

# **ISSUES IN SOCIAL PROTECTION**

## **Discussion paper 13**

### **Can low income countries afford basic social protection? First results of a modelling exercise**

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## List of Acronyms

CEAMC	Central African Economic and Monetary Community
DFID	United Kingdom Department For International Development
GDP	Gross Domestic Product
GTZ	Deutsche Gesellschaft für Technische Zusammenarbeit
ILO	International Labour Organization
IMF	International Monetary Fund
LCU	Local Currency Units
MDG	Millennium Development Goal
ODA	Official Development Assistance
PPP	Purchasing Power Parity
UN	United Nations
UNAIDS	The Joint United Nations Programme on HIV/AIDS
UNDP	United Nations Development Programme
UNICEF	United Nations Children's Fund
USAID	United States Agency for International Development
WHO	World Health Organization



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## Executive Summary

It is a known fact today that approximately 1.3 billion people in the world live in poverty with under US\$1 (Purchasing Power Parity PPP) a day. In 1999, 47 per cent of the population in sub-Saharan Africa was living in extreme poverty with less than US\$1 (PPP) a day. The achievement of the first Millennium Development Goal (MDG) aimed at reducing poverty by half by 2015 seems very far off target in certain regions of the world. In this context the recent report<sup>1</sup> of the Secretary General of the United Nations (UN) lays down a certain number of “priority actions for 2005”. Amongst these priorities figure prominently the need for developing countries to implement a national strategy, which englobes also health and education policies, to achieve by 2015 the poverty reduction MDG. Furthermore, the report also calls for developed countries to meet their Official Development Assistance (ODA) pledges. Recently a number of developed countries have indicated their commitment to meeting these pledges.

Adequate social protection transfer mechanisms are an essential means of relieving poverty. However, the International Labour Organization (ILO) has estimated that only 20 per cent of the world’s population benefits from adequate social protection coverage and in sub-Saharan Africa coverage for old-age income protection is lower than 10 per cent of the labour force.

It has often been held that social protection was unaffordable for low-income countries, yet this judgment does not hold. Examples from a number of countries show that basic social protection programmes are feasible and have a marked effect on the reduction of poverty. This report presents the methodology and the results of a modelling exercise that demonstrates that basic social protection benefits are not out of reach of low-income countries in Sub-Saharan Africa, even though some international assistance would be necessary for a transitory period.

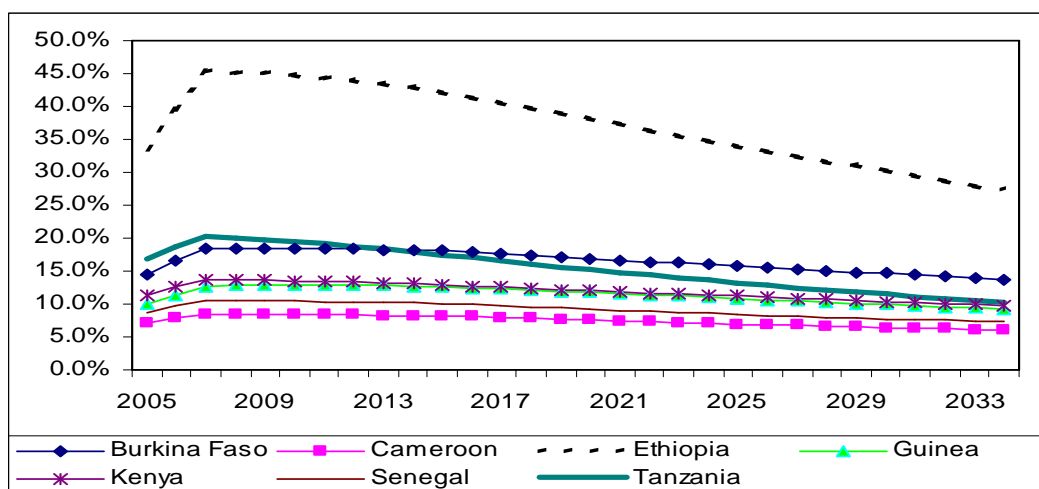
For the study, a wide basic social protection package was chosen consisting of a universal old-age and invalidity pension, universal access to basic education, universal access to basic health care and a child benefit. Three scenarios for a basic social protection benefit package were analyzed. The Base Case scenario reflects methods used in the Millennium Development Goal indicators and other major international reports, such as a level of the universal old age and invalidity pension of US\$ 0.50 (PPP) per day, UNICEF (United Nations Children’s Fund) unit costs for primary education, per capita priority health care costs according to the Commission for Macroeconomics and Health and a child benefit of half the level of the universal pension. Scenario II reflects levels of benefits and costs in line with specific national circumstances such as a pension level of 30 per cent of Gross Domestic Product (GDP) per capita. The basic social protection benefit package modelled in Scenario III includes a targeted cash transfer for the poorest households as well as health and education expenditure (unchanged from the Base Case). The following graphs show a comparison of the total cost of such a basic benefit package for the countries forming part of the study under all three of the scenarios.

In all three cases the costs of a basic social protection benefit package seem within reasonable and affordable limits if countries and donors were to make a strong commitment to basic social protection as one essential tool of poverty reduction. Ethiopia is the only country in the study with levels above 20 per cent of GDP in Scenario I (Base

<sup>1</sup> United Nations 2005. *In Larger Freedom: Towards Development, Security and Human Rights for All*, Report of the Secretary-General, A/59/2005, New York: United Nations.

Case) (see Graph a). In this special case, the availability of donor financing would be essential if internationally set benefit levels are to be met.

**Graph a. Cost of basic social protection package in per cent of GDP (Base Case) for selected Sub-Saharan countries, 2005-2034**

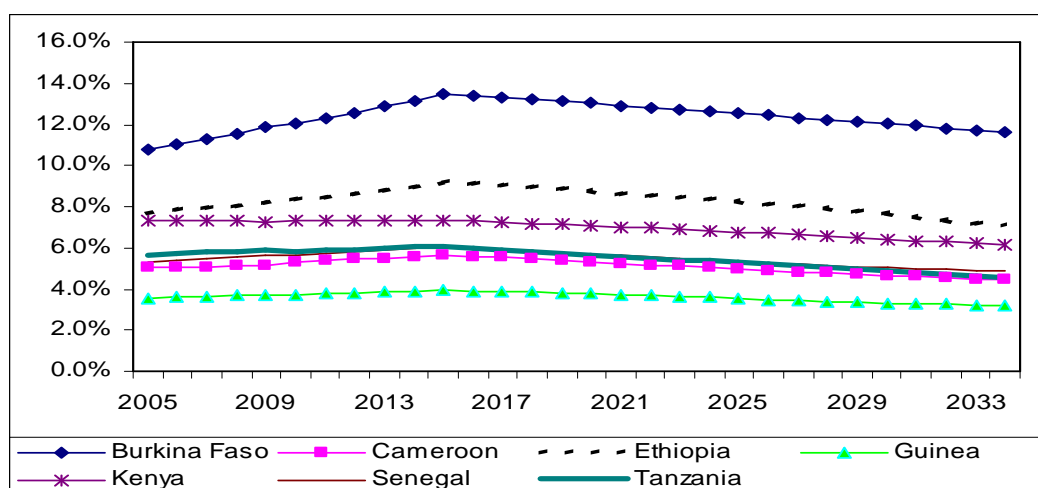


Source: ILO calculations.

Contrary to what may be assumed, the costs of providing a universal old-age and invalidity pension are affordable. At the end of the projection period in 2034, the costs are projected to reach 0.3 per cent of GDP in Burkina Faso, Cameroon, Guinea and Senegal, 0.5 per cent of GDP in Tanzania and 0.6 per cent of GDP in Ethiopia and Kenya. The single most important component in terms of costs in all these countries is the cost of providing basic health care which represents between 48 and 60 per cent of the total costs of the basic benefit package (in 2015). In Ethiopia it represents over 70 per cent of total costs of the basic benefit package. The cost (at its peak in 2010) of providing health care ranges from 4 per cent of GDP in Cameroon to 11 per cent of GDP in Tanzania (with the exception of Ethiopia where it represents approximately 31 per cent of GDP). Universal access to basic education, another priority policy area of action in terms of cost levels, also seems affordable. For 2015 (target for achieving the second Millennium Development Goal), costs range from 1.7 per cent of GDP in Tanzania to 6.2 per cent of GDP in Ethiopia. The cost of a child benefit paid to all children up to the age of 14 ranges for 2015 from 1.5 per cent of GDP in Cameroon and Guinea to 4.5 per cent of GDP in Ethiopia. However, the level of an adequate child benefit would need to be studied more in depth in order to reflect the education and health care benefits which are being provided.

The share of government expenditure allocated to basic social protection will determine the level of external financing required. If countries were to maintain the current proportion of government expenditure allocated to financing basic social protection benefits constant over the projection period, the level of international financing required would vary for 2005 from 91 per cent (Ethiopia) to 61 per cent (Kenya) of the cost of the benefit package. However, if countries were to reallocate 33 per cent of government expenditure to the financing of a basic social protection benefits package, then in 2005 Ethiopia would need 74 per cent and Kenya 15 per cent of the cost of the benefit package to be financed by external sources. Under such an option, Senegal would be able to entirely finance through domestic sources the full cost of the basic benefit package by 2021 and reduce the proportion of government spending to a level of approximately 25 per cent by 2034.

**Graph b. Cost of basic social protection package in per cent of GDP (Scenario II) for selected Sub-Saharan countries, 2005-2034**



Source: ILO calculations.

Scenario II, once again also shows that universal old-age and invalidity pensions can be provided and still be affordable representing less than 1.5 per cent of GDP throughout the projection period for all the seven countries. The overall level of the cost of a basic benefit package are much lower than under the Base Case scenario as these levels are anchored to much more country specific details (such as medical and education staff wages, etc). Ethiopia shows this very clearly. Whereas under the Base Case in 2005 and 2034 the total expenditure on the benefit package in terms of GDP is 34 per cent and 27 per cent respectively, under Scenario II the cost is 8 per cent and 7 per cent respectively (see Graph b).

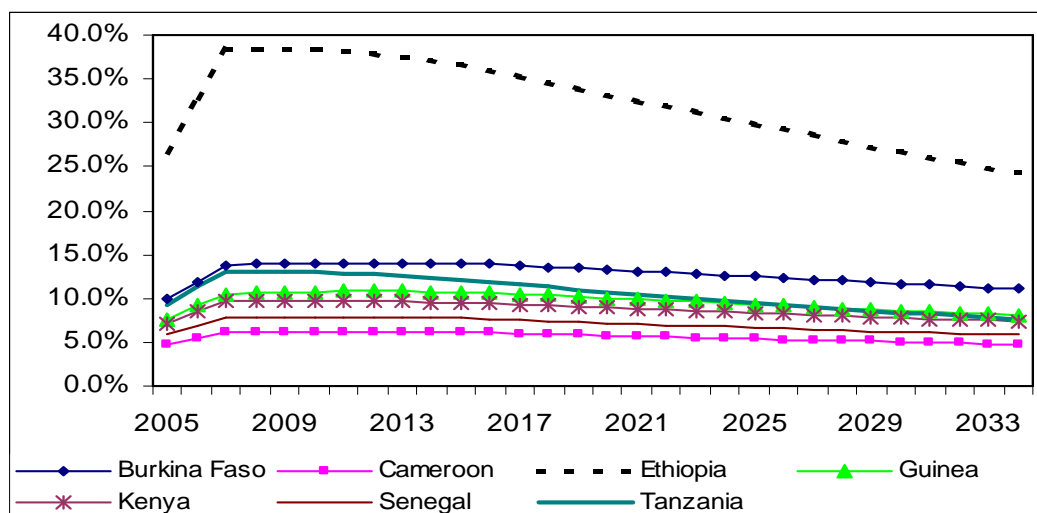
If countries were to maintain the current proportion of government expenditure allocated to financing basic benefits constant over the projection period, the level of international financing required would vary for 2005 from 73 per cent (Burkina Faso) to 4 per cent (Tanzania) of the costs of the benefit package. However, if countries were to reallocate 33 per cent of government expenditure to the financing of a basic benefits package then in 2005 Burkina Faso would need 52 per cent to be financed by external sources and Tanzania could entirely finance the cost of the benefit package with 25 per cent of government expenditure.

Scenario III was inspired from a GTZ (*Deutsche Gesellschaft für Technische Zusammenarbeit*)-sponsored cash transfer programme that has been tested in one district in Zambia. It provides a cash benefit of US\$ 13.71 (PPP) per month to the 10 per cent most destitute households. In the model, this benefit replaces the basic universal old-age and invalidity pensions as well as the child benefits assumed under the Base Case and Scenario II. The health and education benefits are the same as assumed in the Base Case. As Scenario III is based on much lower levels of cash transfers, in four of the countries (Burkina Faso, Cameroon, Guinea and Senegal), expenditure on a targeted cash transfer providing the same purchasing power parity as the benefit provided in Zambia would require between 0.15 and 0.30 per cent of GDP. Expenditure would reach about 0.7 per cent of GDP in Ethiopia and Tanzania, and 0.5 per cent of GDP in Kenya.

The projected expenditure on the total basic social protection package is driven mainly by the health care and education expenditure. Expenditure levels reach 5-15 per cent of GDP in all countries except Ethiopia where expenditure would quickly rise to almost 40 per cent of GDP before slowly decreasing to 24 per cent by 2034 (see Graph c).

Under the assumption that countries would maintain their current spending levels on basic social protection at their 2003 level, between 8 per cent (Ethiopia) and 47 per cent (Kenya) of total expenditure could be covered from domestic sources in 2010, during the peak expenditure period. If countries were to devote one third of their government budgets on basic social expenditure, between 24 per cent (Ethiopia) and 100 per cent (Kenya and Senegal) could come from domestic resources in 2010. By the end of the projection period, five of the seven countries – Cameroon, Guinea, Kenya, Senegal and Tanzania – would be able to afford the basic social protection package from their own resources.

**Graph c. Cost of basic social protection package in per cent of GDP (Scenario III) for selected Sub-Saharan countries, 2005-2034**



Source: ILO calculations.

Two sensitivity tests were also undertaken in order to ascertain the effects of variations of main macro economic variables. Sensitivity Test 1, with GDP growth linked to total population growth instead of to working-age population growth, shows lower average annual GDP growth rates in all countries with respect to the Base Case. The relative cost of the basic benefit package in all the seven countries is higher than under the Base Case as absolute benefit amounts do not change (with the exception of expenditure on education). Sensitivity Test 2, with higher government expenditure with respect to GDP by 2030 for Burkina Faso, Cameroon and Tanzania would increase the share of the basic benefit package which could be financed by domestic sources.

The projections provided in this report can be a starting point to further explore the affordability of basic social protection in low-income countries. This paper does not aim to prescribe any standard basic benefit package for all countries. It seeks to raise awareness to the feasibility of providing basic social protection. As the report concludes, this is within the reach of even the low-income countries. However, further studies would be needed to assess the affordability and the impact of such programmes in more depth in the specific country context based on national data. This would also include a more detailed discussion of how a basic social protection package could be designed, how it would fit into the broader national social protection strategy including contributory schemes and other programmes, what effect it would have on poverty reduction and how it could be financed.

The conclusions therefore are quite clear. A basic social protection benefit package can be affordable if it is made a priority area of national policy. This is a commitment which each individual nation needs to make. The share of their budgets devoted to basic social protection benefits would have to be fixed at a higher level than today. However, the mobilization of international resources will be needed in order to make this an achievable target.

## 1. Introduction

In 1999, 47 per cent of the population in sub-Saharan Africa was living in extreme poverty with less than US\$1 (PPP) a day. The 2004 progress monitoring of the achievement of the first Millennium Development Goal (halving poverty by 2015) shows that hardly any change has been achieved since 1990 towards attaining this target in this region of the world while other regions have made considerable progress.<sup>2</sup> This outlook is not reassuring.

Due to the multi-dimensional character of poverty, a multi-dimensional approach needs to be adopted in order to alleviate and prevent destitution. National social protection systems providing social security through schemes ranging from basic poverty alleviation to pensions and health-care schemes are one of the most powerful means of alleviating and preventing poverty.<sup>3</sup> Income transfer schemes for individuals in high poverty risk groups (namely older persons, people with disabilities and children) as well as universal access to basic health care and basic education can help to mitigate the adverse effects of chronic poverty.

It has often been held that social protection was unaffordable for low-income countries, yet this judgment does not hold. Examples from a number of countries show that basic social protection programmes are feasible and have a marked effect on the reduction of poverty. Recently, the Commission for Africa has made a strong case for strengthening access to health and education as well as reliable cash transfers in Africa.<sup>4</sup>

This report presents the methodology and the results of a modelling exercise that demonstrates that basic social protection benefits are not out of reach for low-income countries in Sub-Saharan Africa, even though some international assistance would be necessary for a transitory period. The Social Protection Sector of the International Labour Organization (ILO) has estimated the cost of basic social protection benefits (education, health, pensions) for a selected number of developing countries in sub-Saharan Africa, namely Burkina Faso, Cameroon, Ethiopia, Guinea, Kenya, Senegal and Tanzania. The selection of countries aimed to provide regional diversity within Africa but was nevertheless largely driven by data availability.

A preliminary version of the result tables and assumptions were set-up by the Social Protection Sector of the ILO and then discussed with DFID (United Kingdom Department for International Development). Following that DFID provided comments and suggested modifications to some of the assumptions. These are included in the Base Case (Scenario I). The main aim of this paper is to provide a costing of a basic social protection benefit package with the description and sources of the data and assumptions used for the projections as well as a brief description of the methodology used.

<sup>2</sup> United Nations 2004a. *Implementation of the United Nations Millennium Declaration*, Report of the Secretary-General, A/59/282, New York: United Nations.

<sup>3</sup> ILO 2002. *A Global Social Trust Network: Investing in the World's Social Future: Report and Documentation of a Feasibility Study*, Geneva: International Labour Office.

<sup>4</sup> Commission for Africa 2005. *Our Common Interest: Report of the Commission for Africa*, London: Commission for Africa.



## 2. The model

### 2.1. Modelling philosophy

In order to estimate the cost of a basic benefit package it was necessary to set-up a quantitative model. The model takes into account country specific information on demographic developments as well as macro-economic developments. The year on which projections were based is 2003. Historical data for the various demographic and macro-economic variables, i.e. population projections, real and nominal gross domestic product (GDP), inflation, exchange rate, government expenditure and government revenue, teacher/medical staff wages, etc were used. For each country case the main assumptions are provided in form of a table (see Annex 1 and 2).

Based on historical developments, projections of the various demographic, economic and financial parameters are undertaken from 2004 till 2034. These are detailed under the specific sub-sections below. Projections of the cost of the basic social protection package and the external donor financing requirements in respect of two options was done, i.e. firstly, maintaining government expenditure for the basic benefits at the level that in 2003 was spent by the government for basic social protection and education and secondly, assuming that one third of total government expenditure would be spent on basic social protection benefits.

The model is a simple and robust deterministic “If-Then” model which treats the key economic variables (i.e. economic growth, productivity and inflation) as exogenous. It basically projects expenditure and revenues in the social and public sectors in form of extended budget scenarios based on exogenous assumptions for key parameters of the model. However, the assumptions are internally consistent (i.e. for example the relationship between population growth, economic growth and productivity) and consistent with observed historical data. The model was built with the view to be flexible to the extent that it permits sensitivity analysis of some of the main assumptions (i.e. GDP growth, productivity, benefit levels and coverage, etc). The key parameters and the assumptions are described in Section 3.

### 2.2. Scenarios

This notes is based on three model scenarios, which largely reflect a standard set of demographic, economic and benefit level assumptions. The first scenario is the base case that reflects methods and indicators used in the Millennium Development Goal indicators and major international reports. Scenario II provides a more modest option that is more closely based on country-level data. Scenario III is based on a targeted cash transfer that has been tested in a GTZ (*Deutsche Gesellschaft für Technische Zusammenarbeit*)-sponsored project in Zambia. The Sensitivity Tests assess the robustness of the model to changes in the economic context and to modified assumptions on government financing.

The results of the Base Case (Scenario I) projections are provided in Annex 1. The projections of Scenario II and Scenario III are provided in Annex 2 and Annex 3 respectively.





### 3. The demographic and economic parameters and assumptions

For all the countries forming part of this study country specific historic data were used as far as available. However, for the projections the same assumptions were used in all cases. Where different a special mention is made.

#### 3.1. Demographic environment

Historical as well as future population estimates are based on United Nations population projections from the World Population Prospects 2002 (medium variant).<sup>5</sup> Age-specific data were used in order to provide the appropriate demographic basis for the costing of the various basic benefit packages.

**Table 1. Proportion of population under 15 years of age and over 65 years of age, 2004-2034**

Country	Age group	2004 (%)	2015 (%)	2034 (%)
Burkina Faso	Under 15	49	48	42
	65 and older	3	2	3
Cameroon	Under 15	42	38	31
	65 and older	4	4	5
Ethiopia	Under 15	45	43	36
	65 and older	3	3	4
Guinea	Under 15	44	42	32
	65 and older	3	3	4
Kenya	Under 15	41	36	30
	65 and older	3	3	5
Senegal	Under 15	43	39	30
	65 and older	2	3	3
Tanzania	Under 15	45	40	31
	65 and older	2	3	3

Source: United Nations 2004c. *World Population Prospects: The 2002 Revision*, New York: United Nations.

The table above shows that the group of persons above the age of 65 in these seven countries represents a very small proportion of the total population. Even though the absolute numbers of persons in this group will grow, transfers to this group should not place an unmanageable burden on these countries.

<sup>5</sup> United Nations 2004c. *World Population Prospects: The 2002 Revision*, New York: United Nations.

The average number of members in the household is based on the most recent Demographic and Health Survey<sup>6</sup> in all countries except Tanzania where more recent census data<sup>7</sup> are used. Average household sizes are kept constant over time.

## 3.2. Economic environment

### *Gross Domestic Product*

Historical data for real and nominal GDP from 1990 to 2003 were obtained from the World Development Indicators database 2004.<sup>8</sup> Real GDP growth is assumed as working-age population growth plus 1 percentage point for the base case in all countries except Ethiopia and Tanzania where real GDP growth is assumed as working-age population growth plus 2 percentage points. However, the possibility is provided to link GDP growth to total population growth. A sensitivity analysis was done using this assumption (see Sensitivity Test 1).

### *Inflation*

Historical data on inflation were obtained from the International Finance Statistics database of the International Monetary Fund (IMF) for the years for which data were available as of 1990. The projections were based on IMF short-term country estimates. In the case of Cameroon the IMF forecast average annual change of consumer prices at 2 per cent for 2004 through 2006.<sup>9</sup> In effect, the Central African Economic and Monetary Community (CEAMC) convergence criteria call for annual change of consumer prices lower than 3 per cent for Cameroon. For Burkina Faso for 2004-2006<sup>10</sup> and for Senegal 2004-2005<sup>11</sup> projected average annual change of consumer prices are at 2 per cent. For Ethiopia the IMF forecasts for the period 2004-2006 indicate an annual average change of 3 per cent,<sup>12</sup> for Guinea for the period 2004-2005 it is also at 3 per cent.<sup>13</sup> For Kenya, the

<sup>6</sup> Demographic and Health Survey Stat Compiler, <<http://www.measuredhs.com>>. The data refer to the following years: 1997 (Senegal), 1998 (Cameroon, Kenya), 1998/99 (Burkina Faso), 1999 (Guinea) and 2000 (Ethiopia).

<sup>7</sup> Tanzania Census 2002, <<http://www.tanzania.go.tz/census/census/table3.htm>>

<sup>8</sup> World Bank 2004. *World Development Indicators Database*, Washington D.C.: World Bank, <<http://www.worldbank.org/data/onlinedbs/onlinedbases.htm>>.

<sup>9</sup> International Monetary Fund 2003a. *Cameroon Country Report*, 03/401, Washington D.C.: International Monetary Fund.

<sup>10</sup> International Monetary Fund 2004a. *Burkina Faso Country Report*, 04/95, Washington D.C.: International Monetary Fund.

<sup>11</sup> International Monetary Fund 2004d. *Senegal Country Report*, 04/131, Washington D.C.: International Monetary Fund.

<sup>12</sup> International Monetary Fund 2004b. *Ethiopia Country Report*, 04/65, Washington D.C.: International Monetary Fund.

<sup>13</sup> International Monetary Fund 2004c. *Guinea Country Report*, 04/99, Washington D.C.: International Monetary Fund.

estimates for 2006-2008 were 3.5 per cent average annual change<sup>14</sup> and for Tanzania these were at 5 per cent for 2004 and 4 per cent for 2005-2006.<sup>15</sup>

These rates were kept constant for the rest of the projection period.

### **Productivity**

Productivity increase is assumed as half of real GDP growth but the parameter can be modified for eventual sensitivity testing. This automatically means that half of the real economic growth is achieved by increases in the level of employment.

### **Exchange rate**

Historical exchange rate data of local currency units to US\$ were obtained from the International Finance Statistics database of the IMF. The rate for the projection period are kept constant at their 2003 level. The purchasing power parity (PPP) for 2004 is also taken from the International Financial Statistics database. This PPP value has been kept constant throughout the projection period.

### **Government revenue, government expenditure and expenditure by function**

Historical data were obtained from the IMF Government Finance statistics yearbook. Consolidated Central Government figures were used where general government data were not available. Revenue data excluded grants. In the majority of the countries of the study these data were available until 1999. These data were then projected to 2003 on the basis of GDP growth. From 2004 onwards, projected levels of government expenditure in per cent of GDP are assumed to increase by half up to a maximum of 30 per cent of GDP by the year 2034 (linear increase). In countries with a government deficit, revenue is assumed to reach the projected expenditure level by 2014 in order to reach a balanced budget. Thereafter, the budget remains balanced, that is, revenue and expenditure is assumed to be equal.

Consolidated government expenditure for Education, Health and Social Security and Welfare were also used in order to have a basis for what is currently being spent by the government.<sup>16</sup> For the majority of the countries, data were available until 1999 and then projected in the same manner as government expenditure and revenue until 2003.

The model simulates two hypothetical options for the financing of the estimated cost of the future benefit package.

It must be kept in mind that the total government expenditure for education, health and social protection and welfare would be higher than the expenditure for basic social protection, as it includes also expenditure of social protection schemes covering all other contingencies, as well as secondary and tertiary education, etc. Of course, it must be noted that expenditure allocated today for a variety of social security, health and expenditure

<sup>14</sup> International Monetary Fund 2003b. Kenya Country Report, 03/399, Washington D.C.: International Monetary Fund.

<sup>15</sup> International Monetary Fund 2004e. *Tanzania Country Report*, 04/285, Washington D.C.: International Monetary Fund.

<sup>16</sup> International Monetary Fund 2002. *Government Finance Statistics Yearbook 2002*, Washington D.C.: International Monetary Fund.

provisions will not and should not be entirely reallocated to financing the basic package of benefits modeled here. Therefore, an assumption on the portion of 2003 education expenditure, health expenditure and expenditure on social security and welfare (as provided by the IMF) currently being spent on providing basic benefits was taken into account. Due to the lack of statistical evidence, it was assumed that 90 per cent of 2003 expenditure on health care and 10 per cent of 2003 expenditure on social security and welfare were spent on basic benefits in all the seven countries. With respect to 2003 expenditure on education, for Cameroon<sup>17</sup>, Burkina Faso, Guinea and Tanzania it was assumed that 71 per cent was spent on basic primary education, for Ethiopia<sup>18</sup> it was assumed at 54 per cent, for Kenya it was assumed at 50 per cent and for Senegal<sup>19</sup> it was assumed at 44 per cent. This provides an estimate of the present social protection expenditure which is being allocated to finance basic social protection benefits.

The present total government expenditure for these basic social protection functions (health care, education and old age) for 2003 was then used as a benchmark assumption for Option 1. Under this option, expenditure on basic social protection that can be financed by the government for the period 2005-2034 is assumed as being equal to the proportion of resources already spent today on basic social security, health and education in total government expenditure. The residual between the estimated cost of a hypothetical benefit package and the present observed social protection expenditure would then provide a proxy for the theoretical level of external financing.

The objective of the present study is to calculate the costs of a basic benefits package and not overall social expenditure. However in order to estimate an approximate level of total social protection expenditure it was assumed that the cost of non-basic social protection measures would move in line with inflation, GDP or GDP per capita growth and the respective population sub-group growth where appropriate and that these expenditure would not be financed by external sources. These added to the cost of the basic benefit package should provide an approximate level of total social expenditure and total government expenditure on social protection.

Under Option 2 it is assumed that in the future one third of government expenditure levels are allocated to the financing of basic health care, education and pensions.

Under both options however, the proportion of total government expenditure allocated to social protection expenditure is capped at the cost of the basic benefit package (for example for Kenya under the assumptions of Scenario II, less than 33.3 per cent of total government expenditure is required to finance entirely the basic benefit package from the onset in 2005).

