in the group of effective public sector performers within OECD.

45. **Strengthening policy and budgeting links.** The Government Chancellery is increasingly taking a proactive role in improving public sector governance through promoting more efficient public administration and effective resource allocation. The strategic partnership between the Government Chancellery and the Ministry of Finance should be maintained and further strengthened to better support the government with setting policy priorities, ensuring their adequate funding and implementation. The importance of this partnership is determined by the immediate impact of these institutions on government decision making. For the policy-budget link to be successful, the Ministry of Interior and the Civil Service Department should also play a proactive role in actual monitoring of the effectiveness of institutional structures and the performance of the civil servants.

The Public wage bill

46. **Strengthening the overall payroll management.** The government does not have a reliable system for managing and monitoring public sector pay policies given the decentralization of pay policy decisions and the absence of central monitoring of the application of this policy. Given the significant size of the public sector payroll (9.3% of GDP), it is crucial to manage it effectively, especially when it comes to the need for macro-fiscal adjustment. Decentralized management of the public sector payroll without central monitoring creates incentives for expanding personnel expenditure. The solution that countries have found effective is introducing a public employee database and a payroll module in the central treasury. These measures give the government tools for analyzing implementation of the pay policy and making better informed decisions based on actual data analysis.

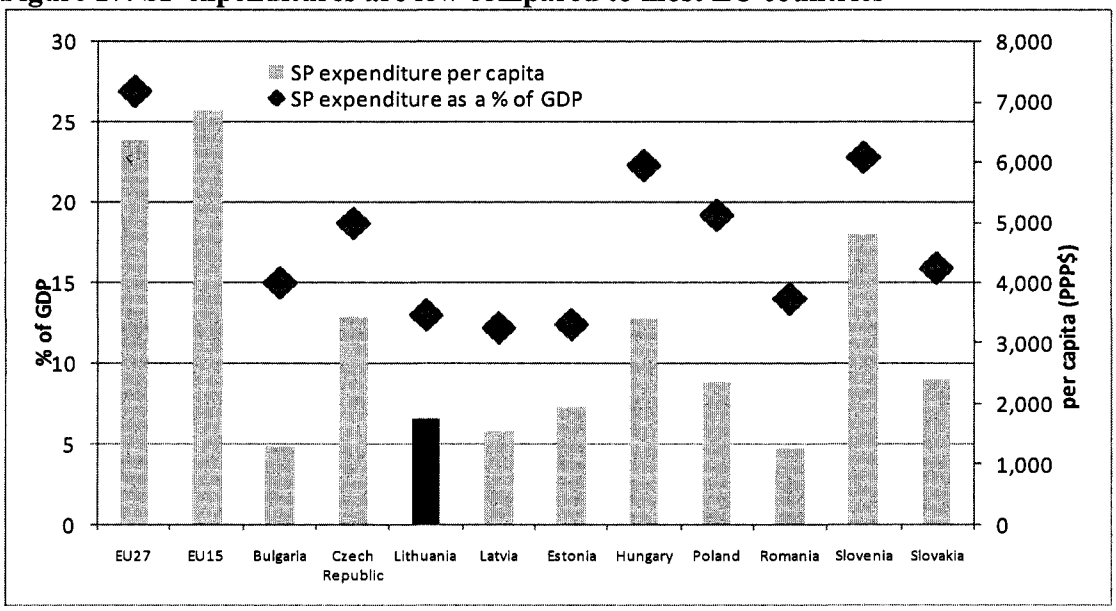
47. **It is recommended that a single central entity in the government be assigned with the responsibility for pay policy and public employee database**. This measure would help maintain coherent, uniform pay policy and avoid uncoordinated increases of pay levels for particular occupational groups. Additionally it would be desirable to introduce a payroll module in the treasury to monitor remuneration expenditure. However, none of this would work without the political will to keep the wage bill under control.

4. Social protection

Overall social protection expenditures, composition and benefits

48. **Social protection (SP) expenditures (as a percentage of GDP and per capita) are low compared to most other EU countries in 2006**, the latest year for which comparable data is available (Figure 17). SP expenditures decreased slightly between 2000 and 2006 in line with most other EU countries. The composition of SP benefits is similar to the EU average, with pensions making a bit more than half of total benefits.

Figure 17: SP expenditures are low compared to most EU countries



Source: ESSPROS database. PPS refers to purchasing parity standards.

49. **But SP benefits have increased dramatically in 2008 (34% in real terms), particularly maternity benefits** (Table 7). The SP system in Lithuania comprises two pillars: (i) social insurance (SI) (contributory) and (ii) social assistance (SA) (non-contributory). Although all benefits increased, social insurance benefits accounted for almost all of this increase (81%). While pensions account for 57% of the total increase, maternity leave benefits increased by 127% between 2007 and 2008.

50. **The bulk of social protection benefits go to social insurance, particularly pensions and maternity** (Table 8). Contributory pensions (old-age, disability and survivors) are the largest SI program (80%), followed by maternity and sickness benefits. Old-age pensions have an earnings-unrelated component (tied to the base pension, 360 LT) and an earnings-related part, while sickness and maternity benefits are tied to earnings. Unemployment insurance has a fixed component (tied to the State Supported Income, SSI) and an earnings-related component. SA benefits only account for 14% of total expenditures. Non means-tested benefits (NMT) are granted to families and

individuals irrespective of their socio-economic level, and account for 86% of total SA spending. Non-contributory pensions are the largest social assistance benefit (the benefit is 90% of the base pension).[22] The largest social assistance benefit for families and children are child benefits (CB). Up until 2009 CB covered all children up to age 18 (benefits are tied to the Minimum Living Standard, MLS). From 2009, CB for children aged 3 and older are limited to families with per capita income less than 3 times the SSI.

Table 7: Social insurance benefits increased dramatically in 2008, particularly maternity

	Real terms, 2003 prices (million LTL)				As a % of GDP	
	2007	2008	% Change	Contribution	2007	2008
Total SP benefits	7,455	10,005	34	100	8.7	10.5
SA benefits	953	1,436	51	19	1.1	1.5
MT	132	201	52	3	0.2	0.2
NMT	821	1,235	50	16	1.0	1.3
SI benefits	6,502	8,569	32	81	7.5	9.0
Pensions	5,357	6,820	27	57	6.2	7.2
Sickness	442	568	29	5	0.5	0.6
Maternity	384	873	127	19	0.4	0.9
Other	319	307	-4	0	0.4	0.3

Source: MSSL. SP benefits do not include administrative costs and are calculated using national accounts, which yield a significantly smaller amount than ESSPROS because health care and capital expenditures are not included. SA refers to social assistance, SI refers to social insurance, MT refers to means-tested, NMT refers to non means-tested. Other social insurance: unemployment benefits and work injuries and diseases.

Table 8: The bulk of SP benefits go to social insurance, little left for MT programs (SP expenditures and composition, beneficiaries and average benefits, 2008)

	Million LT	Shares	Beneficiaries	Average B
Social protection	11,705	100.0		
Social insurance	10,025	85.6		
Pensions	7,980	79.6	944,550	786
Sickness	665	6.6	754,053	70
Maternity	1,021	10.2	20,111	2,140
Unemployment insurance	306	3.1	23,700	591
Work injuries and diseases	53	0.5	6,250	82
Social assistance	1,680	14.4		
NMT	1,445	86.0		
Child benefits	482	33.3	624,217	64
Social pensions	820	56.7	153,862	395
Other	143	9.9		
MT	235	14.0		
Social benefit	79	33.6	37,300	176
Housing and utility allowances	46	19.5	102,800	62
School meals	94	39.9	210,000	47
Other	16	7.0		
References for social benefits				
Average gross wage				2,174
Minimim wage				800
State Supported Income (SSI)				350
Minimum Living Standard (MLS)				130

Source: MSSL. Unless otherwise noted, benefits are per person, per month. Beneficiaries for pensions include old-age, disability and survivor, but average benefits refer to old-age only (disability benefit = 622 LT; survivor benefit = 84LT). Sickness and work injury benefits are per day, and the latter refers to accidents at work only. Number of beneficiaries and average benefit for maternity refers to the maternity/paternity benefit. Number of unemployment insurance beneficiaries is estimated.

[22] This benefit was introduced in 2006 and currently covers 4% of all pensioners, but coverage is expected to grow to 15% of all elderly in the next 2 decades due to reduced coverage in SODRA's scheme.

51. **The social benefit program (SBP) is the core social safety net for the poor, but the program is very small to make a difference**. Means-tested benefits only account for 14% of SA benefits (below below the EU27 average, 20% in 2005) and 0.2% of GDP in 2008, down from 29% of total SA and 0.3% of GDP in 2004. MNT benefits include cash benefits and social services (benefits in kind) rendered subject to family's (or single individual's) income and property (in the case of SBP). The largest cash benefit program for the poor is the SBP, which follows similar guaranteed minimum income programs (GMI) in other EU countries, and compensates families that meet the income, property and employment criteria for 90% of the difference between their income per capita and the SSI. Program benefits, however, only account for 0.1% of GDP and only cover a small percentage of poor families (more on this later). In addition to this benefit, there are other auxiliary tested social assistance programs, such as compensations for heating, hot and cold water costs, free of charge catering at schools for children from poor families.

52. **The SP system covers (directly and indirectly) most of the population, being coverage greater for social assistance and among rural residents and the poor.** The analysis of the Household Budget Survey (HBS) for 2008 shows that 80% of the population lives in a household where at least one member received at least one social protection benefit (Table 9). Coverage is greater for social assistance (54%) and among rural residents (87%) and the poor (97%), reflecting the welfare-redistributive role of SP benefits. Although the coverage of SA among the poor compares well with other new member states,[23] 15% of the poor do not receive any social assistance. And the non-poor are also well-covered by SA, reflecting the lack of means-testing of most SA benefits.[24] Old-age pensions and child benefits have the greatest coverage among social insurance and social assistance benefits, respectively. The benefit of last resort for the poor, the SBP, only covers 6.7% of the poor.[25]

53. **Social insurance benefits are significantly higher (relative to household consumption) than social assistance, which accounts for a small share of consumption among the poor**. Although SA has greater coverage, the value of SA benefits relative to the consumption level of beneficiaries is significantly smaller (6%) than those of social insurance benefits (57%), reflecting the small expenditure on SA programs. Not surprisingly, relative benefits are higher for the poor than the non-poor, but even among the poor SA benefits are only 23% of consumption.

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[23] Nguyen, Sundaram, and Lindert (2009) "The Redistributive Impact of Social Protection Systems in Europe and Central Asia", mimeo, the World Bank.

[24] The percentage of total SA benefits kept by the poorest quintile of the population (40%) compares well with that in other new member states (Nguyen, Sundaram, and Lindert, 2009).

[25] The SBP coverage among the poorest quintile of the population (4.7%) is among the lowest of such type of programs (Guranteed Minimum Income) in new member states (Nguyen, Sundaram, and Lindert, 2009).

Table 9: Coverage and benefit generosity of SP benefits

	Coverage (%)					Benefit generosity (%)				
	Total	Urban	Rural	P	NP	Total	P	NP	Urban	Rural
All social protection	80.3	77.0	87.0	96.9	70.7	38.2	88.8	16.6	38.7	37.1
All social insurance	46.9	44.8	51.0	82.0	29.0	57.2	95.3	29.7	59.7	52.0
Old age pension	31.6	30.2	34.4	72.4	15.8	61.1	94.7	31.9	64.2	55.1
Disability pension	12.2	10.3	16.1	30.2	8.8	30.7	62.7	21.6	32.0	28.6
Survivor pension	15.8	14.1	19.2	31.0	13.3	7.3	17.4	5.9	7.4	7.1
State pension (victims)	2.2	2.2	2.1	4.0	1.9	12.0	25.7	10.6	12.2	11.7
Other pensions	1.2	1.3	1.0	2.0	1.1	31.2	80.8	23.2	32.8	26.0
Sickness	0.5	0.4	0.5	0.5	0.4	27.2	94.6	21.9	28.7	22.9
Unemployment	2.2	2.5	1.7	6.0	1.7	28.4	54.9	20.9	29.9	24.5
Maternity	4.3	4.5	3.9	13.4	2.8	39.8	69.6	26.9	43.6	30.0
All social assistance	54.1	50.0	62.3	75.2	50.1	6.4	23.1	4.5	5.4	8.2
Social pension	2.1	1.3	3.6	7.5	1.2	21.5	38.4	15.4	25.0	18.9
Comp. (nursing)	2.8	2.5	3.4	6.4	2.2	22.5	45.4	18.3	21.1	24.9
Comp. (transport, disabled)	2.7	2.4	3.4	2.8	2.7	1.9	4.1	1.8	1.9	1.8
Birth grant	0.4	0.3	0.7	0.8	0.4	32.2	88.3	26.3	35.2	29.7
Child benefit	49.8	46.2	56.9	69.6	46.4	3.6	9.9	3.0	3.3	4.1
Guardianship benefit	0.6	0.3	1.2	2.7	0.3	31.6	55.2	20.0	31.6	31.6
Pregnancy grant	0.0	0.0	0.0	0.1	0.0	18.1	18.1	n.a.	18.1	n.a.
Social benefit	1.3	0.9	2.0	6.7	0.5	22.9	28.5	17.9	22.9	22.9
Comp. (heating, utlilities)	0.1	0.1	0.0	0.0	0.1	3.5	n.a.	3.5	3.3	3.9
Funeral benefit	0.1	0.1	0.2	0.2	0.1	38.7	115.3	31.1	43.3	36.2

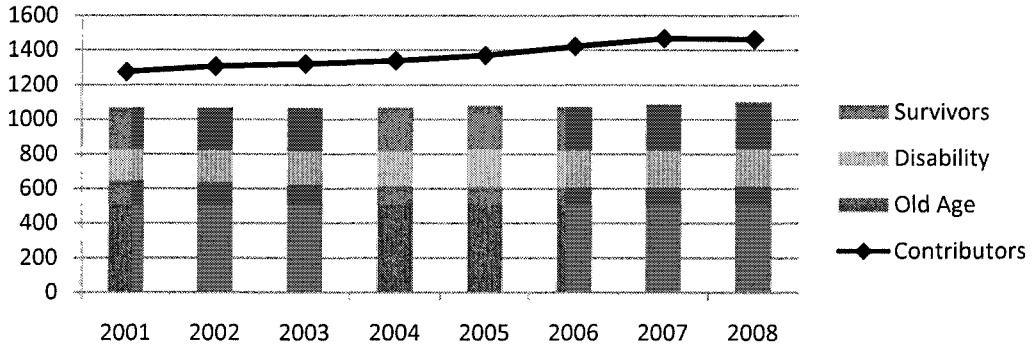
Source: Based on the analysis of the Household Budget Survey (HBS) for 2008. Coverage is (Number of individuals in the group who live in a household where at least one member receives the transfer)/(Number of individuals in the group). Generosity is the mean value of the share transfer amount received by all beneficiaries in a group as a share of total welfare aggregate of the beneficiaries in that group. P refers to the population living in households with per capita consumption expenditures (net of SP transfers) (the best household welfare measure) less than the poverty line (350 LT), while NP refers to those above

Social insurance

Overall SODRA's finances

54. **During the past few years the number of SODRA's beneficiaries remained relatively stable while the number of contributors increased steadily** (Figure 18). This was due to the sharp decline in fertility rates during 1941-1945, which translated into fewer retirees reaching retirement ages in 2001-2007, and the increase in the retirement age. However, during this period increased number of disability claims dampened the temporary effect of these tail winds. Meanwhile, the number of contributors has been steadily increasing due to the continued coverage expansion which, combined with a relatively stable beneficiary population, should have generated at least temporary surpluses in SODRA's budget during the last decade.

Figure 18: Evolution of SODRA's membership.



Source: MSSL data.

55. **SODRA's revenues did increase substantially,[26] but expenditures have slightly outpaced that growth** as benefit levels were generously indexed and new entitlements were created (Figure 21). Maternity benefits increased by almost 3 times the revenue growth and reached 8% of total expenditure in 2008. The base component of pensions also increased sharply in 2008. These developments resulted in an expansion of SODRA's spending from 8.5% of GDP during 2002-2005 to 11.3% of GDP in 2008.

56. **SODRA finances started deteriorating quickly in the last quarter of 2008** due to the contraction of the economy, and the significant increases in social insurance benefits (particularly maternity benefits) in 2008 (Figure 20). The deficit at the end of 2008 (1.19 billion) used up all the reserves accumulated in previous years. Without the cushion of reserves, SODRA's finances are deteriorating even further in 2009 (the revenue shortfall between December 2008 and March 2009 is about 600 million LT). The estimated deficit for 2009 (under a 10.5% GDP contraction) is about 2 billion LT.

[26] Revenues include state budget transfers to partially cover SODRA's transfers to pension accumulation funds.

57. **Going forward, the number of beneficiaries is expected to increase in the next few years while the number of contributors is expected to decline.** Large cohorts of post war baby boomers are expected to retire in the next few years. And the sharp reduction in fertility from 1991 until recently will result in fewer numbers of 18 year olds joining labor market starting from 2009. Coverage expansion experienced during the booming years is not likely to continue. Therefore, SODRA is expected to experience much slower revenue growth and stronger fiscal pressures in the coming years and decades. Given that such a high proportion of SODRA's spending is related to pensions, and especially to old age pension, these developments will likely necessitate some revisions in this group of expenditures.

58. **The developments require SODRA to adjust its finances by lowering expenditures**. So far SODRA has been able to cope by borrowing at relatively low rates and very short maturity and temporary reduction of contributions to the pension accumulation funds, but it will not be able to hold for much longer given the rapid deterioration of the economy and the structural nature of the deficit. Social security contribution rates in Lithuania (33.7% of gross earnings) are on the high side compared to other EU countries.[27] While there is room to increase revenue collection through improved administration, the bulk of the adjustment will have to be through cuts and reforms in social insurance benefits.

