



CHAD

Impacts de la baisse des prix du pétrole de 2014-2016 sur le bien-être des enfants au Tchad: Analyse à l'aide d'un modèle EGC dynamique avec microsimulations totalement intégrées

# Could Chad prevent an oil crisis from fuelling child poverty?

Research Managers: Mariana Stirbu, Deputy Representative (previously Chief Social Policy, Planning, Monitoring and Evaluation) and Hamid Ahmat, Social Policy Specialist  
Author: Christian Arnault Emini



EDITORIAL INSIGHT

Reviewers commended this piece of research for its innovative analysis of the impact of oil crises on child poverty in Chad and the rigorous examination of three types of policy response to mitigate this impact. The research deployed a robust methodology, using a computable general equilibrium model with integrated microsimulations to address the research questions.

Reviewers also commented on the solid conceptualization, the clear writing and presentation of findings, and the well-articulated and convincing recommendations on the most effective policy responses and strategies to prevent an increase in child poverty in the event of future oil crises.

Although the oil price crisis of 2014–2016 has faded from memory in much of the world, it has left its mark on Chad, which depends on oil for about 90 per cent of its export earnings. An oil boom that began in 2003 had positive effects on most of the country's socioeconomic indicators, but left its economy tightly bound to a global market that is prone to shocks. When oil prices fell by 80 per cent within two years, gross domestic product (GDP) also shrank. Poverty rose again as a result, including child poverty.

This research by UNICEF Chad, in partnership with the Chadian Ministry of Finance and Budget's Department of Studies and Forecasting, examined the repercussions of the crisis for child poverty as well as for overall poverty. Using simulations, it explored how the country might have progressed had the oil crisis not occurred, and compared the results to projections under the existing circumstances. Findings revealed the extent to which the fall in oil prices led to an increase in child poverty. Further simulations made it possible to identify and explore effective measures to compensate for such an increase, providing vital information to mitigate the effects of future crises.

**Not only is monetary poverty among children higher than the national average, but, even in a situation of economic growth, it tends to decrease less rapidly than overall monetary poverty if there are no or insufficient interventions targeted towards children.**

– Research report

## PURPOSE

The purpose of the investigation was to analyse the impacts of this specific crisis on the well-being of children in Chad – and in particular its impact on child poverty. The research proposed different policy scenarios, simulating the impact of each on child poverty reduction, and evaluating the overall costs. The ultimate objective was to identify and recommend measures to compensate for the number of children forced into poverty by the crisis – by bringing at least an equal number out of poverty.

## APPROACH

The data for this research were drawn from national statistics and economic institutions as well as from the results of a survey on consumption and the informal sector in Chad. These data were fed into a computable general equilibrium model with integrated microsimulations. The model was used to simulate two main scenarios – a 'non-crisis' and a 'crisis' scenario – over the period running from 2011 (the year the data were collected) up to and including 2025. The research also simulated further scenarios representing various policies that could be implemented in response to the crisis.

The results of these simulations were then compared with various indicators of child poverty, including Chad's national poverty line of 237,942 Central African francs (US\$429) per household adult equivalent. As well as look at the impact on the population as a whole and on children in particular, the research examined the effects of several demographic variables. These included household location (urban or rural) as well as age, gender, marital status and level of education of the head of household.

