## CONTENTS

<table>
<thead>
<tr>
<th>Chapter</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>ACKNOWLEDGEMENTS...</td>
</tr>
<tr>
<td></td>
<td>FOREWORD...</td>
</tr>
<tr>
<td></td>
<td>EXECUTIVE SUMMARY...</td>
</tr>
<tr>
<td></td>
<td>Uganda’s Development Agenda and Changing Demographics...</td>
</tr>
<tr>
<td></td>
<td>Investing in Social Protection as a Tool for Development...</td>
</tr>
<tr>
<td></td>
<td>Ex-Post Impact Assessment of the Social Assistance Grant for Empowerment (SAGE)...</td>
</tr>
<tr>
<td></td>
<td>Micro-simulation of Social Protection Programmes in Uganda...</td>
</tr>
<tr>
<td></td>
<td>Fiscal Space for Social protection in Uganda...</td>
</tr>
<tr>
<td></td>
<td>INTRODUCTION...</td>
</tr>
<tr>
<td>1</td>
<td>CHAPTER 1...</td>
</tr>
<tr>
<td>1.1</td>
<td>1. Uganda’s Development Agenda</td>
</tr>
<tr>
<td>1.2</td>
<td>2. Changing Demographics</td>
</tr>
<tr>
<td>2</td>
<td>CHAPTER 2...</td>
</tr>
<tr>
<td>2.1</td>
<td>1. Investing in Social Protection as a Tool for Development: Impact Evidence from Across</td>
</tr>
<tr>
<td>2.2</td>
<td>2. The National Social Protection Context</td>
</tr>
<tr>
<td>3</td>
<td>CHAPTER 3...</td>
</tr>
<tr>
<td>3.1</td>
<td>1. Ex-Post Impact Assessment of the Social Assistance Grant for Empowerment (SAGE)...</td>
</tr>
<tr>
<td>3.2</td>
<td>1.1 Identification Strategy for the SAGE Ex-Post Analysis</td>
</tr>
<tr>
<td>3.3</td>
<td>1.2 Results of the SAGE Ex-Post Analysis</td>
</tr>
<tr>
<td>3.4</td>
<td>1.2.1 Food Security and Nutrition</td>
</tr>
<tr>
<td>3.5</td>
<td>1.2.2 Education</td>
</tr>
<tr>
<td>3.6</td>
<td>1.2.3 Employment and Productivity</td>
</tr>
<tr>
<td>3.7</td>
<td>1.2.4 The Multiplier Effect of SAGE</td>
</tr>
<tr>
<td>4</td>
<td>CHAPTER 4...</td>
</tr>
<tr>
<td>4.1</td>
<td>1. Mainstreaming Social Protection in Uganda</td>
</tr>
<tr>
<td>4.2</td>
<td>2. Methodology</td>
</tr>
<tr>
<td>4.3</td>
<td>3. National Rollout of the Senior Citizens Grant</td>
</tr>
<tr>
<td>4.4</td>
<td>3.1 Programme Parameters</td>
</tr>
<tr>
<td>4.5</td>
<td>3.2 Results</td>
</tr>
<tr>
<td>4.6</td>
<td>3.3 Cost Feasibility Analysis</td>
</tr>
<tr>
<td>4.7</td>
<td>3.4 Cost Effectiveness Analysis</td>
</tr>
</tbody>
</table>
### 4. Universal Health Care for Pregnant and Lactating Women, and Children under Five

- **4.1 Programme Parameters**
- **4.2 Results**
- **4.3 Cost Feasibility Analysis**
- **4.4 Cost Benefit Analysis**

### 5. Disability Grant

- **5.1 Programme Parameters**
- **5.2 Results**
- **5.3 Cost Feasibility Analysis**
- **5.4 Cost Effectiveness Analysis**

### 6. Child Support Grant

- **6.1 Programme Parameters**
- **6.2 Results**
- **6.3 Cost Feasibility Analysis**
- **6.4 Cost Effectiveness Analysis**

### CHAPTER 5

1. Macroeconomic Factors Influencing Fiscal Space for Social Protection
   - **1.1 Economic Growth and Inflation**
   - **1.2 Government Deficit and Public Debt**
   - **1.3 Foreign Aid Reliance**
2. Tax Collection in Uganda
3. Fiscal Space and Social Protection
   - Concluding Remarks

### ANNEX

- **Annex 1: An Overview of Social Protection**

### BIBLIOGRAPHY
List of Figures

Figure 1: Uganda vs Sub Saharan Africa GDP per Capita, 1990-2014 ....................................................... 5
Figure 2: Uganda National Poverty Headcount (1992-2013) vs 2015 MDG Target ........................................ 6
Figure 3: Total Children per Woman: Uganda vs Sub Saharan Africa .......................................................... 8
Figure 4: Trends in population aged 0-19 versus 20-64, Uganda vs Sub-Saharan Africa ............................... 8
Figure 5: Uganda’s Population Pyramids .................................................................................................... 9
Figure 6: Uganda’s Dependency Ratios ....................................................................................................... 10
Figure 7: Theory of Change for Social Protection ....................................................................................... 12
Figure 8: Impact of SAGE on Food Security ............................................................................................... 32
Figure 9: Mean Weight-for-age, Height-for-age and Weight-for-height for SAGE and non-SAGE districts at baseline ........................................................................................................... 34
Figure 10: Trends in weight-for-height for SAGE and matched non-SAGE districts before and after the implementation of the SAGE programme and net effect of SAGE ................................................................. 36
Figure 11: Impact of SAGE on Primary and Secondary School Attendance .................................................. 37
Figure 12: Impact of SAGE on School Attendance ....................................................................................... 37
Figure 13: Impact of SAGE on Employment ............................................................................................... 38
Figure 14: Impact of SAGE on Wages ......................................................................................................... 38
Figure 15: Trends and counterfactual in a Difference-in-Differences framework .......................................... 39
Figure 16: SCG Long-Run Costs .................................................................................................................. 53
Figure 17: Universal Health Care. Long-Run Costs ....................................................................................... 56
Figure 18: Disability Grant. Poverty Gap and Poverty Headcount Reduction .................................................. 61
Figure 19: Disability Grant. Efficiency ......................................................................................................... 62
Figure 20: Disability Grant: Long-Run Costs ............................................................................................... 63
Figure 21: Cost Effectiveness Analysis for the Disability Grant ................................................................... 64
Figure 22: Child Support Grant. Eligible Individuals ...................................................................................... 69
Figure 23: Child Support Grant. Programme Beneficiaries .......................................................................... 70
Figure 24: Child Support Grant. Poverty Gap Reduction .............................................................................. 72
Figure 25: Child Support Grant. Poverty Headcount Reduction ................................................................... 73
Figure 26: Child Support Grant. Efficiency ................................................................................................... 74
Figure 27: Child Support Grant. Efficiency in Reducing Vulnerability .......................................................... 75
Figure 28: Child Support Grant up to 2: Long-Run Costs ......................................................................... 76
Figure 29: Child Support Grant up to 8. Long-Run Costs ........................................................................... 77
Figure 30: Cost Effectiveness Analysis for the Child Support Grant ............................................................. 80
Figure 31: Direct domestic taxes composition, Uganda 1993-2016 ............................................................... 83
Figure 32: Inflation rates (CPI) 2006-2015 ................................................................................................. 83
Figure 33: Uganda’s government debt as a percentage of GDP (1997-2014) .................................................. 85
Figure 34: Ugandan Fiscal Deficit (2010 -2014: actual figures; 2015-2019: projections) excluding grants ........................................................................................................................................ 85
Figure 35: Donor Grants and Loans as a percentage of GDP (2015-2019: projections) ..................86
Figure 36: Net ODA received by Uganda between 1960 and 2014 as a percentage of GNI ..............87
Figure 37: Total Domestic Revenue for Uganda and Sub-Saharan Africa (1997-2021). Projections from 2014 onwards .................................................................88
Figure 38: Total government expenditure for Uganda and Sub-Saharan Africa (1997-2021). Projections from 2014 onwards .................................................................89
Figure 39: Total government revenues, expenditure and fiscal deficit (1997-2012). Projections from 2016 onwards .................................................................................................89
Figure 40: Revenue, expenditure and fiscal deficit as reported by the Government of Uganda (2010/2011 – 2018/2019). Projections from 2015/2016 onwards ..........................90
Figure 41: Incremental fiscal space allocated to social protection and cost of the national rollout of the Senior Citizen Grant ..................................................................................96
Figure 42: Incremental fiscal space allocated to social protection and cost of universal health care ...96
Figure 43: Allocation of extra fiscal space to social protection and disability grant costs ...............97
Figure 44: Allocation of extra fiscal space to Social Protection and Child Support Grant costs ......98
Figure 45: Incremental fiscal space allocated to social protection and social protection packages cost, universal scenarios ........................................................................................99
Figure 46: Incremental fiscal space allocated to social protection and social protection packages cost, targeted to the poor scenarios ........................................................................100
Figure 47: Incremental fiscal space allocated to social protection and social protection packages cost, Senior Citizen Grant and Child Support Grant ..................................................101
Figure 48: Incremental fiscal space allocated to social protection and social protection packages cost, Senior Citizen Grant and Disability Grant ......................................................102

List of Boxes

Box 1: Local Economy Effects in Uganda .....................................................................................15
Box 2: SAGE District Selection .......................................................................................................28
Box 3: SAGE impact assessment difference-in-difference methodology ......................................30
Box 4: Value for Money Framework according to DFID Guidelines ............................................44
Box 5: Evidence on Inclusion and Exclusion Errors .....................................................................47
Box 6: Key components of administrative costs .........................................................................51
Box 7: Assessing Rates of Return to Investment into Social Protection .....................................57
Box 8: Inclusion and Exclusion Errors and Take-up Imperfections .............................................59
Box 9: Universalism versus targeting in social protection .............................................................79
Box 10: Tax measures approved by Parliament as per 2015/2016 National Budget .....................95
List of Tables

Table ES1: Multiplier effects of SAGE on outcome variable trends ............................................................. VII
Table ES2: Impact on poverty for every 1% of GDP spent on social protection programmes .................. VIII
Table 1: Selection of MDGs and Uganda’s Progress ................................................................................. 7
Table 2: Multiplier Effects for Malawi, Lesotho, Zambia and Ghana .................................................... 14
Table 3: Uganda’s Social Protection System ........................................................................................... 23
Table 4: Datasets for baseline and follow up used in the SAGE ex-post impact assessment .............. 29
Table 5: Anthropometric Indicators Descriptive Statistics at Baseline .................................................. 33
Table 6: Difference-in-differences Estimation for WHZ ........................................................................ 35
Table 7: Multiplier Effect of SAGE ............................................................................................................ 40
Table 8: Priority areas of focus for Uganda and relative social protection tools .................................. 42
Table 9: VfM Framework ............................................................................................................................ 44
Table 10: Administrative costs as a % of total cost measured ex-post for the most recent year for which data are available .................................................................................................................. 45
Table 11: Administrative costs as a % of total cost measured ex-ante after 5 years of operation .......... 46
Table 12: National Rollout of the SCG. Results ....................................................................................... 52
Table 13: Universal Health Care: Eligible Women and Children ............................................................ 55
Table 14: Universal Health Care Programme Benefits ............................................................................ 56
Table 15: BCR for a selection of studies ..................................................................................................... 57
Table 16: Example of inclusion and exclusion errors in a programme targeted to poor households ....... 59
Table 17: Disability Grant. Eligible Individuals ....................................................................................... 60
Table 18: Disability Grant. Eligible and Receiving Individuals ............................................................... 60
Table 19: Disability Grant. Cost as a % of GDP ....................................................................................... 60
Table 20: Households Classification ........................................................................................................ 66
Table 21: Probit Model Structure ............................................................................................................. 66
Table 22: Child Support Grant. Eligible Individuals .............................................................................. 69
Table 23: Child Support Grant – Imperfect Take-up. Eligible and Receiving Individuals .................. 70
Table 24: Child Support Grant. Costs ....................................................................................................... 71
Table 25: VAT Revenue performance in Uganda, Sub-Saharan Africa and a selection of countries (fiscal year 2012/2013) ...................................................................................................................... 91
Table A1: Common targeting methods for Social Assistance Programmes ............................................ 108
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FOREWORD

Social Protection has been widely recognized as a key instrument for poverty reduction and improved livelihoods among vulnerable groups in the short-, medium- and long-run not only in Uganda, but on the African continent as a whole. In the wake of the launch of the National Social Protection Policy, this Investment Case for Social Protection represents a fundamental milestone in our efforts to develop a comprehensive social protection system to take affirmative action in favour of marginalized groups, protect the unique and natural maternal function of women, the rights of children, persons with disabilities, ethnic minorities and economic rights of every Ugandan.

This publication offers strategic insight to prioritize national investments aimed at building resilience by minimizing vulnerability to risk and adverse shocks among Uganda’s vulnerable populations. This is especially true for children, who represent the future of our nation.

I urge all institutions to use this publication for decision making with a view to integrate social protection across all sectors.

Pius Bigirimana
PERMANENT SECRETARY
MINISTRY OF GENDER, LABOUR AND SOCIAL DEVELOPMENT
This report aims to support the government in its goal of reducing poverty and vulnerability in the country as stated in the Poverty Eradication Action Plan (PEAP) and in the National Development Plans (NDP). In the last decade, Uganda has achieved steady economic growth and a simultaneous reduction in poverty. Despite the remarkable accomplishment of halving poverty between 2000 and 2015 in fulfilment of the first Millennium Development Goal, almost 20% of Uganda’s population still falls below the poverty line, challenging the PEAP target of reducing this rate to 10% by 2017. Moreover, evidence suggests that economic growth has disproportionately benefitted the upper income quintiles, particularly in the period between 2000 and 2003, which was marked by a reversal in poverty reduction and significant increases in income inequality. Overall, income inequality increased by more than 11% between 1992 and 2005.¹

Uganda’s Development Agenda and Changing Demographics

This study formulates a business case for sustained investments in social protection, which has been recognized as a vital tool for poverty reduction and improved livelihoods among vulnerable groups in the short-, medium- and long-run not only across Africa, but also in the developing

¹ Ssewanyana, 2009, p. 2
world as a whole. Acknowledging the development challenges that Uganda is currently facing, the Ministry of Gender, Labour and Social Development (MGLSD) has shown increased commitment in identifying policies that might effectively tackle them, and social protection has been playing an essential role in shaping these efforts.

As a result, as an integral part of the Uganda Vision 2040, Government recently formulated the National Social Protection Policy as a tool “to promote effective coordination and implementation of relevant social protection interventions”. It acknowledges the role of social protection as a “foundation on which to build productive livelihoods”, enabling citizens to “live a life of security and dignity” and consequently allowing them to “participate in and benefit from the social and economic transformation of the country”. In order to effectively implement the aforementioned policy, the MoGLSD formulated the Expanding Social Protection Programme, whose primary goal is “to embed a national social protection system that benefits the poorest people among the population, as a core element of Uganda’s national policy, planning and budgeting processes”. This analysis supports these aims, by assessing impacts for the previous social protection initiatives in Uganda and by providing policy recommendations for implementing new programmes as well as expanding existing ones.

In supporting Uganda’s policy makers formulating a comprehensive social protection framework, the first part of this report highlights the country’s development progress over the last decade not only in reducing poverty but also in achieving the Millennium Development Goals (MDGs). The analysis maps the policies implemented since the beginning of the new millennium to important developmental outcomes. As an example, the set of initiatives related to the PEAP was effective in achieving the poverty reduction MDG: in 20 years, the poverty headcount dropped by almost two-thirds, from 56.4% of the population in 1992 to 19.7% in 2012.

Critical challenges remain. For instance, despite the introduction of Universal Primary Education in 1997, Uganda has not achieved the MDG target of 100%, nor did the country experience a significant improvement in enrolment rates after 2002. Completion rates of Ugandan students paint a similar picture, lagging behind the MDG 2 targets. Maternal and under-five mortality rates have fallen remarkably but still lag behind regional performance.

These challenges highlight the growth potential that youth represent. The most recent National Population Housing Census, in 2015, estimates that 56.7% of the population in Uganda is below the age of 18. This share is particularly high compared with Sub-Saharan Africa as a whole, where the share of the population below 18 stands at 49.6%. Appropriate development policies can channel this demographic dividend into an economic growth opportunity. Investing in children and youth now can boost labour productivity and ensure that these future workers will drive Uganda’s transition to an upper middle-income country.

2 MGLSD, The Uganda National Social Protection Policy, 2015
3 MGLSD, Expanding Social Protection, 2014
4 Uganda Bureau of Statistics, 2014, p. 17
5 United Nations, 2016
Investing in Social Protection as a Tool for Development

Social protection not only tackles Uganda’s most critical development challenges but also improves the inclusive, sustainable and pro-poor character of Uganda’s remarkable economic growth dynamic. A robust evidence base demonstrates the channels through which social protection operates and achieves developmental outcomes in addition to the core poverty reduction impacts.

Impact evidence from across Africa highlights the role of social protection not only as an income multiplier, but also as a powerful source of human capital formation through education and skills building. Moreover, evidence shows how social protection initiatives are capable of promoting the local economy, strengthening communities, of encouraging investment and innovation, stimulating productive inclusion, and thus expanding the workforce, in turn fostering productivity and growth.

Ex-Post Impact Assessment of the Social Assistance Grant for Empowerment (SAGE)

The core of the Ugandan social protection system includes direct income support programmes, which provide small but regular transfers to targeted individuals and households and guarantee a minimum level of income security. The Senior Citizens Grants and Vulnerable Family Grants, being piloted by the ESP and embedded within the Social Assistance Grant for Empowerment (SAGE) programme, fall within this category. This study quantitatively assesses the impacts in the pilot districts implementing the initiative, informing policy-makers of the potential for expanding the policy nationally.

The impact assessment employs a quasi-experimental methodology that does not require a randomised design. It employs information collected through household surveys and takes advantage of SAGE’s pilot design, which enables the identification of “treated” and matched “comparison” districts which can be compared before and after the policy change, utilising a difference-in-differences methodology. In order to estimate unbiased measures, the methodology identifies the comparison districts using a robust matching approach. SAGE’s implementation targeted districts according to a composite index including socio-economic characteristics, ensuring that the programme districts are systematically different from non-programme districts. However, given the considerably larger size of the set of non-programme districts (SAGE was implemented in 14 out of 112 districts), the matching methodology can identify a set of non-programmes districts similar to the 14 SAGE districts in terms of observable socio-economic characteristics. This matching procedure, called propensity score matching, constructs the best possible picture of a counter-factual to SAGE’s implementation.

SAGE has generated positive impacts on a wide range of outcomes. The indices reported indicate by how many percentage points each indicator changed for SAGE districts between 2009 and 2013, for a given one-percentage point change in that indicator for non-SAGE districts.

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6 Rosenzweig & Wolpin, 2000
The number of households eating fewer than two meals per day fell more than twice as rapidly in SAGE districts than in comparable non-SAGE districts. Primary and secondary school attendance rates rose nearly three times more rapidly in SAGE than in comparable non-SAGE districts. The employment rate in SAGE districts rose nearly fifty percent more rapidly than in non-SAGE districts. The median wage in SAGE districts also increased more rapidly than in comparable non-SAGE districts. The evidence demonstrates that SAGE generated important attributable impacts improving food security, human capital development and more sustaining livelihoods.

**Micro-simulation of Social Protection Programmes in Uganda**

The National Social Protection Policy acknowledges the selectiveness of the existing social protection initiatives, which “cover only the working population in the formal sector, leaving about 93 percent of the labour force, most of whom are employed in the informal sector, without access to social security services”7. As clearly stated by the MoGLSD, the rationale of the Social Protection Policy is to “provide a framework for putting in place the comprehensive social protection system that caters for diverse categories of the population”. This requires a careful assessment of the vulnerabilities of a broad range of categories in the population, such as older persons, children, youth, women and persons with disabilities, and the identification of initiatives that might best address their needs and contribute to their human development.

The study proposes a range of social protection initiatives in the following key areas, identified through a range of stakeholder consultations with government and development partners:

1. Maternal and child health
2. Youth livelihoods development
3. Vulnerable groups productive capacity improvement

The micro-simulation modelling methodology supports recommendations for interventions serving different vulnerable groups: persons with disabilities (PWD), children, older persons and mothers. This framework micro-simulates four social protection programmes. Micro data allow the estimation of the number of beneficiaries, of short- and long-run costs and the potential impacts in terms of poverty reduction, taking into account alternative programme designs, allowing for variation in the grant amount, the grant duration and the targeting approach.

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7 MGLSD, The Uganda National Social Protection Policy, 2015, p. 19
### Table ES2: Impact on Poverty for Every 1% of GDP Spent on Social Protection Programmes

<table>
<thead>
<tr>
<th>Social Protection Programmes</th>
<th>Reduction in Poverty Gap (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Senior Citizens Grant</strong></td>
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<tr>
<td>National rollout</td>
<td>10</td>
</tr>
<tr>
<td><strong>Disability Grant</strong></td>
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</tr>
<tr>
<td>Universal programme (Low benefit)</td>
<td>15</td>
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<tr>
<td>Universal programme (High benefit)</td>
<td>14</td>
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<tr>
<td><strong>Targeted</strong>: Poor households (Low benefit)</td>
<td>28</td>
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<tr>
<td><strong>Targeted</strong>: Poor households (High benefit)</td>
<td>26</td>
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<tr>
<td><strong>Targeted</strong>: Poor households (Low benefit)</td>
<td>15</td>
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<tr>
<td><strong>Targeted</strong>: Poor households (High benefit)</td>
<td>14</td>
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<tr>
<td><strong>Child Support Grant (Up to 2 Years of Age)</strong></td>
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<td>Universal programme (Low benefit)</td>
<td>18</td>
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<tr>
<td>Universal programme (High benefit)</td>
<td>15</td>
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<tr>
<td><strong>Targeted</strong>: Poor households (Low benefit)</td>
<td>33</td>
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<tr>
<td><strong>Targeted</strong>: Poor households (High benefit)</td>
<td>30</td>
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<tr>
<td><strong>Targeted</strong>: Vulnerable households (Low benefit)</td>
<td>13</td>
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<tr>
<td><strong>Targeted</strong>: Vulnerable households (High benefit)</td>
<td>11</td>
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<tr>
<td><strong>Child Support Grant (Up to 8 Years of Age)</strong></td>
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<td>Universal programme (Low benefit)</td>
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<td>Universal programme (High benefit)</td>
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<td><strong>Targeted</strong>: Poor households (Low benefit)</td>
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<td><strong>Targeted</strong>: Poor households (High benefit)</td>
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<td><strong>Targeted</strong>: Vulnerable households (Low benefit)</td>
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<td><strong>Targeted</strong>: Vulnerable households (High benefit)</td>
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Results of this micro-simulation exercise show that an investment in a universal health care programme would generate a rate of return of 1.63%, in terms of monetized DALYs averted. The table above summarizes the impact on poverty for every 1% of GDP spent on the remaining social protection programmes micro-simulated in chapter 4. Notably, income poverty reduction is only one of the potentially many effects that programmes of this kind can produce. As such, the just mentioned impacts constitute only a lower bound on the larger set of beneficial outcomes on human capital, productivity and economic development and should not constitute the sole means of comparison across the proposed programmes.

**Fiscal Space for Social Protection in Uganda**

In order to assess the affordability of such programmes and programme scenarios in the long run, this report assesses the Ugandan fiscal framework, particularly focussing on revenue and expenditure levels over time and on their respective components.
There are three key macroeconomic factors influencing fiscal space for social protection: (1) economic growth and inflation, (2) government deficits and the public debt, and (3) reliance on foreign aid. Social protection initiatives are capable of fostering economic growth, increasing labour productivity, strengthening social inclusion, and improving health and human development.\(^8\) In turn, economic growth can enable the long-run sustainability of the social protection system by expanding the available pool of fiscal resources. Uganda’s economic growth in the last decade has been remarkable, outperforming the average growth rate of the Sub-Saharan region as a whole. The World Bank forecasts that the rate of real GDP growth is “projected to accelerate to at least 6% per annum into the medium term”.\(^9\)

Another element influencing the ability of a country to afford and sustain a social protection system is public debt, since a high public debt burden can significantly reduce a country’s capacity to increase expenditure levels, and consequently to increase spending on social protection. From 1997 to 2002, Uganda’s debt-to-GDP ratio ranged between 48% and 61% of GDP. The government substantially reduced these debt levels in the early 2000s, reaching 20% of GDP between 2007 and 2009. In 2014, the debt-to-GDP ratio reached 30.4%, still far below the Uganda Public Debt Management Framework 2013 benchmark, and in line with the East African Community Monetary Union convergence criteria. Uganda’s current debt profile poses no challenges to the expansion of prudent and productive social protection investment.

In the 2015/2016 National Budget speech, the Minister of Finance, Planning and Economic Development, the Honourable Matia Kasaija, announced that “efforts are geared towards increasing the tax-to-GDP ratio by at least 0.5 percentage points of GDP every Financial Year, and to attain a target of 16 percent by 2018”. The Minister highlighted a range of measures as essential in reaching this goal. An analysis that takes into account the fiscal space created by these measures and compares the cost projections of the micro-simulated social protection programmes to the newly created pool of resources over the short-, medium-, and long run identifies three possible scenarios: one in which only 10% of the extra revenue is devoted to social protection and the other two in which larger shares of the newly collected resources are allocated to social protection, i.e. 20% and 30%.

Considering that costs as simulated by this study constitute an upper bound to the potential costs of such programmes, and given the assumption that only resources from the extra-revenues collected would be devoted to social protection, the results of the analysis support the short-, medium- and long-run sustainability of the vast majority of programmes, combination of programmes and scenarios proposed.

According to the results of this study and in line with international evidence, an integrated social protection system is sustainable and can have substantial short-, medium- and long-run social and economic returns, in addition to the ones quantified by this analysis. The contribution of social protection in enhancing labour productivity and consequently economic growth further supports the long-run sustainability of the social protection system.

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\(^8\) DFID, 2006

Since the beginning of the new millennium, the Republic of Uganda has experienced sustained real economic growth, averaging 7% per year and ranking the country among the fastest growing in the world. In addition to this, Uganda’s achievements in fulfilling the Millennium Development Goals have been remarkable, particularly as far as poverty reduction is concerned. Moreover, steady improvements in the country’s mortality rates, in the number of children subject to undernutrition and in other human development indicators show that economic growth at the same time has translated into a general improvement in the wellbeing for the country’s population.

However, despite the improvements made, income inequality has increased by 11.8% over the period between 1992 and 2005, and 20% of Ugandan population still falls below the poverty line. Critical challenges linked to health coverage, educational attainment, disability and gender inequality undermine Uganda’s development potential. By addressing the deprivation of those living in poverty and vulnerability from exploring their human development potential, and their subsequent contribution to sustainable economic growth, pro-poor and inclusive policy-making has an important challenge to tackle. Social protection programmes are increasingly strengthening the economic potential of nations in Africa and across the developing world. For an overview of social protection refer to Annex I.

Growing evidence in Sub-Saharan Africa emphasises the effectiveness of social protection not only in lifting individuals out of poverty, but also in developing the human capital necessary to sustain economic growth rates in the short-, medium- and long-run. In this respect, the Government of

10 Ssewanyana, 2009
11 UNHS, 2013
Uganda, under the Ministry of Gender, Labour and Social Development, has undertaken several social protection initiatives, embedded in broader policy frameworks such as the Poverty Eradication Action Plan and the various National Development Plans. These efforts culminated in the establishment of the Expanding Social Protection Programme (ESP) in June 2010, which contributed to the implementation of the Social Assistance Grant for Empowerment (SAGE), as well as the formulation and recent approval of the National Social Protection Policy. More specifically, two pilot schemes, carried out in 14 Ugandan districts, provided direct income support to the poor and vulnerable: the Senior Citizens Grant and the Vulnerable Family Grant. As confirmed by the quantitative analysis conducted in this study, SAGE has had beneficial effects on several dimensions, such as food security, education, employment and productivity: districts selected for the pilot significantly outperformed socio-economically similar regions in various indicators.

