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# Research Report Was there a shift in Chinese health aid allocation strategy to Africa over the 2000-2013 period?

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# Is there a strategy in Chinese health Official Development Assistance to Africa?

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## Introduction<sup>\*</sup>

The influence of China outside its borders in the field of health is not new. More than heighteen centuries ago, the Silk Road spread Chinese medicine in India, Central Asia and the Middle East. In 1963, Mao-Tse-Tung and Chou-En-Lai sent the first Chinese medical team on the African continent, in Algeria. Since then, Chinese health official development assistance (ODA) to Africa has largely increased, in particular since the beginning of the 2000's. Nowadays, China ranks among the top ten bilateral donors for health aid in Africa (Grépin et al., 2014). In parallel of the increase in Chinese health aid, Chinese aid diplomacy has also evolved over time. Especially, the Chinese aid policy shifted after 2006.



\* Revised version November 2017 \* This Policy Brief is based on Guillon M. and Mathonnat J, "Is there a strategy in China's health official development assistance to Africa: how much, where and on which criteria?", CERDI Working Paper

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Indeed, in the opening address of the 3rd FOCAC in 2006 Chinese President Hu Jintao called for the creation of a new type of strategic partnership between China and African countries based on "mutual benefit and win-win situations". Several specific announcements were made during this forum, including the doubling of China's assistance to Africa by 2009. China also pledged to deepen its health cooperation with Africa by building hospitals and malaria prevention centers on the continent (Kjøllesdal et al., 2010; Declaration of the Beijing Summit of the Forum on China-Africa Cooperation, 2006/11/05). In 2006 was also released the "China's African Policy" <sup>(1)</sup> document that aimed to shape China's aid and investment policies in Africa (Lin et al., 2016). This document specifically called for an increase of medical and public health exchanges and cooperation with African countries.

A large literature is available regarding the determinants of bilateral and multilateral ODA from DAC countries, regional development banks, World Bank, United Nations agencies and private sector (Berthélemy and Tichit 2004; Dollar and Levin, 2006; Younas, 2008; Lee and Lim, 2014; Acht et al., 2015). Several articles have specifically looked at the determinants of health ODA from traditional public donors and private institutions. These studies have found that health needs of recipient countries poorly explain the amount of health aid they receive and that countries with more political rights receive significantly more aid (Esser and Bench, 2011; Fielding, 2011). On the contrary, fewer analyze of the determinants of ODA, and specifically health ODA, from new donor countries, including China (Dreher and Fuchs, 2015; Dreher et al., forthcoming) are available.

China is often seen as allocating its ODA in its own interests in order to secure its access to natural resources, favor its exports or extend its political influence (Naim, 2007; Lin et al., 2016). On the contrary, China declares allocating its ODA in response to the needs expressed by the recipient countries, according to a "win-win" strategy and following a non-interference principle. Thus, our objective is to study the factors associated with Chinese health ODA to Africa between 2006 and 2013. We focus on the period after the third FOCAC, i.e. after 2006, given the global shift in Chinese aid policy to Africa at this date. We concentrate the analysis on the health sector given the call for reinforced health cooperation between China and Africa after 2006. Moreover, health was the first sector of Chinese ODA in terms of number of projects over the 2006-2013 period with 32.5% of all ODA projects.

### Describing Chinese health aid to Africa.

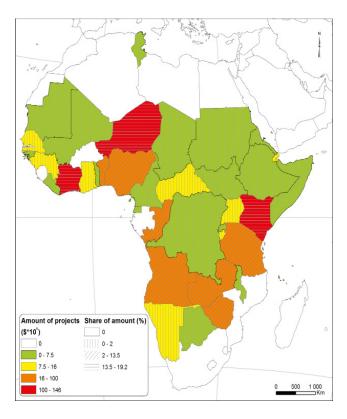
Chinese health ODA is measured using the Aid-Data's Global Chinese Official Finance Dataset, 2000-2014, Version 1.0 (Dreher et al., 2017). From this database, we selected Chinese ODA projects in the sector of health. We chose to exclude projects that were only pledged or committed and for which no proof of money disbursement is available. In total, 345 health aid projects were financed by China in Africa between 2006 and 2013, accounting for a total amount of US\$764 million (2014 US\$). On these 345 projects, 143 (41%) correspond to the dispatch of medical teams, 107 (31%) to the sending of medical equipment or drugs and 76 (22%) to health infrastructure construction or rehabilitation.

Over the 2006-2013 period, only 9 countries did not benefit from any Chinese health ODA project: Algeria, Burkina Faso, Egypt, Gambia, Libya, Morocco, Sao Tome and Principe, South Africa and Swaziland. Seven countries received between 1 and 4 projects, 28 countries between 5 and 9 projects, 7 countries between 10 and 14 projects and 3 countries between 15 and 17 projects.

Regarding the number of health projects, the top 5 recipient countries received between 14 and 17 health projects. Uganda is the country

<sup>1.</sup> Available at: http://www.focac.org/eng/zt/zgdfzzcwj/t230479. htm

that received the highest number of health projects, with 17 projects, followed by Liberia and Niger with 15 projects. Figure 1 shows the repartition of Chinese health ODA amount among African countries between 2006 and 2013. Kenya is the country that received the highest amount of health ODA funding with US\$147 million (2014 US\$). Niger and Ivory Coast rank as second and third highest recipient countries in terms of ODA amount with US\$143 million and US\$106 million respectively. These three highest recipient countries concentrated more than half (51.8%) of Chinese health ODA funding between 2006 and 2013.



