Final Report

Project title: China in Africa: Exploring the Consequences for Economic and Social Development

Project number: K316/2020

Executive Summary

Due to the consequences of the COVID pandemic and a prolonged illness of a postdoc who is funded by the project, we had to postpone the field research stays (particularly in Zambia and in Nigeria), could not engage in scientific exchange at meetings in person and were delayed in holding the planned project workshops and conferences. Thanks to a cost-neutral extension of the project until March 2025, we still achieved the objectives and milestones defined in the application. In some cases, data collection has met with challenges, but most problems could be resolved. Access to social media data from Weibo, for example, became only possible after a Chinese colleague joined the research team.

Our research activities in the project have resulted in the publication of 14 papers (11-12 were promised as deliverables in the project proposal) that have at least reached the second step of a three-step quality assurance procedure (two more papers exist as preliminary drafts, and one will be drafted soon): Paper drafts are first subjected to internal review within the project team, then receive feedback at national and international conferences, workshops, and seminars, and are finally submitted to peer-reviewed journals. So far, **three papers** have been published in refereed international journals. In a paper that appeared in *Economics Bulletin*, Xia and Liu (2024) find that Chinese investments are more diversified – in terms of investing firms, host countries and targeted industries – than usually perceived by the public. Fuchs et al. (2025), published in *World Development*, observe significant shifts in the cross-country distribution of Chinese aid exports after the outbreak of the COVID pandemic, creating both so-called aid darlings (e.g., Ethiopia) and aid orphans (e.g., Côte d'Ivoire) across the African continent. According to Horn et al. (2022), Chinese lenders follow a resolution approach reminiscent of 1980s Western lenders; they seldom provide deep debt relief with face value reduction. The article by Horn et al. (2022) has been published in the *American Economic Review (Papers & Proceedings)* after being presented at the annual meeting of the American Economic Association in early 2022. Another **five papers** are under review at peer-reviewed international journals, while a final set of **six papers** has received internal and external feedback and is close to being submitted to academic journals.

Taken together, the results obtained in the project provide a nuanced picture of Chian's engagement in Africa. For instance, in a case study for Zambia we confirm the prior that Chinese enterprises have a bad reputation as employers, whereas empirical analyses of foreign direct investment in Ghana and Ethiopia do not find any significant differences in technology transfer and transfer of management skills between Chinese and non-Chinese enterprises. By generating empirical evidence on a wide range of economic and social aspects in China-Africa relations, the project contributes to strengthening research on two key regions where Leibniz Institutes are particularly active.

In working on the different research questions, we were able to rely on a very diverse team of researchers. Two of five work packages are led or co-led by female researchers, who have immigrated to Germany in their adulthood (from Hungary and Zambia). Three of the four researchers (partly) financed by the project are female, and two of them have foreign nationality (Taiwanese and Zimbabwean). The African and Chinese cooperation partners further added to the diversity of the project team. Notably, they not only contributed to data collection but in most cases were actively involved in research as co-authors of academic papers. The project has also fostered career development of young researchers. The PhD student supported by the project is expected to complete her dissertation in early 2026, based on two papers produced in the project. Four additional PhD students have joined the project as cooperation partners. Each of them has written one dissertation paper within the framework of the project. The two post-doc researchers involved in the project have taken over responsibilities for developing research ideas and coordinating field work, which will provide them with skills needed to conduct independent research in the future.

1. Achievement of objectives and milestones

In WP1, we planned to write two to three papers on the local development effects of Chinese trade across African districts/individuals and on the response of African economies to shocks. We were able to examine the effects of Chinese trade on public opinion in a micro-level analysis in which we use Gallup World Poll survey data to define attitudes towards China and the EU. The resulting first paper is ready to be submitted to a peer-reviewed journal. The second paper, which analyses how South African firms respond to shocks, and more specifically, to which extent imports from China, the EU, or other countries are used in response to disaster-induced supply-chain disruptions, has gone through the process of internal evaluation but has not yet been released as a working paper. The plan to write a third paper within this WP, which was supposed to take a cross-country perspective, was discarded due to data problems (see below).

In WP2, the goal was to provide data sets from surveys on firm performance in two African countries, and to write two papers on the impact of FDI on local development. Together with our partners in Ethiopia and Ghana, we conducted the surveys in early 2022 (Ghana) and late 2022 (Ethiopia). In addition, we compiled a project-level investment dataset based on the online publicly available information of officially approved investment projects from the Chinese Ministry of Commerce (MOFCOM). One paper based on the first dataset was completed in 2024, another one based on the second dataset was completed in 2022 and published in *Economics Bulletin* in 2024. The MOFCOM dataset will be further used to analyze the effects of Chinese investments on health development in Africa and on Chinese firm performance at home. In addition to the two promised academic papers, two more papers are in the process of being drafted and are expected to be submitted to academic journals in 2026.

