Executive summary

Ukraine's economy and governance system is still in the midst of a difficult transition. The previous system of rigorous economic planning must be replaced with a fully functioning market economy, within a social and economic regulatory framework. Government planning will have to focus on the development of long-term infrastructure and social policies, as well as on short- to longer-term financial and fiscal planning, in order to ensure the affordability of resources for these policies. At the present stage of transition, the most crucial element of social policy is a functioning social transfer mechanism that guarantees a minimum level of income both to the working population, and more importantly to non-working persons. In order to achieve this goal a minimum subsistence level (or poverty line) must be determined, representing the minimum level which the government aims to afford to all citizens. In other words, the most prominent task for social policies and fiscal management at present is short- to long-term anti-poverty management.

There is a need for a tool to test the affordability and target-efficiency of anti-poverty policies, both in the short and longer terms. The development of such strategies is not as straightforward as it may seem. If all available resources were concentrated, for example, on combating imminent poverty and providing anti-poverty benefits at the expense of social security contributions, then the failure to build up sufficient pension entitlements for the working generation might only lead to a manifestation of poverty in the longer term. Financial and efficiency considerations of a more complex nature are thus a prerequisite for the formulation of any national anti-poverty strategy.

The model presented here is thus a tool to enhance sound national financial governance. Besides mapping out likely future financial requirements of the system under given conditions, it provides decision makers with crucial information about social expenditure, both in the system as a whole and in major subsystems. Since the model also links financial requirements to the central and local budgets, governments and decision makers will be able to gain specific insight into the present and future affordability of the overall system. They will be better able to identify future bottlenecks within the system's financing structures, which provide for the sharing of the financial burden for social protection between employers, employees, private households and "general" taxpayers. This latter group pays through the central and local government budgets, when financing through contributions and other earmarked sources is insufficient.

This project aims to support the Ukrainian government in developing a social budget model, which is an accounting framework that compiles a full mathematical mapping of social expenditure and its financing. Social expenditure in this context includes all expenditure of the formal social protection system organised on a public or parastatal level - in particular, pensions, health care, unemployment and short-term benefits, social assistance, and a variety of smaller benefit types. The model provides a tool for (a) projecting the future expenditure and resource requirements of the existing social protection system, given macroeconomic and demographic projections, or (b) performing simulations of the financial, economic and fiscal impact of possible reforms in the area of social protection.

The approach taken in this project varies substantially from the classical technical assistance approach. The national coordinator of the project, the Deputy Minister of Labour and Social Policy, constituted a national inter-agency Task Force on Social Budgeting, consisting of representatives from all government and social security agencies, as well as from the social partners and parliament. This working group has been charged with the development of a concept for the national social budget. A joint team of World Bank and ILO advisors has supported the group technically by transferring the necessary methodologies to the Task Force.
The model will be made available to professional users in interested ministries and social security institutions in Ukraine. The project team expects that the Ukrainian users will constantly maintain and improve the model and adapt it in line with new ideas, improved statistical information that will eventually become available, and future legislation. These follow-up activities are of essential importance in maintaining and updating the model. Without constant maintenance, the usefulness of the model would be lost as it would quickly become inaccurate.

**The methodological concept of the model**

The report provides a description of the existing national social protection system as well as the demographic and macroeconomic environment that forms the foundation for the social budget model in Ukraine. The methodology employed is a pragmatic and robust intersection of four quantitative disciplines: methods of quantitative economics, actuarial techniques, national and institutional accounting, and social accounting.

In its present form, the ILO Social Budget Model is deterministic, recursive and designed to run over a medium period of 20 years. It is basically a simple accounting model which estimates, projects or simulates the income and expenditures of the various social protection systems through the use of straightforward deterministic equations. In this version of the model, the economic and labour market sub-models do not contain behavioural equations. Behavioural parameters are estimated based on historical observations (e.g., the benefit take-up rate for various cash benefits). The stochastic nature of virtually all model variables can be taken into account by undertaking sensitivity analysis and risk assessments of the financial results.

