

**DOES OUR VALUES BECOME WORSEN? — A STUDY OF THE
EFFECTS OF FISCAL POLICIES ON HOUSEHOLDS' LIVES IN
SUDAN**Yagoub ELRYAH ¹**Abstract**

As a result of the secession of South Sudan, Sudan has experienced the largest increases in the budget deficit, shortages of hard currencies, highest inflation rates, and debt accumulation. In this paper, we attempt to extend and contribute to prior research on the impacts of fiscal policies on households' life in Sudan. An online data from 1999 until 2013 were used to examine the effects of fiscal policy on households' life in Sudan. To do this, the OLS and VECM estimation procedures were considered. Our results supported hypotheses that the households' life has become more worsen than the situation pre-secession of South Sudan, which caused decline in the economy. The paper contributes to prior research within this field by addressing one of the challenges households in Sudan.

Keywords: *Fiscal Deficits; Fiscal Policies; Government Expenditures; Government Revenues; Households.*

JEL: *E62, H5, H6, H12, H31.*

INTRODUCTION

The secession of South Sudan and lack of economic management, have now led to strong fall in Sudan's economy. In the theory, the fiscal deficits problem and government debts were the main sources of problem in balance of payments and inflation (Richard and et al. 2002). The government took a drastic step by introducing the austerity measures and shifted to the role of expansionary fiscal policy to recover the economy. Thus, the inflation was reached (43%) and the unemployment increased among Sudanese by (36%) Elryah (2014). Successful policies should address both depreciation of the local currency against other major currencies and increases in households' life. These policies have to aim and get the financial system back to health.

¹ PhD Candidate, School of Southeast Asian Studies, Faculty of International Relations, Xiamen University No.422 Siming Nan Lu, 361005, P. R. China, Fijian, Xiamen. +8618559254130
Email: yagoubelryah@hotmail.com

The shift in the fiscal policy in 2012 paved the way for first wave of economic crisis. The households have faced the highest tax levels and lack of essential services and opportunities such as, better education, improved health care, better nutrition, clean water and improved sanitation, greater economic opportunities, political liberties, access to product markets, improved public facilities, the encouragement and cultivation of initiatives and efficient infrastructure projects. Thus, most of the government expenditures have not been benefiting the poor people (Ali et al., 2010).

The concept of fiscal policy has received extensive attention in economics and financial literature during and after the great depression in 1930. Scholars in numerous studies have highlighted over the years theoretically and empirically the impacts of fiscal deficits on households. Thus, Sudan has lost both oil revenues (75%) and South Sudan, which causes decline the economy (Almosharaf and Fung, 2014). However, Sudan has had high budget deficit during the past three years, while the austerity measures in Sudan have received a great deal of attention, researchers have paid far less attention to the effects fiscal policies. Many previous studies (e.g., Caroline, 2012 and Addis and Issam, 2012) have argued that Sudan and South Sudan oil fee impasse would benefit the economies for both countries. For example, the Sudan Ministry of Finance and National Economy (2012) reported that the Sudan income would increase by USD10m/year, but the two countries have not reached to positive agreement.

The main objectives of this paper are to discuss the fiscal policies in Sudan after the South Sudan became independent and its impact on the production sectors, examine the domestic factors that precipitated Sudan's growth deficits and the nature and consequences of the process of economic reforms designed to restore macroeconomic stability and accelerate the rate of economic growth. Specifically, the study aims at examining the effects of tax changes, inflation, and foreign currencies exchanges rate and government expenditures on households' life. It also examines the relationship between economic decline and neglect of the production sectors, for instance, the agricultural sector has fall 30%/GDP, while the industrial fall 25%/GDP and related to whether Sudan can replace the oil exports duty revenues.

This paper focuses on Sudan for several reasons; first, it is one of the countries have been faced highest fiscal deficits and economic instability. Second, it is evolved in recent years one of the countries that

have experienced a higher economic growth. Finally, it is emergent as a bread-basket for the Arab world. Thus, Sudan has committed to a process of economic recovery in the framework of the International Monetary Fund (IMF). It is therefore, important to anticipate the impact of foreign grants on reanimate to the agricultural sector. The present study is set to address the following research questions. Are the current fiscal policies suitable for achieving long-term economic stability? To what extent fiscal policies make the households' life more worsen? What are the main causes of Sudan's economy? Will the current fiscal policies continue to be as successful as it is implemented? Or will international sanctions destroy the Sudan's economic? And whether the government policies will be sufficiently strong to cause the economic growth?

This research paper aims to analyze the impact of fiscal policies on the households life in Sudan for the period from 1999 until 2013. The paper has six major sections including the introduction; the second section discusses the fiscal policies and households' life in Sudan independent, third section proceeds with a brief review on the fiscal policy, the role of the governments in the economy and budget deficit. The section four seeks to present our methodology and data collection. The results and analysis were presented in section five. Finally, some conclusions were drawn in section six.

FISCAL POLICIES IN SUDAN: AN OVERVIEW

IMF define fiscal policy is “the use of government spending and taxation to influence the economy. Thus, in the current the governments become main players in the economy in terms allocation and distribution of resources among different groups and sectors to promote strong and sustainable growth and reduce poverty (IMF Sudan Report No. 13/317, 2013). The role and objectives of fiscal policy gained prominence during the recent global economic crisis, when governments stepped in to support financial systems, jump-start growth, and mitigate the impact of the crisis on vulnerable groups (Mark H. and El-Ganainy, 2012).

In Sudan, it widely believed that the Structural Adjustment Programs SAPs were aggressive which aims at managing the government budget deficit through curbing expanding government expenditures and increasing amounts of government revenues through broadening of revenue sources, especially taxes (Medani, and et al, 2004).