In WP3, we committed to provide one paper on the effects of Chinese aid on European aid giving and one paper on the trade-promoting effects of Chinese aid. From these, so far, we have completed a paper that identifies Chinese aid orphans and aid darlings to allow for a better targeting of European aid. This paper was completed in 2022 and published in *World Development* in 2025. As planned, we started to work on an additional paper on the effects of Chinese aid and trade in 2023, which is now under review. In addition to what we promised, we wrote a paper in which we assess whether countries which head the African Union gain favorable access to development finance from China and Western actors. In a fourth paper, now published as a working paper, we ask how Chinese aid affects structural change in recipient countries.

In WP4, we have achieved the stated objective of writing one comprehensive paper on "Chinese debt and debt relief in Africa before and after Covid19" and publishing an accompanying dataset "Chinese restructurings and debt relief in Africa, 2000-2021".

In WP5**,** we planned to collect experimental data in Nigeria and Zambia and to use these data to conduct two case studies. For Nigeria, we finished two rounds of data collection and wrote a first paper draft based on the experimental results. Given that the descriptive analysis revealed intriguing patterns on the attitudes of Nigerians towards Chinese and Western actors, we are currently working on a companion paper. For Zambia, we conducted a trust game experiment with Zambian and Chinese employees in Chinese firms located in Zambia to shed light on the interaction of Chinese firms and local employees. In addition to this planned research, we ran a discrete choice experiment to investigate whether job seekers in Zambia prefer to work for Chinese employers when also presented with the opportunity to work for employers of other nationalities. Both papers are close to being published as working papers. An additional project on Chinese provision of cheap solar solutions for poor Zambian households has just got under way.

In WP6, we committed to write one paper on attitudes towards Chinese immigration across African countries, and one paper based on more detailed country case studies for Senegal and Uganda. Regarding the first topic, there is now a first paper version available which goes beyond the initial plan that we had when proposing the work package in the sense that it not only analyzes patterns of Chinese migration in Africa but also assesses at the level of Chinese provinces where migrants to Africa come from. The second paper has been completed in 2022; a thoroughly revised version is under review at an academic journal.

Overall, except for the third paper in WP1, we were able to realize all paper projects included in the proposal - sometimes with adjustments in the exact research question – and could even take up several additional research ideas.

As for the milestones for dissemination specified in the application, we decided due to the COVID pandemic and the illness of the PostDoc in Göttingen to postpone all events - except for the kick-off workshop that was held online at the start of the project - in such a way that they could all be carried out until March 2025. The internal mid-term workshop at the University of Göttingen took place on September 10 and 11, 2023, The project concluded with the organization of the 'China in the Global Economy Kiel-Göttingen-CEPR Conference' held in Berlin in 2024., where project results. Workshops in Uganda (October 2022), Zambia (February 2025) and Hongkong (March 2025) helped disseminate findings locally.

In financial terms, the delays mainly implied that funds for personal costs, events and data collection had to be shifted over time. Overall, there were no major reallocations across cost categories.

2. Activities and obstacles

In WP1, we realized as an obstacle that the data from customs administrations in African countries that we planned to use in our empirical analysis on the development effects of Chinese trade was much more expensive than previously thought. For the second paper, we identified publicly available data from the South African customs administration as a viable alternative and analyze a monthly panel of import aggregates and market entries across local municipalities from 2013 to 2021. Since the data was only accessible on-site in South Africa, the analysis was slightly delayed. For the third paper, contrary to our expectations, we were unable to obtain the relevant subnational trade data, which resulted in less granular regional data and statistically underpowered instrumental variables. We ended up discarding this specific research project on local development effects of Chinese trade due to a lack of robust evidence.

In WP2, it took somewhat longer than expected to collect the data from the MOFCOM website due to the restricted website access for users from abroad, but this only slightly delayed the project. For Ghana and Ethiopia, we prepared and conducted in-depth firm surveys; despite the COVID pandemic, those involved in the fieldwork did not face major challenges. In Ethiopia, however, it was difficult to get firms respond to the survey, which explains the relatively small number of observations there.

In WP3, there were no major obstacles. Rather, we seized some unforeseen opportunities. Most notably, we tapped previously unexplored data from China's customs administration. This introduces a systematic way to measure China's foreign aid in almost real time through official customs records of exported aid goods, and to reveal the shifts in China's aid after the outbreak of the COVID-19 pandemic. The project also contributed to the development of the Political Leader Affiliation Database (PLAD) in collaboration with research partners in Freiburg, Hamburg, Hannover, Heidelberg and Milan. Both databases are published on the Kiel Institute data hub.