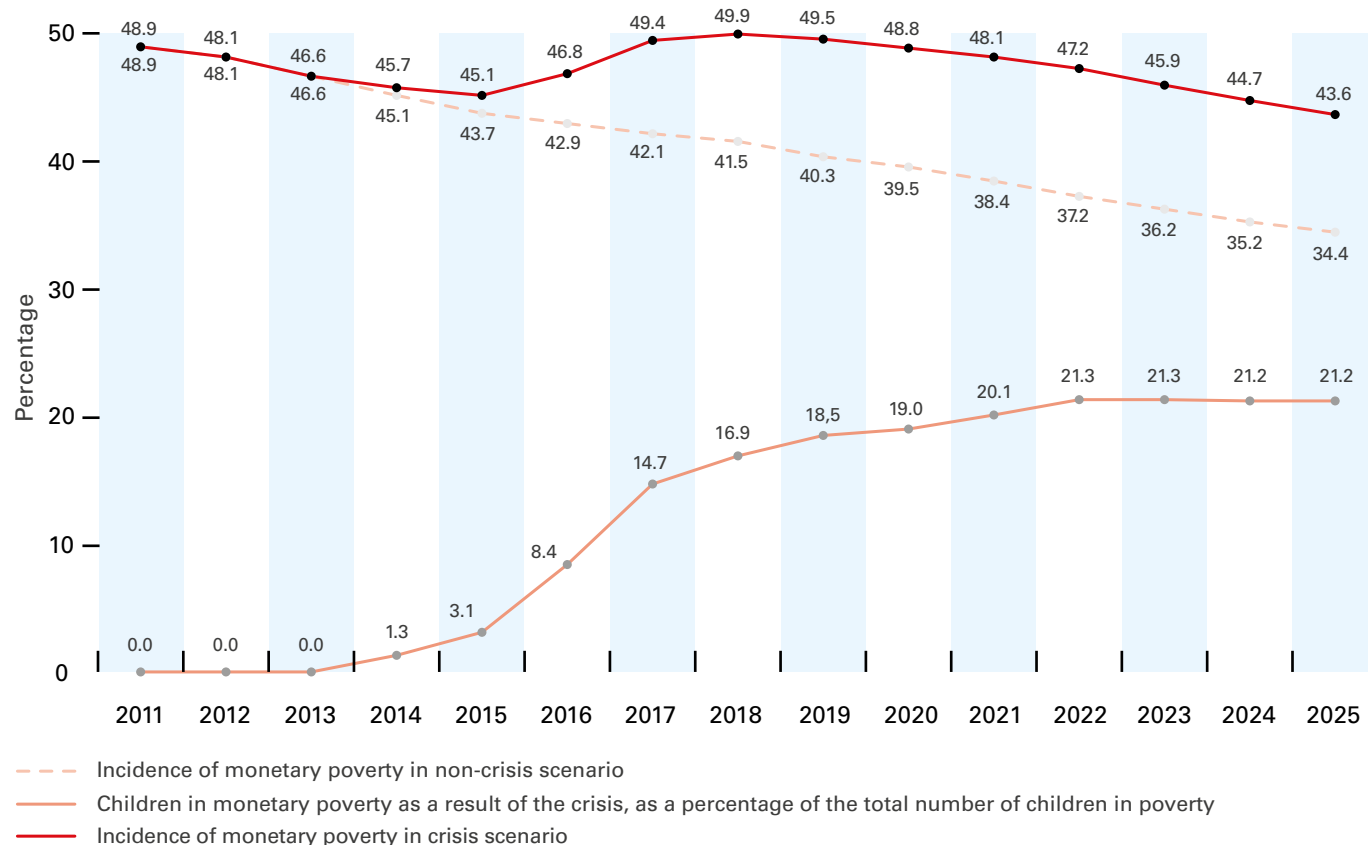
### Simulating policy responses

Three types of policy response were selected for modelling, with the aim of identifying measures with direct and beneficial effects for children.

The first type sought to provide a social safety net, in the form of cash transfers to certain households below the poverty line. This was based on a series of pilot programmes already implemented by the Government of Chad in three provinces: a cash-for-work pilot in N'Djamena, and unconditional cash transfer pilots in



**FIGURE 1**  
**Poverty in Chad modelled under oil crisis and non-crisis scenarios**



Source: Adapted from *Graphique 13: Evolution du taux de pauvreté monétaire (FGT0) des enfants dans les scénarios avec et sans crise*, full report, p. 57.

Bahr el Ghazal and Logone Occidental. The simulation looked at the effects of extending transfers to more households and increasing the allocated budget.

The second type of policy response examined by the researchers concerned two policies that did not specifically target poor households but which aimed to reduce food prices more generally. One policy sought to eliminate customs duties on imported food products; the other aimed to introduce a value-added tax (VAT) exemption for all food products.

Finally, the research simulated a more comprehensive extension of direct cash transfers to all households in Chad with poor children. This final type of policy response was modelled twice at different levels of investment – with a budget equivalent to 1 per cent of GDP and to 3 per cent of GDP.

## KEY FINDINGS

The analysis found that, without intervention, the oil crisis significantly increased the number of children living in poverty in Chad, and this number grew over time. The simulation indicated that an additional 884,528 children would be living in poverty by 2025 as a result of the crisis, if nothing was done to help – a 27 per cent increase in child poverty in Chad compared with the non-crisis scenario.



