

Impact of social protection policies on women's economic empowerment in Burkina Faso



Authors KOINDA Farida | LOABA Salamata | SOURATIE Wamadini dite Minata | BIRBA Noé Sougrinooma | KABORE Tahélé | THIOMBIANO

Boama Brigitte

Date August 2024

Working Paper 2024-10

PEP Working Paper Series

ISSN 2610-7331

Abstract

This study evaluates two social protection policies, namely cash transfers and childcare services, on women's economic empowerment. A dynamic computable general equilibrium model is used to conduct the study, explicitly incorporating a gender dimension and taking into account household production. The results indicate that cash transfers as a social protection policy have a pro-consumption rather than a pro-employment impact, and that making these funds available for childcare subsidies is more beneficial for women in terms of labor market participation, reduced household burdens and contribution to economic growth.

The policy of subsidizing childcare services needs to be taken into account in protection policies for greater economic empowerment of women.

JEL: J16-I38-J13-C15

Keywords: women's empowerment, social protection, cash transfers, childcare services, MEGC.

Résumé

Cette recherche évalue deux politiques de protection sociale à savoir les transferts monétaires et les services de garde d'enfants sur l'autonomisation économique des femmes. Pour sa mise en œuvre, un modèle d'équilibre général calculable dynamique qui incorpore explicitement une dimension genre et tient compte de la production domestique est utilisé. Les résultats indiquent que les transferts monétaires comme politique de protection sociale ont un impact pro-consommation et non pro-emploi et la mise à disposition de ces fonds pour une subvention des services de garde d'enfant est plus bénéfique pour les femmes en termes de participation au marché du travail, de baisse de la charge domestique et de contribution à la croissance économique. La politique de subvention des services de garde d'enfant doit être prise en compte dans les politiques de protection pour une meilleure autonomisation économique des femmes.

Mots clés: Autonomisation de la femme, protection sociale, transferts monétaires, services domestiques, MEGC.

Code JEL: J16- I38 -J13-C15

Authors

Ms. KOINDA Farida

Teacher-researcher, Thomas SANKARA University, Burkina Faso/ Ouagadougou koinda.farida@gmail.com

Ms. LOABA Salamata

Teacher-researcher, Thomas SANKARA University, Burkina Faso/ Ouagadougou loabasali@yahoo.fr

THIOMBIANO Boama Brigitte

Economist, Coordinator of the Gender and Development Network (REGED), Burkina Faso/ Ouagadougou thiombianobrigitte@yahoo.fr

Ms. SOURATIE Wamadini dite Minata

Teacher-researcher, Daniel-Ouezzin-Coulibaly University, Burkina Faso/Dedougousouratieminata@yahoo.fr

BIRBA Noé Sougrinooma

Doctoral student in economics, Thomas SANKARA University, Burkina Faso/ Ouagadougou birbanoe3@gmail.com

KABORE Tahélé

Special Education Inspector at the Directorate General for the Family and Children (MSAHRNGF), Burkina Faso / Ouagadougou tahelekabore@gmail.com

Acknowledgements

This work was carried out with the financial and scientific support of the Partnership for Economic Policy (PEP), funded by the William and Flora Hewlett Foundation. The authors would like to thank their scientific mentor Véronique Robichaud and their policy mentors Emini Christian and Claudia Lopes for their technical support, advice, comments and suggestions.

Table of contents

Ex	ecu	tive summary	1
l.	Inti	oduction	3
	1.1	Background	3
	1.2	Research questions and objectives	8
II.	Lite	erature review	8
	2.1	Analysis of the impact of social protection policies on women's economic empowerment	9
	2.2	Analysis of the impact of social protection policies on women's economic empowerment using CGE models	. 10
Ш	Da	ta	12
	3.1	Description of the Social Accounting Matrix (SAM)	.12
	3.2	Structure of the Burkinabé economy	.12
IV	. Me	thodology	15
	4.2	Specification of the CGE model	. 16
	4.2	Description of simulation scenarios	. 19
۷.	Sin	nulation results and discussion	20
	5.1	Effects of subsidy and social transfer policies	. 20
	5.2	Comparative analysis of childcare subsidy and cash transfer policies	. 24
VI	. Co	nclusion and economic policy implications	26
Re	efere	ences	28

List des Tables

Table 1: Dist	ribution of total payroll (%)	13
Table 2: Disti	ribution of household labour income by labour factor (%)	
baseline sce	enario)	20
	act of cash transfers on women's labour supply (% change compared to enario)	>1
Table 5: Imp	act of cash transfers on women's domestic work supply ((% change compared tenario)	to
Table 6: Cho	ange in taxation rate on extractive products (% change compared to baseline	
scenario)	2 ange in taxation rate and price of household services (% change compared to	22
baseline sce	enario)2	22
Table 8: Imp	act of childcare subsidy on household production (% change compared to	
Table 9: Imp	enario)	
scenario) Table 10: Im	2 pact of childcare subsidy on macroeconomic indicators (% change compared	<u>2</u> 3
to baseline s	scenario)	24
	nange in taxation rate and real GDP (% change compared to baseline scenario)	
	omparison of the impact of policies on women's labour supply and the poverty	25
List of fig	ures	
Figure 1: Pro	duction structure of a typical sector1	١٧
riguic 1.110	doction stroctore of a typical sector	O
List of gro	aphs — — — — — — — — — — — — — — — — — — —	
Graph 1: Go	overnment expenditure distribution (%)	5
List of ac	ranyms and abbroviations	
LIST OF GC	ronyms and abbreviations	
BAU	Business As Usual	
BIT	International Labour Office (Bureau International du Travail)	
CARFO	Civil Servants' Pension Fund (Caisse Autonome de Retraite des Fonctionnaires)	
CES	Constant Elasticity Substitution	
CNAMU	National Universal Health Insurance Fund (Caisse Nationale d'Assurance Maladie Universelle)	Э
CNSS	National Social Security Pension Fund (Caisse Nationale de Sécurité Sociale)	
CREG	Regional Consortium for Generational Economics Research (Consortium Régional pour la Recherche en Économie Générationnelle	
CSI	International Trade Union Confederation (Confédération Syndicale Internationale)	Э

Integrated Early Childhood Development (Développement Intégré de la Petite

Enfance)

CGE Computable General Equilibrium

Harmonised Survey of Household Living Conditions (Enquête Harmonisée sur les

Conditions de Vie des Ménages)

FAO Food and Agriculture Organization of the United Nations

HIMO Highly Labour-Intensive (Hautes Intensités à Mains d'Œuvre)

National Institute of Statistics and Demography (Institut National de la Statistique

et de la Démographie)

SAM Social Accounting Matrix

Ministry of National Education, Literacy and the Promotion of National

MENAPLN Languages (Ministère de l'Éducation Nationale, de l'Alphabétisation et de la

Promotion des Langues Nationales)

OECD Organisation for Economic Co-operation and Development

SDD Sustainable Development Objectives

OIT International Labour Organisation (Organisation Internationale du Travail)

NGO Non-Governmental Organisation

PEP Partnership for Economic Policy

GDP Gross Domestic Product

PNDES Economic and Social Development Plan (Plan de Développement Économique

et Social)

PNPS National Social Protection Policy (Politique Nationale de la Protection Sociale)

RSU Unique Social Registry (Registre Social Unique)

Executive summary

Women's economic empowerment remains a major challenge in Burkina Faso. Women are poorly represented in the decent labour market (58.3%) compared to men (73.1%) (World Bank, 2022). In order to achieve goal 5 of the Sustainable Development Goals (SDGs), which aims to "achieve gender equality and empower all women and girls", several initiatives have been taken to improve women's economic participation, including the national social protection policy adopted in 2012. However, this policy remains highly fragmentary, with low population coverage (less than 10%) and ineffective engagement with diversity, particularly gender diversity. Improving women's participation in the labour market requires social protection measures tailored to their circumstances. In order to better address women's needs, it is important to assess the impact of social protection policies on their participation in the labour market.

In practical terms, the present study aims firstly to assess the impact of a 15% increase in cash transfers to vulnerable households on women's participation in the labour market and secondly to assess the impacts of subsidising childcare services by a similar total (which would amount to 48% of the price of childcare services) on women's participation in the labour market. Subsidising the provision of childcare services would reduce their current price and allow women to free up time previously devoted to domestic work for market work. In order to guide decision-makers in choosing the most efficient of the two policies, a cost-benefit analysis is carried out in the study.

To conduct the analysis, this study uses the 2022 social accounting matrix and data from the INSD's Harmonised Survey of Household Living Conditions (EHCVM, 2018). The simulated policies run for five years, starting in 2024. The simulation method calculates the change in women's labour supply, state costs of implementation and funding sources. Within the simulation, financing is provided through a tax increase on extractive products of about 12.82%/year for transfers, and 11.18% for the domestic subsidy.

The results show that a 15% increase (around 22,118 million FCFA/year) in cash transfers to poor rural households leads to a fall in women's labour market participation. This decline is estimated at 2.59% for skilled work and 4.77% for unskilled work. However, the increase in cash transfers leads to an increase in the real consumption of beneficiary

households and a fall in the poverty rate. On the other hand, subsidising childcare services leads to an increase in women's labour market participation, whether skilled or unskilled. There are also secondary effects on income, household consumption and GDP.