In light of this compelling evidence, and acknowledging the country’s main development challenges, Uganda’s policy makers have renewed their commitment to expand the social protection system through the formulation and approval of the National Social Protection Policy. Often one of the key goals of such a policy is to promote the effective coordination and implementation of a comprehensive set of initiatives addressing the vulnerabilities of selected groups in the population over the life cycle. In the Ugandan context, as clearly stated in the Policy, the government also specifically underlines this, and “recognizes the need to provide assistance to people who are vulnerable either by age, social class, disability, gender, disaster or who do not earn any income”\(^\text{12}\). The goal of this study is to develop a business case for social protection that, within the rationale of the Ugandan Social Protection Policy, and the wider development agenda it is embedded in, may contribute to guide the government in both the identification of effective and efficient policy measures and in the expansion of existing ones. Using ex-ante micro-simulation modelling, which constitutes a useful tool for estimating costs, benefits and impacts not only of alternative initiatives, but also of a wide range of programme designs, the purpose of the analysis is to endow Ugandan policy makers with the tools to easily recognize and choose from a wide range of policy options; consequently enabling the country to build an effective national social protection system.

The rest of the report is organized as follows. Chapter 1 and Chapter 2 provide an overview of the role of social protection in the context of Uganda. More specifically, after the description of the country’s development agenda, its most urgent development challenges and its demographic trends in Chapter 1, Chapter 2 presents an evidence base for the beneficial effects of social protection as a tool for development. Chapter 3, after presenting the methodology adopted for the ex-post SAGE impact assessment, quantifies the effects of SAGE on several dimensions. Chapter 4 of the report is devoted to the ex-ante micro-simulation of the following social protection programmes: a national rollout of the Senior Citizens Grant, universal health care for pregnant women, breastfeeding mothers, and children under five, a child support grant, and a disability grant. The projection of costs over the long run and various measures of efficiency and effectiveness – resulting from the mere impact on income poverty - will give a sense of the return on investment and profitability of such programmes in their different designs. Finally, Chapter 5 provides a fiscal space analysis and highlights the areas of intervention highlighted by the Minister of Finance in order to increase revenue collection, and thus allocate resources to the expansion of the Ugandan social protection system.

\(^{12}\) MGLSD, The Uganda National Social Protection Policy, 2015, p. 19
1. Uganda’s Development Agenda

With the turn of the new millennium, the Republic of Uganda renewed its efforts to strengthen economic development and eradicate poverty, demonstrating this commitment at the World Summit on Sustainable Development, the New Partnership for Africa’s Development (NEPAD), in its Millennium Development Goals (MDGs) and elsewhere.\(^{13}\) As described in its Poverty Eradication Action Plan (PEAP), the vision was to achieve these goals through sound economic management, enhancing production, competitiveness and income, safeguarding security, good governance and human development.\(^{14}\) Through participatory smallholder agriculture and employment in industry and services,\(^{15}\) the then widespread poverty would be addressed, enabling all Ugandans to contribute productively to transforming the Republic into a middle-income country.

With significant strides forward made, resulting from unified policy-making under its PEAP and commitment to achieving the MDGs, in 2007 the government of Uganda adopted Vision 2040. Building on the success of the previous development plans, Vision 2040 provided a framework for Uganda’s development planning over the 30 years from 2010 to 2040. The aim of Vision 2040 is to elevate Uganda to an upper middle-income country by strengthening the country’s capacities in human resources, transport infrastructure, energy, technology, urban development and security. Through improving in these areas, the country seeks to access the opportunities it has due to its abundant labour capacity, geographical location and resources in the areas of oil, gas and minerals, water, tourism, trade, ICT business, industry and agriculture.\(^{16}\) Furthermore, these improvements will benefit the population through a process of social transformation that leads to a high standard of living and low incidence of poverty.\(^{17}\)

The concrete interventions taken to achieve the goals outlined in Vision 2040 are (going to be) outlined in six 5-year National Development Plans (NDPs).\(^{18}\) The first of these plans covered the period 2010/2011 to 2014/2015 (NDP I), concentrating primarily on growth and employment.\(^{19}\) Its main approaches were firstly for government to play a proactive role in economic development mainly by encouraging growth in export-oriented industries. In addition, the plan aimed to improve human resources and enhance participation in the economy through the promotion of gender equality, peace building and post-conflict rehabilitation.\(^{20}\)

Ever since its adaptation, even more significant strides forward have been made, reflected in economic growth rates that put the country amongst the world’s fastest growing economies. As shown in Figure 1, which plots the trend in Gross Domestic Product (GDP) per capita for Uganda and Sub-Saharan Africa, the country has outperformed the region since the turn of the millennium, experiencing remarkable growth rates. Partially as a result of the success of the policies outline in the country’s NDP I, real GDP growth averaged 7% per year since the 2000s.\(^{21}\)

\(^{13}\) Republic of Uganda, 2012  
\(^{14}\) IMF, 2005, p. 10  
\(^{15}\) Ministry of Finance, Planning and Economic Development, 2000, p. 3  
\(^{16}\) Uganda National Planning Authority, 2007, pp. 3,4  
\(^{17}\) Ibid., 2007, p. 87  
\(^{18}\) Ibid., p. 116  
\(^{19}\) National Planning Authority, 2010, p. 1  
\(^{20}\) Ibid., p. 2  
\(^{21}\) The World Bank, 2015
Moreover, as measured by the progress made towards the MDGs, the remarkable success of NDP I is not only reflected in the country’s economic development. Accompanied by policies promoting education, health and nutrition, significant improvements in many of the country’s human development indicators represent the increased wellbeing of its population. For instance, Uganda achieved important goals in combating HIV/AIDS, malaria and other diseases, well-known obstacles to development. For instance, AIDS-related deaths more than halved between 2010 and 2014 and the prevalence of malaria among children under five more than halved between 2009 and 2014.\textsuperscript{22} In addition, the under-five mortality rate steadily declined, Ugandan children were less subject to undernutrition as reflected in a decrease in stunting and wasting, and more and more girls enrolled in both primary, secondary and tertiary education.

Largely through measures stated in the PEAP and programmes such as the Social Assistance Grant for Empowerment (SAGE), the National Agricultural Advisory Services (NAADS), the Youth Opportunity Programme and the Rural Financial Services Strategy, extreme poverty significantly declined in the country. The national poverty headcount dropped significantly between 1992/93 and 2012/13 as the proportion of people living on incomes below the national poverty line fell from more than 50\% to less than 20\%, as shown in Figure 2. In addition to this, an even more rapid decline in the poverty gap ratio – which measures the average shortfall in income from the poverty line – fell from 20.3 in 1992/1993 to 5.2 in 2012/2013, suggesting an overall desirable improvement in terms of average depth of poverty. If sustained, the trend in these indicators registered by the Ugandan economy would guarantee a reduction of poverty to 5\% in Vision 2040.\textsuperscript{23}

\textsuperscript{22} Ministry of Finance, P. a., 2015, pp. 25-27
\textsuperscript{23} Ibid., pp. 20-21
However, despite remarkable progress over the past decade, much can be improved. For instance, despite the introduction of Universal Primary Education in 1997, Uganda has not achieved the MDG target of 100%, nor did the country experience a significant improvement in this indicator after 2002. Completion rates of Ugandan students provide a similar picture, as progress has lagged the MDG 2 targets, as shown in Table 1. Moreover, although remarkable progress has been made in the reduction of the maternal mortality and under-five mortality rates, missing the MDG target of reducing these indicators by two-thirds only narrowly as shown Table 1, regionally Uganda’s performance still falls behind.

NDP II highlights the fundamental role of social protection when it comes to positively affecting the aforementioned indicators, being “globally recognized as critical for sustained poverty reduction, inclusive growth and social cohesion”. As such, NDP II advocates the need to broaden social protection and support systems, given the low percentage of GDP devoted to public investment in social protection (0.78%) and in direct income support and given that existing programmes are “relatively small scale and rely on Development Partners funding”. A wider and comprehensive social protection system would allow the inclusion of vulnerable groups across the whole life-cycle, and contribute to their participation in the Ugandan growth potential. More specifically, key priorities outlined in the NDP II include: the expansion of direct income support schemes for poor and vulnerable groups, the expansion of contributory social security schemes to the informal sector; strengthening social care service provision to the most vulnerable, and institutional development within the sub-sector.

24 Ibid., p. 17
25 Ibid., pp. 21-22
26 National Planning Authority, 2015, p. 69
27 Ibid., p. 70
28 Ibid., p. 70
When planning development policies and initiatives, a crucial element to consider is the medium- and long-run change in a country’s demographic profile, as a basis to assess the most relevant targeting groups and as a means of predicting future outcomes and costs. A noteworthy feature of Uganda’s demographic structure is the particularly high rate of young people in the population. As estimated by the most recent National Population Housing Census, in 2015 the rate of the population below the age of 18 in Uganda is 56.7%. This percentage is particularly high, when compared to Sub-Saharan Africa as a whole, where the share of the population below 18 stands at 49.6%.

These figures do not come as a surprise, when comparing Ugandan fertility trends to the ones of the whole Sub-Saharan region over the last 65 years, depicted in Figure 3 on the next page. Total fertility is expressed in average number of children that a hypothetical cohort of women would have at the end of their reproductive period. As can be seen, the average number of children per woman is higher in Uganda over the entire period, and the decreasing trend in fertility registered after 1985 is less pronounced for Uganda compared to the whole Sub-Saharan region.

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30 United Nations, 2016
31 Ibid.
Figure 4 is informative for assessing the long-run consequence of the just described demographic composition - particularly skewed to the left of the age distribution - and of the declining trend in fertility as displayed in Figure 3. The rate of young people aged 0-19 will decline and reach 30% by 2100. On the other hand, the working-age group is going to account for a larger share of the population, reaching almost 60% in 2100. While for Sub-Saharan Africa the share of working-age individuals aged 20-64 will surpass people aged 0-19 in 20 years, in Uganda this will occur with a lag of approximately 10 years compared to the whole Sub-Saharan region. After this, the gap between the two groups will grow and reach almost 30 percentage points at the end of the century, according to the UN World Population Prospects (2015).
Figure 5 reports another helpful instrument to assess Uganda’s population dynamics in the long-run. Population pyramids reflect the increasing overall population trend, together with the change in its composition towards the working-age and thus productive groups, thus confirming gradual change in Uganda’s population distribution across the various age groups.

**FIGURE 5: UGANDA’S POPULATION PYRAMIDS**

The aforementioned considerations concerning Uganda’s changing demographics clearly support the urgent need of large-scale investments in the country’s children, a strategy that critically underlies success in all the dimensions analysed in the previous section. Being a complex interaction between population- and productivity-growth, economic growth has the potential to flourish in the short- to medium-run, when the overall dependency ratio declines as a result of a declining child dependency ratio, bringing more individuals into the productive, working age (see Figure 6). However, when the initial decline in the overall dependency ratio resulting from a declining child dependency ratio is offset by an increase in the old age dependency ratio, today’s children will need to provide during their working life for growing numbers of dependents, and significantly raise productivity in order to sustain current economic growth rates. As such, they will, as highlighted by Mary Karooror Okurut, the former Minister of Gender, Labour, and Social Development, “be the productive engine of our economy”

32 tomorrow, required to sustain economic growth in the long-run; effectively requiring an investment today in their human development.

32 Batana, Cockburn, Kasirye, Tiberti, & Ahaibwe, 2004
Figure 6: Uganda’s Dependency Ratios

Source: United Nations, Department of Economic and Social Affairs, Population Division, 2015
CHAPTER 2
1. Investing in Social Protection as a Tool for Development: Impact Evidence from Across Africa

A theory of change is useful in outlining linkages and synergies between the economic and social effects of social protection programmes. The theory of change in Figure 7 details the ways in which combining various interventions maximises a household’s ability to increase its productive capacity and in so doing raise itself out of poverty. While cash transfers are important for poverty reduction and represent a driver of economic growth, the inclusion of complementary programmes significantly increases the developmental effects of social protection. Through these linkages, social protection and economic growth become firmly intertwined and governments need not face a trade-off between the two. Social protection strategies that target various aspects of poverty and have multi-dimensional impacts lead to pro-poor and inclusive economic growth that can help nations to unlock their full economic potential.

This is particularly true for Uganda today, where the majority of the population is now under the age of 18. In Uganda’s case, the skills and abilities of these children will come to define the productive capacity of the nation’s workforce for the near future. Investment in the nutrition, health, education, and professional development of these children will redefine Uganda’s capacity for economic growth. Building on the national framework as articulated in the national social protection policy and PPI, social protection – through programmes such as the ones proposed in the following sections of this report – represents one of the best possible investments to secure Uganda’s future as a middle-income country.

**Figure 7: Theory of Change for Social Protection**

Source: Samson et al. (2015)

33 Slater, McCord, & Mathers, 2014
### a. Income Multiplier Effects

The most obvious effect of social protection is the creation of a broader, more active economic base through the redistribution of income to the poorer members of society. This reduces both poverty and inequality, important challenges for the Ugandan context, and constitutes one of the most common and most important consequences of the implementation of social protection in Africa. This happens in two ways: first, beneficiaries of cash and in kind transfers receive additional resources, reducing the depth and severity of their poverty. Second, the redistributive effects of a cash transfer extend beyond the direct beneficiaries by increasing the local cash flow and thus the amount of income experienced within a community.\(^{34}\) This type of income redistribution is known as the income multiplier effect.

The basic logic of this concept is the following: when programme beneficiaries receive money, they spend it in the local economy, increasing the cash flow into markets at the community level and driving the spending capacity of local actors.\(^{35}\) This increases the income earned by business owners, which then enters another cycle of spending within the community. This effect, the income multiplier effect, has been well documented across Africa, and the impact of a few key programmes is highlighted in Table 2. For instance, in Malawi, a qualitative study of business owners confirmed that transfer recipients constitute a frequent and consistent customer base.\(^{36}\) In addition, evidence from Ethiopia’s Social Cash Transfer Programme (SCTP) and Kenya’s Cash Transfer for Orphans and Vulnerable Children (OVCs) illustrate this effect in a quantitative way. In Ethiopia, multiplier effects of 2.52 Birr and 1.35 Birr occurred in the districts of Hintalo-Wajirit and Adi-Adi, respectively.\(^{37}\) Therefore, the initial transfer of 5 million Birr in Hintalo-Wajirit\(^{38}\) generated a total income distribution of 12.6 million, whereas the 1.62 million injected into Adi-Adi\(^{39}\) generated a total income distribution of 2.19 million Birr. In Kenya, Taylor, Kagin, Filipski and Thome (2013) reported local multiplier effects of 1.34 Ksh and 1.81 Ksh in two separate regions.\(^{40}\)

This evidence sheds some light on the potential beneficial effects of cash transfers such a Child Support Grant and a Disability Grant in the Ugandan context as far as poverty incidence and intensity is concerned. Chapter 4 will report the simulation of similar programmes in Uganda, and the estimation of their effects in terms of poverty reduction.

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34 Alderman & Yemtsov, 2012  
35 Davis, 2014  
36 Miller, 2011  
37 Kagin, Taylor, Alfani, & Davis, 2014  
38 Ibid.  
39 Ibid.  
40 Taylor J. B., 2009
**TABLE 2: MULTIPLIER EFFECTS FOR MALAWI, LESOTHO, ZAMBIA AND GHANA**

<table>
<thead>
<tr>
<th>MALAWI</th>
<th>LESOTHO</th>
<th>ZAMBIA</th>
<th>GHANA</th>
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<td><em>Dowa Emergency cash</em></td>
<td><em>Child Grant</em></td>
<td><em>Child Grant</em></td>
<td><em>Livelihoods Empowerment</em></td>
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<tr>
<td><em>transfer</em></td>
<td><em>Programme</em></td>
<td><em>Programme</em></td>
<td><em>Against Poverty</em></td>
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<tr>
<td>Multiplier effects of 2.02</td>
<td>Multiplier effects of</td>
<td>Multiplier effects of</td>
<td>Multiplier effects of</td>
</tr>
<tr>
<td>Kwacha for every Kwacha</td>
<td>1.32 Loti for every Loti</td>
<td>1.79 Kwacha for each</td>
<td>2.50 GHS for every GHS</td>
</tr>
<tr>
<td>transferred.(^{41})</td>
<td>transferred.(^{42})</td>
<td>Kwacha transferred.(^{43})</td>
<td>transferred.(^{44})</td>
</tr>
</tbody>
</table>

**b. Promoting the Local Economy and Reinforcing Communities**

The productive role of social protection in facilitating economic growth in local communities is not limited to the income multiplier only. Van Domelen (2010) argues that community (meso) – level growth occurs as well, specifically through:\(^{45}\)

- Improved functioning of the labour market;
- The creation of productive assets that expand infrastructure at community-level (i.e. public works programmes); and
- The creation of local spill over effects from increased spending and demand.

In terms of labour market productivity, it is common to hypothesize that an inverse relationship exists between the receipt of grants and participation in the labour market.\(^{46}\) Proponents of this theory generally believe that social grants act as a disincentive, whereby the receipt of steady, passive income reduces the need for recipients to pursue and enter into paid work contracts. However, a compelling set of evidence consistently demonstrated the opposite to be true. In South Africa for instance, employment rates rose significantly (3.3%) amongst social grant recipients during 2000 and 2001, compared to non-grant recipients, in which case the employment rate fell significantly by 1.1%.\(^{47}\)

Public works programmes more broadly are a hallmark of effective developmental social protection schemes. By providing paid labour, public works programmes support increased economic activity by bringing resources into and creating new opportunities in undercapitalised areas. At the same time, they provide meaningful employment and improve workforce inclusion, while building the human capital of programme beneficiaries through skills training and professional development.\(^{48}\) Whereas implementing governments typically view social protection as consumption expenditures, public works programmes are better understood as investments in physical and human capital.\(^{49}\)

Furthermore, public works programmes can play an important role in driving national development, as they typically involve the construction of roads, dams, bridges, irrigation systems, and other important infrastructure.

\(^{41}\) Alderman & Yemtsov, 2012\(^{42}\) Ibid.\(^{43}\) Thome, Davis, & Seidenfeld, 2014\(^{44}\) Ibid.\(^{45}\) Van Domelen, 2007\(^{46}\) Gilligan, Hoddinott, Kumar, & Taffesse, 2009\(^{47}\) Samson, 2007\(^{48}\) McCord, 2012\(^{49}\) Ibid.
In Ethiopia, the public works programme has generated an estimated 190 million working days since 2009.\textsuperscript{50} The labour from Ethiopia’s programme has since been deployed in 34,000 public works projects annually, which have focused on soil and water conservation, social and infrastructure development, thus making remarkable contributions to service delivery.\textsuperscript{51} In the same vein, Ethiopia’s programme has contributed to the rehabilitation of over 167,000 hectares of land, 275,000 kilometres of stone terracing and soil embankments, as well as the planting of 900 million seedlings.\textsuperscript{52}

Regarding the development of local businesses and markets, social protection spending has important meso-level local spill-over effects, which occur by increasing the purchasing power of poor households that disproportionately consume locally manufactured goods.\textsuperscript{53} The increased purchasing power of these households boosts demand for local goods, thus stimulating increased returns to small businesses and driving local markets. An example of this is Zambia, where 80\% of social cash transfer funds have been spent on locally manufactured goods.\textsuperscript{54} Furthermore, the increase in demand for food driven by funding from the Zambian Child Grant Programme increased the amount of land needed to grow crops by 0.19 hectares, subsequently raising crop sales by 6\%.\textsuperscript{55} Additionally, similar general equilibrium effects occurred in Lesotho, where the Child Grant Programme stimulated the production of crops by the equivalent of 0.19 LSH and livestock by the equivalent of 0.28 LSH.\textsuperscript{56}

**BOX 1: LOCAL ECONOMY EFFECTS IN UGANDA**

The beneficial effects of social protection in fostering local economies are of particular importance for Uganda. In 2014, the Ministry of Local Government (MoLG) formulated a Local Economic Development (LED) Policy aimed at guiding the Local Governments in accomplishing their role in the socio-economic transformation of the country. Indeed, as underscored by the World Bank, “Uganda’s growth and development is constrained by the low levels of productivity of both agricultural and non-agricultural sectors”. The LED Policy, designed for building “a vibrant and competitive private sector-led local economy for poverty reduction, wealth creation and prosperity” in Uganda, has as primary goal the creation of a “local governance mechanism, which promotes a conducive economic and political environment for private sector investment, employment in local areas for improved household incomes and service delivery”. Social protection, in stimulating the aforementioned spill-over effects and fostering demand, constitutes a vital support in this respect and it plays a complementary role by ensuring the necessary demand-side counterpart to increased productivity.

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\textsuperscript{50} Alderman & Yemtsov, 2012
\textsuperscript{51} Ibid.
\textsuperscript{52} Van Domelen, 2007
\textsuperscript{53} Ibid.
\textsuperscript{54} Alderman & Yemtsov, 2012
\textsuperscript{55} Handa, Seidenfeld, Davis, & Tembo, 2014
\textsuperscript{56} Taylor, Thome, & Filipski, 2012
c. Human Capital Formation through Education and Skills Building

One of the most significant channels through which long-term social protection benefits accrue is the accumulation and development of human capital. Social protection programmes around the world have been highly successful in overcoming barriers to investment in human capital by improving for instance children’s cognitive development, overall physical health and educational attainment. These outcomes allow the broader development of skills, the improvement of labour outcomes and consequently contribute to the economy as a whole. As stressed in Section 1, health and education constitute a relevant portion of Uganda’s development potential, particularly in relation to the stages of the life cycle corresponding to childhood and youth.

Existing evidence supports the role of social protection in enhancing school attendance. Programmes such as the Zambian Child Grant Programme have aided in detaching school enrolment and attendance from agricultural output. Thanks to the programme, which targeted households with children under five, school enrolment and attendance saw a 10-percentage point rise in the three districts covered, in a period of the year when households could not yet profit from crops harvest.57 This sheds some light on the role of social protection in compensating the inability of rural households – sustained by agriculture – to allot money towards children’s education.

When households have a greater income capacity for school fees, clothing, and shoes—as in the case of families benefitting from the Lesotho Child Grant Programme—children are more likely to enrol in school. Lesotho’s Child Grant Programme recipients spent on average M80 per pupil aged 6-12 and experienced a six-percentage point increase in school enrolment rates.58 This is a noticeable outcome, since returns to schooling in Lesotho are particularly high: monthly wage earnings nearly triple when reaching between 11 and 12 years of education;59 something likely to follow a similar trend in Uganda.

57 AIR, 2014
58 Alderman & Yemtsov, 2012
59 The World Bank, 2005, p. 64
Though education is socially and economically beneficial at any age, human capital formation is maximized when school attendance begins at earlier ages and when time in school is prolonged. Returns to education vary across different levels of schooling, increasing at the upper levels. In Kenya and Ghana, findings on primary school returns to education were 11.6 and 8.9, while higher demonstrated estimated returns of 25.5 and 16.9 respectively. The compounding economic gain from earlier school participation contributes to greater returns to education and consequently increases productive advancements over a person’s lifetime. Benefits arising across various social protection programmes, including those resulting from greater existence of school funds and decline in societal pressures that prohibit school attendance, can contribute to a more educated and productive population, thus stimulating human capital development.

Similar benefits can arise through social protection programmes designed to impart skills and training to their beneficiaries. When paired with more traditional cash transfers, these types of programmes have the capacity to expand the productive capacity of the beneficiaries so that they can make a more substantial contribution to the local economy and raise themselves out of poverty. This sort of training can focus on anything from household financial management to farming and irrigation techniques, but are generally designed to help beneficiaries attain the skills that they need to graduate out of poverty and maintain a reasonable standard of living. These programmes are often paired with cash transfers or public works programmes. Examples of programmes that can help train beneficiaries include: formal classroom training as a part of ‘food for training’ or workfare programme, participation in on-the-job training as a part of public works employment, participation in life-skills training as a condition of public works employment, and workplace experience through public works employment.

d. Health and Demographic Investment

Sudden injury, chronic illness, and other health risks represent significant drivers of sustained poverty in middle- and low-income countries and, correspondingly, are among the most critical developmental challenges addressed by social protection. Through sustained intervention, social protection programmes can minimise or remove the financial barriers to health care and strengthen local institutions that provide health services. Such programmes improve vulnerable families’ overall wellbeing by strengthening their economic resilience against catastrophic out of pocket payments and other economic shocks engendered by poor health. These programmes represent an important alternative to other coping mechanisms—like selling or mortgaging productive assets or withdrawing children from school— that jeopardize a families’ future productive capacity. The achievement of universal health care for vulnerable categories such as pregnant women, breast-feeding mothers and children under five could be an important way of addressing the maternal and child health challenges in Uganda, highlighted in Chapter 1. As such, simulations of the cost of providing free universal health care to pregnant women, lactating mothers and children under five and their subsequent benefits is provided in Chapter 3.

A wide range of health care programmes are in effect across Africa. The most common are tax-funded national health services, conditional cash transfers, in-kind transfers (e.g. vaccination initiatives),

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60 Colclough, Kingdon, & Patrinos, 2009
61 Hörmansdörfer, 2009, p. 145
62 Ibid., p. 146
contributory social health insurance, and community-based health insurance (CBHIs). Government can fully finance health care or provide assistance through capped or partial coverage of out-of-pocket expenses. These alternatives are not mutually exclusive and the most effective strategies often involve some combination of programmes and financing options to achieve universal coverage. For instance, tax-funded health-financing and contributive health insurance schemes can provide an umbrella of primary coverage, while micro health insurance and CBHIs can act as a complement for those that do not have access to other financing options.

As of now, there is no best practice combination of health care programmes, as the situation often heavily depends on available government resources. Rwanda has made significant strides towards universal health coverage (96.15% as of 2012) by mandating participation in Community Based Health Insurance schemes among the informal sector population while offering alternative forms of health insurances to those who can afford it. A considerably high number of African countries, in attempting the achievement of the MDGs related to health, in the last decade have promoted free healthcare for sensitive categories. A wide stream of literature investigates the effect of such policy, providing support for the beneficial effects on demand for health care, most marked for the vulnerable category of poor people and women.

e. Encouraging Investment and Innovation

Social protection has a positive impact on livelihoods because it supports enterprising behaviour and labour market participation. The poor are constantly facing complex investment decisions, because of the limited amount of resources available to them and their lack of income security or insurance against negative outcomes. Poor individuals face the largest consequences of adverse events, often risking starvation or homelessness when they make investment decisions. Improving income security among the poor through social protection can reduce the consequences of risky investment behaviour, thereby encouraging risk-taking and promoting investment in both physical and human capital. This promotes investment and innovation, which leads to endogenous economic growth.

For many households, the ability to purchase productive assets, particularly those linked to agriculture, significantly increases future incomes streams. Families living on a subsistence basis are often not able to apportion funds to increase productive capabilities, and therefore find themselves unable to break out of poverty. The funds provided by various social protection programmes have provided households with the additional cash necessary to make investments in agricultural assets, including livestock and tools. For example, Ethiopia’s Productive Safety Nets Programme and Household Asset Building Programme beneficiaries on average accumulated 1.336 Birr more in agricultural tools. Additionally, 15 per cent of programme participants invested in farming materials and eight per cent purchased livestock with transfer funds.

