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Goodfellow, T. orcid.org/0000-0001-9598-5292 and Huang, Z. (2020) Contingent infrastructure and the dilution of 'Chineseness': Reframing roads and rail in Kampala and Addis Ababa. *Environment and Planning A*. ISSN 0308-518X

<https://doi.org/10.1177/0308518X20967962>

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Contingent infrastructure and the dilution of ‘Chineseness’: Reframing roads and rail in Kampala and Addis Ababa

EPA: Economy and Space
0(0) 1–20

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Abstract

Amid growing interest in China's role in financing and building infrastructure in Africa, there is still little research on how Chinese-financed infrastructures are negotiated and realised at the city and metropolitan scale. We compare the Light Rail Transit in Addis Ababa, Ethiopia with the expressway linking Kampala to Entebbe airport in Uganda, examining the processes of bargaining behind these transport infrastructures and their emergent effects on urban land use and city-dwellers' mobility. We find that both projects were designed and implemented through opaque negotiations between African national elites and Chinese agencies, with little or no engagement from city authorities, leading to haphazard outcomes that are poorly integrated with broader planning. Yet we also suggest that despite being enabled and mediated by Chinese agencies, such projects do not embody a Chinese global vision. They instead reflect the entrepreneurial activities of Chinese contractors and the varying ways in which these connect with African national governments' shifting priorities. Moreover, as they are subsumed into the urban context, these transposed infrastructures have been rapidly repurposed and their 'Chineseness' diluted, with one morphing into an infrastructure for the poor and the other into a site of private value extraction. We thus argue that, far from representing a domineering or neo-colonial influence, Chinese-financed infrastructures that land in institutionally complex African city-regions can be rapidly swallowed up into the political-economic landscape, producing contingent benefits and disbenefits that are far removed from the visions of any planners – Chinese or African, past or present.

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Keywords

Infrastructure, urban transportation, China-Africa relations, Uganda, Ethiopia

Introduction

In her book on the Chinese-built TAZARA railway linking Dar es Salaam to Lusaka, Jamie Monson quotes a Tanzanian economist who noted that at the time, under President Nyerere, the state and the railway became so intertwined that ‘you couldn’t tell which was in charge anymore’ (Monson, 2009: 2). On the one hand, this speaks to the sense of a powerful Chinese influence over African states; but on the other, it alludes to the force of transport infrastructure itself and how it can generate its own, often unpredictable, dynamics. These considerations loom large today as Chinese-financed and Chinese-built infrastructure continues to proliferate across Africa. Opinions remain polarized on how much this infrastructure benefits African countries (Alves, 2013; Campanella, 2008; Mohan and Tan-Mullins, 2019), and the media’s ‘debt trap’ narrative (Chellaney, 2018; Olingo, 2018)¹ coexists with more positive assessments of China helping to fill Africa’s ‘infrastructure gap’ (Barton, 2016). Amid all this interest, a concern with China’s geopolitical motivations prevails over attention to how infrastructure projects hit the ground – and indeed the question of who or what is actually ‘in charge’ as they unfold.

Most current interest in Chinese-financed infrastructure overseas focuses on multi-billion Belt and Road Initiative (BRI) projects that transcend national borders. In this article, we instead consider projects at the scale of the city and metropolitan area, which remain neglected in the China-Africa debate despite being crucial in African contexts experiencing rapid urban growth and high infrastructural demand with limited financial resources (Parnell and Pieterse, 2014). The metropolitan scale is also of interest given the dense constellations of overlapping institutions and agencies that characterise large cities, and because of the relative tangibility and immediacy of impacts of infrastructure at this scale compared to national or trans-national projects (Amin and Thrift, 2017; Cirolia, 2020; Rode et al., 2020).