The data collection on Chinese debt restructuring in WP4 was facilitated by the fact that it could build on previous work by the work package leader. As a result, the database and the related working paper were already completed in the first half of 2022, even though data had to be matched from a variety of sources, which were often not easily accessible.

For WP5, we worked on the experimental design and had to postpone data collection several times due to the pandemic and, in the case of Nigeria, the illness of our postdoc. We collected quantitative data in Nigeria in autumn 2024 and spring 2025, along with qualitative interviews that were carried out in January 2025. We have finished a preliminary analysis of the quantitative data and cleaned the qualitative data. We are currently integrating feedback to draft a working paper that we plan to submit to a peer-reviewed journal in spring 2026. For Zambia, the initial plan was to carry out primary data collection in 2022 and to write two papers based on the data in 2023. The collection of data for analyzing social capital in Chinese workplaces was only conducted in 2023, mainly due to delays caused by the pandemic.

In WP6, the fieldwork for the first paper was delayed several months due to COVID-19 but could then take place without major problems under additional hygienic precautions that ensured enumerators and respondents would not risk infecting each other. The second paper was delayed compared to the initial plan of the author team, partly due to high computational demands that resulted from the size of the dataset. These problems could be resolved in collaboration with the IT department at the Kiel Institute. Changes in the regulation of social media in China also affected the types of information that are available for the research paper. This change in regulation was not foreseen at the time of the grant proposal and led to additional work that was required. Another challenge was that the Chinese coauthor was requested by the central government to leave his university post and work as an economic analyst and advisor at the highest level in Beijing.

3. Results and successes

In WP1, one of the papers has been published as a Göttingen discussion paper (Schulte and Kaplan, 2025). Results indicate that respondents shift towards a more favorable assessment of China in democratic countries that import more from China. We are currently working on a draft of a second Working Paper (Dodlova, Jantos, Kis-Katos, Kochanova, n.d.), in which we find that floods generally deter new firms from entering import markets, yet the disruption to domestic supply chains prompts firms to seek alternative suppliers abroad. The results also show stronger import responses from the European Union following supply chain disruptions due to floods than in terms of imports from China.

In WP2, analyzing the MOFCOM dataset of Chinese investment projects, we find a continuously increasing number of Chinese investment projects in Africa over time and that Chinese investments are actually more diversified – in terms of investing firms, host countries and targeted industries – than usually perceived by the public. The paper has been published in *Economics Bulletin* (Xia and Liu, 2024). When looking at the role of Chinese FDI in Africa using survey data, we find little difference between Chinese and non-Chinese foreign firms in technology and managerial skill transfer to host countries (Ackah et al., 2024). Both papers in this work package have been written in co-authorship with our partners in China and Africa, respectively.

In WP3, we released an open-access dataset on Chinese aid exports, which was launched at the PEGNet conference in Uganda 2022 and is available at the Kiel Institute data hub. Using the data, we wrote a paper on Chinese development aid exports in the aftermath of the COVID-19 outbreak, which was published in *World Development* (Fuchs et al., 2025) and released an accompanying policy brief on Chinese aid allocation in Africa. We find that there was a short period after the initial pandemic outbreak in March 2020 where China's aid became less responsive to both recipient needs and political friendship. A German version of the policy brief has been published in Welternährung. Results were covered in national (Die Welt) and international media (Bloomberg). The second paper in this WP examines how foreign assistance and exposure to international markets affect wellbeing of African farmers (Kaplan 2025). We disentangle the role of ethnic and regional affiliation of farmers to explain inequalities. A third paper on Chinese aid and structural change has been published as a discussion paper (Denninger and Kaplan, 2025). The paper's results indicate that Chinese aid promotes catching up for low-income economies but can be detrimental for more advanced economies. The final paper in this WP examines the role of a country's African Union presidency for aid receipts from China and the EU (Fuchs et al., n.d.). We provide further credence to the evidence that China uses aid to provide political favors to allies. In the framework of their research on Chinese aid and trade, Andreas Fuchs and Lennart Kaplan supervised fifteen Bachelor and Master theses.

In WP4, we achieved the project's biggest academic success so far by publishing the paper on hidden debt defaults in the American Economic Review (Papers & Proceedings) after presenting it at the annual meeting of the American Economic Association in early 2022. A key finding of the paper is that Chinese lenders follow a resolution approach reminiscent of 1980s Western lenders; they seldom provide deep debt relief with face value reduction. The paper got several mentions in the press, e.g. in the Economist. The accompanying dataset is publicly available on the Kiel data hub.