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63 International Labour Office, 2008
64 Hörmansdörfer, 2009, p. 149
65 Nyandekwe, Nzayirambaho, & Kakoma, 2014
66 For a comprehensive review of the literature on the topic, refer to (Ridde & Morestin, 2011).
67 OECD, 2009
68 Piachaud, 2013
69 Romer, 1989
70 Devereux S., Sabates-Wheeler, Tefera, & Taye, 2006; (Berhane, Hoddinott, Kumar, & Taffesse, 2011)
This type of investment illustrates awareness about the need for future income growth and security. As in the case of the Malawi Social Cash Transfer Programme, households receiving the transfer spent $8000 on productive assets and livestock from 2007-2009 while non-beneficiary households only spent $199 over the course of a year.\textsuperscript{71} In addition to investments made in agriculturally productive assets, money made available by social protection programmes has led to increased non-agricultural household savings and investment activity. Recipients of Ghana’s Livelihoods Empowerment Against Poverty (LEAP) programme were found to be 11 percentage points more likely to save their money and experienced a 10.8 percentage point increase in their savings.\textsuperscript{72} Likewise, 71% of households receiving money from the Zambian Kalomo Social Cash Transfer Scheme indicated that some portion of their cash transfer was invested.\textsuperscript{73} While these investment and savings practices may not immediately translate into expanded income streams, they nevertheless secure households against economic shocks and provide long-term financial stability. In a similar way to the positive feedback cycle that agricultural investment prompts, the Kalomo Social Cash Transfer Scheme resulted not only in the quadrupling of households participating in investment activity, but in a doubling in the amount of investment.\textsuperscript{74}

Elevated perceptions of financial security allow not only for increased investment, but also for household expansion into non-agricultural enterprises. Income diversification amongst non-farm ventures across Africa is positively correlated with improved household welfare, higher earnings growth, and increased consumption.\textsuperscript{75} In families receiving the Zambia Child Grant, the proportion of households operating non-farm enterprises increased by 12 percentage points, and the monthly profits of those households already engaged in non-farm enterprises grew.\textsuperscript{76} Likewise, female-headed households receiving the Kenya Cash Transfer Program for Orphans and Vulnerable Children increased participation in non-farm enterprises as well.\textsuperscript{77} Involvement in and ownership of non-farm enterprises can help combat the high seasonality of agriculture-based income generation, resulting in a smoothing of household revenues over the course of the year.\textsuperscript{78}

As such, the evidence shows how social protection programmes go beyond allowing the poor and vulnerable to cover basic living needs: in many cases, they enable households to look to the future, and make investment decisions that contribute to long-term graduation from poverty and vulnerability.

\textbf{f. Productive Inclusion—Expanding the Workforce}

Through careful implementation, social protection programmes can be a tool to integrate formerly marginalized or unproductive groups into productive roles. Beyond supporting positive economic growth and financial security, social protection programmes have the capacity to challenge vulnerabilities rooted in prevailing societal inequalities.\textsuperscript{79}

\begin{table}[h]
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\begin{tabular}{|c|c|}
\hline
\textbf{Reference} & \textbf{Year} \\
\hline
Miller & 2011 \textsuperscript{71} \\
Handa, et al. & 2013 \textsuperscript{72} \\
The World Bank & 2007 \textsuperscript{73} \\
Schuering & 2008 \textsuperscript{74} \\
Barret, Reardon, & Webb & 2001 \textsuperscript{75} \\
AIR & 2014 \textsuperscript{76} \\
Asfaw, et al. & 2012 \textsuperscript{77} \\
IFAD & 2013 \textsuperscript{78} \\
Babajanian & Hagen-Zanker & 2012 \textsuperscript{79} \\
\hline
\end{tabular}
\caption{References}
\end{table}
Social protection programmes play important roles in advancing female empowerment within both the household and the community. While women typically bear great responsibility for the wellbeing of their families, as a group they traditionally have little control over familial asset allocation, have had fewer opportunities for education, and have had limited access to credit. As a result, women generally have lower economic productivity and income generation, while suffering from worse bargaining positions. Gender sensitive implementation and design of social protection programmes can offer opportunities for female empowerment. Programmes that distribute funds directly to women, such as the Malawi’s Dowa Emergency Cash Transfer Programme and the Zambian Child Grant Programme, provide women with greater influence in household decision-making processes even within male-headed households. A 36-month follow up study on Zambia’s CGP found a significant positive impact on the allocation of both a woman’s own income and that of her partner.

In conjunction with fund distribution, programme design further aids the productive inclusion of women. The Productive Safety Net Programme in Ethiopia is at the forefront of gender-conscious design among social protection programmes. Hallmark elements of this programme include flexible working hours within the public works programme that recognise domestic responsibilities, direct support with no work requirement for women who are in late-stages of pregnancy and women’s integration into the decision making process regarding what community assets are to be constructed using public works labour. Programme elements such as those mentioned above encourage greater economic productivity and a reduction of gender-based social vulnerabilities for women in benefitting households.

Cash-transfer programmes implemented in various regions have paid attention to the needs of the elderly. Concern for the elderly population can contribute to the increased empowerment of beneficiaries. Studies on the impact of the Lesotho Old Age Pension revealed that a majority of pensioners were able to maintain almost complete control over fund administration. Qualitative studies show that pensioners benefitting from social protection funds such as these devote resources to business investments and children’s educational support. This financial empowerment helps shift household decision making in favour of older family members and combats the pervasive belief that older people have no more contributions to make once they are no longer engaged in paid occupations. Furthermore, the decline of health and labour capacity acts as a major contributing factor to vulnerability in old age. In many cases, these factors create greater dependency upon others for support. In Lesotho, approximately two-fifths of Old Age Pension beneficiaries help to subsidise other household member’s education and training expenses, such as through the purchase of uniforms, shoes, and stationery. Because of the direct connection between the well-being of the elderly and youth, social protection programmes with age considerations can have a spill over effect that contributes to the greater inclusion of orphans and vulnerable children.

80 REBA, 2007
81 Significant positive impact indicated at p<.05 in a study using difference-in-difference modelling among panel households. Data values in the study control for household size and demographics, recipient age, education and marital status, districts, and a vector of cluster-level prices, (AIR, 2014).
82 Jones, Tafere, & Woldehanna, 2010
83 Tanga, 2008
84 Nyanguru, 2007
85 Tanga, 2008
86 Ibid.
Cash transfers through social protection programmes help integrate vulnerable groups into productive roles within households and communities. As is the case with greater age and gender considerations, the increased financial independence, control, and empowerment resulting from cash transfers can help to overcome those social inequities. These considerations are also relevant in the context of Uganda, where gender inequality, amongst other dimensions, reflects into unbalanced school enrolment and educational attainment. Additionally, disability can play a major role in the aforementioned marginalization and unproductiveness within a society. For this reason, initiatives such an Old Age Pension and a Disability Grant can function as tools for inclusion and for fostering productivity of otherwise marginalized vulnerable groups. The following sections of this report will further emphasize these mechanisms.

Notably, although cash and in kind transfers represent a fundamental and critical component of any social protection scheme, in isolation they are unlikely to allow a household or a family to raise itself out of poverty and, when unaccompanied, cannot bring about widespread social or economic change. In this sense, they are not a silver bullet. When delivered accurately to beneficiaries in need, the majority of funds transferred through a CT are generally spent on food and other essential goods. Need drives this spending: families most often use their cash transfer allowance for food and other goods needed for survival.

That is not to suggest that cash transfers are not inherently developmental: on the contrary, CTs represent a critical step in the long-term development of human capital. This is particularly true in Uganda - given its young population - because children that lack access to proper nutrition are, across the board, less able than their well-nurtured counterparts. Improper or insufficient nutrition is highly detrimental for all aspects of child development, limiting his emotional, intellectual, and physical capacity for the rest of his life. Because of this, cash transfers represent a critical step to halting the transition of intergenerational poverty and boosting poor household’s current and future productive capacity.

A transformative social protection scheme requires that cash and in kind transfers be paired with other complementary social protection programmes designed to help beneficiaries develop critical skills and livelihoods. These types of multi-sector integrated programmes are livelihood modifiers or livelihood components, and they represent a fundamental pillar of any effective social protection strategy. While there is no one definition for what constitutes a livelihood programme, it is generally understood that a livelihood programme must promote the accumulation of skills and assets that will improve the beneficiaries’ quality of life and allow its beneficiaries to graduate from state-sponsored social support.

Furthermore, because of their unique capacity to help beneficiaries graduate from social protection schemes, these livelihood-building programmes are particularly appealing for governments in low- and middle-income countries. In this way, long-term investment in livelihood programmes can actually help to drive down the cost of social support schemes by reducing the number of families in need of support. Similarly, livelihood linkages represent an important tool for both poverty eradication and economic development, as they raise the productive capacity of their beneficiaries to contribute to the workforce.

Livelihood components expand and broaden the reach of social protection into multiple sectors and government agencies, and can include Public Works Programmes, School Feeding Programmes, Skills and Professional Training or Development Programmes, and Public Health Programmes, and more.
2. The National Social Protection Context

In the Ugandan context, social protection is a set of public and private interventions aimed at addressing risks and vulnerability that expose individuals to income insecurity and social deprivation, in line with what is prescribed by the Constitution. The first pillar is social security, which refers to preventive interventions to mitigate income shocks, and is in turn classified into direct income support and social insurance. The second is social care and support, aimed at providing a wide range of services for poor and vulnerable groups, such as orphanages and rehabilitation centres for persons with disabilities.

Social protection was first integrated into the PEAP and the Social Development Investment Plan (SDIP) in 2004, when a multi-sectoral sub-committee on social protection was established. Additionally, social protection was strongly reflected in NDP I, and its major role was further reinforced in the NDP II and in the SDIP 2. Currently, the effective implementation of the social protection policy in Uganda is the responsibility of the Ministry of Gender, Labour and Social Development (MGLSD). A wide range of legislation sources constitutes the base for the implementation of social protection initiatives. The Pension Act covers the granting of pensions, gratuities and other allowances for officers of the public service; the National Social Security Fund Act is addressed to workers in the private sector; the Uganda Retirement Benefits Regulatory Authority Act accounts for both the private and public sector; the Children’s act guarantees rights and duties for parent and protects children from harmful practices and employment.

Public and private institutions have addressed the tasks typically embedded under the social protection umbrella in many ways. Initiatives range from national policies - originally designed to achieve broader goals but also encompassing social protection aspects - to ad-hoc social protection programmes, falling in one of the categories outlined above (social security and social care). Table 3 displays Uganda’s social protection system in its entirety.

87 MGLSD, 2011
### Table 3: Uganda’s Social Protection System

<table>
<thead>
<tr>
<th>Social Security</th>
<th>Direct Income Support</th>
<th>Social Insurance</th>
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<tr>
<td><strong>Unconditional Cash Transfers</strong></td>
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<tr>
<td>– Social Assistance Grant for Empowerment (SAGE) (Senior Citizens Grant (SCG) and Vulnerable Family Grant (VFG))</td>
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<td>– Retirement Benefit Scheme</td>
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<tr>
<td>– Extremely Vulnerable Households (EVH) Programme</td>
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<td>– Public Service Pension Scheme (PSPS)</td>
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<td><strong>Public Works Programmes</strong></td>
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<td>– Community-Based Health Insurance (CBHI) Schemes</td>
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<tr>
<td>– Northern Uganda Social Action Fund (NUSAF)</td>
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<td>– Private Health Insurance Arrangements</td>
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<tr>
<td>– Karamoja Livelihoods Improvement Programme (KALIP)</td>
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<td>– National Social Security Fund</td>
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<td>– Community Driven Development (CDD) Programme</td>
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<td>– Voluntary retirement benefit Schemes</td>
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<td>– Agricultural Livelihoods Recovery Programme (ALREP)</td>
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<td>– Workers Compensation</td>
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<td><strong>Food Programmes</strong></td>
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<td>– WDF Food for Assets Programme</td>
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<td><strong>Social Care and Support</strong></td>
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<td>– Traditional Social Networks</td>
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<td>– Civil Society Organizations (CSOs)</td>
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<td><strong>National Policies</strong></td>
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<td>– National Food and Nutrition Policy – 2003</td>
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<td>– National Child Labour Policy – 2006</td>
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<td>– National Policy on Disability – 2006</td>
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<td>– Uganda Gender Policy – 2007</td>
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<td>– National Policy for Older Persons – 2009</td>
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<td>– National Health Policy – 2010</td>
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<td>– National Employment Policy – 2010</td>
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<tr>
<td>– National Policy for Disaster Preparedness and Management – 2010</td>
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<td>– Special Needs and Inclusive Education Policy – 2012</td>
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As for policies implemented by the Ugandan government, of particular interest for social protection is the National Orphans and Other Vulnerable Children (OVC) Policy implemented in 2004. The Ugandan extended family system, community organizations and religious bodies contribute to providing health, shelter, nutrition and education to a considerable number of OVC. However, due to the lack of human and financial resources that households would need to address the issue in a comprehensive manner, many orphan children live on the street or under exploitative conditions. In order to tackle these challenges, the policy intervened in promoting: socio-economic security through micro-finance initiatives benefitting households taking care of OVC; food and nutrition security, providing adequate nutritious food to households caring for orphans; education, promoting access to school for OVC; psychological support, encouraging the establishment of community-based child friendly recreational facilities.\(^{88}\) As complement to the aforementioned policy, in 2006 government implemented the National Labour Policy, as a tool towards a society free from child labour and exploitation.

The National Policy on Disability (2006) and the National Policy for Older Persons (2009) address other important aspects related to social protection, seeking to promote equal opportunities, care and support for persons with disabilities (PWDs) and older people, respectively. In order to tackle the problem of gender inequality, persistent in Uganda as emphasized in Section 1, the Uganda Gender Policy implemented in 2007 sought to promote gender equality in multiple spheres (livelihoods, rights, governance and macro-economic management) and provided guidance for engendering social protection interventions.\(^ {89}\)

As far as food and nutrition security are concerned, the National Food and Nutrition Policy aims at tackling the fundamental development challenge of malnutrition, particularly frequent among Ugandan infants, pregnant and lactating women. More broadly, the National health Policy of 2010 and the National HIV/AIDS Policy in 2011 provide frameworks for achieving good standards of health and deliver HIV/AIDS related services. On the other hand, the National Policy for Disaster Preparedness and Management aims to help reducing risk of loss of life, property and livelihoods consequent to shocks of various nature.

To provide the needed investment in Uganda’s children, outlined in chapter 1 and in line with the NDP II, the MGLSD and the NPA recently unveiled a budgeting framework to support early childhood development (ECD) as a foundation for human capital development.\(^ {90}\) The latter identifies four core programme areas (CPAs): maternal, child health and development; early learning and care; child protection; family strengthening and community support. Each individual component entails numerous activities such as the improvement of sanitary infrastructure and care centres, capacity building measures and the increased availability of institutional support. Furthermore, each activity is coupled with an indicator, namely a baseline and a target value used to monitor its effectiveness.\(^ {91}\)

The goal is to provide a comprehensive planning and budgeting framework for ECD. Besides the formal channels just highlighted, operating through public interventions guided by appropriate policies and legislations, there exist traditional and informal social protection systems, i.e. private

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\(^{88}\) MGLSD, 2004, p. 9
\(^{89}\) MGLSD, 2007
\(^{90}\) Ibid.
\(^{91}\) Ibid., pp. 22-33
initiatives to support people in need according to accepted values and norms within the community. These latter mechanisms have experienced a decrease in effectiveness, due to an intrinsic difficulty in enforcing compliance and moral values such as reciprocity. For this reason, formal channels for social protection have been reinforced. In particular, in the social security category, the retirement benefit scheme aims to cover public workers and workers in the formal private sector. However, only 29% of wage earners are actually part of it.\textsuperscript{92} Moreover, in addressing the issue of health care financing, Community-Based Health Insurance (CBHI) schemes cover 138,000 members in the central and southwestern regions, whereas Private Health Insurance arrangements cover approximately 700,000 people.

Small and independent programmes provide income support for the most vulnerable categories in the population. Operational modalities and target group vary across initiatives, which can be classified into unconditional cash transfers, public works programmes, food aid programmes and child nutrition programmes. The Senior Citizens Grant (SCG) is an unconditional cash transfer aiming to reduce the intergenerational transmission of poverty, providing income security to older persons and simultaneously guaranteeing access to health care and education for children.\textsuperscript{93} Together with the Vulnerable Family Grant (VFG), it is part of the broader Social Assistance Grant for Empowerment (SAGE) programme, a pilot originally operating in 14 out of 112 districts in Uganda\textsuperscript{94} (see Part 2 for an ex-post impact assessment of this initiative). In November 2015, the MGLSD decided to phase out the Vulnerable Family Grant. Indeed, “the criteria (vulnerability score) used to identify vulnerable households was not easily understood by the communities and the grant has been costly and labour intensive in terms of identifying its beneficiaries”.\textsuperscript{95} However, the Government decided for a roll out of the Senior Citizen Grant\textsuperscript{96}, allocating 9 billion UGX for the fiscal year 2015/2016 and committing 149 billion UGX for the next 5 years. The goal is reaching 55 districts covered over the next 5 years, i.e. by 2020.\textsuperscript{97} Another similar unconditional transfer is the Extremely Vulnerable Households (EVH) programme, providing food-based support to food-insecure households.

Food aid programmes and public work programmes in Uganda include the WDF Food for Assets Programme, the Northern Uganda Social Action Fund (NUSA), the Karamoja Livelihoods Improvement Programme (KALIP), the Community Driven Development (CDD) Programme and the Agricultural Livelihoods Recovery Programme (ALREP). Overall, these initiatives create community assets and provision of food items to households affected by famine, and direct income support to poor households endowed with labour capacity.

In the context of social care and support services, Uganda primarily relies on traditional social networks, like the family and the community. However, government and civil society organizations (CSOs) have recently been playing an important role in providing social care services, such as the resettlement of abandoned and street children, institutional support to PWDs, older persons and OVC, support for victims of gender-based violence and protection of children in conflict with the law.\textsuperscript{98} The MGLDS has highlighted some challenges affecting the just described social protection

\textsuperscript{92} MGLSD, 2015, p. 13
\textsuperscript{93} About 15% of Ugandan children live under the protection and responsibility of older persons (MGLSD, 2015).
\textsuperscript{94} The Yumbe district was included in the pilot subsequently, in 2014.
\textsuperscript{95} MGLSD, Expanding Social Protection, 2014
\textsuperscript{96} Refer to the next section for a micro-simulation of a national roll out of the SCG.
\textsuperscript{97} MGLSD, A Newsletter of the Expanding Social Protection Programme, 2015, p. 2
\textsuperscript{98} MGLSD, The Uganda National Social Protection Policy, 2015
among these, the fragmentation of the various initiatives, implemented in an uncoordinated manner; their low coverage (direct income support programmes cover only 4.3% of the vulnerable population needing social protection); and duplication of efforts. For these reasons, the Government of Uganda has recently approved a new formulation of the National Social Protection Policy,\textsuperscript{100} aiming to comprehensively harmonize the aforementioned initiatives and reach coherence for achieving the goals of Vision 2040. To this end, the MGDLS has highlighted the major sources of vulnerability in the various stages of the life cycle and identified the areas that more urgently are at need for further interventions. This reflects what outlined in Chapter 1 of this report, which highlights the major critical dimensions that past and current policies have so far failed to address successfully, such as child and maternal health, gender disparity, education and income poverty. Moreover, in general terms, the MGLDS outlines three main objectives:

- to increase access to social security;
- to enhance care, protection and support for vulnerable people; and
- to strengthen the institutional framework for social protection service delivery, in order to avoid the just mentioned challenges related to fragmentation and efforts overlap.\textsuperscript{101}

Some vital guiding principles need to accompany the process of achieving these objectives: the active participation of individuals, families and communities; timeliness, reliability and sustainability of social protection systems together with transparency and accountability; equity in the provision of social protection services, particularly in relation to gender.
CHAPTER 3
1. Ex-Post Impact Assessment of the Social Assistance Grant for Empowerment (SAGE)

Although Uganda experienced remarkable economic growth over the past 20 years, growth was unequal, disproportionally benefitting the higher incomes quintiles, as the overall increase in income inequality suggests. Moreover, the social protection programmes in place at the time, such as the country’s cash for work and social insurance programmes, primarily benefitted the moderately and working poor, excluding those in extreme poverty from the gains of the country’s economic development. With the objective to address this, government implemented the Social Assistance Grant for Empowerment (SAGE) as part of the government’s Expanding Social Protection (ESP) programme that aimed to address chronic poverty in the country. Disproportionally living in poverty, SAGE is specifically targeted to labour constraint households. Its primary aim was to create a programme that generates evidence on the impact and delivery of social grants and which, once successful, could be scaled up nationally.

SAGE initially consisted of two different components, which were implemented as pilot cash transfer programme from April 2011 to February 2015: the Vulnerable Family Support Grant (VFSG) and the Senior Citizens Grant (SCG). The SCG was targeted at people aged 65 years or older and the VFSG to households that reached a certain score based on indicators such as disability, old age, young age and orphanhood. Within selected districts, approximately 15% of all households were expected to be eligible for the programme, receiving an indexed benefit of 23,000 UGX per month, equivalent to approximately 20% of monthly household consumption of the poorest decile.

**BOX 2: SAGE DISTRICT SELECTION**

In total 14 districts were selected for the programme, expanding to 15 in 2014 with the addition of the Yumbe district. Districts were selected into the programme based on a composite score made up of the share of children in the entire population, the share of elderly persons in the entire population, the share of orphans and vulnerable children in the child population, the share of risky births, the proportion of households living more than 5 km from health facilities and the share of children (6-12 years) not attending school. The higher a district’s score, the higher was the likelihood that it would be selected. Government has committed to further expand coverage for the Senior Citizen Grant, and planning to reach 55 districts by 2020.

Given the vast array of impacts of social protection programmes documented across the region, a similar attempt is made to assess how SAGE affected individuals in selected districts. As such, this study employed an ex-post analysis of the SAGE programme, focussing specifically on meso-level district effect in light of the conveying evidence described in the previous section.

102 Ssewanyana, 2009, pp. 2,3  
103 Government of Uganda, 2012, pp. 1,2  
104 Ibid., pp. 5,6
### 1.1 Identification Strategy for the SAGE Ex-Post Analysis

In order to understand and assess the effects of the SAGE programme on the districts in which it is implemented, an ex-post analysis is conducted using a propensity score matching difference-in-difference methodology. In other words, district-level indicators are compared before and after the SAGE programme was implemented and subsequently compared with the development of these indicators over time in non-SAGE districts with similar characteristics. The difference in performance between SAGE districts and non-SAGE districts over time is attributed to SAGE. The datasets used to as pre-SAGE baseline is the 2009 Uganda Living Standards Measurement Survey (LSMS or Uganda National Panel Survey - UNPN), the 2013 Uganda National Household Survey (UNHS) constitutes the follow-up dataset, as described in Table 4.

| DATASETS AND SAMPLES FOR THE EVALUATION OF IMPACTS ON SCHOOL ATTENDANCE, EMPLOYMENT AND WAGE (FULL SAMPLE) |
|---|---|
| Baseline | Follow-up |
| LSMS 2009 | UNHS 2013 |
| Total number of households | 2,976 | 6,896 |
| Households in non-SAGE districts | 2,671 | 5,961 |
| Households in SAGE districts | 305 | 935 |

| DATASETS AND SAMPLES FOR THE EVALUATION OF IMPACTS ON FOOD SECURITY RESTRICTED SAMPLE (HOUSEHOLDS WITH AN OLDER MEMBER) |
|---|---|
| Baseline | Follow-up |
| LSMS 2009 | UNHS 2013 |
| Total number of households | 1,095 | 1,142 |
| Households in non-SAGE districts | 958 | 972 |
| Households in SAGE districts | 137 | 170 |

| DATASETS AND SAMPLES FOR THE EVALUATION OF IMPACTS ON ANTHROPOMETRIC INDICATORS (SAMPLE OF CHILDREN UNDER 5) |
|---|---|
| Baseline | Follow-up |
| LSMS 2009 | LSMS 2012 |
| Total number of children | 2,378 | 2,378 |
| Children in non-SAGE districts | 2,061 | 2,061 |
| Children in SAGE districts | 317 | 317 |

However, for the evaluation of SAGE on anthropometric indicators, the LSMS (or UNPN) of year 3 (2011/2012) is used as follow-up dataset, instead of the UNHS.\(^{105}\) In this latter case, the two surveys constitute a panel, while for the rest of the analysis baseline and follow up surveys are treated as repeated cross section.

\(^{105}\) The reason for not using the UNHS is simply the fact that this latter dataset does not include anthropometric indicators information.
BOX 3: SAGE IMPACT ASSESSMENT DIFFERENCE-IN-DIFFERENCE METHODOLOGY

The impact of SAGE (also called the treatment effect) on targeted districts would look at the difference in certain indicators between the two time periods; one period before implementation and one period after implementation. The treatment effect (following this methodology, would be given by:

\[ TE = Y_1 - Y_0 \]

where and constitute the before and after values for outcome variables in SAGE districts, respectively. However, the above methodology does not account for exogenous changes across time periods. It would estimate an effect, but one would not be able to confidently attribute the effect to SAGE as a considerable amount of other factors might affect the trend of indicators.

In order to tackle this issue, it is necessary to compute the same simple difference for districts that have not been included in the SAGE programme but that were exposed to the same other factors that need to be controlled for, and subtract this trend from the equation above. This is known as a difference-in-difference estimator, and can be analytically expressed as follows:

\[ TE_{DID} = (Y_1^{\text{SAGE}} - Y_0^{\text{SAGE}}) - (Y_1^{\text{non-SAGE}} - Y_0^{\text{non-SAGE}}) \]

The identifying assumption for this strategy is the so-called common trend assumption. Untestable in nature, it requires that non-SAGE districts constitute a good approximation of the counterfactual, i.e. exhibit the same trend that SAGE districts would have followed in absence of the programme.

As districts are selected for SAGE based on a composite score constructed using key socio-economic indicators described in Box 2, the same indicators are used to match SAGE districts to similar non-SAGE districts using the Propensity Score Matching (PSM) method. This list of district-selection indicators is enriched with several additional indicators in order to enhance the robustness of the matching process. These additional indicators added are the:

- Share of orphans and vulnerable children in the population under 18 (included in the original designation of SAGE)
- Share of orphans and vulnerable children in the entire population
- Share of individuals living far from a health facility (included in the original designation of SAGE)
- Share of children not in school (included in the original designation of SAGE)
- Share of children in primary school age in the entire population
- Share of older people in the population (included in the original designation of SAGE)
- Share of households with an older head
- Share of households with a female head
- Share of households with a non-protected source of water
- Share of households without electricity

A probit regression assigns to each district a propensity score, defined as the conditional probability of being selected for the programme. SAGE districts are matched to non-SAGE districts depending on how close together the propensity scores are. For robustness, the second nearest neighbour – i.e. the district that has the second closest propensity score compared to the SAGE district in question – is used as well. The completion of the matching procedure allows the estimation of the treatment effect of SAGE.
As outlined above, two different datasets are used for conducting the impact evaluation analysis, which for this reason is said to adopt a repeated cross-section difference-in-differences strategy. This means that households under investigation are likely to differ across the two datasets because of different sampling procedures used for each of the two surveys. However, as the impact assessment is conducted at the district level, and both surveys are equally representative of the larger share of the population of interest at this level, this does not have an adverse impact on the robustness of the assessment.