## Looking for a strategy in Chinese health aid allocation over the 2006-2013 period

Following the literature on ODA allocation, we investigate the role of three types of factors that might influence the allocation of Chinese health

aid. First we look at the role played by the needs of recipient countries as measured by their GDP per capita, their public health expenditure as a share of GDP, the life expectancy (or child/maternal mortality and malaria prevalence in robustness analysis) and size of their population. We also study how merits of recipient countries, measured by the control of corruption index, influence the volume of Chinese health aid received. Finally, we investigate how Chinese economic and political self-interests influence its health aid allocation to African countries. To measure China's economic interest we use the natural resources rent in African countries and their rate of openness to China. Chinese political interests are measured by the recognition of Taiwan by recipient countries and the voting alignment of African countries with China at the United Nations General Assembly (UNGA).

In a first step we study the number of health ODA projects allocated by China to the different African countries. We decompose the analysis by project type and distinguish between medical team dispatches and projects related to the construction of health infrastructures or the sending of medical equipment and drugs. In a second step we study the amount of health ODA received by African countries from China.<sup>(2)</sup>

#### Results

Our analysis shows that need, merit and selfinterest variables influence Chinese health aid allocation in different ways depending on the type of health projects analyzed over the 2006-2013 period. But several general patterns of the Chinese aid allocation can be drawn from our results.

*Needs.* Globally, China allocated more health aid to poorer countries over the study period. Chinese health aid was also directed

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<sup>2.</sup> We use maximum likelihood Poisson regression models in order to study the factors associated with Chinese health ODA projects and amounts by country-year, and fractional probit regressions to investigate factors associated with the share of Chinese health aid received.

to African countries with higher health needs as measured by the share of GDP that is devoted to public health expenditures, health currently being (and likely being for the coming years), drastically underfinanced (Dieleman et al., 2016). This indicates that Chinese health aid favored countries where the ability to finance health projects on national funds was limited. However, over the study period, Chinese health ODA is not responsive to more direct measures of health needs in African countries such as life expectancy, child and maternal mortality or malaria prevalence.

*Merits.* Our results show that in the allocation of its health aid over the 2006-2013 period China did not disfavor countries where the corruption was higher. This result is robust to the use of two different measures of corruption, the control of corruption index and the corruption perception index. This result is likely to reflect the non-interference principle that Beijing states to apply in its foreign policy relationships In robustness analysis, we used alternative measures of governance (voice and accountability, regulatory quality and rule of law indexes as well as polity score) and find again no association between these governance indicators and the volume of Chinese health ODA received.

Chinese economic interests. We find no strong evidence that Chinese health aid allocation decisions favored African countries with high level of natural resources over the 2006-2013 period. Indeed, we only find a low magnitude correlation between the natural resources rent of African countries and the total number of health aid projects they received. This correlation loses statistical significance when disaggregating the analysis by type of projects or when looking at the amount of health ODA received. Still for economic interests, the volume of trade with China appears to be associated with a favorable allocation of Chinese health aid over the 2006-2013 period. Indeed, we find positive and significant correlations - though of low magnitude - between the openness rate and the total number of projects received and the number of infrastructure/medical equipment or drugs projects. In robustness analysis we also find that Chinese health aid allocation is not significantly associated with the level of FDI recipient countries received from China.

Chinese political interests. The allocation of Chinese health aid appears to be strongly linked to some aspects of its foreign policy. African countries which chose to recognize Taiwan were almost entirely excluded from Chinese health aid programs between 2006 and 2013. Our results show that UNGA voting alignment with China does not influence Chinese health aid received by African countries over the 2006-2013 period except for the amount of health ODA received. We also highlights the complementarity of Chinese health ODA with its ODA in the sector of emergency response and the substitutability with its ODA in the water supply and sanitation sector. But health ODA is poorly correlated with the total of ODA to other sectors, whether the total number of non-health projects (r=0.253, p < .01) or the total amount of non-health ODA (r=0.115, p < .05). We also find that the allocation of Chinese health aid in African countries is related to health aid provided by traditional bilateral donors for infrastructure and medical equipment or drugs projects but not for other forms of health aid such as the sending of medical teams, which makes it difficult to interpret these results in terms of China's aid allocation strategy for health in Africa.

#### Conclusion

Over the 2006-2013 period, our results show that Chinese health aid allocation decisions took into consideration the economic needs of African countries. Regarding health needs, we find that Chinese health aid also favored countries where the ability to finance health projects on national funds was limited. However, Chinese health ODA allocation decisions appear not to be clearly related to direct level of health needs in African countries such as life expectancy, child and maternal mortality or malaria prevalence. In line with the non-interference principle advocated by China we also find that governance of recipient countries did not influence the volume of Chinese health ODA they receive between 2006 and 2013. China is often accused of allocating its ODA to promote its economic development, especially to secure its access to natural resources or favor its exports to emerging markets. Using several measures of natural resources endowment in African countries we find no strong evidence that Chinese health aid allocation decisions favored natural resourcesrich countries. Regarding the link between trade and aid, our results only point to a low magnitude association between the openness rate to China and the volume of Chinese health ODA received while we find no evidence of a link between FDI and health aid. Finally, our results confirm the idea that health aid might be used by China as part of its foreign policy. In particular, adherence to the one-China policy appears as a necessary condition for the receipt of Chinese health ODA.

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