

Assessing Fiscal Space for National Health Insurance Funds in Sudan

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ABSTRACT

The Sudanese economy is currently witnessing significant shifts, as a result of political and social interactions. All these cast a shadow on the health status and thus on the financial situation of the fund for national health insurance. This study aims to examine the fiscal space potentiality for national health insurance in Sudan. The methodology used is fiscal space categories, and in-depth interviews with stakeholders and economic expert in March 2014.

The results of fiscal space assessing for health reveal that, fiscal space realizing has a good potentiality through earmark tax implementation for cigarette. With the moderate in macroeconomic situations according to expected growth in GDP, the potentiality to generate fiscal space is moderate. The weak potentiality in re-prioritization of health in the government statement as a result of public revenue projected to decrease. The fiscal space for implementation of universal health coverage is limited due to large size of informal sector and poverty rate. The grant and aids is limited because the rate is low. The benefit for NHIF from efficiency gains is indirect; therefore the fiscal space is limited. This result quietly underlined in the in-depth interviews outcomes. The study recommends policy interventions to secure fiscal space creation in Sudan for NHIF.

INTRODUCTION

1. Background Information

Several studies conducted in the financial status of the Sudanese national health insurance fund (NHIF) revealed that there is a serious need for additional financing sources. NHIF exposed to various changes regarding to; coverage expansion, policies, programs, regulations and reforms, and affected by the economic situation. The Sudanese government for instance, which yields 6% in favor of the government employees, holding the disposal cost and contributes to part of poor families, nowadays experiences financial difficulties may increase it is inability to fulfill completely it is commitments. In addition, always there is a fracture between the required sum of money of health insurance entitlement and the reimbursement for instance; from 2006 up to 2010 it is 22.4%. Accordingly, there are many reforms and plans, implementation taking place in NHIF to evaluate the current situation for example, coverage expansion considering universal coverage as NHIF targeted to achieve universal population coverage with health insurance by the year 2031, increases in contributions, a pilot carrying out of a new payment mechanism, gradual health care facilities affiliation and give back to the ministry of health and other suggestions (NHIF).

In a study conducted in the NHIF demonstrates the financial projections from 2013 until 2018, finds that if the trends of current cost inflation sustain, then the financial feasibility of the project expected to achieve the critical position in early 2014 and will outline be in a position large deficit by the end of the prediction time (Taneja, Jaffer and Buckle, 2013).

1.1. Objectives of The Study:

General Objective:

The general purpose of this study is to assess fiscal space feasibility for NHIF in Sudan.

Specific Objectives:

The overall objective of the study is to evaluate the fiscal space for health possibility in Sudan. In order to achieve this goal, the study addresses the following specific objectives which include;

- To explore the potentialities of the fiscal space for health in Sudan.
- To reveal the main features of the sources of government revenue.
- To review public budget structure, reforms and capacity.
- To reveal the limitations and constraints that affect the generation of extra fund for health.
- To explore the potentialities of the fiscal space for health in Sudan.
- To explore the possibility of expanding NHIF sources of revenue.

2. Literature Reviews

2.1 Theoretical Literature

The rationale of this study depends on a broad base of previously published literature.

Fiscal space is assessment method helping governments; especially in developing countries, to reconsider the financial framework of fiscal space analysis theirs budget to allocate additional fund for targeted goal, without affecting the planed endings. The financial framework of fiscal space analysis designed by Heller (2005-2006), and developed by Tandon et al (2010).

2.2 Empirical and Theoretical Studies

There are numerous studies and reports that have been conducted to examine the fiscal space especially in low income countries. This study highlighted some of these experiences recommendations':

World Bank studies in Indonesia, Rwanda and Nepal in 2009 and 2011 suggested that, to generate additional resources for health there are fiscal space possibilities in efficiency gains improvement, health and aids re-prioritizing, tax improvement, and increasing grants and borrowing.

Meanwhile studies by *Okwero*, 2010 in Uganda and Hagen-Zanker & Tavakoli, 2012, in Nigeria, recommends that there is fiscal space feasibility in domestic resources mobilization, aids, efficiency gain improvement, and political commitment.

To conclude, the overall observation from the empirical studies is that most of the objectives targeting strengthen the social security. The methodology used in these studies concentrates on fiscal space categories; macroeconomic conditions, re-prioritization of health and health specific resources. The main findings are regarding macro-economic situations for good or worth, government budget reprioritizing and lack of efficiency.

3. Research Methodologies

3.1 The Study Design

This is a quantitative and qualitative study used fiscal space analysis and in-depth interviews, respecting the possibility of raising additional money for NHIF from the government budget.

