Economics Bulletin

Volume 40, Issue 1

The effect of public spending on growth in oil-rich, conflict-prone countries: the case of Chad

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Abstract

The aim of this paper is to assess whether the composition of public spending could be used to minimize the growth consequence of fiscal adjustment in conflict-prone countries. We argue that in such countries, reductions in welfare and military spending could have more adverse effects on growth than cuts on other public spending. We test this hypothesis by using a three-stage econometric approach. First, we provide a measure of conflict risk. Second, we estimate a system of simultaneous equations with the risk of conflict and GDP growth as dependent variables; using data from a panel of developing countries. Finally we use the estimated system of simultaneous equations to provide a quantitative post-estimation analysis of the effects of spending cuts, with application to the case of Chad. Results show that welfare spending have the largest and more robust effect on conflict risk and, subsequently, on economic growth. This component of public spending should therefore experience less reductions during fiscal adjustments.

We would like to express our gratitude to the Editor and to two anonymous referees for providing helpful comments and suggestions. As usual, we remain sole responsible of all errors.
Citation: Mohammadou Nourou, (2020) "The effect of public spending on growth in oil-rich, conflict-prone countries: the case of Chad", *Economics Bulletin*, Volume 40, Issue 1, pages 556-566
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Submitted: December 26, 2019. **Published:** February 22, 2020.

1. Introduction

Developing countries are always facing adverse external shocks. Sharp declines in international commodity prices, external security threats or rise in trade barriers are, among many, some of these unanticipated events that generally hit developing world and reduce their fiscal revenues. For instance, after forty years of economic sluggishness and political instability, Chad, a Sub-Sahara African country had experienced on its first decade of oil exploitation, accelerated economic growth and political stability; thus reducing considerably its fragility. However, in recent years, this country has faced two adverse external shocks: the sharp fall in international oil prices and the security shock linked to Nigerian insurgency group, Boko Haram, activities. These massive external shocks have implied a sharp decline in government revenues. The International Monetary Fund estimated that fiscal oil revenues have fallen in Chad by almost 70 per cent in nominal terms between 2014 and 2017 as a consequence of decline in oil prices (IMF 2016). On the other hand, the security shock in Chad had begotten huge direct fiscal costs linked to military operations against Boko Haram. This cost is estimated to be at least 16.5 million US $ per month and represents more than 2% of non-oil GDP (IMF 2016).

External shocks and their fiscal costs have led to the accumulation of domestic payment arrears despite support from international community and the Central Bank in the form of exceptional advances. In the absence of operative stabilization funds, authorities are constrained to implement sizable fiscal adjustments. Macroeconomic outcomes, and particularly growth prospects, seem to have been adversely affected by the large fiscal adjustment. Therefore, this paper aims to examine how such fiscal developments in oil-rich, conflict-prone countries can affect the real sector.

The relationship between the composition of public spending and growth has been extensively analyzed in theoretical literature on growth effects of fiscal policies. However, in assessing the harmfulness of cuts when reducing public spending in fragile countries, we must bear in mind their exposure to security threats. In fact, oil revenue could be used to buy tribal and military allegiances through state jobs, contracts or subsidized fuel, assuring peace and political stability. Cutting these welfare and military spending could potentially increase the fragility of such states with adverse effects on long term growth. Therefore, the main question we will address in this research is as follows: can the composition of public spending be used to minimize the growth consequence of fiscal adjustment in oil-rich, conflict-prone countries? Our main hypothesis is that because these countries are fragile, reductions in social welfare and military spending could have more adverse effects on growth than cuts on other components of public spending. We quantitatively examine this hypothesis by conducting an empirical exercise.

After this introduction, the remaining part of the paper is organized as follows. Section 2 presents the oil revenue management framework and describes the composition of public spending in the era of oil exploitation in a conflict-prone country. Section 3 outlines the research methodology; while section 4 presents empirical results. Section 5 concludes the paper.

2. Oil revenue management framework and the composition of public spending in a conflict-prone country: the case of Chad

Chad has become a resource-rich country since the beginning of oil exploitation in October 2003. The development of oil fields generated sizable increases in fiscal resources. Government was provided with important financial resources constituted on one hand by dividends and royalties (around 14.2 per cent of such direct revenues, according to CCSRP 2012); and on the

other hand by tax and other indirect revenues comprising fees, custom duties, work permits. Chad had first instituted since 1999 financing funds whereby oil resources are meant to finance the non-oil deficit. Such funds, if they were made operational, would have had the merit of promoting fiscal sustainability and macroeconomic stability while encouraging transparency. They could also promote inter-generational equity by preserving some wealth derived from oil resources for future generations.