<sup>17</sup> Source: UNDP 2004. Human Development Report Statistics, New York: UNDP, <<http://hdr.undp.org/statistics/data/>>, accessed April 2005. Corresponds to proportion in 1990.

<sup>18</sup> *Ibid.*

<sup>19</sup> *Ibid.*

## 4. The basic social protection benefit package

The aim of the study conducted by the ILO was to analyze transfers which are not only affordable but which could have an important trickle down effect reducing poverty, not only within the family nucleus but also in the economy. Furthermore, it analyzed the financial and fiscal feasibility of a basic social protection benefit package consisting of a universal old-age pension provided to individuals over 65 years of age; a universal pension paid to the disabled; universal access to basic education; universal access to basic health care; and a specific child benefit (either to all children or specifically target to orphans or only AIDS orphans).

### 4.1. Basic universal old age and disability pensions

#### **Rationale**

According to ILO estimates, only 20 per cent of the world's population benefits from adequate social protection coverage. In sub-Saharan Africa coverage for old-age income protection is lower than 10 per cent of the labour force. Thus, older persons are particularly vulnerable to poverty in low and middle-income countries where a large proportion of the population is not covered by contributory old age pensions.

Universal basic pensions could have a strong impact on improving the livelihoods of older persons and could alleviate at least the most severe forms of poverty.<sup>20</sup> Contrary to the widely-spread view that low income countries cannot afford universal pension schemes, examples from a number of African, Asian and Latin American countries show that the provision of universal pensions (sometimes called "social pensions") are feasible and affordable even in middle and low income countries.<sup>21</sup> In Africa, such schemes are mainly concentrated in Southern Africa, notably in Botswana, Mauritius, Namibia and South Africa. HelpAge International in a recent report also advocate that "The social pension should be included as a legitimate part of development spending".<sup>22</sup>

Means-testing would be a possible way to target the benefit to the most needy and may seem thus to be a effective way to limit spending. However, existing cross-country evidence has shown benefit targeting is costly and often does not produce the desired results.<sup>23</sup> The World Bank also noted, "screening out the poorest through targeting is a bigger problem than including the non-poor; the poorest may actually lose from too much

<sup>20</sup> Cf. e.g. Barrientos, A. 2002. "Old age, poverty, and social investment", in *Journal of International Development* 14, pp. 1133–1141.; Barrientos, A., Gorman, M. and Heslop, A. 2003. "Old Age Poverty in Developing Countries: Contributions and Dependence in Later Life", in *World Development* 31 (3), pp. 555-570; Barrientos, A. and Lloyd-Sherlock, P. 2003. *Non-contributory Pensions and Social Protection*, Issues in Social Protection Discussion Paper, Geneva: International Labour Office; Charlton, R. and McKinnon, R. 2001. *Pensions in Development*, Aldershot: Ashgate.

<sup>21</sup> Some of these pension schemes are universal in a strict sense; others operate with some form of means-test.

<sup>22</sup> HelpAge International 2004. *Age and Security: How social pensions can deliver effective aid to poor people and their families*, London: HelpAge International.

<sup>23</sup> Coady, D., Grosh, M. and Hoddinott, J. 2004. *Targeting of Transfers in Developing Countries: Review of Lessons and Experience*, Washington D.C.: World Bank.

fine-tuning in targeting".<sup>24</sup> It is thus assumed that benefits would be universal and would not exclude the non-poor. Benefits would thus also reach those whose living standards are slightly above the poverty line. Spill-over effects to the rich are expected to be very limited if benefit levels are rather modest.

Therefore, the model calculations are based on a system of universal benefits. As benefit levels are very low, it is assumed that benefits are predominantly claimed by vulnerable groups. The benefits are provided to all persons 65 years and above and to disabled persons in the working age group. It was estimated that approximately 1 per cent of persons of working-age would be eligible for a disability pension (which depends on the definition of disability).

### **Amount of benefit**

The first Millennium Development Goal is based on an extreme poverty threshold of US\$ 1 a day (PPP). According to World Bank data, in Burkina Faso 44.9 per cent of the population was living below the US\$ 1 (PPP) consumption threshold in 1998.<sup>25</sup> The aim was therefore to take this as a basic starting point for a universal pension. The universal pensions are meant to close the poverty gap of the poor elderly. The average size of the poverty gap for that group is unknown and estimated here as about 50 per cent of the threshold. The Base Case (Scenario I) projections therefore take into account a basic universal pension of US\$ 0.50 (PPP) per day for all the countries. This daily value was adjusted for inflation over the projection period in the Base case. In the model, an option has been provided to use a US\$ amount also instead of the US\$ (PPP). It should be borne in mind that when one is assuming a pension based on a specific dollar amount, then the exchange rate fluctuation plays a very important role.

In order to see the magnitude of this assumed benefit level it is important to see its relationship with respect to GDP per capita. This level is equivalent in 2005 to 16 per cent of GDP per capita in Burkina Faso, to 9 per cent of GDP per capita in Cameroon, to 26 per cent of GDP per capita in Ethiopia, to 8 per cent of GDP per capita in Guinea, to 17 per cent of GDP per capita in Kenya, to 10 per cent of GDP per capita in Senegal and to 28 per cent of GDP per capita in Tanzania.

An alternative approach stipulates a basic pension which is based on each individual country poverty line or a similar reference in order to pay more attention to national circumstances (Scenario II). This was ascertained by data which was available for some of the countries which formed part of the study. In effect, in the case of Tanzania the 2000/01 Household Budget Survey was based on two poverty line thresholds (per adult equivalent for 28 days) for mainland Tanzania: the Food poverty line of Tanzanian Shilling 5295 (equivalent to approximately 0.43 US\$ per day (PPP)) and the Basic needs poverty line of

<sup>24</sup> World Bank 1997. "Designing effective safety net programs", in *Poverty Lines* (7), pp. 1-2.; see also Subbarao, K., et al. (eds.) 1997. *Safety Net Programs and Poverty Reduction: Lessons from Cross-Country Experience* (Washington D.C.: World Bank).

<sup>25</sup> United Nations 2004b. *Millennium Indicators Database*, New York: United Nations, <[http://millenniumindicators.un.org/unsd/mi/mi\\_goals.asp](http://millenniumindicators.un.org/unsd/mi/mi_goals.asp)>.

Tanzanian Shilling 7253 (equivalent to approximately 0.59 US\$ per day (PPP)).<sup>26</sup> In terms of GDP per capita these represented respectively 27.6 per cent and 37.8 per cent.

Therefore a calculation of a basic benefit as a proportion of GDP per capita (see Scenario II) was undertaken. The model took as an assumption a pension set at 30 per cent of GDP per capita, with a maximum of one US dollar (PPP) per day (increased with inflation). This level is equivalent in 2005 to US\$ 0.96 (PPP) per day in Burkina Faso, US\$ 0.59 (PPP) in Ethiopia, US\$ 0.87 (PPP) in Kenya and US\$ 0.55 (PPP) in Tanzania.

## 4.2. Basic health care

The link between good health, a productive life, economic development and poverty reduction is not contested. Therefore, it is indispensable that the basic social protection package also contains a strong health component. The Commission on Macroeconomics and Health has estimated the per capita costs of scaling up priority health interventions in low-income countries at US\$34 per year on average in low-income countries by 2007, and US\$38 in 2015.<sup>27</sup> This cost estimate is based on a detailed costing of the additional expenditure required for extending coverage of 49 priority interventions, largely focusing on communicable diseases, childhood and maternity related interventions.<sup>28</sup> The Commission on Macroeconomics and Health also put forward a rough target for budgetary health spending of 4 per cent of GNP while acknowledging that this level is far from being reached by low-income countries.<sup>29</sup>

The model provides two options for calculating the cost of universal basic health care. The first one uses the estimate of the Commission on Macroeconomics and Health (i.e. US\$34 per capita per year on average in low-income countries by 2007, and US\$38 in 2015 in current US\$<sup>30</sup>). These figures are indexed in line with inflation. Estimating actual per capita public health care expenditure based on IMF data, it became apparent that none of the countries forming part of the study were even close to reaching this level at present. Per

<sup>26</sup> For more details see National Bureau of Statistics Tanzania 2002. *Household Budget Survey 2000/01*, Dar es Salaam: National Bureau of Statistics Tanzania. The food poverty line was calculated as “the cost of meeting the minimum adult calorific requirement with a food consumption pattern typical of the poorest 50 per cent of the population” and the Basic poverty line takes into account also the costs for non-food items.

<sup>27</sup> Commission on Macroeconomics and Health 2001. *Macroeconomics and Health: Investing in Health for Economic Development*, Geneva: World Health Organization., pp. 55, 165-167. Amounts are expressed in 2002 US\$. The respective estimate for least developed countries is US\$34 for 2007 and US\$41 for 2015. For low-middle-income countries, the estimate is US\$36 and US\$40 respectively. The authors note that “[...] at purchasing power parities, [...] the minimum cost of the essential package would probably be above \$80 per person per year” (footnote 79, p. 120).

<sup>28</sup> Kumaranayake, L., Kurowski, C. and Conteh, L. 2001. *Costs of Scaling up Priority Health Interventions in Low-income and Selected Middle-income Countries: Methodology and Estimates*, Background paper of Working Group 5 of the Commission on Macroeconomics and Health: Improving Health Outcomes of the Poor, W5-18, Geneva: World Health Organization.

<sup>29</sup> Commission on Macroeconomics and Health, p. 59. This target expenditure level is still much lower than the 12 per cent of GNP that has been estimated necessary to meet the MDG goals of reduced infant mortality; cf. Gupta, S., Verhoeven, M. and Tiongson, E. 2001. *Public Spending on Health Care and the Poor*, IMF Working Paper, WP/01/127, Washington D.C.: International Monetary Fund.

<sup>30</sup> *Ibid*, p. 55.

capita government expenditure on health oscillated in 1999 between US\$ 1.3 (Ethiopia) and US\$ 3.4 (Cameroon).

Therefore, an alternative method for estimating the cost of basic health care has been provided in the model. This alternative method proposes a country specific cost base. Results from this option are provided in Scenario II. This approximation takes into account the following individual parameters: medical staff ratio to population; wages of medical staff and overhead non-staff costs. It is assumed that 300 medical staff are available per 100,000 population. This corresponds to approximately the estimates of health personnel in Namibia in 1997<sup>31</sup> (which represents approximately 40 per cent of the level in the United Kingdom). The level of Namibia was chosen as since 1990, the Namibian government has set-out a policy framework *Towards Achieving Health for All Namibians* and the government committed itself to providing access to health services for all Namibians by the year 2000.<sup>32</sup> Thus the levels achieved by Namibia should be indicative of regional possibilities and requirements for Universal basic health care provision. Once the number of health staff required to deliver the services has been calculated staff costs were calculated. These were based on average wages of health care staff. Where no separate data on wages in the health sector was available, it was assumed that health staff average wage equal teachers' average wage. Other non-staff health costs are assumed to be 67 per cent of wage cost.<sup>33</sup>

It should be noted that the model does not take into account the difficulty that individual countries may experience in finding the necessary number of qualified medical staff (doctors/nurses) needed to fill the posts which will be created.

### 4.3. Basic education

The UNESCO's Education for All (EFA) initiative set out to achieve universal primary education by 2015.<sup>34</sup> Within the framework of the EFA Initiative, the cost of achieving universal primary education has been based on estimated recurrent unit costs (costs of one year of primary education per child) plus capital expenditure.<sup>35</sup> As the average unit costs vary greatly between countries, country-specific estimates have been used based on current expenditure levels. For the countries included in this modelling exercise, the recurrent unit cost varies from US\$26 in Tanzania to US\$92 in Senegal.<sup>36</sup> Relative to GDP per capita, the range is from 10 per cent in Tanzania to 37 per cent in Ethiopia.<sup>37</sup> In addition to

<sup>31</sup> World Health Organization Statistical Information System (WHOSIS).

<sup>32</sup> Ministry of Health and Social Services, Namibia.

<sup>33</sup> Estimated from figures from the Ghana Medium-term Expenditure Framework (Government of Ghana).

<sup>34</sup> UNESCO 2003. *Education for All: Global Monitoring Report 2003/04*, Paris: UNESCO. The original objective of achieving universal primary education by 2000 set in 1990 was not achieved.

<sup>35</sup> Delamonica, E., Mehrotra, S. and Vandemoortele, J. 2001. *Is EFA Affordable? Estimating the Global Minimum Cost of 'Education for All'*, Innocenti Working Paper, Florence: UNICEF Innocenti Research Centre.

<sup>36</sup> *Ibid.*, p. 25; unit cost expressed in 1998 US\$.

<sup>37</sup> Data not available for Cameroon.



recurrent expenditure, about 15 per cent of expenditure of primary education is allocated to capital expenditure on average.<sup>38</sup>

The projections of basic education expenditure have been based on the net enrolment ratio (NER) which measures the proportion of children 6-11 years who are enrolled in primary education. The latest available data were used for each specific country and it was assumed that the NER would reach a level of 100 per cent by 2015.

An alternative estimate (see Scenario II) of the cost of achieving universal primary education is based on the average wage of teachers, taking into account that wages make up the largest part of education expenditure. First the required number of teachers was calculated based on the number of children in the age group of 6 to 11 years of age, the NER and the teacher/pupil ratio.<sup>39</sup> The pupil teacher ratio was also based on the latest available data from the UNESCO Education Database. It was again assumed that the NER would reach 100 per cent by 2015. Furthermore, the teacher/pupil ratio would reach 1:40 also by 2015. Research has shown that an average teacher/pupil ratio of 1:40/45 is optimal under given economic constraints<sup>40</sup> and therefore this has been used as the target value for 2015. Furthermore, it was assumed that 10 per cent of the children would be enrolled in private schools by 2015.<sup>41</sup> Where national data on teachers' wages were not available, an estimate based on the ratio of average teacher salary to GDP per capita<sup>42</sup> was used. The projections of wages of teachers are based on the assumption that these move with inflation and half of productivity increase (i.e. a quarter of GDP growth). Overhead non-staff costs from their actual value were also assumed to reach the target value of 33 per cent of recurrent spending by 2015.<sup>43</sup>

With respect to specifically the education sector, we have in the model not taken into account the difficulty that individual countries may experience in finding the necessary number of qualified teachers needed to fill the posts which will be created if education becomes universal. It should be borne in mind that the HIV/AIDS pandemic is and will continue to take its toll even in the education sector. An ILO report<sup>44</sup> indicated that in Tanzania approximately 100 primary-school teachers are dying each month due to AIDS. As a result the teacher/pupil ratio may need to increase (thus decreasing the number of teachers needed) and creating the difficulties associated with it. Furthermore, if the number of qualified teachers does not follow, the quality of education may fall, as untrained teachers may need to be hired.

<sup>38</sup> Delamonica, Mehrotra and Vandemoortele, pp. 13-16.

<sup>39</sup> UNESCO Education Indicators.

<sup>40</sup> Bruns, B., Mingat, A. and Rakotomalala, R. (eds.) 2003. *Achieving universal primary education by 2015 - a chance for every child* (Washington D.C.: World Bank).

<sup>41</sup> *Ibid.* (eds.).

<sup>42</sup> Mehrotra, S. and Buckland, P. 1998. *Managing teacher costs for access and quality*, UNICEF Staff Working Papers: Evaluation, Policy and Planning Series, EPP-EVL-98-004, New York: UNICEF, p. 33.

<sup>43</sup> Bruns, Mingat and Rakotomalala (eds.).

<sup>44</sup> ILO 2004. *HIV/AIDS and Work: Global Estimates, Impact and Response*, Geneva: International Labour Office, pp 20.

#### 4.4. Child benefit

As a further component of the basic benefit package, it was considered that a child benefit (in form of a cash transfer) should also be included in Scenarios I and II based on the recommendations of The Joint United Nations Programme on HIV/AIDS (UNAIDS), the United Nations Children's Fund (UNICEF) and the United States Agency for International Development (USAID).<sup>45</sup> The child benefit broadly follows the example of the South African Child Support Grant.<sup>46</sup> The level of child benefit set in the Base Case is US\$ (PPP) 0.25 per day. This level of the child benefit is equivalent to half of the universal old age and disability pension benefit.<sup>47</sup> Further in-depth studies would be needed to ascertain the level of such a benefit in view of the existence of universal access to basic health care and of access to basic education (primary level). The benefit is paid to all children up to the age of 14.

Even though the more recent 2004 publication by UNAIDS, UNICEF and USAID<sup>48</sup> makes the case for providing programs for a much "broader vulnerable children population" and not only to orphans, the cost of providing such a universal child benefit may seem relatively high in certain cases such as Tanzania where this cost in 2005 would be 6.3 per cent of GDP. Therefore a more modest option is chosen in Scenario II. Child benefits would be provided to especially vulnerable children such as orphans. Thus, an alternative has been built into the model to calculate a benefit for orphans based on data from the 2002 publication of UNAIDS, UNICEF and USAID<sup>49</sup> which had disaggregated data on the number of orphans. The level of the projected child benefit would be 15 per cent of GDP per capita, that is half of the basic old age and disability pension in Scenario II, and be paid to all orphans.

#### 4.5. Targeted cash transfers

The model further considers targeted cash transfers following the model of a programme that has been tested in a GTZ-funded project in the Kalomo district in Zambia.<sup>50</sup> This programme provides cash benefits of US\$ 13.71 (PPP) (US\$ 6.34) per month to the 10 per cent most destitute households in the district. These households are identified through a community-based targeting mechanism that focuses on those who are unable to support themselves due to the lack of an able-bodied person in the household.

<sup>45</sup> UNAIDS, UNICEF and USAID 2004. *Children on the Brink 2004: A Joint Report of New Orphan Estimates and a Framework for Action*, New York: UNICEF.

<sup>46</sup> Aimed at giving additional income support to poor children, the Child Support Grant is a means-tested child benefit for children under the age of nine. The benefit level of 110 Rand per month (2001) is equivalent to 6 per cent of GDP per capita or US\$ 12.78 (US\$55 PPP) per month, or US\$ 0.42 (US\$1.83 PPP) per day. See Hunter, N., Hyman, I., Krige, D. and Olivier, M. 2004. *South African Social Protection and Expenditure Review (Draft)*, Geneva: ILO, own calculations.

<sup>47</sup> The assumed relationship between the child benefit and the old age and disability pension is based on the equivalence scale calculations on Tanzania in Lancaster, G., Ray, R. and Valenzuela, M. R. 1999. "A cross-country study of equivalence scales and expenditure inequality on unit record household budget data", in *Review of Income and Wealth* 45 (4), pp. 455-482.

<sup>48</sup> UNAIDS, UNICEF and USAID 2004.

<sup>49</sup> *Ibid.*

<sup>50</sup> Schubert, B. 2005. *The Pilot Social Cash Transfer Scheme: Kalomo District – Zambia*, CPRC Working Paper, 52, Manchester: Chronic Poverty Research Centre.

Although benefit levels are rather modest (the monthly benefit is equivalent to the cost of a bag of maize), the first results are rather encouraging. Not only have living standards of recipients considerably improved, but households have also started to save and invest part of the money. Further evaluations of the project will show the effects of the cash transfer on the livelihoods of recipient households in the short and medium term.

However, it remains to be seen what effect such a benefit has on reducing poverty levels in the short and medium term. The impact on the poverty headcounts based on the first Millennium Development Goal might be limited if the living standards of the most destitute are improved but still remain below the poverty line used for calculating this indicator. Nevertheless, the improvement in living standards is expected to show in poverty gap measures.

Targeted cash transfers replace universal basic old age and invalidity pensions and child benefits in Scenario III.

#### 4.5. Administrative costs

The model is based on the assumption that 15 per cent of total cash benefit expenditure is spent on administration (pensions and child benefit). This estimate is based on the experience of the basic pensions scheme in Namibia where the costs of reaching the poorer remote rural communities is taken into account. A recent study of the system in Namibia estimated that the administrative costs were in the order of magnitude of 15 per cent of pension payments in 1996.<sup>51</sup>

The existing basic old age pensions in Southern Africa provide interesting blueprints. The experiences in Botswana, Namibia and South Africa show that the main administrative problems are the delivery of benefits to the population, mainly in respect to long distances and security requirements, and, in the case of Namibia, the lack of up-to-date registry information about pensioners' deaths.<sup>52</sup>

The administrative costs for basic health care and basic education are provided for in their overhead costs.

<sup>51</sup> Schleberger, E. 2002. *Namibia's Universal Pension Scheme*, Extension of Social Security (ESS) Paper Series, 6, Geneva: International Labour Office.

<sup>52</sup> Fultz, E. and Pieris, B. 1999. *Social Security Schemes in Southern Africa*, ILO/SAMAT Discussion Paper Series, 7, Harare: International Labour Office - Multidisciplinary Advisory Team for Southern Africa.



## 5. The Results

The results are provided for each of the country cases separately. These have been provided in Annex 1 (Base Case = Scenario I based on methods used in major international reports), Annex 2 (Scenario II based on country-specific evidence), and Annex 3 (Scenario III based on GTZ Zambia project).

### 5.1. Scenario I: The Base Case

#### 5.1.1. Summary of assumptions

The Base Case model estimates the costs of a basic social protection benefit package based on the following main assumptions:

- real GDP growth is assumed as working age population growth plus 1 percentage point. For Ethiopia and Tanzania it is assumed as working age population growth plus 2 percentage points;
- projected levels of total government expenditure increase by 50 per cent of their current level by the year 2034, with a maximum of 30 per cent of GDP;
- government revenue (excluding grants) is assumed to reach the projected expenditure level by 2014 in order to reach a balanced budget;
- universal pension benefit at US\$ 0.50 (PPP) per day for all 65 years of age and above and the disabled (i.e. 1 per cent of working age population) ;
- per capita health care cost equal to the Commission on Macroeconomics and Health estimate of US\$ 34 by 2007 and US\$ 38 by 2015 (indexed with inflation);
- per unit basic education cost based on UNESCO estimate; net enrollment ratio in primary education reaching 100 per cent by 2015; 10 per cent of children in primary in private schools by 2015; 15 per cent capital cost;
- child benefit at 50 per cent of the universal basic pension per child for all children in the age bracket 0-14;
- administration costs of delivering cash benefits equal to 15 per cent of cash benefit expenditure.

The assumptions and the main results are found in the detailed tables in Annex 1.

#### 5.1.2. Main results

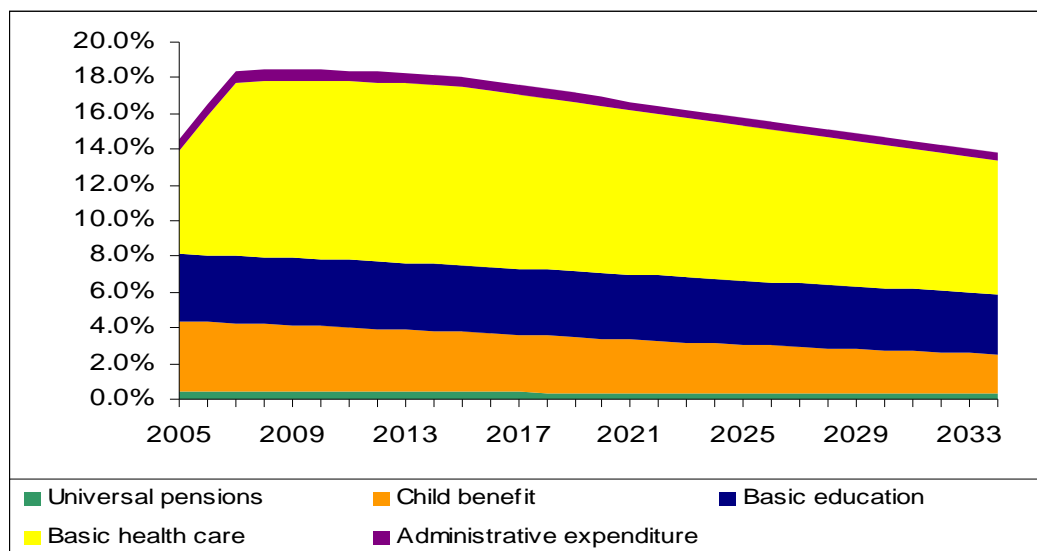
The results of the projection of the Base Case show that a basic social protection package is not yet out of reach for the countries under consideration. It may be necessary, however, to adapt the basic social protection benefit package more strongly to national conditions and priorities.

#### Burkina Faso

In the case of Burkina Faso, the results of the Base Case scenario show that a universal basic old age and disability pension would require some 0.3-0.5 per cent of GDP. The cost

of basic health care is projected to increase quickly from 5.8 per cent of GDP in 2005 to 10 per cent in 2010 and would decrease to 7.5 per cent by 2034. In contrast, the cost of basic education would remain relatively stable at 3.7 per cent of GDP until 2015; thereafter decreasing to 3.4 per cent by 2034. The child benefit would initially require more than 3.9 per cent of GDP and decrease to 2.2 per cent by 2034.

**Graph 1. Expenditure on basic social protection benefit package for Burkina Faso in per cent of GDP, 2005-2034**

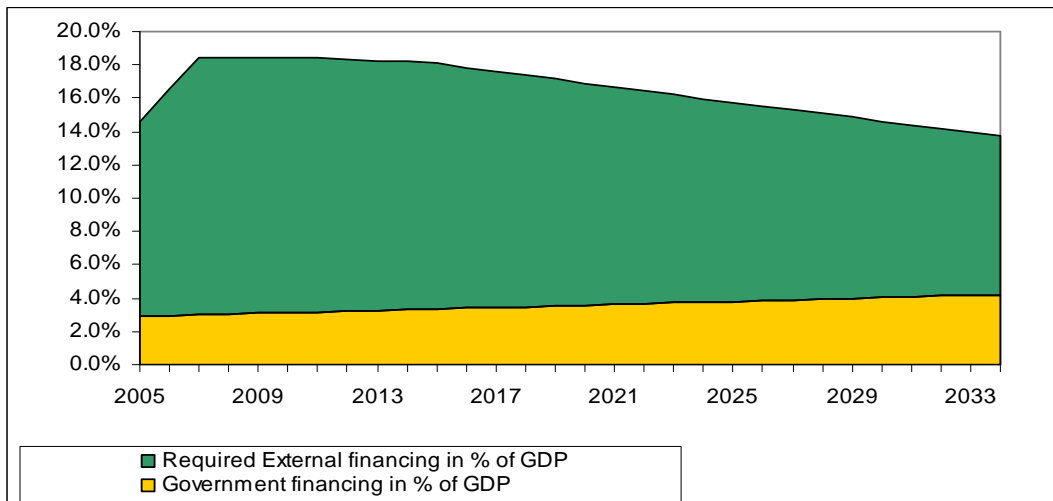


Source: ILO calculations.

However, as the total cost of the benefit package would amount to more than 100 per cent of total government expenditure for at least the next decade, it would be necessary to reassess the level of certain benefits which are to be provided. The single most important cost component is basic health care. In 2010 it would represent over 54 per cent of total expenditure on the benefit package.

Under the current assumptions, the total basic social protection package would require between 14 to 18 per cent of GDP (including administration cost), most of which would have to come from external sources. Assuming current 2003 constant level of government expenditure on basic social protection (i.e. 18.6 per cent), in 2005 external financing would need to cover approximately 80 per cent of the total cost of the basic social protection benefit package. In 2034 the level would be slightly reduced to 69 per cent.

**Graph 2. Financing of basic social protection benefit package for Burkina Faso by source in per cent of GDP, 2005-2034 (with domestic financing limited at 18.6 per cent of government expenditure)**

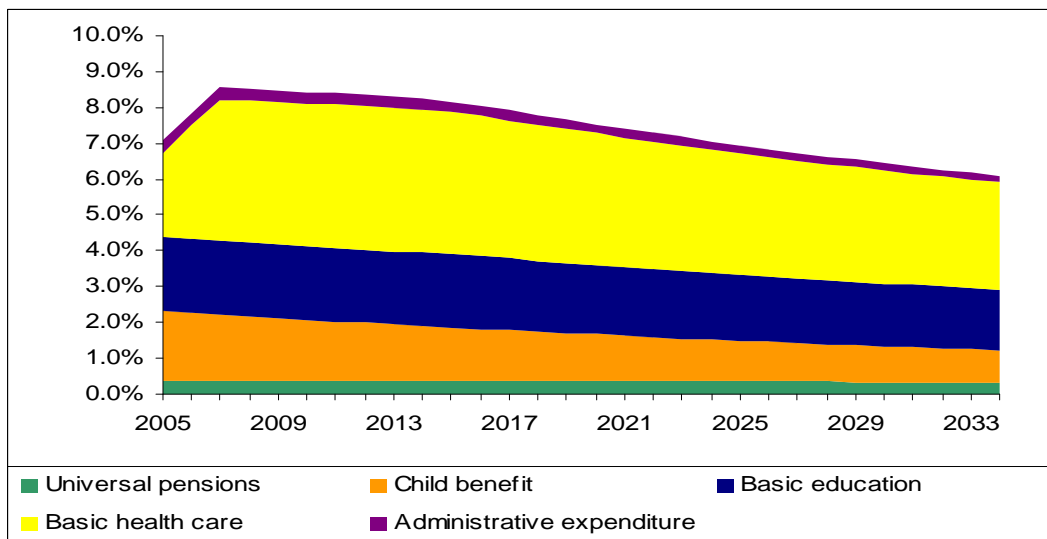


Source: ILO calculations.