Figure 19: Cumulative growth rates of SODRA's revenues and expenditures

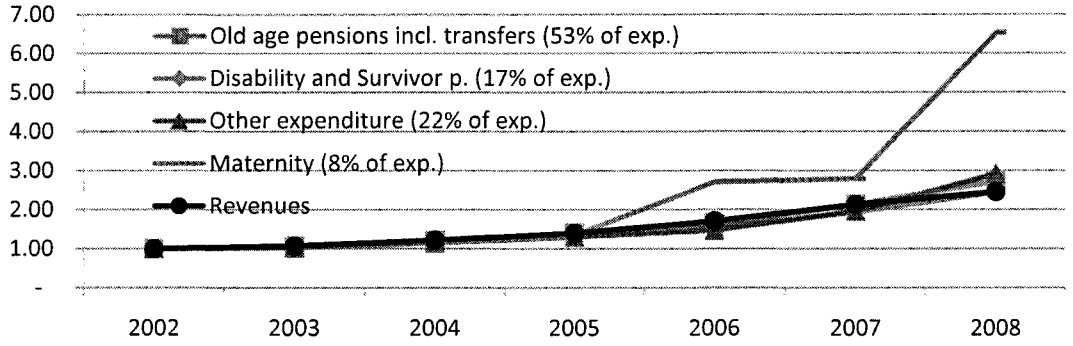
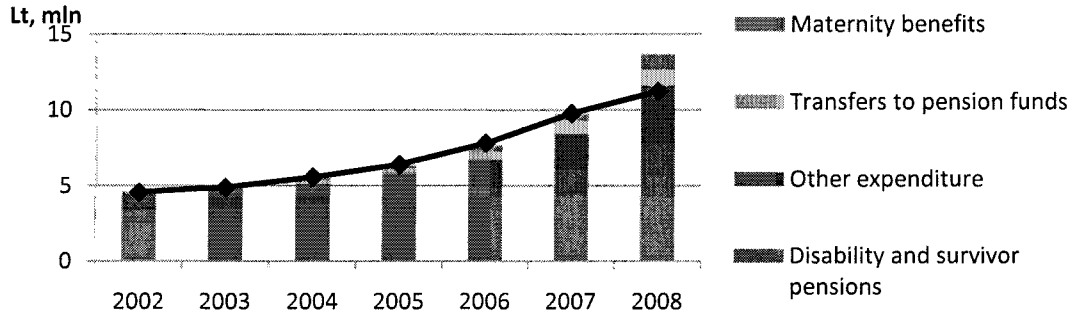


Figure 20: Revenue and Expenditure of SODRA



Source: MSSL data.

[27] The MISSOC database: .http://ec.europa.eu/social/main.jsp?catId=443&langId=en

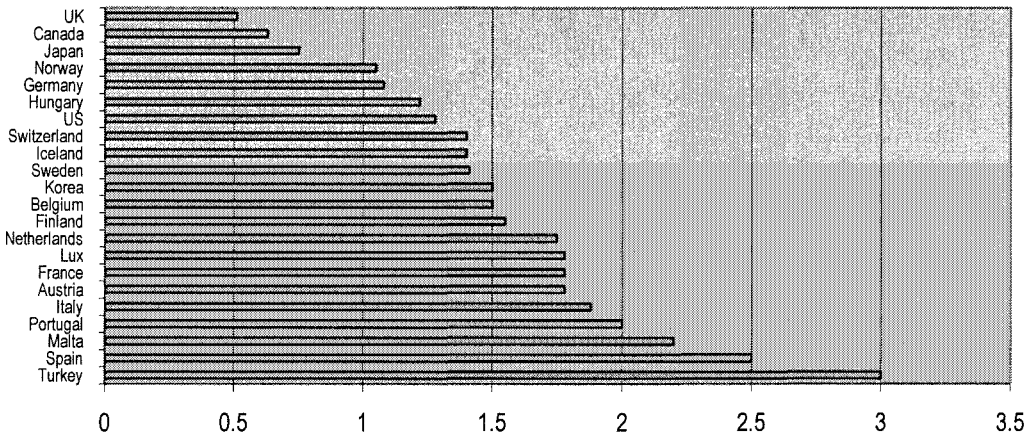
SODRA's Old-Age Pensions

59. SODRA is the main provider of pensions to current retirees, financing this spending on a pay-as-you-go basis by a contribution of 26.3% of gross wage of current contributors. Since 2004 contributors have a right to transfer part of their contribution to private pension accumulation accounts. At the end of 2008 this redirected contribution was equal to 5.5% of contributor's gross wage and 69% of all contributors have chosen this option (new entrants are choosing this option at a rate of 90%). SODRA is being partially compensated for this loss of contributions from the State budget. Initially 50% of the lost revenue was compensated, although recent deterioration of SODRA's fiscal position led to 100% compensation for the year 2009.

Benefit adequacy and structure

60. Average pension for the full career worker in Lithuania stands at 43% of average insured wage,[28] which given an average length of service of 36 years results in an effective accrual rate of 1.2%. This is in line with average in the OECD (Figure 21). However, OECD countries combine these accrual rates with higher retirement ages and less generous indexation provisions. In addition to the main pension, 45% of pensioners receive another benefit, among which 31% receive survivor's pension and 12% get additional deprived person's pension.[29]

Figure 21: Accrual rates in selected OECD countries.



Source: Edward Whitehouse, "Pensions at a Glance".

61. **The large base component of the SODRA pension discourages contributions of those who plan to have shorter careers and of high earners.** SODRA's old age pension is comprised of two main parts: a base component that depends on length of service of the beneficiary and earnings-related component that is dependent on both length of service and past income. Since base component stands at relatively high 55% of

[28] Full career worker in Lithuania is defined as anyone with more than 30 years of contribution

[29] Deprived person's pension is paid to victims of wars, occupations, survivors of forced labor camps, etc.

average pension (57% of minimum wage), this structure generates a large redistribution from high income to low income workers. It also introduces significant incentives to evade the system or to under-declare wages.

62. The incentive structure faced by minimum and average wage workers is presented in Figure 22. A person who never contributes to SODRA is entitled to the social pension currently equal to 324Lt. On the other hand, a person who contributes for 15 years is entitled to 198Lt of the base component and 169Lt/60Lt of the earnings related component for average wage/minimum wage workers, for a total of 367Lt/258Lt, which is slightly above/below the non-contributory social pension. In fact, the SODRA pension of minimum wage worker contributing up to 19 years would just even the non-contributory pension. Recent changes in pension benefits have increased the weight of the base component at the expense of the earnings related part (Figure 23).

Figure 22: Incentives to contribute

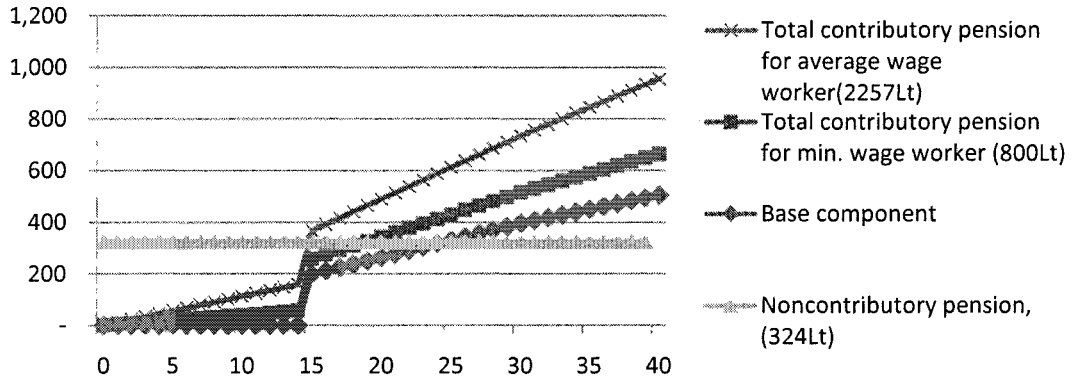
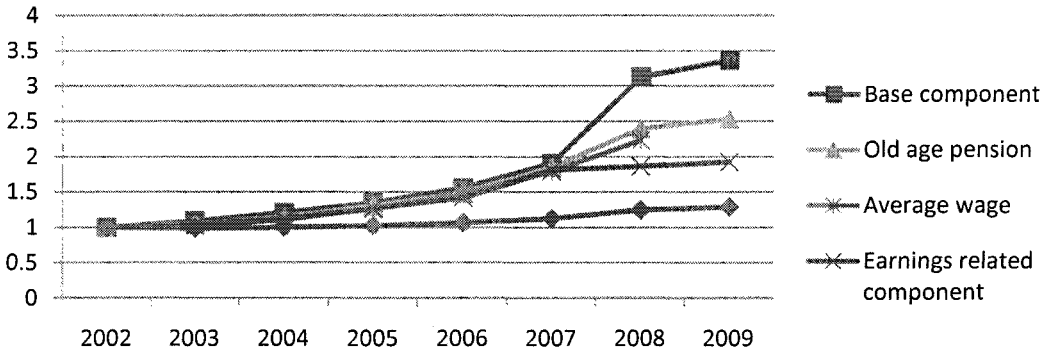


Figure 23: Cumulative growth of pensions



Source: MSSL data and staff calculations

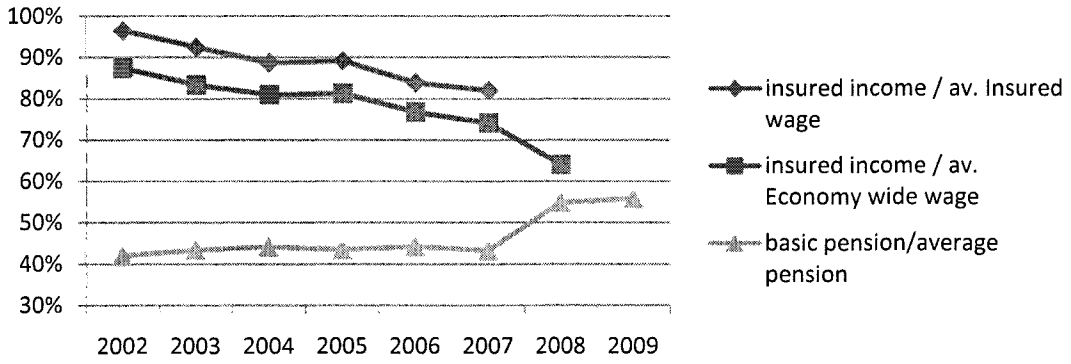
63. To understand the mechanism through which the weights of the two pension components continue to shift consider the pension calculation formula.[30] First, pension

[30] Total Pension = Earnings Related Component + **Base component,** where Earnings Related Component = Pension rights * **insured income**, Pension rights = average life time coefficient, and Coefficient = (individual wage)/(**insured income**).

rights are accrued in a form of coefficients which are derived each year by dividing individual's contributory wage by ***insured income*** which is a parameter approved in a discretionary manner as part of SODRA's budget planning process. At retirement average life-time coefficient is derived and then multiplied each year by the same ***insured income*** parameter to calculate the amount of earnings related component. ***Base component*** level is also approved in a similar discretionary way.

64. Recent attempts to introduce more redistribution into the system by increasing ***Base component*** have, under budget constraint, led to a suppression of the ***insured income*** growth (Figure 24).[31] It also implies that in recent years accrued pension rights in a form of coefficients have been growing explosively. In addition to being unsustainable, this also undermines the structure of the pension system by valuing most recent contributions more than those of previous years and further discouraging long careers (e.g. pension contributions made in 2007 are valued 20% more than those made in 2001).

Figure 24: Evolution of parameters determining pension calculation.



Source: MSSL data.

Proposed actions

65. **Pension rights should be calculated based on statistical average insured wage**. Linking the decisions on how to calculate accrued rights and how to index pensions to the same parameter is not optimal and should be abandoned as soon as possible. Pension rights should be calculated based on statistical average insured wage (as originally conceived in 1994 and practiced until the year 2001. The decision not to index pensions fully to wage growth (currently implicit by the suppression of the ***insured income*** growth parameter) should be openly discussed and made explicit.

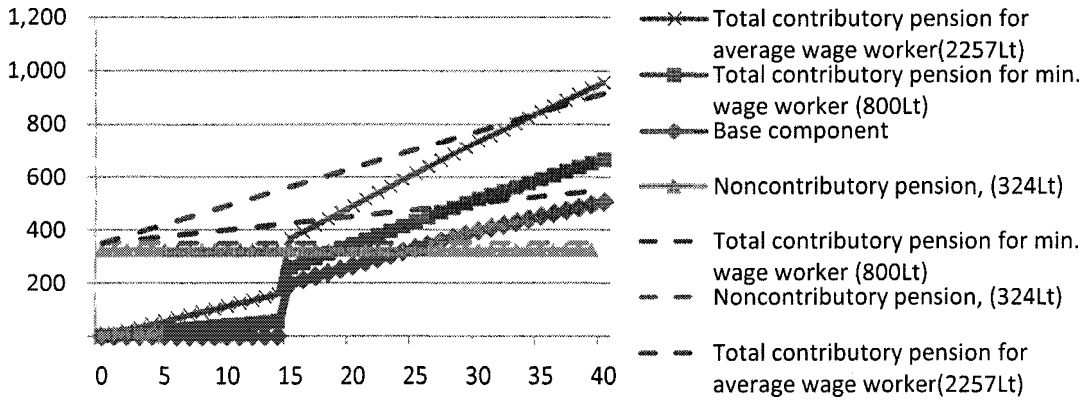
66. **The base pension should be tied to the cost of a basic basket of goods and services** (currently 350 LT), which is calculated every year by the Statistical Office. This would tie the base pension to some objective measure of basic needs, control its growth and improve incentives to contribute (by increasing the weight of the earnings-related component in total pension wealth as wages continue to grow). This change would

[31] Based on labor force survey data, the average economy-wide wage is 23% higher than average wage insured by SODRA.

generate savings of 120mln Lt in the first year and additional 40mln Lt per year for each 1% of real wage growth compared to the 2009 level.

67. **A more ambitious option is to further replace the base pension and the social pension with *demogrant*,** i.e. non-contributory pension to all citizens of Lithuania. This would leave the earnings-related component a sole determinant of contributory pension. Figure 25 shows this could be designed in such a way that the total amount of average pension is unaffected (currently average pension corresponds to the average career of 36 years). The *demogrant* would be financed from the State budget with appropriate transfer of resources from SODRA to State budget.

Figure 25: Alternative structure of pension components.

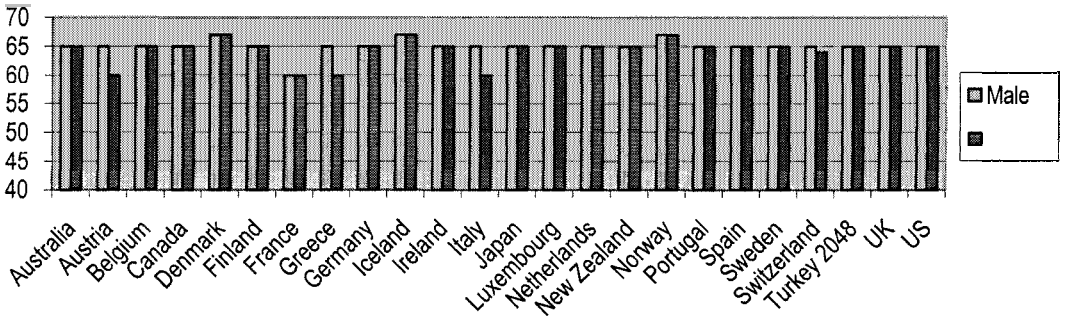


Source: Staff calculations

Retirement ages

68. **Statutory retirement ages are too low**. Statutory retirement age currently stands at 62.5 for men and 60 for women. This is much lower than prevalent retirement age of 65 in most developed OECD countries represented in Figure 26. The difference is especially stark for women who, even after adjusting for differences in life expectancy, spend on average 2 years longer in retirement in Lithuania compared to women in OECD country sample. Women also live on average 6.8 years longer in retirement than men.

Figure 26: Age of Retirement in selected OECD countries.

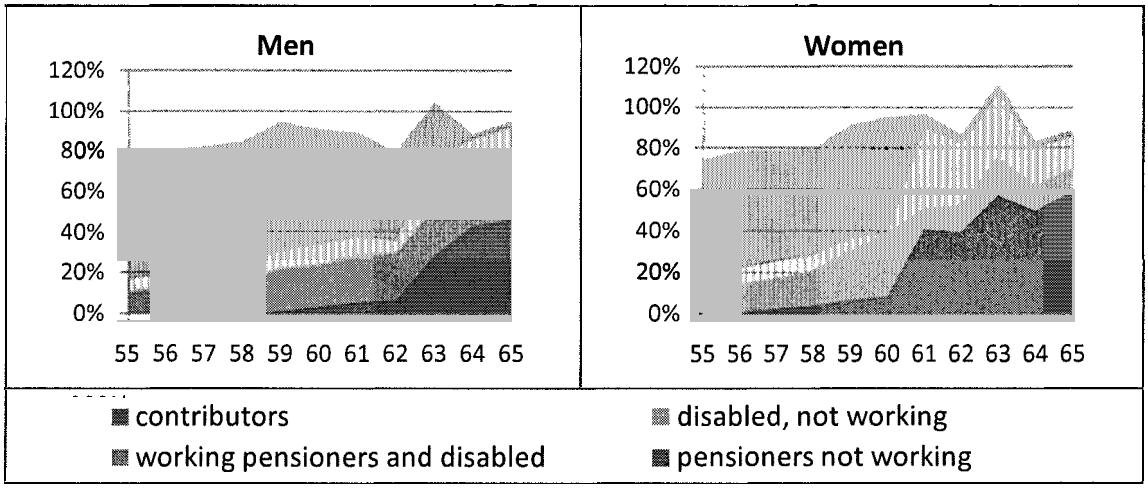


Source: Edward Whitehouse, "Pensions at a Glance".