In addition to this, another issue that could undermine the accuracy of the analysis is if there are structural differences between the baseline survey and the follow-up survey. At first sight, this might entail slight differences in the outcome variables of interest between the two periods, and consequently the identification of biased trends. However, during the entire impact evaluation process, particular attention has been paid in assessing the absolute equivalence of questions in the two surveys considered. Only outcome- and explanatory-variables captured by analogous indicators (deriving from identical survey questions) in the two datasets have been taken into account. Despite this, the existence of other disturbance elements of any kind in the identification of trends – due to the adoption of two different datasets - cannot be excluded. Nevertheless, the advantage of the difference-in-differences strategy is that, even if such disturbances actually existed, these would affect trends for both SAGE and non-SAGE districts, and the final estimated impact of the programme would turn out to be unaffected. In other words, a bias in indicators is not expected to occur in SAGE or non-SAGE districts more disproportionately than in the other.

1.2 Results of the SAGE Ex-Post Analysis

In line with the international evidence on the impact of cash transfer programmes on socio-economic indicators, the outcome variables selected for the study are related to food security, education and labour market impacts. Specifically, the following indicators are examined:

- Percentage of households eating fewer than two meals in a day
- Anthropometric indicators
- School attendance
- Employment rate
- Median wage

1.2.1 Food Security and Nutrition

The first outcome variable of interest is food security. A cash transfer like SAGE is likely to increase the ability of targeted households to meet their nutritional requirements. Although not necessarily an indicator of nutritional intake, the district-level indicator adopted to investigate the stability of food-intake as a proxy of nutrition is the ratio of households that, on average, eat fewer than two meals per day. This ratio is computed for the restricted sample of households with an older person - above 60 years of age - both before and after the policy implementation, separately for SAGE and non-SAGE districts.
non-SAGE districts.\textsuperscript{107}

As shown by Figure 8, the programme has had a significant positive desirable effect on food security for households with an older member resident in SAGE districts. The ratio of families that on average can afford fewer than two meals per day decreased by 6 percentage points between 2009 and 2013, whereas the same indicator in non-SAGE districts displays the opposite trend: in these latter areas, the percentage of families experiencing lack of food security increased by more than 5 percentage points. Consequently, the programme not only prevented the undesirable trend to occur, but it inverted it towards the desirable direction. Overall, SAGE led to a decrease in the ratio of households with fewer than two meals per day by more than 11 percentage points.\textsuperscript{108}

\textbf{FIGURE 8: IMPACT OF SAGE ON FOOD SECURITY}

Another way of investigating the effect of SAGE on households’ food security is observing children’s anthropometric indicators. Anthropometry is a widely used measure of the general nutritional status of an individual, and it is particularly informative particularly as far as children under five are concerned. For this reason, an increasing amount of studies employ these indicators to evaluate responses to interventions. In order to undertake this kind of assessment, four building blocks are required: age, sex, length (or height) and weight of children.\textsuperscript{109} For Uganda, this information is included in the Living Standards Measurement Survey (LSMS) panels for 2009 and for 2012, which constitute baseline and follow up surveys for evaluating the impact of the SAGE programme, respectively. Three indices are commonly used in assessing the nutritional status of children, and provide different information:

1. Weight-for-age (WAZ): it identifies the condition of being underweight, and it may reflect both past (chronic) and present undernutrition;
2. Height-for-age (HAZ): it is an indicator of past undernutrition or chronic malnutrition, usually defined as stunting;
3. Weight-for-height (WHZ): it identifies children suffering from current or acute undernutrition or wasting.

\textsuperscript{107} Food security is a strictly household-related variable. In order to compare such indicators between districts, it is necessary to consider households with similar characteristics and that are more likely to be exposed to the SAGE programme. To this end, the sample is restricted to households with at least one member older than 60 years. This selection ensures the inclusion of households with Senior Citizens Grant recipients.

\textsuperscript{108} The t-statistic relative to this estimator is -1.97, indicating a statistically significant effect.

\textsuperscript{109} Cogill, 2001
This study combines the information related to age, sex, weight and height included in the household surveys to construct standardized anthropometric indicators, expressed in terms of standard deviation units, or Z-scores. In order to do so, a reference population needs to be considered. In this respect, this analysis follows the guidelines of the World Health Organization, which recommends the reference standards developed by the US National Centre for Health Statistics (NCHS). This includes a statistically valid population of healthy infants and children representative of any age and sex.

The Z-score is defined as the difference between the observed value of height or weight for a child and the median value of the reference population for the same age (in the case of WAZ and HAZ) or height (in the case of WHZ), divided by the standard deviation of the reference population, as follows:

\[
Z\text{- score} = \frac{\text{observed value} - \text{median reference value}}{\text{standard deviation of the reference population}}
\]

This part of the impact assessment exploits the fact that the pre-SAGE and the post-SAGE datasets are panels.\textsuperscript{111} This allows the analysis to be carried out at an individual level, i.e. maintaining children as units of observation and not aggregating data at a district level. Moreover, this practice allows to maintain a high degree of variability and consequently to draw precise inference about the statistical significance of the results.

The following table presents summary statistics (mean and standard deviations) and t-tests for anthropometric indicators of children in SAGE and non-SAGE districts at baseline, i.e. before the implementation of the programme.

### Table 5: Anthropometric Indicators Descriptive Statistics at Baseline

<table>
<thead>
<tr>
<th></th>
<th>Weight-for-age</th>
<th>Height-for-age</th>
<th>Weight-for-height</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Mean for children in SAGE districts</strong></td>
<td>-1.30 (1.35)</td>
<td>-1.13 (1.44)</td>
<td>-0.58 (1.29)</td>
</tr>
<tr>
<td><strong>Mean for children in all non-SAGE districts</strong></td>
<td>-1.01 (1.38)</td>
<td>-1.05 (1.50)</td>
<td>-0.24 (1.18)</td>
</tr>
<tr>
<td><strong>Difference [P-Value: Difference ≠0]</strong></td>
<td><strong>-0.29</strong>*</td>
<td><strong>-0.08</strong></td>
<td><strong>-0.34</strong>*</td>
</tr>
<tr>
<td></td>
<td>[0.001]</td>
<td>[0.509]</td>
<td>[0.001]</td>
</tr>
</tbody>
</table>

**Notes:** Each cell displays the mean value of WAZ, HAZ and WHZ for children in SAGE and non-SAGE districts, respectively. Standard deviations are reported in the parenthesis. The last row tests for significant difference in means and reports the p-value of the t-test in the squared brackets. Inference: *** significant at the 99% level; ** significant at the 95% level; * significant at the 90% level.

\textsuperscript{110} Ibid., p. 40
\textsuperscript{111} For the evaluation of the impact of SAGE on anthropometry, the LSMS (or UNPS) constitutes both baseline and follow-up and therefore the two datasets are panels.
Not surprisingly, as can be easily assessed by observing the table above and the following figure, children living in SAGE districts were generally worse off before SAGE was implemented, and this is in line with the logic of the pilot targeting the most disadvantageous districts.\textsuperscript{112} More specifically, children in SAGE districts were on average significantly more underweight and affected by wasting, as the t-tests for difference in mean WAZ and WHZ report and as the negative differences highlighted in red show in Figure 9. However, the negative difference in HAZ is not statistically significant, suggesting a similar level of stunting across SAGE and non-SAGE districts in 2009.

**FIGURE 9: MEAN WEIGHT-FOR-AGE, HEIGHT-FOR-AGE AND WEIGHT-FOR-HEIGHT FOR SAGE AND NON-SAGE DISTRICTS AT BASELINE**

\textbf{Notes:} Statistically significant differences between the two groups are marked in red. The bars represent the gaps between the observed value and the desirable one (which is standardized to zero).

With the follow-up survey conducted only one year after the implementation of SAGE and taking into account the information that each of the aforementioned indicators provides, the only variable that one expects to be affected by the programme is weight-for-height, a short-run indicator of nutrition and health. In other words, the programme is not likely to have an immediate impact on WAZ or HAZ, being these cumulative measures of nutrition and well-being, reflecting past exposure to undernutrition and illnesses and thus not likely to be influenced in the short run. The channels through which SAGE is expected to improve height-for-age are manifold: improved food security due to additional income, increased number of meals and food quality, access to health care.

\textsuperscript{112} Indeed, the farther the values are from zero, the larger the gap to the desirable z-score is.
A difference-in-differences strategy is adopted in order to assess the impact of the programme on the indicators of interest. Following the same logic as for the rest of the analysis, children in SAGE districts are matched to children in similar non-SAGE districts by considering the same set of district-level indicators adopted for the other impact assessments. The assumption underlying this methodology is that in the absence of the programme, children in SAGE districts would have exhibited the same trend as children in non-SAGE districts.

The results of the analysis confirm what was previously conjectured. A positive and statistically significant impact is recorded only for the weight-for-height Z-score, and it is reported in Table 6 below.

**Table 6: Difference-in-differences estimation for WHZ**

<table>
<thead>
<tr>
<th></th>
<th>Impact of SAGE on Weight-for-Height</th>
</tr>
</thead>
<tbody>
<tr>
<td>SAGE</td>
<td>-0.58</td>
</tr>
<tr>
<td>non-SAGE</td>
<td>-0.39</td>
</tr>
<tr>
<td>Difference</td>
<td>-0.19</td>
</tr>
<tr>
<td>[P-value]</td>
<td>[0.21]</td>
</tr>
</tbody>
</table>

*Inference: *** significant at the 99% level; ** significant at the 95% level; * significant at the 90% level.*

As can be seen, the quality of the matching procedure is confirmed by observing the column reporting the baseline statistics. Contrary to what shown by the last column of Table 5 and in Figure 9, where SAGE districts were significantly performing worse than non-SAGE districts, here the difference is not statistically significant. This leads to infer that matched children are qualitatively similar to treated children at baseline, and to confirm the effectiveness of the identification strategy adopted by this analysis.

Similarly to what was observed for the percentage of households eating fewer than two meals in a day, the control group here displays a negative trend over time (between 2009 and 2012), as far as WHZ of children is concerned (see Figure 10). Instead, the same is not valid for children living in treated districts, who experience a slight improvement in their indicators. Overall, the effect of SAGE is positive and statistically significant: in the short run, the programme contributed to an increase in weight-for-height for children under five by 0.86 standard deviations.

---

113 More specifically, the methodology here adopted is kernel propensity score matching difference-in-differences.
1.2.2 Education

In addition to a positive and significant effect on food security, the study shows that the programme had positive impacts on school attendance, expressed as the ratio of children in primary or secondary school out of the total number of children in the age range 5-17 in the population as a whole. Figure 11 displays the difference in school attendance between 2009 and 2013 for SAGE and matched non-SAGE districts, respectively. As can be seen, SAGE districts experienced more than 22 percentage points increase between 2009 and 2013. However, not the entire change can be attributed to the programme, as other factors other than SAGE might have affected this indicator over time: an increase in school attendance by 7 percentage points for similar district that could not benefit from the cash transfer suggests that this is actually the case. In light of these considerations, the last column of Figure 11 leads to conclude that SAGE alone accounts for an increase in the ratio of children attending either primary or secondary school of more than 14 percentage points.
Similarly, Figure 12 reports the effect of SAGE on school attendance for a narrower pool of children, i.e. those between seven and twelve years of age. Districts that benefit from the programme have experienced an increase in this ratio by 14 percentage points, 7 of which can be attributed to SAGE.\footnote{The t-statistic for the effect of SAGE of primary and secondary school attendance is 1.64. When considering only the narrower pool of children between 7 and 12 years old the t-statistic falls to 1.26.}

### Employment and Productivity

In addition, the study assessed the impact of SAGE on labour market performance, looking at the districts employment rate and median wage, as a proxy for productivity. The analysis defines employment rate as follows:

$$\text{Employment Rate} = \frac{\text{Employed}}{\text{Population (18 - 64)}}$$
This study considers individuals in the age range 18-64 as “employed” if having a main job or business, irrespectively of the activity carried out (i.e. belonging to the formal or informal sector).

As Figure 13 and Figure 14 suggest, and in line with findings on the other dimensions, there has been a positive impact of SAGE on both indicators. The employment rate for individuals between 18 and 64 years old across the four-year period increased significantly more in SAGE districts than in non-SAGE districts. Hence, the programme accounts for approximately 6 percentage points of the overall improvement.

**FIGURE 13: IMPACT OF SAGE ON EMPLOYMENT**

<table>
<thead>
<tr>
<th>EMPLOYMENT RATE (18-64)</th>
<th>SAGE</th>
<th>NON-SAGE</th>
<th>ATT: Change attributed to SAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Change 2009 - 2013</td>
<td>18.80pp</td>
<td>12.76pp</td>
<td>6.04pp</td>
</tr>
</tbody>
</table>

Finally, Figure 14 shows that median wage for districts not affected by the programme dropped significantly between 2009 and 2013. The same is not valid for SAGE districts, for which median wage, i.e. productivity, displays a positive trend. Overall, the analysis suggests that the net positive effect of SAGE on median wage (or productivity) is 80%.

**FIGURE 14: IMPACT OF SAGE ON WAGES**

<table>
<thead>
<tr>
<th>MEDIAN WAGE</th>
<th>SAGE</th>
<th>NON-SAGE</th>
<th>ATT:Change attributed to SAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Change 2009 - 2013</td>
<td>57.89%</td>
<td>-22.15%</td>
<td>80.04%</td>
</tr>
</tbody>
</table>
1.2.4 The Multiplier Effect of SAGE

As underlined above, the trends for SAGE and non-SAGE districts are likely to be affected by variable factors, caused by slight differences between the baseline and follow up questionnaires. For this reason, trends for SAGE and non-SAGE districts - reported separately in the previous graphs for each outcome variable of interest – are not optimally considered in absolute terms, but rather in relative ones, i.e. in relation to each other. This is consistent with the logic of the difference-in-differences methodology, where the indicator of interest is the net (or treatment) effect. Moreover, the common trend is the crucial assumption on which this methodology relies on, and can further clarify the issue.

As shown in Figure 15, both SAGE and non-SAGE districts’ trends move over time, and are plausibly affected by phenomena other than the programme under investigation itself. Instead, in the hypothetical case in which only SAGE had an impact on districts’ trends, the red line in Figure 15 would be flat. However, even if other phenomena affected both SAGE and non-SAGE districts simultaneously, the identification of the counterfactual (the green line in Figure 15) and the estimation of the net effect of SAGE are still possible. Consequently, even if data issues distorted trends over time, thus leading to the estimation of inaccurate trends in absolute terms, both SAGE and non-SAGE districts would be simultaneously exposed to them, and therefore the estimated net effect of SAGE would still be reliable.

**FIGURE 15: TRENDS AND COUNTERFACTUAL IN A DIFFERENCE-IN-DIFFERENCES FRAMEWORK**

For this reason, there is a more straightforward way of reporting the results of this analysis. For each of the outcome variables of interest, the second column of Table 7 reports the extent to which SAGE districts’ trends outperform non-SAGE districts’. More specifically, the indices reported below answer the following question: for every 1-percentage point change in a specific dimension for non-SAGE districts, by how many percentage points did that dimension change for SAGE districts between 2009 and 2013. This mechanism can be defined as the “multiplier effect of SAGE”.

For this reason, there is a more straightforward way of reporting the results of this analysis. For each of the outcome variables of interest, the second column of Table 7 reports the extent to which SAGE districts’ trends outperform non-SAGE districts’. More specifically, the indices reported below answer the following question: for every 1-percentage point change in a specific dimension for non-SAGE districts, by how many percentage points did that dimension change for SAGE districts between 2009 and 2013. This mechanism can be defined as the “multiplier effect of SAGE”.
As can be seen, every index is larger than one, leading to the conclusion that SAGE contributed to a better performance of the districts in which it was implemented. For every 1-percentage point decrease in the ratio of households eating fewer than two meals in a day in non-SAGE districts, the programme led to a 2.13 percentage points decrease in this ratio in the targeted districts. On the other hand, as far as primary and secondary school attendance are concerned, SAGE districts displayed 2.79 percentage points increase in the ratio of students attending school for each 1-percentage point increase in non-SAGE districts. Additionally, increase in school attendance for children 7-12 was almost twice as fast for SAGE districts. For every 1-percentage point increase in the employment rate for non-SAGE districts, districts in which the programme was implemented saw a 1.47 percentage points increase. Finally, between 2009 and 2013, median wage increased 3.61 times more for SAGE districts than for non-SAGE districts.

<table>
<thead>
<tr>
<th>Outcome Variables</th>
<th>Multiplier Effect</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ratio of households eating fewer than two meals per day</td>
<td>-2.13</td>
</tr>
<tr>
<td>Primary and secondary school attendance</td>
<td>2.79</td>
</tr>
<tr>
<td>School attendance for children 7-12</td>
<td>1.95</td>
</tr>
<tr>
<td>Employment rate</td>
<td>1.47</td>
</tr>
<tr>
<td>Median wage</td>
<td>3.61</td>
</tr>
</tbody>
</table>
1. Mainstreaming Social Protection in Uganda

After illustrating a quantitative ex-post impact assessment of the SAGE programme, this chapter of the report proposes a micro-simulation of impact and costs of initiatives that might contribute to tackle the most pressing developmental deficiencies highlighted in the National Social Protection Policy and discussed in Chapter 1. Table 8 highlights developmental challenges and proposes potential and complementary tools for addressing them.

**TABLE 8: PRIORITY AREAS OF FOCUS FOR UGANDA AND RELATIVE SOCIAL PROTECTION TOOLS**

<table>
<thead>
<tr>
<th>NATIONAL PRIORITY AREAS OF FOCUS</th>
<th>SOCIAL PROTECTION TOOLS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Disability and Vulnerability</td>
<td>National Rollout of the Senior Citizens Grant</td>
</tr>
<tr>
<td></td>
<td>Disability Grant</td>
</tr>
<tr>
<td>Child and Maternal Health</td>
<td>Universal Health Care for Pregnant and Lactating Women</td>
</tr>
<tr>
<td></td>
<td>and Children under Five</td>
</tr>
<tr>
<td>Education and Childhood Well-being</td>
<td>Child Support Grant</td>
</tr>
</tbody>
</table>


One of the sources of poverty and vulnerability considered by the National Social Protection Policy is disability, because of some important facts: about 14% of persons with disabilities aged 6-24 are permanently limited by their disability to attend school, while 40% aged 14-64 are permanently unable to work.\(^{115}\) As for child and maternal health, the Policy recognizes the inefficiency of the Ugandan health delivery system. Around 23% of Ugandan population live in a radius of more than 5 kilometres to their nearest health facility. Moreover, almost 50% of the cost of health care in Uganda is borne by the households.

Finally, as far as education and childhood well-being is concerned, the National Social Protection Policy highlights the risks faced by Ugandan children at different stages. They face malnutrition resulting into physical, cognitive and psychological underdevelopment, disease and disabilities. Moreover, the Policy acknowledges the detrimental effects of orphan-hood, child labour, high school dropout rates, abuse and neglect.

For each of these priority areas, programmatic suggestions were made that could successfully contribute to the objectives specified within each ministries sectoral plans:

1. National Rollout of the Senior Citizen Grant
2. Universal Health Care for Pregnant Women, Breastfeeding Mothers and Children under five
3. Disability Grant
4. Child Support Grant

\(^{115}\) MGLSD, 2015
Although the design and implementation characteristics of these programmes are not final, consultations with the Ministry of Health, Ministry of Education, Ministry of Gender and Social Development and other Ministries were instrumental in guiding the selection of parameters. Furthermore, a review of Uganda’s current efforts – mostly at the regional level at pilot-scales – and a review of international best practices served to inform decision-making.

2. Methodology

In order to model the costs and benefits associated with the proposed policies, a micro-simulation model was developed for each of them. Micro-simulation uses household datasets\textsuperscript{116} to simulate the cost of a wide range of interventions and their impact on poverty and other outcomes. For this study, the core modelling assesses the cost of the programmes as per the design and implementation characteristics described in the following section, and simulates the associated benefits of their selected primary outcome. As such, the monetization of selected benefits does not aim to quantify all associated outcomes, impacts and benefits comprehensively. It however aims to show that through the returns on one of each programme’s most directly associated benefits, their implementation is already financially worth the investment.\textsuperscript{117}

In addition to their financial viability, which expresses the cost as a percentage of Gross Domestic Product (GDP) and the cost as a fraction of its associated benefits (in a so-called efficiency index), the costs of the selected interventions are projected over the long-run in order to assess their sustainability. As such, one can assess whether the cost of these programmes consumes increasing percentages of total GDP as a result of rising benefit levels and changing demographics, or whether economic growth outperforms these effects, and the policies become more affordable in the long-run. Furthermore, this analysis provides a Value for Money (VfM) framework, in line with what outlined in Box 4.\textsuperscript{118}

In order to forecast GDP, historical real annual GDP, historical nominal annual GDP and historical annual inflation data were obtained from the World Bank. A recent rebasement of GDP however has led to a structural break in the growth trajectory, indicating non-stationary data. Moreover, the relatively small sample size causes problem for inference. For this reason, an Autoregressive-moving-average (ARMA) model – the ideal methodology for this study – will likely not enable the study to build a robust econometric model. As a result, long-term GDP estimates are following IMF projections of an annual 5 percent real GDP growth per year. Similarly, inflation projections are based on IMF projections. Meanwhile, cost projections reflect population dynamics based on projections from the United Nation’s Population Division. In addition, the benefit levels and administrative costs are assumed to grow in line with inflation.

\textsuperscript{116} The datasets adopted in this study are the Uganda National Household Survey (UNHS) of 2013 and data from the Living Standards Measurement Survey (LSMS) of 2012.

\textsuperscript{117} Given the different purposes of each of the micro-simulated programmes, the cost-benefit and cost-effectiveness analyses proposed in this study do not constitute appropriate means neither for drawing direct comparisons across different instruments nor for guiding a decision process aimed at excluding some of such instruments from the social protection context. On the contrary, policy makers should account for each initiative separately, and consider the here proposed programmes as complementary in the development process, rather than independent.

\textsuperscript{118} The VfM framework here presented is in line with DFID guidelines (White, Hodges, Greenslade, & Matthew, 2013).
**Box 4: Value for Money Framework According to DFID Guidelines**

When analysing alternative social protection programmes, a Value for Money (VFM) assessment is essential for maximizing the impact of money spent to achieve the goal of poverty reduction. At an initial stage, during the ex-ante programme design, three cost analysis approaches can be adopted and are outlined in Table 9 below. Each of them helps assessing whether social protection programmes are affordable, which design option yields the highest level of effectiveness for a given cost and to what extent benefits outweigh costs.

**Table 9: VFM Framework**

<table>
<thead>
<tr>
<th>Type of Analysis</th>
<th>Policy Question</th>
<th>Outputs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cost Feasibility Analysis</td>
<td>Affordability of a single option</td>
<td>Fiscal Burden: Total Yearly Cost of the Programme as a Percentage of GDP</td>
</tr>
<tr>
<td>Cost–Effectiveness Analysis</td>
<td>Which option, among the ones considered, yields the highest level of effectiveness for a given cost?</td>
<td>Cost – Effectiveness Ratio: Percent Reduction in Poverty Gap/Poverty Headcount for every 1% of GDP invested</td>
</tr>
<tr>
<td>Cost–Benefit Analysis</td>
<td>Are benefits of a single option larger than its costs?</td>
<td>Benefit – Cost Ratio: Number of monetary units of benefit for each unit of costs</td>
</tr>
</tbody>
</table>

Source: (Cherrier, Gassmann, Mideros Mora, & Mohnen, 2013)

Financial sustainability of a programme can be assessed through a basic form of cost analysis such as the cost-feasibility analysis. This provides estimates of costs alone over a long time horizon, providing an overview of the evolution of the fiscal burden. In projecting such costs, usually expressed as a percentage of GDP, scaling-up factors are taken into account, together with inflation adjustments and population dynamics.

Comparative cost-effectiveness analyses are useful for guiding the choice between two or more policy options to achieve a given objective, such as poverty reduction. This type of analysis acquires particular relevance if implemented ex ante, during the programme design stage, in that it allows the comparison of alternative options.

The cost–benefit analysis is capable of answering the simple question on whether a programme is worth its costs. It does so by combining programme benefits onto a monetary scale and comparing them to costs in a simple ratio. The output provided by this analysis can be interpreted as a return on investment, showing the excess return to one unit of money spent.

Taking into account the goal of this analysis to constitute a support for policy makers in their long-term decisions, the assumptions underlying the micro-simulations aim to reflect mature programmes at full scale.

As far as administrative costs are concerned, the simulations assume a mark-up of 20% of the total programme cost, apart from the Senior Citizen Grant where the availability of data on the pilot stage of the programme in the Public Expenditure Review allows for more precise estimations, as will be detailed in the following section. This assumption is based on a series of factors related to both empirical evidence and benchmarks proposed as best practices.
Table 10 and Table 11 below present ex-post data or ex-ante estimations of administrative costs for various programmes in Sub-Saharan Africa and Mexico. As can be easily noticed, data on measures such as administrative costs show large variations not only between programmes and countries, but also observing the same programme at different stages in different years. This latter difference is closely related to the process through which programmes develop and reach maturity,\(^\text{119}\) and to how the relative importance of components of such costs as described in the next section are subject to change: set-up costs might be gradually replaced by roll-out costs, which in turn are likely to gradually decrease as the programme reaches its mature stage (see Box 6).

**Table 10: Administrative Costs As a % of Total Cost Measured Ex-Post for the Most Recent Year For Which Data Are Available**

<table>
<thead>
<tr>
<th>Programme</th>
<th>Year of Reference For the Administrative Cost</th>
<th>Administrative Cost As a % of Total Cost (Ex-Post)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ghana Livelihoods Empowerment Against Poverty (LEAP) Programme</td>
<td>2010</td>
<td>53%</td>
</tr>
<tr>
<td>Zambia Child Grant</td>
<td>2011</td>
<td>44%</td>
</tr>
<tr>
<td>Ethiopia Productive Safety Net Programme (PSNP)</td>
<td>2010-2011</td>
<td>28%</td>
</tr>
<tr>
<td>Kenya Cash Transfers for Orphans and Vulnerable Children (CT-OVC)</td>
<td>2008/2009</td>
<td>25%</td>
</tr>
<tr>
<td>Kenya Hunger Safety Net Programme</td>
<td>2011/2012</td>
<td>17%</td>
</tr>
<tr>
<td>Mexico PROGRESA/Oportunidades</td>
<td>2000</td>
<td>5%</td>
</tr>
<tr>
<td>Mexico PROGRESA/Oportunidades</td>
<td>2012</td>
<td>5%</td>
</tr>
</tbody>
</table>

Source: (White, Hodges, Greenslade, & Matthew, 2013)

As can be seen in Table 10, different programmes observed at different stages of their implementation present a considerably large variety of measures as far as administrative costs are concerned. Specifically, in the examples proposed above, they range between 5% for PROGRESA and 53% for the Ghana LEAP Programme. On the other hand, once programmes reach maturity after five years,\(^\text{120}\) the variability across programmes is less pronounced and the interval narrows down to 23-35%, leaving programme type, design, and country characteristics as the only determinants of such difference (see Table 11).