The failure of implementing the economic liberalization policies has affected households and businesses, the privatization programs transfer the resources from public to private sector. Furthermore, the authorities adopted floating policies of Sudanese Pound (SDG) against the US\$ (World Bank, 2003). The results of these policies caused high inflation 35% and unemployment reached the lowest levels 47%. Thus, the government has reduced the spending and concentrated mainly on social services, which were offered by the private sector at high prices that most households cannot afford (Atabani, F., 2004).

The Sudanese authorities typically use fiscal policy to promote strong and sustainable growth and reduce poverty (IMF Sudan Report No. 13/317, 2013). The last household survey in Sudan was conducted in 1980, since then there has been no comprehensive survey, it difficult to define a poverty line in terms of consumption or income. The role and objectives of fiscal policy gained prominence during the recent global economic crisis, when governments stepped in to support financial systems, jump-start growth, and mitigate the impact of the crisis on vulnerable groups (Mark H. and El-Ganainy, 2012).

Like other developing countries, the successive Sudan's government's become an essential and influential player in the economy. The governments use fiscal policy to allocate and redistribute resources because the allocation and distribution resulting from private sector activities are not satisfactory in most cases.

In addition to that, the private sector has playing important role in the Sudan's economy which supported by the government. Motives behind privatization are complex and controversial (Cambell-White and Bhatia, 1998). These policies and reduction government spending to curb spending on social services, many households were affected by the high levels of prices that most people cannot afford (Medani and et al. 2004). With no matching increases in the level of wages and salaries, the fixed salaried people, middle class and small-scale producers as well as a large number of unskilled and seasonal labor have become net losers and their incomes and consumption positions worsened joining the masses of the poor people.

In their studies, (Birdsall and J. Nellis, 2003; Buchs, 2003) describe the privatization is seen as causing layoffs and demotions, increases in the price of goods and services, enrichment of a corrupt leadership, and ultimately a widening of the gap between rich and poor.

The Decline of Sudan's Economy:

Following the secession of South Sudan in July 2011, there is increasing interest in the attract Foreign Direct Investment FDI and foreign grants to recover Sudan's economic decline and decrease in foreign currency reserves to balance the budget deficit, trade balance for financing the development. For instance, both the IMF and Qatar state to rebalance the economic situation and to finance the decline of foreign currency reserves. In particular, the IMF introduces the packages reforms, the non-oil real GDP growth showed 4.6% reflecting a slowdown in economic activity. Inflation reached 44.4% in 2012, largely driven by the monetization of the fiscal deficit and a weakening exchange rate. After introduce the IMF's package the consumer price inflation fell to 27.1 on mid-2013 from 44.4% in December 2012 (Addis Ababa, 2012). While the reserve money increased modestly by 4.6%, compared with end-December 2012, largely reflecting the drop in gold purchase by the central bank.

Sudan has initiated and adjusted new policies to attract foreign finance to fill the gap of loss of about 75% of revenue due to the secession of South Sudan. The real GDP is estimated to have grown by -0.6% and is projected to rise respectively to GDP in 2014 to an estimated 5.1% (The World Bank, 2014). The inflation was 36.0% in 2014, up from 20.0% in 2011 and the increasing inflationary pressures coupled with a high fiscal deficit of 4.4% in the face of continuing United States sanctions and the binding domestic borrowing constraint could translate into political instability and reduced potential for social development (African Development Bank Staff, 2014).

In Sudan, more than 70% of its total population living and working in agriculture, and although the majority of people are engaged in agriculture, it accounts only for 34% of gross domestic product. It is one of the most agricultural country in the world with cultivable land is estimated to be around 200 million feddan (Kabbashi, 2010). Thus, Sudan has been suffering severe financial crisis with the demise of 75% of its oil revenues that represented over 90% of its foreign currency after the secession of its Southern part after a constitutional referendum (Elryah, 2014).

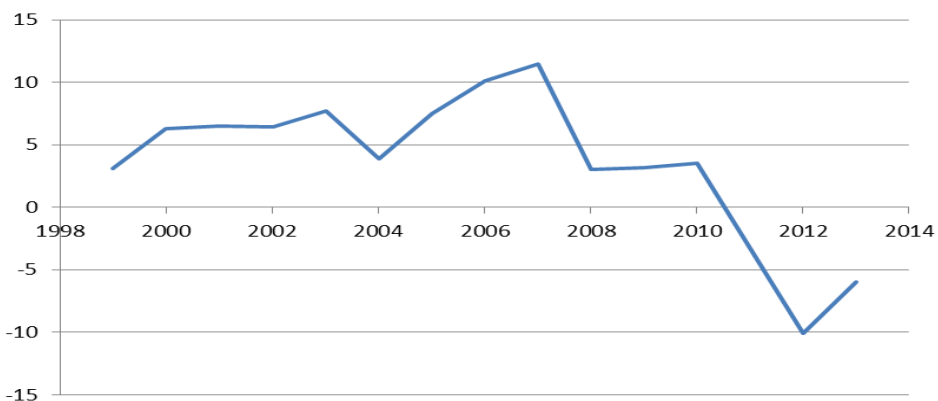
Sohier et. Al. (2014) reported the increasing annual growth rates of inter-Arab investment balance for Sudan during the period (2006-2013). The suggested that the creating a pool of Arab investment bodies, as well

as the necessity for investors to invest in industries producing machinery and equipment in agriculture and industry and urging the huge funds of GCC countries. Further contributions of this paper are that, in addition to measuring foreign grants, economic reforms, and IMF packages.