This article therefore explores the negotiation, planning and implementation of major Chinese-financed metropolitan infrastructure projects, and how these processes relate to their usage and material consequences. While recognizing that such projects can be distinctly Chinese in their conception - both in terms of financing and the pivotal role of Chinese State-Owned Enterprises (SOEs) - we argue that viewing them through the prism of China’s geopolitical motivations is insufficient if we are to understand the present realities and future potential of these infrastructures. Similarly, while the focus on ‘African agency’ has led to a rebalancing, stimulating ongoing debates about whose agency counts in negotiations over Chinese finance and investment (Corkin, 2016; Mohan and Lampert, 2013), this can obscure the significance of contingent circumstances and structural conditions (Carmody and Kragelund, 2016; Lim, 2010). We therefore focus instead on the interactive processes through which projects involving Chinese finance and expertise are mediated, repurposed and reimagined in the context of African urban realities. This speaks to the concerns of Dittgen and Chungu (2019: 4), who note that growing interest in the ‘Chineseness’ of African urban spaces often frames these as ‘operating in parallel to host society’, which fails ‘to fully take into account spatial adaptations and gradual social changes’ as they become part of a dynamic urban whole.

To unpack these dynamics, we draw on a comparison of the Light Rail Transit (LRT) in Addis Ababa and the expressway linking Kampala to Entebbe, a secondary city and site of Uganda's main airport. The purpose of this comparison, which is exploratory and inductive along the lines of the generative 'composing' comparisons proposed by Robinson (2016), is twofold. First, it enables us to juxtapose two different kinds of metropolitan transport infrastructure. While Monson contrasts the TAZARA railway (with its socialist overtones of centralized state control) with a highway constructed simultaneously by the USA (representing capitalism, enterprise and freedom), we here compare an urban light rail designed for intra-city commuting and inclusion with a toll road that prioritises connectivity between urban nodes. Thus, while similar in both in financing and scale (both are in the range of 34–37 km long and cost around \$475m), they reflect very different underlying priorities. Second, the comparison comprises two extremes in terms of urban land tenure - a crucial concern for realizing any transport infrastructure project. Urban land in Ethiopia is publicly owned, though since 1993 has been leased out commercially through a model significantly influenced by the Chinese experience. In Uganda, by contrast, private land ownership dominates the metropolitan area, rooted in colonial legacies, postcolonial politics and Western donor influence (Nkurunziza, 2006).

This comparative design therefore maximises variance in two significant aspects of urban transport infrastructure development, broadening the scope of our analysis. Through an exploration of the negotiation and implementation of these projects, we argue that African governments' infrastructure agendas were enabled and mediated through Chinese agencies, with profit-seeking Chinese contractors playing crucial roles in realising them. However, we also suggest that the 'Chineseness' of these infrastructures has been rapidly diluted by shifting political priorities and the reframing of infrastructures on the ground. These dynamics render infrastructural outcomes contingent, haphazard and temporally unpredictable. In both cases, what emerged neither closely resembles the African governments' initial visions, nor the Chinese experiences on which the infrastructural design was based, but something else conjured out of the interaction between these and local socioeconomic realities in contexts of weak metropolitan planning.

Our analysis is based on field research conducted from 2017-18 in Uganda, Ethiopia and China. We explore the conception and realization of these projects from multiple angles: Chinese agencies, African national and city governments, local residents, and infrastructure users. In addition to over 50 key informant interviews, the research involved 110 detailed questionnaires with people using or affected by these infrastructure projects, as well as around ten in-depth interviews with local property developers and land brokers. In Addis Ababa we conducted questionnaires with residents and workers located around the furthest LRT station in the city's Eastern periphery, to explore the inclusionary capacities of the light rail line. In Kampala, questionnaires focused on taxi drivers based at Entebbe airport whose livelihoods involved movement between Kampala and Entebbe, and residents of a strategically selected neighbourhood along the path of the expressway.

The paper proceeds as follows. First, we consider China's overseas infrastructure development in relation to broader conceptualizations of infrastructure in recent literature. We then turn to the Chinese 'model' of infrastructure development and how this plays out in Africa, with particular attention to the role of SOEs as contractors and their (often misunderstood) relationship to Chinese policy banks. Following this, for each project we explore the drivers, financing and governance structures involved, as well as challenges of implementation and failures of integration with broader planning. We then analyse the unanticipated ways in which these infrastructures are being used and how they are valued by users, as well as the effects of fragmented planning on questions of land speculation, land

accessibility and value capture. The final section concludes, drawing conclusions for the conceptualisation of Chinese-financed urban infrastructure and the contingency of metropolitan mega-infrastructure projects more broadly.