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\(^{119}\) White, Hodges, Greenslade, & Matthew, 2013, p. 31

\(^{120}\) The analysis also assumes a scale-up period of five years, and programmes are consequently assumed to reach full scale in 2022.
TABLE 11: ADMINISTRATIVE COSTS AS A % OF TOTAL COST MEASURED EX-Ante AFTER 5 YEARS OF OPERATION

<table>
<thead>
<tr>
<th>PROGRAMME</th>
<th>YEAR OF REFERENCE FOR THE ADMINISTRATIVE COST</th>
<th>ADMINISTRATIVE COST AS A % OF TOTAL COST (Ex-Ante)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ghana Livelihoods Empowerment Against Poverty (LEAP) Programme</td>
<td>2012</td>
<td>23%</td>
</tr>
<tr>
<td>Nigeria Child Development Grant (CDG)</td>
<td>2017</td>
<td>27%</td>
</tr>
<tr>
<td>Tanzania Productive Social Safety Net (PSSN)</td>
<td>2018</td>
<td>35%</td>
</tr>
<tr>
<td>Zambia Child Grant</td>
<td>2015</td>
<td>25%</td>
</tr>
</tbody>
</table>

Source: (White, Hodges, Greenslade, & Matthew, 2013)

On the other hand, in a comprehensive study considering 55 schemes of different types in different countries, Grosh et al. (2008) propose a benchmark for administrative costs, stating that “the administrative costs of well-executed cash or near cash programmes cluster in the range of 8 to 15 of total costs”.  

The benchmark proposed by this latter study is however at odds with the empirical evidence reported in the tables above, also considering programmes that reached maturity after five years from their implementation. For this reason, the analysis adopts the assumption of 20% administrative costs, which is a mid-way between the benchmark proposed by Grosh et al. (2008) and the evidence collected by White et al. (2013) and summarized in Table 11.

Assumptions concerning inclusion and exclusion errors follow the same rationale guiding the choice of administrative costs, i.e. to reflect the mechanisms occurring in a programme at his mature stage of implementation. As widely discussed below in Box 8 (Section 5.1), inclusion and exclusion errors occur when the programme benefits reach some unintended beneficiaries (leakage) or when instead they fail to reach intended beneficiaries (under-coverage), respectively.

Similar to what stressed above in relation to administrative costs, evidence reporting estimations for inclusion and exclusion errors in existing programmes is highly heterogeneous. Figures tend to vary according to dimensions such as programme type, eligibility criteria and – most of all – targeting mechanism. Given this high variability, an assumption of 50% inclusion and exclusion error for the targeted programmes (which, in this case, “cancel out” each other) is a good approximation of a realistic measure reflecting the mature stage of a programme at full scale, particularly when considering the plausible challenges involved in any targeting mechanism.

A comprehensive study investigating the targeting effectiveness of social transfers collects evidence on targeting errors in a considerable number of existing programmes around the world.

121 Grosh, Del Ninno, & Tesliuc, 2008, p. 390
122 An ex-ante micro-simulation study for Congo-Brazzaville and Cote d’Ivoire also assumes a 20% administrative cost mark-up for the majority of estimations (Hodges, Notten, O’Brien, & Tiberti, 2014
123 Among the various targeting methods, the literature lists means testing, proxy means testing, categorical targeting, geographic targeting, community-based targeting, self-targeting and combinations of multiple mechanisms (Devereux, et al., 2015, p. 11).
124 Devereux, et al., 2015
However, drawing unique benchmarks on which to rely when it comes to formulating assumptions in this respect is controversial for a set of reasons. First of all, the measurement of such errors is strictly dependent on the criteria adopted to identify individuals or households that should, in principle, be included in the programme. These criteria could be related to age, other personal characteristics such as disability, or simply the poverty status.\footnote{Devereux, et al., 2015, p. 18} Moreover, as far as the latter element is concerned, a measure of targeting error is sensitive to the definition of poverty itself, which can be either based on solely income, or instead reached through a larger set of indicators and therefore assume a multidimensional character.

Apart from the just described room for discretion when it comes to measure targeting errors, large differences recorded between programmes are also strictly related to different programme designs, particularly in relation to different targeting mechanisms. Not surprisingly, the authors present the collected evidence into various categories, reflecting various targeting mechanisms such as means testing, proxy means testing, categorical targeting, community based targeting and self-targeting. Box 5 reports a collection of figures with respect of inclusion and exclusion errors: they vary considerably across programme designs, countries and targeting mechanisms.

**BOX 5: EVIDENCE ON INCLUSION AND EXCLUSION ERRORS**

The study by Devereux et al. (2015) reports evidence on exclusion errors of categorically targeted programmes: social pensions in several countries, such as Nepal (23%), Namibia (6%) and Botswana (4%);\footnote{Such indicators are produced using various methodologies (thus not necessarily proposing inclusion/exclusion against coverage as in the simulations of this study). Despite that, such evidence is nevertheless effective when it comes to highlight the heterogeneity in targeting efficiency across different programmes, contexts and targeting mechanisms.} inclusion errors in an old age allowance in Bangladesh (24%), measured by eligibility; rural exclusion error for the Livelihood Empowerment Against Poverty (LEAP) in Ghana (35.9%) and its relative urban inclusion error (73.4%); inclusion error of a community-based targeting of a social cash transfer in Malawi (24%) and the relative exclusion error (ranging between 5.6% and 10.3% according to the proxy adopted for the estimation); exclusion and inclusion error for a disability grant in South Africa targeted through means test and a disability test (38% and 34% respectively); inclusion error of the Cash Transfer programme for Orphans and Vulnerable children (CT-OVC) in Kenya (22%). In another study on safety net programmes in Senegal,\footnote{Note: the just cited exclusion errors are measured only by age eligibility, and not by poverty status.} the authors simulate the rate of inclusion and exclusion errors that would arise through proxy means testing. The targeting errors would vary across regions: in urban areas, 19% of poor would be erroneously excluded and 35% of non-poor included; in rural areas inclusion and exclusion errors would be higher, 44.5% and 33.7% respectively.

Source: (Devereux, et al., 2015); (Leite, Stoeffler, & Kryeziu, 2015)

Among this wide range of different extents to which targeting errors can arise, the Disability Grant and the Child Support Grant micro-simulations reported in the following sections assume an inclusion and exclusion errors of 50% for the targeted scenarios (where the categorical targeting is...
necessarily combined to a means test or proxy means test targeting mechanism assessing the level of poverty or vulnerability) and a 20% exclusion error with only a 5% inclusion error in the universal scenarios, where only categorical targeting is necessary to identify beneficiaries.

For each of the policies identified as potential tools to address the critical areas of intervention highlighted in the National Social Protection Policy, the following sections provide an overview of the set of assumptions used to estimate the cost and impact, together with the design and outcome parameters as the basis of the micro-simulation model.
3. National Rollout of the Senior Citizens Grant

Senior citizens represent a vulnerable group in Uganda. For one they face economic constraints: approximately 85% of active older people engage in crop farming which is insufficient to provide a regular, stable income\textsuperscript{129} and 85% of older persons in rural areas live in chronic poverty.\textsuperscript{130} Older citizens also face challenges due to disability, as 66.8% of people above 60 have at least some difficulty in functional areas such as hearing, seeing or others.\textsuperscript{131} Furthermore, their educational attainment is relatively low, with only 15.6% having completed either primary school or higher education levels.\textsuperscript{132} The impairments of older persons can affect future generations as older persons often have the task of caring for children. Nearly 50% of orphaned grandchildren stay with their grandparents.\textsuperscript{133} When the elderly have to care for a child it puts further strain on their resources but it also affects the child as the vulnerability of their caregiver makes it more likely for them not to receive the support they need.

\begin{itemize}
  \item \textsuperscript{129} Commissioner of Disability and Elderly Affairs, 2013, p. 3
  \item \textsuperscript{130} The Aged Family Uganda, 2008
  \item \textsuperscript{131} Uganda Bureau of Statistics, 2012, p. 28
  \item \textsuperscript{132} Ibid., p. 24
  \item \textsuperscript{133} The Aged Family Uganda, 2008
\end{itemize}
The Senior Citizen Grant constitutes a vital part of the SAGE programme, and its major goal is to address the aforementioned challenges. SCGs not only benefit the recipient, but also have positive impacts on children and other members in the household.\footnote{134} First, money is devoted to the needs of others such as school utensils of children.\footnote{135} Secondly, family members who need to tend to a poor or disabled older person are relieved of some of that responsibility if that person receives the resources to care for himself. Lastly, the prospect of a pension can have a positive effect on the economic behaviour of people during their work life. The certainty of being cared for, when reaching old age, enables them to take more risks which can in turn enhance earnings.

The MGLSD announced a gradual roll-out of the SCG in August 2015, and the government committed 149 billion UGX for the next five years, aiming to reach 40 districts across the country by 2020. The selection of the latter districts occurred through a composite vulnerability score, including both poverty and vulnerability indices. The government will roll out the programme in a phased manner, starting with 20 new districts between 2015 and 2016 and subsequently adding 5 new districts every subsequent year. Moreover, only the 100 oldest beneficiaries will be enrolled in each sub-county for the first five years. A gradual increase in enrolment will lead to full coverage of everyone over 65 in a ten year period.\footnote{136}

The following section micro-simulates the costs and the impacts of the SCG if rolled out not only to the 55 districts that will be covered by 2020, but countrywide. As already assessed in the pilot phase, the national roll-out of the SCG can have impacts on more than just the persons it targets at the time that it is introduced. The roll-out can therefore extend the aforementioned beneficial effects (and the ones highlighted in Chapter 3) to the nation as a whole, leading to benefits for households in districts not included in the original designation of the SAGE programme.

### 3.1 Programme Parameters

The parameters for the micro-simulation of the SCG national rollout reflect the design of the original programme implemented in 2010.\footnote{137} Specifically, the senior citizen grant is limited to citizens above 65. In the Karamoja region, due to higher levels of poverty and insecurity, the eligibility threshold is set to 60 years. Beneficiaries receive a monthly grant of 25,000 UGX (2013 value) per month. In total, 3% of the population will be eligible, and a phased roll out plan will ensure gradual implementation, reaching full scale linearly over a 5-year timespan (in 2022). In addition, after accounting for inclusion and exclusion errors, perfect take up is assumed: 100% of eligible individuals will eventually take up the grant.\footnote{138}

Being a crucial cost component in any social protection programme, the analysis includes an administrative cost mark-up, whose general definition is outlined in detail in Box 6. For the SCG, according to what reported by the Social Protection Public Expenditure Review, this ranges between 6-14% of the total grant expenditure.\footnote{139} For this reason, this micro-simulation exercise assumes that the

\begin{itemize}
\item \footnote{134} MGLSD, 2014
\item \footnote{135} Commissioner of Disability and Elderly Affairs, 2013, p. 25
\item \footnote{136} MGLSD, A Newsletter of the Expanding Social Protection Programme, 2015, p. 4
\item \footnote{137} MGLSD, 2014
\item \footnote{138} Data on universal old age pensions in Mauritius, Lesotho, Botswana, Maldives and Namibia show a take up rate of roughly 100% -ILO, 2014, p. 15.
\item \footnote{139} MGLSD, 2012
\end{itemize}
The micro-simulation exercise accounts for monetary returns and income increases, which is only one of the potentially many outcomes of a programme such as the SCG, as highlighted in the previous Chapter and further stressed above. Monetary benefits are quantified taking into account household size, number of grants received and family composition, and are proposed in an adult-equivalent scale. For this reason, benefits emerging from this study can constitute nothing but a lower bound for the overall positive effects of the programme.

3.2 Results

Table 12 summarizes the micro-simulation results for the SCG extended at a national level once full coverage is achieved. More than 1.1 million older persons will be eligible to receive the SCG at a national level. For this programme, both inclusion and exclusion errors are set at 5% and therefore cancel out each other. For this reason, the number of actual beneficiaries equates to the number of eligible individuals, corresponding to 3% of the population. At an administrative cost of 14%, the total cost of the grant at full scale equals roughly 381 billion UGX per year, equivalent to 0.79% of GDP.
In order to quantify the monetary returns of the SCG, poverty gap and poverty headcount reductions are taken into account (see Table 12). The poverty gap quantifies the extent to which poor households lie below the so-called poverty line, and expresses the monetary amount that should ideally be introduced into the economy in order to lift all individuals ($i$, in the following formula) out of poverty. It can be expressed analytically as follows:

$$\text{Poverty Gap} = \sum_{i=1}^{N} (\text{Income}_i - \text{Poverty Line})$$

The SCG is likely to increase household income and shrink the poverty gap. Household size and number of grants received by each household are simultaneously taken into account in order to generate a new household income profile and to re-quantify the poverty gap. The returns of the SCG can also be expressed in terms of poverty headcount reduction. The concept of poverty headcount is straightforward: this indicator reports the number of individuals in a certain population falling below the poverty line, or, in other terms, are classified as poor. As shown by Table 12, the SCG would reduce the poverty gap by over 4.3 billion UGX and lift roughly 433,500 people above the poverty line, if implemented nation-wide.

In order to combine the aforementioned information relative to costs and benefits of the grant, it is necessary to conduct a cost-benefit analysis and quantify the extent to which benefits outweigh costs. To this end, an efficiency index is constructed as the ratio between the absolute reduction in the poverty gap and the cost of the grant on a month level, expressed as a percentage:

$$\text{Efficiency Index} = \frac{\text{Poverty Gap Reduction}}{\text{Cost}} \times 100\%$$

The Efficiency Index allows comparing and assessing the efficiency in terms of benefits and costs of alternative programme designs. For the programme under consideration, the efficiency index equals 14%.

**TABLE 12: NATIONAL ROLLOUT OF THE SCG. RESULTS**

<table>
<thead>
<tr>
<th>NATIONAL ROLLOUT OF THE SENIOR CITIZENS GRANT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eligible Individuals</td>
</tr>
<tr>
<td>Eligible and Receiving</td>
</tr>
<tr>
<td>Total Cost out of GDP</td>
</tr>
<tr>
<td>Reduction in the Poverty Gap</td>
</tr>
<tr>
<td>Reduction in the Poverty Headcount</td>
</tr>
<tr>
<td>Efficiency</td>
</tr>
</tbody>
</table>

### 3.3 Cost Feasibility Analysis

One of the aims of the micro-simulation exercise is assessing the long run economic sustainability of the programmes under analysis. One way to achieve this goal is projecting costs expressed as a percentage of GDP, taking into account economic growth and population dynamics. In other words, a cost feasibility analysis is conducted, according to what previously outlined in Box 4.
Considering the gradual roll out of the Senior Citizens Grant, costs will rise from a base of roughly 0.38% of GDP in 2017 to a maximum of roughly 0.67% of GDP in 2022, when full-take up is reached, before they slowly decline. In the projection of long-run costs, the grant amount is adjusted yearly for inflation. Moreover, the number of beneficiaries increases, because of population dynamics. However, economic growth will outweigh these effects, and lead to a decreasing fiscal burden. Figure 16 reports long-run costs of a SCG implemented at a national level.

**FIGURE 16: SCG LONG-RUN COSTS**

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### 3.4 Cost Effectiveness Analysis

Generally speaking, a cost effectiveness analysis contributes to assessing which programme or programme design across a particular range of options yields the highest level of effectiveness for a given cost. This constitutes the heart of “value for money”, in that it allows choosing rationally between variants of programme designs, on the basis of the relative cost of achieving desired economic and social results. In the context at hand, the outcome of interest considered for the cost effectiveness analysis is the reduction in poverty gap and poverty headcount. However, given the broader goals of these programmes and of social protection in general, the limitations of this methodology in measuring effectiveness should be considered.

As far as the national roll-out of the SCG is concerned, every 1% of GDP spent leads to approximately 10% reduction in poverty gap. It is necessary to further stress that, in light of the compelling evidence supporting the success of the SCG in its pilot phase, this measure of effectiveness clearly underestimates the future impacts of a rolled-out grant at a national level.
4. Universal Health Care for Pregnant and Lactating Women, and Children under Five

In Uganda, pregnancy and childbirth carry particular risks, both for the mother and her new-born child. Neonatal mortality is still high at 19 per 1,000 live births in 2015, while the maternal mortality ratio is similarly high at 360 per 100,000 live births. Moreover, with an additional 36 children per 1,000 live births dying before they reach the age of five, 5.5% of all children in Uganda do not reach that age. Expenses related to child birth can also drain a household’s income, especially in cases of complications. As antenatal care and postnatal care are still under-utilized, mainly because of high out-of-pocket expenditure required to access them, there is significant room for improvement. A very important step in this regard would be to provide universal health care to pregnant women, breastfeeding mothers and children under five.

The introduction of universal health care for pregnant women, breastfeeding mothers and children under five has several significant benefits. By granting free access to maternal health services, the share of women delivering in the presence of skilled health personnel will increase, leading to a reduction in the maternal mortality ratio and a decrease in orphanhood. With 50 percent of all new-born deaths occurring in the 24 hours after delivery and 75 percent within the first week, strengthening the availability of post-natal care and care for breastfeeding women also improves the chances of survival for vulnerable children. Moreover, as the first five years have an impact on the cognitive development of children, which translates directly in their well-being and human capital in the medium- and long-run, granting free access for all children under five boosts the long-term competitiveness of Uganda’s population by laying a solid foundation for human capital development.

4.1 Programme Parameters

For the universal healthcare addressed to pregnant or lactating women and children under five, a set of parameters is selected based on stakeholder consultations and a review of Uganda’s efforts and international best practices. This study follows the design of a USAID-supported study in Western Uganda that examines the cost-effectiveness of two interventions that remove the barriers for health-care for women of reproductive age. The approach replicated in this study is granting universal access by subsidizing the cost of a Community Based Health Insurance (CBHI). For pregnant women, the cost of this intervention in the USAID-supported study is equal to the Uganda Shilling equivalent to the base-rate of 41.64 USD and to the delivery rate of USD 17.62. This approach is then extrapolated in order to provide free health care for lactating women and children under five as well by also subsidizing their (base rate) CBHI coverage.

The total number of breastfeeding women is estimated under the assumption that the average duration of breastfeeding is nine months. Information on the number of pregnant women, which is assigned randomly across the dataset, and information on the number of children under five comes from population statistics.

140 UNICEF, 2012
141 Saya, 2015
For the universal health care programme, the outcome of interest is the quantified socio-economic gains resulting from an improvement in Disability Adjusted Life Years (DALYs) following increased utilization of maternal and child health care services. The conversion of the provision of universal health care for these groups to DALY averted per individual is done by dividing the total cost of the programme by the USAID-supported Western Uganda study’s cost per DALY averted finding of 1,079,046 Ugandan Shilling.\textsuperscript{142} Although the returns to a DALY are manifold, this study only quantifies the additional income that can be generated as a result of the decreased financial burden on the health care system. Moreover, in order to conduct a Cost Benefit Analysis, the DALYs averted are monetised, multiplying them by the Value per Statistical Life (VSL) for Uganda. The VSL represents individual’s willingness to exchange income for small changes in mortality risk. For the estimation of the VLS for Uganda, this study adopts the procedure suggested by Hammit and Robinson (2011), assuming an Income Elasticity of VSL of 1.5:\textsuperscript{143}

$$VSL_{\text{Uganda}} = VSL_{\text{USA}} \cdot \left( \frac{\text{GNI}_{\text{Uganda}}}{\text{GNI}_{\text{USA}}} \right)^{\text{Income Elasticity VSL}}$$

\textbf{4.2 Results}

Universal health care for pregnant and lactating women and children under five has substantial returns. As shown by Table 13, 2,685,595 women are eligible, of which 57% is pregnant and the rest lactating. The number of children under five eligible for free health care is over 7.6 million.

\begin{center}
\textbf{TABLE 13: UNIVERSAL HEALTH CARE: ELIGIBLE WOMEN AND CHILDREN}
\end{center}

<table>
<thead>
<tr>
<th>Women:</th>
<th>2,685,595</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Pregnant</td>
<td>1,530,789</td>
</tr>
<tr>
<td>- Lactating</td>
<td>1,154,806</td>
</tr>
<tr>
<td>Children</td>
<td>7,607,054</td>
</tr>
</tbody>
</table>

The cost of the Community-Based Health Insurance (CBHI) subsidy is over 390 billion UGX for women and over 900 billion UGX for children, totalling almost 1.3 trillion UGX. However, the total Disability Adjusted Life Years (DALYs) averted reaches 1,059,366 as a result of the free health care provided. Per individual, this equates to 0.12 years, 1.44 months and over 44 days in additional health. These total DALYs averted, when monetised, reach 2,111 billion UGX, equivalent to 205,107 billion dollars.\textsuperscript{142} Which is the Ugandan Shilling equivalent of the dollar cost per DALY averted.\textsuperscript{143} Hammit & Robinson, 2011, p. 7

\begin{footnotesize}
\textsuperscript{142} Which is the Ugandan Shilling equivalent of the dollar cost per DALY averted.
\textsuperscript{143} Hammit & Robinson, 2011, p. 7
\end{footnotesize}
UGX per individual. In addition to this, the programme is assumed to contribute to a reduction in out-of-pocket payments for its beneficiaries. For the poorest quintile, the programme yields a reduction in payments by more than 20%. Overall, the total reduction in out-of-pocket payments is quantified, and reaches more than 6 billion UGX. The just described outcomes of the programme are outlined in Table 14.

**TABLE 14: UNIVERSAL HEALTH CARE PROGRAMME BENEFITS**

<table>
<thead>
<tr>
<th>UNIVERSAL HEALTH CARE BENEFITS</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Disability Adjusted Life Years (DALYs) Averted</td>
<td>1,059,366</td>
</tr>
<tr>
<td>Per Capita DALYs Averted</td>
<td>0.12 years</td>
</tr>
<tr>
<td>Value of Averted DALYs</td>
<td>2,111,102,529,217 UGX</td>
</tr>
<tr>
<td>Per Capita Value of Averted DALYs</td>
<td>205,107 UGX</td>
</tr>
<tr>
<td>Reduction in Out of Pocket Payments</td>
<td>6,220,610 UGX</td>
</tr>
</tbody>
</table>

### 4.3 Cost Feasibility Analysis

As previously assessed for the SCG in terms of long-run sustainability, similar considerations are valid for the Universal Health Care Programme. Indeed, as Figure 17 depicts, feasibility is guaranteed by a decreasing trend in cost out of GDP, once the programme reaches perfect take-up. In the long-run, the programme costs are slightly more than 1% of GDP.

**FIGURE 17: UNIVERSAL HEALTH CARE. LONG-RUN COSTS**

![Graph showing the cost of the Universal Health Care Programme as a percentage of GDP over time](image)

### 4.4 Cost Benefit Analysis

As far as the relation between benefits and costs is concerned, for the implementation of universal health care for pregnant women, breastfeeding mothers and children under five a Cost Benefit Analysis is conducted, in accordance with the VfM framework proposed by DIFD (see Box 4 in section 2 of this chapter).
In this particular programme, as largely discussed above, alternative benefits to the reduction of poverty are taken into account. For this reason, instead of implementing a cost effectiveness analysis as for the previous programmes, the analysis considers the monetized DALYs averted as the primary outcome, which allows for the quantification of a return to investment. However, this fact does not exclude positive impacts of the programme on poverty reduction, particularly when taking into account reductions in out-of-pocket payments consequent to free health care.

Box 7 reports the methodology and the results of such analysis, and further discusses the potentially high rates of returns of different social protection programmes, such as a Productive Safety Net Programme in Ethiopia and a Child Development Grant in Nigeria, in addition to Universal Health Care in Uganda.

**Box 7: Assessing Rates of Return to Investment into Social Protection**

A Cost-Benefit Analysis (CBA) is often undertaken in the economic appraisal of new interventions. It allows the balance of incremental costs and benefits attributable to an intervention to be quantitatively assessed, and compared between alternative options. The main outcome of this type of analysis is a straightforward return to investment index, called Benefit-Cost Ratio (BCR). Once benefits are monetized and thus expressed in the same unit of measure as costs, this ratio expresses the number of monetary units of benefit for each unit of cost.

Many international studies have conducted both ex-ante and ex-post Cost-Benefit Analyses. Estimates of BCRs resulting from two of these studies conducted in African countries are reported in Table 15 below, together with BCRs estimates for the aforementioned programme for Uganda.

**Table 15: BCR for a Selection of Studies**

<table>
<thead>
<tr>
<th>Programme</th>
<th>Quantified Benefits</th>
<th>Benefit to Cost Ratio Estimates</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nigeria: Child Development Grant</td>
<td>Cash Availability, Enhanced Household Productivity and Food Security</td>
<td>2.18</td>
</tr>
<tr>
<td>Uganda: Universal Health Care</td>
<td>Monetized DALYs Averted</td>
<td>1.63</td>
</tr>
</tbody>
</table>

Source: (Wiseman, Van Domelen, & Coll-Black, 2010); (White P., 2012)

Adjusted Life Years (DALYs) averted, as a result of improved access to health care. However, this indicator in itself would not allow the estimation of a rate of return. For this reason, DALYs are monetised using an estimation of the Value per Statistical Life (VSL), which can be interpreted as the individual’s willingness to pay for decreased mortality risks. Consequently, it functions as the monetary counterpart of one DALY averted. The Universal Health Care Programme has an estimated BCR of 1.63: for every unit of money invested, the intervention guarantees 0.63 monetary units of return.

Table 15 sheds some light on the potential of Social Protection Programmes such as the ones outlined above to yield considerable returns. In turn, this highlights the profitability of investing in social protection.
5. Disability Grant

In Uganda, disability is an important source of vulnerability. Besides negatively affecting the productive capacity of an individual, it is at the basis of social stigma and exclusion mechanisms from the workforce and from society as a whole. Moreover, it is a potential source of additional costs for transport and medical care, and thus an economic burden for the most disadvantaged households. The following fact confirms this: households with at least one severely or partially disabled member are more likely to be poor, with a poverty incidence of 29.7%, ten percentage points higher than the national average. Furthermore, 92.3% of people with severe disability are either poor or extremely vulnerable to poverty compared to the national average of 67.5%.144

Disability is reflected in a certain degree of difficulty in conducting basic activities such as seeing, hearing, communicating, walking or climbing stairs, remembering, concentrating or performing self-care. In 2011, 19% of people above five years of age were reported to have some form of disability, whose prevalence tends to increase with age.145 A grant targeted to individuals affected by some form of disability can provide support for this vulnerable category, by allowing households to address the aforementioned extra costs and by alleviating poverty and risk related to such condition.

5.1 Programme Parameters

Individuals eligible for the disability grant are considered to be those with a type of physical or mental limitation, which is supposedly interfering with both working activities and daily tasks. In the household survey adopted for the micro-simulation of this programme,146 disabled people are defined as those who express some difficulty in seeing, hearing, walking, concentrating and in self-care. Similarly to the Child Support Grant micro-simulation proposed in the following section, three targeting scenarios (whole population, poor households, and vulnerable households) and two benefit scenarios (low and high, corresponding to 20% and 30% of average household expenditure respectively) are considered. Exclusion errors, inclusion errors and take-up imperfections are accounted for as described in Box 8, together with an administrative cost mark-up of 20%.

The logic followed in constructing the outcome parameters for this grant is the following: only directly measurable returns (an increase in adult-equivalent household expenditure) are taken into account, despite the programme is likely to generate a wide range of other outcomes such as general health status improvement, social inclusion, and an increase in productivity. Again, the benefits highlighted by the micro-simulation exercise are very likely to underestimate the real effect of the programme at hand. The purpose of this study, however, is to show the viability and sustainability of the programme in terms of measurable costs and benefits.

144 Ministry of Finance P. a., 2014, p. 79
146 LSMS, 2013
Box 8: Inclusion and Exclusion Errors and Take-up Imperfections

The micro-simulation exercise seeks to account for two types of imperfections that occur in reality and act as frictions impeding the programme to reach the eligible population in its entirety.

Inclusion and exclusion errors. They can arise both during a programme design phase and during its implementation, and they occur when the programme benefits reach some unintended beneficiaries (leakage) or when instead they fail to reach intended beneficiaries (under-coverage), respectively.

Inclusion and exclusion errors have been illustrated in Table 16.