**Cameroon**

For Cameroon, a universal basic old age and disability pension would require approximately 0.4 per cent of GDP. The cost of basic health care would rise from 2.4 per cent in 2005 to 4.0 per cent in 2007 and subsequently drop to 3.0 per cent of GDP in 2034. For basic education, 2.1 per cent of GDP would need to be invested in 2005, shrinking to 1.7 per cent in 2034. Child benefit starting at 1.9 per cent in 2005 would subsequently drop to 0.9 per cent by 2034.

**Graph 3. Expenditure on basic social protection benefit package for Cameroon in per cent of GDP, 2005-2034**

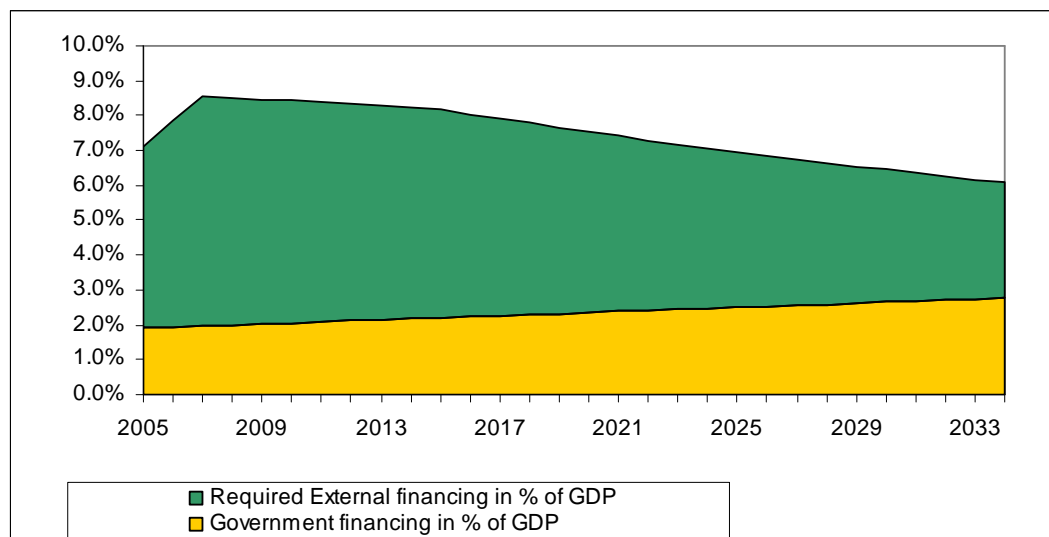


Source: ILO calculations.

In total, the basic social protection package under the base case assumptions would require 7.1 per cent of GDP in 2005, increasing to a maximum of 8.5 per cent in 2007 and then decreasing to 6.1 per cent of GDP in 2034. Assuming that expenditure on basic social

protection would be equivalent to the 2003 level of government expenditure on basic social protection (i.e. 11.6 per cent), in 2005 domestic resources would cover approximately 27 per cent of the total cost of the basic social protection benefit package.

**Graph 4. Financing of basic social protection benefit package for Cameroon by source in per cent of GDP, 2005-2034 (with domestic financing limited at 11.6 % of government expenditure)**



Source: ILO calculations.

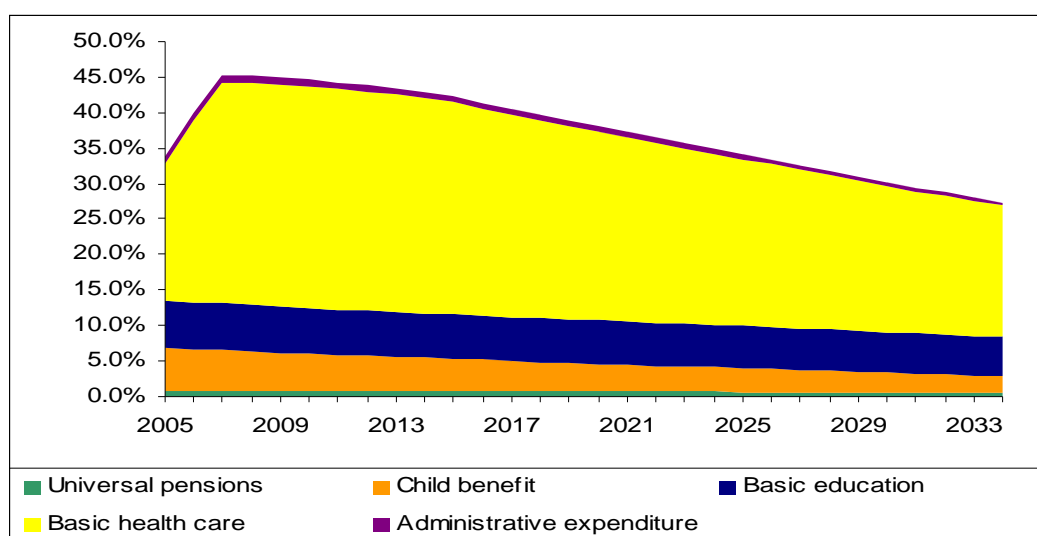
## Ethiopia

Ethiopia is a very special case. The level of funds required to finance a basic social protection package would amount to 33.7 per cent in 2005 reaching a peak of 45.1 per cent of the country's GDP in 2007 before it would decrease to 27.3 per cent in 2034. This would represent 125.7 per cent of the country's current (projected) expenditure or 157.6 per cent of its revenue in 2005, and still more than 91 per cent of government expenditure in 2034. It is questionable how such a benefit package could be financed, even with considerable donor support.

Expenditure for universal basic old age and disability pensions would represent around 0.9 per cent of the country's GDP in 2005 decreasing to 0.6 per cent in 2034. Basic health care would have to rise quickly from 19.2 per cent in 2005 to a maximum of 31.3 per cent in 2008, before subsequently decreasing to 18.5 per cent in 2034. Projected expenditure on basic education starts at 6.7 per cent in 2005 and decreases to 5.4 per cent by 2034. The level of child benefits would represent 5.9 per cent of GDP in 2005 and it would drop to 2.4 per cent in 2034.



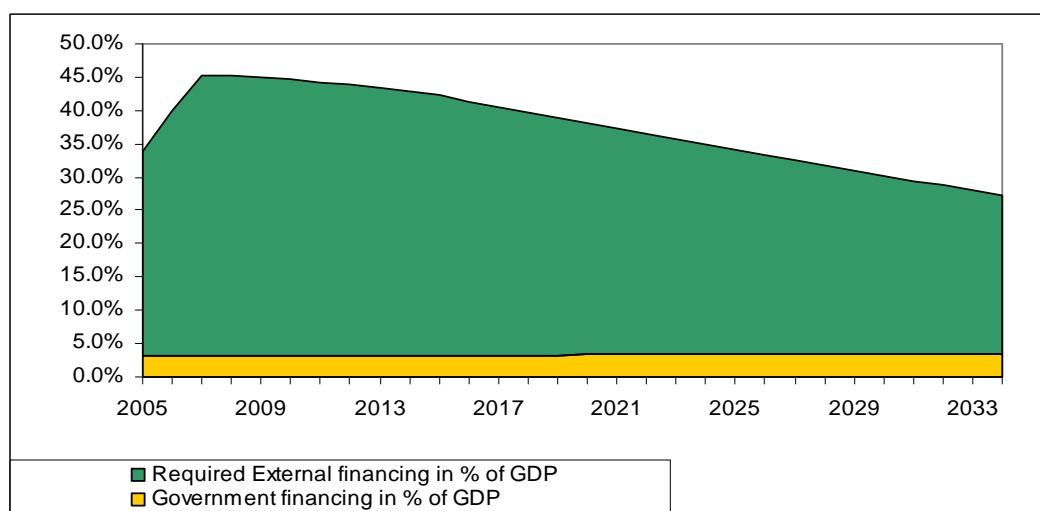
**Graph 5. Expenditure on basic social protection benefit package for Ethiopia in per cent of GDP, 2005-2034**



Source: ILO calculations.

Assuming that expenditure on basic social protection would be equivalent to the 2003 level of government expenditure on basic social protection (i.e. 11.6 per cent), in 2005 domestic resources would cover approximately only 9 per cent of the total cost of the basic social protection benefit package. Given the projected expenditure levels, notably on health care, it would be necessary to take a closer look at the country's own capacities and the possibilities of enhanced donor support to finance a basic social protection package.

**Graph 6. Financing of basic social protection benefit package for Ethiopia by source in per cent of GDP, 2005-2034 (with domestic financing limited at 11.6 % of government expenditure)**



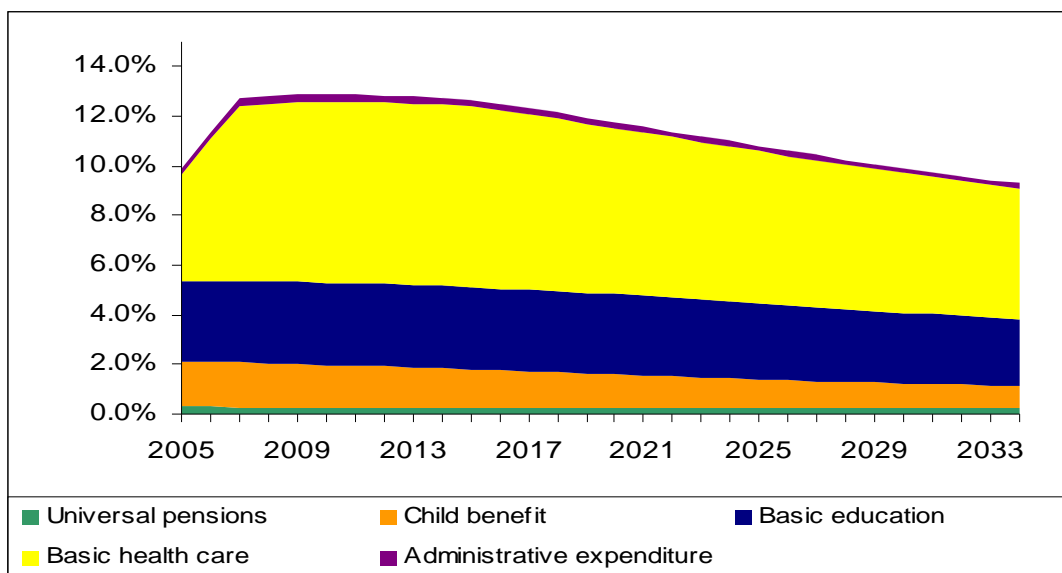
Source: ILO calculations.

## Guinea

For the case of Guinea, universal basic old age and disability pensions would require about 0.3 per cent of GDP throughout the projection period. Projected expenditure on basic health care would rise from 4.2 per cent of GDP in 2005 to a maximum of 7.5 per cent in

2015, before subsequently dropping to 5.3 per cent in 2034. Basic education would remain around 3.3 per cent of GDP for the next decade, and then decrease to 2.7 per cent of GDP by the end of the projection period. The projected expenditure on child benefit would require 1.8 per cent of GDP in 2005, thereafter it would decline to 0.9 per cent of GDP in 2034.

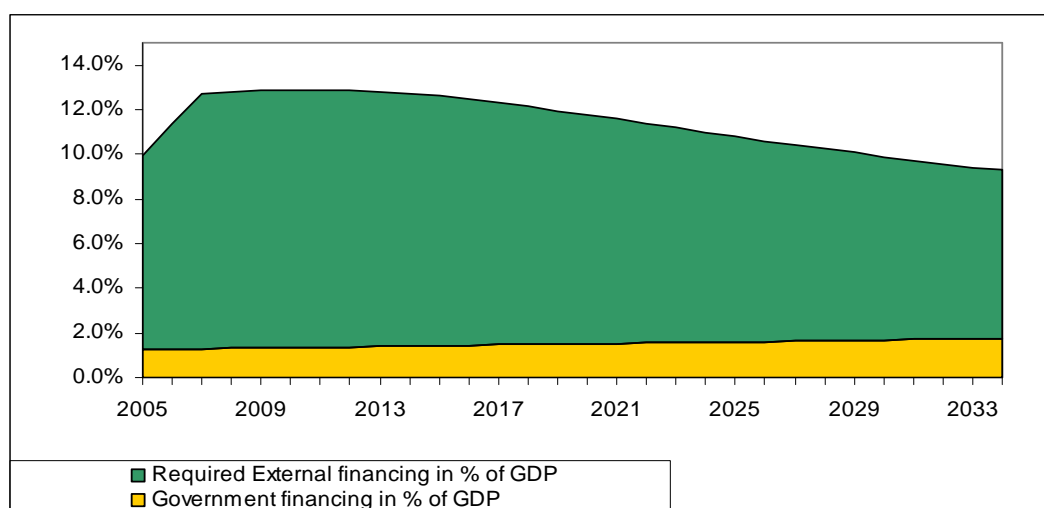
**Graph 7. Expenditure on basic social protection benefit package for Guinea in per cent of GDP, 2005-2034**



Source: ILO calculations.

The total expenditure on the basic social protection package would represent 10 per cent of GDP in 2005 declining to 9 per cent in 2034, following a peak in 2010 at 12.9 per cent. Assuming expenditure on basic social protection would be equivalent to the 2003 level of government expenditure on basic social protection (i.e. 5.8 per cent), in 2005 external financing would need to cover approximately 87 per cent of the total cost of the basic social protection benefit package. In 2034 the level would be slightly reduced to 80 per cent. However, if the government were to allocate one third of its expenditure to the financing of basic health care, education and pensions, then the external financing requirements would be reduced and would represent 27 per cent of the cost of the benefit package in 2005. By 2032 the total cost of the package could be covered by domestic resources.

**Graph 8. Financing of basic social protection benefit package for Guinea by source in per cent of GDP, 2005-2034 (with domestic financing limited at 5.8 % of government expenditure)**

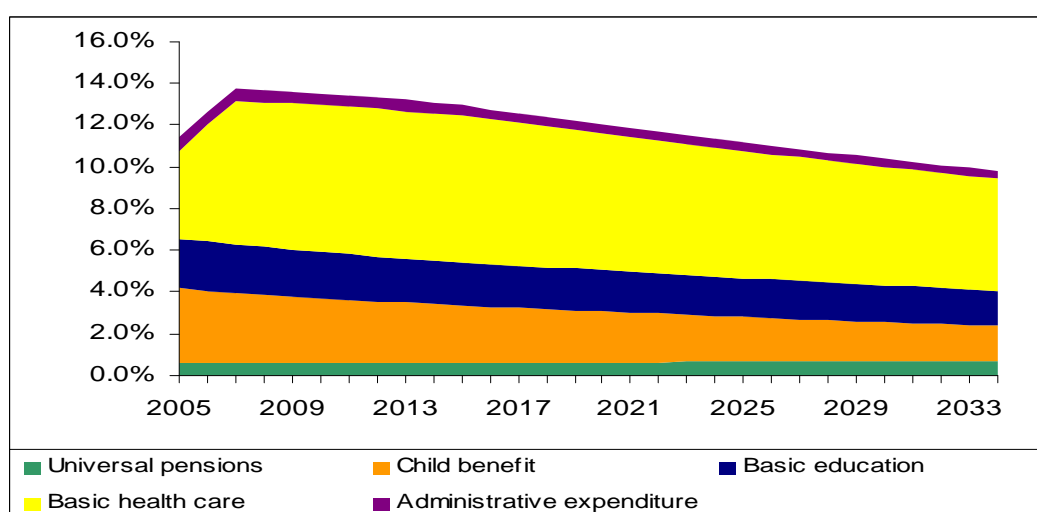


Source: ILO calculations.

## Kenya

For Kenya, a universal basic old age and disability pension would initially require 0.6 per cent of GDP annually over the next 30 years. The cost of basic health care are projected to steeply increase from 4.2 per cent in 2005 to a maximum of 7.1 per cent of GDP over the next ten years, but would decrease thereafter to 5.4 per cent in 2034. Expenditure on basic education would be equivalent to 2.4 per cent of GDP in 2005, and would decrease thereafter as well. Child benefit would represent 3.6 per cent of GDP in 2005, subsequently decreasing to 1.7 per cent over the next thirty years.

**Graph 9. Expenditure on basic social protection benefit package for Kenya in per cent of GDP, 2005-2034**

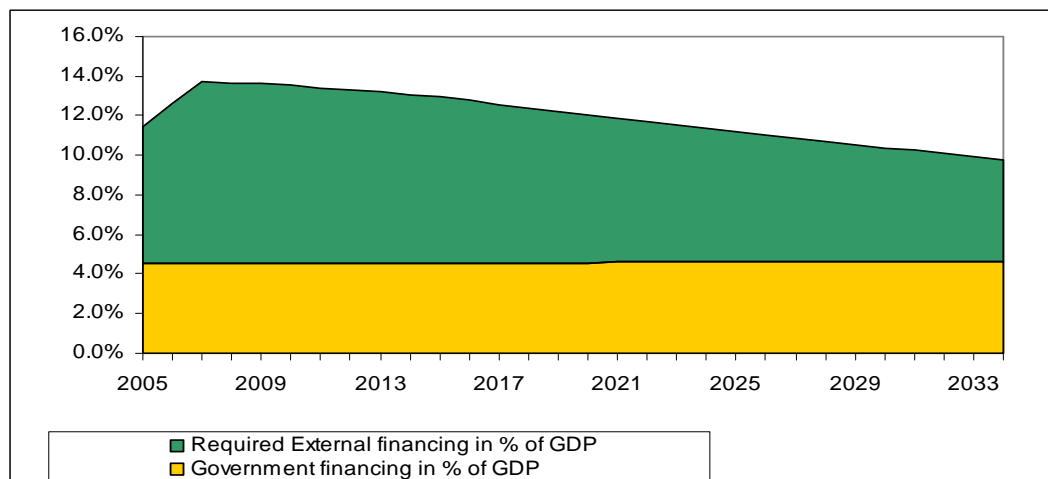


Source: ILO calculations.

The total basic social protection package for Kenya would require resources equivalent to 10 to 14 per cent of the country's GDP. The country's own resources could cover a considerable share of this package. Under the assumption that expenditure on basic social protection would be equivalent to the 2003 level of government expenditure on basic social

protection (i.e. 15.6 per cent), in 2005 domestic resources would cover approximately 39 per cent of the total cost of the basic social protection benefit package. In 2034 approximately half (i.e. 48 per cent) of the cost of the package would be covered by domestic resources.

**Graph 10. Financing of basic social protection benefit package for Kenya by source in per cent of GDP, 2005-2034 (with domestic financing limited at 15.6 % of government expenditure)**

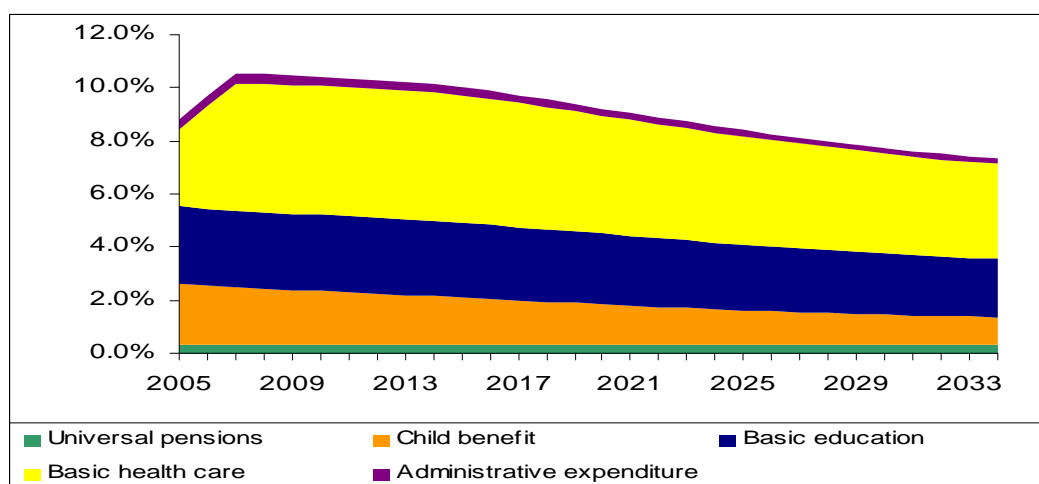


Source: ILO calculations.

## Senegal

A basic social protection package for Senegal would require 7 to 11 per cent of the country’s GDP over the next three decades. In this package, expenditure on universal basic old age and disability pensions would represent approximately 0.3 per cent of GDP annually over the next thirty years. Basic health care would increase from 2.9 per cent in 2005 to 5.2 per cent of GDP over the next ten years, and decrease to 3.6 per cent thereafter. The basic education component would require 2.9 per cent of GDP in 2005 and would decline to 2.2 per cent by the year 2034. Expenditure on child benefits is projected to start from 2.3 per cent of GDP in 2005 and drop to 1 per cent over the next thirty years.

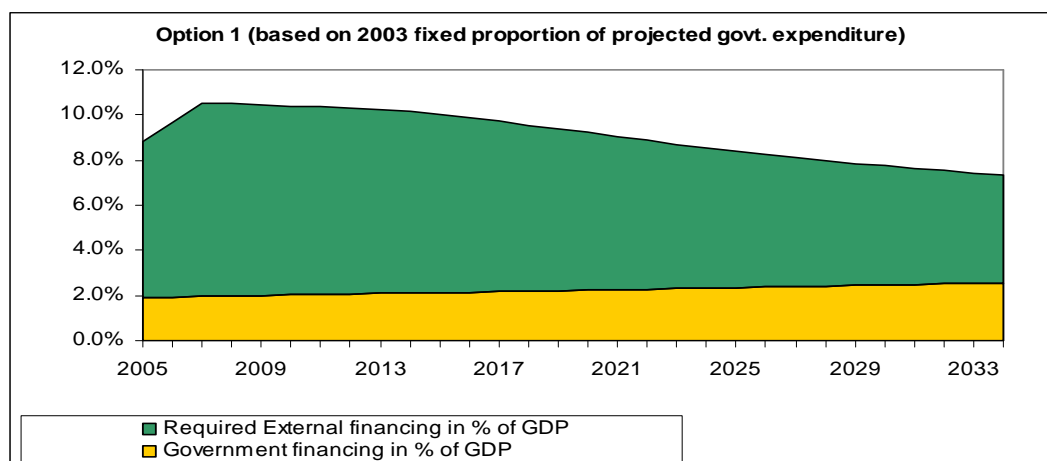
**Graph 11. Expenditure on basic social protection benefit package for Senegal in per cent of GDP, 2005-2034**



Source: ILO calculations.

Assuming that expenditure on basic social protection would be equivalent to the 2003 level of government expenditure on basic social protection (i.e. 8.5 per cent), in 2005 domestic resources would cover approximately 22 per cent of the total cost of the basic social protection benefit package. In 2034 the proportion covered by domestic resources would represent 35 per cent of the cost of the package. However, if the government were to allocate one third of its expenditure to the financing of basic health care, education and pensions, then the external financing requirements would be reduced and would represent 15 per cent in 2005 and by 2022 the total cost of the package could be covered by domestic resources.

**Graph 12. Financing of basic social protection benefit package for Senegal by source in per cent of GDP, 2005-2034 (with domestic financing limited at 8.5 % of government expenditure)**

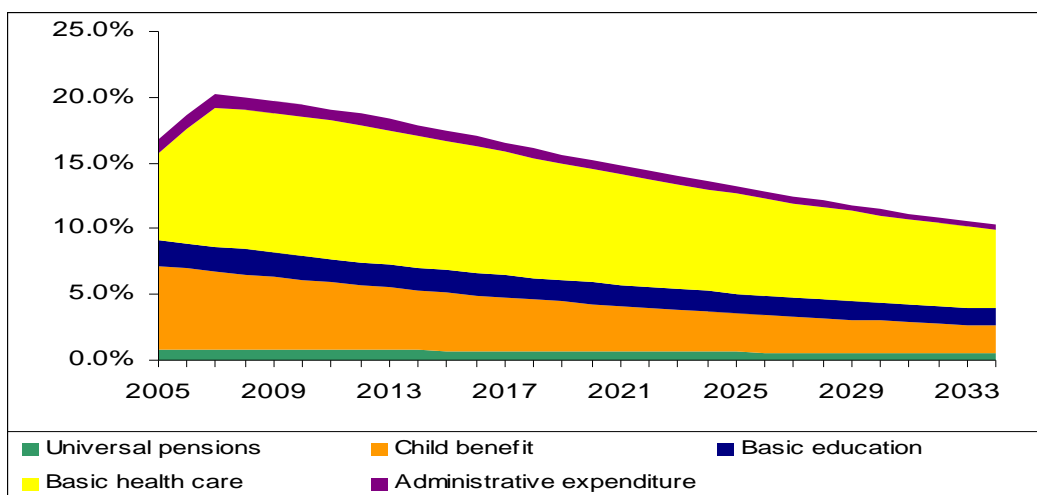


Source: ILO calculations.

## Tanzania

In the case of Tanzania, expenditure on universal basic old age and disability pensions is projected at 0.8 per cent of GDP in 2005, and would decrease to 0.5 per cent by 2034. Expenditure on health care will need to be boosted from 6.6 per cent of GDP in 2005 to a maximum of 10.6 per cent in 2009. After that it will decrease reaching 6.0 per cent of GDP in 2034. Basic education expenditure is projected to decrease from 2.0 per cent of GDP in 2005 to 1.3 per cent in 2034. A universal child benefit would require 6.3 per cent of GDP in 2005. However, by 2034 it would represent 2.1 per cent of GDP.

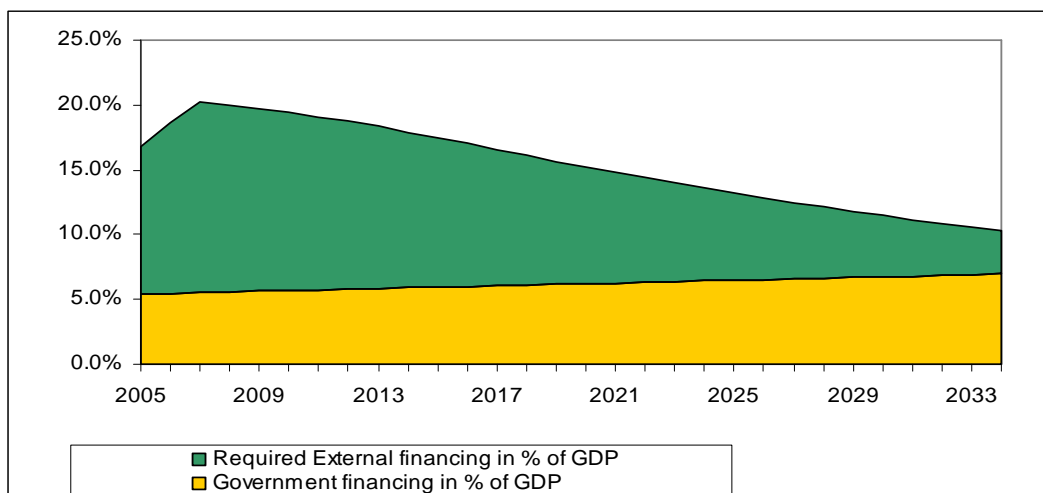
**Graph 13. Expenditure on basic social protection benefit package for Tanzania in per cent of GDP, 2005-2034**



Source: ILO calculations.

The total expenditure on a basic social protection package over the next three decades is projected to increase from 16.8 per cent in 2004 to 20.2 per cent in 2007, and would then drop to 10.3 per cent in 2034. Under the assumption that expenditure on basic social protection would be equivalent to the 2003 level of government expenditure on basic social protection (i.e. 23.9 per cent), in 2005 domestic resources would cover approximately 32 per cent of the total cost of the basic social protection benefit package. In 2034 more than two thirds (i.e. 68 per cent) of the cost of the package would be covered by domestic resources.

**Graph 14. Financing of basic social protection benefit package for Tanzania by source in per cent of GDP, 2005-2034 (with domestic financing limited at 23.9 % of government expenditure)**



Source: ILO calculations.

**Remarks on the results of Scenario I**

The results of Scenario I show that a basic social protection package seems to be in the reach of Cameroon, Guinea, Kenya, Senegal and Tanzania. Depending on national priorities, this would involve some adjustments in the composition of the basic benefit

package. In any case, this would require more efficient generation of revenue on the national level, as well as, at least for a certain time, limited international assistance.

Ethiopia is a special case with very low levels of GDP that render the implementation of a basic benefit package almost impossible if the country has to rely on its own means. This would only be possible with major international donor support.