Several studies have been conducted to enhance and recover Sudan economy and then its inter relationship with the real economic activity such as (Sohier M.A. and et. al. , 2014) who investigate the Inter-Arab Investments and Necessary Trends of the Senior Arab Investors in the Light of the Current Global Economic Situation. (Siddig and Elgizouli, 2013) Examined the foreign aid and sustainable agriculture in Africa, but most of these studies are conducted on the homogenous countries. There are very few studies analyze the relationship in the foreign grants, economic reforms and Sudan's economic recovery.

The Sudan's economy is still suffering and had to recover even further to play its due role in foreign aids and grants in economic activity in Sudan. According to (Hassan, 2014) Sudan still imports some foodstuffs with the potential for production of these foodstuffs in the country; one can say that agriculture has not met one of the main contributions expected from it. The study clearly specifies that it lags economic activity. It seems that the current IMF packages, economic reforms and phenomenal growth in the foreign grants do not seem to influence the Sudan economy.

Figure 1: Sudan's Economic Growth (GDPG %), 1999-2013



Source: World Bank National Accounts Data, World Development Indicators

Figure 1 displays the evidence that the Sudan's economic growth was declined, for instance, the GDPG was decreased from 11.5% in 2007 to an average of 3.1% in years 2008 to 2010. While the period from 2011 to 2012, the GDPG was decreased from -3.3 to -10.1 respectively, which the period witnessed secession of Sudan and the growth deficits due to lost the oil revenues. At the end of 2012, the GDPG adjusted to reach -6% due to fact that the Sudan's authorities borrow from out and received foreign grants and implement IMF packages, which have enhanced the Sudan's economic growth.

After the secession of South Sudan in 2011, Sudan's authorities have identified four pillars for the economic, financial, monetary and social policies. The authorities mobilize the national savings to provide financial resources to produce and export the commodities' program namely, (Cotton, Animal Resources Products, Gum Arabic, and Gold and Minerals).

In this context, we take gold revenues an example for one of the commodities' program, to see how it contributes the GDP. Thus, the gold is becoming one of the main resources of the budget. Thus, the gold revenues have enhanced the GDP growth; the government used these revenues besides the agricultural products to meet the gap in the hard currencies.

As shown in the Table 1, until 2008 the gold accounted 1% of export earnings, and by 2012 it was shared over 40%. The Bank of Sudan (The Central Bank) is projected to contribute about one-third of total exports, and considered as one of the resources of foreign currencies. In terms of monetary policy and financing, the third year program would be by the 2014 and through implemented monetary and fiscal policies, the Real Gross Domestic Product (RGDP), will be 2%, rate of inflation, within 17%.

To achieve this, the authorities used financial policy instruments and indirect monetary policies to provide the liquidity by targeting a nominal rate of growth in money supply of 15%.

Table 1: Structure of Exports, 2008–16 (In millions of U.S. dollars)

	2008	2009	2010	2011	2012	2013	2014 Proj.	2015 Proj.	2016 Proj.
Total exports	12,628	8,087	12,700	11,063	5,174	5,378	6,091	6,760	6,802
of which oil exports	12,052	7,067	10,991	8,679	2,012	2,576	3,265	3,817	3,780
Gold	112	403	1,018	1,442	2,158	2,104	2,150	2,238	2,290
Gold/total export (%)	0.9	5.0	8.0	13.0	41.7	39.1	35.3	33.1	33.7

Source: IMF

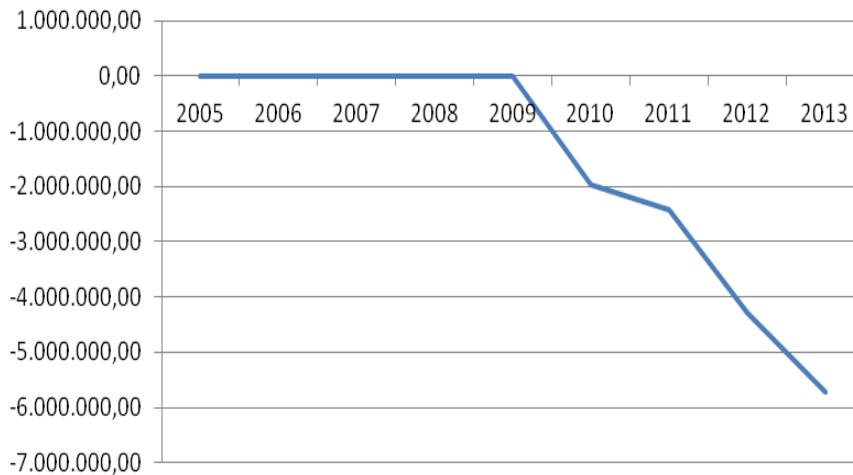
As an economic reform has taken place, the government increased the salaries of government employee and pensions by Sudanese Pound SDG100. It also transferred through the social funds to poor families; these funds covered more than 750,000 families.

According to the IMF staffs, in 2012 the non-oil real GDP growth slowed to 4.6%, reflecting a broad-based slowdown in economic activity. Inflation reached 44.4 %, largely driven by the monetization of the fiscal deficit and a weakening exchange rate. While the overall fiscal deficit peaked at 3.8 % of GDP, mostly on account of a significant fall in oil revenues in the aftermath of the secession.

The external current account deficit is estimated to have reached 10.8 percent of GDP, reflecting the large drop in oil exports, and was mainly financed by a combination of FDI, grants and loans from official sources. Gross international reserves, supported by loans and grants increased to 1.9 months of prospective imports (IMF 2013).

The continuing export of South Sudan oil through Sudan's oil pipelines has been enhanced the GDP, the oil fee impasse expected to reduce the inflation and fiscal deficits in upcoming months. Compared with peers, Sudan's revenue-to-GDP ratio was very low during 2013.