69. **Only around 50% of Lithuanian population completely retires at the time of reaching retirement age** (Figure 27). Many others continue to work combining wage and retirement income. Average reported wage at age of 65 stands at around 2000Lt for men and 1500Lt for women, which is still significantly above the average pension of 831Lt at the beginning of 2009. This suggests that a significant portion of pre-retirement cohorts would not be affected by an increase in retirement ages were to be raised.

70. **While this report is against early retirement provisions in general, the 2004 early retirement option for the long-term unemployed is well-designed**. People who have been unemployed for more than 1 year can retire early provided that they are not more than 5 years younger than the statutory retirement age. The scheme stipulates a permanent reduction in pensions by 0.4% for every full month remaining until retirement (which is actuarially fair), and requires at least a 30 year-long career. This provision would also serve as a safety net against the increase in retirement ages.

Figure 27: Distribution of elderly population by benefit type and activity status.



Source: MSSL data.

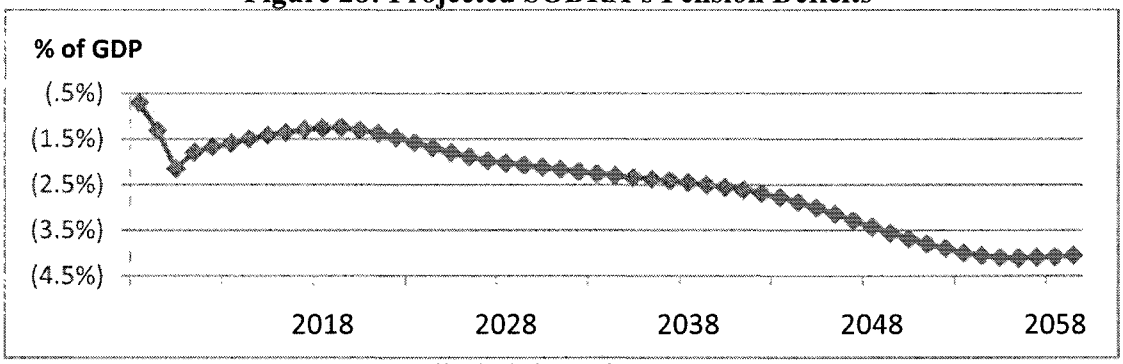
Proposed actions

71. **Start the process of gradual increase in retirement ages** equalizing eligibility conditions for both genders. Retirement age could increase by 2 months per year for men and 4 months per year for women, which would generate savings of 65mln Lt the first year and 130mln Lt the second year in addition to contributing to higher future pensions.

Long term sustainability of SODRA

72. Long term projection of SODRA's pension sub-scheme finances was prepared based on 2008 data and the macroeconomic projections discussed in Section 1. The results are presented in Figure 28. The numbers exclude other spending categories that are already experiencing deficits such as sickness and maternity program, but provide an indication of fiscal pressures that SODRA is going to face in the next few decades.

Figure 28: Projected SODRA's Pension Deficits



Source: Staff calculations using PROST model.

73. Figure 28 shows that the economic crisis is generating additional short term fiscal stress on the pension system. Measures recently adopted by SODRA (i.e. increased contribution rates for those working without the labor contract, postponed repayment of SODRA's debts to pensioners who have been underpaid during 2002-2005; and temporary reduction of contributions to the pension accumulation funds) are already taken into account in these simulations. Those measures are clearly not sufficient to offset the effects of the macroeconomic shock or longer term structural fiscal problems.

74. **While some adjustment of pensions to the declining insured wages is needed,[32] reducing pensions drastically in times of severe economic contraction may be counterproductive**. Given that pensioners represent a big segment of the population and have a high propensity to consume, reducing their income might introduce a further pressure to the economy. Pensioners also represent population with lowest incomes often no longer able to work to supplement their incomes which makes them especially vulnerable to unexpected reduction in income.

75. ***Proposed action:*** **A preferred approach would be to minimize reductions in pensions while at the same time committing to structural pension reforms**, including a gradual increase in retirement age and a switch to rules-based indexation, which would place a much higher weight on inflation rather than wage indexation.

Disability pensions and compensations for nursing and care

76. Although Lithuania has made considerable progress in stabilizing and even reversing the growth of disability rates in recent years, **the number of disability pensioners still remains very high compared to the average of 14 OECD countries** presented in Table 10. These rates are especially high at pre-retirement ages reaching 30% of the population aged 59 to 60. Growth in numbers of disability recipients has stabilized in recent years in part due to the creation of a new Agency for Assessment of Loss of Working Capacity, which is charged with certifying disability for the working age population.

[32] In the end pensions have closely followed wage increases in recent years. SODRA's budget for 2009 does not foresee any pension increases, despite the decrease in insured wages.

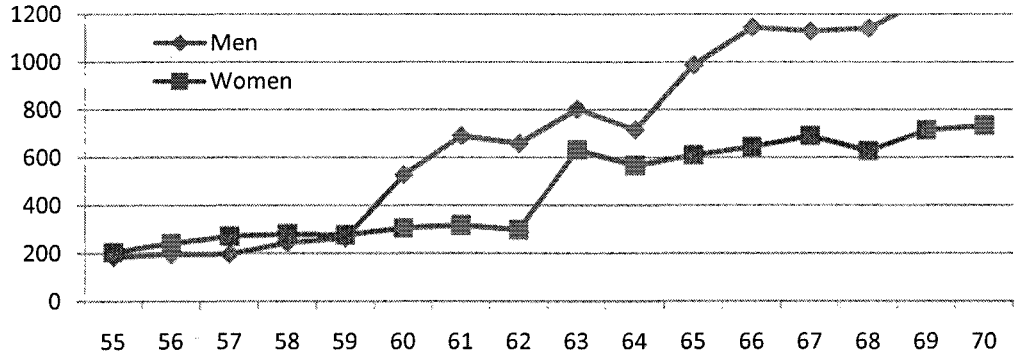
Table 10: Disability Benefit Claims, per 1000 by Age Group, 1999

	Number of disabled per 1000			
	20-34	35-44	45-54	55-59
Poland	13	61	182	262
Norway	18	54	120	219
Netherlands	32	63	120	192
Sweden	15	37	60	171
Denmark	11	30	83	156
United Kingdom	31	52	89	144
Portugal	11	24	70	175
Switzerland	19	33	55	86
Australia	21	36	64	131
Spain	6	17	40	80
United States	21	35	56	93
Austria	3	11	40	188
Germany	4	14	39	106
Mexico	0	2	7	17
OECD Average (14)	15	33	73	144
Lithuania, 2005	11	46	113	233
Lithuania, 2009	8	43	108	226

Source: OECD database on programs for disabled persons

77. **A new benefit to compensate for nursing and care of the disabled and old has been introduced in recent years and the number of beneficiaries is growing at the alarming rate due to lack of proper controls**. The benefit is funded from the State budget and administered by Municipalities. The system lacks adequate controls, especially for the beneficiaries above retirement age for whom the eligibility for the benefit is certified solely by health system professionals (doctor recommendations have to be reviewed by the Agency for Assessment of Loss of Working Capacity for those younger than retirement age). The number beneficiaries more than doubles immediately after reaching retirement age (Figure 29). This indicates a much more lenient certification process for older people. Total spending on nursing and care programs is 150mln Lt.

Figure 29: Number of compensations for care by age of the beneficiary.



Source: MSSL data.

Proposed actions

78. **Strengthening the monitoring and controls of the benefit certification process by having the Agency oversee the certification of benefits**. The Agency certifying disability for the working age population has introduced impressive monitoring and control methods and has proven to be able to control the growth of disability benefits. It would be a natural candidate to oversee the certification of nursing and care benefits for the whole population. However, it would need to be compensated for the increased administrative costs

79. **Carry on the reduction in the number of pension supplements that disabled population can be eligible for proposed by the Ministry of Social Security and Labor**. Currently disabled can be eligible for 1) care 2) nursing 3) help and 4) transport supplements and the proposal would limit the eligibility to one benefit only. This is estimated to save 20 mln Lt annually. Disabled and old age pensioners are also eligible for transport subsidies administered by the Ministry of Transportation[33] which would also merit a review to assess the efficiency, targeting and possible overlap with other programs like pension supplements for transport mentioned above.

State pensions

80. **State pensions are rapidly increasing and there is little control over them**. State pensions are financed directly from the State budget supplementing SODRA's pensions and account for 0.34% of GDP.[34] These pensions are awarded to servicemen (administered by Ministries of Defense and Interior), victims of wars, occupations, forced labor camps, etc. (administered by SODRA). Scientists, people who have provided exceptional service to the state, renowned artists, judges and professors emeritus of state universities also qualify for state pensions which can be administered either by SODRA or by the corresponding line Ministry. Current spending on state pensions for servicemen is not large (Table 11), but the schemes are relatively new and are likely to growth substantially. Currently the active insured population of these schemes constitutes 3% of SODRA's active membership and covers 6% of SODRA's insured wage bill, but this is likely to increase given that retirement age in these schemes is often lower than the statutory retirement age.

81. **Given that servicemen are already insured by SODRA it is unclear why these additional insurance schemes are needed**. One legitimate purpose would be to insure servicemen for the period between early retirement and the statutory retirement age. However, this is not how these schemes function, introducing inefficient kinks in retirement benefit stream for these individuals. While it may legitimate to compensate for difficult work conditions, it is not clear why compensation should be deferred.

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[33]Children and students are also eligible for State transport subsidies.

[34]This estimate excludes transfers to SODRA related to the introduction of the pension accumulation accounts and state spending on social security contributions for unemployed and mothers of young children.

Table 11: State spending on pensions, mln Lt[35], 2008-2009.

Pension supplements for judges, prosecutors, prison guard, military, police, etc:	**128**
Pension supplements for victims / deprived persons (1)	**191**
Pension supplements for scientists and others (2)	**58**
Pension contributions from state budget for unemployed and mothers of children < 3	**99**
Refund to SODRA for transfers to pension accumulation funds (100% for 2009)	**442**
Total	**918**

Note: (1) Victims: victims of wars, political imprisonment, occupations, forced labor camps, participants of the cleanup after Cernobyl as well as some survivors of the victims. (2) Others: honorary pensions of 1st and 2nd degree, personal pensions, compensations for artists, professors emeritus, rents for signers of Constitution and their survivors.

Proposed actions

82. **Schemes for servicemen should be taken outside of the control of line Ministries**. One option would be to create independent funded occupational schemes for servicemen, which would be regulated similarly to the other pension accumulation funds, with contributions paid by the employing line Ministry. Alternatively, administration of these schemes could be shifted to SODRA which has much greater capacity to monitor performance of the schemes and forecast future funding needs.

83. **It is not clear why compensations to victims, scientists and others should be associated to retirement age**. Beneficiaries of compensations to victims constitute 12% of all pensioners and their household income is 9% higher than that of other households. While people in this category have undoubtedly suffered from these different tragedies it is not clear why compensation for this suffering is associated with retirement age. If it is meant to compensate for the lost ability to work or lost years of contribution then the fact that these people are on average better off would contradict this purpose.[36] Rewards and recognitions for scientist suffer from the same lack of justified association to retirement age. These accomplishments should be better rewarded through appropriate wage structure (in the case of scientists), recognition grants, lump sum awards, etc.

Pensions accumulation funds

84. Although no significant pension payments are expected from pension accumulation accounts until this component of the pension system matures, **this scheme is expected to provide at least 25% of future old age pension benefits**.

85. **The economic crisis has severely reduced the values of assets in pension portfolios**. Average losses in balanced portfolios in 2008 were 19%, but many individual portfolios, especially aggressive ones, have suffered even higher losses. However, given the very small weight of this pension in the overall pension entitlements, a person retiring today would have lost less than 1% of the overall pension wealth due to this crisis.

[35] Excludes social disability and old age pensions and pension supplements for care and nursing, all of which are administered by municipalities.

[36] Also fact that practically all current retiree population have lived through at least one war also raises the question whether the 88% of the pensioners that are currently not receiving this supplement cannot claim having been the victims.

86. **Average returns since inception of the pension accumulation funds (PAF) stand at negative 0.5% but are expected to grow**. But over the coming decades returns achieved by these funds will likely be significant and positive (the average return before the crisis was 5.7%). Therefore, younger generations are likely to have sufficient time to compensate for the 2008 losses and to augment their portfolios at reasonably high rates of return. This in contrast with negative real returns from PAYG (without Government subsidies), given the expected sharp demographic contraction. Thus, PAF will be increasingly important source of retirement income of future pensioners.

87. **In an attempt to improve SODRA's finances the contribution rates to PAF have been temporarily reduced** from 5.5% to 3% which is scheduled to expire on June 30, 2009. A further reduction of contribution rate to 2% is scheduled from July 1, 2009 until the end of the year 2010. Prolonged periods of reduced contribution could severely reduce accumulations in pension accounts and damage the fee base of pension funds, thus jeopardizing the stability of the industry.[37]

Proposed actions

88. **The Government should find a way to credibly ensure that the temporary reduction in contribution rates will be allowed to expire**. In the absence of structural reforms, SODRA's budget will not be balanced by the end of 2010 (with or without contributions from the PAF). The best way to credibly ensure that the temporary reduction in contribution rates will be allowed to expire would be to commit to structural sustainability-enhancing reforms to SODRA's benefits.

89. **It is also important that additional regulation is developed for the PAF to further strengthen it**. One of such enhancements currently being considered by supervisory authority is an introduction of the life cycle funds which would ensure that in pre-retirement years accumulated pension funds get invested in increasingly less risky assets to better protect these portfolios from catastrophic losses close to retirement.

Maternity leave benefits

90. **Maternity leave benefits increased dramatically in 2008, as the period for receipt of maternity/paternity benefit was extended to 2 years**. Nominal spending increased from 437 billion in 2007 to 1 billion in 2008, the largest proportional increase among all social protection programs, accounting for 19% of the total increase in SP expenditures, and 50% of SODRA's deficit at the end of 2008 (including a 41% deficit relative to notional contribution for maternity and sickness benefits).

91. **Effective replacement rates are higher than stipulated by law, as beneficiaries inflate earning before leaving work**. Although replacement rates are 100% of the compensatory wage in the first year and 85% in the second year, effective rates are higher as, in many cases, beneficiaries agree with employers to get extra

[37] The expectation that the reduction might be prolonged would have the same effect, making restoration of the system much more difficult in the future.

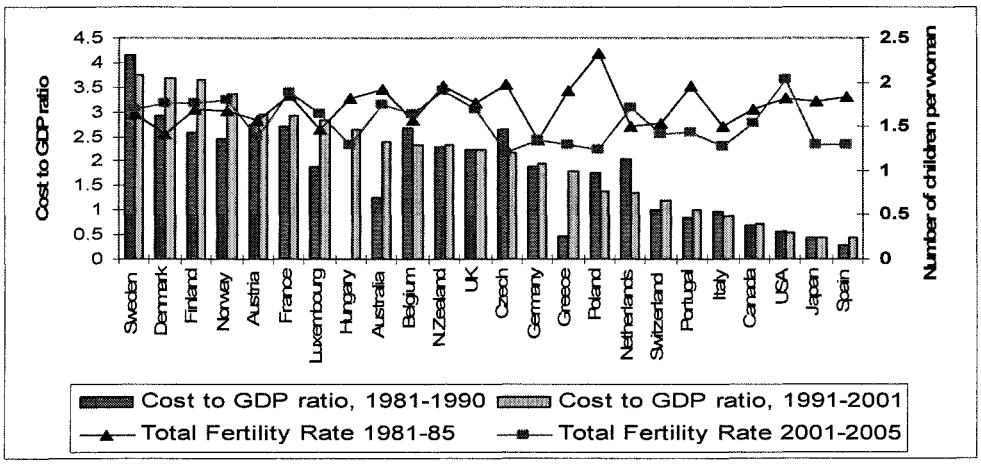
payments just before leaving work. This creates a clear disincentive to go back to work. The average monthly benefit (2,140 LT) is slightly higher than the average wage in 2008.

92. **The benefit receipt period is the most generous among EU countries.** Maternity benefits include maternity (70 days before birth and 56 days after), paternity (one month after delivery), and maternity/paternity (up to2 years after birth for the parent that remains at home with the child). The pre-birth benefit receipt period (70 days) and, particularly, the after-birth period (2 years) are the most generous in the EU. [38]

93. **The cost of the current program in terms of fiscal sustainability and work disincentives far outweighs any potential benefit in terms of fertility and child care.** The current benefit cannot be sustained in the current fiscal scenario or even over the long run, as social security contributions are already on the high side among EU countries. One alleged justification for the increased maternity benefits is lack of child-care facilities. But the market for those cannot develop without demand, and more appropriate instruments can be used to assist parents with child care cost. The main argument for the increased benefits is the alleged positive effect on fertility and thus long-term sustainability of pensions. The literature shows that the effect of pronatalist policies is negligible if any. Countries spend various proportions of GDP on family policies the resulting differences in birth rates are very modest (

94. Figure 30).

Figure 30: Family Policy Expenses as a % of GDP and total fertility rates



Source: Institute of Demography, Moscow HSE. Countries ranked by family policy expenses 1991-2001.