## 5.2. Scenario II

### 5.2.1. Summary of assumptions

Under Scenario II, a more modest approach was used to calculate the costs of providing a basic benefit package based on more country-specific data. The main assumptions for this scenario are:

- real GDP growth is assumed as working age population growth plus 1 percentage point. For Ethiopia and Tanzania it is assumed as working age population growth plus 2 percentage points (unchanged from Base Case);
- projected levels of total government expenditure increase by 50 per cent of their current level by the year 2034, with a maximum of 30 per cent of GDP (unchanged from Base Case);
- government revenue (excluding grants) is assumed to reach the projected expenditure level by 2014 in order to reach a balanced budget (unchanged from Base Case);
- universal pension benefit at 30 per cent of GDP per capita (capped at US\$ 1 (PPP) a day indexed with inflation) for all 65 years of age and above and the disabled (i.e. 1 per cent of working age population);
- basic health care costs based on ratio of 300 medical staff to 100,000 population; medical staff wages indexed in line with half of productivity and inflation; non-staff overhead costs of 67 per cent of staff costs;
- basic education costs based on NER in primary education reaching 100 per cent by 2015; 10 per cent of children in primary in private schools by 2015; teacher/pupil ratio would reach 1:40 also by 2015; teacher wages indexed in line with half of productivity and inflation; other overhead recurrent costs reaching 33 per cent of recurrent spending by 2015; capital costs at 15 per cent of recurrent costs;
- child benefit at 15 per cent of GDP per capita (capped at US\$ 1 (PPP) a day indexed with inflation) provided to all orphans in the age bracket 0-14;
- administration costs of delivering cash benefits equal to 15 per cent of benefit expenditure (unchanged from Base Case).

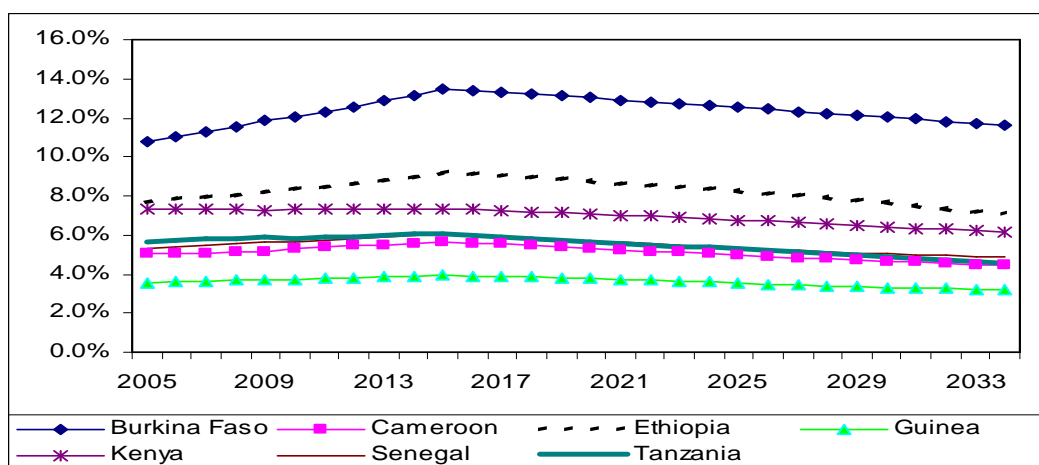
Annex 2 shows the results for each country as well as the main results.

### 5.2.2. Main results

The results of the projection of Scenario II show that a modest basic social protection package would be affordable, at least to a substantial degree, also for low and middle income countries. Expenditure on the basic benefits package could be kept below 15 per

cent of GDP in all the seven countries during the entire projection period. Only in Burkina Faso, expenditure of more than 10 per cent of GDP would be required whereas less than 6 per cent of GDP would be required in Cameroon, Guinea and Tanzania.

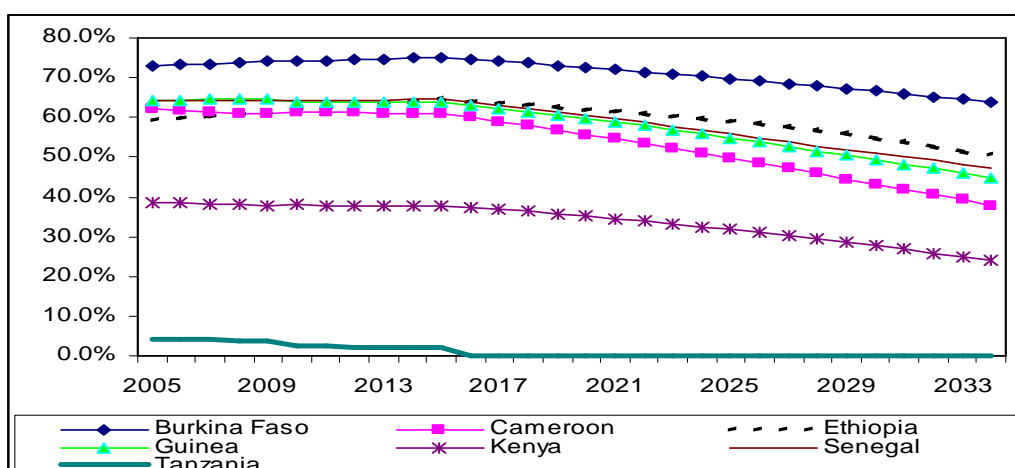
**Graph 15. Expenditure on basic social protection benefit package for the seven countries in per cent of GDP, 2005-2034 (scenario II)**



Source: ILO calculations.

As a result of these lower levels of costs, the majority of the countries forming part of the study should be able to finance the basic benefit package through domestic sources. Thus the financing gap or the need for external financing required would decrease over time and in certain cases completely fade away even under the more modest option of lower proportions of government expenditure being devoted to basic social protection (see Graph 16).

**Graph 16. Proportion of basic benefit package to be financed by external sources assuming a constant proportion of government expenditure devoted to basic social protection (Option 1), 2005-2034 (scenario II)**



Source: ILO calculations.

If governments were to allocate one third of their expenditure to basic social protection then the financing gap would be eliminated in all countries already as of 2005 with the exception of Burkina Faso.



## Burkina Faso

In the case of Burkina Faso, a universal basic old age and disability pension would require 0.7-0.9 per cent of GDP over the next thirty years. The cost of basic health care are projected at 5.2 per cent of GDP in 2005 and would subsequently decrease to 4.7 per cent of GDP over the next three decades. Expenditure on basic education would start at 3.3 per cent of GDP, increase to a maximum of 6.4 per cent of GDP by 2015, largely due to the increasing number of children in school age, and drop to 5.3 per cent of GDP by 2034. A child benefit for orphans, covering 12-13 per cent of all children under the age of 14, would represent another 1.0 per cent of GDP, shrinking to 0.8 per cent over the next thirty years.

The total volume of a basic social protection package for Burkina Faso would represent one tenth of GDP in 2005, increasing to 13.5 per cent by 2015 and subsequently dropping again to 11.6 per cent of GDP by 2034. Assuming that the share of domestic resources devoted to this basic social protection package would be equal to 2003 spending levels (18.6 per cent of government expenditure), the country could initially cover close to 27 per cent of this amount by its own means while 73 per cent would have to come from international assistance. Over the next thirty years, the share of domestic financing would rise to about 40 per cent of the total cost. If one assumes that one third of government expenditure was invested in basic social protection, the country's own resources could cover approximately half of the required resources in 2005, but this share would rise over to two thirds in 2034. For the remaining amount, international assistance would need to step in.

## Cameroon

In Cameroon, expenditure on a universal old age and disability pension would initially represent about 0.8 per cent of GDP annually over the next thirty years. The cost of basic health care add another 1.8 per cent of GDP to the basic social protection package which declines to 1.4 per cent over the next three decades. Expenditure on basic education is projected to represent 1.4 per cent of GDP in 2005, increasing to 2.2 per cent by 2015 and subsequently dropping to 1.5 per cent in 2034. A child benefit paid to orphans would initially require 0.8 per cent of GDP, increasing to 0.9 per cent by 2010 and reaching its initial level by 2034.

The basic social protection package for Cameroon is projected to require initially 5 per cent of GDP reaching a peak of 5.7 per cent in 2015 and then decreasing to 4.5 per cent by 2034. If the country would spend the equivalent of 2003 government expenditure on basic social protection on the basic benefit package (11.6 per cent of government expenditure), then close to 40 per cent of the cost could be financed from domestic resources in 2005. The share of domestic financing could rise to 62 per cent over the next thirty years. If one assumes that one third of government expenditure could go into basic social protection, then the country could already in 2005 finance the projected basic social protection package from its own means.

## Ethiopia

Universal basic old age and disability pensions for Ethiopia would cost approximately 1.0 per cent of GDP annually during the projection period. The cost of basic health care is estimated at 3.6 per cent of GDP in 2005, but its level would subsequently decrease to 2.5 per cent of GDP by 2034. In contrast, the cost of basic education would increase from 1.8 per cent to 3.6 per cent by 2015, before decreasing to 2.4 per cent of GDP in 2034. Expenditure on a child benefit for orphans would cover another 0.8-0.9 per cent of GDP.

In total, a basic social protection package for Ethiopia would require some 7 to 9 per cent of the country's GDP. If the country was to invest a share of government expenditure equal

to 2003 spending levels on basic social protection (11.6 per cent of government expenditure), it could cover between 40 and 50 per cent of the projected expenditure from domestic resources. If the proportion of spending was increased to at most 33 per cent of government expenditure, the full package could be covered. It remains to be seen in more detailed analyses based on micro-data whether the projected benefit levels would be sufficient to lift a considerable proportion of the population out of poverty, or if higher benefit levels would have to be aimed at.

## Guinea

For the case of Guinea, universal basic old age and disability pensions represent about 0.6 per cent of GDP. Projected expenditure on basic health care would remain at a level of between 1.3 and 1.1 per cent of GDP during the projection period. Basic education expenditure would increase from 0.8 per cent of GDP to 1.4 per cent of GDP in 2015 (due to the increase of the NER until 2015 when it would reach 100 per cent) and then decrease to 0.9 per cent of GDP. Projected expenditure on child benefit would represent 0.7 per cent of GDP in 2005, thereafter it would decline to 0.5 per cent of GDP in 2034.

The total expenditure on the basic social protection package would represent 3.5 per cent of GDP in 2005. It would reach a peak of 3.9 per cent of GDP in 2015 and reach a level of 3.2 per cent at the end of the projection period. Assuming that the share of domestic resources devoted to this basic social protection package would be equal to 2003 spending levels (5.8 per cent of government expenditure), the country could initially cover some 36 per cent of the cost of a basic social protection package, rising to some 55 per cent over the coming thirty years. In contrast, if the country would devote more of government expenditure to basic social protection, the package could be financed entirely from domestic resources (in 2005, 16.4 per cent of government spending).

## Kenya

For Kenya, total social protection expenditure is forecast to represent 7.3 per cent of GDP in 2005 and would decrease gradually to 6.1 per cent of GDP in 2034. Universal basic old age and disability pension would represent 1.1 per cent of GDP in 2005 increasing to 1.3 per cent of GDP by 2034. Expenditure on health care would represent 2.8 per cent of GDP in 2005 and 2.2 per cent in 2034. Expenditure on basic education would be equivalent to 2.4 per cent of GDP in 2005, and would decrease thereafter as well. Child benefit paid to orphans would represent approximately 0.8 per cent of GDP in 2005 decreasing to 0.6 per cent in 2034.

The projected basic social protection package could be entirely financed by the country's own resources and would represent between 25.3 (in 2005) and 20.5 (in 2034) per cent of total government expenditure.

## Senegal

A basic social protection package for Senegal would require between 5.0 and 6.0 per cent of the country's GDP over the next three decades, a large share of which could be covered by the country's own resources. Assuming that expenditure on basic social protection would be equivalent to the 2003 level of government expenditure on basic social protection (i.e. 8.5 per cent), in 2005 domestic resources would cover approximately 36 per cent of the total cost of the basic social protection benefit package. In 2034 the proportion covered by domestic resources would represent half of the cost of the package.

In this package, expenditure on universal basic old age and disability pensions would oscillate around 0.7 per cent of GDP over the next thirty years. Basic health care would decrease from 2.5 to 2.0 per cent of GDP over the next thirty years. The basic education component would require 1.5 per cent of GDP in 2005 and increase to 2.5 per cent in 2015

and would decline to 1.7 per cent by the year 2034. Expenditure on child benefits is projected to start from 0.6 per cent of GDP and drop to 0.4 per cent over the next thirty years.

## Tanzania

In the case of Tanzania, expenditure on universal basic old age and disability pensions is projected at 0.9 per cent of GDP in 2005, and would increase to 1.1 per cent by 2034. Expenditure on health care will decline from 2.3 per cent of GDP in 2005 to 1.5 per cent in 2034. Basic education expenditure is projected to first increase from 1.4 per cent of GDP in 2005 to 2.1 per cent of GDP by 2015 and then to decrease reaching a level of 1.2 per cent of GDP by 2034. A universal child benefit would represent annually less than 1 per cent of GDP during the projection period.

The total expenditure on a basic social protection package over the next three decades is projected to increase from 5.7 per cent in 2005 to 6.1 per cent in 2015, and would then drop to 4.6 per cent in 2034. Assuming that expenditure on basic social protection would be equivalent to at most the 2003 level of government expenditure on basic social protection (i.e. 23.9 per cent), in 2005 domestic resources would cover approximately 96 per cent of the total cost of the basic social protection benefit package. Domestic resources would be sufficient to cover the total cost of the basic social protection benefit package as of 2016 under this premise.

## Remarks on the results of Scenario II

The results of Scenario II demonstrate that low and middle income countries in sub-Saharan Africa could afford at least a modest basic social protection package that would cover basic needs in respect to old age and disability pensions, essential health care, basic education and income support for orphaned children. Yet, some of the countries, notably Burkina Faso, Cameroon, Ethiopia, Guinea and Senegal would require considerable support from international sources if they do not raise the levels of government expenditure allocated to basic social protection.

Other countries, notably Kenya and Tanzania, would be in a position to finance a modest basic social protection package from their own resources, provided that basic social protection would be recognized as a national policy priority. Nevertheless, some donor support may be nevertheless required at least for a transitional period.

## 5.3. Scenario III

Scenario III is based on the assumption that a targeted cash transfer of US\$13.71 (PPP) would replace the cash transfers assumed in the Base Case. Health care and education expenditure are based on the Base Case assumptions. As the identification of eligible households is more demanding than for categorical benefits, one third of benefit expenditure is added for administration cost.

### 5.3.1. Summary of assumptions

The main assumptions are the following:

- real GDP growth is assumed as working age population growth plus 1 percentage point. For Ethiopia and Tanzania it is assumed as working age population growth plus 2 percentage points (unchanged from Base Case);

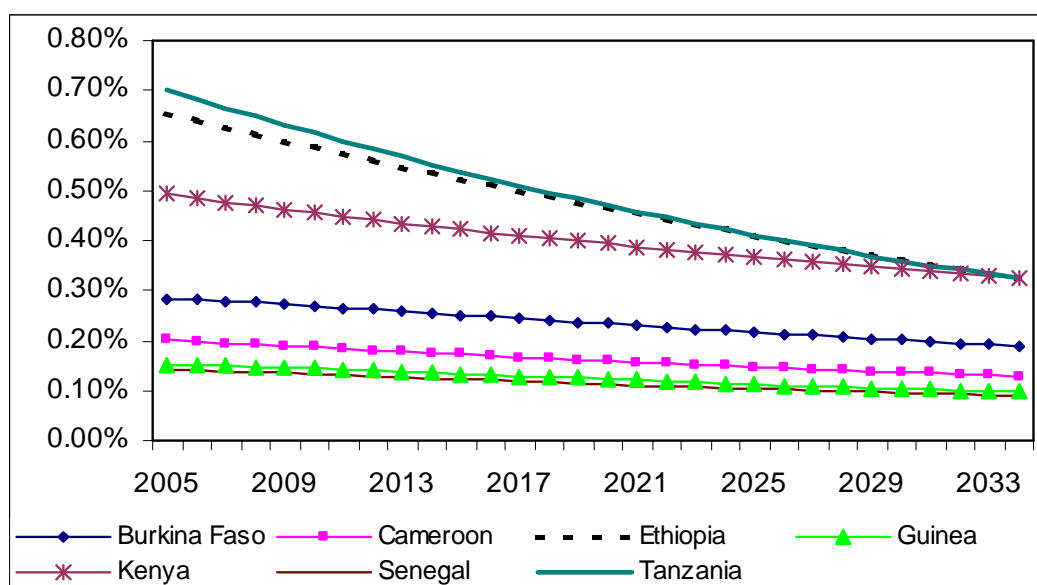
- projected levels of total government expenditure increase by 50 per cent of their current level by the year 2034, with a maximum of 30 per cent of GDP (unchanged from Base Case);
- government revenue (excluding grants) is assumed to reach the projected expenditure level by 2014 in order to reach a balanced budget (unchanged from Base Case);
- per capita health care cost equal to the Commission on Macroeconomics and Health estimate of US\$ 34 by 2007 and US\$ 38 by 2015 (indexed with inflation) (unchanged from Base Case);
- per unit basic education cost based on UNESCO estimate; net enrolment ratio in primary education reaching 100 per cent by 2015; 10 per cent of children in primary in private schools by 2015; 15 per cent capital cost (unchanged from Base Case);
- targeted cash transfer to the 10 per cent most destitute households of US\$ 13.71 PPP per month in 2004 (indexed with inflation);
- administration costs of delivering the targeted cash transfer equal to 33 per cent of cash benefit expenditure.

The main assumptions and results of Scenario III are presented in Annex 3.

### 5.3.2. Main results

As the universal basic old age and invalidity pension and the child benefits are replaced by a targeted cash benefit to the poorest 10 per cent of the population, the Scenario III basic social protection package comes at much lower cost than the other two scenarios.

**Graph 17. Expenditure on a targeted cash transfer for the seven countries in per cent of GDP, 2005-2034 (scenario III)**

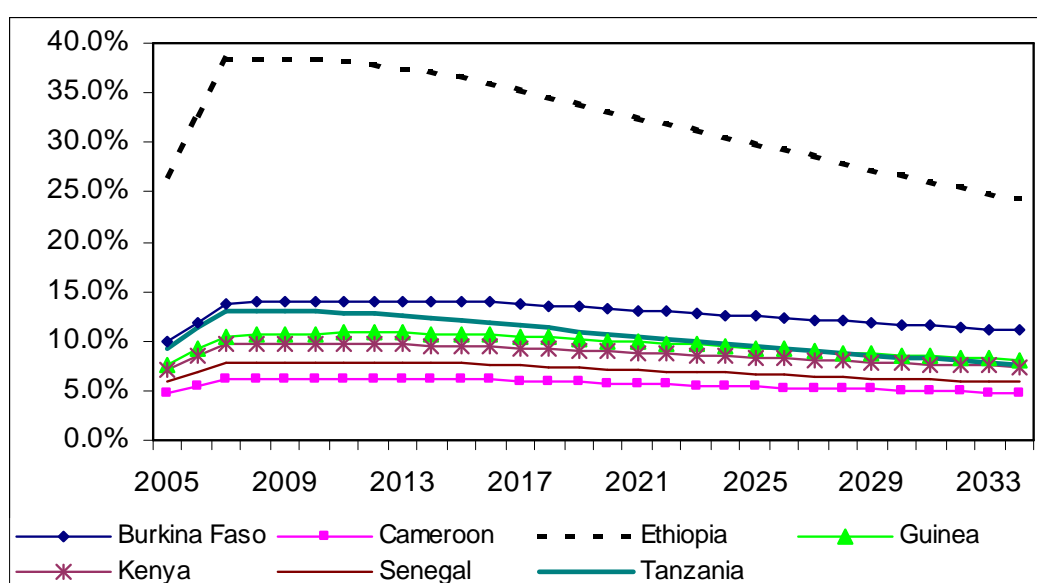


Source: ILO calculations.

In four of the countries – Burkina Faso, Cameroon, Guinea and Senegal – expenditure on a targeted cash transfer providing the same purchasing power parity as the benefit provided in Zambia would require between 0.15 and 0.30 per cent of GDP (Graph 17). Expenditure would reach about 0.7 per cent of GDP in Ethiopia and Tanzania, and 0.5 per cent of GDP in Kenya. If benefits are indexed to inflation, as assumed here, this proportion is projected to decrease with real GDP growth.

Because of the limited expenditure on targeted cash transfers, total expenditure on the basic social protection benefit package is thus mainly driven by health and education expenditure in Scenario III (Graph 18).

**Graph 18. Expenditure on basic social protection benefit package for the seven countries in per cent of GDP, 2005-2034 (scenario III)**

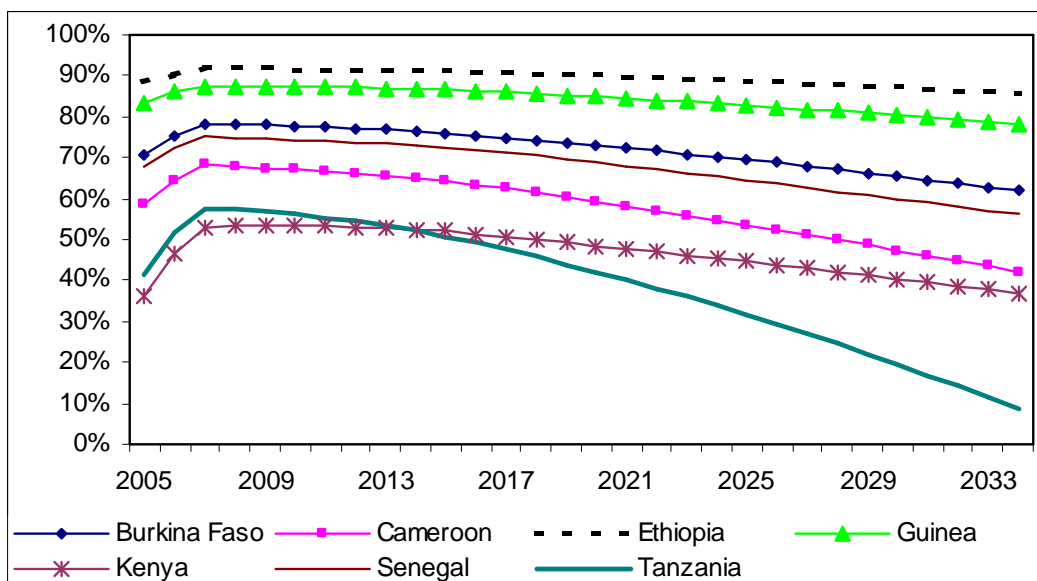


Source: ILO calculations.

Total expenditure on the basic social protection package would reach between 5 and 15 per cent of GDP in all countries except Ethiopia where expenditure levels are much higher.

If countries were to maintain over the projection period the 2003 share of basic social protection expenditure in total government expenditure, then the basic social protection package would require some external support (see Graph 19). In Kenya, slightly more than 50 per cent of expenditure cannot be covered from domestic sources under this assumption at the time of the peak expenditure 2007, yet this proportion shrinks over time. Tanzania starts at a similar level, yet the external funding requirement drops more quickly, so that only 9 per cent of the basic social protection benefit package would have to be covered by external sources by 2034. At the other end of the spectrum, Ethiopia and Guinea could finance only one tenth of the basic social protection benefit package at the time of peak expenditure around 2007 under the assumption of a constant share of expenditure. By 2034, 86 per cent of expenditure on basic social protection would have to be covered by external sources in Ethiopia and 78 per cent in Guinea.

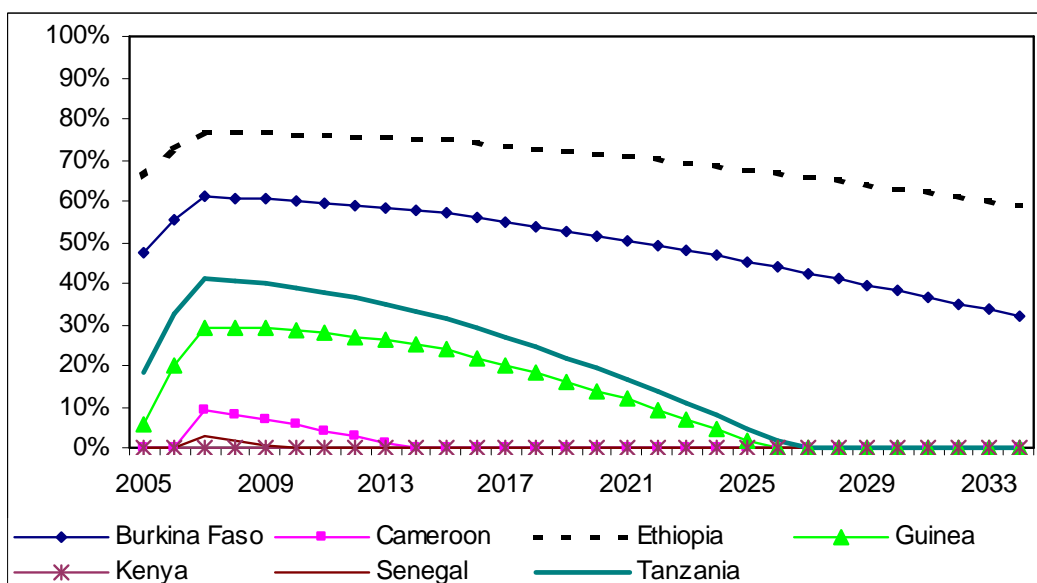
**Graph 19. Proportion of basic benefit package to be financed by external sources assuming a constant proportion of government expenditure devoted to basic social protection (Option 1), 2005-2034 (scenario III)**



Source: ILO calculations.

However, if one third of government expenditure were allocated to basic social protection, the external financing requirements would be much lower. In Cameroon, Kenya and Senegal, less than one tenth of expenditure would have to be covered by external sources for a short transitory period. Guinea and Tanzania could also become self-supporting by 2026. Only Burkina Faso and Ethiopia would require major external support that would however decrease over time.

**Graph 20. Proportion of basic benefit package to be financed by external sources assuming that at most one third of government expenditure is devoted to basic social protection (Option 2), 2005-2034 (scenario III)**



Source: ILO calculations.

## Burkina Faso

In Burkina Faso, a basic social protection package would initially require 9.8 per cent of GDP, quickly rise to 14.1 per cent by 2012 (largely driven by health care expenditure) and subsequently decrease to 11.1 per cent of GDP. Assuming that expenditure on basic social protection would be equivalent to its 2003 share in government expenditure (i.e. 18.6 per cent), roughly one third of the basic social protection package could be covered by domestic resources while the remaining expenditure would have to be covered by other sources. If the government was to devote one third of its budget on basic social protection, about 40 per cent of total expenditure could be financed out of domestic resources in the medium term, rising to two thirds by 2034. The targeted cash transfer would require only a small portion of the total package, initially about 1.8 per cent of government expenditure in 2005; subsequently decreasing to 0.8 per cent by 2034.

## Cameroon

In the case of Cameroon, the targeted cash transfer would initially consume 1.2 per cent of government expenditure, but decrease to 0.5 per cent by 2034. The total basic social protection package would initially require 4.6 per cent of GDP, rise to 6.2 per cent by 2007 and then slowly decrease to 4.8 per cent in 2034. Based on the 2003 proportion of spending on basic social protection (11.6 per cent), 2 percentage points could initially be covered out of domestic resources, increasing to 3 percentage points by 2034. Assuming that one third of the government budget would be spent on basic social protection, almost the full cost could be covered by domestic means while external financing would be required for a very short transitional period from 2007 to 2013.

## Ethiopia

In Ethiopia, the situation is different. A basic social protection package would require 20-40 per cent of GDP, largely due to the cost of basic health care. For most of the projection period, this level of resources required exceeds the volume of the government budget by far. Thus, only a small share of the necessary expenditure could be covered by domestic resources. Assuming a constant share of government expenditure on basic social protection (11.6 per cent in 2003), about one tenth of total expenditure could be covered out of the government budget. Even if one third of government expenditure were devoted to basic social protection, this would cover roughly 30 per cent of the total cost for the years to come while increasing to 40 per cent by 2034.

A targeted cash transfer would require only a small proportion of total expenditure, starting at 2.4 per cent of government expenditure in 2005, subsequently decreasing to 1.1 per cent by 2034.

## Guinea

In the case of Guinea, the projected cost of a basic social protection package would quickly rise from 7.6 per cent of GDP to 10.7 per cent by 2009 and then slowly shrink to 8.1 per cent by 2034. As current expenditure levels on basic social protection are relatively low (5.8 per cent of government expenditure in 2003), 13-22 per cent of total expenditure on a basic social protection package could be covered by domestic resources if this level was to be kept. However, assuming that one third of government expenditure could be allocated on basic social protection, about three quarters of expenditure could be financed out of domestic resources during the next decade. During a transitory period of two decades, external sources would be required until the country would be fully self-supporting in this respect from 2026.