In light of these results, it would be more effective for authorities to adopt a policy of subsidising childcare services. To do this, the government could institute a 48% subsidy for private childcare services. The government should also accelerate the creation of public childcare centres, especially in rural areas, and continue to build new childcare facilities in workplaces.

I. Introduction

1.1 Background

1.1.1 Gender inequality in Burkina Faso

Women's economic empowerment remains a major challenge in developing countries (Mujahid et al., 2015; Mollel and Mtenga, 2000) due to pronounced gender inequalities that produce major income and employment deficits (Djodjo et al., 2017). In these countries, women's participation in the market economy remains very low. According to statistics from the International Labour Office (2022), the labour market participation rate for women is 53.5% compared with 71.8% for men. In addition, women bear much of the burden of poverty (Munoz Boudet et al., 2018) by being deprived of essential opportunities throughout their lives.

This lack of opportunities deprives women of sufficient assets, leading to underrepresentation in economic and political decision-making, low participation in economic growth and inequalities in health and education. Gender parity gaps continue to exist in Africa. They stand at 31.8% in terms of economic participation and opportunity, 14% in terms of educational attainment and 2.8% for health and survival (ILO, 2023). Though conditions are improving, inequalities remain higher than in other regions.

This situation is linked to a cultural and social environment in which women are still subjected to discrimination. Indeed, social norms generally assign women secondary roles, such as childcare and elder care, marriage and domestic tasks. According to the Regional Consortium for Generational Economics Research (CREG, 2018), women spend an average of 2.7 hours a day on domestic tasks compared with 2.6 hours on income-generating activities. Men spend 0.2 hours and 4.2 hours respectively. This social division has a negative impact on women's participation in the labour market (Chevalier and Viitanen, 2002; Fotso, 2017).

These inequalities lead to a loss of economic and social development. It is thus through empowerment that equality between men and women can be effectively achieved. In recognition of this fact, public authorities in developing countries have adopted policies that prioritize improving women's participation in economic life in order to reduce gender inequalities. Despite these policies, women's jobs are usually still vulnerable, as most are in

rural areas or the informal sector, and most often without legal and social protection. According to the ILO (OIT, 2016), out of a global total of 1.2 billion working women, it is estimated that 650 million self-employed women were vulnerable and poor, or engaged in unpaid family work.

Burkina Faso is no exception to this reality. The gender inequality index, estimated at 0.676 in 2022 (Global Gender Gap Report, 2023), shows that more than 30% of women are still at a disadvantage compared to men in terms of education, work and health. Furthermore, analysis of the labour market shows a lower participation rate for women, at 58.3% compared with 73.1% for men (World Bank, 2022). Vulnerable employment was higher among women (89.8%) than among men (83.8%) in 2021 (World Bank, 2022). Informal employment is also prevalent among women (97.5% compared to 93.5% for men). In the formal sector (public administration, private companies or NGOs), only 32.5% of employees are women. However, this rate is only 24.1% in formal private companies. Nonetheless, the contribution of women to Burkina Faso's economy is well-established. Indeed, 83% of women work in the agricultural sector and supply 75% of household food consumption (Profil genre Burkina Faso, 2016). In entrepreneurship, women show the highest performance. According to a study on the current state of women's entrepreneurship in Burkina Faso and women entrepreneurs' perceptions of the business climate, women-run businesses have a lower-than-average failure rate (84% have never experiences bankruptcy).

However, time constraints associated with family and domestic responsibilities hinder women's economic development in Burkina Faso. In addition, women's low educational attainment excludes them from technical and managerial positions/professions. Women also tend to interrupt their careers or invest less in professional development throughout their careers (for reasons of time, motivation and/or family responsibilities), hindering career progression (OECD, 2017, chapter 15).

Combatting these inequalities in the labour market requires empowering women economically and removing all barriers to their full economic participation. Empowerment is also important for women who do not aspire to a career or a job, as all women need economic emancipation. Gender inequalities persist due to a combination of structural barriers, social norms and personal circumstances.

Sharing this perspective, the authors (Samman et al., 2016; Clark et al., 2019) stress that women's economic empowerment requires much more than simply increasing their labour market participation. It must be accompanied by improved and accessible health infrastructure, more affordable childcare, better social security, social safety nets and changes in social norms to eliminate discrimination against women.

From a policy perspective, free or low-cost and high-quality public education, paid maternity leave, flexible working hours, public/workplace childcare facilities, etc. encourage women's employment. Similarly, effective social protection policies reduce women's vulnerability in the labour market and increase their economic empowerment.

1.1.2 Overview of empowerment and social protection policies in Burkina Faso

Like other developing countries, the government of Burkina Faso is committed to facilitating the empowerment of women as part of the United Nations' Sustainable Development Goals (SDGs), through Goal 5, which aims to "achieve gender equality and empower all women and girls", and Goal 8, which aims to "promote sustained, shared and sustainable economic growth, full and productive employment and decent work for all". Within this framework, an Economic and Social Development Plan (PNDES, 2016-2020) has been developed and structured around several strategies, including the empowerment of women and social protection:

Promotion of gender equality and empowerment of women and girls

Several laws and strategies have been adopted to promote gender equality and empower women and girls. These include: (i) the national strategy for accelerating girls' education 2012-2021, intended to free the educational system of all forms of gender inequality and inequity and provide girls and boys with the essential conditions for accessing, continuing and succeeding in school and work; (ii) the national strategy for promoting women's entrepreneurship (2016-2025) and its operational action plan (2016-2018).

The objectives of these strategies are to:

• improve the institutional and legal framework for promoting women's entrepreneurship;

- facilitate women's and girls' access to the means of production (natural, financial and technological resources, infrastructure and equipment);
- develop opportunities for employment and self-employment for women and girls;
- promote sales of women's and girls' products;
- build technical capacities of women and girl entrepreneurs.
- Social protection for all

In 2012, Burkina Faso adopted its first National Social Protection Policy (PNPS). Specifically for women, it adopted a national strategy for the promotion and protection of young girls (2017-2026) and an operational action plan (2017-2019). The aim is to contribute to the development and full participation of young girls in the development of Burkina Faso. In addition, the government passed Act 061-CNT of 06 September 2015 on the prevention, punishment and redress of violence against women and girls and on victims' services. This law strengthens the legal arsenal in the fight against violence towards women, criminalising certain types of previously non-criminal violence (abduction, accusations of witchcraft, etc.). The government has also passed Law 025-2018/AN of 31 May 2018 modifying the Criminal Code. The new code penalizes additional acts of violence that were not previously punished or adequately addressed, such as sexual acts by an educator with a minor, apprentice or trainee of either sex (art. 533, para. 14), genital mutilation (art. 513-7, 513-8, 513-9), and child marriage (art. 531-1 et seq.).

The National Social Protection Policy has two components. The first concerns social insurance mechanisms including the social security schemes managed by the Civil Servants' Pension Fund (Caisse Autonome de Retraite des Fonctionnaires, CARFO), the National Social Security Pension Fund (Caisse Nationale de Sécurité Sociale, CNSS) for employees in the formal and informal private sector, as well as the National Universal Health Insurance Fund (Caisse Nationale d'Assurance Maladie Universelle, CNAMU) created in 2018. Universal health insurance was bolstered by the addition of free care for pregnant women and children under five years of age in decree no. 2016-311/PRES/PM/MS/MATDSI of 29 April 2016, as well as free family planning services instituted by decree /PRES/PM/MS/MFSNF/MFTPS/MATD/MINIFED on free care and family planning services in Burkina Faso.

The second component concerns social assistance measures for households in chronic

poverty and those facing climate and security shocks. Since 2016, Burkina Faso has had a social register to identify and enrol poor households eligible for these programmes. However, these initiatives have reached only 138,600 of the 2.3 million people living below the extreme poverty line (2020).

With the worsening security situation, humanitarian aid is taking on an important dimension, particularly for displaced persons, with programmes aimed at improving access to health, education and food security. The coverage of these programmes fluctuates from year to year and remains heavily dependent on international funding. In the same vein, a social safety net project (2014-2020) called "Burkin-Naong-Sa ya", meaning "end of poverty in Burkina Faso", has been initiated by the Burkinabé government with the support of the World Bank. It benefits poor households with children under 15 and pregnant and breastfeeding women through non-contributory cash transfers to enable them to carry out income-generating activities.

In this context, women have received training and parental education based on Integrated Early Childhood Development (DIPE) to help them care more effectively for their children and reduce the risk of related illnesses. Also, as part of the government's 2014 social measures, a highly labour-intensive work (HIMO) approach was implemented for the benefit of women and young people. To enable the women selected to carry out their work, the government has created mobile daycare facilities in partnership with the World Bank.

These measures address the problem of childcare, a challenge for many women. The daycares cater to children aged 0 to 6. They are sometimes tents that can be easily moved from one workplace to another so that women can work undisturbed. To date, there are 20 mobile daycares in nine regions of Burkina Faso.

It should be noted that in 2021, a "Single Social Register (RSU) of poor and vulnerable households and people" has been set up at the Ministry in charge of National Solidarity. This document formalises the information and data management system used to identify, on the basis of socioeconomic variables, all poor households and individuals potentially eligible for the various social protection and anti-poverty programmes.