### Pilot programme impacts

All three cash transfer pilot programmes were found to improve consumption per capita among beneficiary households, but only one programme reduced monetary poverty, and then only to a small extent. The analysis showed that, in N'Djamena, less than 3 per cent of those living in poverty (children and the population as a whole) would be lifted out of it by 2025 – even though the cash-for-work programme benefited a much higher proportion of those living in poverty than the unconditional cash transfers in the other two provinces. In particular, the failure of a cash transfer programme to take into account either household size or number of children per household impairs its ability to contribute significantly to reducing poverty.

### Lowering food prices

According to the simulations, eliminating customs duties on food imports was even less effective at reducing the impact of the crisis. The number of people taken out of poverty by this policy was low compared with the cost of implementation, and decreased further over time. By 2025, the policy would lift out of poverty only 0.67 per cent of the total number of children made poor by the crisis. This policy was also found to disproportionately benefit those already above the poverty line: the increased competitiveness of imported foods led to a drop in the performance of the domestic food sector, which predominantly employs people from poor households. As a result, the increase in real spending per capita was predicted to be 9.5 times higher in non-poor households than in poor ones.

In contrast, a VAT exemption on food products was found to more effectively and efficiently reduce poverty. The effect of this policy on real spending per capita was similar overall to that of eliminating customs duties, but was far more heavily weighted in favour of poor households. The average cost of implementation per individual lifted out of poverty was between 48.5 and 55 per cent of that of the cash transfer programmes. The rate of poverty reduction remained low, however: this policy would reach only 1.8 per cent of the more than 880,000 additional children living in poverty by 2025.

### Extending cash transfers

The most effective policy response investigated by the simulations was to extend direct cash transfers to all households with children living in poverty in Chad, while adjusting the amount in proportion to the number of children per household. With an initial overall budget of 1 per cent of the previous year's GDP, increasing annually in line with the rise in the child population, the policy was found to reduce the rate of child poverty from 49.9 per cent in 2018 to 40.8 per cent in 2025 – 2.8 percentage points lower than in the crisis scenario without intervention. Nonetheless, the effect on the total number of children in poor households was not enough to compensate for population growth over the same period: though this number fell initially in 2019, by 2025 it would be 200,000 higher than its starting point.

When the initial overall budget was instead 3 per cent of the previous year's GDP, the policy caused a substantial reduction in overall poverty. In terms of the total number of children in poor households, it would compensate entirely for the effects of the crisis within seven years. This number stabilized at about 3.3 million children from 2019 until the end of the simulation period in 2025, by which time it would have stood at 4.2 million in the absence of any mitigation policies.

## INFLUENCE ON POLICY AND PROGRAMMING

The research recommends the adoption of an extensive cash transfer policy in Chad, with a total initial budget equivalent to at least 1 per cent of the previous

### BOX 1

Key recommendations to prepare for the next oil crisis

- Establish an extensive cash transfer policy with a budget equal to at least 1 per cent of GDP and progressively increase this to 3 per cent of GDP.
- Adjust the transfers in proportion to the number of children living in each household.
- Set up a social wealth fund with the support of Chad's technical and financial partners to ensure uninterrupted financing of the cash transfer programme.
- Seek ways to ultimately empower beneficiaries to exit poverty and become financially independent.
- Explore the possibility of removing VAT from some essential food products as a supplementary policy.
- Continue to promote education, especially at secondary and higher levels, for girls and women and boys and men, as educational attainment at higher levels displays a strong effect on household income.



year's GDP. It stresses the need to adjust the transfer amount in proportion to the number of children per household. Population growth would also need to be taken into account to maintain the same rate of allowance per child year to year.