Only a small proportion of the projected basic social protection expenditure would be allocated to a targeted cash transfer, starting at 0.7 per cent of government expenditure in 2005 and subsequently declining to 0.3 per cent.

## Kenya

If Kenya was to allocate at most one third of its government expenditure to basic social protection, a basic social protection package would be fully affordable, that is it could be financed entirely out of the country's own resources. If the current share of expenditure (15.6 per cent in 2003) were to be kept constant, roughly half of the total cost could be funded out of domestic resources. Such a basic social protection package would initially require 7.1 per cent of GDP, quickly increase to 9.7 per cent by 2008 and subsequently decrease to 7.4 per cent by 2034. As in most other countries, health care expenditure is the main driver of this trend. The projected targeted cash transfer would require 1.7 per cent of government expenditure in 2005, shrinking to 1.1 per cent by 2034.

## Senegal

The case of Senegal is similar to that of Kenya. Except for a minor external funding requirement for the period 2007 to 2009, a basic social protection package could be afforded if at most one third of the government budget was allocated to such programmes. If the current structure of the government budget were kept (8.5 per cent of government expenditure devoted to basic social protection in 2003), about one quarter of the cost could be covered out of domestic resources in the medium term, rising to 44 per cent by 2034. The cost of a basic social protection package would be 6.0 per cent of GDP in 2005, increasing to 7.9 per cent in 2009, and then shrinking to 5.8 per cent by 2034. Only a small proportion of the total expenditure is made up by targeted cash transfers, starting with 0.6 per cent of government expenditure in 2005 and decreasing to 0.3 per cent by 2034. It should be noted, however, that the larger average household size in Senegal results in a lower level of targeted cash benefits per head than in the other countries considered.

## Tanzania

In order to provide a basic social protection package to its population, Tanzania would need to provide 9.3 per cent of GDP in 2005, steeply increasing to 13.1 per cent by 2007, largely due to the increase in health care expenditure, and thereafter slowly decreasing to 7.6 per cent of GDP. If Tanzania were to keep constant its already relatively high proportion of government spending on basic social protection (23.9 per cent in 2003), over 40 per cent of the cost of such a basic social protection benefit package in the peak year 2007 could be covered by domestic resources. Subsequently, the proportion of resources required from external sources would shrink to 9 per cent of total expenditure. If the country was to allocate one third of government expenditure on a basic social protection package, more than two thirds of total expenditure could be financed out of domestic resources in the peak year, and the country could fully cover these programmes from the year 2027.

Compared to the other countries, a relatively higher share of government expenditure would need to be allocated to targeted cash transfers, starting with 3.1 per cent of government expenditure in 2005, yet this share would subsequently decrease to 1.1 per cent by 2034.

## Remarks on the results of Scenario III

The results of the projections based on Scenario III make an even stronger case for the argument that basic social protection is, to a large degree, affordable for low-income countries in Sub-Saharan Africa. Even based on the current shares of government expenditure allocated to basic social protection, such a benefit package would be within



the reach of some countries (provided some external support if available), and even more so if government budgets were to be restructured in favour of basic social protection. This would have a major effect on the reduction of poverty.

Compared to Scenarios I and II, Scenario III is based on a much lower level of cash transfers, and those transfers are assumed to be allocated in a different way. Further studies are needed to establish under which conditions one or the other approach would be more promising, and how such benefits could be fitted into a larger social protection context.

## 5.4. Sensitivity Tests

### 5.4.1. Summary of assumptions

Each individual sensitivity test is based on the Base Case scenario for all parameters not mentioned in the description of the sensitivity test.

- *Sensitivity Test 1:* Real GDP growth is equal to population growth plus 1 per cent for all the seven countries under the Base Case Scenario.
- *Sensitivity Test 2:* Government expenditure levels relative to GDP increase to 30 per cent of GDP in all countries, that is, the constraint on overall expenditure growth (maximum rate of increase of 50 per cent of the 2004 level) is removed. This test produces different results only for countries with very low initial expenditure levels.<sup>53</sup> Among the countries covered, this is the case for Burkina Faso (projected expenditure levels for 2034 would change from 23 to 30 per cent), Cameroon (from 24 to 30 per cent) and Tanzania (from 29 to 30 per cent).

### 5.4.2. Main results

Main results of Sensitivity Test 1 on the Base Case

The main results of the sensitivity tests are presented in the table below.

<sup>53</sup> This affects initial expenditure levels of less than 20 per cent of GDP.

**Table 2. Comparison of expenditure on basic benefits package under the Base Case and Sensitivity Test 1, 2005-2034 (percentage)**

	2005	2010	2015	2020	2025	2030	2034
<b>Burkina Faso</b>							
Base Case	14.6	18.4	18.1	16.9	15.7	14.6	13.8
Sensitivity test 1	14.6	18.6	18.5	17.6	16.8	15.9	15.3
<b>Cameroon</b>							
Base Case	7.1	8.4	8.2	7.5	6.9	6.4	6.1
Sensitivity test 1	7.1	8.7	8.6	8.1	7.6	7.2	6.9
<b>Ethiopia</b>							
Base Case	33.7	44.6	42.2	38.0	34.0	30.2	27.3
Sensitivity test 1	34.4	48.2	48.2	46.0	43.8	41.5	39.7
<b>Guinea</b>							
Base Case	9.9	12.9	12.6	11.8	10.8	9.9	9.3
Sensitivity test 1	9.9	13.0	13.0	12.4	11.7	11.0	10.5
<b>Kenya</b>							
Base Case	11.4	13.5	12.9	12.1	11.2	10.4	9.8
Sensitivity test 1	11.6	14.1	13.8	13.1	12.4	11.7	11.2
<b>Senegal</b>							
Base Case	8.8	10.4	10.0	9.2	8.4	7.7	7.3
Sensitivity test 1	8.9	10.7	10.5	9.9	9.3	8.7	8.4
<b>Tanzania</b>							
Base Case	16.8	19.4	17.5	15.2	13.2	11.5	10.3
Sensitivity test 1	17.3	21.5	20.9	19.6	18.4	17.2	16.3

Source: ILO calculations.

Under Sensitivity Test 1, GDP levels in all the countries of the study grow at a slower average annual rate than under Base Case as total population average annual growth rates are lower than those of the working-age population. Apart from the basic education expenditures, where unit costs are based on GDP per capita levels, the rest of the benefit amounts in absolute Local Currency Units (LCU) terms do not vary. Therefore, relative to lower GDP levels the total costs of the basic benefits package increase with respect to the Base Case.

Under this scenario, the levels of external financial aid required would also be somewhat higher. Ethiopia would require over the whole projection period more than 90 per cent of the basic benefit package to be financed by external sources. Therefore, it becomes all the more necessary to undertake an in-depth analysis in order to establish benefit levels which in this context would meet the most basic requirements and at the same time be affordable.

### Main results of Sensitivity Test 2 on the Base Case

Sensitivity Test 2 assumes that all the countries of the study will attain a level of government expenditure with respect to GDP of 30 per cent by 2034. The benefit expenditures in absolute monetary value do not change with respect to the Base Case. It is the government financing of the benefit package which is affected.

**Table 3. Comparison of main results of the Base Case and Sensitivity Test 2, 2005-2034**

	2005	2010	2015	2020	2025	2030	2034
<b>Burkina Faso</b>							
Government expenditure in % of GDP (Base Case)	15.6	16.8	18.0	19.2	20.4	21.7	22.6
Total cost of benefit package in % of government expenditure (Base Case)	93.5	109.8	100.4	87.9	77.0	67.5	60.8
Domestic financing of basic benefits package in % of GDP (at 18.6 of government expenditure) (Base Case)	2.9	3.1	3.3	3.6	3.8	4.0	4.2
Government expenditure in % of GDP (Sensitivity test 2)	16.1	18.5	20.9	23.3	25.7	28.1	30.0
Total cost of benefit package in % of government expenditure (Sensitivity test 2)	90.7	99.9	86.7	72.7	61.3	52.1	45.9
Domestic financing of basic benefits package in % of GDP (at 18.6% of government expenditure) (Sensitivity test 2)	3.0	3.4	3.9	4.3	4.8	5.2	5.6
<b>Cameroon</b>							
Government expenditure in % of GDP (Base Case)	16.4	17.7	19.0	20.3	21.6	22.8	23.9
Total cost of benefit package in % of government expenditure (Base Case)	43.2	47.6	43.0	37.2	32.2	28.2	25.5
Domestic financing of basic benefits package in % of GDP (at 11.6% of government expenditure) (Base Case)	1.9	2.1	2.2	2.4	2.5	2.6	2.8
Government expenditure in % of GDP (Sensitivity test 2)	16.8	19.1	21.4	23.6	25.9	28.2	30.0
Total cost of benefit package in % of government expenditure (Sensitivity test 2)	42.2	44.2	38.2	31.9	26.8	22.9	20.3
Domestic financing of basic benefits package in % of GDP (at 11.6% of government expenditure) (Sensitivity test 2)	2.0	2.2	2.5	2.7	3.0	3.3	3.5
<b>Tanzania</b>							
Government expenditure in % of GDP (Base Case)	22.7	23.8	24.9	26.0	27.1	28.2	29.1
Total cost of benefit package in % of government expenditure (Base Case)	74.1	81.5	70.2	58.4	48.6	40.6	35.3
Domestic financing of basic benefits package in % of GDP (at 23.9% of government expenditure) (Base Case)	5.4	5.7	6.0	6.2	6.5	6.7	7.0
Government expenditure in % of GDP (Sensitivity test 2)	22.8	24.0	25.3	26.5	27.8	29.0	30.0
Total cost of benefit package in % of government expenditure (Sensitivity test 2)	74.0	80.9	69.2	57.3	47.5	39.5	34.3
Domestic financing of basic benefits package in % of GDP (at 23.9% of government expenditure) (Sensitivity test 2)	5.4	5.7	6.0	6.3	6.6	6.9	7.2

Source: ILO calculations.

The options of Sensitivity Test 2 affect only three countries of the study, namely Burkina Faso, Cameroon and Tanzania which attain a level of government expenditure with respect

to GDP in 2034 under the Base Case of 23 per cent, 24 per cent and 29 per cent respectively. The other countries of the study already under the Base Case assumption attain a level of government expenditure with respect to GDP of 30 per cent by 2034. In all the three country cases which are affected by the Sensitivity Test 2 assumption, domestic financing will cover a higher share of the cost of the basic benefit package under the Sensitivity Test. With a total cost of the basic benefit package in 2015 for Burkina Faso of 18.1 per cent of GDP, under the Base Case 3.3 per cent of GDP are spent on the benefit package whereas under the assumptions of Sensitivity Test 2 approximately 3.9 per cent of GDP are spent on it. This means that in 2015, approximately 21 per cent of the cost of the basic benefit package can be financed by domestic sources under the Sensitivity Test 2 assumption compared to 17 per cent under the Base Case. The rest of the financing would need to come from external sources.

For Tanzania the effects would be less pronounced, as government expenditure under the Sensitivity Test 2 assumptions would be higher by about only 3 per cent in 2034 with respect to the Base Case.

## 6. Conclusions

As the model results have shown, a basic level of social protection could be affordable within a reasonable timeframe in the selected countries if one was to choose a more modest option (Scenario II or III) for even the low and middle-income countries. It is also evident that – if one were to introduce such a basic level of social protection immediately – these countries would need assistance in terms of financing from international donors, in most of the countries for some transitional period. But, if the national commitment exists and one third of total government expenditure can be reallocated to meet basic social protection needs then the necessity for international financing would show a steady decline in the medium-term.

This is a commitment which each individual nation needs to make. The share of their budgets devoted to basic social protection benefits would have to be fixed at a higher level than today. In addition for at least some time to come, the richer nations would be required to support that commitment by direct financial aid. But with increased government commitment and under reasonable economic conditions that help would be substantial throughout the next decades only in Burkina Faso, Ethiopia and Guinea. What these calculations also show is that without such support some of the countries are not likely to reach the first Millennium Development Goal (MDG) even with increased government commitment. More important is that the increased government commitment to social transfers can go a long way to achieve the MDGs by their own means. Intense national dialogues on public spending priorities in the context of comprehensive social budget cum public expenditure reviews in the context of PRSPs are needed.

The projections provided in this report can be a starting point to further explore the affordability of basic social protection in low-income countries. This paper does not aim to prescribe any standard basic benefit package for all countries. It seeks to raise awareness to the feasibility of providing basic social protection. As the report concludes, this is within the reach of even the low-income countries. However, further studies would be needed to assess the affordability and the impact of such programmes in more depth in the specific country context based on national data. This would also include a more detailed discussion of how a basic social protection package could be designed, how it would fit into the broader national social protection strategy including contributory schemes and other programmes, what effect it would have on poverty reduction and how it could be financed.



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## Annex 1. Scenario I (Base Case) assumptions and projection results by country, 2005-2034

Table 1. Scenario I main assumptions: Burkina Faso

Main assumptions	2005	2010	2015	2020	2025	2030	2034
<b>Population</b>							
Total population	13,797,527	16,017,612	18,561,753	21,402,942	24,526,689	27,910,009	30,753,655
of which 0-4	2,697,304	3,067,754	3,434,136	3,802,739	4,153,641	4,458,768	4,642,049
of which 5-14	4,034,508	4,702,714	5,414,317	6,154,292	6,895,255	7,632,200	8,188,914
of which 15-64	6,711,679	7,855,669	9,275,382	10,963,925	12,929,966	15,154,898	17,136,977
of which 65+	354,036	391,475	437,918	481,986	547,827	664,143	785,715
<b>Economy</b>							
Real GDP growth (%)	4.15	4.27	4.41	4.39	4.31	4.18	4.08
Rate of inflation (%)	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Productivity change (%)	2.08	2.14	2.20	2.20	2.15	2.09	2.04
Percentage of invalids in working-age population (%)	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Exchange rate (LCU/US\$)	581.2	581.2	581.2	581.2	581.2	581.2	581.2
PPP\$ Exchange rate	169.6	169.6	169.6	169.6	169.6	169.6	169.6
Government revenue as a proportion of GDP (%)	11.75	15.09	18.01	19.23	20.44	21.66	22.63
Increase of government revenue in addition to GDP growth (%)	6.42	4.93	1.46	1.37	1.28	1.21	1.15
<b>Pensions</b>							
Maximum universal pension per day (in PPP\$)	0.51	0.56	0.62	0.69	0.76	0.84	0.91
<b>Education</b>							
	Expenditure calculated using UNICEF per unit cost estimate				Age group: 6 to 11 years of age		
UNICEF per unit cost estimate (in % of GDP per capita)	20	20	20	20	20	20	20
Net enrolment ratio in the age group (%)	65	82	100	100	100	100	100
<b>Health care</b>							
	Expenditure calculated using option based on the Commission for Macroeconomics and Health of the WHO estimate						
Per capita minimum health care basket (CMH / WHO) option (US\$)	19.79	39.83	47.25	52.17	57.60	63.59	68.83
<b>Child benefit</b>							
	Child benefit is calculated as a fixed PPP\$ per day amount				Beneficiaries: all children in age 0-14		
Child benefit per day (in PPP\$)	0.26	0.28	0.31	0.34	0.38	0.42	0.45
<b>Administrative expenditure in % of cash benefit expenditure</b>	15.0	15.0	15.0	15.0	15.0	15.0	15.0
<i>Option</i>							
Proportion of government expenditure allocated to basic social protection (%)	33	33	33	33	33	33	33

**Table 2. Scenario I results: Burkina Faso**

Results	2005	2010	2015	2020	2025	2030	2034
Total expenditure on basic benefit package in million US\$	686.5	1,178.9	1,581.6	2,025.1	2,575.2	3,251.3	3,890.1
Universal pensions	2.9	28.2	35.1	43.3	54.7	72.7	92.3
Basic health care	273.1	637.9	877.0	1,116.5	1,412.6	1,774.8	2,116.8
Basic education	176.8	240.5	327.2	440.2	586.8	773.1	955.2
Child benefit	182.9	233.1	293.0	364.1	446.0	538.9	619.0
Administrative expenditure	30.9	39.2	49.2	61.1	75.1	91.7	106.7
Total expenditure on basic benefit package in % of GDP	14.6	18.4	18.1	16.9	15.7	14.6	13.8
Universal pensions (%)	0.5	0.4	0.4	0.4	0.3	0.3	0.3
Basic health care (%)	5.8	10.0	10.0	9.3	8.6	8.0	7.5
Basic education (%)	3.7	3.8	3.7	3.7	3.6	3.5	3.4
Child benefit (%)	3.9	3.6	3.4	3.0	2.7	2.4	2.2
Administrative expenditure (%)	0.7	0.6	0.6	0.5	0.5	0.4	0.4
Total expenditure on basic benefit package in % of government expenditure	93.5	109.8	100.4	87.9	77.0	67.5	60.8
Universal pensions (%)	3.1	2.6	2.2	1.9	1.6	1.5	1.4
Basic health care (%)	37.2	59.4	55.7	48.5	42.2	36.9	33.1
Basic education (%)	24.1	22.4	20.8	19.1	17.5	16.1	14.9
Child benefit (%)	24.9	21.7	18.6	15.8	13.3	11.2	9.7
Administrative expenditure (%)	4.2	3.6	3.1	2.7	2.2	1.9	1.7
Total expenditure on basic benefit package in % of government revenue	124.0	122.2	100.4	87.9	77.0	67.5	60.8
Universal pensions (%)	4.1	2.9	2.2	1.9	1.6	1.5	1.4
Basic health care (%)	49.3	66.1	55.7	48.5	42.2	36.9	33.1
Basic education (%)	31.9	24.9	20.8	19.1	17.5	16.1	14.9
Child benefit (%)	33.0	24.2	18.6	15.8	13.3	11.2	9.7
Administrative expenditure (%)	5.6	4.1	3.1	2.7	2.2	1.9	1.7
Option 1: Proportion of government expenditure allocated to basic social protection (2003 level) (%)	18.6	18.6	18.6	18.6	18.6	18.6	18.6
Government financing in % of GDP	2.9	3.1	3.3	3.6	3.8	4.0	4.2
Government financing (in million US\$)	136.5	199.6	292.8	428.0	621.8	894.7	1,189.4
External financing required (in million US\$)	550.0	979.3	1,288.8	1,597.1	1,953.4	2,356.6	2,700.7
Option 2: Proportion of government expenditure allocated to basic social protection (alternative scenario) (%)	33.3	33.3	33.3	33.3	33.3	33.3	33.3
Government financing in % of GDP	5.2	5.6	6.0	6.4	6.8	7.2	7.5
Government financing (in million US\$)	244.6	357.6	524.6	766.9	1,114.1	1,603.0	2,130.9
External financing required (in million US\$)	441.9	821.3	1,057.0	1,258.2	1,461.1	1,648.3	1,759.2

**Table 3. Scenario I main assumptions: Cameroon**

Main assumptions	2005	2010	2015	2020	2025	2030	2034
<b>Population</b>							
Total population	16,564,191	17,774,707	18,859,816	19,874,203	20,830,796	21,759,655	22,481,055
of which 0-4	2,475,873	2,511,341	2,472,428	2,433,317	2,400,018	2,369,262	2,334,490
of which 5-14	4,393,339	4,532,279	4,655,961	4,685,713	4,644,539	4,607,757	4,584,180
of which 15-64	9,074,522	10,033,226	10,952,664	11,889,673	12,834,115	13,739,055	14,448,925
of which 65+	620,457	697,861	778,763	865,500	952,124	1,043,581	1,113,460
<b>Economy</b>							
Real GDP growth (%)	3.22	2.91	2.71	2.61	2.47	2.32	2.24
Rate of inflation (%)	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Productivity change (%)	1.61	1.45	1.35	1.31	1.24	1.16	1.12
Percentage of invalids in working-age population (%)	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Exchange rate (LCU/US\$)	581.2	581.2	581.2	581.2	581.2	581.2	581.2
PPP\$ Exchange rate	240.3	240.3	240.3	240.3	240.3	240.3	240.3
Government revenue as a proportion of GDP (%)	16.53	17.75	18.98	20.27	21.55	22.83	23.86
Increase of government revenue in addition to GDP growth (%)	1.57	1.46	1.44	1.34	1.26	1.19	1.13
<b>Pensions</b>							
Maximum universal pension per day (in PPP\$)	0.5	0.6	0.6	0.7	0.8	0.8	0.9
<b>Education</b>							
	Expenditure calculated using UNICEF per unit cost estimate				Age group: 6 to 11 years of age		
UNICEF per unit cost estimate (in % of GDP per capita)	13	13	13	13	13	13	13
Net enrolment ratio in the age group (%)	89	94	100	100	100	100	100
<b>Health care</b>							
	Expenditure calculated using option based on the Commission for Macroeconomics and Health of the WHO estimate						
Per capita minimum health care basket (CMH / WHO) option (US\$)	19.79	39.83	47.25	52.17	57.60	63.59	68.83
<b>Child benefit</b>							
	Child benefit is calculated as a fixed PPP\$ per day amount				Beneficiaries: all children in age 0-14		
Child benefit per day (in PPP\$)	0.26	0.28	0.31	0.34	0.38	0.42	0.45
<b>Administrative expenditure in % of cash benefit expenditure</b>							
	15.0	15.0	15.0	15.0	15.0	15.0	15.0
<i>Option</i>							
Proportion of government expenditure allocated to basic social protection	33	33	33	33	32	28	26

**Table 4. Scenario I results: Cameroon**

Results	2005	2010	2015	2020	2025	2030	2034
Total expenditure on basic benefit package in million US\$	978.6	1,492.3	1,828.7	2,124.6	2,451.8	2,824.1	3,157.8
Universal pensions	54.7	67.8	83.3	102.0	123.5	149.1	171.9
Basic health care	327.8	707.9	891.1	1,036.8	1,199.8	1,383.7	1,547.4
Basic education	283.8	362.3	457.3	546.7	646.8	762.4	869.0
Child benefit	264.3	299.2	334.3	368.6	402.8	440.4	472.7
Administrative expenditure	47.9	55.1	62.6	70.6	78.9	88.4	96.7
Total expenditure on basic benefit package in % of GDP	7.1	8.4	8.2	7.5	6.9	6.4	6.1
Universal pensions (%)	0.4	0.4	0.4	0.4	0.4	0.3	0.3
Basic health care (%)	2.4	4.0	4.0	3.7	3.4	3.2	3.0
Basic education (%)	2.1	2.0	2.0	1.9	1.8	1.7	1.7
Child benefit (%)	1.9	1.7	1.5	1.3	1.1	1.0	0.9
Administrative expenditure (%)	0.3	0.3	0.3	0.3	0.2	0.2	0.2
Total expenditure on basic benefit package in % of government expenditure	43.2	47.6	43.0	37.2	32.2	28.2	25.5
Universal pensions (%)	2.4	2.2	2.0	1.8	1.6	1.5	1.4
Basic health care (%)	14.5	22.6	21.0	18.1	15.8	13.8	12.5
Basic education (%)	12.5	11.6	10.8	9.6	8.5	7.6	7.0
Child benefit (%)	11.7	9.6	7.9	6.5	5.3	4.4	3.8
Administrative expenditure (%)	2.1	1.8	1.5	1.2	1.0	0.9	0.8
Total expenditure on basic benefit package in % of government revenue	42.9	47.5	43.0	37.2	32.2	28.2	25.5
Universal pensions (%)	2.4	2.2	2.0	1.8	1.6	1.5	1.4
Basic health care (%)	14.4	22.5	21.0	18.1	15.8	13.8	12.5
Basic education (%)	12.4	11.5	10.8	9.6	8.5	7.6	7.0
Child benefit (%)	11.6	9.5	7.9	6.5	5.3	4.4	3.8
Administrative expenditure (%)	2.1	1.8	1.5	1.2	1.0	0.9	0.8
Option 1: Proportion of government expenditure allocated to basic social protection (2003 level) (%)	11.6	11.6	11.6	11.6	11.6	11.6	11.6
Government financing in % of GDP	1.9	2.1	2.2	2.4	2.5	2.6	2.8
Government financing (in million US\$)	263.1	363.5	493.4	663.0	882.4	1,160.6	1,435.9
External financing required (in million US\$)	715.5	1,128.7	1,335.3	1,461.6	1,569.4	1,663.5	1,721.9
Option 2: Proportion of government expenditure allocated to basic social protection (alternative scenario) (%)	33.3	33.3	33.3	33.3	32.2	28.2	25.5
Government financing in % of GDP	5.5	5.9	6.3	6.7	6.9	6.4	6.1
Government financing (in million US\$)	754.9	1,043.1	1,415.9	1,902.5	2,451.8	2,824.1	3,157.8
External financing required (in million US\$)	223.7	449.1	412.8	222.1	-	0.0	-

**Table 5. Scenario I main assumptions: Ethiopia**

Main assumptions	2005	2010	2015	2020	2025	2030	2034
<b>Population</b>							
Total population	74,188,932	83,529,854	93,845,492	104,797,476	116,006,271	127,220,082	136,110,096
of which 0-4	12,899,091	14,100,301	15,327,671	16,309,346	16,851,830	17,010,196	17,005,277
of which 5-14	20,612,110	22,816,554	25,164,541	27,659,830	29,951,644	31,623,536	32,399,311
of which 15-64	38,484,770	44,039,365	50,355,021	57,370,396	65,258,097	74,091,264	81,723,919
of which 65+	2,192,961	2,573,634	2,998,259	3,457,904	3,944,700	4,495,086	4,981,589
<b>Economy</b>							
Real GDP growth (%)	4.76	4.73	4.69	4.63	4.60	4.54	4.43
Rate of inflation (%)	3.00	3.00	3.00	3.00	3.00	3.00	3.00
Productivity change (%)	2.38	2.36	2.34	2.31	2.30	2.27	2.22
Percentage of invalids in working-age population	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Exchange rate (LCU/US\$)	8.56775	8.56775	8.56775	8.56775	8.56775	8.56775	8.56775
PPP\$ Exchange rate	1.249	1.249	1.249	1.249	1.249	1.249	1.249
Government revenue as a proportion of GDP (%)	21.41	24.61	27.93	28.48	29.02	29.56	30.00
Increase of government revenue in addition to GDP growth (%)	3.33	2.89	2.98	0.41	0.41	0.40	0.39
<b>Pensions</b>							
Maximum universal pension per day (in PPP\$)	0.5	0.6	0.7	0.8	0.9	1.1	1.2
<b>Education</b>							
	Expenditure calculated using UNICEF per unit cost estimate				Age group: 6 to 11 years of age		
UNICEF per unit cost estimate (in % of GDP per capita)	37	37	37	37	37	37	37
Net enrolment ratio in the age group (%)	100	83	100	100	100	100	100
<b>Health care</b>							
	Expenditure calculated using option based on the Commission for Macroeconomics and Health of the WHO estimate						
Per capita minimum health care basket (CMH / WHO) option (US\$)	20.02	42.27	52.60	60.98	70.69	81.95	92.24
<b>Child benefit</b>							
	Child benefit is calculated as a fixed PPP\$ per day amount				Beneficiaries: all children in age 0-14		
Child benefit per day (in PPP\$)	0.26	0.30	0.35	0.40	0.47	0.54	0.61
<b>Administrative expenditure in % of cash benefit expenditure</b>							
	15.0	15.0	15.0	15.0	15.0	15.0	15.0
<i>Option</i>							
Proportion of government expenditure allocated to basic social protection	33	33	33	33	33	33	33