1.2 Research questions and objectives

Despite the adoption of the National Social Protection Policy (PNPS) in 2012, which was intended to provide a coherent framework for the national social protection system, it is still highly fragmentary, with low population coverage (less than 10%) and limited engagement with gender diversity. Women's participation in the decent labour market is also low. This gave rise to the following research question: can improved social protection policies lead to greater economic empowerment for women?

The aim of our research is therefore to perform a cost-benefit analysis of social protection policy options to choose the most effective means of improving women's economic empowerment. The specific objectives are to: (i) measure the impact of a childcare subsidy on women's economic empowerment; (ii) assess the impact of cash transfers for vulnerable households, particularly women, on their economic empowerment.

The value of this research is that it provides scientific evidence to decision-makers about the costs and benefits of the two policies included in the analysis. In addition to public decision-makers, this research will enable a number of civil society stakeholders to raise awareness of and advocate for social protection measures in Burkina Faso.

The rest of the work is divided into four sections. The first presents the literature review, the data are described in the second section, the third section presents the methodology, the fourth deals with the application of the methodology and the results and finally, the last section is devoted to the conclusion and the policy implications.

II. Literature review

This review first summarizes studies that relate social protection to women's economic empowerment without using computable general equilibrium (CGE) modelling. It then presents the studies that use this type of modelling.

2.1 Analysis of the impact of social protection policies on women's economic empowerment

Several studies have analysed the link between social protection and women's empowerment without adopting a CGE approach. These include Oxfam's Conceptual Framework on Women's Economic Empowerment. Effective women's economic empowerment can only exist when women exercise their right to control and benefit from resources, assets, income and their time, and when they are able to manage risks and improve their economic status and well-being (Oxfam, 2017).

According to Oxfam, women take on the majority of unpaid care work, which is not considered to be skilled or valuable work. This burdensome and unequal responsibility limits women's control over their time and mobility. It also hinders their leadership and training opportunities. Similarly, the burden of unpaid care work reduces women's access to decent productive work and confines them to insecure, poorly paid roles. The provision of services such as childcare, healthcare, elder care or HIV treatment would give these women more support, more time and a wider choice of employment (Oxfam, 2017).

Similarly, for the African Union Commission (Union Africaine 2024), active promotion of gender equality is important for the economic empowerment of women. As such, in objective 17 of Agenda 2063 the commission calls for gender equality to be considered in all spheres of life by: (i) granting at least 20% of women in rural areas access to and control over means of production, including land and subsidies, credit, inputs, financial services and information; (ii) allocating at least 25% of annual public procurement contracts to women at national and sub-national levels; (iii) increasing gender parity in decision-making positions at all levels to at least 50-50 between women and men and (iv) reducing by 50% all social norms and customary practices that are harmful to women and girls or that promote violence and discrimination against them.

In the same vein, FAO (2015) indicates that social protection strategies such as cash transfer programmes help promote the economic advancement of women in agriculture through access to official financial services. These programmes also improve women's financial literacy and decision-making power by giving them greater control over their income. FAO (2015) also stresses that to promote women's empowerment, public works programmes need to be accompanied by complementary measures to reduce women's

workloads and make their working hours more flexible, which is only possible with asset transfers through savings schemes and ongoing support services for women.

UN Women (2019) also emphasizes that social protection policies play an important role in improving women's access to the labour market, by addressing the economic risks facing working families and helping poor households meet their basic needs.

Examining specific countries, most studies conclude that social protection policies have a positive effect. Studying the case of Tanzania, authors such as Kinyondo and Magashi (2019) find that cash transfer programmes have helped women become more effective participants in economic activities. According to Naseer et al (2021), the policy of providing financial assistance to Pakistani women plays an important role in poverty reduction because it can help poor women improve their livelihoods, which should enable them to take part in household decisions and develop their skills in income-generating activities. Based on semi-structured interviews conducted in Italy, Gramm et al. (2020) show that the provision of childcare services has increased the autonomy of women farmers and had a positive impact on their skills and proficiencies. Sarfraz et al (2022) analyse the effect of a cash transfer policy on vulnerable employment in Pakistan. Using discontinuity regression, their work demonstrates that the cash transfer programme reduced vulnerable employment in the early years of its implementation. However, they found that the policy had no impact in later years.

2.2 Analysis of the impact of social protection policies on women's economic empowerment using CGE models

In addition to these studies, which demonstrate the importance of social protection for women's economic empowerment without using empirical analysis, there are other, more recent studies that use computable general equilibrium models to analyse the impact of public social protection policies.

These include a study by the International Trade Union Confederation (CSI, 2021) which uses a computable general equilibrium model to simulate the impacts of investment in social protection policies on the economies of eight countries (Bangladesh, Colombia, Costa Rica, Georgia, Ghana, India, Rwanda and Serbia). The results show that an investment of 1% of GDP in social protection has a positive effect on employment growth, with a

multiplier effect of between 0.1 and 1.1. They also show that most of the time, the employment benefits accrue more to women, underlining the positive role of social protection in empowering women and reducing gender inequalities. In addition, the simulations reveal an increase in labour demand, particularly in labour-intensive economies, where agriculture is generally the primary sector and where national sectors are more interdependent.

Similarly, Sall (2020) analyses the impact of a gender-based social protection policy on the labour market and on economic growth in Senegal using a computable general equilibrium model. The author simulates a 10% increase in women's labour supply following implementation of the Rapid Entrepreneurship for Young People and Women programme (DER/JF), a state-funded employment guarantee for women. The results show that a gender-based social protection policy not only improves women's employment rate, but also promotes economic growth.

The World Bank (Banque Mondiale, 2019) analyses the economic impact of gender inequality in Niger. Considering employment inequality, the study reveals that women are less likely to join the labour force and work for pay because of domestic tasks. The study therefore assesses the economic gains associated with increased gender equality using two approaches: comparative statics and a computable general equilibrium model.

The CGE approach addresses gender inequalities in terms of human capital, productivity and labour participation. With respect to human capital, the scenarios predict a major step towards near-universal education and a reduction in fertility rate. Regarding productivity and labour participation, the simulations predict an increase in: (i) women's participation in the labour market; (ii) the productivity of woman-owned agricultural land; and (iii) the productivity of women working in the manufacturing and service sectors. The results show that a dramatic increase in educational attainment, combined with a reduced fertility rate, would generate an estimated gain of 12.6% of GDP by 2030. Reducing the current gender gaps in the labour market would also increase GDP by 8.9% compared to the baseline scenario by 2030. The study recommends the following social protection measures: (i) setting up childcare centres in the community and promoting efforts to make men equal partners in domestic tasks; (ii) subsidising childcare services to make them affordable; (iii) granting women vouchers or transfers in kind that can ease the financial constraints they face.

There is an evident lack of empirical literature focusing on social protection and women's empowerment in Burkina Faso. Our research is this particularly important, especially at a time when this issue is being prioritised by the public authorities.

III. Data

3.1 Description of the Social Accounting Matrix (SAM)

The Social Accounting Matrix (SAM) used in this study was produced in 2022 by Burkina Faso's National Institute of Statistics and Demography (*Institut National de la Statistique et de la Démographie*, INSD) using 2019 data. This SAM comprises 11 industries and products, four production factors, two types of labour factors (unskilled workers and skilled workers) and two types of capital (private and public); four categories of agents (households, businesses, government and the rest of the economy) and a savings-investment account.

To better reflect the research question, the two labour factors were further subdivided into women's skilled labour, men's skilled labour, women's unskilled labour and men's unskilled labour. The household agent was partitioned into four categories: poor rural households, poor urban households, non-poor rural households and non-poor urban households. In addition, a new product, household services, was added. This product is a commercial childcare service and is consumed solely by households. It represents a potential substitute for domestic tasks for women wishing to participate in the labour market.

To obtain the new SAM structure, we used data from the Harmonised Survey of Household Living Conditions (*Enquête Harmonisée sur les Conditions de Vie des Ménages*, EHCVM, 2018). Some statistics from this SAM are presented in the next section.

3.2 Structure of the Burkinabé economy

This section successively presents the distribution of wages in Burkina Faso's economy by production factor and sector, the distribution of household income and government expenditure allocations.

3.2.1 Payroll distribution by sector and labour factor

The distribution by sector (table 1) shows that the sectors that represent most to total payroll are agriculture (21.81%), other services (17.82%), non-market services (13.81%) and trade and repair services (12.79%). Subdividing payroll by categories of labourers, skilled men make the largest contribution (31.63%), followed by unskilled women (26.5%). Skilled female labour represents a relatively small proportion (15.97%). Overall, men earn more than half of payroll (57.5%) compared with 42.5% for women, which demonstrates women's lower labour market participation. An analysis of the representation of each type of labourer in each sector's total payroll shows that unskilled women's work contributes most in agriculture (44.30%), the food industry (41.05%), trade and repair (37.20%), accommodation and restaurants (36.03%) and other industries (34.28%). The contribution of qualified women to total payroll is highest in non-market services (32.0%), accommodation and restaurants (32.54%) and other services (28.26%).