The Chadian savings fund was established under the Law 001/PR/1999 which provides the legal framework for the management of oil revenues (Mabali and Mantobaye 2015). The law allocated 70 per cent of direct oil revenues to nine priority sector ministries including: infrastructure, education, health and social services, rural development, environment and water resources. The remaining 30 per cent was allocated as follows: 15% to specific investment of the state, 5% to local development of producing region and 10% to savings funds for future generations. However, this stabilization mechanism, aimed at offsetting the effect of oil prices and revenues shocks, has never been made operational (IMF 2006). Chadian government has decided, as from 2006, to abolish the fund for future generations from the distribution of oil revenues and to allocate a larger share of these oil rents to upfront public expenditure. Hence, the share of specific investments of state increased from 15% to 30% while the department of defense and national security has been added into the list of priority sectors. Consequently, reducing abruptly such components of public spending could have detrimental effects on peace and ultimately on economic growth in this fragile country.

In fact, in Chad, like in other oil-rich, conflict-prone countries, there is a high reliance on one or at best a few commodities for economic activity (oil and cotton for Chad); and a high dependence on oil revenue as main fiscal resource. Hence, analyzing the relationship between the composition of public spending and economic growth in the context of sharp fiscal adjustment could help governments set priorities when reorienting their spending and also to identify less harmful or, if possible, harmless areas for cuts when reducing their expenditure.

3. Empirical methodologies

To quantitatively examine our hypothesis, we conduct the following empirical exercise. First, we measure a time-varying conflict risk for a sample of countries using a panel logit model of conflict onset. Second, we use this measure of conflict likelihood to estimate a system of simultaneous equations where conflict depends on different components of public spending; and where the rate of economic growth depends on conflict risk and other control variables. Finally, we use the estimated system of simultaneous equations to quantitatively measure the effect, on per capita GDP growth, of one standard deviation reductions in each specific component of public spending. For this post-estimation exercise, we set all variables of the model at their Chad mean values and we allow public spending to vary.

3.1. The Logit model of conflict effect of oil

We estimate a logit model of conflict ignition where the onset of violent armed conflict depends on oil resources and other traditional determinants of conflict. We specify the regression model as follows:

$$C_{it} = \alpha + \beta_1 Pubspend_{it} + \beta_2 Oil_{it} + \sum_{j=1}^{n} \gamma_j Z_{j,it} + \varepsilon_{it}. \quad (1)$$

Where: C_{it} is the dichotomous variable measuring conflict onset for generic country *i* and period *t*; $Pubspend_{it}$ is total public spending for country *i* and year *t*; Oil_{it} is a dichotomous variable that is coded 1 if oil revenues represent more than one-third of a country's total export revenues and zero otherwise. Z_j is a generic control variable and *n* is the number of these control variables. In addition to total public spending, the conflict model includes the following control variables: per capita GDP, population size, ethnic fractionalization, foreign aid and two dichotomous variables indicating the type of political regime: the democracy variable and the anocracy variable. Ethnic fractionalization is an index variable that measures ethno-linguistic diversity and whose values vary from 0 (total homogeneity) to 1 (total heterogeneity). Data are from Fearon and Laitin (2003). Foreign aid variable refers to official development assistance (World Bank 2012). We use the net ODA received in percentage of Gross National Income. For the type of political regime, we use the Polity index. The Democracy variable takes the value of 1 when the score on the democracy/autocracy index is higher than 5 and zero otherwise. The Anocracy variable takes the value 1 for countries with inconsistent regimes; that is those whose Polity IV index's score fall between -5 and 5.

Apart from these controls, we add another explanatory variable aiming to control for temporal dependence in the empirical model. This variable is a decay function of the length of time since the year of independence or since the end of previous armed conflict. We compute it as 10 to the power of ($1/\tau$ times the number of years since the occurrence of civil war or independence), where τ represents the half-life parameter.

For this first stage of our empirical exercise, we estimate the conflict logit model on a panel of 130 developing countries over the 1974-2005 period and we compute the predicted probability of conflict that will be used in a system of simultaneous equations model of conflict and GDP growth.