**Table 6. Scenario I results: Ethiopia**

Results	2005	2010	2015	2020	2025	2030	2034
Total expenditure on basic benefit package in million US\$	2,612.2	5,044.6	6,969.2	9,135.9	11,871.9	15,260.1	18,510.2
Universal pensions	70.6	95.7	129.0	172.1	227.5	300.4	374.5
Basic health care	1,485.5	3,530.8	4,936.4	6,390.4	8,200.6	10,425.7	12,554.2
Basic education	517.4	729.4	1,027.1	1,468.1	2,077.7	2,884.4	3,690.9
Child benefit	459.2	586.4	745.6	938.6	1,158.2	1,395.2	1,595.2
Administrative expenditure	79.5	102.3	131.2	166.6	207.9	254.3	295.4
Total expenditure on basic benefit package in % of GDP	33.7	44.6	42.2	38.0	34.0	30.2	27.3
Universal pensions (%)	0.9	0.8	0.8	0.7	0.7	0.6	0.6
Basic health care (%)	19.2	31.2	29.9	26.6	23.5	20.6	18.5
Basic education (%)	6.7	6.5	6.2	6.1	6.0	5.7	5.4
Child benefit (%)	5.9	5.2	4.5	3.9	3.3	2.8	2.4
Administrative expenditure (%)	1.0	0.9	0.8	0.7	0.6	0.5	0.4
Total expenditure on basic benefit package in % of government expenditure	125.7	162.9	151.2	133.6	117.3	102.1	91.0
Universal pensions (%)	3.4	3.1	2.8	2.5	2.2	2.0	1.8
Basic health care (%)	71.5	114.0	107.1	93.5	81.0	69.8	61.7
Basic education (%)	24.9	23.6	22.3	21.5	20.5	19.3	18.1
Child benefit (%)	22.1	18.9	16.2	13.7	11.4	9.3	7.8
Administrative expenditure (%)	3.8	3.3	2.8	2.4	2.1	1.7	1.5
Total expenditure on basic benefit package in % of government revenue	157.6	181.2	151.2	133.6	117.3	102.1	91.0
Universal pensions (%)	4.3	3.4	2.8	2.5	2.2	2.0	1.8
Basic health care (%)	89.6	126.8	107.1	93.5	81.0	69.8	61.7
Basic education (%)	31.2	26.2	22.3	21.5	20.5	19.3	18.1
Child benefit (%)	27.7	21.1	16.2	13.7	11.4	9.3	7.8
Administrative expenditure (%)	4.8	3.7	2.8	2.4	2.1	1.7	1.5
Option 1: Proportion of government expenditure allocated to basic social protection (2003 level) (%)	11.6	11.6	11.6	11.6	11.6	11.6	11.6
Government financing in % of GDP	3.1	3.2	3.3	3.3	3.4	3.4	3.5
Government financing (in million US\$)	241.9	360.6	536.8	796.1	1,178.3	1,740.1	2,368.2
External financing required (in million US\$)	2,370.3	4,684.0	6,432.3	8,339.8	10,693.7	13,520.0	16,142.0
Option 2: Proportion of government expenditure allocated to basic social protection (alternative scenario) (%)	33.3	33.3	33.3	33.3	33.3	33.3	33.3
Government financing in % of GDP	8.9	9.1	9.3	9.5	9.7	9.8	10.0
Government financing (in million US\$)	691.9	1,031.3	1,535.4	2,276.8	3,369.8	4,976.5	6,773.0
External financing required (in million US\$)	1,920.2	4,013.3	5,433.8	6,859.1	8,502.1	10,283.6	11,737.2



**Table 7. Scenario I main assumptions: Guinea**

Main assumptions	2005	2010	2015	2020	2025	2030	2034
<b>Population</b>							
Total population	8,788,030	9,989,966	11,233,425	12,478,266	13,704,428	14,921,285	15,893,504
of which 0-4	1,494,231	1,647,826	1,715,198	1,743,169	1,749,734	1,761,242	1,775,669
of which 5-14	2,354,411	2,667,938	2,950,979	3,183,935	3,298,669	3,355,191	3,386,847
of which 15-64	4,684,842	5,377,676	6,218,932	7,128,848	8,150,018	9,203,699	10,041,923
of which 65+	254,546	296,526	348,316	422,314	506,007	601,153	689,065
<b>Economy</b>							
Real GDP growth (%)	3.08	3.99	3.89	3.75	3.63	3.35	3.12
Rate of inflation (%)	3.00	3.00	3.00	3.00	3.00	3.00	3.00
Productivity change (%)	1.54	1.99	1.94	1.87	1.82	1.67	1.56
Percentage of invalids in working-age population	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Exchange rate (LCU/US\$)	1984.93	1984.93	1984.93	1984.93	1984.93	1984.93	1984.93
PPP\$ Exchange rate	417.73	417.73	417.73	417.73	417.73	417.73	417.73
Government revenue as a proportion of GDP (%)	14.20	19.78	24.53	25.97	27.41	28.85	30.00
Increase of government revenue in addition to GDP growth	9.05	6.40	1.27	1.20	1.13	1.07	1.03
<b>Pensions</b>							
Maximum universal pension per day (in PPP\$)	0.5	0.6	0.7	0.8	0.9	1.1	1.2
<b>Education</b>							
	Expenditure calculated using UNICEF per unit cost estimate				Age group: 6 to 11 years of age		
UNICEF per unit cost estimate (in % of GDP per capita)	12	12	12	12	12	12	12
Net enrolment ratio in the age group (%)	70	85	100	100	100	100	100
<b>Health care</b>							
	Expenditure calculated using option based on the Commission for Macroeconomics and Health of the WHO estimate						
Per capita minimum health care basket (CMH / WHO) option (US\$)	20.02	42.27	52.60	60.98	70.69	81.95	92.24
<b>Child benefit</b>							
	Child benefit is calculated as a fixed PPP\$ per day amount				Beneficiaries: all children in age 0-14		
Child benefit per day (in PPP\$)	0.26	0.30	0.35	0.40	0.47	0.54	0.61
<b>Administrative expenditure in % of cash benefit expenditure</b>							
	15.0	15.0	15.0	15.0	15.0	15.0	15.0
<i>Option</i>							
Proportion of government expenditure allocated to basic social protection (%)	33	33	33	33	33	33	31

**Table 8. Scenario I results: Guinea**

<b>Results</b>	<b>2005</b>	<b>2010</b>	<b>2015</b>	<b>2020</b>	<b>2025</b>	<b>2030</b>	<b>2034</b>
Total expenditure on basic benefit package in million US\$	411.6	746.1	1,029.9	1,338.0	1,706.7	2,151.6	2,576.4
Universal pensions	11.9	16.1	21.8	30.4	42.0	57.4	73.6
Basic health care	176.0	422.3	590.9	760.9	968.8	1,222.8	1,466.0
Basic education	134.4	191.5	271.2	367.5	482.2	619.1	749.1
Child benefit	76.1	99.0	124.0	151.8	180.3	211.9	240.6
Administrative expenditure	13.2	17.3	21.9	27.3	33.3	40.4	47.1
Total expenditure on basic benefit package in % of GDP	9.9	12.9	12.6	11.8	10.8	9.9	9.3
Universal pensions (%)	0.3	0.3	0.3	0.3	0.3	0.3	0.3
Basic health care (%)	4.2	7.3	7.3	6.7	6.1	5.6	5.3
Basic education (%)	3.2	3.3	3.3	3.2	3.0	2.8	2.7
Child benefit (%)	1.8	1.7	1.5	1.3	1.1	1.0	0.9
Administrative expenditure (%)	0.3	0.3	0.3	0.2	0.2	0.2	0.2
Total expenditure on basic benefit package in % of government expenditure	45.9	55.8	51.5	45.3	39.4	34.3	31.0
Universal pensions (%)	1.3	1.2	1.1	1.0	1.0	0.9	0.9
Basic health care (%)	19.6	31.6	29.6	25.8	22.4	19.5	17.6
Basic education (%)	15.0	14.3	13.6	12.5	11.1	9.9	9.0
Child benefit (%)	8.5	7.4	6.2	5.1	4.2	3.4	2.9
Administrative expenditure (%)	1.5	1.3	1.1	0.9	0.8	0.6	0.6
Total expenditure on basic benefit package in % of government revenue	69.9	65.1	51.5	45.3	39.4	34.3	31.0
Universal pensions (%)	2.0	1.4	1.1	1.0	1.0	0.9	0.9
Basic health care (%)	29.9	36.9	29.6	25.8	22.4	19.5	17.6
Basic education (%)	22.8	16.7	13.6	12.5	11.1	9.9	9.0
Child benefit (%)	12.9	8.6	6.2	5.1	4.2	3.4	2.9
Administrative expenditure (%)	2.2	1.5	1.1	0.9	0.8	0.6	0.6
Option 1: Proportion of government expenditure allocated to basic social protection (2003 level) (%)	5.8	5.8	5.8	5.8	5.8	5.8	5.8
Government financing in % of GDP	1.3	1.3	1.4	1.5	1.6	1.7	1.7
Government financing (in million US\$)	52.3	77.9	116.5	172.0	252.5	365.3	485.0
External financing required (in million US\$)	359.3	668.2	913.4	1,166.0	1,454.2	1,786.4	2,091.5
Option 2: Proportion of government expenditure allocated to basic social protection (alternative scenario) (%)	33.3	33.3	33.3	33.3	33.3	33.3	31.0
Government financing in % of GDP	7.2	7.7	8.2	8.6	9.1	9.6	9.3
Government financing (in million US\$)	298.9	445.2	665.5	982.8	1,443.0	2,087.3	2,576.4
External financing required (in million US\$)	112.8	300.9	364.4	355.2	263.7	64.3	-

**Table 9. Scenario I main assumptions: Kenya**

Main assumptions	2005	2010	2015	2020	2025	2030	2034
<b>Population</b>							
Total population	32,849,169	34,964,090	36,864,185	38,506,896	39,917,462	41,140,653	41,978,030
of which 0-4	4,663,553	4,674,409	4,622,507	4,511,512	4,383,659	4,259,170	4,151,438
of which 5-14	8,576,604	8,703,619	8,817,450	8,823,688	8,706,108	8,514,913	8,347,407
of which 15-64	18,641,595	20,530,295	22,187,822	23,681,050	25,088,502	26,421,876	27,409,642
of which 65+	967,417	1,055,767	1,236,406	1,490,646	1,739,193	1,944,694	2,069,543
<b>Economy</b>							
Real GDP growth	3.27	2.77	2.45	2.24	2.11	1.99	1.87
Rate of inflation	2.80	3.50	3.50	3.50	3.50	3.50	3.50
Productivity change	1.64	1.38	1.22	1.12	1.06	1.00	0.94
Percentage of invalids in working-age population	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Exchange rate (LCU/US\$)	75.9356	75.9356	75.9356	75.9356	75.9356	75.9356	75.9356
PPP\$ Exchange rate	34.13	34.13	34.13	34.13	34.13	34.13	34.13
Government revenue as a proportion of GDP (%)	27.47	28.48	29.33	29.51	29.68	29.86	30.00
Increase of government revenue in addition to GDP growth (%)	0.79	0.76	0.13	0.13	0.13	0.13	0.12
<b>Pensions</b>							
Maximum universal pension per day (in PPP\$)	0.5	0.6	0.7	0.9	1.0	1.2	1.4
<b>Education</b>							
	Expenditure calculated using UNICEF per unit cost estimate				Age group: 6 to 11 years of age		
UNICEF per unit cost estimate (in % of GDP per capita)	14	14	14	14	14	14	14
Net enrolment ratio in the age group (%)	77	88	100	100	100	100	100
<b>Health care</b>							
	Expenditure calculated using option based on the Commission for Macroeconomics and Health of the WHO estimate						
Per capita minimum health care basket (CMH / WHO) option (US\$)	20.06	43.27	55.10	65.45	77.73	92.32	105.94
<b>Child benefit</b>							
	Child benefit is calculated as a fixed PPP\$ per day amount				Beneficiaries: all children in age: 0-14		
Child benefit per day (in PPP\$)	0.26	0.31	0.36	0.43	0.51	0.61	0.70
<b>Administrative expenditure in % of cash benefit expenditure</b>							
	15.0	15.0	15.0	15.0	15.0	15.0	15.0
<i>Option</i>							
Proportion of government expenditure allocated to basic social protection (%)	33	33	33	33	33	33	33

**Table 10. Scenario I results: Kenya**

<b>Results</b>	<b>2005</b>	<b>2010</b>	<b>2015</b>	<b>2020</b>	<b>2025</b>	<b>2030</b>	<b>2034</b>
Total expenditure on basic benefit package in million US\$	1,784.8	2,904.1	3,748.4	4,645.3	5,705.0	6,957.9	8,122.0
Universal pensions	97.3	126.3	173.5	244.0	333.9	440.2	535.9
Basic health care	658.9	1,513.0	2,031.4	2,520.1	3,102.7	3,798.0	4,447.0
Basic education	372.0	475.4	598.4	761.3	955.4	1,189.9	1,415.2
Child benefit	558.2	669.9	799.3	941.9	1,098.1	1,272.8	1,429.1
Administrative expenditure	98.3	119.4	145.9	177.9	214.8	256.9	294.8
Total expenditure on basic benefit package in % of GDP	11.4	13.5	12.9	12.1	11.2	10.4	9.8
Universal pensions (%)	0.6	0.6	0.6	0.6	0.7	0.7	0.6
Basic health care (%)	4.2	7.0	7.0	6.5	6.1	5.7	5.4
Basic education (%)	2.4	2.2	2.1	2.0	1.9	1.8	1.7
Child benefit (%)	3.6	3.1	2.8	2.4	2.2	1.9	1.7
Administrative expenditure (%)	0.6	0.6	0.5	0.5	0.4	0.4	0.4
Total expenditure on basic benefit package in % of government expenditure	39.4	46.4	44.1	40.8	37.7	34.8	32.7
Universal pensions (%)	2.1	2.0	2.0	2.1	2.2	2.2	2.2
Basic health care (%)	14.5	24.2	23.9	22.2	20.5	19.0	17.9
Basic education (%)	8.2	7.6	7.0	6.7	6.3	6.0	5.7
Child benefit (%)	12.3	10.7	9.4	8.3	7.3	6.4	5.7
Administrative expenditure (%)	2.2	1.9	1.7	1.6	1.4	1.3	1.2
Total expenditure on basic benefit package in % of government revenue	41.5	47.5	44.1	40.8	37.7	34.8	32.7
Universal pensions (%)	2.3	2.1	2.0	2.1	2.2	2.2	2.2
Basic health care (%)	15.3	24.7	23.9	22.2	20.5	19.0	17.9
Basic education (%)	8.7	7.8	7.0	6.7	6.3	6.0	5.7
Child benefit (%)	13.0	11.0	9.4	8.3	7.3	6.4	5.7
Administrative expenditure (%)	2.3	2.0	1.7	1.6	1.4	1.3	1.2
Option 1: Proportion of government expenditure allocated to basic social protection (2003 level) (%)	15.6	15.6	15.6	15.6	15.6	15.6	15.6
Government financing in % of GDP	4.5	4.5	4.6	4.6	4.6	4.6	4.7
Government financing (in million US\$)	704.7	973.7	1,320.5	1,768.8	2,351.8	3,108.6	3,867.6
External financing required (in million US\$)	1,080.1	1,930.4	2,427.9	2,876.5	3,353.1	3,849.3	4,254.4
Option 2: Proportion of government expenditure allocated to basic social protection (alternative scenario) (%)	33.3	33.3	33.3	33.3	33.3	33.3	32.7
Government financing in % of GDP	9.6	9.7	9.8	9.8	9.9	9.9	9.8
Government financing (in million US\$)	1,509.0	2,085.1	2,827.8	3,787.6	5,036.1	6,656.5	8,122.0
External financing required (in million US\$)	275.8	819.0	920.7	857.6	668.9	301.3	-

**Table 11. Scenario I main assumptions: Senegal**

Main assumptions	2005	2010	2015	2020	2025	2030	2034
<b>Population</b>							
Total population	10,587,234	11,868,896	13,158,540	14,421,618	15,662,967	16,926,229	17,935,919
of which 0-4	1,693,180	1,796,752	1,822,029	1,812,352	1,809,394	1,839,807	1,857,721
of which 5-14	2,800,854	3,047,508	3,313,693	3,460,764	3,498,899	3,511,334	3,548,292
of which 15-64	5,836,293	6,725,989	7,670,221	8,715,935	9,820,567	10,916,237	11,753,729
of which 65+	256,907	298,647	352,597	432,567	534,107	658,851	776,177
<b>Economy</b>							
Real GDP growth (%)	4.00	3.78	3.63	3.54	3.32	3.02	2.78
Rate of inflation (%)	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Productivity change (%)	2.00	1.89	1.81	1.77	1.66	1.51	1.39
Percentage of invalids in working-age population	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Exchange rate (LCU/US\$)	581.2	581.2	581.2	581.2	581.2	581.2	581.2
PPP\$ Exchange rate	230.44	230.44	230.44	230.44	230.44	230.44	230.44
Government revenue as a proportion of GDP (%)	19.07	22.21	24.99	26.31	27.63	28.95	30.00
Increase of government revenue in addition to GDP growth (%)	3.61	3.08	1.13	1.07	1.02	0.97	0.93
<b>Pensions</b>							
Maximum universal pension per day (in PPP\$)	0.5	0.6	0.6	0.7	0.8	0.8	0.9
<b>Education</b>							
	Expenditure calculated using UNICEF per unit cost estimate				Age group: 6 to 11 years of age		
UNICEF per unit cost estimate (in % of GDP per capita)	18	18	18	18	18	18	18
Net enrolment ratio in the age group (%)	68	84	100	100	100	100	100
<b>Health care</b>							
	Expenditure calculated using option based on the Commission for Macroeconomics and Health of the WHO estimate						
Per capita minimum health care basket (CMH / WHO) option (US\$)	19.79	39.83	47.25	52.17	57.60	63.59	68.83
<b>Child benefit</b>							
	Child benefit is calculated as a fixed PPP\$ per day amount				Beneficiaries: all children in age 0-14		
Child benefit per day (in PPP\$)	0.26	0.28	0.31	0.34	0.38	0.42	0.45
<b>Administrative expenditure in % of cash benefit expenditure</b>							
	15.0	15.0	15.0	15.0	15.0	15.0	15.0
<i>Option</i>							
Proportion of government expenditure allocated to basic social protection	33	33	33	33	30	27	24

**Table 12. Scenario I results: Senegal**

<b>Results</b>	<b>2005</b>	<b>2010</b>	<b>2015</b>	<b>2020</b>	<b>2025</b>	<b>2030</b>	<b>2034</b>
<b>Total expenditure on basic benefit package in million US\$</b>	641.6	1,014.3	1,293.9	1,563.6	1,862.5	2,209.2	2,533.4
Universal pensions	23.3	29.8	38.6	51.6	69.3	93.0	117.1
Basic health care	209.5	472.7	621.7	752.3	902.1	1,076.3	1,234.6
Basic education	214.6	280.4	362.1	450.7	545.9	653.4	756.7
Child benefit	165.8	197.4	231.0	261.9	291.1	324.0	354.3
Administrative expenditure	28.4	34.1	40.4	47.0	54.1	62.5	70.7
<b>Total expenditure on basic benefit package in % of GDP</b>	8.8	10.4	10.0	9.2	8.4	7.7	7.3
Universal pensions (%)	0.3	0.3	0.3	0.3	0.3	0.3	0.3
Basic health care (%)	2.9	4.8	4.8	4.4	4.1	3.8	3.6
Basic education (%)	2.9	2.9	2.8	2.7	2.5	2.3	2.2
Child benefit (%)	2.3	2.0	1.8	1.5	1.3	1.1	1.0
Administrative expenditure (%)	0.4	0.3	0.3	0.3	0.2	0.2	0.2
<b>Total expenditure on basic benefit package in % of government expenditure</b>	39.3	44.0	40.2	35.0	30.4	26.7	24.4
Universal pensions (%)	1.4	1.3	1.2	1.2	1.1	1.1	1.1
Basic health care (%)	12.8	20.5	19.3	16.9	14.7	13.0	11.9
Basic education (%)	13.2	12.1	11.2	10.1	8.9	7.9	7.3
Child benefit (%)	10.2	8.6	7.2	5.9	4.8	3.9	3.4
Administrative expenditure (%)	1.7	1.5	1.3	1.1	0.9	0.8	0.7
<b>Total expenditure on basic benefit package in % of government revenue</b>	46.1	46.8	40.2	35.0	30.4	26.7	24.4
Universal pensions (%)	1.7	1.4	1.2	1.2	1.1	1.1	1.1
Basic health care (%)	15.1	21.8	19.3	16.9	14.7	13.0	11.9
Basic education (%)	15.4	12.9	11.2	10.1	8.9	7.9	7.3
Child benefit (%)	11.9	9.1	7.2	5.9	4.8	3.9	3.4
Administrative expenditure (%)	2.0	1.6	1.3	1.1	0.9	0.8	0.7
<b>Option 1: Proportion of government expenditure allocated to basic social protection (2003 level) (%)</b>	8.5	8.5	8.5	8.5	8.5	8.5	8.5
Government financing in % of GDP	1.9	2.0	2.1	2.2	2.4	2.5	2.6
Government financing (in million US\$)	139.0	196.6	274.4	380.4	521.7	704.3	884.6
External financing required (in million US\$)	502.5	817.7	1,019.5	1,183.2	1,340.8	1,505.0	1,648.8
<b>Option 2: Proportion of government expenditure allocated to basic social protection (alternative scenario) (%)</b>	33.3	33.3	33.3	33.3	30.4	26.7	24.4
Government financing in % of GDP	7.4	7.9	8.3	8.8	8.4	7.7	7.3
Government financing (in million US\$)	543.3	768.4	1,072.1	1,486.4	1,862.5	2,209.2	2,533.4
External financing required (in million US\$)	98.2	245.9	221.8	77.2	-	-	-

**Table 13. Scenario I main assumptions: Tanzania**

Main assumptions	2005	2010	2015	2020	2025	2030	2034
<b>Population</b>							
Total population	38,364,837	41,930,866	45,909,328	49,784,163	53,434,899	56,903,491	59,587,779
of which 0-4	6,246,163	6,438,597	6,590,148	6,563,591	6,438,395	6,292,531	6,184,765
of which 5-14	10,764,810	11,351,470	11,850,888	12,307,294	12,506,747	12,439,490	12,297,792
of which 15-64	20,424,544	23,070,720	26,219,479	29,524,396	32,911,365	36,354,656	39,051,876
of which 65+	929,320	1,070,079	1,248,813	1,388,882	1,578,392	1,816,814	2,053,346
<b>Economy</b>							
Real GDP growth (%)	4.45	4.53	4.55	4.32	4.12	3.93	3.73
Rate of inflation (%)	4.00	4.00	4.00	4.00	4.00	4.00	4.00
Productivity change (%)	2.23	2.26	2.27	2.16	2.06	1.96	1.86
Percentage of invalids in working-age population (%)	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Exchange rate (LCU/US\$)	1038.42	1038.42	1038.42	1038.42	1038.42	1038.42	1038.42
PPP\$ Exchange rate	479.98	479.98	479.98	479.98	479.98	479.98	479.98
Government revenue as a proportion of GDP (%)	14.04	19.87	24.93	26.03	27.13	28.23	29.11
Increase of government revenue in addition to GDP growth (%)	9.85	6.78	1.74	0.92	0.89	0.85	0.82
<b>Pensions</b>							
Maximum universal pension per day (in PPP\$)	0.5	0.6	0.8	0.9	1.1	1.4	1.6
<b>Education</b>							
	Expenditure calculated using UNICEF per unit cost estimate				Age group: 6 to 11 years of age		
UNICEF per unit cost estimate (in % of GDP per capita)	10	10	10	10	10	10	10
Net enrolment ratio in the age group (%)	65	82	100	100	100	100	100
<b>Health care</b>							
	Expenditure calculated using option based on the Commission for Macroeconomics and Health of WHO estimate						
Per capita minimum health care basket (CMH / WHO) option (US\$)	20.26	44.92	58.50	71.17	86.59	105.35	123.25
<b>Child benefit</b>							
	Child benefit is calculated as a fixed PPP\$ per day amount				Beneficiaries: all children in age 0-14		
Child benefit per day (in PPP\$)	0.26	0.32	0.38	0.47	0.57	0.69	0.81
<b>Administrative expenditure in % of cash benefit expenditure</b>							
	15.0	15.0	15.0	15.0	15.0	15.0	15.0
<i>Option</i>							
Proportion of government expenditure allocated to basic social protection (%)	33	33	33	33	33	33	33

**Table 14. Scenario I results: Tanzania**

<b>Results</b>	<b>2005</b>	<b>2010</b>	<b>2015</b>	<b>2020</b>	<b>2025</b>	<b>2030</b>	<b>2034</b>
Total expenditure on basic benefit package in million US\$	1,980.6	3,459.1	4,743.0	6,219.0	8,065.3	10,372.9	12,650.9
Universal pensions	99.4	138.8	196.2	266.1	366.7	509.9	668.6
Basic health care	777.2	1,883.6	2,685.7	3,543.3	4,627.1	5,995.0	7,344.1
Basic education	231.0	324.1	454.7	655.4	922.6	1,272.4	1,630.2
Child benefit	746.2	949.4	1,197.4	1,490.7	1,820.9	2,190.4	2,528.4
Administrative expenditure	126.8	163.2	209.0	263.5	328.1	405.1	479.6
Total expenditure on basic benefit package in % of GDP	16.8	19.4	17.5	15.2	13.2	11.5	10.3
Universal pension (%)s	0.8	0.8	0.7	0.7	0.6	0.6	0.5
Basic health care (%)	6.6	10.6	9.9	8.7	7.6	6.6	6.0
Basic education (%)	2.0	1.8	1.7	1.6	1.5	1.4	1.3
Child benefit (%)	6.3	5.3	4.4	3.6	3.0	2.4	2.1
Administrative expenditure (%)	1.1	0.9	0.8	0.6	0.5	0.4	0.4
Total expenditure on basic benefit package in % of government expenditure	74.1	81.5	70.2	58.4	48.6	40.6	35.3
Universal pensions (%)	3.7	3.3	2.9	2.5	2.2	2.0	1.9
Basic health care (%)	29.1	44.4	39.7	33.3	27.9	23.4	20.5
Basic education (%)	8.6	7.6	6.7	6.2	5.6	5.0	4.6
Child benefit (%)	27.9	22.4	17.7	14.0	11.0	8.6	7.1
Administrative expenditure (%)	4.7	3.8	3.1	2.5	2.0	1.6	1.3
Total expenditure on basic benefit package in % of government revenue	119.9	97.8	70.2	58.4	48.6	40.6	35.3
Universal pensions (%)	6.0	3.9	2.9	2.5	2.2	2.0	1.9
Basic health care (%)	47.1	53.2	39.7	33.3	27.9	23.4	20.5
Basic education (%)	14.0	9.2	6.7	6.2	5.6	5.0	4.6
Child benefit (%)	45.2	26.8	17.7	14.0	11.0	8.6	7.1
Administrative expenditure (%)	7.7	4.6	3.1	2.5	2.0	1.6	1.3
Option 1: Proportion of government expenditure allocated to basic social protection (2003 level) (%)	23.9	23.9	23.9	23.9	23.9	23.9	23.9
Government financing in (%) of GDP	5.4	5.7	6.0	6.2	6.5	6.7	7.0
Government financing (in million US\$)	639.2	1,014.4	1,616.0	2,546.4	3,965.6	6,111.0	8,559.6
External financing required (in million US\$)	1,341.4	2,444.7	3,127.0	3,672.6	4,099.7	4,261.9	4,091.3
Option 2: Proportion of government expenditure allocated to basic social protection (alternative scenario) (%)	33.3	33.3	33.3	33.3	33.3	33.3	33.3
Government financing in % of GDP	7.6	7.9	8.3	8.7	9.0	9.4	9.7
Government financing (in million US\$)	890.5	1,413.2	2,251.4	3,547.5	5,524.6	8,513.4	11,924.6
External financing required (in million US\$)	1,090.1	2,045.9	2,491.7	2,671.6	2,540.7	1,859.5	726.3



## Annex 2. Scenario II assumptions and projection results by country, 2005-2034

Table 15. Scenario II main assumptions: Burkina Faso

Main assumptions	2005	2010	2015	2020	2025	2030	2034
<b>Pensions</b>	Pension amount is calculated as a % of GDP per capita						
Ratio of universal pensions to GDP per capita	0.30	0.30	0.28	0.26	0.24	0.22	0.21
Maximum universal pension per day (in PPP\$)	0.96	1.12	1.24	1.37	1.52	1.67	1.81
<b>Education</b>	Expenditure calculated using teacher wages and overhead costs Age group: 6 to 11 years of age						
Net enrolment ratio in the age group (%)	65	82	100	100	100	100	100
Ratio of teachers' wage to GDP per capita	10.45	10.40	10.27	10.09	9.86	9.62	9.39
Number of pupils per teacher	46.7	43.4	40.0	40.0	40.0	40.0	40.0
Overhead factor	1.3	1.3	1.3	1.3	1.3	1.3	1.3
<b>Health care</b>	Expenditure calculated using option based on staff ratio, staff wages, exp. Ratio						
Ratio of wages in health care to teachers' wages	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Staff/population ratio in health care (per 100,000 pop)	300	300	300	300	300	300	300
Health expenditure factor	1.7	1.7	1.7	1.7	1.7	1.7	1.7
<b>Child benefit</b>	Child benefit is calculated as a proportion of GDP per capita Beneficiaries: all orphans in age 0-14						
Child benefit as a proportion of GDP per capita	0.15	0.15	0.15	0.15	0.15	0.15	0.15
Proportion of children between 0 and 14 years of age receiving a child benefit (%)	13	12	12	12	12	12	12
<i>Option</i>							
Proportion of government expenditure allocated to basic social protection (%)	33	33	33	33	33	33	33
Note: This table lists only assumptions that are different from the Base Case (Scenario I). All other assumptions can be found in the respective tables on Scenario I.							