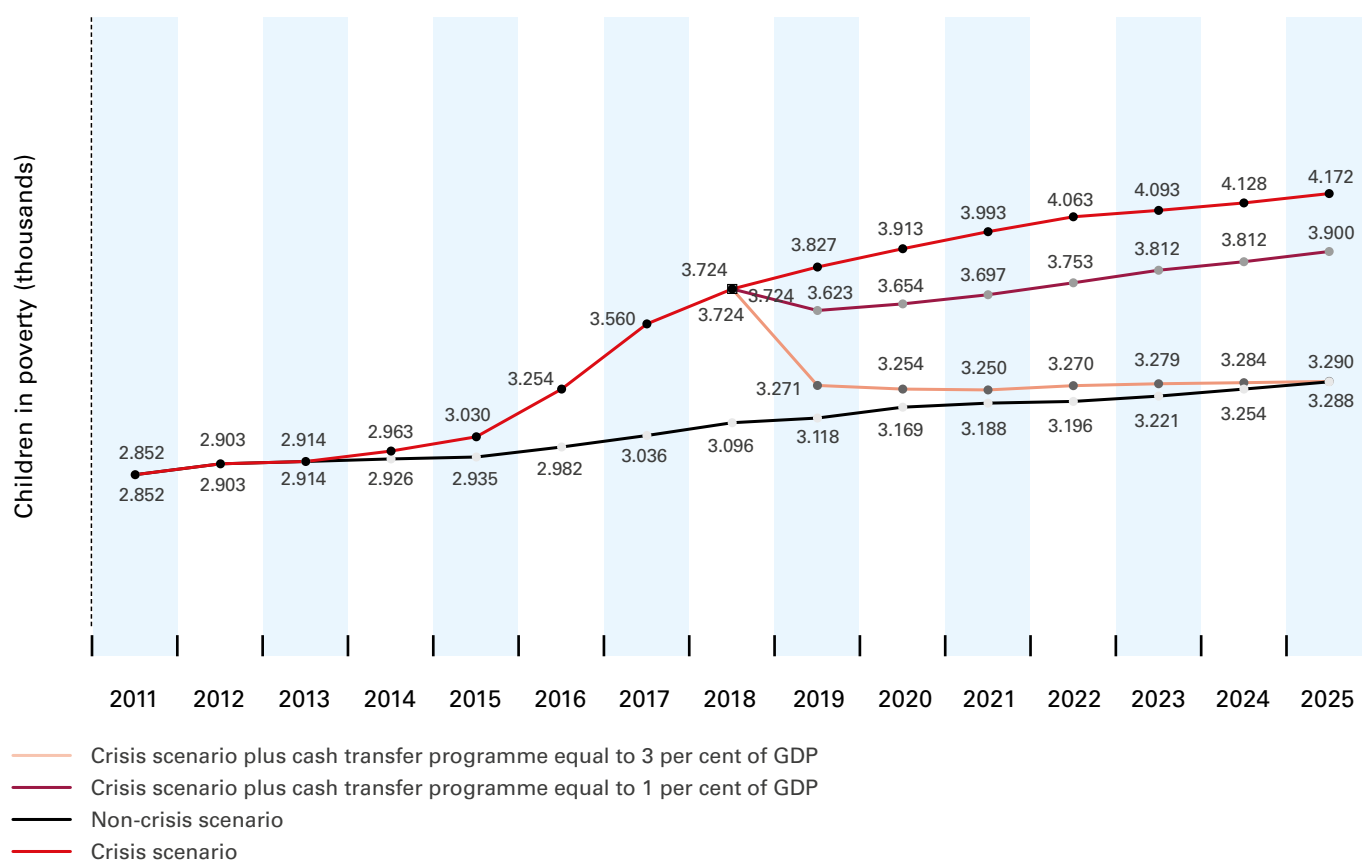
Given this complexity, it remains necessary to design an efficient but simple system for targeting the transfers. Chad would also need to work with its technical and financial partners to set up a social wealth fund to finance this initiative, especially since history has shown that the Government of Chad should expect to experience financial constraints in the aftermath of a fall in oil revenue.

Lastly, the report underlines the strong role of educational attainment, especially at secondary and higher levels, in promoting positive effects on household income.

**Close to 19 per cent of children living in monetary poverty in 2019 would have escaped it if the 2014 crisis had not taken place. From 2022 to 2025, this figure is over 21 per cent.**

– Research report

**FIGURE 2**  
**Simulated effects of cash transfer programmes in Chad after an oil crisis**



Source: Conception de l'auteur à partir des résultats des simulations.

## LOOKING AHEAD

The simulation methods used in this research are broadly applicable. For example, they could be adapted to investigate the impact of the sharp fall in oil prices that arrived with the COVID-19 pandemic in 2020. This new crisis began following the research and is likely to have further severe repercussions for child poverty in Chad. The methods used by UNICEF Chad in its analysis point to suitable response measures to mitigate such effects – at a time when these are urgently needed.



[Download original report](#)