Figure 2: Sudan’s Financial Budget Development between 2005 and 2013, SDG/Bn.



Source: Bank of Sudan, annual reports, May, 2014.

As shown in the Figure.2 the budget deficit sharply increased in years followed secession South Sudan in 2011 where the budget deficit was -3.6% of GDP. The Sudan lost 75% of the oil revenues represent 85% of the GDP (2011), the economic was declined causing an increase in foreign exchange rates (or parities) USD1=SDG9.4 (July, 2014) , high inflation 49% (July, 2014). While Figure -3 shows the growth of narrow money (M1) increased during the oil’s boom. The Figure also shows that the M1 declined in period followed the secession of South Sudan.

The Impact of South Sudan Independent on Sudan’s Economic Development

The secession of South Sudan and the shutdown of oil pipelines have contributed to creating severe macroeconomic imbalances and deteriorating considerably the economic conditions in Sudan. During the period 2008-2010, real GDP growth averaged 5.4%, compared with a growth rate of 2.8% in 2011. Real GDP is projected to contract by -7.35 in 2012. The falling oil revenue also contributed to a slight deterioration in the fiscal deficit of 3.1% of GDP in 2010 to 4.3% in 2011, and is projected to decline further to 8.6% of GDP in 2012. Similarly, the

current account deficit of 7.5% of GDP in 2011 is projected to deteriorate further, with a deficit of 8.6% of GDP projected in 2012.

The Bank of Sudan (BoS) issues bonds or Musharaka Certificates (GMCs) and other debt instruments to finance the deficit. As a result, domestic debt increased from SDG18.67 billion in 2008 to SDG22.76 billion in 2011, which represents an increase of about 22%. The domestic debt as at December 2011 constitutes 12.7% of GDP. Combined with the huge foreign debt overhang (about USD38 billion), the financial situation of the country remains very challenging.

Deficit financing and the pressure on the exchange rate contributed to escalating inflation. Average inflation surged to 15.3% in 2011 up from 13.0% in 2010, and is expected to increase to about 25% in 2012. The official exchange rate has been kept at SDG2.7 per USD since April 2012, while the parallel market rate was SDG5 per USD, representing a difference of almost 50%. This presents a serious challenge to the ongoing exchange rate anchoring.

The Effect of IMF Packages

Most of the discussions between IMF and Sudan have centered on the government strategy for completing its adjustment process and transforming the economy in line with the country's reduced economic and financial potential following the secession of South Sudan. In particular, discussions focused on policies to: (i) continue fiscal consolidation; (ii) unify the exchange rates and markets; (iii) enhance the monetary framework and improve financial intermediation; and (iv) further liberalize the economy and improve the business environment.

The survey conducted by IMF Sudan office found that the fiscal policy stance underpinned by the 2013 budget lacks adequate measures to sustain the needed fiscal consolidation path.

The Effect of Exchange Rates

Table 2 shows the exchanges rate of Sudanese pound versus US\$ it affects the whole economy especially external trade and the movements of the stock prices of the firms and relies on the imports. The local currency depreciates against other major currencies; many firms reduce their cash inflows and reduce the relative dividends. The local currency become under pressure from the major foreign currencies so the firms relying on the imports are under constant pressure. While the Sudan exports does not benefit from depreciating currencies.

The loss of hard currency derived from the export and shut down oil's production could have major macroeconomic reverberations. As the government struggles to meet its domestic financial obligations, in particular, the Central Bank could begin to print more money, which, in turn, could lead to the flooding of Sudan's economy with excess pounds and trigger inflation. As well, a balance of payments crisis may occur, if the Sudan begins to lack the hard currency necessary to import from abroad (Sudan Central Bank Staff, (2007-2013).

Table -2: Selected Macroeconomic Indicators from 2006-2013

Indicators	2006	2007	2008	2009	2010	2011	2012	2013
National Accounts								
Real GDP Growth Rate %	11.3	10.2	6.8	4.5	5.0	-0.4	-10.1	-10.7
Real per Capita GDP Growth Rate %	8.6	7.5	4.2	1.9	2.5	-2.7	0.6	5.9
Prices and Money								
Inflation (CPI) %	15.7	8.8	14.3	11.0	12.9	20.3	35.55	36.522
Exchange Rate (Annual Average) local currency/US\$	2.23	2.01	2.15	2.31	2.67	2.5	4.75	4.95
Monetary Growth (M2) %	29.6	10.3	16.3	19.1	23.7	25.4	17.9	40.2
Government Finance								
Total Revenue and Grants % GDP	21.0	20.6	21.6	16.7	16.8	17.3	24.1	33.8
Total Expenditure and Net Lending % GDP	25.6	26.0	23.0	18.6	18.8	18.1	16.6	28.4
Overall Deficit (-) / Surplus (+) % GDP	-4.6	-5.4	-1.4	-1.9	-2.0	-0.8	-22.1	-24.4

