A quantitative executive summary

This supplementary modelling report is one in a series of technical reports prepared for the Government of Turkey by the ILO for the social security component of the Social Security and Health Insurance Reform project. It provides an account of the results obtained from the supplementary quantitative analyses carried out by the project team at the request of the project Steering Committee. The purpose of this analysis is to complement the study of the quantitative impact of the reform of the Turkish pension system as presented in Combined Report 12 and 20 ("Report 12 & 20") with additional scenarios. In order to facilitate understanding for readers who might not have had access to previous interim quantitative project reports, this Executive summary provides a synopsis of all of the quantitative results of the project.

This report begins by reviewing the results of the updating of the "base case scenario" projections for the present system of public pension provision on the basis of different assumptions concerning the future development of employment in Turkey (see Chapter 2). The report goes on to describe the results of the additional simulations undertaken to show the financial impact of each of the reform options assuming different patterns of transition to a higher retirement age than the pattern assumed in Report 12 & 20. The salient features of each reform option are described in Report 6a, the Memorandum entitled "Pension Policy Options".

In the course of the discussions following the presentation of Report 12 & 20, the opportunity was taken to clarify some details of the data used in the projections, and to add further information where it has become available. The Statistics Departments of the three major social security systems, the Social Security Institution for the Self-Employed (Bag-Kur), Emekli Sandigi (ES) and the Social Insurance Institute (SSK), supplied the modelling team with new data in March 1996. These data, which in some aspects varied substantially from data supplied previously, have been taken fully into account.

The projection and simulation exercise (see Chapter 3) takes as its starting point the base case and reform option projections made in Report 12 & 20 and reproduces the set of main tables on an updated data and assumption base (see Annex A).

The report recalls the salient features of the reform options in order to facilitate understanding. In the case of the multi-tier option, several variants are described incorporating defined-benefit components with flat-rate and/or earnings-related sub-components; moreover, the defined-contribution component might be established on either a mandatory or a voluntary basis.

Chapter 4 presents comprehensive summary conclusions of a technical nature that are partly drawn from the analysis in Report 12 & 20 and partly from the results of these updated scenarios. The main points are indicated below.

On the present situation:

- Current total social expenditure in Turkey, at a level of about 10 per cent (%) of GDP, is not excessive by OECD standards. However, even under the assumption of strong economic growth, this figure is projected to increase by about 30% over the next decade. The share of government financing increases by about 70% over the same period.

The social insurance pension system in Turkey which was intended to be a self-financing contributory system:
• it has come, in recent years, to rely overwhelmingly on subsidization from general government revenue;

• it will be the main reason for the rapid increase in total national social expenditure over the next decade and thereafter;

• it will be one of the main expenditure components in the government's budget which is projected to remain in deficit until the year 2005 and beyond;

• it will see expenditure escalate so that its current deficit, in terms of GDP share (without interest payments on deficits), will increase by a factor of more than eight in real terms over the next five decades. Its current deficit in 2050 -under status quo conditions (assuming, inter alia, that present contribution rates remain unchanged) - will be roughly equivalent to 11% of GDP; the total accumulated debt will amount to about three times GDP.

The reasons for the expected "explosion" of expenditure (to a level equivalent to about 20% of GDP in 2050) are: on the expenditure side, that members are able to retire at ages that are far too low and that replacement rates are too high relative to insured earnings; while, on the income side, both the ceiling on insurable earnings and the proportion of contributions due that are actually collected are too low. The earnings ceiling and hence the benefit formula are out of step with the real earnings of both employees and self-employed persons.