**Table 16. Scenario II results: Burkina Faso**

<b>Results</b>	<b>2005</b>	<b>2010</b>	<b>2015</b>	<b>2020</b>	<b>2025</b>	<b>2030</b>	<b>2034</b>
Total expenditure on basic benefit package in million US\$	506.4	769.1	1,176.8	1,559.4	2,050.2	2,674.8	3,280.6
Universal pensions	43.2	56.3	70.3	86.5	109.3	145.4	184.7
Basic health care	246.8	333.2	450.2	605.4	808.5	1,070.6	1,330.4
Basic education	156.8	305.3	557.3	736.3	959.5	1,232.6	1,487.6
Child benefit	46.2	57.2	76.9	102.8	136.0	177.6	217.6
Administrative expenditure	13.4	17.0	22.1	28.4	36.8	48.5	60.3
Total expenditure on basic benefit package in % of GDP	10.7	12.0	13.5	13.0	12.5	12.0	11.6
Universal pensions (%)	0.9	0.9	0.8	0.7	0.7	0.7	0.7
Basic health care (&)	5.2	5.2	5.1	5.1	4.9	4.8	4.7
Basic education (%)	3.3	4.8	6.4	6.1	5.9	5.5	5.3
Child benefit (%)	1.0	0.9	0.9	0.9	0.8	0.8	0.8
Administrative expenditure (%)	0.3	0.3	0.3	0.2	0.2	0.2	0.2
Total expenditure on basic benefit package in (% of government expenditure	68.9	71.6	74.7	67.7	61.3	55.6	51.3
Universal pensions (%)	5.9	5.2	4.5	3.8	3.3	3.0	2.9
Basic health care (%)	33.6	31.0	28.6	26.3	24.2	22.2	20.8
Basic education (%)	21.3	28.4	35.4	32.0	28.7	25.6	23.2
Child benefit (%)	6.3	5.3	4.9	4.5	4.1	3.7	3.4
Administrative expenditure (%)	1.8	1.6	1.4	1.2	1.1	1.0	0.9
Total expenditure on basic benefit package in % of government revenue	91.4	79.7	74.7	67.7	61.3	55.6	51.3
Universal pensions (%)	7.8	5.8	4.5	3.8	3.3	3.0	2.9
Basic health care (%)	44.6	34.5	28.6	26.3	24.2	22.2	20.8
Basic education (%)	28.3	31.6	35.4	32.0	28.7	25.6	23.2
Child benefit (%)	8.3	5.9	4.9	4.5	4.1	3.7	3.4
Administrative expenditure (%)	2.4	1.8	1.4	1.2	1.1	1.0	0.9
Option 1: Proportion of government expenditure allocated to basic social protection (2003 level) (%)	18.6	18.6	18.6	18.6	18.6	18.6	18.6
Government financing in % GDP	2.9	3.1	3.3	3.6	3.8	4.0	4.2
Government financing (in million US\$)	136.5	199.6	292.8	428.0	621.8	894.7	1,189.4
External financing required (in million US\$)	369.9	569.5	884.0	1,131.4	1,428.3	1,780.1	2,091.3
Option 2: Proportion of government expenditure allocated to basic social protection (alternative scenario) (%)	33.3	33.3	33.3	33.3	33.3	33.3	33.3
Government financing in % GDP	5.2	5.6	6.0	6.4	6.8	7.2	7.5
Government financing (in million US\$)	244.6	357.6	524.6	766.9	1,114.1	1,603.0	2,130.9
External financing required (in million US\$)	261.8	411.5	652.2	792.5	936.1	1,071.8	1,149.7

**Table 17. Scenario II main assumptions: Cameroon**

Main assumptions	2005	2010	2015	2020	2025	2030	2034
<b>Pensions</b>	Pension amount is calculated as a % of GDP per capita						
Ratio of universal pensions to GDP per capita	0.18	0.17	0.16	0.15	0.14	0.13	0.12
Maximum universal pension per day (in PPP\$)	1.0	1.1	1.2	1.4	1.5	1.7	1.8
<b>Education</b>	Expenditure calculated using teacher wages and overhead costs Age group: 6 to 11 years of age						
Net enrolment ratio in the age group (%)	89	94	100	100	100	100	100
Ratio of teachers' wage to GDP per capita	4.67	4.48	4.29	4.10	3.91	3.75	3.62
Number of pupils per teacher	58.9	49.5	40.0	40.0	40.0	40.0	40.0
Overhead factor	1.3	1.3	1.3	1.3	1.3	1.3	1.3
<b>Health care</b>	Expenditure calculated using option based on staff ratio, staff wages, exp. ratio						
Ratio of wages in health care to teachers' wages	0.8	0.8	0.8	0.8	0.8	0.8	0.8
Staff/population ratio in health care (per 100,000 pop)	300	300	300	300	300	300	300
Health expenditure factor	1.7	1.7	1.7	1.7	1.7	1.7	1.7
<b>Child benefit</b>	Child benefit is calculated as a proportion of GDP per capita Beneficiaries: all orphans in age 0-14						
Child benefit as a proportion of GDP per capita	0.15	0.15	0.15	0.15	0.15	0.15	0.15
Proportion of children between 0 and 14 years of age receiving a child benefit (%)	13	15	15	15	15	15	15
<i>Option</i>							
Proportion of government expenditure allocated to basic social protection (%)	31	30	30	26	23	20	19
Note: This table lists only assumptions that are different from the Base Case (Scenario I). All other assumptions can be found in the respective tables on Scenario I.							

**Table 18. Scenario II results: Cameroon**

Results	2005	2010	2015	2020	2025	2030	2034
Total expenditure on basic benefit package in million US\$	694.3	944.9	1,268.1	1,497.0	1,751.9	2,044.9	2,308.8
Universal pensions	109.5	135.6	166.7	203.9	247.1	298.2	343.8
Basic health care	247.0	303.9	368.6	443.2	529.4	628.9	719.4
Basic education	196.0	309.5	496.2	566.7	639.8	721.8	794.8
Child benefit	109.1	152.5	184.1	219.6	259.5	305.5	347.2
Administrative expenditure	32.8	43.2	52.6	63.5	76.0	90.6	103.6
Total expenditure on basic benefit package in % of GDP	5.0	5.3	5.7	5.3	5.0	4.7	4.5
Universal pensions (%)	0.8	0.8	0.7	0.7	0.7	0.7	0.7
Basic health care (&)	1.8	1.7	1.6	1.6	1.5	1.4	1.4
Basic education (%)	1.4	1.7	2.2	2.0	1.8	1.6	1.5
Child benefit (%)	0.8	0.9	0.8	0.8	0.7	0.7	0.7
Administrative expenditure (%)	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Total expenditure on basic benefit package in (%) government expenditure	30.6	30.2	29.8	26.2	23.0	20.4	18.7
Universal pensions (%)	4.8	4.3	3.9	3.6	3.2	3.0	2.8
Basic health care (%)	10.9	9.7	8.7	7.8	7.0	6.3	5.8
Basic education (%)	8.6	9.9	11.7	9.9	8.4	7.2	6.4
Child benefit (%)	4.8	4.9	4.3	3.8	3.4	3.1	2.8
Administrative expenditure (%)	1.4	1.4	1.2	1.1	1.0	0.9	0.8
Total expenditure on basic benefit package in % of government revenue	30.4	30.1	29.8	26.2	23.0	20.4	18.7
Universal pensions (%)	4.8	4.3	3.9	3.6	3.2	3.0	2.8
Basic health care (%)	10.8	9.7	8.7	7.8	7.0	6.3	5.8
Basic education (%)	8.6	9.9	11.7	9.9	8.4	7.2	6.4
Child benefit (%)	4.8	4.9	4.3	3.8	3.4	3.1	2.8
Administrative expenditure (%)	1.4	1.4	1.2	1.1	1.0	0.9	0.8
Option 1: Proportion of government expenditure allocated to basic social protection (2003 level) (%)	11.6	11.6	11.6	11.6	11.6	11.6	11.6
Government financing in % GDP	1.9	2.1	2.2	2.4	2.5	2.6	2.8
Government financing (in million US\$)	263.1	363.5	493.4	663.0	882.4	1,160.6	1,435.9
External financing required (in million US\$)	431.3	581.3	774.7	834.0	869.5	884.3	872.9
Option 2: Proportion of government expenditure allocated to basic social protection (alternative scenario) (%)	30.6	30.2	29.8	26.2	23.0	20.4	18.7
Government financing in % GDP	5.0	5.3	5.7	5.3	5.0	4.7	4.5
Government financing (in million US\$)	694.3	944.9	1,268.1	1,497.0	1,751.9	2,044.9	2,308.8
External financing required (in million US\$)	-	-	-	-	-	-	-

**Table 19. Scenario II main assumptions: Ethiopia**

Main assumptions	2005	2010	2015	2020	2025	2030	2034
<b>Pensions</b>	Pension amount is calculated as a % of GDP per capita						
Ratio of universal pensions to GDP per capita	0.30	0.30	0.30	0.30	0.30	0.29	0.26
Maximum universal pension per day (in PPP\$)	0.6	0.8	1.0	1.3	1.7	2.2	2.4
<b>Education</b>	Expenditure calculated using teacher wages and overhead costs Age group: 6 to 11 years of age						
Net enrolment ratio in the age group (%)	100	83	100	100	100	100	100
Ratio of teachers' wage to GDP per capita	7.13	6.76	6.39	6.03	5.64	5.23	4.91
Number of pupils per teacher	55.3	47.7	40.0	40.0	40.0	40.0	40.0
Overhead factor	1.2	1.3	1.3	1.3	1.3	1.3	1.3
<b>Health care</b>	Expenditure calculated using option based on staff ratio, staff wages, exp. ratio						
Ratio of wages in health care to teachers' wages	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Staff/population ratio in health care (per 100,000 pop)	300	300	300	300	300	300	300
Health expenditure factor	1.7	1.7	1.7	1.7	1.7	1.7	1.7
<b>Child benefit</b>	Child benefit is calculated as a proportion of GDP per capita Beneficiaries: all orphans in age 0-14						
Child benefit as a proportion of GDP per capita	0.15	0.15	0.15	0.15	0.15	0.15	0.15
Proportion of children between 0 and 14 years of age receiving a child benefit (%)	14	14	14	14	14	14	14
<i>Option</i>							
Proportion of government expenditure allocated to basic social protection (%)	29	30	33	31	28	26	23
Note: This table lists only assumptions that are different from the Base Case (Scenario I). All other assumptions can be found in the respective tables on Scenario I.							

**Table 20. Scenario II results: Ethiopia**

<b>Results</b>	<b>2005</b>	<b>2010</b>	<b>2015</b>	<b>2020</b>	<b>2025</b>	<b>2030</b>	<b>2034</b>
Total expenditure on basic benefit package in million US\$	595.3	939.2	1,511.1	2,092.9	2,869.0	3,858.8	4,776.9
Universal pensions	80.7	122.4	184.8	277.1	414.6	600.8	748.9
Basic health care	276.5	382.7	528.6	724.9	985.2	1,325.7	1,669.1
Basic education	142.7	295.0	598.0	806.0	1,067.4	1,375.5	1,652.3
Child benefit	72.4	105.0	149.6	211.6	295.4	405.8	516.8
Administrative expenditure (%)	23.0	34.1	50.2	73.3	106.5	151.0	189.9
Total expenditure on basic benefit package in % of GDP	7.7	8.3	9.2	8.7	8.2	7.6	7.0
Universal pensions (%)	1.0	1.1	1.1	1.2	1.2	1.2	1.1
Basic health care (&)	3.6	3.4	3.2	3.0	2.8	2.6	2.5
Basic education (%)	1.8	2.6	3.6	3.4	3.1	2.7	2.4
Child benefit (%)	0.9	0.9	0.9	0.9	0.8	0.8	0.8
Administrative expenditure (%)	0.3	0.3	0.3	0.3	0.3	0.3	0.3
Total expenditure on basic benefit package in (% of government expenditure	28.6	30.3	32.8	30.6	28.4	25.8	23.5
Universal pensions (%)	3.9	4.0	4.0	4.1	4.1	4.0	3.7
Basic health care (%)	13.3	12.4	11.5	10.6	9.7	8.9	8.2
Basic education (%)	6.9	9.5	13.0	11.8	10.5	9.2	8.1
Child benefit (%)	3.5	3.4	3.2	3.1	2.9	2.7	2.5
Administrative expenditure (%)	1.1	1.1	1.1	1.1	1.1	1.0	0.9
Total expenditure on basic benefit package in % of government revenue	35.9	33.7	32.8	30.6	28.4	25.8	23.5
Universal pensions (%)	4.9	4.4	4.0	4.1	4.1	4.0	3.7
Basic health care (%)	16.7	13.8	11.5	10.6	9.7	8.9	8.2
Basic education (%)	8.6	10.6	13.0	11.8	10.5	9.2	8.1
Child benefit (%)	4.4	3.8	3.2	3.1	2.9	2.7	2.5
Administrative expenditure (%)	1.4	1.2	1.1	1.1	1.1	1.0	0.9
Option 1: Proportion of government expenditure allocated to basic social protection (2003 level) (%)	11.6	11.6	11.6	11.6	11.6	11.6	11.6
Government financing in % GDP	3.1	3.2	3.3	3.3	3.4	3.4	3.5
Government financing (in million US\$)	241.9	360.6	536.8	796.1	1,178.3	1,740.1	2,368.2
External financing required (in million US\$)	353.3	578.6	974.3	1,296.8	1,690.8	2,118.8	2,408.7
Option 2: Proportion of government expenditure allocated to basic social protection (alternative scenario) (%)	28.6	30.3	32.8	30.6	28.4	25.8	23.5
Government financing in % GDP	7.7	8.3	9.2	8.7	8.2	7.6	7.0
Government financing (in million US\$)	595.3	939.2	1,511.1	2,092.9	2,869.0	3,858.8	4,776.9
External financing required (in million US\$)	-	-	-	-	-	-	-

**Table 21. Scenario II main assumptions: Guinea**

Main assumptions	2005	2010	2015	2020	2025	2030	2034
<b>Pensions</b>	Pension amount is calculated as a % of GDP per capita						
Ratio of universal pensions to GDP per capita	0.17	0.16	0.15	0.14	0.12	0.11	0.11
Maximum universal pension per day (in PPP\$)	1.0	1.2	1.4	1.6	1.9	2.2	2.4
<b>Education</b>	Expenditure calculated using teacher wages and overhead costs Age group: 6 to 11 years of age						
Net enrolment ratio in the age group (%)	70	85	100	100	100	100	100
Ratio of teachers' wage to GDP per capita	2.58	2.55	2.48	2.40	2.30	2.21	2.14
Number of pupils per teacher	46.6	43.3	40.0	40.0	40.0	40.0	40.0
Overhead factor	1.3	1.3	1.3	1.3	1.3	1.3	1.3
<b>Health care</b>	Expenditure calculated using option based on staff ratio, staff wages, exp. Ratio						
Ratio of wages in health care to teachers' wages	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Staff/population ratio in health care (per 100,000 pop)	300	300	300	300	300	300	300
Health expenditure factor	1.7	1.7	1.7	1.7	1.7	1.7	1.7
<b>Child benefit</b>	Child benefit is calculated as a proportion of GDP per capita Beneficiaries: all orphans in age 0-14						
Child benefit as a proportion of GDP per capita	0.15	0.15	0.15	0.15	0.15	0.15	0.15
Proportion of children between 0 and 14 years of age receiving a child benefit (%)	11	10	10	10	10	10	10
<i>Option</i>							
Proportion of government expenditure allocated to basic social protection (%)	16	16	16	14	13	12	11
Note: This table lists only assumptions that are different from the Base Case (Scenario I). All other assumptions can be found in the respective tables on Scenario I.							

**Table 22. Scenario II results: Guinea**

Results	2005	2010	2015	2020	2025	2030	2034
Total expenditure on basic benefit package in million US\$	147.1	215.7	320.6	427.7	559.1	721.5	880.7
Universal pensions	23.8	32.1	43.6	60.8	84.0	114.8	147.2
Basic health care	53.6	74.1	101.4	136.9	182.5	240.5	297.6
Basic education	33.2	62.9	112.4	145.8	182.6	224.3	263.0
Child benefit	28.6	36.4	49.2	65.3	84.7	108.4	131.1
Administrative expenditure	7.9	10.3	13.9	18.9	25.3	33.5	41.7
Total expenditure on basic benefit package in % of GDP	3.5	3.7	3.9	3.8	3.5	3.3	3.2
Universal pensions (%)	0.6	0.6	0.5	0.5	0.5	0.5	0.5
Basic health care (&)	1.3	1.3	1.2	1.2	1.2	1.1	1.1
Basic education (%)	0.8	1.1	1.4	1.3	1.2	1.0	0.9
Child benefit (%)	0.7	0.6	0.6	0.6	0.5	0.5	0.5
Administrative expenditure (%)	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Total expenditure on basic benefit package in (%) government expenditure	16.4	16.1	16.0	14.5	12.9	11.5	10.6
Universal pensions (%)	2.7	2.4	2.2	2.1	1.9	1.8	1.8
Basic health care (%)	6.0	5.5	5.1	4.6	4.2	3.8	3.6
Basic education (%)	3.7	4.7	5.6	4.9	4.2	3.6	3.2
Child benefit (%)	3.2	2.7	2.5	2.2	2.0	1.7	1.6
Administrative expenditure (%)	0.9	0.8	0.7	0.6	0.6	0.5	0.5
Total expenditure on basic benefit package in % of government revenue	25.0	18.8	16.0	14.5	12.9	11.5	10.6
Universal pensions (%)	4.0	2.8	2.2	2.1	1.9	1.8	1.8
Basic health care (%)	9.1	6.5	5.1	4.6	4.2	3.8	3.6
Basic education (%)	5.6	5.5	5.6	4.9	4.2	3.6	3.2
Child benefit (%)	4.9	3.2	2.5	2.2	2.0	1.7	1.6
Administrative expenditure (%)	1.3	0.9	0.7	0.6	0.6	0.5	0.5
Option 1: Proportion of government expenditure allocated to basic social protection (2003 level) (%)	5.8	5.8	5.8	5.8	5.8	5.8	5.8
Government financing in % GDP	1.3	1.3	1.4	1.5	1.6	1.7	1.7
Government financing (in million US\$)	52.3	77.9	116.5	172.0	252.5	365.3	485.0
External financing required (in million US\$)	94.8	137.8	204.2	255.8	306.6	356.2	395.8
Option 2: Proportion of government expenditure allocated to basic social protection (alternative scenario) (%)	16.4	16.1	16.0	14.5	12.9	11.5	10.6
Government financing in % GDP	3.5	3.7	3.9	3.8	3.5	3.3	3.2
Government financing (in million US\$)	147.1	215.7	320.6	427.7	559.1	721.5	880.7
External financing required (in million US\$)	-	-	-	-	-	-	-



**Table 23. Scenario II main assumptions: Kenya**

Main assumptions	2005	2010	2015	2020	2025	2030	2034
<b>Pensions</b>	Pension amount is calculated as a % of GDP per capita						
Ratio of universal pensions to GDP per capita	0.30	0.30	0.30	0.28	0.26	0.24	0.23
Maximum universal pension per day (in PPP\$)	0.9	1.1	1.4	1.7	2.0	2.4	2.8
<b>Education</b>	Expenditure calculated using teacher wages and overhead costs Age group: 6 to 11 years of age						
Net enrolment ratio in the age group (%)	77	88	100	100	100	100	100
Ratio of teachers' wage to GDP per capita	5.55	5.30	5.08	4.87	4.66	4.46	4.29
Number of pupils per teacher	32.4	36.2	40.0	40.0	40.0	40.0	40.0
Overhead factor	1.1	1.2	1.3	1.3	1.3	1.3	1.3
<b>Health care</b>	Expenditure calculated using option based on staff ratio, staff wages, exp. Ratio						
Ratio of wages in health care to teachers' wages	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Staff/population ratio in health care (per 100,000 pop)	300	300	300	300	300	300	300
Health expenditure factor	1.7	1.7	1.7	1.7	1.7	1.7	1.7
<b>Child benefit</b>	Child benefit is calculated as a proportion of GDP per capita Beneficiaries: all orphans in age 0-14						
Child benefit as a proportion of GDP per capita	0.15	0.15	0.15	0.15	0.15	0.15	0.15
Proportion of children between 0 and 14 years of age receiving a child benefit (%)	14	14	14	14	14	14	14
<i>Option</i>							
Proportion of government expenditure allocated to basic social protection (%)	25	25	25	24	23	22	20
Note: This table lists only assumptions that are different from the Base Case (Scenario I). All other assumptions can be found in the respective tables on Scenario I.							

**Table 24. Scenario II results: Kenya**

Results	2005	2010	2015	2020	2025	2030	2034
Total expenditure on basic benefit package in million US\$	1,147.9	1,569.2	2,126.2	2,726.7	3,445.3	4,299.1	5,091.9
Universal pensions	164.8	232.4	343.6	488.1	667.8	880.4	1,071.9
Basic health care	434.6	570.0	736.9	940.9	1,190.1	1,494.3	1,783.5
Basic education	372.6	529.2	733.7	895.2	1,075.1	1,279.6	1,466.8
Child benefit	131.4	176.3	226.4	286.4	358.4	445.9	529.5
Administrative expenditure	44.4	61.3	85.5	116.2	153.9	198.9	240.2
Total expenditure on basic benefit package in % of GDP	7.3	7.3	7.3	7.1	6.8	6.4	6.1
Universal pensions (%)	1.1	1.1	1.2	1.3	1.3	1.3	1.3
Basic health care (&)	2.8	2.7	2.5	2.4	2.3	2.2	2.2
Basic education (%)	2.4	2.5	2.5	2.3	2.1	1.9	1.8
Child benefit (%)	0.8	0.8	0.8	0.7	0.7	0.7	0.6
Administrative expenditure (%)	0.3	0.3	0.3	0.3	0.3	0.3	0.3
Total expenditure on basic benefit package in (%) government expenditure	25.3	25.1	25.0	24.0	22.8	21.5	20.5
Universal pensions (%)	3.6	3.7	4.0	4.3	4.4	4.4	4.3
Basic health care (%)	9.6	9.1	8.7	8.3	7.9	7.5	7.2
Basic education (%)	8.2	8.5	8.6	7.9	7.1	6.4	5.9
Child benefit (%)	2.9	2.8	2.7	2.5	2.4	2.2	2.1
Administrative expenditure (%)	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Total expenditure on basic benefit package in % of government revenue	26.7	25.7	25.0	24.0	22.8	21.5	20.5
Universal pensions (%)	3.8	3.8	4.0	4.3	4.4	4.4	4.3
Basic health care (%)	10.1	9.3	8.7	8.3	7.9	7.5	7.2
Basic education (%)	8.7	8.7	8.6	7.9	7.1	6.4	5.9
Child benefit (%)	3.1	2.9	2.7	2.5	2.4	2.2	2.1
Administrative expenditure (%)	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Option 1: Proportion of government expenditure allocated to basic social protection (2003 level) (%)	15.6	15.6	15.6	15.6	15.6	15.6	15.6
Government financing in % GDP	4.5	4.5	4.6	4.6	4.6	4.6	4.7
Government financing (in million US\$)	704.7	973.7	1,320.5	1,768.8	2,351.8	3,108.6	3,867.6
External financing required (in million US\$)	443.2	595.4	805.6	957.9	1,093.5	1,190.6	1,224.3
Option 2: Proportion of government expenditure allocated to basic social protection (alternative scenario) (%)	25.3	25.1	25.0	24.0	22.8	21.5	20.5
Government financing in % GDP	7.3	7.3	7.3	7.1	6.8	6.4	6.1
Government financing (in million US\$)	1,147.9	1,569.2	2,126.2	2,726.7	3,445.3	4,299.1	5,091.9
External financing required (in million US\$)	-	-	-	-	-	-	-

**Table 25. Scenario II main assumptions: Senegal**

Main assumptions	2005	2010	2015	2020	2025	2030	2034
<b>Pensions</b>	Pension amount is calculated as a % of GDP per capita						
Ratio of universal pensions to GDP per capita	0.21	0.20	0.18	0.17	0.16	0.14	0.14
Maximum universal pension per day (in PPP\$)	1.0	1.1	1.2	1.4	1.5	1.7	1.8
<b>Education</b>	Expenditure calculated using teacher wages and overhead costs Age group: 6 to 11 years of age						
Net enrolment ratio in the age group (%)	68	84	100	100	100	100	100
Ratio of teachers' wage to GDP per capita	4.94	4.81	4.66	4.48	4.29	4.13	4.02
Number of pupils per teacher	48.1	44.0	40.0	40.0	40.0	40.0	40.0
Overhead factor	1.3	1.3	1.3	1.3	1.3	1.3	1.3
<b>Health care</b>	Expenditure calculated using option based on staff ratio, staff wages, exp. Ratio						
Ratio of wages in health care to teachers' wages	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Staff/population ratio in health care (per 100,000 pop)	300	300	300	300	300	300	300
Health expenditure factor	1.7	1.7	1.7	1.7	1.7	1.7	1.7
<b>Child benefit</b>	Child benefit is calculated as a proportion of GDP per capita Beneficiaries: all orphans in age 0-14						
Child benefit as a proportion of GDP per capita	0.15	0.15	0.15	0.15	0.15	0.15	0.15
Proportion of children between 0 and 14 years of age receiving a child benefit (%)	8.80	7.90	7.90	7.90	7.90	7.90	7.90
<i>Option</i>							
Proportion of government expenditure allocated to basic social protection (%)	24	24	24	22	19	17	16
Note: This table lists only assumptions that are different from the Base Case (Scenario I). All other assumptions can be found in the respective tables on Scenario I.							

**Table 26. Scenario II results: Senegal**

<b>Results</b>	<b>2005</b>	<b>2010</b>	<b>2015</b>	<b>2020</b>	<b>2025</b>	<b>2030</b>	<b>2034</b>
Total expenditure on basic benefit package in million US\$	388.4	547.4	775.9	963.9	1,179.0	1,435.9	1,682.0
Universal pensions	46.5	59.6	77.2	103.3	138.7	186.0	234.3
Basic health care	180.8	234.9	300.9	380.8	476.4	591.1	697.6
Basic education	107.0	189.7	317.6	379.8	440.7	507.9	572.9
Child benefit	40.9	47.2	59.6	73.5	89.0	107.0	123.6
Administrative expenditure	13.1	16.0	20.5	26.5	34.2	43.9	53.7
Total expenditure on basic benefit package in % of GDP	5.3	5.6	6.0	5.7	5.3	5.0	4.9
Universal pensions (%)	0.6	0.6	0.6	0.6	0.6	0.7	0.7
Basic health care (&)	2.5	2.4	2.3	2.2	2.1	2.1	2.0
Basic education (%)	1.5	1.9	2.5	2.2	2.0	1.8	1.7
Child benefit (%)	0.6	0.5	0.5	0.4	0.4	0.4	0.4
Administrative expenditure (%)	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Total expenditure on basic benefit package in (% of government expenditure	23.8	23.7	24.1	21.6	19.3	17.4	16.2
Universal pensions (%)	2.9	2.6	2.4	2.3	2.3	2.3	2.3
Basic health care (%)	11.1	10.2	9.3	8.5	7.8	7.2	6.7
Basic education (%)	6.6	8.2	9.9	8.5	7.2	6.1	5.5
Child benefit (%)	2.5	2.0	1.9	1.6	1.5	1.3	1.2
Administrative expenditure (%)	0.8	0.7	0.6	0.6	0.6	0.5	0.5
Total expenditure on basic benefit package in % of government revenue	27.9	25.3	24.1	21.6	19.3	17.4	16.2
Universal pensions (%)	3.3	2.8	2.4	2.3	2.3	2.3	2.3
Basic health care (%)	13.0	10.8	9.3	8.5	7.8	7.2	6.7
Basic education (%)	7.7	8.8	9.9	8.5	7.2	6.1	5.5
Child benefit (%)	2.9	2.2	1.9	1.6	1.5	1.3	1.2
Administrative expenditure (%)	0.9	0.7	0.6	0.6	0.6	0.5	0.5
Option 1: Proportion of government expenditure allocated to basic social protection (2003 level) (%)	8.5	8.5	8.5	8.5	8.5	8.5	8.5
Government financing in % GDP	1.9	2.0	2.1	2.2	2.4	2.5	2.6
Government financing (in million US\$)	139.0	196.6	274.4	380.4	521.7	704.3	884.6
External financing required (in million US\$)	249.3	350.8	501.5	583.5	657.3	731.6	797.4
Option 2: Proportion of government expenditure allocated to basic social protection (alternative scenario) (%)	23.8	23.7	24.1	21.6	19.3	17.4	16.2
Government financing in % GDP	5.3	5.6	6.0	5.7	5.3	5.0	4.9
Government financing (in million US\$)	388.4	547.4	775.9	963.9	1,179.0	1,435.9	1,682.0
External financing required (in million US\$)	-	-	-	-	-	-	-

**Table 27. Scenario II main assumptions: Tanzania**

Main assumptions	2005	2010	2015	2020	2025	2030	2034
<b>Pensions</b>	Pension amount is calculated as a % of GDP per capita						
Ratio of universal pensions to GDP per capita	0.30	0.30	0.30	0.30	0.30	0.29	0.27
Maximum universal pension per day (in PPP\$)	0.5	0.8	1.1	1.5	2.0	2.8	3.2
<b>Education</b>	Expenditure calculated using teacher wages and overhead costs Age group: 6 to 11 years of age						
Net enrolment ratio in the age group (%)	65	82	100	100	100	100	100
Ratio of teachers' wage to GDP per capita	4.62	4.29	3.98	3.67	3.38	3.11	2.91
Number of pupils per teacher	45.6	42.8	40.0	40.0	40.0	40.0	40.0
Overhead factor	1.1	1.2	1.3	1.3	1.3	1.3	1.3
<b>Health care</b>	Expenditure calculated using option based on staff ratio, staff wages, exp. Ratio						
Ratio of wages in health care to teachers' wages	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Staff/population ratio in health care (per 100,000 pop)	300	300	300	300	300	300	300
Health expenditure factor	1.7	1.7	1.7	1.7	1.7	1.7	1.7
<b>Child benefit</b>	Child benefit is calculated as a proportion of GDP per capita Beneficiaries: all orphans in age 0-14						
Child benefit as a proportion of GDP per capita	0.15	0.15	0.15	0.15	0.15	0.15	0.15
Proportion of children between 0 and 14 years of age receiving a child benefit (%)	13	12	12	12	12	12	12
<i>Option</i>							
Proportion of government expenditure allocated to basic social protection (%)	25	24	24	22	19	17	16
Note: This table lists only assumptions that are different from the Base Case (Scenario I). All other assumptions can be found in the respective tables on Scenario I.							