Table 1: Distribution of total payroll (%)

	Contribution to total payroll by sector	Women's unskilled Iabour	Women's skilled Iabour	Total women's Iabour	Men's unskilled Iabour	Men's skilled Iabour	Total men's labour	Total labour
Agriculture	21.8	44.3	4.8	49.1	41.9	9	50.9	100
Livestock. forestry and fisheries	7.3	42.6	5.6	48.2	46.1	5.7	51.8	100
Extraction	8.2	18.9	1.8	20.7	43.6	35.7	79.3	100
Agri-food industry	5.7	41.1	16.4	57.5	18.4	24.2	42.6	100
Other industries	4.3	34.3	10.3	44.6	25.1	30.3	55.4	100
Construction	3.2	2	2.9	4.9	31.9	63.1	95	100
Trade and repair	12.8	37.2	18.4	55.6	24.8	19.6	44.4	100
Transport and telecommunications	2.8	0.4	7.8	8.2	21.1	70.7	91.8	100
Accommodation and restaurants	2.3	36	32.5	68.5	8.7	22.7	31.4	100
Other services	17.8	12.6	28.3	40.9	10.6	48.5	59.1	100
Non-market services	13.8	3.6	32.9	36.5	5.7	57.8	63.5	100
Contribution to total payroll by labour input category		26.5	16	42.5	25.9	31.6	57,5	100

Source: Author's calculations based on 2022 SAM

3.2.2 Household income distribution

Table 2 shows that the majority of the earnings of unskilled women, unskilled men and skilled women go to non-poor rural households, at 70%, 42.3% and 50.7% respectively. However, most of the earnings of skilled men go to non-poor urban households (84.3%).

Table 2: Distribution of household labour income by labour factor (%)

	Women's unskilled labour	Men's unskilled labour	Women's skilled labour	Men's skilled labour
Rural households	85	76 .8	51.4	12.7
Poor	15	33.6	0.7	0.8
Non- poor	70	43.2	50.7	11.9
Urban households	15	23.2	48.6	87.3
Poor	1.2	1.3	4.5	3
Non- poor	13.8	21.9	44.1	84.3
Total labour	100	100	100	100

Source: Authors' calculations based on 2022 SAM

3.2.3 Government expenditure distribution

The government expenditure account includes current consumption expenditures (salaries, health and education expenditure, etc.), current transfers to households, businesses and the government through action support, payments made to the rest of the economy through international cooperation and public savings. Figure 1 shows that operating expenditure consumes more than half of government revenue (65.7%). This high level of spending is explained by the enormous challenges in all economic sectors. However, there is a current account surplus of 8.8% of revenue. This positive balance is due to the extractive sector, which plays an important role in the country's economy.

70 65.7 60 Part en pourcentage 50 40 30 20 9.9 8.8 7.5 6 10 2.2 Epargne consommation Transferts vers Transferts vers. Transferts vers le Transferts vers le les ménages les firmes RDM gouvernement

Graph 1: Government expenditure distribution (%)

Source: Authors' calculations based on 2022 SAM

IV. Methodology

The model used in this study is a dynamic computable general equilibrium (CGE) model incorporating gender and non-market domestic activities. Its general structure is based on the standard PEP 1-t model developed by Decaluwé et al. (2013). The CGE model is well-suited for analysis of public policies and allow for detailed assessment of the impact of policies on the entire Burkinabé economy. It can be used to simulate the evolution of the Burkinabé economy over time under the effects of different economic policies.

The model is dynamic-recursive, meaning that its behavioural assumptions do not involve intertemporal optimisation, and the solution is a sequence of static equilibria linked over time. Initially, a number of parameters and exogenous variables are assumed to change from one period to the next in order to define a reference scenario (REF). Secondly, different social protection policy scenarios are simulated. The results of these simulations are then compared with those of the reference scenario in a counterfactual simulation approach.

We combine the CGE model with a micro-simulation model based on the work of Tiberti et al. (2018). It uses a top-down approach, which takes the results of the CGE model such as price changes, factor returns, employment levels, incomes, etc. as inputs and integrates them into the microsimulation model. With this microeconomic modelling, it is

possible to identify which household type, environment or population group would be most affected by macroeconomic changes. On the basis of this information, an efficient choice of simulated policy can be made. The analysis uses data from the Harmonised Survey of Household Living Conditions (EHCVM, 2018).

4.2 Specification of the CGE model

Production structure

The production structure is determined by Leontief-type and CES production functions nested at several levels. At the first level, value added and intermediate consumption constitute production according to a Leontief-type technique. At the second level, value added is decomposed into composite labour and composite capital in a CES production function. At the third level, composite labour is broken down by skill level through a CES-type function. At the next level, each type of labour, represented by a CES production function, is further subdivided into two gender categories. Labour is assumed to be mobile between different industries. The production structure of a typical sector is shown in Figure 1.

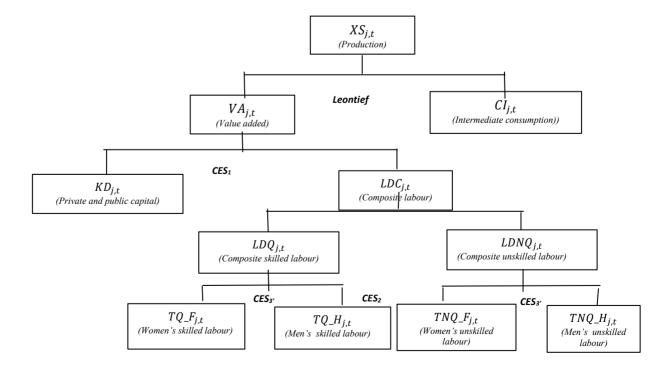


Figure 1: Production structure of a typical sector

Source: Authors

Demand structure

In the model, households maximise their utility under the constraint of their income following a Stone-Geary function, which assumes a minimum consumption for each good in the economy. It is also assumed that households derive their income from revenue from production factors (labour and capital) as well as from transfers received from the government and the rest of the economy. Household income is used for consumption expenditure, tax payments and savings. Government revenue comes from taxes, transfers and the capital revenue.

Current government revenue is allocated to current public spending on public services and transfers paid to households. Thus, the difference between current income and current government expenditure produces a current balance. Companies receive a share of the income from capital returns, pay dividends to households and non-residents, pay income tax to the government and contributes the balance of income minus expenditures to savings.

The relationship between the rest of the world and the domestic economy is determined by substitutability between exported and domestically produced goods on the supply side and substitutability between domestic and international markets on the demand side (Armington hypothesis). The relative prices of local and foreign goods (defined by fixed international prices, the exchange rate and government interventions) determine the distribution of supply and demand between domestic and international markets.

• Modelling the labour market

A notable feature of our model is that it accounts for households' non-market domestic activities and an endogenous supply for the different types of labour in the economy. Drawing on the work of Fontana and Wood (2000) and Koinda et al (2022), we assume that each type of worker per household h divides his or her available time ($TIME_h^l$) between three types of activity: activity in the market sector (LS_h^l), non-market domestic sector activity (LZ_h^l) and leisure ($Tloisir_h^l$).

$$TIME_h^l = LS_h^l + LZ_h^l + Tloisir_h^l (1)$$

The allocation of time available for these three activities differs according to skill level and gender. The model assumes that one available hour cannot be used simultaneously for two different activities. The labour supply of household h is therefore endogenous and is

defined as follows:

$$LS_{h,t}^{l} = MAXHOURS_{h}^{l} - LZ_{h,t}^{l} - \frac{\mu_{h}^{l}(CTH_{h,t} - \sum_{i} PC_{i,t}Cmin_{i,h})}{WZ_{h,t}^{l}[1 - \sum_{l} \mu_{h}^{l} - \mu D_{h}]}$$
(2)

where $MAXHOURS_h^l$ is the maximum time allotted by households to the various activities after deduction of leisure time; $CTH_{h,t}$ is the household consumption budget; $Cmin_{i,h}$ is the minimum consumption of goods by households; $PC_{i,t}$ is the purchase price of the composite product i; $WZ_{h,t}^l$ is the opportunity cost of household domestic labour; μ_h^l is the share of leisure consumed by each category of worker in the household; μD_h is the share of household consumption.

Regarding domestic activities, we assume the existence of household production supplied by the market sector and non-market household production. The latter is entirely consumed by the household that produces it, and its value is determined by its opportunity cost, i.e. by the wages expected on the labour market by the various working members of the household. In addition, this non-market household production uses only labour input, with no intermediate consumption or capital input. It is represented by a CES-type production function involving women as well as men.

$$Z_{h,t} = A_h^z \left[\beta_h^z L Z_{h,t}^F^{-\rho_h^z} + (1 - \beta_h^z) L Z_{h,t}^H^{-\rho_h^z} \right]^{-1/\rho_h^z}$$
(3)

We assume that there is a minimum consumption of household services by household h $(CSD_{h,t})$ which can be provided by the market sector $(CMIN_{h,t}^{serdom})$ and/or the non-market domestic sector $(CZ_min_{h,t})$. These two types of household services are imperfect substitutes, combined in a CES function whose elasticity of substitution reflects their degree of flexibility within the household.

 $CSD_{h,t} = B_SD_h * [\beta_{SD_h} * (CMIN_{h,t}^{serdom})^{-\rho_{SD_h}} + (1 - \beta_{SD_h})(CZ_min_{h,t})^{-\rho_{SD_h}}]^{-(\frac{1}{\rho_{SD_h}})}$ (4) For the parameters, B_SD_h represents the scale parameter; β_{SD_h} represents the distribution parameter et ρ_{SD_h} represents the elasticity parameter.