...continue from Table 2

Indicators	2006	2007	2008	2009	2010	2011	2012	2013
External Sector								
Exports Volume Growth (Goods) %	9.5	44.2	0.3	4.1	-3.1	-20.0	-27.3	-39.1
Imports Volume Growth (Goods) %	12.3	-2.0	2.3	-1.0	-1.2	-0.3	-3.4	-9.7
Terms of Trade Growth %	2.8	-4.2	20.6	-18.8	17.2	40.5	47.2	48.5
Current Account Balance (Million US \$)	-5,541	-5,812	-5,325	-5,254	-5,079	-4,155	-6,579	-7,415
Current Account Balance % GDP	-15.2	-12.5	-9.1	-10.1	-7.9	-5.5	-10.438	-10.573
External Reserves months of imports	1.2	0.9	0.8	0.6	0.8	1	0	0
Debt and Financial Flows								
Debt Service % exports	5.1	1.9	2.5	4.8	3.5	4.8	7.2	13.1
External Debt % GDP	78.1	68.5	57.7	68.9	57.3	52.2	59.4	72.3
Net Total Financial Flows Million US \$	2,115	2,147	2,404	2,333	2,152	2,179	2,225	2,316
Net Official Development assistance Million US\$	2,044	2,111	2,384	2,289	2,452	2,077	1,124	983,220
Net Foreign Direct Investment Million US\$	3,534	2,425	2,601	1,600	5,567	6,114	2,616	2,488
Debt Service % exports	5.1	1.9	2.5	4.8	3.5	4.8	7.2	13.1

Sources: ADB Statistics Department; IMF: <http://data.worldbank.org/indicator/> and International Financial Statistics, April 2014;

The local inflationary pressure makes the external trade difficult as the inflation in Sudan is much higher and it attires the increase in the corporate that the exporting firms get the depreciating currency. The official exchange rates of local currency versus US\$ has increased from

US\$2.23 in 2006 to US\$4.95 in 2013, while the exchange rates in black market reach US\$7.8 and US\$9.6 in 2013 and 2014 respectively.

The Effect of Inflation:

In the long run the inflation affects the whole economy in general and households in particular. It causes the shift from investment toward consumption and it also causes the tightening of the monetary policy, which increase the risk free and discount rate, which causes shift from investment in real economy to less risker investment.

As shown in Table 2, the inflation increase dramatically during the last three years, in 2006 the inflating rate was 15.7%; after south Sudan independent the consumer price index was increase from was 20.3% in 2011 to 36.5 in 2013 and it is rate raising until it reach in April 2014, more than 44.4% according to the estimates, increasing deficits in the balance of payments and other macroeconomic issues. This situation causes the deficit in the trade balance which was increased during 2012 and 2013 because the exports decline due to remove oil revenue from the exports lists, and the rise of exchange rate makes the non-oil exports low value. Also the increasing taxes and banking borrowing helps the inflation increased.

The Effect of foreign Grants:

Table -3: Qatar Financial and development assistance to Sudan in the period 2012-14

Year	Amount (USD\$)	Purpose	Type
2012	2 bn	Treasury bond purchase – varied (e.g. mining, oil and agriculture)	Investment
	31 mn	Health centers, schools and development projects	Investment
	6 mn	Regional Authority of Darfur	Humanitarian assistance
	208 mn	Electricity line carriers project	Investment – project finance
	135 mn	Tourism and antiquities	Investment – loan
2013	500 mn	\$88 mn contributed up front	Mixed ODA and concessional loans
	200 mn	Darfur Development Bank capital	Concessional loans and grants
2014	1 bu	Support Sudanese monetary policy and the Sudanese pound.	Grants

Source: Intelligence brief, Qatari aid, finance and foreign policy in Sudan, February 2014

Sudan's economy has been suffering since South Sudan secession in 2011; there are many countries to support its foreign exchange reserve. In this context, funding from the Gulf state of Qatar is to fill in the gap of external trade shock. This fund also to support fiscal deficit which was peaked at 3.8% of GDP, the estimated external current account deficit was reached 10.8% of GDP reflecting the large drop in oil exports which financed by a combination of FDI, grants and loans from official sources.

Sudanese government invites the Gulf Arab states to set up companies especially in field of agriculture. As shown in Table 3, Qatar has pledged \$2 billion (USD) through the purchase of multi-sector treasury bonds from the Central Bank of Sudan, though only \$500 million to \$1.5 billion to Treasury bond purchase – varied (e.g. mining, oil and agriculture). Qatar also provided up to \$130.5 million in development assistance (with a further \$412 million pledged) and at least \$543 million in investment. For context, in 2010-11, Qatar gave Sudan approximately \$90 million in aid and the value of Qatari investments in the country over 2007-11 reached over \$1.5 billion in total. In 2014 Qatar granted Sudan up to \$1 billion to stabilize its economy and to support Sudanese monetary policy and the Sudanese pound in 2014

REVIEW OF RELATED LITERATURE

The impact of fiscal policies on the economic performance is not new, there are many scholars and research discussed these issues. In the macroeconomic theory, the fiscal policies have significant effects on aggregate economic activity and also effects micro-decisions. As the government role in the economy is becoming important, the government through receiving taxes and spending will affect the income, consumption, investment

The debate of the role of fiscal policy in managing the business cycle has persisted for many years. One school of thought argues that taxes, transfers, and spending can be used judiciously to lean against fluctuations in economic activity, especially to the extent that economic fluctuations are mainly due to markets falling out of equilibrium instead of reacting to changes in fundamental factors such as productivity. Others contend that fiscal policy actions are generally either ineffective or make

things worse, because the actions are ill timed or they create damaging distortions (Antonio and Mihov, 2001).

Many studies have been conducted on the impact of the fiscal policies on economic growth and economy recovery in the literature. Most of the studies have concentrated on the impacts of fiscal policies on unemployment (Marco and Coate 2014) and economic development and oil shutdown (Addis Ababa Issam AW, 2012). For example, (Marco and Coate, 2014) used data from a panel of developed countries to distinguish the relationship between fiscal policy and unemployment. They found that the unemployment will arise when the private sector experiences negative shocks, the government will employ debt-financed fiscal stimulus plans, which will generally involve both tax cuts and public production increases. Their findings concluded that when the private sector is healthy, the government will contract debt until it reaches a floor level. At all times, unemployment levels are increasing in the economy's debt level. Even when there is full employment, the mix of public and private output is distorted. (Addis Ababa and Issam AW, 2012) have investigated the impact of oil shutdown on the deficit financing in Southern Sudan. They found that the oil shutdown minimizes the government income and affects the economic development, but the development should be achieved with a minimum inflation.