3.2. The system of simultaneous equations for conflict and GDP growth

We estimate a system of structural equations with the risk of conflict and per capita GDP growth as endogenous variables. We add in both equations a dummy variable (*Chaddummy*) taking the value 1 if the country observed is Chad and 0 otherwise.

We therefore specify the system of simultaneous equations as follows:

$$\begin{cases} Conflict_{it} = \alpha_0 + \alpha_1 Welfs_{it} + \alpha_2 Mils_{it} + \alpha_3 Others_{it} + Chaddummy_{it} + u_{it} \\ Growth_{it} = \delta_0 + \delta_1 Conflict_{it} + \sum_{j=1}^{m} \theta_j W_{j,it} + Chaddummy_{it} + v_{it} \end{cases} \quad (2)$$

Where: *Conflict* is the variable indicating the risk of conflict and measured by the predicted values of the probability of conflict that are fitted from the regression model of conflict onset. *Welfs* is the variable measuring the public welfare spending as a percentage of GDP. It is measured by the total of public spending on social welfare sectors including health, education and social security expenditures. *Mils* is military expenditure as a share of GDP. *Others* represent the other public spending as a percentage of GDP:

$$Others = total\ \ pubic\ spending\ as\ a\ percentage\ of\ GDP - Welfs - Mils\ . \quad (3)$$

Growth is annual rate of growth of per capita GDP.

W_j is a generic control variable and m is the number of these control variables. We rely parsimoniously on two (m=2) control variables namely: the size of the population and openness to international trade. Population size is total number of people (from Fearon and Laitin 2003) and trade openness is the logarithm of imports plus exports (from Taydas and Peksen 2012).

We estimate this system of equations by three-stage least squares (3SLS). Following Zellner and Theil (1962), all dependent variables are explicitly taken to be endogenous to the system and are treated as correlated with the disturbances in the system's equations. Finally, we use these panel data estimates to quantitatively analyze the fiscal adjustment for Chad.

4. Empirical results

We give the results of panel data econometric regressions before analyzing the growth effects of different fiscal expenditure cuts in Chad.

4.1. Public spending, Conflict and growth: results from panel data

Before estimating the system of simultaneous equations between growth and conflict, we begin by presenting the results concerning the effects of oil resources on the risk of conflict. Table 1 reports these results.

This preliminary result highlights an important fact: oil resource, or more precisely higher dependence on oil revenues, increases the risk of conflict outbreak. This result corroborates the resource curse hypothesis which states that abundance in natural resources harms economic development. We can use this model to compute the conflict risk variable by predicting the likelihood of conflict onset.

Table 1. Panel logit estimation of the determinants of conflict: the role of oil

Endogenous is :	**Onset of violent armed conflict**
Pubspend	*0.01319*
	(0.016)
Oil	*0.833*
	*(0.279)***
Gdp	*-0.248*
	*(0.129)**
Population size	*0.354*
	*(0.088)***
Fractionalization	*1.519*
	*(0.437)***
ForeignAid	*0.00033*
	(0.0095)
Democracy	*0.0265*
	(0.317)
Anocracy	*-1.1429*
	(0.2914)
Decayfunction	*-0.0367*
	(0.282)
C	*-8.556*
	*(1.802)***
Pseudo R^2	*0.079*

Notes: Standard deviations in parentheses. ***, ** and * denote significance at 1%, 5% and 10% confidence levels respectively.

With this conflict risk variable, we estimate the system of simultaneous equations. Results are presented in Table 2.

Table 2. Panel 3SLS system estimation of the relationship between the components of public spending, conflict risk and growth

Endogenous is:	**Conflict risk**	**GDP per capita growth**
Welfare spending	-0.03618 (0.0003)***	-
Military spending	-0.00060 (0.00027)**	-
Other spending	-0.00029 (0.00017)*	-
Chaddummy	0.05990 (0.0089)***	-
C	0.06912 (0.0029)***	-
Conflict	-	-62.8745 (22.894)***
Population size	-	1.2931 (0.3675)***
Openness to trade	-	1.7033 (0.3288)***
Chaddummy	-	6.7559 (2.2847)***
C	-	-23.9982 (5.7449)***
Chi2	212.79	33.44

Notes: Standard deviations in parentheses. ***, ** and * denote significance at 1%, 5% and 10% confidence levels respectively.