Proposed actions

a. Option 1. Revert the benefit receipt period to what it was in 2007 (1 year after the birth of the child) at 100% replacement rate (higher than the 2007 rate, since the last 6 months were paid at 85%). This would still leave maternity benefits in Lithuania

[38] The MISSOC database includes detailed description of social protection system in all EU countries, compiled by national focal points and coordinated by DG Employment, Social Affairs, and Equal Opportunities.http://ec.europa.eu/social/main.jsp?catId=443&langId=en

among the most generous in the EU. Table 12 shows the estimated fiscal savings if the change is effective from July 1, 2009.[39]

b. Option 2. In addition to option 1, limit the total leave period of the maternity benefit (currently 70 days before birth and 56 days after) and the maternity/paternity benefit (up to 1 year after the birth of the child with the proposed amendment) to 52 weeks (1 year) to be distributed between pre-birth and after birth by the beneficiary.

Table 12: Estimated fiscal savings from options 1 and 2

	Fiscal savings in 2009	Fiscal savings in 2010
Option 1	266 million LT	355 million LT
Option 1 + Option 2	445 million LT	534 million LT

Source: Staff calculations based on MSSL data

94. **It is recommended to carry on the proposed increased in the period over which the average wage is calculated** for the purpose of computing the compensatory wage to 12 months. This would reduce the effect of any increase in the wage of the beneficiary before leaving work, and reduce the incentive for beneficiaries and firms to agree on such increases. This would bring effective replacement rates down 100%.[40]

Sickness benefits

95. **Expenditures have increased in recent years but smoothly**. This increase is due to the increase in wages, and thus average benefits (53% in nominal terms between 2006 and 2008), while the number of beneficiaries increased by about 14%.

96. **Benefits are generous but comparable to other EU countries**. The replacement rate (85%) is about average in the EU and the maximum benefit period (122 days) is generous but on the low side compared to other EU countries (MISSOC database).

97. **Sick days claimed at comparable to other EU countries, but there is some anecdotal evidence of doctor over-certification**. Data from the World Health Organization (WHO) shows that the number of absent days from work due to illness (9 days per employee per year in 2007), is about the EU average. However, anecdotal evidence suggests that there seems to be over-certification of sickness by doctors (i.e. beneficiaries and doctors collude to certify sickness when sickness is not warranted).

98. **And sickness benefits have doubled over what was planned in the budget for the period January-March of 2009**. There is little objective basis to explain this

[39] *Assumptions:* The change is effective from July 1, 2009, and affects new mothers as well as mothers/fathers already on leave by July 2009. The estimates are upper bounds as unemployment claims from individuals returning to work as a result of the policy change are not factored in. Even if they all became unemployed, there would still be substantial fiscal savings because average maternity benefits are substantially larger than average unemployment benefits.

[40] It is also recommended to eliminate the differential pay between the maternity benefit and the beneficiary's wage if he or she decides to return to work during the first year after the birth of the child. This differential should be minimal if above action successfully brings replacement rates down to 100%.

significant increase. Workers who are about to lose their jobs may claim sick leave in an attempt to have greater social insurance coverage after they lose their jobs.

Proposed actions

99. The World Bank supports the proposed April amendment measure to make the first 3 days of sickness unpaid in order to reduce the incentive of potential beneficiaries to request sickness when sickness is not warranted. The Parliament, however, approved instead a reduction in replacement rates after the second day of sickness. In addition to this measure, more control is needed over the increasing number of sickness benefit claims observed in the last few months.

Unemployment benefits

100. **Expenditures on unemployment insurance have only increased modestly between 2006 and 2008** (about 10% in nominal terms, 2.5% in real terms). This is because unemployment benefits (UB) are loosely tied to wages and the unemployment rate remained basically the same between 2006 (5.7%) and 2008 (5.85). [41]

101. **Benefits are among the lowest in EU while the benefit receipt period (between 6 and 9 months) is standard among EU countries**. The average benefit in 2008 was only 58% of the minimum wage (21% relative to the average wage in the economy), representing 28% of total consumption expenditures of beneficiaries (44% among poor beneficiaries).

102. **The projected increase in UB in 2009 needs to be factored in the estimation of the fiscal gap for 2009**. The projected increase in unemployment for 2009 (13.5%) over what was previously forecasted (4.2%) would generate expenditures over and above planned expenditures of about 234 million LT.

103. **In absence of discretionary measures, UB are a key social safety net available to households to cope with the crisis**, by providing temporary income relief to individuals losing their jobs, provided they have sufficient insured employment history.

Proposed actions

a. **As the government discusses the new draft law on unemployment insurance, the Government should refrain from any cut in unemployment benefits**. This is because (i) by all measures, these benefits are not excessive; and (ii) UB provides a key social safety net to households to cope with the crisis.

b. **The Government could consider a temporary increase in the benefit receipt period**, as other EU countries are doing. Extending the unemployment benefit period by 3 months would cost an additional 141 million LT in 2009.

[41] Benefits are equal to the SSI plus 40% of the average, over the 36 months prior to the unemployment spell, of the ratio of insured wages to an artificially determined reference insured wage.

Social assistance

Increasing social challenges faced by the SA system as a result of the crisis

104. The economic crisis is affecting households mainly through reduced employment (the unemployment rate is predicted to be 13.5% in 2009) and labor income (a predicted 20.9% decrease in nominal gross wages in 2009). Household wealth is also being affected by the reduced value of financial and real assets (particularly housing), as well as the increase cost of debt. While poorer households are more likely to be affected through reduced wages and employment, the impact through the value of assets and cost of debt is more likely to affect wealthier households.[42] And the ability of household (particularly the poor) to cope with these wealth shocks is limited by the credit squeeze.

105. **These shocks to incomes and wealth will have a significant impact on household welfare, as measured by consumption expenditures.** Using the 2008 Household Budget Survey (HBS), and assuming a 10% across-the-board reduction in labor income, it is estimated that the number of people from households with per capita consumption below the poverty line (350 LT month, which is equal to the SSI) will increase by 208,000 (48.6% increase) from 428,066 in 2008 (12.7% of the population) to 635,979 (18.9% of the population) in 2009. The impact on consumption is significantly larger than on income because, relative to income, there were many households in 2008 with consumption levels right above the poverty line, and thus vulnerable to poverty.

Table 13: Estimated impact of the crisis on household welfare

	2008		2009		Change	
	Numbers	%	Numbers	%	Absolute	%
Consumption						
Individuals from HH with PCE < SSI	428	12.7	636	18.9	208	48.6
Individuals from HH with PCE < 2*SSI	1,803	53.9	2,085	62	282	15.7
Individuals from HH with PCE < 3*SSI	2,669	79.3	2,809	83.5	140	5.3
Income						
Individuals from HH with PCI < SSI	207	6.1	254	7.5	47	22.7
Individuals from HH with PCI < 2*SSI	1,125	33.5	1,305	38.8	180	16
Individuals from HH with PCI < 3*SSI	2,239	66.6	2,411	71.7	171	7.6

Source: Based on the analysis of the 2008 HBS. The SSI is 2008 and 2009 is equal to the poverty line for those years, which measures the cost of a basic basked of goods and services. Numbers are in thousands.

106. In the context of increased social needs arising from the crisis, UB do not cover individuals who become unemployed but do not have sufficient insured employment history, nor the increasing numbers of working poor. In fact Table 14 shows that in 2008 most UB went to non-poor households and their impact on poverty was negligible.

[42] Data from the 2008 BHS shows that the ratio of average household per capita income to average household per capita consumption increases as the household gets wealthier, being less than 1 among the richest 20% of households, indicating net borrowing among these households.

107. **Means-tested SA programs, particularly the Social Benefit Program (SBP), are the main (potential) safety net for the poor and vulnerable to cope with the crisis**. Active Labor Market Programs (ALMP), particularly direct job creation programs (public works and subsidized employment in the private sector) can also provide complementary assistance. In the context of increased social needs arising from the crisis, the following questions are analyzed below:

a. Are means-tested SA programs and ALMP ready to respond to the increased social challenges?
b. What changes are needed in these programs to better protect the poor and vulnerable during the crisis and beyond in a cost-efficient way?
    i. Efficiency-enhancing reforms in the SA system
    ii. Efficiency-enhancing reforms in some programs
    iii. Improvement and expansion of existing programs with proven success in protecting the poor and vulnerable

108. **SA benefits are too low and not adequately targeted to the poor, resulting in a small overall impact on poverty and vulnerability**.[43] About 15% of the poor do not receive any kind of social assistance, and the benefit of last resort for the poor, the SBP, only covers 6.7% of the poor. And most benefits go to non-poor households (64%), reflecting the lack of means-testing of most SA benefits.[44] The value of SA benefits relative to the consumption level of poor beneficiaries is low (23%), reflecting the small expenditure on SA programs. As a result of the inadequate targeting of the poor and low benefits relative to their needs, the impact of SA benefits on poverty is small (the poverty rate would increase from 12.7% to 16% if there were not SA benefits). And this small impact is achieved at a relatively high cost (the poverty gap reduction for each LT spent on SA is only 0.25).

109. **The overall results on SA mask differences among SA benefits**. Child benefits have the best coverage of the poor (70%), while the SB is the best targeted to the poor (67% of the beneficiaries are poor). The child benefit also has the largest impact on poverty but SB is the most cost-effective in reducing poverty.[45]

[43] Although not all SA programs aim to reduce poverty, looking at the distribution of beneficiaries and benefits between poor and non-poor households, as well as cost-effectiveness of these programs in terms of poverty provide a useful benchmark

[44] In fact the distribution of SA benefits is more regressive than that of SI benefits, which is the opposite of what is found in most countries.

[45] The pregnancy grant has a higher cost-benefit ratio but the sample is very small to really make a statistically meaningful inference.

Table 14: Targeting performance and cost-effectiveness of SP programs

	Targeting performance					Cost-effectiveness	
	Coverage of the poor (1)	Under-coverage (2)	Leakage (beneficiaries) (3)	Leakage (benefits) (4)	Targeting differential (5) = (1) - (3)	Poverty impact (baseline = 12.7%)	Cost-Benefit ratio
All social protection	96.9	3.1	55.7	30.5	41.2	36.7	0.314
All social insurance	82.0	18.0	41.0	30.2	41.0	33.7	0.312
Old age pension	72.4	27.6	36.0	27.9	36.4	27.9	0.329
Disability pension	30.2	69.8	61.0	54.9	-30.8	15.8	0.249
Survivor pension	31.0	69.0	72.5	70.2	-41.5	14.0	0.220
State pension (victims)	4.0	96.0	76.2	80.0	-72.2	13.0	0.139
Other pensions	2.0	98.0	77.8	64.1	-75.8	13.0	0.137
Sickness	0.5	99.5	85.8	74.6	-85.3	12.8	0.151
Unemployment	6.0	94.0	64.3	57.2	-58.3	13.3	0.264
Maternity	13.4	86.6	55.2	47.0	-41.8	14.3	0.208
All social assistance	75.2	24.8	77.8	64.2	-2.6	16.0	0.254
Social pension	7.5	92.5	52.1	52.7	-44.6	13.2	0.326
Comp. (nursing)	6.4	93.6	69.7	68.7	-63.3	13.2	0.214
Comp. (transport, disabled)	2.8	97.2	87.0	89.2	-84.2	12.8	0.090
Birth grant	0.8	99.2	75.6	74.0	-74.8	12.8	0.207
Child benefit	69.6	30.4	79.6	76.7	-9.9	14.6	0.211
Guardianship benefit	2.7	97.3	42.7	42.4	-40.0	12.9	0.420
Pregnancy grant	0.1	99.9	0.0	0.0	0.1	12.7	0.868
Social benefit	6.7	93.3	33.4	41.0	-26.7	12.9	0.470
Comp. (heating, utlilities)	0.0	100.0	100.0	100.0	-100.0	12.7	0.000
Funeral benefit	0.2	99.8	80.2	73.1	-80.0	12.7	0.065

Source: Based on the analysis of the Household Budget Survey (HBS) for 2008. Poverty is defined as having per capita consumption below the SSI. Undercoverage is the percent of poor individuals that do not receive transfer. Leakage is the percent of non-poor individuals that receive the transfer. Baseline poverty is the poverty rate with all SP transfers. The entries under the poverty impact column are the poverty rates without the transfer from each program. The cost-benefit is the poverty reduction in LT for each unity (1 LT) spent in the social program.

Improving the financing and monitoring of SA benefits

110. **Currently local governments do the planning of SA benefits; they administer benefits and channel payments to beneficiaries**. On the basis of approved allocations for each benefit, funds are transferred from MSSL to each local government on a monthly basis. These funds are earmarked for each benefit.[46] Local governments administer the benefits (processing of applications, verification and monitoring) and their administrative costs are financed separately by MSSL. MSSL monitors the implementation of SA benefits by local governments, through quarterly reviews and selective inspections, and has authority to discontinue payments to local government if irregularities are found.

111. **The increased unanticipated demand for SA benefits will put the current SA financing system under stress**. As the crisis increases the number of households that fall below the poverty line, and thus the demand for SA benefits, local governments can initially reallocate funds across benefits, but eventually they will have to request additional funds, which has to be first approved by MSSL and then by MOF. This can create some delay in payments to eligible households and possibly some rationing of beneficiaries and benefits by local governments.

112. **There is no central database of SA beneficiaries and benefits, and thus little overall control over who gets what**. Information on beneficiaries and benefits is kept at the local government level, and in many cases this information is only available for each program separately.

113. **Different benefits use different application forms and verification systems even when the information being collected and verified is the same**. For example, applicants to the SBP have to go through a detailed form asking for different sources of income, and this information is subject to a strict verification process and then reassessed regularly. In contrast, applicants to child benefits for children 3 years of age and older only have to report their total income per capita, which is not subject to any verification or reassessment. And yet both benefits are administered by the same municipalities.

114. **The SSI level, which is used as a reference for determining eligibility and benefits of means-tested programs, is determined and revised discretionally** rather than being tied to some objective measure of basic needs. In 2008 and 2009, however, the SSI happens to be equal to the poverty line, which measures the cost of providing a basic basket of goods and services and it is recalculated every year by the Statistical Office.

Proposed actions

115. **Bringing all SA programs under a central unique payment system** with a single beneficiary registry that will pay all SA benefits directly to beneficiaries (instead of payments being channeled through municipalities). The planning, administration of benefits and monitoring of beneficiaries would still remain under local governments. A

[46] (local governments have some flexibility to transfer funds across SA benefits at the end of each quarter.

number of EU member states are implementing such a unique payment system for SA benefits (e.g. France, UK, Romania, Bulgaria). Such a system would not reduce accountability of municipalities, as under the current system municipalities have very little control and discretion over SA funds. **This unique payment system would bring about the following benefits**:

a. Reduced transaction costs in the financing of benefits, including savings from supervision of municipal finances.
b. Much faster response to the increased demand for SA benefits during the crisis, preventing the rationing of benefits and/or beneficiaries.
c. More control over SA beneficiaries and benefits through a single beneficiary registry.

116. An alternative to the creation of a unique payment system for SA benefits only would be to use SODRA. Using SODRA's infrastructure would reduce costs relative to having a separate payment system. It would also improve control over all SI and SA benefits and beneficiaries. SODRA would have to be compensated for the increased administrative costs.

117. **Having a common set of questions**, including questions on family size, composition and income (for income-tested benefits) **for all application forms for SA benefits**.

118. **Using the same system for verifying and reassessing household income for all means-tested benefits.** Given the need to respond quickly to the increased demand for means-tested SA benefits, the Government may consider speeding up the verification process or relaxing it temporarily.

119. **Making the SSI equal to the poverty line**, which is recalculated every year by the Statistical Office, rather than being determined discretionally. This will increase control over benefits and ensure adequate coverage of the poor and adequacy of benefits to needs.

Social Benefit Program (SBP)

120. **The SBP is the social safety net of last resort for poor households**. This benefit mimics the guaranteed minimum income programs (GMI) in most EU countries. It compensates families that meet the income, property and employment criteria for 90% of the difference between the SSI and household income per capita (for each family member).

121. **The program has good design features**. The targeting mechanism combines income-testing with testing based on the value of household assets, which addresses the problem of income underreporting among individuals working in the informal economy. The program also provides strong links with the labor market: adult and able family members must be either employed or, if unemployed, they have to be registered in the labor exchange office, and either be ready to take on a job offer or participate in ALMP.

122. **SBP also has good implementation features**. Applicants have to go through a comprehensive application form, after which information is carefully reviewed and verified and benefits are granted. And beneficiaries are reassessed every 3 months.

123. **As a result, the program is well targeted and benefits compare well to needs of the poor**. About 66% of the beneficiaries are below the poverty line, the best targeting performance of any SP program,[47] and benefits account for 29% of the consumption of the poor. It has a large impact on poverty among beneficiaries at a relatively low cost. In fact the SBP is the most cost-effective SA program in reducing poverty.

124. **But the program has very low coverage among the poor (6.7%), resulting in a low overall impact on poverty**. Understanding the reasons behind this low coverage is essential in order to identify how to improve and expand the SBP to meet the increasing needs of the poor.

125. **This low coverage may be partly explained by the introduction in 2004 of the value of household assets as an additional eligibility criterion**, as some (mostly elderly) poor owning a home were no longer eligible to receive benefits. The number of beneficiaries and expenditures fell substantially in 2004. The program went from 0.2% of GDP in 2000 to 0.1% in 2004, where it has remained until 2008 (Table 15). Only Latvia had a smaller program relative to GDP in 2004. The targeting performance of the program (% of beneficiaries from the poorest 20% of households) increased from 60% in 2000 to 73% in 2008. However, this came at the expense of a proportionally larger decrease in the coverage of the poor (from 11% in 2000 to 4.7% in 2008).

Table 15: Size, coverage and targeting performance of SBP over time

	2000	2004	2008
Expenditures as a % of GDP	0.2	0.1	0.1
Coverage (poorest 20% of households)	11.0	9.5	4.7
Targeting (poorest 20% of households)	60.0	67.6	72.6

Source: Based on the analysis of Household Budget Surveys (2000, 2004, 2008). Coverage is the % of beneficiaries among the poorest 20% of households. Targeting is the % of beneficiaries from the poorest 20% of households.