Table 16: Example of Inclusion and Exclusion Errors in a Programme Targeted to Poor Households

<table>
<thead>
<tr>
<th></th>
<th>Poor</th>
<th>Non-Poor</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Households included in Programme A</td>
<td>32</td>
<td>8</td>
<td>40</td>
</tr>
<tr>
<td></td>
<td>20% Inclusion Error (Under-coverage)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Households excluded by Programme A</td>
<td>8</td>
<td>52</td>
<td>60</td>
</tr>
<tr>
<td></td>
<td>20% Exclusion Error (Leakage)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>40</td>
<td>60</td>
<td>100</td>
</tr>
</tbody>
</table>

Source: adaptation from (Coady, Grosh, & Hoddinott, 2004)

As shown in Table 16, in this population of 100 households 40% are poor. Hypothetically, Programme A is designed to reach all poor households in the population (i.e. 40 households). However, as can be seen, out of the 40 households included in the programme only 32 are actually poor. In other words, 20% of beneficiary households are actually not eligible, which translates into a 20% inclusion error (8 beneficiary households are not poor) and into a 20% exclusion error (8 poor households are not included in Programme A).

In the micro-simulations proposed in this report, inclusion and exclusion errors cancel out each other and are assumed to be 50% of the – in theory – eligible population, following the same logic illustrated in the above table. However, an important aspect needs to be specified in this context. Inclusion and exclusion errors are often defined by the literature as “targeting errors”, implicitly leading to assume that programmes disbursed universally are not exposed to such errors. However, the programmes simulated in this report, even if disbursed universally (meaning, in this context, disbursed to both poor and non-poor), require some type of categorical targeting: in the case of the child support grant, children up to 5 or up to 8 and pregnant women need to be identified; in the case of the disability grant, individuals affected by some type of disability need to be identified, processes that for their complexity can be comparable to the identification of poor individuals or households. For universal programmes of this kind, where the targeting at hand is only categorical, the analysis assumes an exclusion error of 20% and an inclusion error of 5%, considerably smaller than for the targeted programmes, where targeting occurs both across the categorical and the income dimension.

Take-up imperfections. Even after the identification of the eligible population (and apart from exclusion and inclusion errors as described in the previous paragraphs), some other type of friction might arise in the disbursement of the grant, linked to some direct and indirect (“opportunity”) costs beneficiaries would need to face in order to get access to the grant, to lack of information, self-exclusion or other reasons. The micro-simulations proposed by this report assume that — after accounting for inclusion and exclusion errors — the programme reaches only 80% of the entire pool of beneficiaries, thus seeking to reflect the difference between frictions arising in the provision of the grant (incorporated in exclusion and exclusion errors) and frictions in the access to the grant (take-up).

147 Coady, Grosh, & Hoddinott, 2004), (Devereux, et al., 2015.
5.2 Results

For the disability grant, three different scenarios are considered: a universal programme, in which the grant is addressed to all persons with disabilities (PWD) in the population, a programme in which only poor PWD are eligible and a programme targeting disabled individuals labelled as vulnerable. As shown by Table 17, the number of eligible individuals differs across the just mentioned scenarios.

**TABLE 17: DISABILITY GRANT. ELIGIBLE INDIVIDUALS**

<table>
<thead>
<tr>
<th>Eligible Individuals</th>
<th>Whole Population</th>
<th>Poor Households</th>
<th>Vulnerable Households</th>
</tr>
</thead>
<tbody>
<tr>
<td>2,447,700</td>
<td>611,799</td>
<td>1,532,419</td>
<td></td>
</tr>
</tbody>
</table>

The number of individuals actually receiving the grant does not coincide with the number of eligible individuals in the population. Table 18 shows that it is assumed that only 80% of them will take up the grant once it has reached full scale. This leads to 1,699,379 individuals eventually receiving the grant in the universal programme, 492,200 when targeting the poor and 1,221,594 when including also the vulnerable.

**TABLE 18: DISABILITY GRANT. ELIGIBLE AND RECEIVING INDIVIDUALS**

<table>
<thead>
<tr>
<th>Eligible and Receiving Individuals</th>
<th>Whole Population</th>
<th>Poor Households</th>
<th>Vulnerable Households</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,699,379</td>
<td>492,200</td>
<td>1,221,594</td>
<td></td>
</tr>
</tbody>
</table>

The larger the number of eligible individuals and the higher the grant amount, the higher the cost of the programme as a percentage of GDP. As can be seen in Table 19, when targeting only poor individuals, the cost of the grant ranges between 0.25% and 0.37% of GDP, depending on the benefit level. Enlarging the share of the population included in the grant leads to an overall increase in cost.

**TABLE 19: DISABILITY GRANT. COST AS A % OF GDP**

<table>
<thead>
<tr>
<th>Cost as a % of GDP</th>
<th>Whole Population</th>
<th>Poor Households</th>
<th>Vulnerable Households</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low Benefit</td>
<td>0.85%</td>
<td>0.25%</td>
<td>0.61%</td>
</tr>
<tr>
<td>High Benefit</td>
<td>1.28%</td>
<td>0.37%</td>
<td>0.92%</td>
</tr>
</tbody>
</table>

The impact of the grant is quantified through an estimation of the reduction in poverty gap and poverty headcount, similarly to what implemented for the SCG (see previous Section).

Figure 18 shows that the universal programme leads to the highest reduction in the poverty gap and in the poverty headcount for the two benefit levels considered. Overall, the higher the benefit amount disbursed, the higher the impact in terms of poverty headcount and poverty gap reduction. Moreover, it is interesting to notice how the targeted programmes lead to very similar effects not one another, but significantly lower than the universal programme, with a difference ranging
between 6 and 9 percentage points. Despite disability, poverty and vulnerability can be considered to be closely intertwined, the likely high inclusion and exclusion and inclusion errors occurring in the targeted programmes (here assumed to be at 50%) lead to a considerably lower impact of such programme designs in terms of poverty reduction. However, the impact difference across the different programme specifications is lower than in other programmes such as the Child Support Grant described in the following Section: this is in line with the plausible idea for which PWDs can be considered to be a subset of the category of poor and vulnerable as a whole.

**FIGURE 18: DISABILITY GRANT. POVERTY GAP AND POVERTY HEADCOUNT REDUCTION**

Despite yielding a lower absolute impact in terms of poverty gap and headcount reduction, the programme targeting the poor and disabled leads to the highest levels of efficiency when taking into account costs and returns simultaneously, as reported in Figure 19. Again, the efficiency index is constructed as follows:

\[
\text{Efficiency Index} = \frac{\text{Poverty Gap Reduction}}{\text{Cost}}\%
\]
As shown by Figure 19, efficiency slightly decreases as the benefit level increases and the wider the targeting design, since increased absolute impacts do not outweigh increased costs.

**FIGURE 19: DISABILITY GRANT, EFFICIENCY**

<table>
<thead>
<tr>
<th></th>
<th>Low Benefit</th>
<th>High Benefit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Universal Programme</td>
<td>25%</td>
<td>23%</td>
</tr>
<tr>
<td>Poor Households</td>
<td>47%</td>
<td>44%</td>
</tr>
<tr>
<td>Vulnerable Households</td>
<td>26%</td>
<td>24%</td>
</tr>
</tbody>
</table>

5.3 Cost Feasibility Analysis

Finally, cost projections for each scenario of the Disability Grant in the long-run display similar trends to the ones observed in the previous sections for the SCG and universal health care, as shown by Figure 20. After perfect take-up is reached in 2022, costs start decreasing. This confirms that the programme is feasible, given that long-run costs are lower than 1% in any of the scenarios considered. Even disbursing a high benefit level and implementing a universal programme, lead to a long run cost of only 0.6% of GDP, without taking into account additional unmeasurable benefits such as productivity increase (and therefore growth).
5.4 Cost Effectiveness Analysis

As far as cost effectiveness is concerned, targeting poor households and granting a 20% of average household expenditure is the most effective programme design, leading to a decrease in the poverty gap by 28% for every percent of GDP spent, as can be seen in Figure 21. The universal programme and the disability grant targeted to the vulnerable have similar cost effectiveness levels: this is a consequence of the assumption of high targeting errors in the programme disbursed to the vulnerable, and reflects the similar levels of efficiency reached by these two programmes as depicted in Figure 19. Again, one should not consider poverty gap reduction as the only outcome of interest of such a grant. As largely argued above, policy makers – when choosing a certain programme or programme design – should also take into account other dimensions of interest such as, in this case, benefits stemming from increased productivity and/or social inclusion of vulnerable individuals. In some cases, considering such positive outcomes, a universal programme can turn out to
be the most desirable, despite the lower effectiveness levels proposed by this analysis. Moreover, universal programmes can be preferred in contexts where targeting mechanisms are particularly difficult to implement or particularly engaging in terms of costs.

FIGURE 21: COST EFFECTIVENESS ANALYSIS FOR THE DISABILITY GRANT

Among the various stages of the life cycle, childhood constitutes the most crucial not only in terms of potential implications for the subsequent stages, but also in terms of risk exposure. The first source of vulnerability can be traced back to the pre-natal phase. In 2011, 95% of mothers received antenatal care (ANC) from a skilled provider, but only 48% received at least 4 antenatal care visits during their pregnancy, which is the minimum number recommended by the WHO. This percentage did not increase over the period 2006-2011 indicating relatively little impact of many of the interventions aimed at addressing this issue, often primarily from the supply side. Moreover, only 12.2% of women received ANC from a doctor, the vast majority of which belonged to the upper wealth quintiles.\(^\text{148}\)

The importance of antenatal care can be identified not only in the treatment of infections and reduction of the morbidity risk for mothers and children, but also in the dissemination of key health messages to women. A good indicator of risk in the antenatal phase is perinatal mortality, which includes both stillbirths and early neonatal deaths. Over time, Uganda experienced a general worsening in this indicator, which constitutes a good summary of the health status of pregnant women, mothers and new-borns. For the period 2001-2006, the perinatal mortality rate was 36 every 1,000 pregnancies,\(^\text{149}\) versus 40 per 1,000 pregnancies in the period 2006-2011. Despite an increase in the rate of deliveries taking place in a health facility (from 41% in 2006 to 57% in 2011), between 2006 and 2011 one in every 19 Ugandan children still died before their first birthday, and one in every 11 children before their fifth birthday.

\(^\text{148}\) Uganda Bureau of Statistics, 2012
\(^\text{149}\) UDHS, 2006
Besides risks related to mortality, Ugandan children are exposed to vulnerabilities related to health and nutrition. Anthropometric indicators provide an appropriate measure in this respect, since they are a good proxy for the risk of disease, faltered growth, impaired mental development and death among the population of children under five. Data collected in 2011 report that 33% of children are stunted, and 14% are severely stunted. Weight-for-height measures indicate that in the same year 5% of Ugandan children were wasted, whereas weight-for-age suggests that 14% of children under the age of five are underweight. Despite an overall improvement over the period 2006-2011, the aforementioned percentage reporting chronic malnutrition is still relatively high.

Finally, despite the introduction of universal primary education and secondary education by the Ugandan government, a considerable share of children remains deprived of the opportunity to attend school because of socio-economic costs related to school attendance, such as transportation or opportunity costs. The net enrolment rate in primary school was 82.3% in 2011. Meanwhile, as the percentage of parents deeming education too expensive increased between 2009 and 2011 and many households still live in poverty, child labour is still an issue. Approximately 40% of children aged 5-15 were part of the working population in 2012, and they were either combining school with some economic activity or engaging exclusively in an economic activity, without attending school at all.

Implementing a child support grant starting from the prenatal phase - from first ANC visit - until the age of two (or alternatively, of eight), can help tackling the aforementioned sources of vulnerability present during the childhood stage of the life cycle. The grant can function as an intervention that can help mothers seek appropriate care during pregnancy and delivery while at the same time supports poor and vulnerable households in addressing the major nutritional and educational needs of young children during the delicate stages of early life.

6.1 Programme Parameters

Two options for the Child Support Grant are explored: the first in which a mother is eligible from her first visit to an ANC clinic until the child turns two, the second in which a mother is eligible from her first visit to an ANC clinic until the child turns eight.

In order to estimate the number of potential beneficiaries for a child support grant disbursed from the first ANC visit onwards, it is necessary both to estimate the number of pregnancies in the population and to identify the age-eligible children for both of the scenarios considered, i.e. below two or eight years. One way of estimating the number of pregnancies within a population in a certain point in time is to exploit the presence of an infant in a household and consider it a proxy for pregnancy in the year before. Using this approach, a probit model attaches a pregnancy-probability to any household in which there is at least one woman in fertile age. Specifically, the latter set of household is grouped as shown in Table 20.

151 Universal Primary Education (UPE) was introduced in 1997, whereas in 2007 Uganda became the first country in Sub-Saharan Africa to introduce universal secondary education.
TABLE 20: HOUSEHOLDS CLASSIFICATION

CLASSIFICATION OF HOUSEHOLDS WITH AT LEAST ONE WOMAN IN FERTILE AGE

GROUP A: HOUSEHOLDS WITH NO CHILDREN ONE OR OLDER

A1: Households with an infant
A2: Households without an infant

GROUP B: HOUSEHOLDS WITH CHILDREN ONE OR OLDER

B1: Households with an infant
B2: Households without an infant

Two probit estimations are implemented and the model slightly differs between Group A and Group B, as shown in Table 21. The estimation for Group B entails additional explanatory variables related to characteristics of existing children, such as their number and their age, variables that plausibly influence the probability of being pregnant for a woman in fertile age.

TABLE 21: PROBIT MODEL STRUCTURE

PROBIT ESTIMATION

GROUP A: HOUSEHOLDS WITH NO CHILDREN ONE OR OLDER

DEPENDENT VARIABLE:
1 if the Household belongs to group A1 (with an infant)
0 if the Household belongs to group A2 (without an infant)

INDEPENDENT VARIABLES
Woman Age
Woman Age Squared
Marital Status
Woman Education
Household Size
Income

GROUP B: HOUSEHOLDS WITH CHILDREN ONE OR OLDER

DEPENDENT VARIABLE:
1 if the Household belongs to group B1 (with an infant)
0 if the Household belongs to group B2 (without an infant)

INDEPENDENT VARIABLES
Woman Age
Woman Age Squared
Age of the Last Child (one or older)
Age of the Last Child Squared
Total Number of Children one or Older
Total Number of Children one or Older Squared
Marital Status
Woman Education
Household Size
Income

The outcome provided by the aforementioned model, useful for the purpose of the analysis, is the prediction of the probability of a pregnancy for each of the households considered. The main assumption, as said, is that the presence of an infant signals pregnancy, even if related to the past year. As far as the model specification is concerned, the explanatory variables listed in Table 21 are presumed to constitute a useful – even if not exhaustive – set of indicators for predicting the probability of a pregnancy. In addition to this, age and number of children enter the equation non-linearly, because they are assumed to have a non-linear relationship with the outcome of interest. Finally, the reason for repeating the estimation separately for the two groups is the need to include additional independent variables for Group B, the age of the last child and the total number of existing children.
Once the model is implemented, women are flagged as pregnant whenever the predicted probability is higher than 0.3.\textsuperscript{152} As a test for assessing the robustness of the result, the number of women flagged as pregnant is compared to the number of infants present in the dataset: the former accounts for 63% of the latter.

Only a subset of the women identified by the model is subsequently eligible for the programme. Two additional factors need to be taken into account: the month of gestation and the share of pregnant women who sign up for an ANC visit, the main requisite for eligibility. In order to address this, a random fertilization rate is assigned to each woman, and only those whose month of gestation is higher than four are considered eligible. This choice is justified by the median months pregnant at first visit, which in 2011 was recorded to be five.\textsuperscript{153} The analysis accounts for the percentage of women signing up for an ANC visit, when identifying eligible individuals: for this reason, 5%\textsuperscript{154} of women are excluded and considered non-eligible. Finally, in order to consider the entire pool of eligible individuals for the Child Support Grant and to quantify beneficiaries, this study identifies the number of age-eligible children as those below two (first scenario) and eight years (second scenario). In this latter case, an upper limit of three to the number of grants disbursed to each household is set.

The micro-simulation exercise aims to quantify benefits and costs for a range of different scenarios, in order to assess the best policy option. As mentioned, a first variation is related to the age threshold for eligible children, set alternatively to two or to eight. Furthermore, this study takes into account three different targeting scenarios: one in which the whole population of eligible individuals benefit from the grant (universal programme); one with only poor households (those whose income falls below the poverty line) and one with households considered vulnerable, i.e. that fall below twice the poverty line. Additionally, this study proposes two different grant amounts to be distributed monthly:

- Low: 20% of the average household expenditure,\textsuperscript{155} equivalent to 15,666 UGX;
- High: 30% of the average household expenditure, equivalent to 23,500 UGX;

Any targeted social transfer is subject to inclusion and exclusion errors, both in the design and during its implementation. In this study, inclusion- and exclusion-error levels are set at 50% in all targeting scenarios, except for the universal grant, where the lack of any targeting procedure other than recognizing pregnant women and age-eligible children is likely to decrease the degree of inclusion and exclusion error, which for this reason are set at 5% and 20% respectively. In addition to this, the analysis assumes imperfect take-up and gradual scale-up (refer to Box 8 in Section 5.1 for a definition of targeting errors and imperfect take-up and to Section 2. for the rationale of such assumptions). While for the CSG up to 2 years of age the scale-up occurs over the first five-year span after implementation, a more gradual and long-lasting scale-up is proposed for the CSG up to 8, given the non-negligible fiscal burden of such a programme in the short run, due to the large number of potential and actual beneficiaries. The scaling-up process thus coincides with three five-year plans, which gradually increase the age-eligibility threshold and lead to full scale in

\begin{itemize}
  \item The probability in the 75 percentile of the distribution is 0.5 for Group A and 0.3 for Group B, consistently with the idea that women in Group A have an overall higher probability of being pregnant.
  \item Uganda Bureau of Statistics, 2012
  \item According to data provided by UDHS (2011).
  \item Average monthly expenditure is of 78,332 UGX, according to UNHS (2013) data.
\end{itemize}
2032 (after 15 years). These five-year plans have as a rationale to accompany the initial cohort of children along the schooling path as they grow older.

Direct costs are defined as the sum of all grants distributed to the eligible and targeted individuals. However, as previously mentioned for the other micro-simulated programmes, administrative or implementation costs need to be considered to gain a comprehensive overview of the short- and long-run costs. For this reason, an administrative costs mark-up is set at 20% of the total direct cost of the programme (see Section 2.).

As far as outcomes are concerned, this analysis takes into account only poverty reduction consequent to the disbursement of the cash transfers. As such, it does not consider positive impacts such as health, school attendance, improved nutrition, spill-over effects and positive externalities, listed by the literature and empirically proven to be potential outcomes of a programme of this kind.

### 6.2 Results

The methodology for the estimation of the number of pregnant women and of mothers signing up for an ANC visit outlined in the previous Section yields to the quantification of potentially eligible children and mothers for the different scenarios considered. Results of this estimation are reported in Table 22. For the universal programme, 706,202 mothers are estimated to be pregnant and signing up for an ANC visit. 2.5 million children are eligible for the grant up to 2 years and almost 9.9 million for the long-lasting grant up to 8 years. In total, the number of eligible individuals is either 3.2 or 10.6 million, depending on the duration of the grant taken into account. This number decreases when targeting only a share of the population. For the child support grant up to two years, targeting the vulnerable population leads to a reduction in the number of eligible individuals by 37% and only 19% of the total eligible people in the universal programme can receive the grant, when only the poor population is targeted. Similarly, for the child support grant up to eight, the total number of eligible mothers and children decreases when targeting only the vulnerable or the poor share of the population.
TABLE 22: CHILD SUPPORT GRANT. ELIGIBLE INDIVIDUALS

ELIGIBLE WOMEN AND CHILDREN

<table>
<thead>
<tr>
<th></th>
<th>UP TO TWO YEARS</th>
<th>UP TO EIGHT YEARS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Whole Population</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Women:</td>
<td>706,202</td>
<td>706,202</td>
</tr>
<tr>
<td>Children:</td>
<td>2,514,073</td>
<td>9,899,295</td>
</tr>
<tr>
<td>Total:</td>
<td>3,220,276</td>
<td>10,605,497</td>
</tr>
<tr>
<td>Poor Population</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Women:</td>
<td>149,804</td>
<td>149,804</td>
</tr>
<tr>
<td>Children:</td>
<td>488,169</td>
<td>2,181,987</td>
</tr>
<tr>
<td>Total:</td>
<td>637,973</td>
<td>2,331,791</td>
</tr>
<tr>
<td>Vulnerable Population</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Women:</td>
<td>461,557</td>
<td>461,557</td>
</tr>
<tr>
<td>Children:</td>
<td>1,557,745</td>
<td>6,562,539</td>
</tr>
<tr>
<td>Total:</td>
<td>2,019,302</td>
<td>7,024,096</td>
</tr>
</tbody>
</table>

Figure 22 provides an overview for the number of beneficiaries in the different scenarios. As can be seen, it grows the wider the proportion of population included and the longer the duration of the grant.

FIGURE 22: CHILD SUPPORT GRANT. ELIGIBLE INDIVIDUALS

Due to frictions of various nature or simply consequently to a choice of the government to scale-up the programme gradually, not all eligible individuals will take up the grant in the first year of implementation of the programme. Table 23 reports the total number of pregnant mothers and children receiving the grant when the scaling-up process is concluded, under the assumption that take up is imperfect.
Table 23: Child Support Grant – Imperfect Take-Up. Eligible and Receiving Individuals

<table>
<thead>
<tr>
<th>Eligible and Receiving Women and Children</th>
<th>Up to Two Years</th>
<th>Up to Eight Years</th>
</tr>
</thead>
<tbody>
<tr>
<td>Whole Population</td>
<td>2,197,475</td>
<td>7,950,295</td>
</tr>
<tr>
<td>Poor Population</td>
<td>520,008</td>
<td>2,045,115</td>
</tr>
<tr>
<td>Vulnerable Population</td>
<td>1,673,007</td>
<td>6,082,379</td>
</tr>
</tbody>
</table>

Figure 23 summarizes the information relative to the beneficiaries of the Child Support Grant in the scenarios considered. The number of individuals receiving the grant mirrors the pattern just seen for eligible individuals: it increases when the targeting mechanism becomes less restrictive and when extended to children up to eight years old.

Figure 23: Child Support Grant. Programme Beneficiaries

Different targeting scenarios and different benefit levels lead to a difference in the yearly total cost of the grant, expressed as a percentage of GDP, in order to assess its viability. Costs include both the direct cost of the grant and the administrative cost of implementing the grant, the latter assumed to be 20% of the total monthly direct cost. As can be easily deduced, programme scenarios with higher number of beneficiaries face higher costs. Table 24 displays the costs separately for the grant up to two years and for the grant up to eight years once reached full scale.
TABLE 24: CHILD SUPPORT GRANT. COSTS

<table>
<thead>
<tr>
<th></th>
<th>Cost of the Grant as a % of GDP</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>WHOLE POPULATION</td>
</tr>
<tr>
<td></td>
<td>UP TO TWO YEARS</td>
</tr>
<tr>
<td>Low Benefit</td>
<td>1.02%</td>
</tr>
<tr>
<td>High Benefit</td>
<td>1.53%</td>
</tr>
<tr>
<td></td>
<td>POOR POPULATION</td>
</tr>
<tr>
<td></td>
<td>UP TO TWO YEARS</td>
</tr>
<tr>
<td>Low Benefit</td>
<td>0.24%</td>
</tr>
<tr>
<td>High Benefit</td>
<td>0.36%</td>
</tr>
<tr>
<td></td>
<td>VULNERABLE POPULATION</td>
</tr>
<tr>
<td></td>
<td>UP TO TWO YEARS</td>
</tr>
<tr>
<td>Low Benefit</td>
<td>0.78%</td>
</tr>
<tr>
<td>High Benefit</td>
<td>1.17%</td>
</tr>
</tbody>
</table>

For the universal programme, depending on the benefit level, the cost for the shorter grant ranges between 1.02% and 1.53% of GDP. The cost for the grant covering the first 8 years of life of the child is higher, between 3.70% and 5.55% of GDP.

As for the grant disbursed to the poor population, consistently with the lower number of beneficiaries, costs are substantially lower. A grant covering the period between the first ANC visit and the second year of life of the child would entail a cost between 0.24% and 0.36% of GDP, at full scale. If extended to the eighth year of life, the cost would increase to 0.95-1.43% of GDP.

The category of households falling below twice the poverty line includes individuals plausibly exposed to a certain degree of vulnerability, even if not labelled as poor in a narrow sense. For this reason, targeting this group leads to slightly higher costs, ranging between 0.78% of GDP and 1.17% of GDP for the grant up to two years old, and ranging between 2.83% and 4.25% of GDP for the grant up to eight years.

Once assessed the number of beneficiaries and the costs of the programme in the various scenarios, the micro-simulation analyses potential benefits provided by the implementation of the grant, specifically in terms of poverty reduction. The two indicators taken into account are the following: poverty gap and poverty headcount.

Figure 24 provides a summary of the returns of a child support grant lasting up to two and eight years, respectively. Its impact is measured in terms of poverty gap percentage reduction. As can be seen, higher impacts are estimated for higher grant amounts, for wider targeting mechanisms and for the longer duration (up to eight years).
According to the estimation of this study, a universal child support grant providing 30% of average household expenditure and covering the first 8 years of age of a child could lead to 67% decrease in the poverty gap. The lowest return in the context at hand is achieved by the CSG up to two years with a low amount and in the targeting scenario including poor households: the reduction in poverty gap is here only 8%.

A certain degree of exclusion and inclusion error in the targeting process is always assumed and included in the micro-simulation exercise, in light of extensive evidence stemming from a wide range of social transfers targeting specific categories of individuals. In the context at hand, an imperfect targeting mechanism yields the erroneous exclusion of a considerable percentage of eligible and targeted individuals, and to the inclusion of individuals that are instead for some reason ineligible, either because non-vulnerable (and non-poor) or because not respecting the eligibility criteria (pregnancy for women and age for children). In turn, in the vulnerable (and poor) population targeting scenario, this phenomenon causes the exclusion of vulnerable (or poor) – and only vulnerable (or poor) – individuals from the programme, leading to a detrimental effect on poverty reduction. Instead, in the universal scenarios, such phenomena lead to the exclusion of either poor or non-poor individuals, but their proportion is hard to establish ex-ante. For this

156 Refer to (Devereux, et al., 2015) for a comprehensive literature review on the topic.
reason, this micro-simulation exercise assumes that the largest share of erroneously excluded
individuals in a universal programme of this kind are non-poor, given the plausible higher interest
towards the poor and vulnerable in disbursing the grant.

Similar patterns are identifiable in the impact of the various programme scenarios in terms of
reduction in poverty headcount. The latter is higher the higher the grant amount and the wider the
share of the population included into the programme, as shown by Figure 25.

In light of what just highlighted, a universal programme – after taking into account inclusion and
exclusion errors – yields to higher poverty reduction levels: this sheds some light on the potentially higher efficiency of this grant type. However, the previous graphs measure the impact of such programmes without taking into account their costs. For this reason, as already argued in the previous Section, an efficiency index is essential in highlighting the relationship between the just discussed impacts and costs of the various programme scenarios.

**Figure 25: Child Support Grant. Poverty Headcount Reduction**

Figure 26 shows the efficiency index separately for different benefit levels, targeting mechanisms
and duration of the grant. Despite a lower absolute impact in terms of poverty gap and poverty
headcount reduction, higher levels of efficiency are achieved when targeting poor households,
because of the substantially lower costs that more than outweigh more moderate impacts. On the other hand, the universal programme and the grant targeted to the vulnerable display lower efficiency indices. Efficiency for the programme targeted to the poor is slightly lower than for the universal scenario: despite similar costs of the two programmes (as shown in Table 24), the impacts of the targeted programme are considerably lower than the ones of the universal programme, because of the assumed high targeting errors.