**Table 28. Scenario II results: Tanzania**

<b>Results</b>	<b>2005</b>	<b>2010</b>	<b>2015</b>	<b>2020</b>	<b>2025</b>	<b>2030</b>	<b>2034</b>
Total expenditure on basic benefit package in million US\$	667.9	1,039.5	1,649.2	2,316.8	3,228.4	4,455.6	5,627.0
Universal pensions	104.3	165.7	267.7	415.3	654.9	1,019.8	1,337.3
Basic health care	272.6	383.1	540.3	753.0	1,036.0	1,410.9	1,795.1
Basic education	163.0	314.6	582.9	775.8	1,005.6	1,275.4	1,530.5
Child benefit	97.8	131.5	189.5	269.9	377.2	518.7	663.9
Administrative expenditure	30.3	44.6	68.6	102.8	154.8	230.8	300.2
Total expenditure on basic benefit package in % of GDP	5.7	5.8	6.1	5.7	5.3	4.9	4.6
Universal pensions (%)	0.9	0.9	1.0	1.0	1.1	1.1	1.1
Basic health care (&)	2.3	2.2	2.0	1.8	1.7	1.6	1.5
Basic education (%)	1.4	1.8	2.1	1.9	1.6	1.4	1.2
Child benefit (%)	0.8	0.7	0.7	0.7	0.6	0.6	0.5
Administrative expenditure (%)	0.3	0.3	0.3	0.3	0.3	0.3	0.2
Total expenditure on basic benefit package in (% of government expenditure	25.0	24.5	24.4	21.7	19.5	17.4	15.7
Universal pensions (%)	3.9	3.9	4.0	3.9	3.9	4.0	3.7
Basic health care (%)	10.2	9.0	8.0	7.1	6.2	5.5	5.0
Basic education (%)	6.1	7.4	8.6	7.3	6.1	5.0	4.3
Child benefit (%)	3.7	3.1	2.8	2.5	2.3	2.0	1.9
Administrative expenditure (%)	1.1	1.1	1.0	1.0	0.9	0.9	0.8
Total expenditure on basic benefit package in % of government revenue	40.4	29.4	24.4	21.7	19.5	17.4	15.7
Universal pensions (%)	6.3	4.7	4.0	3.9	3.9	4.0	3.7
Basic health care (%)	16.5	10.8	8.0	7.1	6.2	5.5	5.0
Basic education (%)	9.9	8.9	8.6	7.3	6.1	5.0	4.3
Child benefit (%)	5.9	3.7	2.8	2.5	2.3	2.0	1.9
Administrative expenditure (%)	1.8	1.3	1.0	1.0	0.9	0.9	0.8
Option 1: Proportion of government expenditure allocated to basic social protection (2003 level) (%)	23.9	23.9	23.9	21.7	19.5	17.4	15.7
Government financing in % GDP	5.4	5.7	6.0	5.7	5.3	4.9	4.6
Government financing (in million US\$)	639.2	1,014.4	1,616.0	2,316.8	3,228.4	4,455.6	5,627.0
External financing required (in million US\$)	28.7	25.1	33.1	-	-	-	-
Option 2: Proportion of government expenditure allocated to basic social protection (alternative scenario) (%)	25.0	24.5	24.4	21.7	19.5	17.4	15.7
Government financing in % GDP	5.7	5.8	6.1	5.7	5.3	4.9	4.6
Government financing (in million US\$)	667.9	1,039.5	1,649.2	2,316.8	3,228.4	4,455.6	5,627.0
External financing required (in million US\$)	-	-	-	-	-	-	-

### Annex 3. Scenario III assumptions and projection results by country, 2005-2034

**Table 29. Scenario III main assumptions: Burkina Faso**

Main assumptions	2005	2010	2015	2020	2025	2030	2034
<i>Targeted cash transfer</i>	Beneficiaries: Poorest 10% of all households Administration cost 33% of benefit expenditure						
Targeted cash transfer in US\$ (PPP) (monthly)	13.98	15.44	17.05	18.82	20.78	22.94	24.83
Targeted cash transfer in US\$ (monthly)	4.08	4.51	4.98	5.49	6.07	6.70	7.25
Targeted cash transfer in % of GDP per capita (monthly)	14.3	13.5	12.7	11.8	10.9	10.1	9.5

Note: This table lists only assumptions that are different from the Base Case (Scenario I). All other assumptions can be found in the respective tables on Scenario I.

**Table 30. Scenario III results: Burkina Faso**

Results	2005	2010	2015	2020	2025	2030	2034
Total expenditure on basic benefit package in million US\$	463.3	895.6	1,226.2	1,584.7	2,034.9	2,592.4	3,125.1
Targeted cash transfer	13.4	17.2	22.0	28.0	35.4	44.5	53.1
Basic health care	273.1	637.9	877.0	1,116.5	1,412.6	1,774.8	2,116.8
Basic education	176.8	240.5	327.2	440.2	586.8	773.1	955.2
Total expenditure on basic benefit package in % of GDP	9.8	14.0	14.0	13.2	12.4	11.7	11.1
Targeted cash transfer (%)	0.3	0.3	0.3	0.2	0.2	0.2	0.2
Basic health care (%)	5.8	10.0	10.0	9.3	8.6	8.0	7.5
Basic education (%)	3.7	3.8	3.7	3.7	3.6	3.5	3.4
Total expenditure on basic benefit package in % of government expenditure	63.1	83.4	77.8	68.8	60.8	53.9	48.8
Targeted cash transfer (%)	1.8	1.6	1.4	1.2	1.1	0.9	0.8
Basic health care (%)	37.2	59.4	55.7	48.5	42.2	36.9	33.1
Basic education (%)	24.1	22.4	20.8	19.1	17.5	16.1	14.9
Total expenditure on basic benefit package in % of government revenue	83.7	92.8	77.8	68.8	60.8	53.9	48.8
Targeted cash transfer (%)	2.4	1.8	1.4	1.2	1.1	0.9	0.8
Basic health care (%)	49.3	66.1	55.7	48.5	42.2	36.9	33.1
Basic education (%)	31.9	24.9	20.8	19.1	17.5	16.1	14.9
Option 1: Proportion of government expenditure allocated to basic social protection (2003 level) (%)	18.6	18.6	18.6	18.6	18.6	18.6	18.6
Government financing in % of GDP	2.9	3.1	3.3	3.6	3.8	4.0	4.2
Government financing (in million US\$)	136.5	199.6	292.8	428.0	621.8	894.7	1,189.4
External financing required (in million US\$)	326.8	696.0	933.4	1,156.7	1,413.1	1,697.8	1,935.8
Option 2: Proportion of government expenditure allocated to basic social protection (alternative scenario) (%)	33.3	33.3	33.3	33.3	33.3	33.3	33.3
Government financing in % of GDP	5.2	5.6	6.0	6.4	6.8	7.2	7.5
Government financing (in million US\$)	244.6	357.6	524.6	766.9	1,114.1	1,603.0	2,130.9
External financing required (in million US\$)	218.7	538.0	701.6	817.8	920.8	989.5	994.2

**Table 31. Scenario III main assumptions: Cameroon**

Main assumptions	2005	2010	2015	2020	2025	2030	2034
<i>Targeted cash transfer</i>	Beneficiaries: Poorest 10% of all households Administration cost 33% of benefit expenditure						
Targeted cash transfer in US\$ (PPP) (monthly)	13.98	15.44	17.05	18.82	20.78	22.94	24.83
Targeted cash transfer in US\$ (monthly)	5.78	6.38	7.05	7.78	8.59	9.48	10.27
Targeted cash transfer in % of GDP per capita (monthly)	8.3	7.7	7.1	6.6	6.1	5.7	5.3

Note: This table lists only assumptions that are different from the Base Case (Scenario I). All other assumptions can be found in the respective tables on Scenario I.

**Table 32. Scenario III results: Cameroon**

Results	2005	2010	2015	2020	2025	2030	2034
Total expenditure on basic benefit package in million US\$	639.5	1,103.1	1,387.0	1,628.3	1,898.4	2,206.0	2,483.4
Targeted cash transfer	27.8	32.9	38.6	44.9	51.9	59.9	67.0
Basic health care	327.8	707.9	891.1	1,036.8	1,199.8	1,383.7	1,547.4
Basic education	283.8	362.3	457.3	546.7	646.8	762.4	869.0
Total expenditure on basic benefit package in % of GDP	4.6	6.2	6.2	5.8	5.4	5.0	4.8
Targeted cash transfer (%)	0.2	0.2	0.2	0.2	0.1	0.1	0.1
Basic health care (%)	2.4	4.0	4.0	3.7	3.4	3.2	3.0
Basic education (%)	2.1	2.0	2.0	1.9	1.8	1.7	1.7
Total expenditure on basic benefit package in % of government expenditure	28.2	35.2	32.6	28.5	25.0	22.1	20.1
Targeted cash transfer (%)	1.2	1.1	0.9	0.8	0.7	0.6	0.5
Basic health care (%)	14.5	22.6	21.0	18.1	15.8	13.8	12.5
Basic education (%)	12.5	11.6	10.8	9.6	8.5	7.6	7.0
Total expenditure on basic benefit package in % of government revenue	28.0	35.1	32.6	28.5	25.0	22.1	20.1
Targeted cash transfer (%)	1.2	1.0	0.9	0.8	0.7	0.6	0.5
Basic health care (%)	14.4	22.5	21.0	18.1	15.8	13.8	12.5
Basic education (%)	12.4	11.5	10.8	9.6	8.5	7.6	7.0
Option 1: Proportion of government expenditure allocated to basic social protection (2003 level) (%)	11.6	11.6	11.6	11.6	11.6	11.6	11.6
Government financing in % of GDP	1.9	2.1	2.2	2.4	2.5	2.6	2.8
Government financing (in million US\$)	263.1	363.5	493.4	663.0	882.4	1,160.6	1,435.9
External financing required (in million US\$)	376.4	739.6	893.5	965.3	1,016.1	1,045.4	1,047.5
Option 2: Proportion of government expenditure allocated to basic social protection (alternative scenario) (%)	28.2	33.3	32.6	28.5	25.0	22.1	20.1
Government financing in % of GDP	4.6	5.9	6.2	5.8	5.4	5.0	4.8
Government financing (in million US\$)	639.5	1,043.1	1,387.0	1,628.3	1,898.4	2,206.0	2,483.4
External financing required (in million US\$)	-	60.0	-	-	-	-	-



**Table 33. Scenario III main assumptions: Ethiopia**

Main assumptions	2005	2010	2015	2020	2025	2030	2034
<i>Targeted cash transfer</i>	Beneficiaries: Poorest 10% of all households Administration cost 33% of benefit expenditure						
Targeted cash transfer in US\$ (PPP) (monthly)	14.12	16.37	18.98	22.00	25.50	29.57	33.28
Targeted cash transfer in US\$ (monthly)	2.06	2.39	2.77	3.21	3.72	4.31	4.85
Targeted cash transfer in % of GDP per capita (monthly)	23.7	21.2	18.9	16.8	14.8	13.0	11.7

Note: This table lists only assumptions that are different from the Base Case (Scenario I). All other assumptions can be found in the respective tables on Scenario I.

**Table 34. Scenario III results: Ethiopia**

Results	2005	2010	2015	2020	2025	2030	2034
Total expenditure on basic benefit package in million US\$	2,053.7	4,326.5	6,049.7	7,970.3	10,421.7	13,492.5	16,464.7
Targeted cash transfer	50.8	66.3	86.3	111.8	143.4	182.3	219.5
Basic health care	1,485.5	3,530.8	4,936.4	6,390.4	8,200.6	10,425.7	12,554.2
Basic education	517.4	729.4	1,027.1	1,468.1	2,077.7	2,884.4	3,690.9
Total expenditure on basic benefit package in % of GDP	26.5	38.3	36.6	33.2	29.9	26.7	24.3
Targeted cash transfer (%)	0.7	0.6	0.5	0.5	0.4	0.4	0.3
Basic health care (%)	19.2	31.2	29.9	26.6	23.5	20.6	18.5
Basic education (%)	6.7	6.5	6.2	6.1	6.0	5.7	5.4
Total expenditure on basic benefit package in % of government expenditure	98.8	139.7	131.2	116.6	103.0	90.3	80.9
Targeted cash transfer (%)	2.4	2.1	1.9	1.6	1.4	1.2	1.1
Basic health care (%)	71.5	114.0	107.1	93.5	81.0	69.8	61.7
Basic education (%)	24.9	23.6	22.3	21.5	20.5	19.3	18.1
Total expenditure on basic benefit package in % of government revenue	123.9	155.4	131.2	116.6	103.0	90.3	80.9
Targeted cash transfer (%)	3.1	2.4	1.9	1.6	1.4	1.2	1.1
Basic health care (%)	89.6	126.8	107.1	93.5	81.0	69.8	61.7
Basic education (%)	31.2	26.2	22.3	21.5	20.5	19.3	18.1
Option 1: Proportion of government expenditure allocated to basic social protection (2003 level) (%)	11.6	11.6	11.6	11.6	11.6	11.6	11.6
Government financing in % of GDP	3.1	3.2	3.3	3.3	3.4	3.4	3.5
Government financing (in million US\$)	241.9	360.6	536.8	796.1	1,178.3	1,740.1	2,368.2
External financing required (in million US\$)	1,811.8	3,965.8	5,512.9	7,174.2	9,243.5	11,752.4	14,096.4
Option 2: Proportion of government expenditure allocated to basic social protection (alternative scenario) (%)	33.3	33.3	33.3	33.3	33.3	33.3	33.3
Government financing in % of GDP	8.9	9.1	9.3	9.5	9.7	9.8	10.0
Government financing (in million US\$)	691.9	1,031.3	1,535.4	2,276.8	3,369.8	4,976.5	6,773.0
External financing required (in million US\$)	1,361.8	3,295.1	4,514.4	5,693.5	7,052.0	8,515.9	9,691.6

**Table 35. Scenario III main assumptions: Guinea**

Main assumptions	2005	2010	2015	2020	2025	2030	2034
<i>Targeted cash transfer</i>	Beneficiaries: Poorest 10% of all households Administration cost 33% of benefit expenditure						
Targeted cash transfer in US\$ (PPP) (monthly)	14.12	16.37	18.98	22.00	25.50	29.57	33.28
Targeted cash transfer in US\$ (monthly)	2.97	3.45	3.99	4.63	5.37	6.22	7.00
Targeted cash transfer in % of GDP per capita (monthly)	7.6	7.1	6.6	6.1	5.6	5.1	4.8

Note: This table lists only assumptions that are different from the Base Case (Scenario I). All other assumptions can be found in the respective tables on Scenario I.

**Table 36. Scenario III results: Guinea**

Results	2005	2010	2015	2020	2025	2030	2034
Total expenditure on basic benefit package in million US\$	316.7	622.1	873.0	1,142.3	1,468.8	1,864.4	2,242.0
Targeted cash transfer	6.3	8.3	10.8	14.0	17.8	22.5	26.9
Basic health care	176.0	422.3	590.9	760.9	968.8	1,222.8	1,466.0
Basic education	134.4	191.5	271.2	367.5	482.2	619.1	749.1
Total expenditure on basic benefit package in % of GDP	7.6	10.7	10.7	10.1	9.3	8.6	8.1
Targeted cash transfer (%)	0.2	0.1	0.1	0.1	0.1	0.1	0.1
Basic health care (%)	4.2	7.3	7.3	6.7	6.1	5.6	5.3
Basic education (%)	3.2	3.3	3.3	3.2	3.0	2.8	2.7
Total expenditure on basic benefit package in % of government expenditure	35.3	46.5	43.7	38.7	33.9	29.7	26.9
Targeted cash transfer (%)	0.7	0.6	0.5	0.5	0.4	0.4	0.3
Basic health care (%)	19.6	31.6	29.6	25.8	22.4	19.5	17.6
Basic education (%)	15.0	14.3	13.6	12.5	11.1	9.9	9.0
Total expenditure on basic benefit package in % of government revenue	53.8	54.3	43.7	38.7	33.9	29.7	26.9
Targeted cash transfer (%)	1.1	0.7	0.5	0.5	0.4	0.4	0.3
Basic health care (%)	29.9	36.9	29.6	25.8	22.4	19.5	17.6
Basic education (%)	22.8	16.7	13.6	12.5	11.1	9.9	9.0
Option 1: Proportion of government expenditure allocated to basic social protection (2003 level) (%)	5.8	5.8	5.8	5.8	5.8	5.8	5.8
Government financing in % of GDP	1.3	1.3	1.4	1.5	1.6	1.7	1.7
Government financing (in million US\$)	52.3	77.9	116.5	172.0	252.5	365.3	485.0
External financing required (in million US\$)	264.4	544.2	756.5	970.4	1,216.3	1,499.1	1,757.0
Option 2: Proportion of government expenditure allocated to basic social protection (alternative scenario) (%)	33.3	33.3	33.3	33.3	33.3	29.7	26.9
Government financing in % of GDP	7.2	7.7	8.2	8.6	9.1	8.6	8.1
Government financing (in million US\$)	298.9	445.2	665.5	982.8	1,443.0	1,864.4	2,242.0
External financing required (in million US\$)	17.8	176.9	207.5	159.6	25.8	-	-

**Table 37. Scenario III main assumptions: Kenya**

Main assumptions	2005	2010	2015	2020	2025	2030	2034
<i>Targeted cash transfer</i>	Beneficiaries: Poorest 10% of all households Administration cost 33% of benefit expenditure						
Targeted cash transfer in US\$ (PPP) (monthly)	14.09	16.74	19.88	23.61	28.04	33.31	38.22
Targeted cash transfer in US\$ (monthly)	6.33	7.52	8.94	10.61	12.60	14.97	17.18
Targeted cash transfer in % of GDP per capita (monthly)	16.0	14.7	13.7	12.7	11.8	11.0	10.4

Note: This table lists only assumptions that are different from the Base Case (Scenario I). All other assumptions can be found in the respective tables on Scenario I.

**Table 38. Scenario III results: Kenya**

Results	2005	2010	2015	2020	2025	2030	2034
Total expenditure on basic benefit package in million US\$	1,108.2	2,086.1	2,752.0	3,433.1	4,244.9	5,216.5	6,129.9
Targeted cash transfer	77.2	97.6	122.3	151.7	186.7	228.6	267.7
Basic health care	658.9	1,513.0	2,031.4	2,520.1	3,102.7	3,798.0	4,447.0
Basic education	372.0	475.4	598.4	761.3	955.4	1,189.9	1,415.2
Total expenditure on basic benefit package in % of GDP	7.1	9.7	9.5	8.9	8.3	7.8	7.4
Targeted cash transfer (%)	0.5	0.5	0.4	0.4	0.4	0.3	0.3
Basic health care (%)	4.2	7.0	7.0	6.5	6.1	5.7	5.4
Basic education (%)	2.4	2.2	2.1	2.0	1.9	1.8	1.7
Total expenditure on basic benefit package in % of government expenditure	24.5	33.3	32.4	30.2	28.1	26.1	24.6
Targeted cash transfer (%)	1.7	1.6	1.4	1.3	1.2	1.1	1.1
Basic health care (%)	14.5	24.2	23.9	22.2	20.5	19.0	17.9
Basic education (%)	8.2	7.6	7.0	6.7	6.3	6.0	5.7
Total expenditure on basic benefit package in % of government revenue	25.8	34.1	32.4	30.2	28.1	26.1	24.6
Targeted cash transfer (%)	1.8	1.6	1.4	1.3	1.2	1.1	1.1
Basic health care (%)	15.3	24.7	23.9	22.2	20.5	19.0	17.9
Basic education (%)	8.7	7.8	7.0	6.7	6.3	6.0	5.7
Option 1: Proportion of government expenditure allocated to basic social protection (2003 level) (%)	15.6	15.6	15.6	15.6	15.6	15.6	15.6
Government financing in % of GDP	4.5	4.5	4.6	4.6	4.6	4.6	4.7
Government financing (in million US\$)	704.7	973.7	1,320.5	1,768.8	2,351.8	3,108.6	3,867.6
External financing required (in million US\$)	403.5	1,112.4	1,431.4	1,664.3	1,893.0	2,108.0	2,262.3
Option 2: Proportion of government expenditure allocated to basic social protection (alternative scenario) (%)	24.5	33.3	32.4	30.2	28.1	26.1	24.6
Government financing in % of GDP	7.1	9.7	9.5	8.9	8.3	7.8	7.4
Government financing (in million US\$)	1,108.2	2,085.1	2,752.0	3,433.1	4,244.9	5,216.5	6,129.9
External financing required (in million US\$)	-	1.0	-	-	-	-	-

**Table 39. Scenario III main assumptions: Senegal**

Main assumptions	2005	2010	2015	2020	2025	2030	2034
<i>Targeted cash transfer</i>	Beneficiaries: Poorest 10% of all households Administration cost 33% of benefit expenditure						
Targeted cash transfer in US\$ (PPP) (monthly)	13.98	15.44	17.05	18.82	20.78	22.94	24.83
Targeted cash transfer in US\$ (monthly)	5.54	6.12	6.76	7.46	8.24	9.10	9.85
Targeted cash transfer in % of GDP per capita (monthly)	9.6	8.9	8.3	7.6	7.0	6.5	6.1

Note: This table lists only assumptions that are different from the Base Case (Scenario I). All other assumptions can be found in the respective tables on Scenario I.

**Table 40. Scenario III results: Senegal**

Results	2005	2010	2015	2020	2025	2030	2034
Total expenditure on basic benefit package in million US\$	434.5	765.9	999.6	1,222.1	1,470.9	1,757.0	2,022.6
Targeted cash transfer	10.4	12.9	15.8	19.1	22.9	27.3	31.3
Basic health care	209.5	472.7	621.7	752.3	902.1	1,076.3	1,234.6
Basic education	214.6	280.4	362.1	450.7	545.9	653.4	756.7
Total expenditure on basic benefit package in % of GDP	6.0	7.9	7.8	7.2	6.6	6.2	5.8
Targeted cash transfer (%)	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Basic health care (%)	2.9	4.8	4.8	4.4	4.1	3.8	3.6
Basic education (%)	2.9	2.9	2.8	2.7	2.5	2.3	2.2
Total expenditure on basic benefit package in % of government expenditure	26.6	33.2	31.0	27.4	24.0	21.3	19.5
Targeted cash transfer (%)	0.6	0.6	0.5	0.4	0.4	0.3	0.3
Basic health care (%)	12.8	20.5	19.3	16.9	14.7	13.0	11.9
Basic education (%)	13.2	12.1	11.2	10.1	8.9	7.9	7.3
Total expenditure on basic benefit package in % of government revenue	31.2	35.4	31.0	27.4	24.0	21.3	19.5
Targeted cash transfer (%)	0.7	0.6	0.5	0.4	0.4	0.3	0.3
Basic health care (%)	15.1	21.8	19.3	16.9	14.7	13.0	11.9
Basic education (%)	15.4	12.9	11.2	10.1	8.9	7.9	7.3
Option 1: Proportion of government expenditure allocated to basic social protection (2003 level) (%)	8.5	8.5	8.5	8.5	8.5	8.5	8.5
Government financing in % of GDP	1.9	2.0	2.1	2.2	2.4	2.5	2.6
Government financing (in million US\$)	139.0	196.6	274.4	380.4	521.7	704.3	884.6
External financing required (in million US\$)	295.5	569.3	725.2	841.7	949.2	1,052.7	1,138.0
Option 2: Proportion of government expenditure allocated to basic social protection (alternative scenario) (%)	26.6	33.2	31.0	27.4	24.0	21.3	19.5
Government financing in % of GDP	6.0	7.9	7.8	7.2	6.6	6.2	5.8
Government financing (in million US\$)	434.5	765.9	999.6	1,222.1	1,470.9	1,757.0	2,022.6
External financing required (in million US\$)	-	-	-	-	-	-	-

**Table 41. Scenario III main assumptions: Tanzania**

Main assumptions	2005	2010	2015	2020	2025	2030	2034
<i>Targeted cash transfer</i>	Beneficiaries: Poorest 10% of all households Administration cost 33% of benefit expenditure						
Targeted cash transfer in US\$ (PPP) (monthly)	14.26	17.35	21.11	25.68	31.24	38.01	44.47
Targeted cash transfer in US\$ (monthly)	6.59	8.02	9.76	11.87	14.44	17.57	20.55
Targeted cash transfer in % of GDP per capita (monthly)	25.8	22.7	19.8	17.3	15.1	13.2	11.9

Note: This table lists only assumptions that are different from the Base Case (Scenario I). All other assumptions can be found in the respective tables on Scenario I.

**Table 42. Scenario III: Tanzania**

Results	2005	2010	2015	2020	2025	2030	2034
Total expenditure on basic benefit package in million US\$	1,090.5	2,317.2	3,286.3	4,391.1	5,801.0	7,593.1	9,373.3
Targeted cash transfer	82.4	109.5	145.9	192.5	251.3	325.6	398.9
Basic health care	777.2	1,883.6	2,685.7	3,543.3	4,627.1	5,995.0	7,344.1
Basic education	231.0	324.1	454.7	655.4	922.6	1,272.4	1,630.2
Total expenditure on basic benefit package in % of GDP	9.3	13.0	12.1	10.7	9.5	8.4	7.6
Targeted cash transfer (%)	0.7	0.6	0.5	0.5	0.4	0.4	0.3
Basic health care (%)	6.6	10.6	9.9	8.7	7.6	6.6	6.0
Basic education (%)	2.0	1.8	1.7	1.6	1.5	1.4	1.3
Total expenditure on basic benefit package in % of government expenditure	40.8	54.6	48.6	41.2	35.0	29.7	26.2
Targeted cash transfer (%)	3.1	2.6	2.2	1.8	1.5	1.3	1.1
Basic health care (%)	29.1	44.4	39.7	33.3	27.9	23.4	20.5
Basic education (%)	8.6	7.6	6.7	6.2	5.6	5.0	4.6
Total expenditure on basic benefit package in % of government revenue	66.0	65.5	48.6	41.2	35.0	29.7	26.2
Targeted cash transfer (%)	5.0	3.1	2.2	1.8	1.5	1.3	1.1
Basic health care (%)	47.1	53.2	39.7	33.3	27.9	23.4	20.5
Basic education (%)	14.0	9.2	6.7	6.2	5.6	5.0	4.6
Option 1: Proportion of government expenditure allocated to basic social protection (2003 level) (%)	23.9	23.9	23.9	23.9	23.9	23.9	23.9
Government financing in % of GDP	5.4	5.7	6.0	6.2	6.5	6.7	7.0
Government financing (in million US\$)	639.2	1,014.4	1,616.0	2,546.4	3,965.6	6,111.0	8,559.6
External financing required (in million US\$)	451.3	1,302.8	1,670.2	1,844.7	1,835.4	1,482.1	813.7
Option 2: Proportion of government expenditure allocated to basic social protection (alternative scenario) (%)	33.3	33.3	33.3	33.3	33.3	29.7	28.8
Government financing in % of GDP	7.6	7.9	8.3	8.7	9.0	8.4	7.6
Government financing (in million US\$)	890.5	1,413.2	2,251.4	3,547.5	5,524.6	7,593.1	9,373.3
External financing required (in million US\$)	200.0	904.0	1,034.9	843.7	276.3	-	-