126. **But coverage was low even before the 2004 reform—low coverage is more likely due to low demand, but this is likely to change with the crisis**. Many poor families may have decided not to apply in the past given the long application process, the strict eligibility rules (particularly activation), and a cash amount they could get from somewhere else. However, the situation is now different, as more families fall below the poverty line and poor households face more limited income-generating opportunities.

Proposed actions

a. Ensuring timely financing of benefits through a unique payment system

[47] In terms of the percentage of total benefits that go to the poorest quintile of the population (59%), the SBP is among the best performing GMI programs among new member states (Nguyen, Sundaram, and Lindert (2009).

b. Making SSI equal to the poverty line from now on.

c. Raising the benefit to 100% of the difference between the SSI and household income per capita.

d. Improving or relaxing (at least temporarily during the crisis) the household assets eligibility criteria, given the little value added in terms of targeting performance of relative to its cost in terms of reduced coverage of the poor

e. Speeding up the application and verification process or even relaxing the verification process temporarily. The Government could also consider doing the reassessment every 6 to 12 months instead of every 3 months.

f. **Meeting the additional demand for SBP, targeting 30% of the poor**. It is possible to establish some benchmarks for the additional SBP expenditures in 2009 resulting from the crisis under alternative assumptions about the coverage of the program among families with income lower than SSI (Table 16).[48] The lower bound estimate measures the additional cost from the increased number of households whose incomes fall below SSI (assuming they also meet the house value and employment eligibility criteria) and the increased benefits of existing beneficiaries (because of reduced incomes), assuming the same coverage of the poor as in 2008 (17%).[49] Alternative estimates assume larger coverage rates among existing and new poor. Under a desirable and realistic coverage rate assumption (30%), the additional SBP spending in 2009 would be 57 million LT.

Table 16: Estimated additional SBP costs in 2009 under alternative coverage rates

	Coverage of families below SSI			
	17%	30%	40%	50%
Additional costs	16,835,499	57,219,831	88,100,647	118,981,462

Source: Based on the analysis of 2008 Household Budget Survey.

Child Benefits

127. **The child benefit (CB) is the largest SA program for families and children in terms of beneficiaries and expenditures**. The child benefit is equal to 70% of the Minimum Living Standard (MLS) for children under 3 and 40% of the MLS for children aged 3 and older.[50] Benefits are significantly larger for families with 3 or more children (110% of MLS for children under 3 and 40% for children 3+), but these families only account for 2.8% of all families with children and are significantly poorer.[51] Children older than 18 can continue receiving the benefits until age 24 provided they are full-time

[48] It will not be possible to move the current low coverage situation to 100% coverage all poor eligible households. It is also not possible to predict how many qualifying families will claim the benefit. And some of the benefits will go to non-poor families.
[49] The HBS does not have enough information to check the house value and employment eligibility criteria.
[50] The MLS is the cost of a subsistence basket of goods calculated by the Statistical Office every year.
[51] About 82% of these families are below 2 times the SSI in 2008, relative to 27% of families with less than 3 children.

students. Otherwise, the child benefit is not attached to any conditionality such as school participation.

128. **Child benefits have the best coverage of the poor (70%) among SA programs, but most of the benefits go to the non poor (80%)**, reflecting the universal nature of this benefit. While benefits are low relative to consumption, the large coverage of the program among the poor explains the larger impact on poverty compared to other SA programs. However, since the benefits are also given to children in non poor families, the impact on poverty is achieved at a high efficient cost (i.e. low cost-benefit ratio).

129. The December 2008 crisis management plan limited child benefits for children aged 3 and older to families with per capita family income less than 3*SSI (1,050 LT per month), covering 64% of all families with children. Families applying for benefits for children aged 3 and older only have to self-report per capita family income, and this information is not subject to any verification, nor reassessment. Benefits for children under 3 remain universal. A number of new member states have targeted child benefit programs, including Czech Republic, Slovenia and Poland.

130. **Additional CB expenditures resulting from the crisis**. With no change, and assuming that all qualifying families apply for the benefit, the increase in spending resulting from the increased number of families falling below 3*SSI in 2009 could be about 19 million LT for 2009.

131. **While the CB does not have a poverty-reduction objective, granting benefits to wealthy families** for whom these benefits do not affect their decisions to have children or to invest in their well-being **results in large efficiency costs**. Even seeing this benefit as a right for all children, it is hard to justify the financing of such a right for all children in a context of limited fiscal space and increasing social needs.

Proposed actions

a. **Limiting the benefits for children under 3** to families with per capita family income less than 3 times SSI. Assuming all families that qualify apply for the benefit and that the change would be implemented from July 1, savings from this measure between July and December of 2009 would be about 22 million LT (42 million on an annualized basis).

b. **Lowering the income eligibility threshold to 2 times the SSI**. Assuming this applies to children of all ages and the change is implemented from July 1, savings between July and December of 2009 would be around 89 million LT (178 million on an annualized basis).

c. Limiting the benefits to children up to age 18

d. Subjecting applicants to the same questions about income and information verification process as for SBP applicants.

Active Labor Market Programs (ALMP)

132. **Since 2004 the Government has taken efforts to link SA benefits to participation in ALMP**. ALMP are mainly targeted to the long-run unemployed. The increased demand for UB has limited the scope for financing ALMP out of the employment fund. In 2009 18% of spending on ALMP will be financed from the employment fund and 78% from the European Social Fund (ESF).

133. ALMP include skills training, subsidized employment in private firms, job rotation (temporary employment to cover temporary leave of employees), public works, as well as programs for the disabled (subsidized employment and vocational training). The total budget in 2009 for these programs is about 300 million LT. Most funds go to skills training relative to direct-job creation programs (public works, subsidized employment in private firms).

Proposed actions

a. ALMP are a good complement to SA to meet the increased demand for income relief while increasing the employability of beneficiaries.

b. The Government needs to ensure ALMP are available for SBP beneficiaries, as ALMP participation is one of the eligibility criterion for SBP benefits.

c. Given the low demand for labor during the crisis and need for temporary income relief, the Government may want to consider shifting the focus of ALMP spending towards direct-job creation programs.

d. The Government may want to consider employing more public works beneficiaries in public infrastructure projects, as this provides value-added in terms of public infrastructures and thus economic growth.

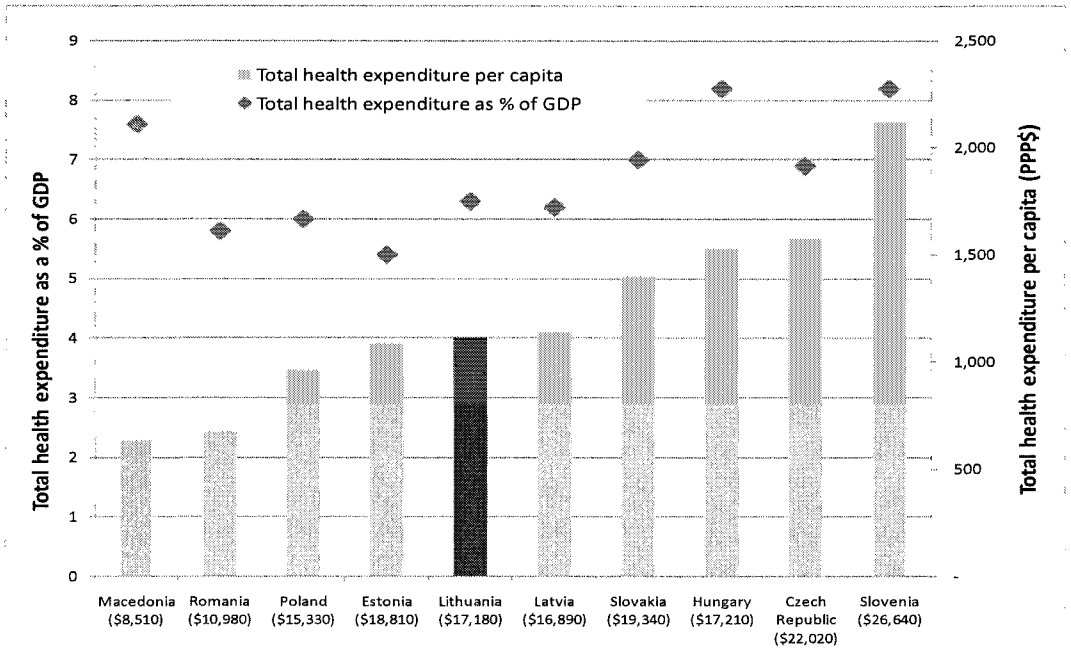
5. Health

Overview of the health system and its performance

134. Over the past 10 years, the health system has moved away from an integrated towards a contractual model,[52] where universal insurance is provided to the population by the State Patient Fund (SPF), which pools more than 80% of total heath expenditure and purchases services from providers. The Ministry of Health still runs 19 heath facilities but its primary function is the general supervision of the system.

135. **Total health expenditure remains in line with Lithuania's income level.** In 2007, Lithuania spent about spent 6.3% of GDP on health or PPP$1,115. Figure 31 shows that total health expenditure, as a percentage of GDP and in absolute terms, remains comparable to countries in the region in the same income range.

Figure 31: Health expenditure in Lithuania and comparable European countries (2007)



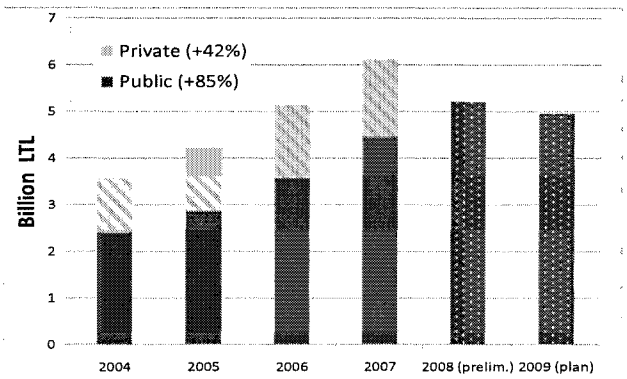
Note: In parenthesis below the country's name, GNI per capita $PPP 2007, source: DDB, World Bank. Health expenditure data from WHO NHA (http://www.who.int/nha/en/).

136. **Health expenditure in Lithuania has been increasing rapidly over the past few years, particularly doctors' salaries.** Data from the National Health Accounts shows that total health expenditure increased by more than 70% between 2004 and 2007 when it reached 6 billion LTL (Figure 32). The largest increase corresponds to public expenditures which increased by 85% over that period.[53] Data from the Ministry of

[52] An integrated health model is one in which coverage of the population (the health insurance function) is provided by the Ministry of Health which produces health care in a vertically integrated system.
[53] Data on private expenditure is likely to be under-estimated.

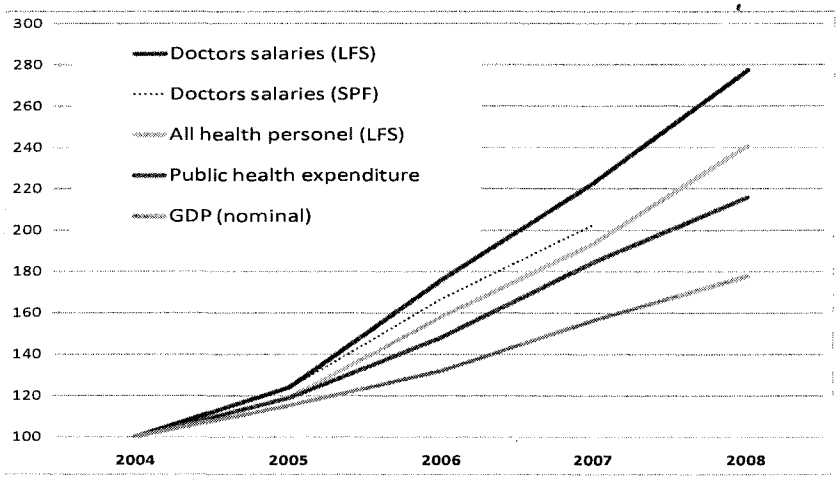
Finance shows that public expenditure continued to increase rapidly in 2008 and that, if the April 2009 budget amendment is adopted, it should stabilize around 5b LTL, twice its 2004 level. Public health expenditure between 2004 and 2008 grew more rapidly than the GDP (Figure 33). Health workers salaries, particularly physicians', grew more rapidly than the cost of other health inputs. The average net monthly earnings of doctors increased by 120% in real terms between 2004 and 2008, by far the largest increase among other public sector employees and equivalent private employees, making doctors the best paid professionals.[54]

Figure 32: Public and private health spending in Lithuania (2004-2007), current prices



Sources: 2004-07: National Health Accounts, Statistikos Departamentas.
2008 and 2009: Public expenditure only MoF, no estimate available for private expenditure.

Figure 33: Increase in health workers salaries compared with other variables (2004-08)



Sources: Labor Force Survey, State Patient Fund

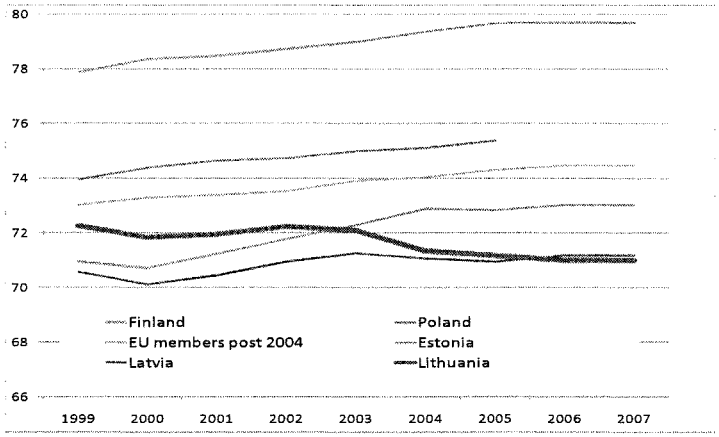
137. **Lithuania lags behind comparable countries in terms of health outcomes, which have not improved in recent times.** Life expectancy, which used to be above that

[54] The earnings of civil servants went up by 40%, teachers by 60% and non-manual private employees by 50%. In 2008, the salary of doctors is 70% higher than the average salary of public sector employees (30% higher than the salary of civil servant, 50% higher than university staff) and 40% higher than non-manual private employees. In 2004, the salary of doctors was below that of civil servants and at the same level as that of university staff and non-manual private employees.

of other Baltic countries, is now the lowest in the region and it continues to decline (Figure 34). According to data from the World Health Organization (WHO), the incidence of tuberculosis is 70% higher than the average in the new EU countries. When compared with the same group of countries, maternal and child mortality are slightly lower; mortality by cancer is about average, but mortality from diseases of the circulatory system, and in particular ischemic heart diseases, is the worst among the countries in the region (

138. Table 17). Mortality by external causes is also staggeringly high and in particular Lithuania's suicide rate is the highest among all of Europe and Central Asia. Alcohol related mortality is more than twice that the average of new EU members, and mortality induced by smoking is the highest among the countries compared. Many of these premature deaths could be avoided through public health interventions, prevention, and early detection and treatment in primary care settings, which are relatively under-developed. This also suggests that Lithuania should and could get better health outcomes given its current investment in health.

Figure 34: Trends in Life Expectancy



Source: European Health for all Database. http://www.euro.who.int/HFADB.

Table 17: Health status in Lithuania and European countries (2007 or latest available)

			Standardized Death Rate (per 100,000)						
	Life expectancy at birth (years)	TB incidence per 100000	Malignant neoplasms	Circulatory system	Ischemic heart disease	External cause	Alcohol related causes	Smoking related causes	Maternal deaths per 100000 live births
Croatia	76	21	210	418	160	53	87	365	9.7
Czech Rep.	77	8	204	371	186	52	76	335	2.6
Estonia	73	34	197	498	264	116	158	449	-
Finland	80	6	138	231	134	68	94	230	1.7
Hungary	73	15	237	502	261	68	129	491	8.2
Latvia	71	54	194	566	299	115	147	514	25.8
Lithuania	**71**	**66**	197	**550**	**338**	**147**	**201**	**534**	6.2
Poland	75	21	210	372	111	61	89	275	2.9
Romania	73	105	178	578	201	55	104	461	15.4
Slovakia	74	12	208	509	268	56	91	414	5.6
Slovenia	79	11	202	259	67	66	101	191	15.1
EU members post 2004	74	39	200	468	178	63	99	373	7.3
EU	79	15	176	252	96	40	64	225	5.8

Source: European Health for all Database. http://www.euro.who.int/HFADB. The figures for TB include relapses.

139. **Lithuanians are dissatisfied with the health system, particularly its level of corruption**. In 2003, more than one in four adults declared that they were dissatisfied with the health system.[55] Data from the 2007 EU-SILC survey suggests that Lithuanians are in fact less satisfied with their health system than other European citizens: 10% of them declare that some of their medical needs have not been met in the past 12 months (the average for EU-25 is 6%), and waiting lists are the most frequent reason alluded.[56] In 2002, 64% of participants in a social audit conducted in the Baltic countries reported that corruption in health services was very high in Lithuania (compared to 45% in Latvia and 43% in Estonia). Although people are generally reluctant to provide such information, 8% of interviewees declared they had made an unofficial payment in the health sector

[55] Bankauskaite and Saarelma (2003). Why are people dissatisfied with medical care services in Lithuania? A qualitative study using responses to open-ended questions International Journal for Quality in Health Care 15:23-029.

[56] Eurostat, Perception of health and access to health care in the EU-25 in 2007, Statistics in focus 2/2009

(compared to 3% in Latvia and less than 1% in Estonia).[57] In 2008, 31% of a sample of residents said that health services were very corrupt. Health facilities were the four most frequently cited public institutions where residents said they had paid a bribe.[58]

140. Overall, this information suggests that the rapid increase in public health expenditure over the past few years, driven by increases in health workers salaries, has not translated into improvements of the health system's responsiveness to patients' needs and health outcomes.