For higher grant amounts, increased returns do not outweigh increased costs, and consequently the efficiency index tends to decrease. According to this measure of efficiency, the best equilibrium between costs and impacts is achieved by a programme targeting the poor and providing a low benefit from the first ANC visit up to the second birthday of the child.

**FIGURE 26: CHILD SUPPORT GRANT. EFFICIENCY**
For the grant delivered only to households deemed vulnerable, an alternative efficiency index is constructed, considering as measure of benefit the reduction in a so-called vulnerability gap, which follows the same logic as the aforementioned poverty gap, but considers as reference twice the poverty line, instead of the poverty line itself:

\[ \text{Vulnerability Gap} = \sum_{i=1}^{N} (\text{Income}_i - 2 \times \text{Poverty Line}) \]

\[ \text{Efficiency Index} = \frac{\text{Vulnerability Gap Reduction}}{\text{Cost}} \%
\]

Figure 27 displays efficiency in terms of reduction in the vulnerability gap for the CSG addressed to individuals belonging to vulnerable households. As can be seen, the short-lasting CSG leads to higher efficiency levels, and efficiency tends to increase when grant levels decrease.

**FIGURE 27: CHILD SUPPORT GRANT. EFFICIENCY IN REDUCING VULNERABILITY**

<table>
<thead>
<tr>
<th>Low Benefit</th>
<th>High Benefit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Up to 2 Years</td>
<td>62%</td>
</tr>
<tr>
<td>Up to 8 Years</td>
<td>44%</td>
</tr>
</tbody>
</table>
6.3 Cost Feasibility Analysis

For the Child Support Grant, costs are projected until 2040 for each of the scenarios considered in the analysis. Figure 28 reports long run costs for the child support grant up to 2 years. As can be seen, in a five-year time horizon, costs increase, because of the assumption of a gradual scale-up of the programme. Moreover, cost levels are overall higher for grants providing higher levels of benefit. However, for each of the scenarios considered, long run costs do not go beyond 1% of GDP, even when adjusting the grant for inflation.

**Figure 28: Child Support Grant Up to 2: Long-Run Costs**

Figure 29 reports long run costs for the child support grant up to 8 years. The pattern is similar to the grant until two, where long run costs are higher the larger the targeting criterion. However, as mentioned in Section 6.1, the scaling up process occurs over a longer time horizon, thus leading to a gradual increase in costs up to 2032. Moreover, the larger pool of beneficiaries leads to overall higher long-run costs, reaching up to 2% of GDP in the universal programme providing higher benefits.
6.4 Cost Effectiveness Analysis

Figure 30 reports the percent reduction in poverty gap for every one 1% of GDP invested in a Child Support Grant, separately for each scenario. As can be seen, the most effective programme design is a Child Support Grant up to two years of age, targeting poor households and providing a monthly grant equivalent to approximately 16,000 UGX. For every 1% of GDP spent, the programme yields 33% reduction in the poverty gap. On the other hand, any 1% of GDP spent for the Child Support Grant up to eight leads to lower returns and, overall, it is less efficient than the Child Support Grant up to two.
The implication of this result is straightforward: given limited resources, and considering poverty reduction as the only benefit when proposing an indicator of efficiency, targeting a smaller set of individuals (only poor and only children up to two years of age) is more effective than enlarging the scope to older children and non-poor households. However, policy makers should take into account the limitation of considering poverty reduction as the only outcome of interest for measuring the effectiveness of a programme such as the one at hand. As an example, supporting children with a grant covering the first eight years of life is likely to have higher impacts on physical and cognitive development, compared to the grant up to two years. In addition to this, a longer-lasting grant at this stage of the life cycle positively affects educational attainment, because supporting the child in its early school years. Box 9 reports additional elements to account for when comparing universal alternatives to targeted ones, and highlights the importance of a right-based approach (accounting for vital principles such the ones stated in the Convention on the Rights of the Child\textsuperscript{157}) when taking decisions related to social protection.

\textsuperscript{157} Convention on the Rights of the Child, 1989
The results of the analysis presented so far report higher levels of efficiency for targeted programmes when compared to grants disbursed universally, suggesting that narrow targeting can maximize a grant’s impact on the poor or – for a given impact – can minimize the budget. However, when facing a policy choice between a universal and a targeted programme there are many other elements that policy makers should take into account.

First of all, as already pointed out, the simulations consider only directly measurable monetary benefits when it comes to estimate efficiency. As a result, programmes targeted only to the poor face considerable lower costs and consequently generate higher efficiency indexes. However, the analysis does not consider the additional – and unmeasurable – costs of targeting defined by the literature as social costs such as perceived unfairness and erosion of community cohesion with detrimental effects on social capital; psycho-social costs such as stigma and loss of self-esteem; political costs such as loss of political support; incentive-based costs, such as distorting behavioural changes in order to meet the eligibility criteria. As an example, an impact evaluation of the Lesotho Child Grant Programme (CGP), an unconditional cash transfer targeting poor and vulnerable through Proxy Means Testing (PMT) and community validation, highlights how the “CGP created a great deal of tensions in the communities between beneficiaries and non-beneficiaries due to people’s limited knowledge and selection criteria, their own sense of entitlement and the perceived exclusion of many deserving households”. The extent to which this type of costs will outweigh benefits and therefore influence the efficiency index, is however hard to establish and quantify ex-ante and including such an element in the simulations would require strict assumptions.

In addition to the just mentioned unmeasurable costs of targeting, the literature has proposed additional arguments in favour of universalism. As highlighted in Grosh et al. (2008), “the social unity resulting from a uniform provision of benefits will garner a sufficient budget to provide meaningful protection”. Moreover, universalists “believe that experience with targeting as a way to increase the efficiency of redistributive spending has been unsatisfactory to date, uninspiring in relation to hope for the future, and detrimental to efforts to increase the budget”.

As far as the Child Support Grant simulated in this analysis is concerned, the various arguments in favour of a universal provision of social protection in general still hold, and are accompanied by an even more fundamental one, i.e. the fulfilment of a right-based social protection system as stated in the Convention on the Rights of the Child entered into force in 1990. Article 26 highlights that “States Parties shall recognize for every child the right to benefit from social security, including social insurance, and shall take the necessary measures to achieve the full realization of this right in accordance with their national law”. Consequently, social security should be ideally guaranteed to any child and universal provision of a Child Support Grant as the one simulated by this study would be the best option to accomplish this ambitious goal.

In light of these considerations, and besides the mere efficiency indexes proposed by this study, universalism appears to be a socially desirable option. However, particularly in developing countries, the amount of resources that can be devoted to social protection is naturally limited, and – at least in the short run – the provision of universal grants might turn out to be unaffordable.
Consequently, the latter could be considered as a long-term goal to be reached through gradual scale-up, and other options such as the targeted ones proposed by this study might serve as first steps towards the achievement of such goal.\textsuperscript{164}

On the other hand, one of the most debated unintended consequences of an unconditional cash transfer such as the Child Support Grant is a stimulus to fertility. However, as far as the African continent is concerned, no empirical evidence has been so far collected that proves that this is actually the case. Studies conducted in Kenya (for the Cash Transfer for Orphans and Vulnerable Children), Malawi (Social Cash Transfer Programme) and South Africa (Child Support Grant) do not identify any statistically significant effect of unconditional cash transfers on fertility.\textsuperscript{165} Moreover, a recent social experiment on the Zambian Child Grant Programme shows that not only the transfer has no positive effect on fertility and child-fostering decisions, but it decreased fertility for a specific group of women (under 25 years old), because of the “quantity/quality” trade off.\textsuperscript{166} For this reason, the lack of convincing evidence of a positive impact of unconditional cash transfers on fertility in the African continent leads to confidently assume that, if implemented in Uganda, the child support grant would not positively affect fertility decisions.

\textbf{FIGURE 30: COST EFFECTIVENESS ANALYSIS FOR THE CHILD SUPPORT GRANT}

\begin{figure}[h]
\centering
\includegraphics[width=\textwidth]{cost_effectiveness_analysis.png}
\caption{Percent Reduction in Poverty Gap for Every 1\% of GDP Spent\newline\textit{CSG up to 2}}
\end{figure}

\begin{figure}[h]
\centering
\includegraphics[width=\textwidth]{cost_effectiveness_analysis_2.png}
\caption{Percent Reduction in Poverty Gap for Every 1\% of GDP Spent\newline\textit{CSG up to 8}}
\end{figure}

\textsuperscript{164} Examples of paths towards universalism include the South African Child Support Grant, where evidence documenting large exclusion errors on the one hand and noteworthy positive impacts on the other are guiding the country towards a universal provision of the grant. The successful non-contributory old-age pension scheme in Mauritius became universal in 1958 (after 8 years from the first implementation of the programme) with the abolition of the means testing (Willmore, 2013).

\textsuperscript{165} Palermo, Handa, Peterman, & Prencipe, 2015, p. 6

\textsuperscript{166} Ibid, p. 17
1. Macroeconomic Factors Influencing Fiscal Space for Social Protection

The goal of this chapter is to provide an overview on the main avenues for financing an expansion of the social protection system in Uganda with the initiatives discussed and simulated in the previous chapter. This section illustrates the main factors influencing fiscal space for social protection, and reports the current status for Uganda.

1.1 Economic Growth and Inflation

As widely documented and reported in Chapter 2, social protection and economic growth are closely intertwined. However, establishing a unique direction of a causal relationship is a hard task. Social protection initiatives are one of the many components that are capable of fostering economic growth, being the base for increased productivity, social inclusion, improved health and human development.

On the other hand, the aspect of interest for this section is the extent to which economic growth can allow long-run sustainability of the social protection system by enlarging the available pool of resources. First of all, as widely seen in the cost feasibility analyses for the proposed initiatives conducted in the previous chapter, sustained nominal growth that outperforms inflation leads to a decreased burden of social protection costing over time; even when adjusting grants amount for inflation. One of the channels through which this occurs, which has not even been reflected in the study’s conservative estimates, is the potential of economic growth to lift individuals out of poverty, leading to less people requiring social protection interventions.

Moreover, from a fiscal perspective, economic growth is correlated to a rise in tax revenues, although the direction of causality is not clear. On the one hand, with the progressive formalization of the economy, an evenly distributed economic growth is likely to strengthen the income tax (PAYE) base, leading to a higher amount of resources to devote to social protection. On the other side of the relationship, evidence from a broad cross-country comparison shows that there might be a direct relationship between tax composition and economic growth. More specifically, while keeping the overall tax burden unchanged, raising taxes on income and reducing consumption and property taxes is negatively correlated with growth. In Uganda, as it is the case in the majority of developing countries, the relative importance of income tax compared to corporate tax is high. Figure 31 plots the composition of direct domestic taxes in Uganda since the 1990s. A can be seen, income tax displays increased importance over time compared to corporate tax, and constitutes roughly 50% of the total direct domestic taxes.

167 For further evidence, see (Arjona, Ladaique, & Pearson, 2002), (Ahmad, 1991), (Castles & Dowrick, 1990), (Keane & Prasad, 2000)
168 DFID, 2006
169 Acosta & Yoo, 2012, p. 5
As highlighted in Chapter 1, Uganda’s economic growth in the last decade has been remarkable, outperforming the average growth rate of the Sub-Saharan region as a whole. As stated by the World Bank, the rate of real GDP growth is “projected to accelerate to at least 6% per annum into the medium term”.\textsuperscript{171}

Besides real economic growth, also inflation rates have an important impact on social protection policies and costing. The immediate effect of high inflation rates, at least in the short run, is the reduction in real income, and consequently a reduction in the purchasing power of consumers. For this reason, when projecting costs of social protection programmes, this analysis accounts for inflation rates and adjusts the grant amounts accordingly, in order to maintain the real benefit of the grant constant over time. One of the measures highlighted by the World Bank in a recent economic update for Uganda is the “tightening of monetary policy” that will “minimize inflation and hence ensure stability”.\textsuperscript{172}

This would guarantee stability in medium to long-run real income for the consumers, and guarantee a progressively decreasing burden of the social protection system on the economy. Figure 32 displays the percentage change in CPI for Uganda in the last decade. As can be seen, the inflation rate is quite volatile, and far from being stabilized around a target level. However, an appropriate monetary policy aiming to stabilize the inflation rate around a target (6.9% is the one adopted by this analysis) might be of great advantage for the sustainability of the social protection system.

\textsuperscript{170} The category “Other” includes presumptive tax, other income tax, rental income tax, withholding tax, tax on bank interests, casino and lottery tax and tax on agricultural products.

\textsuperscript{171} The World Bank, Fact Sheet: Uganda Economic Update, 2016

\textsuperscript{172} Ibid.
Another crucial element influencing the ability of a country to afford and sustain a social protection system is public debt, together with government deficit/surplus. A particularly onerous public debt can significantly reduce a country’s capacity to face high expenditure levels, and consequently to spend on social protection.

Figure 33 reports the trend in public debt for Uganda between 1997 and 2014. Following considerably high debt to GDP ratios between 1997 and 2002, ranging between 48% and 61% of GDP, the Ugandan government drastically decreased its debt levels in the early 2000s, reaching very low levels between 2007 and 2009 (20% of GDP). In 2014, the debt to GDP ratio was 30.4%, far below the Uganda Public Debt Management Framework 2013, where “a key threshold is that the present value of public debt to GDP ratio will not exceed 50% at any time during the implementation of the PDM2013”.\(^{173}\) In addition to this, Uganda is in line with the East African Community Monetary Union convergence criteria, which establishes a “ceiling on gross public debt of 50% of Gross Domestic Product”.\(^{174}\) This confirms the sustainability of government debt, which translates into the ability of the government to fulfil all future financial obligations, and to maintain a certain degree of public spending.

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173 Ministry of Finance, 2013
174 East African Community, 2013, p. 9
In addition to this, Ugandan fiscal deficit has experienced slight improvements between 2010 and 2013, and Figure 34 shows a projected further improvement over the next four fiscal years, as a consequence of the increase in the revenue to GDP ratio. Not only will Ugandan deficit turn into a surplus, but this fact will adjust Uganda to the East African Community Monetary Union Convergence criterion fixing “a ceiling on fiscal deficit of 3% of Gross Domestic Product”.

In turn, a prudent approach towards budgeting and controlling the government deficit can be crucial elements in guaranteeing the country’s fiscal sustainability in the future.

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175 Ibid., p. 9
1.3 Foreign Aid Reliance

Similar to many other developing countries, Uganda relies partially on donor grants and loans when planning and implementing its national expenditure. Figure 35 however depicts the decreasing trend of the on-budget grants and loans received by Uganda over the last decade, and includes projections until 2018/2019. Over time, the incidence of donor grants and loans is declining. In order to maintain constant the expenditure level and simultaneously avoid widening the fiscal deficit, the Ugandan government could consider implementing measures to enlarge revenues and exploit the available fiscal space for enlarging the social protection system.


![Graph showing donor grants and loans as a percentage of GDP (2015-2019: Projections)](image)

*Source: (The Republic of Uganda, Approved Estimates of Revenue and Expenditure (recurrent and Development), 2014/2015)*

Relying to a large extent on donor grants and loans in implementing long-lasting policies might turn out to be a strategically risky choice, given the instability that regulates international aid. The extreme volatility in the donors’ contributions is clear when observing the trend in the net official development assistance (ODA) received by Uganda since the 1960s presented in Figure 36. Many factors might have influenced the trend, making net ODA range between 0,5% of GNI in 1976 to 26% during the crisis of 1992.

Data available since 1999 highlight that such net assistance received by Uganda accounts for a considerably large share of central government expenditure, reaching 96% in 2006. This highlights the opportunity for the Ugandan government to enlarge the base for revenue collection, in order to sustain its public expenditure and consequently guarantee some resources to social protection. The following sections will describe the Ugandan fiscal framework in detail, and report key areas identified by the government as crucial for the creation of fiscal space.
2. Tax Collection in Uganda

Tax collection in Uganda is managed by the Uganda Revenue Authority (URA), established in 1991 as a central body for the assessment and collection of specified revenue. The tax administration reform implemented in Uganda follows a common tendency in developing countries to move the revenue collection to semi-autonomous entities, in order to tackle chronic inefficiencies of the existing tax administration arrangements, perceptions of widespread corruption, tax evasion and high taxpayer compliance costs.

Originally, three separate departments were responsible for tax collection in Uganda: Custom and Excise, Inland Revenue and Income Tax Department. These three organs were subsequently amalgamated into the URA, a quasi-autonomous unit with a board of Directors appointed by and responsible to the Minister of Finance. The latter maintains control over the URA in budgeting issues and in setting revenue targets, establishing how such targets are to be spread over different tax heads. The main objective of the URA, the oldest integrated revenue authority in Sub-Saharan Africa, is to reach given revenue targets, which are revised annually on the basis of negotiations between the URA and the Ministry of Finance and reflected in the Finance minister’s budget speech. As discussed in depth in the next section, for the fiscal year 2015/2016 the target is to increase the revenue to GDP ratio by 0.5 percent points over the next years.

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Source: World Development Indicators, 2016

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176 URA, 2016
177 Fjeldstad, 2005
As a percent of GDP, and compared to the average in Sub-Saharan Africa, tax collection in Uganda is relatively low. Figure 37 reports the total domestic revenues as a percent of GDP, and the gap between Uganda and Sub-Saharan Africa is evident since the beginning of 2000s. While Uganda’s revenues have remained quite stable in the interval between 12% and 18% of GDP since 1997, Sub-Saharan Africa as a whole has remained above 20% of GDP in total revenues in the period between 2000 and 2014, with a peak of 26% in 2006.

**FIGURE 37: TOTAL DOMESTIC REVENUE FOR UGANDA AND SUB-SAHARAN AFRICA (1997-2021). PROJECTIONS FROM 2014 ONWARDS**

In order to understand the performance of the Ugandan fiscal system as a whole, however, it is necessary to highlight the extent to which revenues collected are capable of sustaining government expenditure. As it is clear by observing the trend in Figure 38, the just highlighted pattern for total domestic revenue also applies for total government expenditure.

Uganda’s expenditure to GDP ratio is much lower compared to its regional counterparts. Over the period covered by the IMF estimations, it remains well below 20%, while the average Sub-Saharan African country displays an expenditure trend above 20%, reaching peaks of 25% in 2001 and between 2009 and 2011. According to IMF estimations, after 2014 the trends will start to converge and both Uganda and Sub-Saharan Africa will reach an expenditure to GDP ratio of approximately 21% by 2019.

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178 It consists of both tax and non-tax revenue, such as taxes, social contributions, grants receivable, and other revenues.

179 Total expenditure as defined by the IMF consists of total expense and the net acquisition of nonfinancial assets.
Finally, Figure 39 reports IMF data and estimations of government revenues, expenditures and the relative fiscal deficit, which in this case includes grants. From 1997 to 2006, the fiscal deficit has remained narrow, being less than 1% of GDP. On the other hand, after 2006, the expenditure level has started to increase more rapidly than the revenue level, thus widening the fiscal deficit, which reached 5.7% of GDP in 2010. IMF estimations suggest that, after 2014, both revenue and expenditure levels will experience an increasing trend as a percent of GDP, maintaining the deficit constant at around 3-4%.
On the other hand, the budget estimates reported by the Government of Uganda and depicted in Figure 40 present different projections. While total revenues are expected to maintain a positive trend as in the IMF estimations, according to the budget estimate proposed by the Ugandan government total expenditure is projected to decrease as a percent of GDP starting from FY 2014/2015.


Source: (The Republic of Uganda, Approved Estimates of Revenue and Expenditure (recurrent and Development), 2014/2015)

One of the biggest challenges highlighted by the Minister of Finance during the budget speech for fiscal year 2015/2016 is the poor taxpaying culture among many Ugandans, which leads to low tax compliance and consequently to an unsatisfactory revenue collection. One of the most commonly adopted ways to measure tax compliance is to quantify the so-called Value-Added Tax (VAT) gap. For Uganda the International Monetary Fund conducted a recent analysis on the VAT gap in Uganda for the period 2003/2004 – 2012/2013.

Uganda’s VAT standard rate is 18%, slightly higher than the one of Sub-Saharan Africa as a whole (16%). The revenue productivity of the VAT can be measured through an index called C-Efficiency, which can be expressed, where is the VAT standard rate (in the case of Uganda, 18%), as:

\[
C - Efficiency = \frac{\text{Vat Revenue}}{T_s \times Consumption}
\]

The higher the index, the higher the VAT performance of a fiscal system. This concise summary measure expresses the extent to which the country’s VAT departs from an ideal setting in which a uniform VAT is applied equally to all transactions, and where there is full compliance, (the index would in this case have a value of 1). In other terms, it is the ratio between actual VAT collections and potential VAT collections (expressed as a percent of GDP).

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180 The fiscal deficit in Figure 40 excludes grants and loans. For this reason, the deficit is larger than the one in Figure 39.

181 Hutton, Thackray, & Wingender, 2014
Table 25 compares the VAT revenue performance in Uganda to some regional counterparts for fiscal year 2012/2013. Uganda’s VAT standard rate is in line with the vast majority of the other sub-Saharan countries reported in the table, but slightly higher than for the Sub-Saharan Africa as a whole, whose average is 16%. As a percent of GDP, VAT collection in Uganda is lower than the one of all the other countries listed in the table, equating to 3.5% of GDP.

The most striking evidence reported in the table below concerns the described C-Efficiency ratio, which for Uganda is significantly lower with respect to the other countries. As can be seen, the actual VAT revenues collected account for only one fourth of the total potential VAT that could be collected in a uniform system with full compliance.

<table>
<thead>
<tr>
<th>COUNTRY</th>
<th>VAT STANDARD RATE (IN PERCENT)</th>
<th>VAT YIELD (IN PERCENT OF GDP)</th>
<th>C-EFFICIENCY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Uganda</td>
<td>18%</td>
<td>3.5%</td>
<td>26.2%</td>
</tr>
<tr>
<td>Burundi</td>
<td>18%</td>
<td>8.9%</td>
<td>59.1%</td>
</tr>
<tr>
<td>Ghana</td>
<td>12.5%</td>
<td>4.7%</td>
<td>43.9%</td>
</tr>
<tr>
<td>Kenya</td>
<td>16%</td>
<td>5.7%</td>
<td>45.7%</td>
</tr>
<tr>
<td>Senegal</td>
<td>18%</td>
<td>7.8%</td>
<td>54.0%</td>
</tr>
<tr>
<td>Tanzania</td>
<td>18%</td>
<td>5.3%</td>
<td>44.2%</td>
</tr>
<tr>
<td>Sub-Saharan Africa</td>
<td>16%</td>
<td>5.3%</td>
<td>48.7%</td>
</tr>
</tbody>
</table>


This overall measure of performance can further be decomposed into a policy-gap and a compliance-gap measure. This helps to assess where inefficiencies stem from, whether from policy arrangements such as exemptions, zero-ratings, other initiatives reducing the potential tax base or from noncompliance.

According to IMF estimations, the VAT compliance gap in Uganda is particularly significant, and larger than a decade ago. This indicator expresses the difference between revenues actually collected and the potential revenues that could have been collected in a specific year, maintaining the policy framework unchanged. As a percent of GDP, this indicator stands at approximately 6% in 2012/2013, and the gap correspond to 60% of the potential revenues. In other words, this means that given the current policy framework, eliminating noncompliance would lead to an increase in VAT revenues by 6% of GDP. When disentangling the contribution of various sectors in creating the VAT gap, constructions is the one regarded as the high-risk sector in many developing countries, and the same is valid for Uganda.

On the other hand, the policy gap aims to isolate the effect of the policy framework in generating collection inefficiencies. It does so by expressing the difference between the potential revenues given the ongoing policy framework (but assuming full compliance) and the potential tax collection given a normative policy VAT structure, where there is a single standard rate and a bare minimum
of exemptions. Results suggest that the largest share of VAT gap in Uganda is explained by compliance issues, being the policy GAP as a percent of GDP particularly low.\textsuperscript{183}

This sheds some light on the areas in which Ugandan policy makers can intervene in order to create fiscal space and collect more resources to be spent in socially remunerative investments such as social protection. This aspect will be further analysed in the following section.

### 3. Fiscal Space and Social Protection

In order for Uganda to promote an equitable and inclusive economic growth, and more specifically in order to achieve the social development objectives stated in Vision 2040 and in the National Social Protection strategy, the government will likely require to display an increased commitment to increasing fiscal space for social and economic public investment.

During adjustment periods, it is always argued that government expenditure cuts are inevitable and many initiatives such as the ones related to social protection largely described in the previous sections become unaffordable. On the contrary, particularly during downturns or periods affected by severe economic shocks, providing social protection services to the most vulnerable segments of the population such as children, older people or persons with disabilities might turn out to be the winning strategy for a government willing to boost productivity and to provide the necessary human capital to support a country’s physical capital in the short, medium and long run.

As reported in Figure 40, budget estimates project a decreasing expenditure trend for the next four fiscal years. The common perception that decreasing public spending allows for narrower deficit and a more sustainable debt understates the potential of fiscal space and public spending as dynamic processes, capable not only of providing readily available resources today but also of generating the base for future revenues and investments.

Despite this, the specificity of every country does not allow to draw general guidelines in generating and benefitting from fiscal space, there are several areas of interventions that are commonly highlighted as potential sources of fiscal space:\textsuperscript{184}

1. **Re-allocating current public expenditures.** This option in itself would not require any increase in revenue or any other policy initiative other than restructuring the existing budget allocations and replacing high-cost and low impact investments with ones that have large economic and social outcomes, eliminating spending inefficiencies and tackling corruption. Re-prioritizing existing budgets and allocating additional resources to social protection initiatives is often a hard objective to accomplish for social sector ministries and groups representing vulnerable individuals within the society. It is often the case that the result of this process is a “collapse in allocations for pro-poor budget items”.\textsuperscript{185} Moreover, even if there is a common agreement on promoting pro-poor expenses, policymakers usually fail to agree on the sectors to redirect from. The Ugandan government could

\textsuperscript{183} Ibid., p. 19
\textsuperscript{184} Ortiz, Chai, & Cummins, 2011, p. 2
\textsuperscript{185} Ibid., 2011, p. 5
consider further committing to re-prioritize public spending towards highly remunerative sectors such as social protection, leading to medium and long-run benefits in terms of human capital.

2. **Increasing tax revenue.** This objective can be achieved by altering different kinds of tax rates for maximizing revenue given the existing revenue base, or simply by implementing effective measures for strengthening the efficiency of tax collection methods and overall compliance, as discussed in the previous section. The Ugandan government has shown increased commitment in this respect, as widely discussed later in Box 10.

3. **Increased aid and transfers.** This includes both engaging with donor governments or reducing illicit financial flows, such as South-North transfers. However, in order for long-run policies such as social protection initiatives, government might consider not relying too extensively on donors’ grants, being by nature unstable and potentially not able to guarantee long-run sustainability. For Uganda, this aspect is made evident by the previously highlighted Figure 36.

4. **Using fiscal and central bank foreign exchange reserves.** This might include exploiting fiscal savings and other state revenues, or excess foreign exchange reserves in the central bank and allocate them to domestic and regional development.

5. **Borrowing or restructuring the existing debt.** This would involve the careful assessment of domestic and foreign debt options that are low cost, carefully considering debt sustainability, which for Uganda is currently not a threat.

6. **Adopting a more accommodating macroeconomic framework.** This would entail allowing for higher budget deficits and slightly higher inflation levels, without the risk of jeopardizing macroeconomic stability.