Model closure

To close the model, we assume that the equilibrium between supply and demand determines the market prices for goods and services and production factors. The exchange rate used is the cash rate. International import and export prices are considered to be exogenous on the assumption that Burkina Faso is a small country and has no influence on

international prices. The current account balance is exogenous and total investment is determined by the sum of economic agents' savings. We posit that the maximum available time for each type of worker, after deducting leisure time and the minimum consumption of household services by their household, is also exogenous. Government savings are assumed to be exogenous over the simulated years in order to leave the public budget balance unchanged by new public spending, which would otherwise result in changes in taxes levied on extractive products.

4.2 Description of simulation scenarios

The first scenario simulates a 15% increase in cash transfers to vulnerable households on the economic empowerment of women. These cash transfers are financed by the introduction of a compensatory tax on "extractive" products. This scenario is justified by the government's specific programme to improve social transfers to the poorest and most vulnerable in order to help improve the living conditions of disadvantaged social strata. To this end, the National Social Protection Policy (PNPS, 2013-2022) set a target of 100% increase in aid, rising from CFAF 19,000 million to CFAF 38,000 million. The transfers included in the SAM total 119790.211 million, and a 19,000 million increase is equivalent to tax increase of about 15.86%.

The second scenario simulates price subsidies for childcare services on women's economic empowerment. In the proposed model, women's available time is divided between leisure, work and household production. Childcare falls into the latter category. We therefore assume that there is a substitute, paid childcare, corresponding to the 'household services' product in the SAM, whose cost is currently borne by parents. A childcare subsidy is then simulated, at the same cost to the government as the previously simulated cash transfer policies. A compensatory tax on "extractive" products is also introduced into this simulation. Both the subsidy rate and the tax are endogenous and determined by the model.

V. Simulation results and discussion

This section first discusses the impact of cash transfers and household service subsidies on women's labour supply. Second, a cost-benefit comparison of each policy is made.

5.1 Effects of subsidy and social transfer policies

Simulation 1: Increase of 15% in cash transfers from the State to poor rural households

The increase in cash transfers from the State to poor rural households increases their income by about 2% per year over the period of the shock (2024-2028) (Table 3). This increase in income leads to proportionate increases in their disposable income and consumption budget over the same period. The increase in the consumption budget of these households leads to an increase in real consumption. The rate of changes diminishes over time due to a price effect, as the prices of goods and services, capital and labour fall (Appendix, tables 22, 23 and 24).

Table 3: Impact of cash transfers on income and consumption (% change compared to baseline scenario)

Households	Household income		Real consumption		Household production	
	2024	2028	2024	2024	2024	2028
Rural households						
Poor	2.16	2.14	2.07	2.18	3.23	3.01
Non-poor	-0.07	-0.15	-0.16	-0.11	-0.35	-0.29
Urban households						
Poor	-0.16	-0.21	-0.25	-0.18	-0.41	-0.34
Non-poor	2.16	2.14	2.07	2.18	3.23	3.01

Source: Authors, based on simulations

In addition to the impact on income and real consumption, the policy of cash transfers to poor rural households has a secondary effect on labour supply. Indeed, the increase in the consumption budget of poor rural households has a negative effect on their labour supply (table 4), as the cash transfer, which is unconditional, may discourage household members from working. The decline is even greater for unskilled women than for skilled women.

Table 4: Impact of cash transfers on women's labour supply (% change compared to baseline scenario)

Households	Unskilled wom	nen	Skilled women	
	2024	2028	2024	2028
All households	-0.15	-0.19	-0.07	-0.11
Rural households				
Poor	-4.58	-4.94	-2.4	-2.77
Non-poor	0.57	0.55	-0.1	-0.16
Urban households				
Poor	0.87	0.83	0.01	-0.03
Non-poor	0.82	0.8	-0.01	-0.03

Source: Authors, based on simulations

In addition, the fall in market labour supply results in an increase in supply of domestic work among households receiving the transfer (table 5). From 2024 to 2028, it increases by an average of 3.11% for unskilled women and 3.96% for skilled women.

Table 5: Impact of cash transfers on women's domestic work supply (% change compared to baseline scenario)

Households	Unskilled won	nen	Skilled wome	Skilled women	
	2024	2028	2024	2028	
Rural households					
Poor	3.23	3.01	4.08	3.87	
Non-poor	-0.45	-0.4	0.38	0.44	
Urban households					
Poor	-0.75	-0.69	0.08	0.14	
Non-poor	-0.7	-0.66	0.13	0.17	

Source: Authors, based on simulations

Importantly, the increase in these transfers should be financed by a tax on extractive products. This financing source involves an increase in the tax rate on these extractive products of around 13 percentage points over the 2024-2028 period and also a slight increase in real GDP starting from the second year of implementation (Table 6).

Table 6: Change in taxation rate on extractive products (% change compared to baseline scenario)

	Initial value	2024	2025	2026	2027	2028
Tax on extractive products (%)	0.2	12.54	12.73	12.86	12.97	13.02
Real GDP		-0.004	0.017	0.028	0.069	0.079

Source: Authors, based on simulations

• Simulation 2: Childcare subsidy equivalent to transfers

If the State instead allocated the same budget to childcare service subsidies, it could subsidize domestic service products by about 48%. This subsidy leads to a reduction in the price of childcare services sold on the domestic market. This fall decreases in magnitude over the years, from -23.23% in 2024 to -20.78% in 2028 (table 7).

Table 7: Change in taxation rate and price of household services (% change compared to baseline scenario)

	2024	2025	2026	2027	2028
Tax on household services	-50.20	-48.86	-47.70	-46.68	-45.79
Price of household services	-23.23	-22.47	-21.81	-21.26	-20,78

Source: Authors, based on simulations

The fall in price of childcare services encourages households to pay for them on the market rather than provide childcare themselves (table 8). The decline in home production is greater among urban households. However, this decline follows the rise in the price of childcare services and slows down over the period. It falls from -4.80% in 2024 to -3.39% in 2028 for poor urban households, and from -1.39% in 2024 to -1.35% in 2028 for non-poor urban households. There is also a decline in domestic work, especially for skilled urban women.

Table 8: Impact of childcare subsidy on household production (% change compared to baseline scenario)

Households	Skilled w	Skilled women		vomen	Household production	
	2024	2028	2024	2024	2024	2028
Rural households						
Poor	-0.06	-0.03	-1.31	-0.08	-1.11	-1.05
Non-poor	-0.24	-0.24	-1.49	-0.39	-1.35	-1.31
Urban households						
Poor	-4.3	-3.92	-5.5	-4.8	-5.39	-4.96
Non-poor	-0.91	-0.91	-2.15	-1.39	-1.88	-1.83

Source: Authors, based on simulations

The reduction in this domestic provision of childcare services by household members allows them to free up time for the labour market (table 9). As a result, women's supply of market labour increases particularly among poor urban households (by an average of 1.97% for skilled women and 4.50% for unskilled women), where access to childcare services is limited by a lack of financial resources. However, taking all households together, the simulation results show that skilled women benefit more than unskilled women (0.73% compared with 0.37%). In short, the policy of subsidising childcare services can help to empower women.

Table 9: Impact of childcare subsidy on women's labour (% change compared to baseline scenario)

Households	Unskilled won	nen	Skilled women	
	2024	2028	2024	2028
All households	0.37	0.37	0.7	0.75
Rural households				
Poor	0.05	0.01	0.53	0.57
Non-poor	0.25	0.25	0.56	0.6
Urban households				
Poor	4.66	4.35	1.93	2
Non-poor	0.94	0.96	0.74	0.79

Source: Authors, based on simulations

The results also show that the policy of subsidising household services has a positive effect on household income (table 10). Women's participation in the labour market implies access to income, and therefore increases household income. The increase is greater for non-

poor urban households, with a rate of 0.17% in 2024 compared to 0.05% for poor urban households. The result is an increase in real consumption of 0.20% for non-poor urban households and 0.07% for poor urban households in 2024. Urban households benefit more from the positive effects of the childcare subsidy than rural households, as urban dwellers are the largest consumers of childcare services.

Table 10: Impact of childcare subsidy on macroeconomic indicators (% change compared to baseline scenario)

Ménages	Household	Household income		mption
	2024	2028	2024	2024
Rural households				
Poor	-0.07	-0.13	-0.05	-0.01
Non-poor	0.07	0.01	0.09	0.13
Urban households				
Poor	0.05	0.03	0.07	0.15
Non-poor	0.17	0.12	0.20	0.24

Source: Authors' simulation, CGE model

Financing this subsidy through a tax on extractive products would result in an increase of about 11 percentage points in the tax rate on extractive products (table 11). In addition, this policy would help increase Burkina Faso's real GDP.

Table 11: Change in taxation rate and real GDP (% change compared to baseline scenario)

	2024	2025	2026	2027	2028
Tax on extractive products (%)	11.00	11.10	11.20	11.30	11.30
Real GDP	0.09	0.11	0.12	0.15	0.16

Source: Authors' calculations based on CGE model

5.2 Comparative analysis of childcare subsidy and cash transfer policies

Implementing the cash transfer policy would cost the State an average of 22118 million annually, which is equivalent to an increase in cash transfers of about 15%. By allocating these resources to childcare services, it is possible to subsidise these services by 48%. The analysis

shows that subsidising childcare services by 48% leads to an increase in the supply of skilled and unskilled labour for women in all household categories. In contrast, a 15% increase in cash transfers leads to a decrease in the supply of skilled and unskilled labour by female beneficiaries (Table 12).