Fiscal space analysis was conducted to evaluate the realization of additional sources of fund for health. In this study there is an analysis for three fiscal space categories; macroeconomic condition, re-prioritization of health in the government budget and specific sources for health.

Moreover, fiscal space projection was conducted to anticipate government health expenditure probabilities for the years 2015-2024.

In-depth interviews used in this study to explore the limits of the problem, and get the context of the problem or issue and evaluate potential solutions. The interviews are done with two stakeholders from NHIF, and an economist.

3.2 Data Collection

The data collection considers Sudan economy statistics and NHIF data. It was collected from primary source through in-depth interviews and secondary sources such as studies conducted in NHIF, annual and seasonal reports, central statistical bureau, Ministry of finance, the World Bank, IMF, WHO.

4. Fiscal Space Analysis & Projections

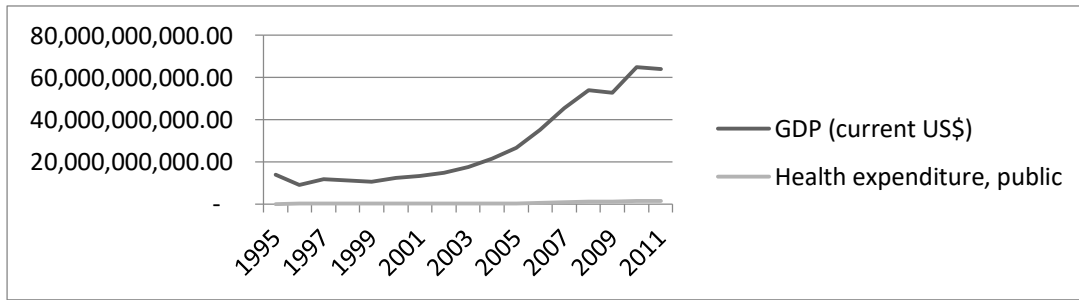
4.1. Fiscal Space Analysis

4.1.1 Macroeconomic Conditions; Economic Growth And Health Financing

Health Expenditure Elasticity

Elasticity of total expenditure on health in Sudan is about 1.20 (GDP and public health expenditure WB data adopted by the author from 2007 to 2011, WB data, 2014), which implies that the increase of 1 percent in income raises total health care spending by 1.20 percentages (IMF actual and projected data, 2012). While elasticity Government spending is the highest around, meaning that a 1 percent change in Income, on average, leads to a rise in about 2.49 percent of government spending on health, which is higher than low income countries average. The public spending on health as average elasticity evaluated to be 1.16 for all low-income countries (Tandon and Cashin, 2010).

Figure 1: Government health expenditure and GDP, 1995-2011

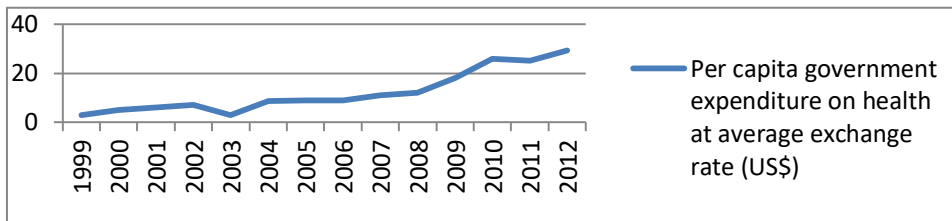


Source: Own adjustment based on WB data and WHO, 2014

4.2. Re-prioritize Government Spending

Public health expenditure per capita in Sudan, was about 29.4 \$US in 2012. Throughout the last 16 years, the value of this indicator has varied from 3 \$US in 1999 and 29.4 \$US in 2012 respectively (WHO, 2014).

Figure 2: Sudan per capita government expenditure on health, 1999-2012



Source: Own adjustment based on WHO, 2014

Sudan spends on health around 10% of its overall budget; this is far from Abuja objective. The government plans are committed to encourage development. Moreover, it is not clear which sector share should be cut to increase the health allocation.

In-depth interviewed stakeholders and the economics expert affirmed that after the year 2011 NHIF funding affected by the current economic situation.

Spending on health by the government increased, throughout last years, but still health needs to be proprieties.

4.3 Health Specific Resources

4.3.1 Universal Health Coverage

One possible mechanism for creating fiscal space is through the application of universal compulsory health insurance .The elements that have a considerable effect on social health insurance universal coverage application are socioeconomic and political conditions factors; the national income volume and the proportion of economic development, the structure of the economy, formal versus informal sectors, the population intensity, the country's governance and the degree of solidarity between the community people (Carrin, Guy. & James, Chris., 2004).