In the 2015/2016 National Budget speech, the Minister of Finance, Planning and Economic Development in the person of honourable Matia Kasaija has announced that “the main thrust of tax policy is to progressively enhance revenue mobilization to fully finance the budget”. Moreover, in order to achieve this, the Minister states that “efforts are geared towards increasing the tax to GDP ratio by at least 0.5 percentage points of GDP every Financial Year, and to attain a target of 16 percent by 2018”.

Among the various challenges that government identifies as hindering the pursuit of this goal, these are the three main ones identified by the Minister:

1. a large informal sector, which constitutes 49% of GDP and therefore causes a big loss of revenue base;
2. a poor taxpaying culture among many Ugandans; and
3. the lack of collaboration among Government Ministries, Departments, Agencies and Local Governments.

Government plans to address the aforementioned challenges in a number of ways. The third issue will be addressed with the completion of the National Identification Project aimed at supporting tax administration. The primary goal of this initiative would be a more intense information sharing between the Uganda Revenue Authority and Government Ministries, Departments, Agencies and

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186 The Republic of Uganda, Budget Speech Financial Year 2015/2016, 2015, p. 46
Local Governments. As a complement to this, the government will invest in the Uganda Revenue Authority in order to improve its systems and train its staff.

Furthermore, the Minister identifies a list of key areas of intervention in order to achieve the gradual increase of the revenue to GDP ratio of 0.5 percentage points per year. Such key areas and the associated policies are described in detail in Box 10.

Under the assumption that such measures will be effectively implemented leading to a gradual increase in the revenue to GDP ratio as forecasted by the Minister of Finance, it is possible to project the amount of resources that could turn out to be available for expanding the social protection system with the programmes micro-simulated in Chapter 4. The model proposed below realistically assumes that not all the incremental fiscal space created through to the measures highlighted in Box 10 will be devoted to social protection. For this reason, it takes into account three possible scenarios: one in which only 10% of the extra revenue is devoted to social protection and other two in which larger shares of the newly collected resources are allocated to social protection, i.e. 20% and 30%.

As already stressed in the section reporting the micro-simulation results, one element to take into account is the fact that costs of social protection programmes are nothing but an upper bound of the real cost that the government might face when implementing such measures. As widely discussed, administrative costs are kept constant throughout the whole period, thus neglecting the realistic possibility of their gradual reduction once the programme reaches full scale. The reason why estimations are conducted in this manner is mainly due to the willingness to avoid under-estimation of costs and biased considerations on the affordability of the programmes in the long run.

On the other hand, the amount of resources that the model deems allocated to the expansion of social protection programmes might instead constitute nothing but a lower bound of the actual share of revenues available. Indeed, even under the optimistic scenario of devoting 30% of the newly collected revenues to the expansion of the social protection system, the model does not take into account the potential of funding these programmes out of the already existing budget. Moreover, as stressed by the Minister of Finance, the expected increase in the revenue to GDP ratio is by at least 0.5 percentage points, therefore the possibility of an even higher availability of resources cannot be excluded. Finally, as will be clear from the graphs below, the model does not assume a constant increase in the fiscal space created, but levels it off after 2028, when Uganda will reach the average Sub-Saharan Africa level of revenue to GDP ratio. Again, one cannot exclude a priori that Uganda will instead overtake such level of revenue collection.
**BOX 10: TAX MEASURES APPROVED BY PARLIAMENT AS PER 2015/2016 NATIONAL BUDGET**

The tax measures approved by Parliament for the financial year subsequent to 2015/2016 are the Adjustments in the excise duty rates. Small increases in excise duty rates were approved for items like fuel (from UGX 630 to UGX 680 per litre), beer (from 20 to 30%), cigarettes, wine and ready to drink spirits. Excise duties of 10% were introduced for furniture and chewing gum, sweets and chocolates, and of 5% for motor vehicle lubricants.

**Formalization of business.** Among the sectors most affected by informality (agriculture, wholesale and retail trade, construction and transport), the government has devoted a first wave of attention towards transport, for which there will be a mandatory payment of tax for all Public Service Vehicles and Goods Motor-Vehicles at time of renewal of annual licences.

**Taxation for Petroleum and Mining Sector.** Licensees in these sectors are to register for VAT during the exploration and the development stages. This will enable them to obtain relief from VAT payable on goods and services.

**VAT Threshold.** The Vat threshold has been revised from UGX 50 million to UGX 150 million in order to account for the growth in the economy, the exchange rate depreciation and inflation.

**Cash Basis accounting for VAT purposes.** The threshold for those using a cash basis accounting system was increased from UGX 200 million to UGX 500 million.

**Presumptive regime.** It has been simplified by categorizing business and fixing the tax payable.

**Thin Capitalization rules.** They have been amended to allow firms to deduct interests on loans if the loans do not exceed their share capital by 150 percent.

**Removal of excise duty on international calls.** In order to implement the One Area Network for EAC, the excise duty has been removed.

**Environmental levy.** The environmental levy on used motor-vehicles has been increased from 20 to 35% and to 50% for those older than 10 years.

**Non tax revenue.** In this context, passport fees have been increased.

**EAC Pre-Budget Consultations.** Under the East African Community framework, the Ministers of Finance held pre-budget consultative meetings to discuss issues of common interest and agreeing on a number of measures with regard to the EAC common external tariff.

**Tax incentive regime for investment.** This measures aim to improve the current tax incentives regime for investment.

**Tax Administration.** As part of the strategy to enhance compliance, the URA will undertake a set of measures such as implementing the Joint Compliance Campaign, undertake taxpayers’ sensitizations, expand the Taxpayer Registration and Expansion Programme, enhance information management systems to facilitate faster clearance of goods.

**International agreements.** The government has ratified the following agreements: East African Community Agreement for the Avoidance of Double Taxation and Prevention of Fiscal Evasion in respect to Taxes; The Agreement for the Establishment of the African Tax Administration Forum (ATAF) on Mutual Assistance in Tax Matters; and The OECD Convention on Mutual Administrative Assistance.

*Source: (The Republic of Uganda, Budget Speech Financial Year 2015/2016, 2015)*
Figure 41 depicts the long run costs of the first micro-simulated programme in Chapter 4, the national rollout of the existing Senior Citizen Grant, vis-à-vis the resources available to social protection from the creation of new fiscal space under the aforementioned three different scenarios.

As can be seen, in the medium run, as the fiscal burden increases due to the gradual expansion of the programme, it would be necessary to allocate 20% of the newly collected resources to cover the cost of the Senior Citizen Grant. However, in the medium to long run, after programme reaches full scale, only less than 10% of the newly collected resources would guarantee affordability of the Senior Citizen Grant expanded at a national level.

Universal health care for pregnant and lactating women, breastfeeding mothers and children under five is the most expensive programme among the ones micro-simulated in this study. One of the reasons why this is the case, is the relatively large share of potential beneficiaries, and its universal nature.

Universal health care for pregnant and lactating women, breastfeeding mothers and children under five is the most expensive programme among the ones micro-simulated in this study. One of the reasons why this is the case, is the relatively large share of potential beneficiaries, and its universal nature.
Graphs in Figure 43 report the same comparison for the various scenarios analysed in Chapter 4 of the disability grant. As can be seen in the second of such graphs, allocating only 10% of the extra revenues to a disability grant targeting the poor would be enough in order for the programme to be affordable, regardless of the benefit level chosen (low or high). However, if targeting the vulnerable disabled individuals, higher shares of resources should be devoted to the programme, at least in the short run.

Only under one specific scenario, would the disability grant be affordable only by allocating 30% of incremental fiscal space, i.e. if the grant was implemented nationwide with a high benefit level. However, after the grant reaches full scale and its cost decreases thanks to economic growth and population dynamics, the allocation of fewer resources would guarantee the affordability of the programme.

**FIGURE 43: ALLOCATION OF EXTRA FISCAL SPACE TO SOCIAL PROTECTION AND DISABILITY GRANT COSTS**

Figure 44 depicts cost projections vis-à-vis resources available for the various scenarios of the child support grant as proposed in Chapter 4. As for the grant from the first antenatal care visit up to 8 years of age, the only affordable options are the ones in which benefit levels are low and in which
the grant is disbursed either to poor or to vulnerable mothers and children. Considering a young population as the one of Uganda, this does not come as a surprise. For higher grant amounts, only the targeted programme is affordable in the shot, medium and long run.

On the other hand, all options are affordable in the scenario where only children up to 2 are allowed to benefit from the grant. Moreover, one should notice how targeting the poor would require a low share of the extra revenue devoted to social protection (only 10%), for any benefit level considered.

**FIGURE 44: ALLOCATION OF EXTRA FISCAL SPACE TO SOCIAL PROTECTION AND CHILD SUPPORT GRANT COSTS**

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**SOCIAL PROTECTION COSTS AND REVENUES ALLOCATED**

- **CHILD SUPPORT GRANT UP TO 2, UNIVERSAL**
- **CHILD SUPPORT GRANT UP TO 8, UNIVERSAL**
- **CHILD SUPPORT GRANT UP TO 2, TARGETED TO THE POOR**
- **CHILD SUPPORT GRANT UP TO 8, TARGETED TO THE POOR**
- **CHILD SUPPORT GRANT UP TO 2, TARGETED TO THE VULNERABLE**
- **CHILD SUPPORT GRANT UP TO 8, TARGETED TO THE VULNERABLE**

- 30% of incremental fiscal space to Social Protection
- 20% of incremental fiscal space to Social Protection
- 10% of incremental fiscal space to Social Protection
- High Benefit
- Low Benefit
The following graphs present the cost of hypothetical social protection packages and plot them against the available resources under the three scenarios considered.

The first packages reported include the national roll-out of the Senior Citizen Grant, a universal child support grant up to 2 years and a universal disability grant. The graphs report separately the package where also universal health care is included, in light of the considerations made above. Moreover, two separate graphs are proposed in order to distinguish between low and high benefit levels. Figure 45 highlights how packages composed of only universal programmes (right from the beginning) are not affordable within the allocated shares to social protection in the short run, but become affordable in the medium to long run.

**FIGURE 45: INCREMENTAL FISCAL SPACE ALLOCATED TO SOCIAL PROTECTION AND SOCIAL PROTECTION PACKAGES COST, UNIVERSAL SCENARIOS**

[Graphs showing the allocation of social protection costs and revenues for universal scenarios with low and high benefit levels over a period from 2017 to 2040.]

- **Universal - Low Benefit Social Protection Package**
  - Social Protection 30%
  - Social Protection Package universal with low benefit
  - Social Protection Package universal with low benefit and universal health care
  - Social Protection 20%
  - Social Protection 10%

- **Universal - High Benefit Social Protection Package**
  - Social Protection 30%
  - Social Protection Package universal with medium benefit
  - Social Protection Package universal with medium benefit and universal health care
  - Social Protection 20%
  - Social Protection 10%
On the other hand, by observing Figure 46 it is clear how social protection packages consisting of the national roll-out of the Senior Citizen Grant, a child support grant up to 2 years and a disability grant targeted to the poor are affordable in the short, medium and long run in both a low and medium benefit scenarios. Again, including universal health care in the expenditure for social protection would lead to the whole package affordable only in the medium to long run.

**FIGURE 46: INCREMENTAL FISCAL SPACE ALLOCATED TO SOCIAL PROTECTION AND SOCIAL PROTECTION PACKAGES COST, TARGETED TO THE POOR SCENARIOS**

![Graph](image-url)
Figure 47 presents the projection of costs versus the hypothetical available resources for a social protection package constituted by the Senior Citizen Grant at a national level and a universal or targeted child support grant up to 2 years of age, the latter disbursing alternatively a low or high benefit. Such packages - providing a universal child support grant - are affordable under the assumed available resources only in the medium to long run. However, Figure 48 shows that a package with a child support grant targeted to the poor is instead affordable in the short, medium and long run by allocating to the programmes only less than 30% of the extra revenues created.

**FIGURE 47: INCREMENTAL FISCAL SPACE ALLOCATED TO SOCIAL PROTECTION AND SOCIAL PROTECTION PACKAGES COST, SENIOR CITIZEN GRANT AND CHILD SUPPORT GRANT**
Figure 48 presents an alternative social protection package including the Senior Citizen Grant and the Disability Grant with a high benefit, disbursed universally, to the poor or to the vulnerable respectively. As can be seen, the universal package would become affordable only after 2026. On the other hand, including a disability grant targeted to the poor is affordable also during the scale-up phase and, in the long-run, allocating only 10% of the incremental fiscal space would cover the cost of this package.

FIGURE 48: INCREMENTAL FISCAL SPACE ALLOCATED TO SOCIAL PROTECTION AND SOCIAL PROTECTION PACKAGES COST, SENIOR CITIZEN GRANT AND DISABILITY GRANT

SOCIAL PROTECTION COSTS AND REVENUES ALLOCATED
SENIOR CITIZEN GRANT ROLLOUT DISABILITY GRANT

- Social Protection 30%
- Social Protection 20%
- Social Protection 10%
- SCG and Disability Grant (Universal High)
- SCG and Disability Grant (Poor High)
- SCG and Disability Grant (Vulnerable High)
Concluding Remarks

This report, prepared to support the MGSD in designing a national social protection system within the ESP programme, provides Ugandan policy-makers with tools for identifying effective initiatives and programme designs to be applied in three key areas: child and maternal health, youth livelihoods development and vulnerable groups productive capacity improvement.

The positive results of the quantitative assessment of SAGE on food security, education and employment constitute a solid evidence base demonstrating the developmental impact of future investment efforts in social protection. The expansion of the existing policies within the SAGE programme and the design and implementation of new ones, such as those proposed in this report, represent opportunities for the Government of Uganda to both tackle poverty and strengthen the broadly developmental impact of government policy, supporting inclusive social development and equitable economic growth.

Future policy should take into account not only the range of the different and complementary options proposed, but also their alternative programme designs. Given the complexity in assessing the whole set of beneficial effects that these programmes are likely to generate, this analysis considers only measurable impacts related to income poverty reduction, and reports efficiency indexes based on these specific outcomes. For this reason, this study should serve only as a first step for policy-makers towards a more comprehensive assessment of the ideal options for Uganda in the short-, medium- and long run.

In addition to this, the micro-simulation exercise and the fiscal space analysis document the long-run sustainability of these programmes and programme combinations, whose fiscal burdens are further supported by the resulting economic growth and associated demographic dynamics.

The evidence documented in this report demonstrates to policy makers that the beneficial effects of social protection include not only the immediate reductions in monetary poverty quantified in this study but also the medium- and long-run impacts in terms of inclusive social development and equitable economic growth demonstrated by the global evidence base.
Annex 1

An Overview of Social Protection

One of the policy tools that has received growing recognition in its success in developing the human capital necessary for Uganda to sustain its economic growth rates over the short-, medium- and long-run, is social protection. In light of similar needs across the continent, social protection programmes have therefore expanded across Sub-Saharan Africa in both scope and coverage. In the context of Uganda’s development agenda, social protection can play a vital role in addressing the country’s development potential.

According to the UN Institute for Social Development, social protection encompasses programmes and policies that:\(^\text{187}\)

- **Are primarily concerned with preventing, managing, and overcoming situations that adversely affect people’s wellbeing;**
- **Help individuals maintain their living standard when confronted by contingencies such as illness, maternity, disability, and old age; market risks such as unemployment; economic crises; and natural disasters.**

Social protection programmes have proven to contribute to inclusive economic growth, social justice, societal equity and good governance as they strengthen the social contract between the state and its citizens. The best programmes seek not only to provide safety nets to insulate citizens from poverty-inducing shocks but also to build platforms by which individuals can raise themselves and their families out of poverty by promoting long-term real income generating capabilities.\(^\text{188}\)

Overview of Social Protection Programmes

**Cash Transfers**

Conditional and unconditional cash transfers (CCTs and UCTs, respectively) often play a large role in social protection strategies. Governments can integrate cash transfers (CTs) into a long-term social protection scheme or can use them on a transitional basis during times that necessitate some sort of emergency relief.\(^\text{189}\) Both CCTs and UCTs focus on transferring money to poor and vulnerable households but differ in how that money is disbursed. CCTs disburse cash contingent on the actions or behaviours of the recipient household. This commonly means that part of the transfer is earmarked for a specific purpose—i.e. education, immunization, or pre-natal care—or that the household must meet certain criteria in order to continue receipt of the transfer. UCTs, on the other hand, do not impose any specific behavioural requirements and dispense the money to eligible households without imposing any limitations on how the money is spent, recognizing the growing evidence confirming the ability of recipients to invest in productive opportunities

\(^{187}\) Ulriksen & Katusiimeh, 2014
\(^{188}\) Thomas, 2005
\(^{189}\) Slater, 2008
without requiring explicit incentives. The primary types of cash transfers are family benefits, child allowances and non-contributory (social) pensions. Compared to traditional food aid, cash transfers do not distort local markets, but instead support households while building local economies. Furthermore, even small transfer amounts provide a level of income predictability that allows households to safeguard themselves against economic shocks and contribute to long-term asset accumulation.\(^{190}\)

**Cash Transfers In-kind Benefits**

Whereas cash transfers aim to be as direct, regular and predictable as possible to help beneficiaries smooth their income patterns, in kind social protection takes a different approach in addressing a household’s needs. The most common “in kind” benefit is food, such as through a work-for-food or school feeding programme.\(^{191}\) Other in kind benefits can include housing or subsidised access to merit goods. However, as the benefits provided through social protection are often based upon the concept of a replacement wage, it can be more challenging to value non-monetary transfers against an opportunity cost that discourages long-term social protection reliance.\(^{192}\)

**Livelihoods Enhancement Programmes**

Livelihood enhancement programmes represent yet a different approach to addressing social exclusion and vulnerability. Unlike cash and in kind programmes—which are defined by the transfer of money or essential goods—livelihood enhancement programmes cannot always be quantified as a discrete reassignment of resources. Instead, livelihood enhancement generally encompasses anything that seeks to develop programme beneficiaries’ capabilities, opportunities or material and social assets required for a sustainable means of living. The best programmes work to build livelihoods for beneficiaries that can be maintained over time and are capable of coping with shocks and stresses without undermining their available resource base. Additionally, these programmes tend to have a strong developmental effect, as they directly increase the human capital and economic productivity of their target population.

**Overview of Social Protection Programme Targeting and Implementation**

Vulnerable groups such as the disabled, older people, the widowed and children are usually the target of social assistance programmes.\(^{193}\) Accordingly, social assistance often involves some form of targeting and means testing designed to screen potential programme beneficiaries based on need. In this way, targeting aims to ensure that, in light of limited resources, benefits are directed to those in most need of the programme’s assistance. However, in the absence of adequate targeting methods, social protection programmes can end up inadvertently minimizing intended recipient coverage (exclusion error) while maximizing non-intended recipient coverage (inclusion error). The use of targeting has been shown to provide more resources to those in need over simple categorical allocation;\(^{194}\) however, the benefits are minimized when the administrative cost

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\(^{190}\) Thomas, 2005

\(^{191}\) Browne, 2015

\(^{192}\) Norton, Conway, & Foster, 2001

\(^{193}\) UNDP, 2013

\(^{194}\) Comparison of 122 targeted social assistance programmes across 48 countries in study conducted by David Coady et al. in partnership with The World Bank and International Food Policy Research Institute - (Slater & Farrington, 2009).
of targeting are high and the accuracy low. Though targeting can be achieved in a variety of ways, it is usually done either by group targeting, means testing, proxy-means testing, or self-selection. Each targeting methodology has distinct advantages and disadvantages that affect exclusion and inclusion, as summarized in Table A1.

Universal programmes are the primary alternative to the use of a targeting mechanism and generally aspire to reach all individuals within an, often vulnerable, population group. While universal programmes are ideal for maximising coverage and often impact, the cost associated with instituting and maintaining universal programmes is often seen to be prohibitive given the limited resources of many developing countries. However, various developing countries have successfully instituted universal programmes, benefiting ultimately from potentially higher economic feedback effects on the longer run. When it is not feasible for governments to provide universal programme coverage, they have to face targeting decisions for allocating the scarce resources available for social protection.

### Table A1: Common Targeting Methods for Social Assistance Programmes

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<th>Targeting Method</th>
<th>Methodology</th>
<th>Advantages</th>
<th>Disadvantages</th>
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| Group Testing          | Provides benefits to a given population group (e.g. mothers, children, older people). | - Low transaction costs  
                        |                                                      | - Minimizes social stigma                                                  |
|                        |                                                                            | - Potential leakages to the non-poor            |                                                                         |
| Means Testing          | Provides benefits to households below a certain income level (often also within a specific population group). | - Less leakage to the non-poor                   | - High transaction costs                                                   |
|                        |                                                                            | - Often difficult to implement in absence of accurate income data |                                                                         |
| Proxy Means Testing    | Provides benefits to households based on targeting indicators (proxies) for income when income is not available or formal means testing is not feasible. Utilizes proxies such as household size and household composition. | - Option when formal means testing is unfeasible  
                        |                                                      | - Easier to use compared to formal means testing                            |
|                        |                                                                            | - Can be less accurate in targeting the poor than formal means testing | - Greater leakages                                                   |
| Self-Selection         | Imposes disincentives to participants by either providing minimal benefits or because there are social stigmas associated with the programmes (e.g. food-for-work or public works programmes) so that only those truly in need will accept them. | - Often only those who truly need the programme will join, leading to less leakages  
                        |                                                      | - Small transaction costs                                                   |
|                        |                                                                            | - Benefits are often so minimal that the programmes alone are not effective in bringing beneficiaries out of poverty.  
                        |                                                      | - Potentially stigmatizing                                                  |

Source: Adapted from (UNDP, 2013)

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195 UNDP, 2013  
196 Slater & Farrington, 2009
Categorical or group targeting seeks to establish coverage boundaries around a specifically designated population group, such as mothers, children, and older people, or households within a certain geographical region.\textsuperscript{197} While categorical targeting necessitates easily identifiable household and individual attributes such as age, gender, disability, etc., these categories are easier to verify and more difficult to falsify than income or consumption level.\textsuperscript{198} Due to this ease in confirming data, categorical targeting is the most administratively simple method for governments and greatly reduces the cost of implementation. Additionally, because coverage is not specifically directed towards individual households or problematic characteristics, the social stigma often attached to social protection is greatly reduced.

Means testing is the practice of limiting a grant to individuals under a predefined income threshold. An administrative official provisions benefits after completion of a direct household or individual income assessment. Due to the personalised attention that formal means testing requires, it is typically considered the most accurate form of targeting, minimizing both inclusion and exclusion errors.\textsuperscript{199} However, the cost of determining a good means threshold can be prohibitive, as significant time and resources are necessary to define the level of eligibility that matches need. Moreover, in a developing country context, this often is administratively very challenging to implement in light of limited capacity and unverifiable income. For instance, a benefit need is established using explicit guidelines, potential beneficiaries often must prove their eligibility with formal income documentation. In developing countries with high informal sector employment, this kind of stringent income verification is not always feasible.\textsuperscript{200}

When formal means testing is not possible or when income data is not available, proxies developed from targeting indicators can be used to assess the eligibility of prospective beneficiaries. Proxies are established using combinations of demographic characteristics including those related to physical housing, human capital, durable goods and productive asset possession that are generally correlated with welfare.\textsuperscript{201} After the proxy is established and the relevant data collected, a “score” is created through factor or regression analysis that can be used to compare to a baseline cut-off. This score is intended to be easily verifiable, limiting chances for politicization or corruption in benefit allocation. However, it is not always conducive to changing welfare status. Proxy-means testing requires static indicators for greatest accuracy. In the event of a crisis or in the case of transition countries, this form of targeting might exclude potential beneficiaries who are not previously established as chronically impoverished.\textsuperscript{202} Recertifying, done by formula update and population retesting, can be a costly process that requires strong governmental administrative capabilities. However, when applied effectively, proxy-means testing can greatly reduce inclusion errors and ensure, when successful in minimizing exclusion errors, maximum resources are available for the most in need.\textsuperscript{203}

\begin{thebibliography}{99}
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\item 198 Van Domelen, 2007
\item 199 Coady, Grosh, & Hoddinott, 2004
\item 200 Samson, Van Niekerk, & Mac Quene, 2006
\item 201 Australian AID, 2011
\item 202 Coady, Grosh, & Hoddinott, 2004
\item 203 Samson, Van Niekerk, & Mac Quene, 2006
\end{thebibliography}
Self-selection or self-targeting schemes typically allow anyone who enrols to receive the benefit and instead rely on incentivizing only individuals who can truly benefit from the programme to enrol. In order for self-selection to be most effective, the benefits provisioned must be inherently inferior to the market alternatives available for anyone not intended as a programme recipient.\textsuperscript{204} This can be achieved in numerous ways, including establishing labour programmes at a low baseline wage and providing benefits below the societal, non-extreme poverty norm.\textsuperscript{205} While self-selection offers numerous benefits for limiting leakages and relatively low administrative oversight costs, it should only be utilised under specific situations when other targeting measures are not feasible. These circumstances include crises, times of income irregularity, or particularly low administrative capacity contexts.\textsuperscript{206} However, self-targeting might turn out to be relatively inaccurate, because of the difficulty to consider and quantify the motivations that compel programme reliance from individuals inside and outside the intended targeting scope. Because poverty is multidimensional, self-selection offers households the opportunity to identify for themselves when support is necessary or not needed. Nevertheless, this requires households to subject themselves to societal stigmas associated with poverty and inferior good consumption.\textsuperscript{207}

**Programme Sustainability and Funding**

Evidence shows that social protection programmes are inherently affordable even among low and middle-income countries. Simulations developed by the International Labour Organisation (ILO) suggest that universal coverage programmes can be successfully funded by as little as 1% of GDP in the case of basic pensions, 2% of GDP for child-focused transfers, and 2-3% of GDP for primary health provision financing, with estimations dropping even lower for more narrowly targeted programming.\textsuperscript{208} The simulation of four social protection programmes for Uganda in Part 2 will provide similar estimations. Relatively small investment in social protection programmes results in benefits that cut across various social sectors, yielding both social and economic returns. These impacts increase, through their positive feedback effect on economic growth, long-run programme affordability.

As such, the interaction between reduced poverty and inequality and the increased productive capacity of beneficiaries creates a virtuous circle that makes programmes more affordable and sustainable over time. Leaving inequality unaddressed leads to slower and less durable economic growth. Moreover, an International Monetary Fund study on the growth of nations between 1950 and 2006 shows that a decrease in inequality can extend the length of growth spells.\textsuperscript{209} Though the initial cost of social protection expansion might be high, governments can expect costs to decrease as they start to reap the economic benefits of social protection and the programmes begin to ‘pay for themselves’.

\textsuperscript{204} Slater & Farrington, 2009  
\textsuperscript{205} UNDP, 2013  
\textsuperscript{206} Coady, Grosh, & Hoddinott, 2004  
\textsuperscript{207} Slater & Farrington, 2009  
\textsuperscript{208} Niño-Zarazúa, Barrientos, Hulme, & Hickey, 2012  
\textsuperscript{209} ACPF, 2014
Sustainable financing strategies are closely tied to the longevity of social protection programmes. While economic growth does offset the long-term cost of social protection programmes, the implementing government must pay initial outlet and sustained expenditure on these programmes. Well-developed financing strategies are necessary to ensure that social protection will remain funded over time. In many countries, expansion of value-added taxes (VAT) and other excise taxes have led to new revenue streams that can be invested into social spending.

The use of VAT is one of the most sustainable funding sources, but its success is highly contingent upon the tax incidence’s perceived equitability. In order to prevent tax evasion, governments must ensure that there is a fair distribution of the tax burden. Consumption and income taxes should not disproportionately affect the poor, nor should they discourage movement into the formal labour sector as payroll taxes have been accused of doing. Furthermore, a positive feedback funding cycle is created as cash transfer programmes have been shown to increase household consumption, thereby increasing the purchase of taxable goods.

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