China and the ‘infrastructure turn’

Debates on Chinese infrastructure financing in Africa have intensified in recent years, focusing predominantly on issues such as the geographical distribution of Chinese loans, China’s geopolitical manoeuvring, and increasing African indebtedness (Alves, 2013; Chellaney, 2018; Foster et al., 2009; Kaplinsky and Morris, 2009; Yu, 2017). China’s expenditure overseas, which can increasingly be seen as part of a broader shift of international capital towards African infrastructure (Goodfellow, 2020), has also been linked to efforts both to internationalise the Renminbi (Lim, 2010; Lin and Wang, 2017).

A popular proverb originating in the planned-economy era states that ‘to become rich, build a road first’² – a principle that helped orchestrate China’s booming and increasingly urban-based economy. This rhetoric now guides China’s vision of its role in global development, evidenced by the scale of loans for transport infrastructure in Africa, which have exceeded those to any other sector (including energy and mining), amounting to over \$38bn from 2000-2015.³ A major motivation for prioritising overseas infrastructure financing is the need to export its overcapacity in order to reverse its own post-infrastructure boom economic slow-down (Ehizuelen and Abdi, 2018; Lee, 2018; Shambaugh, 2013; Zhang and Smith, 2017). Thus while Chinese infrastructure finance overseas can be read as both an economic and geopolitical strategy, the factors driving Chinese agencies to seek out projects on which to partner are mainly economic.

Although infrastructure that traverses large (and mostly rural) territories and transcends international borders is garnering most attention in the context of the BRI, China also finances transport infrastructure within African cities and metropolitan regions. However, when considering how it draws on its own experience to support urban infrastructure overseas, it is important to understand the unique institutional context for urban infrastructure within China. First, urban land is government-owned, so functions as a financial asset that the state can use as collateral to drive the economy. Second and related, China created local government financing platforms which act as public developers that leverage financial resources from the central banks, using land as collateral, and then bring in private actors to further develop the land and spur economic growth. Local governments therefore have substantial power in leading their own growth and infrastructure agendas, while enjoying financial support from the central banks – all of which is dependent on their privileged access to land (Pan et al., 2017; Theurillat, 2017).

The early experiences of most Chinese SOEs generally involved decades of working within Chinese the market before ‘going out’ overseas, which means that the above aspects of the Chinese urban infrastructure experience are often taken for granted. Yet some of the most important elements of this model - for example the robust finance mechanism based on land as collateral, the local planning capacity, and the decentralization of development governance - are largely missing in many African contexts. Consequently, Chinese-financed infrastructure projects are likely to play out very differently.

Despite this, the dynamics of Chinese-supported urban infrastructure overseas remain under-researched. Critical scholarship on infrastructure has flourished in recent years, drawing especially from the disciplines of anthropology and socio-technical studies; yet this remains largely separate from debates on China-Africa infrastructure engagement, with the latter being more concerned with questions of motivation and agency than the

infrastructures themselves. There are however good reasons to bring these literatures together, especially in terms of how critical approaches to infrastructure enable us to ‘defamiliarize and rethink the political’ (Appel et al., 2018: 4). This literature highlights the political rationalities underlying different forms of infrastructure provision (Easterling, 2014; Larkin, 2013), as well as the extent to which public infrastructure is inherently distributional in nature and a generator of differentiated inclusion (Chu, 2014; Harvey, 2018).

Regarding transport infrastructure specifically, critical infrastructure studies highlight how road and rail are not just technical objects but ‘operate on the level of fantasy and desire’ (Larkin, 2013: 333), as well as constituting ‘complex sites of political intent’ (Harvey, 2018: 90). Roads and rail can be seen as making three ‘promises’: of speed, political integration and economic connectivity (Harvey and Knox, 2012). However, their political effects can be complex and contradictory, and cannot ‘be simply read off their surfaces’ (Larkin, 2013: 334). Indeed, infrastructure can be repurposed and subverted for uses far removed from the goals of designers (Harvey and Knox, 2012; Mrázek, 2002); the ‘singularity of any infrastructural project is always undone by its unruly and expansive promise’, and the many hands it passes through (Harvey, 2018: 99). As infrastructure unfolds over uncertain timeframes, new interests and designs emerge. There is thus a ‘subversive grain’ within infrastructures (Amin and Thrift, 2017: 123) that may be activated when people find new value in the infrastructure and turn it to their own ends.