With respect to poor rural households, for the same cost to the State, a cash transfer policy results in an average 2.59% reduction in the supply of female skilled labour and a 4.77% reduction in the supply of female unskilled labour. Spending this amount on a childcare subsidy leads to a 0.56% increase in supply of female skilled labour and a 0.03% increase in supply of female unskilled labour. For poor urban households, the cash transfer policy results in an average increase of 0.85% in women's unskilled labour supply and a slight decrease of 0.01% in women's skilled labour supply. The childcare subsidy policy leads to an increase in labour supply of 4.50% and 1.97% for unskilled and skilled women respectively.

In terms of public policy, the poverty rate is also a macroeconomic indicator that can be used to assess the effectiveness of a policy. The results of the micro-simulation (table 12) indicate that the cash transfer policy reduces the poverty rate by 1.3% in 2024 and 1.7% in 2028 for rural households. However, for urban households not directly affected by the policy, the poverty rate increases very slightly (0.02% over the entire period). In Burkina Faso, the poverty rate is higher in rural areas (62%) than in urban areas (18.3%) (INSD, 2018). A cash transfer to poor rural households helps to support their consumption expenditure and improve their well-being.

Subsidising childcare services, on the other hand, leads to a drop in the poverty rate for both rural and urban households. However, the fall in the poverty rate is more pronounced for urban households. This is because there are fewer childcare facilities in rural areas than in urban areas. As a result, subsidising the price of childcare is of greater benefit to urban women, who can reduce domestic work in favour of market work.

Table 12: Comparison of the impact of policies on women's labour supply and the poverty rate

Year	Cash transf	ers	Childcare subsidy		
Women's labour supply (%)	Women's Women's unskilled abour		Women's unskilled labour	Women's skilled labour	
Rural households					
Poor	-4.77	-2.59	0.03	0.56	

Non-poor	0.56	-0.13	0.25	0.59
Urban households				
Poor	0.85	-0.01	4.50	1.97
Non-poor	0.81	-0.02	0.95	0.77
Poverty rate (%)	Rural	Urban	Rural	Urban
	households	households	households	households
				0.00
2024	-1.30	0.02	-0.01	-0.08
2024 2028	-1.30 -1.27	0.02 0.02	-0.01 -0.01	-0.08 -0.13
2028		0.02		-0.13

Source: Authors' calculations based on simulation and microsimulation results

In terms of empowering women by integrating them into the labour market, the subsidy policy is better than the cash transfer policy.

VI. Conclusion and economic policy implications

Women's participation in the commercial labour market is limited because of the inequalities they suffer, and inadequate social protection policies. This research analysed the effect of social protection policies on women's empowerment in Burkina Faso. To do this, two policies were simulated, namely a 48% subsidy on household services, and a 15% increase in cash transfers to poor rural households. For the simulation, a dynamic computable general equilibrium model that explicitly incorporates gender and accounts for household production is used. Using the 2022 social accounting matrix and data from the National Institute of Statistics and Demography's (INSD) Harmonised Survey of Household Living Conditions (EHCVM, 2018), the main results are as follows:

Subsidising household services reduces the supply of domestic work in favour of market work for women. The supply of skilled labour increases. The subsidy policy has positive effects for poor household and women. The results also indicate secondary effects on household income and consumption.

The cash transfer policy leads to a decline in the supply of skilled and unskilled labour over the 2024-2028 period. However, this policy has a pro-consumption effect on beneficiaries.

Thus, subsidising childcare services appears more conducive to women's

empowerment than the transfer policy. Moreover, it contributes most to improving the well-being of the population.

The results of our study lead to the following recommendations, which could help in the adoption of a policy of subsidising childcare services, especially for poor households. To aid in successful implementation, the government should:

- increase the number of public/private childcare facilities close to women's workplaces;
- encourage the development of training centres for household aides;
- continue education and training policies for girls, as subsidising childcare services
 has a greater impact on the supply of skilled labour. It will also be necessary to
 reduce enrolment and other school fees for girls.

•

The cash transfer policy could be tailored to the objectives and specific characteristics of each household. For households suffering climatic or other shocks, transfers of work equipment, seeds and arable land could help to empower women. However, for very vulnerable households, permanent redistributions in kind and in cash remain necessary if they are to reduce their consumption deficit.

In order to deepen the present analysis, further studies should take into account the heterogeneity of household categories in analysing the effects of economic policies. In addition to the two simulations carried out here, it would be valuable to conduct other analyses of social protection policies, particularly concerning universal health insurance and voluntary insurance.

References

- Arrow, K. (1973). The Theory of Discrimination, in O. Ashenfelter, A. Rees (eds) Discrimination in Labor Markets, Princeton, Princeton University Press, 3-33.
- Becker, G. (1957). The Economics of Discrimination, Second Edition, Chicago, The University of Chicago Press Economics.
- Belguebli, K. et Zakane, A. (2020). Evolution de la pauvreté et des inégalités en Algérie: importance des transferts sociaux'. Revue d'Economie et de Statistique Appliquée, vol. 17, no 1.
- Chevalier, A. and Viitanen, T. K. (2002). The causality between female labour force participation and the availability of childcare. *Applied Economics Letters*, 9(14), 915-918.
- Clark, S., Kabiru, C. W., Laszlo, S., & Muthuri, S. (2019). The impact of childcare on poor urban women's economic empowerment in Africa. Demography, 56(4), 1247-1272.
- Commission Economique pour l'Afrique (2024). Goal 17 Agenda 2063 Overview IPRT. Full Gender Equality in All Spheres of Life.
- CREG. (2018). Rapport global sur l'analyse de l'enquête budget temps et l'estimation du temps domestique au Burkina Faso.
- CSI (2021). Investissement dans la protection sociale: impacts sur la croissance économique.
- Decaluwé, B., Lemelin, A., Robichaud, V. Maisonnave, H., 2013. PEP-1-1: the PEP Standard Single-Country, static CGE model, Partnership for Economic Policy, 2013.
- Djodjo, G. E., El Oualidi, M. N., & Diaw, A. (2017). Mesure de l'empowerment des femmes: un essai théorique basé sur la typologie entrepreneuriale. Repères et Perspectives Economiques, 1(1).
- FAO (2015). Social protection and women's empowerment. Rural Transformations Information Note #2.
- Fontana, M. et Wood, A., 2000. Modeling the Effects of Trade on Women, at Work and at Home, World Development, (28)7: 1173–90.
- Fotso, A. S. (2017). Child Disability and Mothers/ Labour Market Participation in Cameroon. Journal of African Development, 19(1), 27-61.
- Global Gender Gap Report, (2023), World Economic Forum.
- Gramm, V., Dalla Torre, C., & Membretti, A. (2020). Farms in progress-providing childcare services as a means of empowering women farmers in South Tyrol, Italy. *Sustainability*, 12(2), 467.
- INSD (2015), « ANNUAIRE STATISTIQUE 2015 » page 1-399.
- INSD (2020), « Femmes et hommes au Burkina Faso en 2020 » page 1-135
- Kabeer N. (2005) Gender equality and women's empowerment: A critical analysis of the third millennium development goal 1, Gender & Development, 13:1, 13-24, DOI:10.1080/13552070512331332273.
- Kidder, T., Romana, S., Canepa, C., Chettleborough, J., & Molina, C. (2017). Oxfam's Conceptual Framework on Women's Economic Empowerment.
- Kinyondo, A. A., & Magashi, J. (2019). The impact of cash transfers on women's empowerment: The case of the Tanzania Social Action Fund. *Poverty & Public Policy*, 11(3), 178-204.
- Ky, B. (2013). Enjeux économiques et éthiques de la mesure du travail non rémunéré des femmes. Ethics and economics, 10(2).