In WP5, we completed two papers on Zambia. The first paper shows that recent graduates from mining and engineering schools are more likely to accept jobs offered by Zambian and multinational employers than those offered by Chinese employers (Maokomatanda et al, n.d). According to the second paper, in-group favoritism prevails among Chinese trustors, but providing information on worker performance reduces the trust gap (Khadjavi et al., n.d.). The two papers were presented at a project workshop in Lusaka in February 2025 and discussed in detail with the economic advisor of the president, For the case of Nigeria, we have completed a first analysis of the transmission of dishonesty norms (Kaplan and Rau, n.d.). It turns out that Nigerian traders react more strongly to the information on Chinese dishonesty.

In WP6, we wrote a working paper on attitudes towards immigrants from different countries including China in Uganda and Senegal (Becker et al, 2022), which was substantially revised in response to comments by reviewers (Becker et al, 2025) We find that immigrants from China are perceived less positively and economically more threatening than immigrants in general despite slightly more positive perceptions of their economic and cultural contributions. A second paper that is currently in the internal review process examines migration corridors between China and Africa using digital trace data from Sina Weibo (Heidland et al, n.d.). The results reveal distinct linkages between specific Chinese provinces and African destinations, largely driven by economic opportunities.

4. Equal opportunities, career development and internationalisation

Two of five work packages are led or co-led by female researchers, who have immigrated to Germany in their adulthood (from Hungary and Zambia). Two of the three researchers financed by the project over the whole duration are female, and both have foreign nationality (Taiwanese and Zimbabwean). The African and Chinese partners further add to the diversity of the project team. The PhD student supported throughout the project is expected to complete her dissertation in 2025, based on two papers produced in the project. Her dissertation is supervised by two of the work package leaders. Four additional PhD students (two from Göttingen, two from Kiel) have joined the project. Each of them completed one dissertation paper within the framework of the project. The two post-doc researchers involved in the project have taken over responsibilities for developing research ideas and coordinating field work, which will provide them with skills needed to conduct independent research in the future.

5. Structures and collaboration

Collaborations with several external partners have worked as planned. Heiwai Tang (University of Hongkong) was involved in the research of WP1. The firm surveys in Ghana and Ethiopia in WP2 have relied on cooperation with Charles Ackah (University of Ghana) and Alemayehu Gada (University of Addis Ababa), who are also co-authors of the academic paper. The analysis of Chinese loans in WP4 has benefited from cooperation with Carmen Reinhart (Harvard University) and Sebastian Horn (The World Bank).

In WP 5, Muhammed Kabir Salihu and Bernard Tembo left the team due to changes in occupation. Allen Xiao (National University of Singapore) replaced Mr, Salihu, supporting the research with his expertise on the Chinese diaspora in Nigeria. Bernard Tembo was replaced by Hangwei Li (IDOS), who has several years of experience in conducting research on Zambia and exhibits strong ties to the Chinese investment community in Zambia. Yiran Wu and Menusch Khadjavi (both University of Amsterdam) also became part of the team. While Yiran Wu is fluent in Mandarin, which enabled us to conduct the experiment in the languages spoken by the study participants, Menusch Khadjavi is highly proficient in the design of economic experiments.

Since information about Chinese behaviour was hard to obtain, we started new collaborations with three further Chinese researchers. Without support from Song Yaun (Zejiang University), we would not have been able to access Weibo data on Chinese migrants in Africa, on which one paper in WP6 is based. Feicheng Wang (University of Groningen), for our work on Chinese aid in WP3, and Ximing Xia (Tsinghua University), for our work with MOFCOM data on FDI in WP2, also joined the project team.

6. Quality assurance

For the collected data and the accompanying papers and policy briefs, we follow an open-access approach. These deliverables are made publicly available. All academic papers produced in the project go through a three-step quality assurance mechanism: they are subjected to internal review within the project team, receive feedback at conferences and workshops, and are finally submitted to peer-reviewed journals.

7. Additional resources

The in-kind contribution of the two applying institutions (Kiel Institute for the World Economy; University of Göttingen) includes *personal costs* for the work package leaders, for the coordination of the project, and for the PhD students from Göttingen and Kiel who contributed to papers. Specifically, we allocate 2 months to each Work Package leader (WP1: 2xW3; WP2: 2xW3; WP3: 1xW3 + 1xEG15; WP4: 2xW3; WP5: 2xEG14; WP6: 2xW3), two months for coordination in each institution (2xW3; 2xEG15), and two months for each of the four PhD students involved in academic papers (16x0.75xEG13). Taking rough estimates for the respective pay scales, we end up with a total amount of around € 200000. *Consumables* such as printing costs are financed from project overheads. We therefore do not include in-kind contributions for them.

8. Outlook

As indicated above, several papers have gone through the first two steps of the evaluation procedure but are not yet at the stage of being already published or at least submitted to academic journals. Two papers in WP2 are still being drafted, while work on two others in WP5 has only started recently. In addition, the datasets produced within the framework of the project are available for future research. One new project based on the Chinese aid exports database is already under way.