A population projection model (or exogenously entered population projection data) is used to generate population by single age groups and sex. Applying labour force participation rates to this data estimates the size of the labour force by single age groups between 15 and 70 years. Economic growth is projected exogenously, and employment is generated by a simple expression linking it to GDP through the use of labour productivity coefficients. Various economic growth forecasts are reflected in alternative growth scenarios. A comparison of the labour supply with aggregate employment gives unemployment. The model is calculated in real (constant) terms.

*Figure 1* portrays the main methodological concept of the Ukraine social budget model.
The modelling base consists of three major sets of inputs:
- demographic and labour force data and assumptions
- macroeconomic data and assumptions
- social protection data and provisions.

Data pertaining to observations in the base year (the last statistically "complete" year) as well as assumptions on future demographic and economic developments are used to construct future labour market balances (breakdowns of the total population by employment or activity status). This information determines the number of contributors or taxpayers, as well as the number of beneficiaries of the various social protection systems. Together with the benefit and financing rules, the labour force and economic base determine the amount of income and expenditure in each of the subsystems. These data are then aggregated into an overall social income and expenditure matrix: the social budget. Overall social budget data can then be disaggregated into institutional sub-budgets (which reflect the financial situation in the individual social security institutions) and incorporated into the general government account. This permits projections of the impact of social expenditure on the government surplus or deficit.

In addition, the model can demonstrate the effect of three types of feedback between the level of social expenditure and the economy. This part of the model serves for demonstration purposes only, and intends to show what could happen to economic growth if the interrelationships could be quantified. In the present volatile economic situation in Ukraine, any quantification of these
feedback effects would be sheer speculation. The feedback demonstration is an attempt to show (a) the impact of the government deficit (which might be caused by social expenditure) on growth, through assumed growth elasticity of interest rates, (b) the impact of labour costs on employment, and (c) the positive impact of social expenditure on economic growth.

Using the model

At present, nearly 25% of Ukrainian GDP is redistributed to finance various social protection benefits and services. If we add expenditure on education and price subsidies to this, the figure is 30% of GDP – over 60% of total public expenditure. This could be considered a normal level of social protection financing in a relatively well-performing European economy. However, under the present conditions in Ukraine, the question of making the social protection system both more effective with respect to poverty alleviation and more efficient from the public finance point of view is most crucial, taking into account the actual amounts of benefits paid to beneficiaries, their low anti-poverty effectiveness, and the fact that there are many other competing needs for public resources.

Less than half of social spending is financed from the various social insurance contributions (ie for most pensions, short-term benefits, unemployment benefits and employment promotion measures) and other payroll taxes (for the Chernobyl Fund). The rest is financed from general public revenues, either in the form of state benefits and services (such as family benefits, health care, social assistance and housing benefits) or in the form of state subsidies to cover deficits of the extra-budgetary funds.

Current social security contribution rates are nominally high, and (including contributions to the Chernobyl Fund) amount to slightly less than 50% of the covered wage fund. Meanwhile, the total level of contributions required to balance all the social funds would be nearly 60% of the wage fund. However, the effective rates (contributions actually collected) are much lower due to evasion, non-payment of wages and contributions, and the spreading informal sector.

Due to financial tensions within public finance, many of the benefits due are not paid in full, or paid only after long delays. Therefore due to the lack of resources there are informal cuts in benefits and in the overall level of social protection. It is estimated that about 5% of GDP is "saved" through the non-payment of benefits.

This situation cannot last, and it is apparent that reforms are necessary. The model projects that for status quo conditions (ie under the present rules and parameters of the social protection system) and in a relatively optimistic economic scenario (assuming high economic growth after the year 2000), the present social protection system could become financially sustainable after the year 2005. At this point, it would even be possible to decrease the present levels of contributions.

However, an important question is whether it would be possible to reach such high growth without significant reforms to the system. Is it possible to reach the social cohesion necessary for solid growth when the social protection system uses significant resources but pays low benefits, and not necessarily to those who need them the most? And is it possible to achieve high economic growth when public finances are in high and uncontrollable deficit? Under less optimistic economic scenarios, the status quo simulations show growing financial tensions and increasing deficits, which would in turn cause the economic and social environment to be less favourable to growth.
Reforms are therefore necessary, and the model is one of the analytical tools which can enable policy makers to simulate effects of the potential changes within the system. This could help in selecting the most appropriate policy options for the future.