Results show that all the components of public spending positively and significantly affect the rate of per capita GDP growth. In fact, each of the three components of public spending reduces the level of conflict risk while the latter negatively affects GDP growth. However, the different categories of public spending have largely different marginal effects on the risk of conflict and consequently on GDP growth. Quantitatively, the marginal effect of welfare spending is 56 times that of military spending and 105 times that of other spending. This result tends to support our main hypothesis. But are they robust? We now turn to robustness checks.

4.2. Robustness checks: controlling for time and spatial effects in the panel regressions

We subject our baseline results to two panels of robustness checks: the first cluster of checks aim to test for the sensitivity of these results to the integration of time effects; and the second set of robustness checks test for the sensitivity of the baseline results to the inclusion of cross-section dependence effects in the regressions.

To control for time effects, we proceed by two ways: firstly by adding year dummy variables as regressors; and, secondly by adding a trend. In fact, when we fail to control for time effects in panel regressions, generally we only pick up the influence of aggregate trends which have nothing to do with causal relationships of interest.

Table 3. Testing for the robustness of the relationship between the components of public spending, conflict risk and growth to the inclusion of time and spatial effects

Endogenous is:	**Conflict risk**				
	I	II	III	IV	V
C	0.06912	0.072***	0.078***	0.06***	0.056***
	(0.0029)***	(0.0049)	(0.012)	(0.003)	(0.004)
Welfare spending	-0.03618	-0.0038***	-0.004***	-0.003***	-0.0032***
	(0.0003)***	(0.0003)	(0.0012)	(0.0003)	(0.0003)
Military spending	-0.00060	-0.0007***	-0.0009	-0.00055**	-0.00047*
	(0.00027)**	(0.00027)	(0.0012)	(0.0003)	(0.0003)
Other spending	-0.00029	-0.0003*	-0.0009	-0.00026	-0.00024
	(0.00017)*	(0.00016)	(0.0008)	(0.00017)	(0.0002)
Chaddummy	0.05990	-0.0019	-0.0032	0.002	0.0013
	(0.0089)***	(0.0089)	(0.009)	(0.009)	(0.009)
Conflict_neighb	-	-	-	0.014***	0.015***
				(0.0013)	(0.0014)
Corrupt_neighb	-	-	-	-0.001	0.00064
				(0.003)	(0.003)
Trend	-	-	-	-	0.00026**
					(0.00013)
Year dummies	(No)	(Yes)	(Yes)	(No)	(No)
Interaction terms	(No)	(No)	(Yes)	(No)	(No)
Chi2	212.79	166.04	308.48	281.8	288.6
Number of parameters	05	21	72	07	08
Endogenous is:	**GDP per capita growth**				
	I	II	III	IV	V
C	-23.9982	-19.64***	-43.89**	-22.9***	-22.1***
	(5.7449)***	(5.64)	(16.96)	(6.17)	(6.3)
Conflict	-62.8745	-58.13**	-70.79***	-60.88**	-51.9*
	(22.894)***	(22.98)	(20.13)	(26.28)	(27)
Population size	1.2931	1.12***	2.20***	1.22***	1.09***
	(0.3675)***	(0.365)	(0.76)	(0.4)	(0.41)
Openness to trade	1.7033	1.32***	3.14*	1.699***	1.64***
	(0.3288)***	(0.33)	(1.64)	(0.3)	(0.34)
Chaddummy	6.7559	2.77*	2.57*	2.9*	2.66*
	(2.2847)***	(1.56)	(1.56)	(1.6)	(1.59)
Conflict_neighb	-	-	-	0.504	0.43
				(0.354)	(0.35)
Corrupt_neighb	-	-	-	-0.1527	0.13
				(0.575)	(0.58)
Trend	-	-	-	-	0.05**
					(0.02)
Year dummies	(No)	(Yes)	(Yes)	(No)	(No)
Interaction terms	(No)	(No)	(Yes)	(No)	(No)
Chi2	33.44	86.94	133.27	31.2	38.9
Number of parameters	05	21	55	07	08

Notes: Standard deviations in parentheses. ***, ** and * denote significance at 1%, 5% and 10% confidence levels respectively.