Empirical study like (Antonio and Mihov, 2001) examined the dynamic impact of fiscal policy on macroeconomic variables in the US. They used the general equilibrium models and vector autoregression. They found positive innovations in government spending are followed by strong and persistent increases in consumption and employment. They compare their findings with several variations of a standard real business cycle model and they found that the positive conditional correlation in the responses of employment and consumption cannot be matched by the model under plausible assumptions for the values of the calibration parameters.

However, the findings from the studies on the large changes in fiscal policy taxes versus spending in in OECD countries over the period between 1970 2007 generally indicated that fiscal stimuli based upon tax cuts are more likely to increase growth than those based upon spending increases. In addition, fiscal adjustments, those based upon spending cuts and no tax increases are more likely to reduce deficits and debt over GDP ratios than those based upon tax increases, the adjustments on the

spending side rather than on the tax side are less likely to create recessions.

In addition, using data from LICs, (Wenyi and et al. 2014) assessed the government consumption and public investment effects. They found that the traded output, however, can respond negatively, raising the Dutch disease concern. Although capital scarcity in LICs implies high returns to public capital, investment inefficiency substantially dampens the output multiplier. Also, public investment may not be much expansionary in the short run, because building infrastructure in LICs relies on imports of goods and skilled labor to a large extent and thus is less effective in stimulative domestic production.

In Sudan context, there are many studies discussed the recent Sudan economic crisis, the impacts of succession of South Sudan and losing the oil revenues on decline of Sudan economy. (Almosharaf and Fung, 2014) have discussed the Sudan's economic decline reasons according to two types of factors, internally and externally. They pointed out that Sudan's economy had significant economic opportunities if it handled properly and exploited efficiently it would put the economy on the right track and made it able to absorb any sudden shocks, There are a number of political and economic challenges which need response and resolve, in order to take the advantage of the big economic opportunities inherent in the Sudanese economy.

A great deal of works is interested in studying the effects of fiscal policies on poverty reduction in Sudan (Medani and et al. 2004). They analyzed the factors that have affected the performance of revenues and expenditures, and their impacts on poverty in the period 1980/81-2001/02. Similarly, (Mahran, Hatim Ameer, 2006) found that the central government relies on indirect taxes to generate revenues, especially from foreign trade duties and the heavy reliance on indirect taxes to generate revenues.

To the best of our knowledge, there has been very little theoretical work on economic crisis and external trade (Mohamed, 2010) shows that Sudan suffers severe financial crisis with the demise of 75% of its oil revenues that represented over 90% of its foreign currency after the secession of its Southern part after a constitutional referendum.

However, few efforts in the literature have been devoted to study fiscal policy effects in Sudan. In this paper, our main purpose is to add to existing empirical studies by measuring impacts of fiscal policies on households' life. We consider macroeconomics indicators for the period

2004 and 2013 to answer the following questions; Why Sudan missed the opportunities to develop the production sectors during the long oil boom? In which projects the large oil revenues used? How Sudan can achieve the economic instability while the conflicts and demonstrations continue in most parts of the country? And, could the new adjustments in the government structure bring the recovery to the economy after Sudan missed the oil revenues and expands the gap of foreign currencies, we postulate that the inflation increased from 17% in 2011 to 44% in 2014 (Medani, 2004).

DATA AND RESEARCH METHODOLOGY

The aim of this study is to assess the impacts of fiscal policies on households' life and examine the domestic factors that precipitated Sudan's growth deficits and the nature and consequences of the process of economic reforms designed to restore macroeconomic stability and accelerate the rate of economic growth. It also aims to explore the relationship between the foreign grants and IMF policies and their impacts on Sudanese economic recovery. Further, in order to show the position of foreign grants and role of IMF packages in we selected different economic indicators i.e., GDP growth, inflation, export, import, exchange rates, and foreign exchange reserves.

Data collection

We will use the Ordinary Least Squares (OLS) and VECM estimation procedures to analysis different databases. An annually data was gathered for the period from 1999 until 2013 from the World Bank, ADB Statistics Department; IMF: World Economic Outlook, United Nations, and various issues Economic Survey and Central Bank of Sudan (CBoS). Additional data of debt government to GDP, inflation rates, nominal GNP, money stock and high-employment government expenditure, personal income, corporate tax rate from Trading Economics (<http://www.tradingeconomics.com/sudan>), and Sudan Statistics bureau reports. In this study, it noted that we did not be able to examine a more extensive time frame due to lack of available data.

Model

The models adopted for this study follows the works of (Carlson 1978), (Matthews, K.G.P., and P.A. Ormerod 1978). The models are specified as follows.

$$\Delta y_t = \alpha + \Sigma \beta \Delta M_t + \Sigma \gamma_i \Delta G_t + \Sigma \delta \Delta E_t + u_t \quad (1)$$

Where:

y	=	Nominal GNP
M	=	Money Stock
G	=	High-employment Government Expenditure
u	=	Random Error
t	=	year

In our second model, we introduced two variables to model (1) namely, deposit rates (D) and currency exchange rate (X). Next section, we will present our main findings and discussed our results.

$$\Delta y_t = \alpha + \Sigma \beta \Delta M_t + \Sigma \gamma_i \Delta G_t + \Sigma \delta \Delta E_t + \Sigma \lambda \Delta D_t + \Sigma \rho \Delta X_t + u_t \quad (2)$$

FINDINGS AND DISCUSSION

The aim of this paper is to explore the impacts of fiscal policies on households' life in Sudan before and after South Sudan's independency. The paper also examines the domestic factors that precipitated Sudan's growth deficits and the nature and consequences of the process of economic reforms designed to restore macroeconomic stability and accelerate the rate of economic growth. We used theoretical approach to analysis the effects of these policies on the economic performance between 2004 and 2013. The results described in next section, our results supported hypotheses that households' life has become more worsen than the situation in post-separation of South Sudan which indicates a treasury of Sudan loss the oil revenues.