The historical development is an almost classical one. The pension system (constituting three schemes) started out with generous pension formulae which were easily sustainable as long as the schemes were in the early phase of their life cycles, the number of beneficiaries grew only slowly and the major part of the contributions could be used to build up reserves. Pension age dropped from 60 in the early 1950s to a present de facto age of less than 50 for most beneficiaries. The generous benefit levels could not be sustained for the increasing number of pensioners, thus pension adjustments had to be kept below the rate of inflation in order to keep expenditure down. A technical way to reduce benefits was to keep the insurable earnings ceiling down. Low benefits triggered the necessity to complement earnings related contributory pension benefits with a flat-rate, tax-financed component (SYZ). The failure to adjust the contribution and benefit ceiling and the increase in the flat-rate pension supplement (SYZ) have necessitated public subsidies to the schemes. As the levels of insured earnings stagnated, public subsidies had to be increased faster and faster and now already account for 50% of total expenditure. The present pension system is thus in a systemic disequilibrium and is clearly unsustainable.

On the reform options:

• Report 12 & 20 showed that the proposed reform options would imply major redistributional effects on individual retirement and lifetime incomes compared to the status quo. These effects are remarkably similar for average income earners with a career of about 30 to 35 years. Except for Option 2, they also provide reasonable income protection for low income earners. While, for workers with below average income levels, replacement rates are often lower than under the present schemes, the "new" benefit formulae would still provide net replacement rates (i.e. the ratio of average pensions to average previous net earnings) at all levels which compare very favourably with what has been achieved in other countries and which more than meet international standards. Net replacement levels at all earnings levels are also generous and consideration would have to be given to taxing
benefits. The calculated replacement rates under Option 2 are not fully comparable with those under other options, as they are highly uncertain and to a large extent depend on good long-term economic performance and stable individual careers. Under the PA YO reform options, the present value of benefits for standard beneficiaries is greater than the present value of contributions at all income levels at a zero real interest rate. Due to continued government subsidization beneficiaries would even earn a small real positive return.

- The effects of the different reform options on current total social expenditure (excluding change of reserves) projected over the decade to the year 2005 are very similar. This is largely due to the fact that broadly similar transitional measures are proposed under each option. The projected reduction in total social expenditure of up to 1.4% of GDP by 2005 can be attributed largely to the early phasing in of a higher Pensionable age, which is envisaged under all of the options. On the income side of the national account, the proposed raising of the earnings ceiling for contribution purposes will have positive effects on the financing of the national social expenditure. Except for Option 2, this change leads directly to a reduction in that part of the social protection system which must be financed by the Government. The effect is most pronounced under Option I where the projected cost to the Government is reduced by 3.1 % of GDP in comparison with the base case.

- The long-term actuarial projections indicate that the overall financial impact of all of the reform options, as measured by the total cumulative deficit in 2050, is very similar. The potential reduction in the cumulative deficit by the year 2050, by comparison with the base case projection is of the order of 85% in each case. Under Option 3a, the projected outcome in the year 2050 is slightly less favourable in financial terms but, even under this option, the total cumulative deficit at that time should be reduced (by comparison with the base case) by a proportion of about 75%. The situation under Option 2 is a little more complex. Considering, again, the projected financial position in the year 2050, the cumulative deficit arising from the "frozen" old schemes exceeds the accumulated reserves (built up in members' savings accounts) in the new savings scheme by a percentage of GDP which is closely comparable with the deficits projected under each of the other options. The investment of the large sums representing individuals' contributions to the new scheme envisaged under this option would inevitably have a profound and lasting impact on the capital market. Concurrently, the financing of the "frozen" old scheme entails the need for substantial public borrowing, and over a period of five and a half decades, the individual savings account system would supply, directly or indirectly, roughly 55% of the resources to satisfy that demand.

On balance, Options 1, 4a and 4b permit a substantial reduction of the accumulated deficit without creating additional turnover in the financial and capital markets, and without the need for increased government borrowing to finance a system change in the pension system.