The year dummy approach aims to check whether, and how, years contribute to explain the variation of dependent variables with respect to a reference year. We use 1989 as reference year because, for conflict equation, this corresponds to the end of Cold War with the fall of the Berlin Wall which is a great shock on conflict trend in many developing countries. As regards GDP growth equation, this year represents the beginning of IMF sponsored Structural Adjustment Programs in many developing countries that was facing the debt crisis of the mid-eighties. Results are reported in Column II of Table 3. We find that controlling for these year dummies didn't change our main results: welfare spending have the largest effect on conflict risk, followed by military spending; while the effects of other spending are largely inferior. In Column III of Table 3, we add interaction terms between these year dummies and the various independent variables. This slightly modify qualitatively, but not quantitatively, our baseline results because the coefficient on military spending as well as that of other spending turn to become no-significant in the conflict equation. Quantitatively however, our main results remain valid: conflict negatively affects per capita GDP growth and welfare spending have the largest and the strongest effect on conflict risk. The no-significance of the coefficients of military spending and other spending when we control for the interaction of these variables with year dummies may mean that these components of public spending affect conflict likelihood only during some particular years; probably during years of high economic uncertainty as it has been shown that, in such uncertainty periods, "the emotional process including pessimism about future life, increased psychological insecurity and shame of social exclusion would lead to violent attitudes amongst the population particularly the youth and increase the likelihood of violent armed conflict in the society" (Nourou 2019).

As regards the trend approach, this aims to check whether, and for which amount (given by the coefficient of the trend variable), each year contributes to explain the variation of our dependent variables, no matter which is the year under discussion. Results are presented in Column V of Table 3. Our main results remain valid, and moreover, the coefficient on military spending become again significant.

Concerning robustness to the extension of the econometric framework to spatial effects, we follow the tradition in recent empirical literature on spatial econometrics to control our system regressions for "collateral damages". In fact, some sociopolitical determinants of economic growth like conflict or corruption can be exported across country borders and it would be interesting to see if such cross-country effects change our baseline results. Murdoch and Sandler (2002, 2004) or Dunne and Tian (2014) for instance, report significant "collateral damage" of civil conflict on the economic growth of a neighbouring country. Hence, we add two spatial effects variables as regressors. The first is a dummy taking the value 1 if the country shares a land border with a conflict-prone state and zero if not. We consider as conflict-prone states countries belonging to the upper decile of the distribution of the conflict risk variable computed above. The second is a dummy variable measuring the neighbourhood with at least one country among those having the highest index of corruption. We use the World Bank's World development indicators' CPIA index of corruption to compute this dummy variable whose value is 1 if a country shares land border with a highly corrupted country and zero otherwise. Results are reported in columns IV and V of Table 3. Our main findings remain unchanged: conflict negatively affects economic growth and welfare spending have the largest and the strongest effect on conflict risk, followed by military spending; while other spending have merely no-effect on conflict likelihood. Hence, optimal budgetary adjustments may be those with lesser reductions in welfare and military spending. The coefficients of spatial effects variables need some comments. Corruption spillovers seem not to be exported across country borders as the coefficients on corruption spatial effects are no-significant in both equations. As regards conflict neighbourhood, the coefficient is no-significant in the GDP growth equation

while it is positive and strongly significant in the conflict equation. This may mean that high conflict risk in a country has no direct effect on GDP growth of neighbouring countries but a strong negative indirect effect on economic growth through the risk of conflict. This result is in accordance with recent political science literature which indicates that one of the most likely spatial effects of civil conflict is to generate a new civil conflict in neighbouring countries (Carmignani and Kler, 2018). In fact, having a conflict-prone neighbour increases the risk of conflict of a given state by 0.014 or 0.015 and subsequently reduces the rate of economic growth by 0.85 or 0.78 percentage points. However, controlling for these spatial effects didn't affect our main results.

All in all, our baseline results seem to be quite robust to the inclusion of time and spatial effects in the system regressions. We can therefore use these panel data regressions in a quantitative exercise aiming to draw some lessons for Chad as regards optimal fiscal adjustment.

4.3. Optimal fiscal adjustment for Chad: some lessons from the panel data regressions

We provide a quantitative exercise aiming to use the above panel data regression results to shed light on Chad's optimal fiscal adjustment. To this end, we simulate the effects on per capita GDP growth associated with reduction in each of these three categories of public expenditure. We take the coefficients of the baseline panel data regression presented in Table 2 and we set all variables in the system of equations for public spending, conflict risk and growth at their average for Chad excepting one component of public spending which we let vary.

We analyze the effect of a one standard deviation reduction in each component of public spending respectively. Results are presented in Table 4.