Effects of Government Spending

Total expenditures include government consumption, public investment, transfers to households, and debt services. Thus, the structure of the government has reduced by an average of 50%. The goods and services

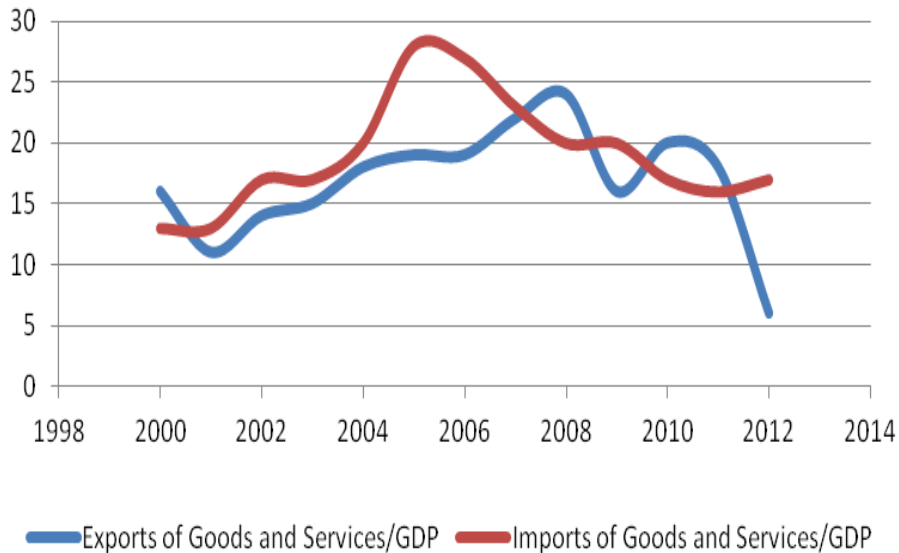
of government have also reduced, and controlled the purchasing of construction and renovation of public buildings.

The fiscal policy also eliminates the exchange rates; the authorities considered the lower exchange rate, for example in 2013, the exchange rate for Sudanese pound was adjusted to be SDG 4.4 per dollar instead of SDG 2.5. Therefore, after the secession of South Sudan, Sudan has faced a strong economic shock; the foreign debt was reached \$41.5 bn in 2012. The fiscal deficit was projected in average 2.3% of GDP during 2012 until 2017. Thus, the federal development expenditures were dropped significantly, especially for agricultural sector. The hardship for the poor people has increased in spite of the policy measures have taken to tackle the deteriorating economic situation.

The fiscal deficits challenges and public debt ratios remain significant, particularly after the secession of South Sudan. The deficits have grown larger than expected after South Sudan stopped to export the oil through Sudan pipelines and resumed the conflicts between two sides. However, these challenges are the main risks in the present crisis, in 2012, the IMF urges on government to consider it is fiscal policy strategy to recover the economy.

Figure 3 Exports and Imports / GDP 1998-2014

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Source: World Bank, 2014

It was clear that the phenomenon of the debt, inflation, slowing down of economy, and unemployment were threats to all countries. In Sudan, the foreign debts, inflation, unemployment problems have been increasingly affected after secession of South Sudan.

The Sudan economy was declined, the dispute between Sudan and South Sudan on public debts remains none solved yet. On one hand, the inflation increased and showing a double digit figures between 2011 and 2013.

Figure 4 demonstrates the economic indicators for the period from 2004 to 2013. It shows GDP growth declined from 5.8% to 1.9% in the years following the secession of South Sudan; the inflation was raised from 18.8% in 2010 to 46.8% in 2013, while unemployment increased from 16.8% in 2012 to 39.6% in 2013, and the government debt which was estimated by 72.5% to GDP% in 2013.

Figure 4: Selected Macroeconomic Indicators 2004-2013

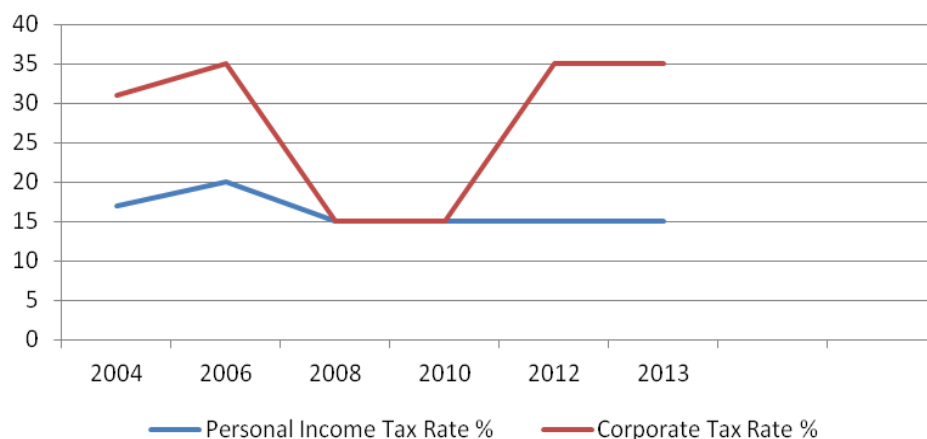


Source: <http://www.tradingeconomics.com/sudan> Sudan Statistics bureau reports 2014

Effects of Tax Revenues

In each period, the government receives taxes and issues domestic and foreign debt foreign aid. The figure -5 shows the impacts of government revenues from households. The Figure illustrates the increasing of tax rates on corporate, it was increased from 15% in 2010 to 35% in 2013 which reflects that the current increases in taxes, by removing the danger of sharper and more costly fiscal adjustments in the future, generate a positive wealth effect, and the individuals have to pay more because the corporates will increase the prices due to the government policies, for instance, in 2012, the tax revenues have sharply increased and affected the households, for example the VAT increased from 15% to 17%, the business profit tax was doubled increased from to research 30%.