- Even if the reform options reduce the demographic ratio substantially (i.e. the number of pensioners per insured person and the average replacement rate), it will not be possible to completely abolish the deficit during the coming decades unless contribution rates for the new scheme (or schemes) can be increased beyond those presently applied in SSK. Marginal income tax rates on the relatively small formal sector income tax base are already high in Turkey. Given the present character of the pension system, social security contributions are perceived as a wage tax. Taxes and contributions together constitute a high fiscal burden, in particular for formal sector employees. This is likely to limit the Government's room for manoeuvre with respect to increasing the contribution and/or
income tax rates. At the same time, the present weight of servicing the debt on the Government budget limits its capacity to subsidize social insurance schemes. At present, debt servicing accounts for 35% of the Consolidated Government Budget. It would be unrealistic to expect social security system reform, on its own, to solve the Government's budgetary problems. Only if the fall in real interest rates were to materialize, as is assumed in the current five-year plan, resulting in a share of debt financing of only 6.5% in total consolidated budget expenditures in 2005, is it likely that substantial government subsidies to social security could be sustained in the long term. As shown by sensitivity calculations, however, substantial improvements of compliance and coverage could help to alleviate some of the financial burden at least in the short-to-medium term.

On the sensitivity of model results:

- Sensitivity tests presented in Report 12 & 20 showed the strong impact on costs of the age at which scheme members typically draw retirement pensions, and the scale of savings which can be achieved by raising that age. A considerable immediate reduction of the deficit could be obtained by increasing the de facto pensionable age gradually. A strategy for phasing in this provision has been modelled in all reform options. Adoption of this provision would improve the financial situation without prejudging any major structural reform.

- The projections also indicate the effects on the various income and expenditure components and highlight the strongly beneficial effect on scheme revenue arising from setting the limit on insurable earnings at a higher and more realistic level. This change could also be introduced as an immediate measure to improve the financial situation. However, as long as the benefit formulae remain unchanged, it would only temporarily ease the financial pressure on the scheme, i.e. as long as most pensions are still calculated on previous lower earnings levels. Eventually, the systemic "disequilibrium" between income and expenditure will begin to re-emerge.

- The model results in general highlight the complexity of the process of transition from the old pension scheme to any reformed scheme, and the aspects of the transition which will ultimately have the most significant financial impact. In particular, it is demonstrated that the freezing of the old benefit provisions and the necessity of extensive transitional provisions set a limit to the pace of possible cost reduction during at least the next decade. No reform option is likely to have an immediate dramatic impact on the financial situation of the individual social security schemes nor the financial status of the social protection system in general.

- The model results are extremely sensitive to some economic parameters and not very responsive to others. Changes in GDP growth and, accordingly, in employment development, for example, do not affect overall social expenditure as a percentage of GDP to a large extent in the medium term. This is a consequence of the dominating influence of the pension system on overall social expenditure: pension costs are systemically and rapidly increasing under any economic scenario. On the other hand, changing interest rates has a considerable impact on the accumulated deficit of the pension system and, hence, on the Government budget.

- Increasing administrative and managerial efficiency as expressed in higher compliance and improved coverage will have enormous social benefits as the degree of social protection of
the population will greatly improve. Its financial effects are similar to those of an increased contribution ceiling; both greater coverage and higher compliance improve the financial situation of the social insurance system in the short to medium term, and could help to bridge financial gaps until the suggested long-term systemic reform begins to "grip".

- The sensitivity tests on the whole as well as the comparison of the results of Report 12 & 20 and this supplementary report, show that the quantitative results are sufficiently robust with respect to minor modifications of the data base and assumptions and hence also with respect to possible remaining inaccuracies of the data base. They thus provide a solid basis for decision making.

The findings of this report clearly demonstrate the magnitude of the current financial imbalances in the Turkish social security schemes, and the extent to which these can be alleviated as a result of the financial and fiscal changes envisaged following each of the various options for the reform of the system. It confirms once again that systemic corrective measures to financial disequilibria in long-term benefit systems take considerable time to become fully effective. Systemic measures must be complemented by administrative action. Good design alone -in the absence of good management and administration -will achieve nothing in the short run and probably little in the long run.