Table 4. The effects of budgetary reductions in public spending on conflict risk and growth in Chad: one standard deviation reduction

Components of public spending	Conflict risk when all variables set at their Mean value for Chad	Conflict risk when a budgetary reduction sets a component of public spending at its (Mean-δ) value for Chad, ceteris paribus	Absolute change *(% change)* in conflict risk	Rate of Growth when all variables set at their Mean value for Chad	Rate of Growth when a budgetary reduction sets a component of public spending at its (Mean-δ) value for Chad, ceteris paribus	Absolute change *(% change)* in the rate of growth
Social welfare spending	0.1055	0.1072	0.0017 *(1.61%)*	3.76	3.65	-0.10 *(-2.67%)*
Military spending	0.1055	0.1056	0.0001 *(0.095%)*	3.76	3.74	-0.02 *(-0.53%)*
Other spending	0.1055	0.1056	0.0001 *(0.095%)*	3.76	3.75	-0.01 *(-0.27%)*

Simulations show that, reduction in welfare spending would be associated with very large decrease in the rate of economic growth. When welfare spending are set at their sample mean for Chad, the risk of conflict is at 0.1055 and the rate of growth is around 3.76 per cent. Reducing that budget allocation by one standard deviation increases the risk of conflict by

0.0017 (at 0.1072) and reduces the rate of growth to around 3.65 per cent. With the abundance of oil-resources and a long history of civil conflicts, Chad is a country where reducing social welfare spending could fuel citizen grievances, increase the incentive of potential rebel groups to challenge the government and to engage in civil conflict because of a bigger support from the population. This would result in higher conflict risk and lower rate of economic growth.

Furthermore, as highlighted by panel data regressions presented above, simulations show that cuts on military spending would lead to large decreases in the pace of economic progress. For military spending set at the sample mean for Chad, the risk of conflict is at 0.1055 and the rate of growth is 3.76 per cent. When this component of public spending is reduced by one standard deviation, the risk of conflict raises to 0.1056 and the rate of per capita GDP growth falls to 3.74 per cent. This fiscal adjustment, although producing lesser effects on growth than the reduction of welfare spending, sizably harms economic growth. The reason once more is that, as Chad is just emerging from conflict, peace is likelier to be threatened if government doesn't provide sufficient police and military resources needed to divert dissident groups from engaging in violent armed conflicts.

For other spending however, the budgetary reduction do not severely reduce the rate of economic growth. Simulations shows that, when we set this category of expenditure at their mean value, the risk of conflict is again 0.1055 and the rate of growth is 3.76 per cent. Reducing them by one standard deviation leads to an increase in the conflict risk by just 0.0001 (from 0.1055 to 0.1056) and to a reduction in per capita GDP growth by only 0.01 percentage point (from 3.76 per cent to 3.75 per cent).

Therefore, optimal fiscal adjustment in Chad may be the one with lesser cuts on social spending. Maintaining spending in such welfare aspects as social safety nets, transfers, and investment in public goods "would show people that the government cares and would prevent disadvantaged members of society from falling below a certain level of poverty and from experiencing absolute desperation" (Singh et al. 2016). This in turn would reduce violence and instability leading to lesser conflict risk and lesser adverse effects of fiscal adjustment on GDP growth. Optimal fiscal adjustment may also be that with less important cuts on military spending because the country needs to be kept from the high risk of new conflict outbreak. Such risk of conflict outbreak could increase the risk on capital investment with adverse effects on investment and growth.

5. Conclusions

This paper analyzes the macroeconomic consequences of fiscal adjustment in conflict-prone oil-rich developing countries, with application to the case of Chad. Using a logit conflict model to compute conflict risk, we find that oil abundance increases the risk of conflict. Later on, we estimated a system of simultaneous equations where the risk of conflict depends on different components of public spending; and where the rate of economic growth depends on conflict risk and other control variables. Estimations are done on data from a panel of developing countries with a dummy variable measuring the Chad specific effect. Results show that all the three components of public spending negatively and significantly affect the likelihood of conflict while conflict reduces the pace of economic growth. These results have shown to be quite robust to the inclusion of time and spatial effects in the econometric model. Using the panel data results to quantitatively analyze the less harmful reduction of public spending in Chad, we find that budgetary reductions in social welfare spending have larger and more robust adverse effects on growth than cuts on other components of public spending. Therefore, when setting fiscal adjustment in conflict-prone, resource-rich countries like Chad, it may always be

important to have in mind the indirect effects of public spending reductions and reorientations on GDP growth. In particular, expenditures with large adverse effects on the risk of conflict should experience lesser cuts than others.

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