Figure 5: Personal Income and Corporate Tax Rate %, 2009-2013



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Source: <http://www.tradingeconomics.com/sudan> Sudan Statistics bureau reports 2014

The Figure also shows the high income of taxes during and after the secession of Sudan and lost the oil revenues in 2011, Thus, the government spending falls in case of tight fiscal policy, there are many people lost their jobs, these policies affected both households and businesses. The authorities have increased the taxes to the firms, the households were affected by higher prices, and the inflation reached it is high level. For example, the government continues to spend and borrow in order to put much pressure on inflation, foreign the exchange rate, the results were worsen, the Qatar grants and IMF packages were not recovery the economy.

OLS Estimation Results

Table 4: OLS Estimation Results

	<i>Co efficient</i>	<i>Std. Err.</i>	<i>t-statistics</i>	<i>P-value</i>	<i>5%</i>
ΔM	0.0631	0.0178	0.11	0.831	0.0374
ΔMt	0.0603	0.0284	0.16	0.912	0.0274
ΔG	0.0833	0.0493	0.08	0.281	0.0726
ΔGt	-0.0651	0.1943	-0.35	0.938	0.0932
ΔE	-0.0832	0.1832	-0.19	0.647	0.1938
ΔEt	0.0481	0.0231	0.13	0.321	0.0274
ΔX	-0.6322	0.7352	-0.72	0.672	0.7352
ΔXt	0.8563	0.09362	0.91	0.083	0.5341
ΔD	0.0209	0.0327	0.03	0.001	0.0023
ΔDt	0.0093	0.0036	0.01	0.329	0.0001
Constant	0.0932	0.0625	0.47	0.032	0.0086

The results from the OLS Estimation in the Table 4 illustrate the t-statistics and co efficient for the selected variables. The results show the negative of exports (X) and exchange (E); all the variables have significant at 5% level.

Vector Error Correction Model (VECM)

Table -5: The VECM - LEC Results

	<i>Co efficient</i>	<i>Std. Err.</i>	<i>P-value</i>	<i>5%</i>
ΔY	0.05241	0.0632876	0.003	0.0932278
ΔM	0.08362	0.0428121	0.092	0.0032782
ΔG	-0.05452	0.0809401	0.062	0.0024192
ΔE	-0.09234	0.0791823	0.109	0.0028317
ΔX	-0.08012	0.0046127	0.091	0.0003254
ΔD	0.07329	0.0009271	0.027	0.0472563

Table 5 shows short run relationship between the households' income and explanatory variables. The results show the co-efficient of the nominal GNP and money stock were positive and significant at 5%

indicating that 0.9% and 0.03% increasing in nominal GNP and money stock may lead to about 0.03% increase in households' income. This confirms our hypothesis that the decline of the nominal GNP has negative impact on households' income.

CONCLUSION

After gained it is independence, Sudan has been torn by more than three decades of civil war, ethnic, and economic conflicts involving in western and southern Sudan. In this paper, we hope to have made a contribution to the literature by addressing one important issue that has been faced Sudan economy by using the recent data between the years 1999 and 2013. We started by explaining the historical background of fiscal policies in Sudan and the economic development achievements. We then provided macroeconomic indicators; these include the national accounts prices and money, government finance, external sector, debt and financial flows. We then illustrated the impacts of secession of South Sudan and the role of IMF packages on Sudan economy. Finally, we discussed the current fiscal policies in Sudan.

The study is aimed at examining the impacts of fiscal policies on households' life in Sudan. We considered OLS and VECM estimation procedures for the data from 1999 and 2013 were used to examine the effects of fiscal policy on households' life in Sudan and macroeconomics indicators to show how the fiscal policies affected the households' lives in Sudan.

While the government barrow more money to finance the budgets, the recovery will not happened in near future. The households will continue suffering from the pore policies that government made. Thus, if the Sudan government wants to recover the economy, it has not only to consume the IMF packages and Qatar grants but also to use these grants and IMF packages on the production sector. This hasn't happened yet. Still today, the households are suffering from the high prices and lack of fiscal policies. As much as the countries experienced GDP growth deficits, Sudan has an opportunity to recover the economy by stop growth of debt and return to public finances.

The results show that Sudan will faces in upcoming five years gap in balance of payments and debts crisis harder than current situation compared to those of another country who adopted the same policies becomes lower over time. The results also show that food security and shortage of foreign currencies are the main factors affecting Sudan's

economy. Our findings demonstrated that that the authorities should ensure economic and political stability; better fiscal policies in order to improve the households' live. The productivity will increase if the authorities acquire the foreign debt for economic reasons rather than social or political reasons. Also, the government should diversify the export and produce more especially agricultural products that will increase the export earnings and reduce import dependency.

Finally, we conclude that the result of this study will provide a reference point for fiscal policy setters in adopting the economic policies that will increase the production and productivity. Fiscal policies should be enhanced and improved the precious lives to the households.

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