- Koinda, F., Souratié, W. D. M., Nanema, C. B., Zougouri, G., Ouédraogo, E., Ouédraogo, D. (2022). Aléas pluviométriques et bien-être des femmes au Burkina Faso. Rapport final, MPIA Project:20546.
- Mollel N. et Mtenga NA (2000). Gend. Roles in the Household and Farming Systems of Techenzema, Morogoro-Tanzania. South African J. Agric. Extension, 29: 73-88
- Mujahid, N., Ali, M., Noman, M., & Begum, A. (2015). Dimensions of women empowerment: A case study of Pakistan. Dimensions, 6(1), 37-45.
- Munoz Boudet, A. M., Buitrago, P., Leroy De La Briere, B., Newhouse, D. L., Rubiano Matulevich, E. C., Scott, K., & Suarez-Becerra, P. (2018). Gender differences in poverty and household composition through the life-cycle: A global perspective. World Bank Policy Research Working Paper, (8360).
- Naseer, Z., Hu, H., Yaseen, M., & Tariq, M. (2021). Rural women empowerment through social protection programs: A case of Benazir income support programme in Punjab, Pakistan. *Journal of the Saudi Society of Agricultural Sciences*, 20(2), 67-74.
- Narayan D. (2004)."Autonomisation et réduction de la pauvreté", Washington D.C, Banque Mondiale, p:16.
- OCDE (2017), Atteindre l'égalité femmes-hommes: Un combat difficile, Éditions OCDE, Paris.
- OIT (2023). Emploi et questions sociales dans le monde: Tendances 2023, ISBN 9789220372937 (print), 9789220372944.
- OIT (2016), « Les femmes au travail Tendances 2016 » page 5-103
- ONU femmes (2019), « l'accès aux services publics et les infrastructures durables au service de l'égalité entre les genres et de l'autonomisation des femmes et des filles ».
- Oxfam (2017), « Cadre conceptuel d'Oxfam relatif à l'autonomisation économique des femmes ».
- Phelps, E. S. (1972). The statistical theory of racism and sexism, American Economic Review, vol. 62, n° 4, 659-661.
- PNUD (2020) « Indices et indicateurs de développement humain », Rapport sur le développement humain.
- Profil genre Burkina Faso (2016). Agence française de développement.
- Sall M. C. Anta (2020), « impact d'une politique de protection sociale à orientation genre sur le marché du travail et la croissance économique au Sénégal », Observatoire de la Francophonie économique.
- Samman, A. H., & Hunt, A. (2016). Women's Economic Empowerment. Research Report.
- Sarfraz, M., Kamran, M., Khan, N. U., Khalique, M., & Andlib, Z. (2022). Targeting Women's vulnerable employment through social protection: A quasi-experimental regression discontinuity design. Heliyon, 8(2).
- Souratié, W., Koinda, F., Decaluwé, B., & Samandoulougou, R. (2019). Politiques agricoles, emploi et revenu des femmes au Burkina Faso. Revue d'économie du développement, 27(3), 101-127.
- Tiberti, L., Maisonnave, H., Chitiga, M., & Mabugu, R. (2018). Reforming grants to tackle child poverty: An integrated macro-micro approach. World Development, 112, 272-281.

Appendices

Table 13: Impact of cash transfers on macroeconomic indicators (% change)

	2024	2025	2026	2027	2028
Real GDP	-0.004	0.017	0.028	0.069	0.079
Household income					
Rural households					
Poor	2.16	2.15	2.15	2.14	2.14
Non-poor	-0.07	-0.09	-0.11	-0.13	-0.15
Urban households					
Poor	-0.16	-0.18	-0.19	-0.21	-0.21
Non-poor	-0.15	-0.17	-0.19	-0.21	-0.22
Disposable income					
Rural households					
Poor	2.16	2.15	2.15	2.14	2.14
Non-poor	-0.07	-0.09	-0.11	-0.13	-0.15
Urban households					
Poor	-0.16	-0.18	-0.19	-0.21	-0.21
Non-poor	-0.15	-0.17	-0.19	-0.21	-0.22
Consumption budget					
Rural households					
Poor	2.16	2.15	2.15	2.14	2.14
Non-poor	-0.07	-0.09	-0.11	-0.13	-0.15
Urban households					
Poor	-0.16	-0.18	-0.19	-0.21	-0.21
Non-poor	-0.15	-0.17	-0.19	-0.21	-0.22
Real consumption					
Rural households					
Poor	2.07	2.1	2.12	2.16	2.18
Non-poor	-0.16	-0.15	-0.14	-0.11	-0.11
Urban households					
Poor	-0.25	-0.23	-0.22	-0.18	-0.18
Non-poor	-0.23	-0.22	-0.22	-0.18	-0.18

Source: Authors, based on simulation results

Table 14: Impact of cash transfers on supply of market labour (% change)

Women's unskilled labour	2024	2025	2026	2027	2028
All households	-0.15	-0.16	-0.16	-0.18	-0.19
Rural households					
Poor	-4.58	-4.69	-4.78	-4.87	-4.94
Non-poor	0.57	0.57	0.57	0.56	0.55
Urban households					
Poor	0.87	0.86	0.85	0.84	0.83
Non-poor	0.82	0.81	0.81	0.8	0.8
Women's skilled labour					
All households	-0.07	-0.08	-0.09	-0.11	-0.11
Rural households					
Poor	-2.4	-2.51	-2.6	-2.7	-2.77
Non-poor	-0.1	-0.11	-0.12	-0.15	-0.16
Urban households					
Poor	0.01	0	0	-0.02	-0.03
Non-poor	-0.01	-0.01	-0.02	-0.03	-0.03

Men's unskilled labour					
All households	-0.28	-0.29	-0.29	-0.3	-0.3
Rural households					
Poor	-1.09	-1.1	-1.11	-1.12	-1.13
Non-poor	0.12	0.12	0.12	0.11	0.11
Urban households					
Poor	0.13	0.13	0.12	0.12	0.12
Non-poor	0.14	0.14	0.14	0.13	0.13
Men's skilled labour					
All households	0.02	0.02	0.02	0.01	0.01
Rural households					
Poor	-1.01	-1.04	-1.06	-1.08	-1.09
Non-poor	0.01	0.01	0.01	0	0
Urban households					
Poor	0.03	0.02	0.02	0.02	0.01
Non-poor	0.03	0.03	0.03	0.02	0.02

Source: Authors, based on simulation results

Table 15: Impact of cash transfers on domestic work

	2024	2025	2026	2027	2028
Unskilled women's domestic work					
Rural households					
Poor	3.23	3,15	3.09	3.05	3.01
Non-poor	-0.45	-0.43	-0.42	-0.4	-0.4
Urban households					
Poor	-0.75	-0.73	-0.72	-0.7	-0.69
Non-poor	-0.7	-0.69	-0.68	-0.67	-0.66
Skilled women's domestic work					
Rural households					
Poor	4.08	4.01	3.94	3.92	3.87
Non-poor	0.38	0.4	0.4	0.44	0.44
Urban households					
Poor	0.08	0.09	0.1	0.13	0.14
Non-poor	0.13	0.14	0.14	0.17	0.17
Unskilled men's domestic work					
Rural households					
Poor	3.21	3.14	3.08	3.04	3
Non-poor	-0.43	-0.41	-0.4	-0.38	-0.37
Urban households					
Poor	-0.77	-0.75	-0.73	-0.71	-0.7
Non-poor	-0.84	-0.83	-0.82	-0.81	-0.8
Skilled men's domestic work					
Rural households					
Poor	4.1	4.02	3.95	3.93	3.89
Non-poor	0.42	0.44	0.45	0.48	0.49
Urban households					
Poor	0.08	0.1	0.11	0.14	0.16
Non-poor	0	0.02	0.02	0.05	0.06

Source: Authors, based on simulation results

Table 16: Impact of cash transfers on demand for women's work (% change)

	Unskilled	women				Skilled	women			
	2024	2025	2026	2027	2028	2024	2025	2026	2027	2028
Agriculture	0.28	0.28	0.29	0.28	0.29	0.09	0.11	0.13	0.14	0.16
Livestock. forestry. fishing	0.29	0.3	0.3	0.29	0.29	0.05	0.07	0.09	0.09	0.1
Extraction	-0.54	-0.55	-0.56	-0.6	-0.58	-0.5	-0.49	-0.49	-0.49	-0.5
Agri-food insutry	0.3	0.33	0.36	0.38	0.41	0.27	0.32	0.36	0.39	0.42
Other industries	0.13	0.16	0.17	0.21	0.22	0.14	0.18	0.21	0.26	0.28
Construction	0.07	0.09	0.13	0.11	0.14	0.07	0.11	0.16	0.16	0.2
Trade and repairs	0.29	0.28	0.28	0.25	0.25	0.07	0.07	0.08	0.07	0.08
Transportation et telecommunications	0.55	0.57	0.59	0.59	0.61	0.53	0.56	0.6	0.62	0.64
Accommodation et restaurants	0.36	0.37	0.41	0.39	0.42	0.27	0.3	0.35	0.34	0.38
Other services	2	1.99	1.97	1.94	1.92	1.96	1.96	1.96	1.93	1.93
Non-market services	0.19	0.23	0.26	0.27	0.3	0.13	0.18	0.22	0.25	0.28

Source: Authors, based on simulation results

Table 17: Impact of the childcare subsidy on macroeconomic indicators (% change)

	2024	2025	2026	2027	2028
Real GDP	0.09	0.11	0.12	0.15	0.16
Household income					
Rural households					
Poor	-0.07	-0.09	-0.1	-0.12	-0.13
Non-poor	0.07	0.05	0.04	0.02	0.01
Urban households					
Poor	0.05	0.04	0.04	0.03	0.03
Non-poor	0.17	0.16	0.15	0.13	0.12
Disposable income					
Rural households					
Poor	-0.07	-0.09	-0.1	-0.12	-0.13
Non-poor	0.07	0.05	0.04	0.02	0.01
Urban households					
Poor	0.05	0.04	0.04	0.03	0.03
Non-poor	0.17	0.16	0.15	0.13	0.12
Consumption budget					
Rural households					
Poor	-0.07	-0.09	-0.1	-0.12	-0.13
Non-poor	0.07	0.05	0.04	0.02	0.01
Urban households					
Poor	0.05	0.04	0.04	0.03	0.03
Non-poor	0.17	0.16	0.15	0.13	0.12
Real consumption					
Rural households					
Poor	-0.05	-0.04	-0.04	-0.01	-0.01
Non-poor	0.09	0.1	0.1	0.13	0.13
Urban households					
Poor	0.07	0.09	0.1	0.14	0.15
Non-poor	0.2	0.21	0.21	0.24	0.24