The Hospital System

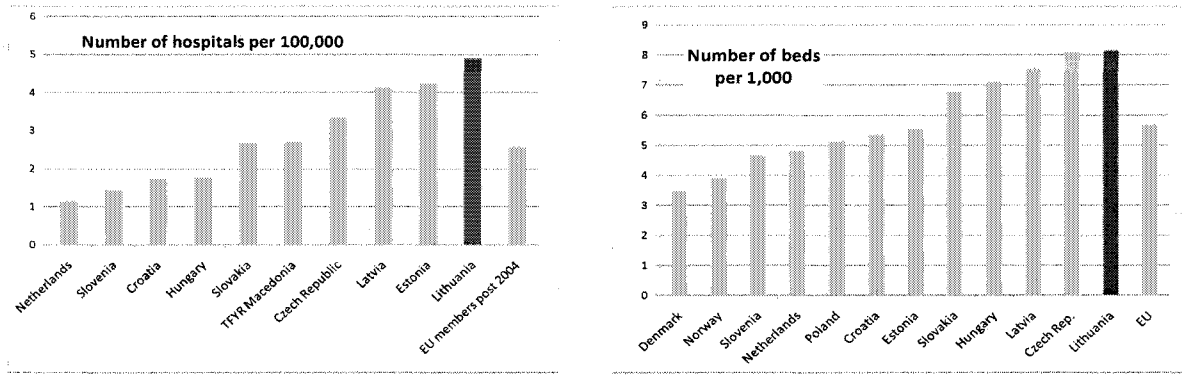
141. **Despite significant progress since independence, Lithuania's hospital infrastructure remains oversized and needs to be better adapted to the needs of the population**. There were 12.4 hospital beds per thousand population in 1990 and 8.1 in 2007, which is one of the highest rates in the region (Figure 35). There are nearly 5 hospitals per 100,000 population, which is twice the average of new EU members. Fifty-three hospitals have less than 50 beds and an additional 25 have less than a hundred. Even small hospitals incur significant fixed costs. Moreover, hospitals with less than 200 beds are generally considered to be too small to provide a full range of general hospital services. Distances in Lithuania are not very large, and there is significant scope to consolidate hospital infrastructure without compromising access. Further restructuring would also be an opportunity to adapt services to the needs of the population. For instance, although most tuberculosis patients can be treated outside of the hospital, one specialized bed is available for 2 patients in Lithuania. On average, 20 births occur per year in each obstetric bed, which is too low to ensure adequate safety for patients.[59]

[57] Cockcroft, Andersson, et al. (2008) An inter-country comparison of unofficial payments: results of a health sector social audit in the Baltic States, BMC Health Services Research 8:15.

[58] When asked where they paid a bribe, 20% responded "in a town and regional hospital", 16% "in a clinic", 15% in a "national hospital", and 14% "a state health care institution". The 5th institution cited by 11% of residents was traffic police. Lithuanian Map of Corruption, Transparency International, 2009

[59] This estimate is based on official statistics dividing number of live births by the number of "obstetrics and gynecology beds" (http://db1.stat.gov.lt/statbank/SelectTable/Omrade0.asp?PLanguage=1). According to the Ministry of Health the number is 60 deliveries per obstetric bed.

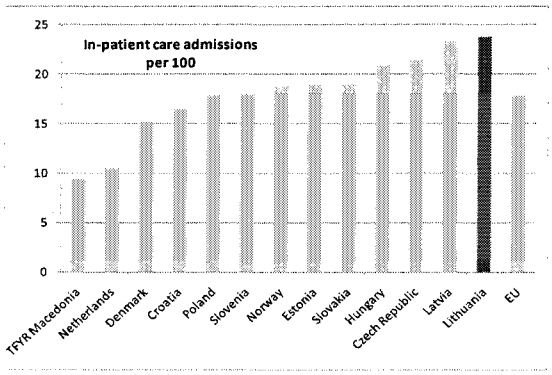
Figure 35: Hospital infrastructure in Lithuania and other European countries (2007)



Source: European Health for all Database. http://www.euro.who.int/HFADB

142. **Aggregate data suggest that hospital productivity is at a reasonable level, but more patients should be treated outside of the hospital—Lithuania has one of the highest inpatient admission rates in Europe**. The average length of stay for acute care was approximately 6.6 days in 2007,[60] close to the OECD average in 2005 (6.9 days). [61] Bed occupancy was 77% in 2007, which is the average for EU countries in 2006. But the hospital system suffers from a number of deficiencies. More patients should be treated on an outpatient basis—Lithuania has one of the highest inpatient admission rates in Europe. Since 2006, efforts have been made by the State Patient Fund (SPF) to encourage the development of day surgery, and results appear encouraging: the number of inpatient stays (excluding short stays) decreased by 11% in 2006 and 1.2% in 2008[62]. These efforts would need to be supported by a reduction in the size of the hospital infrastructure and the strengthening of primary care as an alternative to cater to patients needs.

Figure 36: Admission rates in Lithuania and other European countries (2007)



Source: European Health for all Database. http://www.euro.who.int/HFADB

143. **A second set of concerns about the hospital system broadly relates to a lack of transparency and poor governance**. Most hospitals are non-profit entities owned by

[60] Lithuanian Health Information center
[61] OECD Health Data 2008 - Frequently Requested Data, http://www.oecd.org/
[62] Patients fund, Overview of 2007 - http://www.vlk.lt/vlk/en/?l=welcome

local authorities. As illustrated earlier, corruption is clearly a problem. Many health officials also express the views that the corporatization and professionalization of hospital management are incomplete, and hospitals (as a pressure group) have considerable influence over the direction and management of the health system, at the local and the national level.[63] In this context, it is very difficult to push the restructuring agenda or even to simply manage investments in high-cost technologies in a cost-effective way. Table 18 shows that that Lithuania, despite its small size, has relatively more equipment than other countries of comparable income.

Table 18: CT Scan and MRIs per million population

	Lithuania	Czech Rep.	Hungary	Poland	Mexico
MRI	3.2	3.8	2.6	1.9	1.4
CT scan	14.2	13.1	7.2	9.2	3.6

Source: European Health for all Database. http://www.euro.who.int/HFADB

144. **Quality management and control are weak**. Health institutions report information about whether they meet some input norms, based on which they receive an administrative license to provide a range of services from the Accreditation Agency. Although the Agency has been in place for over 10 years, the legal framework or processes for accreditation are still not in place. About 30 hospitals have sought, at their own initiative, an ISO certification,[64] but received no financial support or specific recognition. Other institutions dealing with quality of care include the medical audit inspection unit, which investigates patients' complaints and promotes patients rights. Facilities are supposed to report infections and various adverse events but reporting is patchy and inaccurate. The Ministry of Health issues orders describing standards of care as well as prescription guidelines, and the State Patient Fund performs audits to monitor compliance, but it is unclear whether the scope and frequency of these audits are genuinely conducive to developing a quality assurance culture in the system. No Health Technology Assessment system is in place to ensure that investment decisions are based on needs (including considerations of physical access) and cost-effective or to monitor the safety and adequate use of high-cost equipment.

145. **Overall, some elements of quality assurance and control exist but the system is fragmented and ineffective**. Hospitals and, more generally, health facilities are not accountable for the quality of the services they provide. More broadly, there is no evidence that the existing information about the performance of facilities is compiled, disseminated or effectively used for decision making.

146. **The Government can consider revising the hospital payment system needs and strengthening strategic purchasing**. Hospitals are paid by the SPF on a "per case" basis and also receive payment for specific services or procedures provided. There is a consensus that both the list of cases/services and their associated prices, which in many cases do not accurately reflect the costs, leave room for the hospitals to "play the

[63] The most frequent illustration of that point was that an order of the Ministry to close down maternities in which fewer than 300 deliveries a year take place has been successfully resisted.
[64] International Organization for Standardization.

system". The hospital financing system should designed to induce hospital to use inputs more efficiently (including using fewer doctors) and to improve performance. The SPF plans to move towards a Diagnostic Related Group Payment system, which in theory generates incentives for hospitals to combine resources more efficiently, and envisages combining it with some element of global budget to undermine the incentives hospitals to induce a high number of cases. Rebasing and improving the payment system is a necessary but not sufficient condition to empower the SPF to strategically purchase services. The SPF could also be allowed to selectively contract providers, and/or to not purchase all the services an institution is licensed to produce.

147. **Advancing hospital reforms and restoring public trust in the system will require sustained political commitment and concerted efforts from the Ministry and the SPF**. The hospital restructuring agenda needs to be pursed, with lower level facilities providing only a limited range of services that respond to the patient needs in a safe environment. The provider payment system would need to be revised and incentives maintained to increase the use of same-day surgery. A strong push is also needed to increase the accountability of hospitals to patients needs and improve the quality of services. Accreditation could get started as soon as possible and the hospital payment system could reward facilities which have undergone the process. The information already available about various dimensions of hospital performance (including financial) would need to be collected, analyzed and broadly disseminated, including though the media, at regular intervals and explicitly used for decision making. Additional information could also be collected though exit surveys, citizens' reports cards, etc. Eventually, contracting, payments and the hiring of hospital managers could be tied to hospital performance.

Primary Care and Human Resources

148. **Efforts to strengthen primary care should be accelerated.** Currently, about 25% of physicians work in primary care settings (it is 50% in France).[65] Over the years, the number of physicians formally trained as general practitioners has increased rapidly and they tend to work more frequently in solo-and/or private practices. In 2007, 23% of patients were registered with a private primary care provider under contract with the State Patient Fund. Overall, however, private practice remains limited: while 23% of all physicians declare some private activity, only 8% of them declare that their main job is in private practice.[66] Primary care facilities receive a risk adjusted capitation per registered patient (which represents 85% of primary care payments in 2008), fees for preventive services (9%) and a bonus for the achievement of performance indicators (6%).

149. As a key part of the strategy to reduce the use of hospital services, primary care providers should provide more services than they currently do. Primary care providers tend to refer patients to higher level of care more than they should. Different reasons are

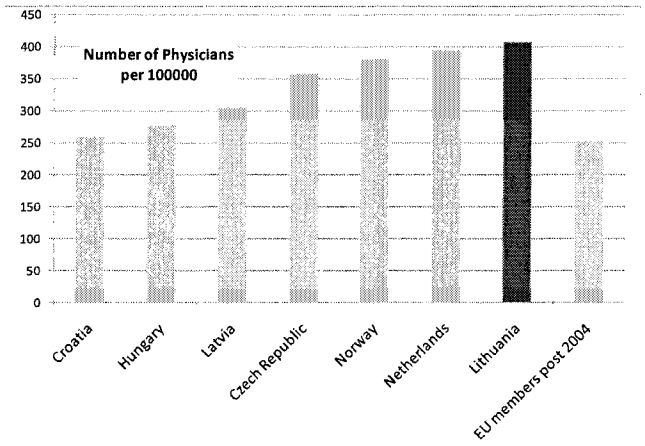
[65] The number for France is computed as the sume of GPs, pediatricians and gynecologists who work in private practive as a proportion of total working physicians. (data from Conseil National de l'Ordre des Medecins).
[66] Data provided by the Department of Statistics.

invoked: lack incentives to treat patients, equipment, capacity and/or authority to provide more comprehensive services. The State Patient Fund reports that it plans to introduce an element of performance in the remuneration of primary care providers. This is a step in the right direction. Performance could include the coverage of key preventive services and incentives to limit referrals.

150. **A key priority for the mid to long term should be to devise a human resource strategy for the health sector.** Currently, the number of physician per capita in Lithuania is 60% higher than the average in the new EU countries (Figure 37). Data also suggests that the physicians' skill mix is not adapted: the pediatrician to child ratio is 242 (in the USA and France it is around 100)[67] and an obstetrician in Lithuania oversees around 40 births per year which very low. As a result the productivity of currently employed doctors is low. And yet their salaries are not tied to performance and have more than doubled since 2004. In addition, there are only 1.8 nurses per physician in Lithuania. A ratio of 2:1 is considered a minimum (the average in OECD countries is 3:1)[68] and 4:1 is more satisfactory for cost-effective and quality care.

151. Suboptimal number of doctors, pay level and structure, skills mix, and ratio of nurses to doctors are due to a number of factors, including the absence of selective contracting (managerial autonomy to adjust staff numbers and the skill mix), a hospital financing system that does not induce increased efficiency and performance, the lack financial accountability of facilities, and a pay structure that is not tied to performance. The Ministry, in collaboration with training institutions, could prepare a human resource development plan to ensure that the health workforce is better able to respond to the future needs of an ageing population.

Figure 37: Number of physicians per capita in Lithuania and Europe (2007)

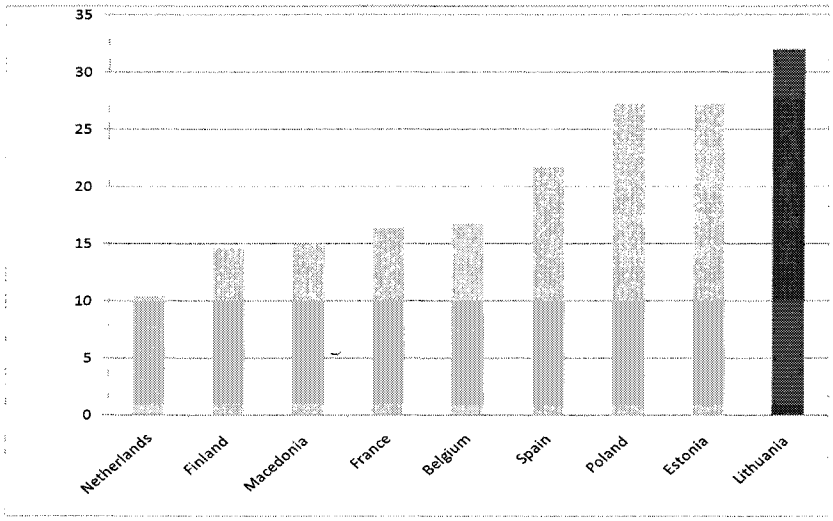


Source: European Health for all Database. http://www.euro.who.int/HFADB

[67] Per 100,000 children under 14. Freed et al (2004) Relation of per capita income and gross domestic product to the supply and distribution of pediatricians in the United States. Jun;144(6):723-8.
[68] http://fiordiliji.sourceoecd.org/pdf/health2007_fre/8107052e-4-3.pdf

152. **Preliminary evidence suggests that pharmaceutical expenditure is high.** Expenditure on pharmaceuticals is not published or readily available, but some evidence suggests that it is relatively high. For instance, in OECD countries the pharmaceutical market represents on average 1% of GDP,[69] and in Lithuania 1.7%. Although the data for Lithuania is an approximation,[70] Figure 38 shows that Lithuania has the highest share health expenditure on drugs across a number of EU countries. The SPF estimates that Lithuania's expenditure is the highest among the Baltic countries and the amount it reimburses on pharmaceuticals is growing at fast pace (about 16% between 2006 and 2007).[71] Some cost-control policies are in place (drugs are reimbursed based on a reference price, physicians are supposed prescribe generics, etc), but their effectiveness has not been assessed. A detailed analysis of the pharmaceutical market, pricing and purchasing, reimbursement mechanisms, prescription and retail practices, as well as patients' consumption behavior would be required to identify the underlying causes and to elaborate credible cost-saving options for the public sector. Additionally, a better control of pharmaceutical expenditure is likely to directly improve population welfare: both in Latvia and Estonia, out-of-pocket expenditure on drugs has a significant impoverishing impact on households.[72]

Figure 38: Share of pharmaceutical in total health expenditure (circa 2005)



Source: European Health for all Database. http://www.euro.who.int/HFADB

[69] http://www.oecd.org/dataoecd/20/60/41566367.pdf

[70] "medical goods dispensed to outpatient" (NHA aggregate) which includes items such as prostheses and medical goods and may not include hospital drugs.