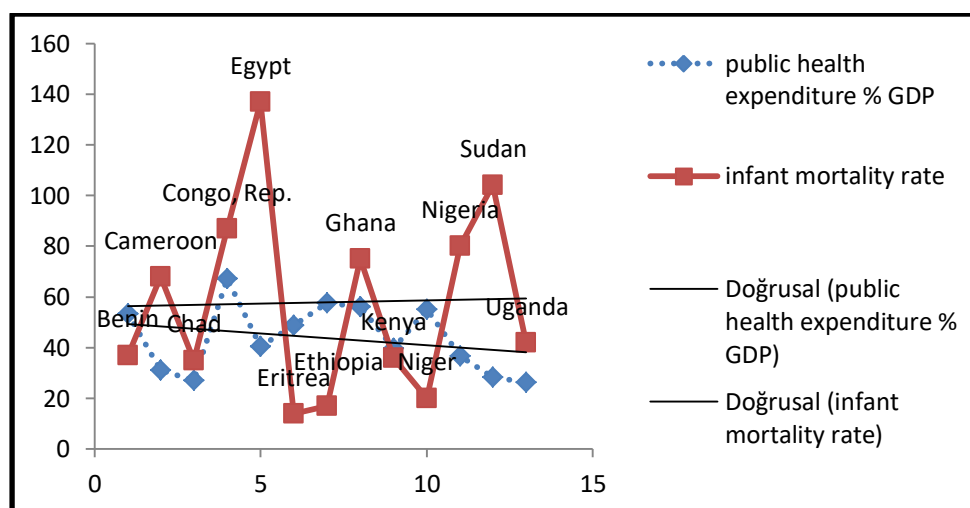
4.3.2 Efficiency Gains

Governance as defined by the World Bank organization is the procedure in which authority is practiced in the control of social and economic capabilities for growth. In Sudan governance was 2.5 which means it is nearly medium, and the economic management, which indicates the fiscal policy, macroeconomic management, and debt policy was 3.0, in 2012 (WB, 2013), and that means it is a medium.

4.3.2.1 Infant Mortality Rate

Infant mortality rate regarded as efficiency measurement tool. In Sudan Household Health Survey 2010, the national maternal mortality ratio was 216 per 100,000 live births, but the rate differentiates significantly throughout states and it is higher among the miserable, the rural, and the nomads (UNFPA, 2012).

Figure 3: Infant mortality rates versus public health expenditure % GDP in comparable countries 2011

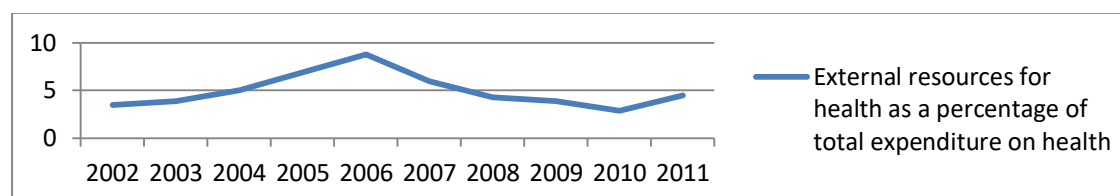


Source: Own

adjustment based on World Bank data, 2011.

4.3.3 Grants And Aids (Findings Table)

Figure 4: External sources of fund percentage of total health expenditure in Sudan 2002-2011



Source: Own adjustment based on Who, 2014

4.3.4 Earmark Tax (Findings Table)

In-depth interviewed stakeholders and the economics expert stated that there are difficulties to expand universal coverage among informal sectors without government interventions. Meanwhile, tax reforms are needed.

4.2 Fiscal Space Projection

Table 1: Fiscal Space for Health Projections, 2015–24

Year	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Nominal GDP (billions)	50.6	53.7	57.9	64.1	64.1	64.1	64.1	79	79	79
Real GDP growth rate	3	3.9	4.7	4.6	4.6	4.6	4.6	4.3	4.6	4.6
Population (millions)	38.4	39.6	40.7	41.9	43.0	44.1	45.2	46.3	47.5	48.6
*	4	0	8	8	3	1	1	4		8

The above table shows nominal GDP and real GDP growth rate as projected by the IMF and population (millions) as projected by CBS, which apparently in increasing patterns.