Source: Authors. based on simulation results

Table 18: Impact of the childcare subsidy on market labour supply (% change)

W 1 191 11 1	0004	2005	000/	2007	0000
Women's unskilled labour	2024	2025	2026	2027	2028
All households	0.37	0.37	0.38	0.37	0.37
Rural households					
Poor	0.05	0.04	0.04	0.01	0.01
Non-poor	0.25	0.25	0.25	0.25	0.25
Urban households					
Poor	4.66	4.57	4.49	4.41	4.35
Non-poor	0.94	0.95	0.95	0.96	0.96
Women's skilled labour					
All households	0.7	0.72	0.74	0.74	0.75
Rural households					
Poor	0.53	0.55	0.57	0.56	0.57
Non-poor	0.56	0.58	0.59	0.59	0.6
Urban households					
Poor	1.93	1.96	1.98	1.99	2
Non-poor	0.74	0.76	0.77	0.78	0.79
Men's unskilled labour					
All households	0.03	0.03	0.03	0.02	0.02
Rural households					
Poor	0.02	0.02	0.02	0.01	0.01
Non-poor	0.03	0.02	0.02	0.02	0.02
Urban households					
Poor	0.35	0.34	0.33	0.32	0.32
Non-poor	0.04	0.04	0.04	0.03	0.03
Men's skilled labour					
All households	0.07	0.07	0.07	0.07	0.07
Rural households					
Poor	0.13	0.13	0.14	0.13	0.14
Non-poor	0.1	0.1	0.11	0.1	0.1
Urban households					
Poor	0.16	0.16	0.16	0.15	0.15
Non-poor	0.06	0.06	0.06	0.06	0.06
•					

Source: Authors. based on simulation results

Table 19: Impact of the childcare subsidy on domestic work

	2024	2025	2026	2027	2028
Unskilled women's domestic work					
Rural households					
Poor	-0.06	-0.05	-0.05	-0.03	-0.03
Non-poor	-0.24	-0.24	-0.24	-0.23	-0.24
Urban households					
Poor	-4.3	-4.19	-4.09	-4	-3.92
Non-poor	-0.91	-0.91	-0.91	-0.91	-0.91
Skilled women's domestic work					
Rural households					
Poor	-1.31	-1.26	-1.24	-1.18	-1.16
Non-poor	-1.49	-1.45	-1.43	-1.38	-1.36
Urban households					
Poor	-5.5	-5.35	-5.23	-5.1	-5
Non-poor	-2.15	-2.11	-2.09	-2.05	-2.03
Unskilled men's domestic work					
Rural households					

33

Poor	-0.1	-0.09	-0.09	-0.07	-0.07
Non-poor	-0.34	-0.34	-0.34	-0.33	-0.33
Urban households					
Poor	-4.42	-4.3	-4.2	-4.1	-4.02
Non-poor	-0.88	-0.87	-0.87	-0.86	-0.86
Skilled men's domestic work					
Rural households					
Poor	-1.11	-1.1	-1.09	-1.05	-1.05
Non-poor	-1.35	-1.34	-1.34	-1.31	-1.31
Urban households					
Poor	-5.39	-5.26	-5.16	-5.04	-4.96
Non-poor	-1.88	-1.87	-1.86	-1.84	-1.83

Source: Authors. based on simulation results

Table 20: Impact of the childcare subsidy on la demand for women's labour

	Unskilled women						Skilled women			
	2024	2025	2026	2027	2028	2024	2025	2026	2027	2028
Agriculture	0.28	0.28	0.29	0.28	0.29	0.09	0.11	0.13	0.14	0.16
Livestock. forestry. fishing	0.29	0.3	0.3	0.29	0.29	0.05	0.07	0.09	0.09	0.1
Extraction	-0.5	-0.55	-0.56	-0.6	-0.6	-0.5	-0.5	-0.49	-0.49	-0.48
Agri-food industry	0.3	0.33	0.36	0.38	0.41	0.27	0.32	0.36	0.39	0.42
Other industries	0.13	0.16	0.17	0.21	0.22	0.14	0.18	0.21	0.26	0.28
Construction	0.07	0.09	0.13	0.11	0.14	0.07	0.11	0.16	0.16	0.2
Trade and repairs	0.29	0.28	0.28	0.25	0.25	0.07	0.07	80.0	0.07	0.08
Transportation et telecommunications	0.55	0.57	0.59	0.59	0.61	0.53	0.56	0.6	0.62	0.64
Accommodation et restaurants	0.36	0.37	0.41	0.39	0.42	0.27	0.3	0.35	0.34	0.38
Other services	2	1.99	1.97	1.94	1.92	1.96	1.96	1.96	1.93	1.93
Non-market services	0.19	0.23	0.26	0.27	0.3	0.13	0.18	0.22	0.25	0.28

Source: Authors. based on microsimulation

Table 21: Impact of policies on poverty rate (% change compared to baseline scenario)

Year	Cash tro	ansfers	Childcare subsidy				
	Rural	Urban	Rural households	Urban households			
	households	households					
2024	-1.3	0.02	-0.01	-0.08			
2025	-1.3	0.02	-0.01	-0.1			
2026	-1.3	0.02	-0.01	-0.13			
2027	-1.27	0.02	-0.01	-0.13			
2028	-1.27	0.02	-0.01	-0.13			

Source: Authors. based on microsimulation

\

Table 22: Impact of policies on the price of private capital (% change compared to baseline scenario)

Price of private capital		Ca	sh transf	ers	Childcare subsidy					
	2024	2025	2026	2027	2028	2024	2025	2026	2027	2028
Agriculture	0.23	0.13	0.05	-0.04	-0.09	-0.01	0.03	0.06	0.07	0.10
Livestock. forestry. fishing	0.30	0.14	0.03	-0.08	-0.13	0.03	0.05	0.07	0.06	0.09
Extraction	-1.59	-1.41	-1.25	-1.11	-0.98	-1.41	-1.19	-0.99	-0.80	-0.64
Agri-food insutry	-0.19	-0.19	-0.20	-0.21	-0.22	-0.03	-0.02	-0.02	0.00	0.02
Other industries	-0.09	-0.11	-0.14	-0.15	-0.17	-0.14	-0.13	-0.12	-0.08	-0.07
Construction	0.38	0.26	0.17	0.06	0.00	-0.23	-0.20	-0.15	-0.15	-0.10
Trade and repairs	0.07	0.02	-0.02	-0.06	-0.09	-0.10	-0.12	-0.13	-0.14	-0.14
Transportation et telecommunications	-0.12	-0.15	-0.17	-0.20	-0.22	0.23	0.21	0.19	0.18	0.17
Accommodation et restaurants	-0.05	-0.08	-0.11	-0.16	-0.18	0.02	0.00	0.00	-0.01	0.00
Other services	-0.05	-0.09	-0.11	-0.15	-0.17	0.93	0.86	0.79	0.72	0.67

Source: Authors. based on simulation results

Table 23: Impact of policies on the price of public capital (% change compared to baseline scenario)

Prix du capital public	Cash transfers						Childcare subsidy					
	2024	2025	2026	2027	2028	2024	2025	2026	2027	2028		
Agriculture	0.23	0.13	0.05	-0.04	-0.09	-0.01	0.03	0.06	0.07	0.10		
Livestock. forestry. fishing	0.30	0.14	0.03	-0.08	-0.13	0.03	0.05	0.07	0.06	0.09		
Extraction	-1.59	-1.41	-1.25	-1.11	-0.98	-1.41	-1.19	-0.99	-0.80	-0.64		
Agri-food insutry	-0.19	-0.19	-0.20	-0.21	-0.22	-0.03	-0.02	-0.02	0.00	0.02		
Other industries	-0.09	-0.11	-0.14	-0.15	-0.17	-0.14	-0.13	-0.12	-0.08	-0.07		
Construction	0.38	0.26	0.17	0.06	0.00	-0.23	-0.20	-0.15	-0.15	-0.10		
Trade and repairs	0.07	0.02	-0.02	-0.06	-0.09	-0.10	-0.12	-0.13	-0.14	-0.14		
Transportation et telecommunications	-0.12	-0.15	-0.17	-0.20	-0.22	0.23	0.21	0.19	0.18	0.17		
Accommodation et restaurants	-0.05	-0.08	-0.11	-0.16	-0.18	0.02	0.00	0.00	-0.01	0.00		
Other services	-0.05	-0.09	-0.11	-0.15	-0.17	0.93	0.86	0.79	0.72	0.67		

Source: Authors. based on simulation results

Table 24: Impact of policies on salary rate (% change compared to baseline scenario)

Salary rate	Cash 1	Cash transfers					Childcare subsidy				
	2024	2025	2026	2027	2028	2024	2025	2026	2027	2028	
Unskilled women	0.21	0.20	0.19	0.18	0.17	-0.37	-0.40	-0.42	-0.44	-0.45	
Skilled women	-0.06	-0.08	-0.09	-0.10	-0.10	0.04	0.01	-0.02	-0.05	-0.08	
Unskilled men	0.28	0.26	0.24	0.23	0.22	-0.21	-0.23	-0.25	-0.27	-0.28	
Skilled men	-0.15	-0.17	-0.18	-0.20	-0.21	0.30	0.28	0.25	0.23	0.21	

Source: Authors. based on simulation results