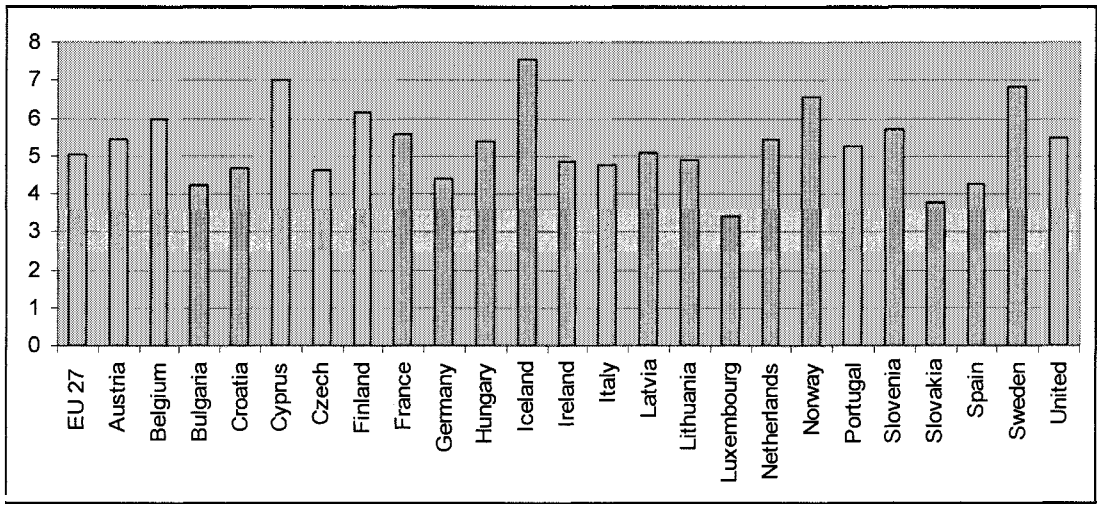
[71] State Patient Fund: Overview 2007. http://www.vlk.lt/vlk/pag/files/2007_VLK_overview.pdf

[72] Xu Ke et al. (2009) Access to health care and the financial burden of out-of-pocket health payments in Latvia. Technical Brief for policy makers, WHO http://www.who.int/health_financing/documents/pb_e_09_1-oopslat.pdf

6. Education

153. **Lithuania spends less than the EU average on education**. In 2007, total education spending in Lithuania amounted to 4.9% of GDP, versus 5.1% for the EU as a whole (Figure 39). Expressed in terms of average expenditure per student, Lithuania's education spending is further below the EU mean – amounting to 21.3% of per-capita GDP versus 30.8% for the EU as a whole.[73]

Figure 39: Public Expenditure on Education (% of GDP), 2006



Source: EUROSTAT database

Primary and Secondary Education

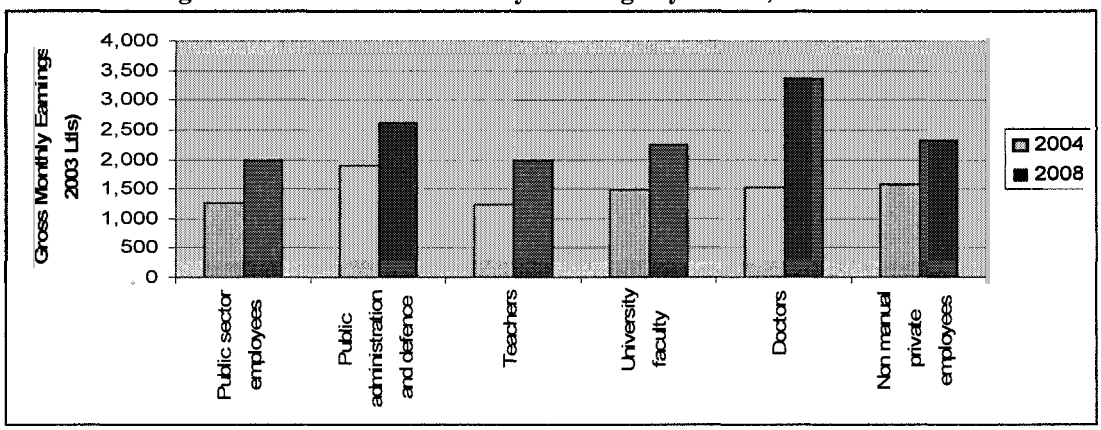
154. **Budget outlays for education can be significantly reduced without threatening education outcomes, but it will take time to achieve these budget savings**. Since the education sector is intrinsically labor intensive, any significant savings will require sizable reductions in either teacher salaries or teacher numbers. Teacher numbers can be reduced without major disruption of the teaching process only if numbers are reduced at the beginning of the school year. Even if budget-reduction measures could be put in place by September, 2009, they would yield savings only for the last four months of 2009.

155. **There may be room to reduce teacher salaries but this will face strong political resistance**. Average teacher salaries were lower than salaries of other public-sector employees in 2004. Teacher salaries increased in line with other public sector salaries (except for doctors) and non-manual private sector employees (except in 2008 when teacher salaries increased by 46%) between 2004 and 2008. Average teacher salaries at the end of 2008 were still below those of other public-sector employees (particularly doctors) and of non-manual workers in the private sector (Figure 40),

[73] EUROSTAT database

although this difference was reduced by the 10% increase in teacher salaries and the reductions in civil service pay in 2009. Since teacher salaries account for the largest share of the public wage bill (34%), if the Government wishes to undertake any significant reduction in the wage bill through wage cuts the adjustment would have to involve other public employees, including teachers.

Figure 40: Real Gross Monthly Earnings by Sector, 2004 and 2008



Source: Household Labor-Force Survey Data, 4th Quarter, 2008.

156. Although any form of salary reduction for teachers would be politically sensitive, **some approaches to reduced salary outlays for teachers could be less contentious than an outright reduction in base salary**. Latvia, for example, has reduced salary expenditures for teachers by eliminating supplementary payments for some categories of non-teaching activities, and proposes further expenditure reductions through an increase from 21 hours to 27 hours in the number of student contact hours that comprise a full teaching load.

157. **Reductions already made in the 2009 education budget pose risks for education quality**. Reductions of 57 LTL million (amounting to 1% of the total education budget) have already been made in 2009. The largest element of this reduction is a 30 million LTL reduction in the "student basket" capitation transfer to local governments for primary and secondary general education. In many municipalities, this reduction could be absorbed without adverse educational consequences by a judicious reduction in the number of teachers or a reduction in paid overtime teaching hours. But indications from Vilnius municipality suggest that local governments will instead opt for reducing the already-small amounts provided for non-salary education inputs such as textbooks, teaching materials, in-service teacher training, and internet connectivity.

158. A strength of Lithuania's per-student financing formula is that it includes specific allocations to meet schools' needs for non-salary recurrent inputs to the teaching process that are crucial to teaching effectiveness and learning outcomes. The portion of the student basket transfer that is earmarked for these non-salary expenditures was reduced from 6% in 2007 to 3% in 2009 to help make room for the teacher salary increases. The recent cuts in the student basket and the contraction of municipal governments' revenues to supplement these resources pose an additional threat to education quality. To ensure

adequate financing of non-salary recurrent inputs to education, it is recommended that the balance of salary and non-salary elements in the student basket be restored 6% of student basket, which could be financed by an offsetting 3% reduction in the salary portion of the student basket.

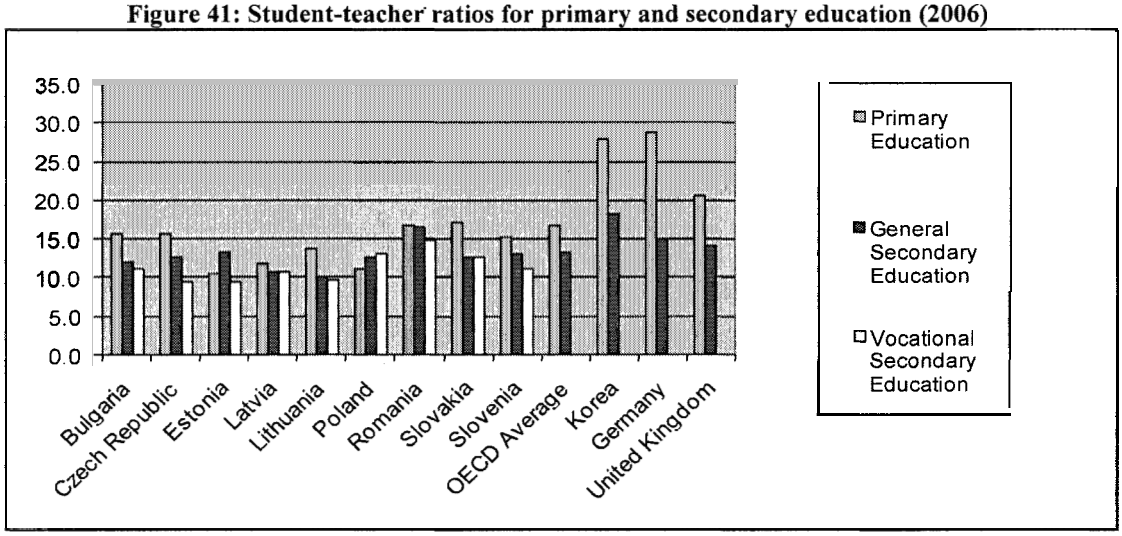
159. **More efficient utilization of teachers could yield major budget savings in the medium to long term**. Small class sizes and low student/teacher ratios (STR) are an indication of low efficiency of teacher utilization in Lithuania. STRs are lower than in most of the New Member States (NMS) (Figure 41), and much lower than in most OECD countries. Another perspective on the efficiency of teacher use is the elasticity of teacher supply, the change in teacher numbers in response to changes in enrollment. All of the NMS (except Estonia) showed greater flexibility than Lithuania in shedding teachers in response to declining primary-school enrollments between 1999 and 2006 (Figure 42). The elasticity of teacher supply in Lithuania over the period 1999-2006 was 0.54,[74] significantly lower than that for Poland (0.87).

160. Where teacher utilization is too low, improved efficiency (in terms of higher STR) requires an elasticity of teacher supply greater than 1.0 when enrollments decrease, and less than 1.0 when enrollments are increasing. In general secondary education, the number of teachers in Lithuania fell by 40%, as much as enrollments, between 1999 and 2006 (Figure 43). In other NMS, general secondary enrollments increased over the same period. Slovakia, Romania, and Latvia improved efficiency by expanding the number of teachers proportionally less than enrollments, while the Czech Republic and Estonia actually reduced teacher numbers.

161. **Demographic change will offer the potential for additional budget savings in the medium term**. Negative demographic growth has led to declining school-age populations since the 1970s. This decline will continue for at least the next 15 years. Most of the decline will occur in the age groups for middle schooling (grades 5 through 10, ages 11 to 16), secondary schooling (grades 11 and 12, ages 17 and 18) and, especially, higher education (bachelors degree, ages 19 through 22) (Figure 44). These cohorts are projected to shrink by more than 200,000 over the next 15 years. This contraction will inevitably lead to reduced enrollments. Smaller enrollments should enable major medium-to-long-term budget savings. Assuming enrollments decline in direct proportion to the shrinkage of school-age cohorts, teacher numbers decline in direct proportion to the decline in enrollments, and per-student costs remain constant in real terms, total annual budget requirements would be 1.2 billion LTs less in fifteen years than they are today. A more likely (and desirable) scenario is that shrinking enrollments will lead to budget savings *and* education quality improvements at all levels.

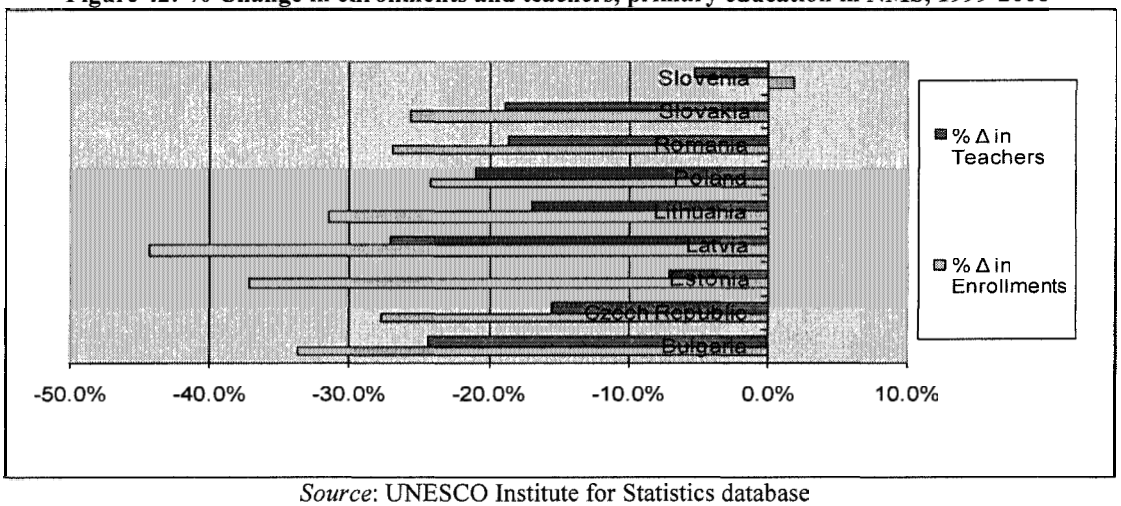
[74] I.e., the number of teachers declined by 54% as much as the decline in enrollments in primary schooling during that period

Figure 41: Student-teacher ratios for primary and secondary education (2006)



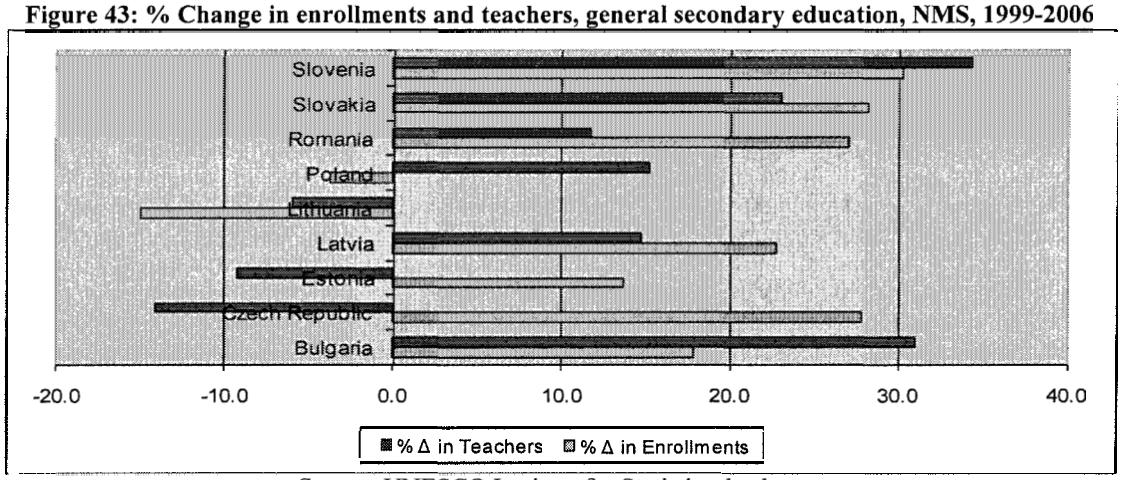
Source: UNESCO for NMS; others from *OECD Education at a Glance, 2007.*

Figure 42: % Change in enrollments and teachers, primary education in NMS, 1999-2006



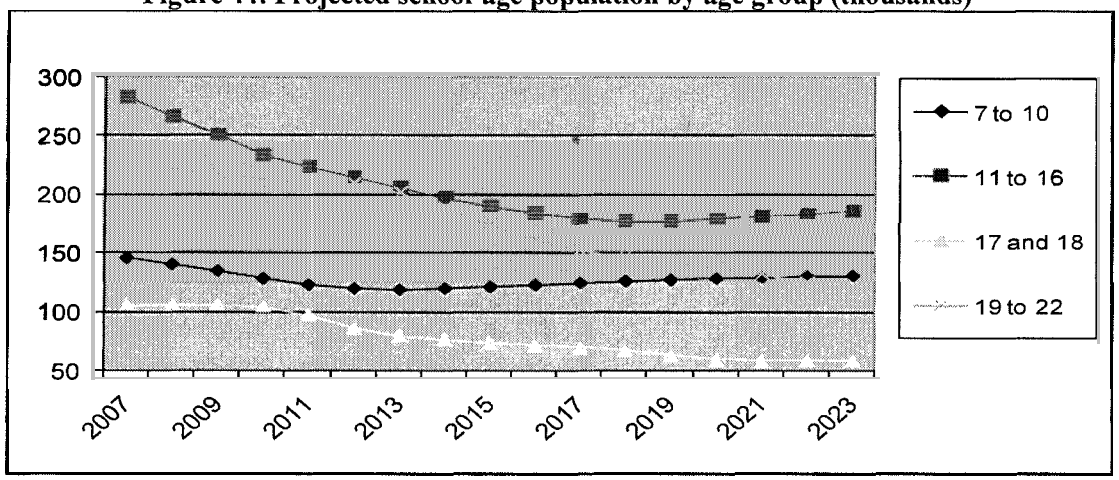
Source: UNESCO Institute for Statistics database

Figure 43: % Change in enrollments and teachers, general secondary education, NMS, 1999-2006



Source: UNESCO Institute for Statistics database.

Figure 44: Projected school-age population by age group (thousands)



Source: United Nations Population Division website, medium variant projection.

162. **The preferred approach for reducing education expenditures in general education is to reduce teacher numbers**. There are currently too many teachers and too many small classes in general education. Future shrinkage of school-age cohorts will tend to make this problem more acute. The introduction of per-student financing was intended to address this problem. It did not achieve this result because of two fundamental reasons:

- The formula provides strong incentives for keeping schools small, which inevitably leads to uneconomically small class sizes.[75] In some cases, there is no practical alternative to small schools, when there are no nearby schools that could be consolidated into a larger, more efficient school. Consolidation is often not possible or desirable for four-year primary schools in rural areas. But in other cases, consolidation of small schools is possible and would lead to improvements in efficiency and quality.[76] The incentives for small school size and small class size are not the only reasons behind the low student/teacher ratios in Lithuania. Average school size is quite high in urban areas (484 students in 2008/09), implying a norm of 20 students per class under the current financing formula. Even in rural areas, average school size (151 students per school in 2008/09) conforms to a class-size norm of 15 students per class. Both figures are far above the student/teacher ratio of 10.1 in general secondary education and 9.6 for vocational secondary education.
- The teaching load for teachers is relatively small (18 contact periods of 50 minutes each per week). This modest teaching load inflates the number of teachers which are

[75] For example, the financing formula assumes an average class size of just 10 students per class in basic education schools (grades 1-10) with 130 or fewer students. It provides 50% more per student under the formula than schools with 131 to 300 students and twice as much per student as schools with more than 300 students. Thus, a basic education school with 130 students would see its total budget allocation *reduced* by one-third if it accepted one additional student. The problem of too-small classes is not common in larger schools, where the financing formula assumes more reasonable average class size of 25 students for basic education schools with more than 600 students and for complete 12-grade schools with more than 700 students.

[76] Student assessment results in Lithuania show that students in very small schools usually perform at a lower level than students in larger schools.

necessary to deliver the approved curriculum and leads to student/teacher ratios which are much smaller than average class sizes.[77] And the gap between student/teacher ratios and average class sizes is larger in Lithuania than the OECD average (Table 19), implying that teaching loads in Lithuania are less than in most OECD countries, or the planning of teacher deployment within schools is less efficient, or both.