Baseline (1), lowest elasticity of the health budget to is 0.76

Year	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Government health expenditure (billions)	1.15	1.59	2.07	2.24	2.24	2.24	2.24	2.54	2.76	2.76
Government health expenditure (% of GDP)	2.28	2.96	3.57	3.50	3.50	3.50	3.50	3.27	3.50	3.50
Government health expenditure per capita	0.03	0.04	0.05	0.05	0.05	0.05	0.05	0.06	0.06	0.06

Baseline (2), highest elasticity of the health budget to is 4.91

Year	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Government health expenditure (billions)	7.45	10.28	13.36	14.48	14.48	14.48	14.48	16.68	17.84	17.84
Government health expenditure (% of GDP)	14.73	19.15	23.08	22.59	22.59	22.59	22.59	21.11	22.59	22.59
Government health expenditure per capita	0.19	0.26	0.33	0.34	0.34	0.33	0.32	0.36	0.38	0.37

Baseline (3), average elasticity of the health budget to is 2.49

Year	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Government health expenditure (billions)	3.78	5.21	6.78	7.34	7.34	7.34	7.34	8.46	9.05	9.05
Government health expenditure (% of GDP)	7.47	9.71	11.70	11.45	11.45	11.45	11.45	10.71	11.45	11.45
Government health expenditure per capita	0.10	0.13	0.17	0.17	0.17	0.17	0.16	0.18	0.19	0.19

Source: GDP growth and nominal GDP projections data are from IMF (2012). Population projections 2015-2018 are from CBS 2008, from 2019-2024 population growth estimated as average 2.5% (CBS, 2008).; government health expenditure projections are derived from the average elasticity of government health spending. All figures in current US\$ (2014).

As it appears in the projection processes that in lowest health spending elasticity to GDP if there is economic growth, then the government health spending per capita increases from 30 (current US\$) in 2015 to 60 (current US\$) in 2024, which is most the likely of public health spending in Sudan.

In the highest health spending elasticity if there is economic growth, then the government health spending per capita increases from 190 (current US\$) in 2015 to 370 (current US\$) in 2024, which is very optimistic.

On the other hand, on the average health spending elasticity if there is economic growth, then the government health spending per capita increases from 100 (current US\$) in 2015 to 190 (current US\$) in 2024.

It is clear from the projections that economic growth is one of the important factors that play a critical role in generating fiscal space for health.

5. Findings

Fiscal Space generator	Main Information	Anticipations for Fiscal Space
Macroeconomic situations	There would be expected growth in GDP 0.3 percent range, average per annum over the period 2012-2017; real GDP growth rate expected to steadily increase to 4.2 percent until 2017 and to 4.6 percent on average during 2018-32	A moderate potentiality to generate fiscal space because there is an expectation of a slight economic growth and it may not take place regarding to current economic and political situations.
Re-prioritization of health in the state statement	<ul style="list-style-type: none"> -The government does not reach Abuja commitment; to allocate 15% of the budget to health. -Assumed possibility for extra revenue as total represent 8.5% of GDP - The public revenue projected to decrease from 12.14 % of GDP in 2011 to 12.35 in 2018. 	Limited feasibility for fiscal space because the public revenue projected to decrease. In addition the possibility to increase the revenue depends mainly on tax reforms and health priority commitment.
Health sector-specific Resources:		
Universal health coverage	<p>Implementation of universal coverage affected by:</p> <ul style="list-style-type: none"> - High informal sector size, ability to pay; poverty rate 47%, and urban population 33%. -Health services availability, accessibility and governance problems. -Stakeholder collaboration and commitment. 	Limited possibility of fiscal space because of informal sector size and poverty rate. Moreover, it depends on the other categories improvement.
Efficiency gains	<ul style="list-style-type: none"> -Governance 2.5 which is nearly medium. -High infant mortality rate relative to regional countries. -Inefficiency in health care service distribution, beside 	Good possibility to realize fiscal space for health because the indicators shows low efficiency rate. But NHIF benefit from it indirectly from health services so it is limited to NHIF

	39.7% health spending on drugs; absence of regulating policies.	
Grants and aids	<ul style="list-style-type: none"> - Low grants and aids rates. - No international commitments. 	Limited feasibility for fiscal space because low grant rate and unstable.
Earmark tax	<ul style="list-style-type: none"> -Sudan is committed to international tobacco control. -12% of Sudanese smoking. -There are rooms in cigarette taxes. 	Good potentiality for fiscal space because Imposing of specific cigarette tax for health is a potential source of funding.

RECOMMENDATION

This study recommends that the government has many opportunities to handle fiscal space for health, first of all by improving economic growth situations because this will effect on health spending and status and increase public revenue and therefore government capability to spend on health. Moreover, Implement specific levy for UC either from earmark tax or health reprioritizing after adopting tax reforms and expands the tax base so as to increase public revenue. On the other hand, underline governance achievements in the public sector to secure efficient and effective uses of resources. Meanwhile, it is important to improve grant and aids collecting procedure so as to increase it is rate.

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