Table 19: Average class sizes and student/teacher ratios

	Lithuania	OECD
Primary		
S/T ratio	13.6	16.7
Average class size	18.9	21.5
(S/T) / Average class size	.720	.777
Lower Secondary		
S/T ratio	10.0	13.7
Average class size	18.9	24.1
(S/T) / Average class size	.529	.568

Source: OECD figures from *Education at a Glance, 2007*; Lithuania S/T ratios from UNESCO Institute of Statistics database, average class sizes are derived from the financing formula norms corresponding to average school sizes for urban and rural areas.

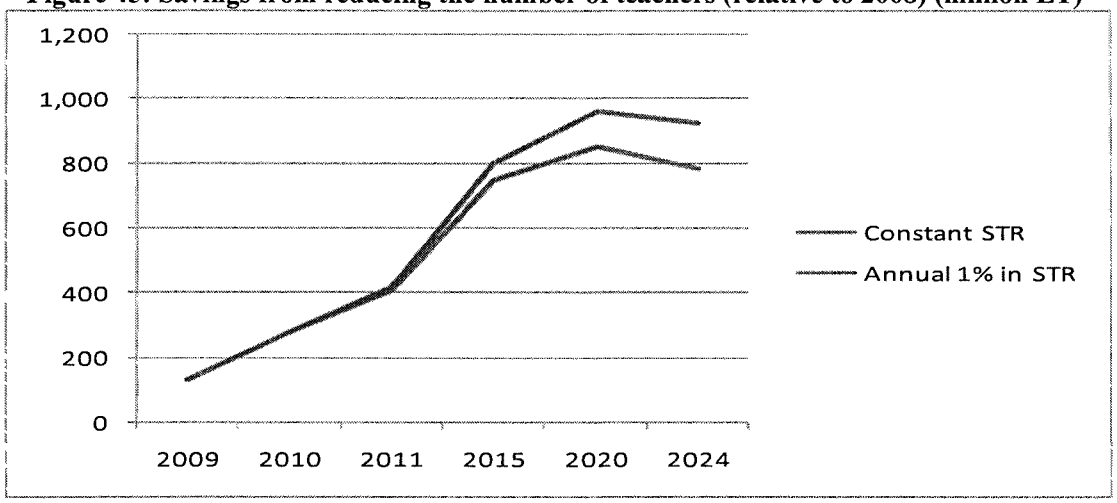
Several changes are proposed in the per-student financing formula.

- **Base the adjustment for size-related cost differences on non-discretionary (or exogenous) factors that affect class sizes and unit costs**, rather than discretionary (or endogenous) differences such as class size and school size. For example, a cost adjustment based on population density or rural-urban location would reflect the intrinsically higher costs of provision in areas with dispersed population without discouraging consolidation of classes and schools where it makes sense to do so. Keeping unit costs constant (and thus the current student-teacher ratio), adjusting the formula so that reduced student populations are matched by proportional reductions in teachers would generate savings (relative to 2008) of 44 million LT in 2009 (assuming the reform starts with the 2009-10 school year), 275 million LT in 2010, 408 million LT in 2011, and increasing savings thereafter until 2020 when savings peak at 853 (Figure 45).
- **Gradually raise the class size and teaching load assumptions on which the formula is based** in order to motivate improved efficiency in teacher deployment, with the long-term goal of raising STR to OECD averages (16.7 for primary schooling and 13.4 for secondary schooling). An annual 1% increase in the STR over 16 years would produce STR around the OECD average and generate savings on 44 million LT in 2009, 281 million LT in 2010, 421 million LT in 2011, and increasing savings thereafter until 2020 when savings peak at 963 million.

[77] Typically, student/teacher ratios are quite close to average class sizes for the initial four grades of classroom teaching in primary schooling, where a single teacher usually teaches all subjects to a single class throughout the school day. Student/teacher ratios are considerably lower than average class sizes in higher grades, where teachers usually teach a single subject and need more preparation and follow-up time than in the initial grades

- **Allow municipalities to spend salary savings for non-salary activities to improve teaching and learning.**

Figure 45: Savings from reducing the number of teachers (relative to 2008) (million LT)



Source: Staff calculations based on population projections by the Statistical Office and data from the Ministry of Education and Science. Savings in 2009 are annualized.

163. **Teachers in multi-grade classes need more preparation and support**. For many small schools, multi-grade classes (in which a single teacher teaches a class of students comprising more than one grade level) are a practical necessity and will continue to play an important role as Lithuania moves toward greater efficiency in education provision. About 2,200 of the 20,000 primary-school classes in Lithuania currently operate on a multi-grade basis. Most multi-grade classes are in small, rural schools with below-average learning achievement. Student assessment results in Lithuania confirm the common perception that multi-grade instruction is not as effective as conventional single-grade instruction. But international experience confirms that multi-grade instruction can lead to learning outcomes that are as good as or even better than those of conventional single-grade classes if appropriate support is provided[78] (specialized training and materials to help teachers teach effectively in that environment). Currently, no specialized training or materials are available to teachers. It is recommended that the Government seeks support from the European Social Fund to develop and deliver teacher training programs and support materials for effective multi-grade teaching.

164. **Central financing and management of secondary vocational schools generates significant inefficiencies and disarticulation with general secondary education**. Vocational schools are not attracting as many students as gymnasia and general secondary schools, and have higher unit costs and lower staffing efficiency. Central management of vocational schools generates inefficiency, leads to an undesirable disconnect between general and vocational education, and reduces the impetus and

[78] See, e.g. Angela W. Little, ed. *Education for All and Multigrade Teaching: Challenges and Opportunities*, Springer Verlag, 2006, and G. Psacharopoulos, C Rojas, and E. Velez, "Achievement Evaluation of Colombia's *Escuela Nueva*: Is Multigrade the Answer?", *Comparative Education Review*, Vol. 37, No. 3, 1993.

opportunity to use those resources for maximum benefit of the community. Municipalities tend to see vocational schools as the responsibility of others. In order to promote better efficiency and better labor-market outcomes of vocational schools, it is recommended that management of general secondary schools and vocational secondary schools be consolidated, and that both types of schools be managed by municipalities under the same process and subject to the same performance criteria. Municipalities should be free to convert ineffective vocational schools to other uses that better meet local needs, including general secondary education and life-long-learning programs.

Higher Education

165. **Enrollment in higher education is higher than any other European country, but there are serious concerns about higher education quality**. Symptoms include:

- expenditure per student is among the lowest on Europe;
- many of the most capable students leave the country to study abroad;
- indicators of research output are among the lowest in Europe (including NMS);
- no Lithuanian university is among the top-ranked 500 universities in the world;
- most recent enrollment growth is through extramural and part-time students; and
- supply of higher education places exceeds demand.

166. **Budget financing in higher education currently supports a designated number of students in specific fields and specific institutions**. Selection of fields and institutions for budget support is made through a non-transparent process reflecting, *inter alia*, the political connections of individual deans and rectors. Eligibility for budget-financed places is based solely on applicants' *matura* (end-of-secondary) scores. Students in budget-financed places must maintain an average score of 8.0 each semester in order to retain budget financing. Incoming students with scores below the eligibility threshold and budget-supported students who lose their eligibility due to low performance pay tuition fees that are intended to recover the full cost of provision. "Extramural" and evening students comprise 46% of total higher education enrollments. Many of these students are working while they pursue their studies. Because extramural and evening students pay full fees but do not impose the same demands on university facilities and faculty as regular students, their fees in effect subsidize regular students who in most cases do not pay fees. Scholarships and student loans are largely limited to budget-financed students.

167. Because the number of students supported by the budget is ultimately an arbitrary decision, **large budget savings could in principle be achieved by reducing budget support for university places**. However, the Government's discretion in reducing budget support for higher education is constrained by the Constitutional provision that students with "good" performance have the right to free higher education. A recent ruling of the Constitutional Court established the Ministry of Education and Science's right to define what constitutes "good" performance for this purpose. Currently, budget financing covers about half of total higher education enrollments, but a much higher proportion (about 80%) of full-time, regular students. Further ambiguity arises because about half of all budget-financed students pay nominal fees of 520 LTs per semester. This practice

neither respects the Constitutional principle of free higher education nor significantly contributes to the actual cost of provision.

168. **This system of budget financing is inefficient because it finances a number of students who have the capacity to pay and inequitable because it is not based on needs.** Support is provided to many students and would be pursuing the same programs in the absence of budget financing. It is arbitrary and non-transparent in the manner in which it determines the number of students who are to receive budget support and in selecting specific fields and institutions for support. And it is inequitable because it finances tuition, scholarships and loans exclusively on the basis of performance.

169. **The Ministry of Education and Science has proposed a comprehensive reform of higher education that would address most of these deficiencies**. Key elements of the reform are a new legal status which gives universities more autonomy, a new system of university management by professional Boards, a move from financing places in specific universities to a demand-driven system of voucher financing for bachelor-level studies, clearer standards for university accreditation, and broader access to scholarships and a new student loan program managed by private banks. These proposed changes would provide important long-term benefits of improved quality and efficiency. It is recommended that these proposed reforms be approved and implemented.

170. **Significant additional budget savings could be achieved through increased reliance on student fees, broader access to student loans, and targeted budget support**. The analysis of returns to higher education shows that individuals' investments in higher education are justified by their higher lifetime earnings. Thus, an appropriate use of budget financing is to ensure access of qualified needy students.[79] Measures to do so would need to be judiciously designed in view of the Constitutional provision on higher education and the recent ruling on that subject by the Constitutional Court. Broader access to student loans and increased limits on student loan amounts would ensure that all qualified student can access higher education.

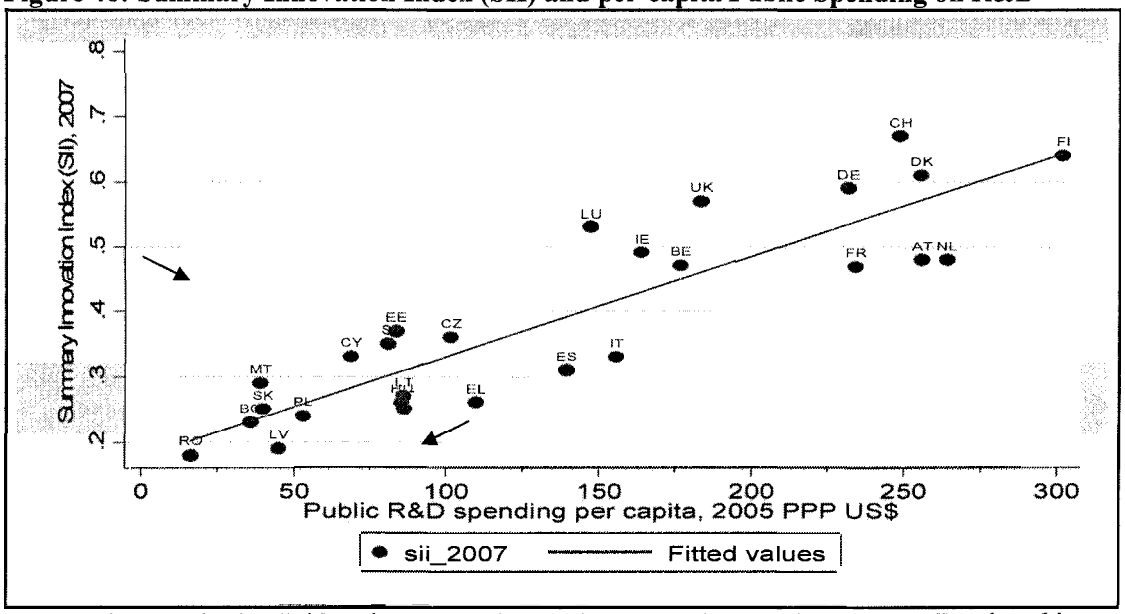
Science and Technology

171. **Public spending on science and technology (S&T) institutes is high, but results in terms of innovation are below those of most other countries** (Figure 46**Error! Reference source not found.**). The private sector and the university sector play an unusually small role in research and development (R&D) in Lithuania. Private R&D spending accounts for only 0.2% of GDP in Lithuania (the EU average is 1.2%). State funding of S&T development is equally divided between the Ministry of Economy and Ministry of Education and Science (MES). Four-fifths of the S&T resources (managed by MES) are used to support the core costs of research institutes, which were inherited from the Soviet period. Only 20% of budget financing is used competitively to support specific R&D products. This financing system has important deficiencies:

[79] Eligibility for budget finance could be based on needs and merit by first defining the eligible population in terms of needs, then selecting students among this group based on merit.

- This supply-driven approach is inconsistent with Lithuania's demand-driven approach for financing primary and secondary education programs.
- The 20% competitive element in the allocation formula provides a weak incentive for improved research productivity and relevance; and
- By concentrating public financing on research institutes that are separate from universities, it prevents universities from playing a dynamic role in science and technology development—science faculty and graduate students could work on cutting-edge applications related to their fields of study. It also fails to exploit the economies of scale universities could offer by using lower-cost staff (graduate students) and facilities in carrying out research.

Figure 46: Summary Innovation Index (SII) and per-capita Public Spending on R&D



Source: Alex Ivaschenko, "Lithuania's Research, Development and Innovation System - Benchmarking & Effectiveness Analysis," World Bank Draft Working Paper, February, 2009.

172. The international best practice is to support all S&T development through a competitive, internationally peer-reviewed process, with the bulk of the resources used to support specific research products in areas of national priority. An example is the competitive R&D model in the United States, which has helped finance the research of more than 170 Nobel laureates. Some long-term institutional support is provided under this model. But institutional support is limited to specific research areas of national importance, and institutional contracts are competitively awarded with continued support conditional upon meeting annual performance benchmarks.

173. The EU-supported "Sunrise Valleys" project, which proposes to finance five regional research institutes, could further deepen the supply-driven model. As the consultant reviews of these proposals confirmed, all five proposals focus on infrastructure development and pay too little attention to the role of private partners. Only two of the five proposals appeared viable in terms of research content. As in higher education, the

question of whether and how much budget financing should support S&T development is ultimately an arbitrary decision. Additional budget savings could be achieved by reducing the overall level of budget support for science and technology development and relying more heavily on commercial sponsorship.

174. **It is recommended that budget financing for S&T development be changed from the current supply-driven approach to a competitive, internationally peer-reviewed approach**. This would improve the efficiency and accountability of public support for S&T and would improve the quality and relevance of research products. This approach could be used to support solicited contract research on topics of agreed national priority and high-quality, unsolicited grant proposals. The same approach could support institutional contracts for specified research and technology products. Financing research products based on proposal quality should lead to a consolidation of research capacity among research institutes and universities. This process would help strengthen capacity in the stronger and more dynamic research institutes and universities. It would also provide an objective mechanism for closing the weaker research institutes and moving to a more modern framework for science and technology development. It is also recommended to reduce the number of research centers to be supported under "Sunrise Valleys" project from five to two, and use the remaining funds to support competitive research under this approach.

MAP SECTION


LITHUANIA
LATVIA
RUSSIAN FEDERATION
BELARUS
POLAND
Baltic Sea
Kurshskiy Zaliv
SIAULIAI
TELSIAI
KLAIPEDOS
TAURAGES
KAUNO
PANEVEZIO
UTENOS
VILNIAUS
MARIJAMPOLES
ALYTAUS
VILNIUS
Mazeikiai
Naujoji Akmene
Skuodas
Vieksniai
Akmene
Seda
Sventoji
Darbenai
Telsiai
Kursenai
Palanga
Kretinga
Plunge
Gargzdai
Klaipeda
Rietavas
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Kelme
Tytuvenai
Raseiniai
Sakiai
Kudirkos Naumiestis
Vilkaviskis
Marijampole
Kalvarija
Sestokai
Lazdijai
Druskininkai
Merzine
Alytus
Daugai
Varena
Eisiskes
Salcininkai
Jasiuni
Juozapines/Kalnas (292 m)
Rudiskes
Trakai
Naujoji Vilnia
Jieznas
Prienai
Ziezmarai
Garliava
Kaunas
Kaisiadorys
Jonava
Kedainiai
Gudziunai
Sirvintos
Pabrade
Ukmerge
Moletai
Svencioneliai
Svencionys
Kavarskas
Anyksciai
Utena
Ignalina
Snieckus
Zarasai
Svedasai
Kupiskis
Subacius
Panevezys
Seduva
Radviliskis
Pakruojis
Siauliai
Joniskelis
Joniskis
Linkuva
Pasvalys
Vabalninkas
Likenai
Birzai
Suvainiskis
Pandelys
Rokiskis
Musa
Venta
Virvycia
Minija
Levuo
Nevezis
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Susve
Sventoji
Nemunas
Neris
Merkys
To Pamoali
To Auce
To Auce
To Jelgava
To Bauska
To Barbele
To Priekule
To Rucava
To Akniste
To Daugavpils
To Daugavpils
To Rybachiy
To Chernyakhovsk
To Lyntupy
To Kobylnik
To Smorgan
To Oshmyany
To Chernyakhovsk
To Suwalki
To Augustow
To Hrodna
To Hrodna
To Vasilishki
To Radun
To Voronovo
21°E
22°E
23°E
24°E
25°E
26°E
27°E
56°N
55°N
54°N
0 20 40 60 Kilometers
0 20 40 Miles
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LITHUANIA
SELECTED CITIES AND TOWNS
COUNTY (APSKRITIS) CAPITALS
NATIONAL CAPITAL
RIVERS
MAIN ROADS
RAILROADS
COUNTY (APSKRITIS) BOUNDARIES
INTERNATIONAL BOUNDARIES
DECEMBER 2004
IBRD 33437