Although these debates transcend the urban, they have particular significance in urban areas because cities are themselves ‘entanglements of infrastructures’ (Amin and Thrift, 2017). Since Graham and Marvin’s (2001) pioneering *Splintering Urbanism*, interest in the urban ramifications of different forms of infrastructure provision has intensified (McFarlane and Rutherford, 2008), and there has been growing interest in how ‘global infrastructures’ embed and disembed urban territory in relation to global and local processes (Kanai and Schindler, 2019; Wiig and Silver, 2019). Despite this, how Chinese agencies’ distinct roles in infrastructure financing and construction intersect with urban infrastructure planning, coordination and use in African cities remains little understood. It is to these distinct roles that we now turn.

Vision and opportunism: China and African urban infrastructure

The two arms of Chinese infrastructure: Finance and construction

Misconceptions about China’s financial and development cooperation in Africa are widespread, often rooted in confusion between investment, financing and contracting (Lee, 2018; Pairault, 2018) as well as what does or does not count as Overseas Development Assistance (ODA), or aid. Chinese Foreign Direct Investment (FDI) in Africa is much less significant than often supposed and has been declining since 2011. Africa hosts just 1.2% of total Chinese FDI (Pairault, 2018) – the same as Germany alone – and when it comes to infrastructure China barely invests at all. It does however finance a large amount of African infrastructure through loans. Both of the two main policy banks – CDB and Exim Bank – engage extensively in African infrastructure financing (Sanderson and Forsythe, 2012; Yi-Chong, 2014), but Exim is the key player when it comes to finance with a concessional element, which is closer to OECD definitions of ODA. Even in the case of Exim, problems of translation combined with limited transparency in how China reports its finance internationally can make it difficult to identify ODA in practice. In general however, Exim does provide substantial amounts of aid in the form of concessional loans with fixed interest rates of 2–3% and 15–20 year maturities (along with variable grace periods), as well as preferential

export buyers' credits distributed in USD for the purchase of Chinese goods and services at low interest rates (Jin et al., 2018).

Many infrastructure loans are 'mixed', with a balance of concessional and commercial components determined on a case-by-case basis. Interest rates, grace periods and payback terms differ by project and are subject to adjustment; these details are also usually confidential. The fact that policy banks such as Exim bank operate with 'mutual benefit' principles does not, therefore, mean that all of its loans are concessional or count as ODA. Indeed, most of its activities involve non-concessional loans and buyer's credits (Brautigam, 2009, 2011). In addition, Exim always requires African governments to pay a minimum of 15% as a "project down-payment".

Notwithstanding the huge importance of finance from the policy banks, the amount of construction undertaken by Chinese contractors in Africa far outstrips the amount that is Chinese-financed, with Chinese contractors representing around half the market share of all construction activity in Africa (Huang and Chen, 2016). Chinese contractors thus engage in many projects financed by non-Chinese agencies. In such projects they usually play little or no role in the planning phase, with their role being limited to technical issues. However, in cases where the project is financed by China, contractors play a very significant role in planning and decision-making. This marks a significant difference from most projects financed by OECD donors. While OECD donors usually have a significant, if not decisive impact on how projects are designed, built and managed, in the case of Exim-financed projects, the role of the bank itself in project planning is usually very limited. Even in carrying out analysis and compiling feasibility studies, Exim relies heavily on information provided by the main drivers of the projects – the contractors themselves.⁴

This article focuses on Chinese-financed infrastructure projects, which are necessarily built by Chinese contractors: in contrast to contemporary international norms of competitive bidding, Chinese policy loans are tied to procurement requirements that confine the bidding to Chinese companies. These comprise both State-Owned Enterprises (SOEs) and private companies. The role of Chinese contractors in shaping Chinese development assistance has generally been under-emphasised, when in fact they are so influential in the process that 'The tail of China's aid system often wags the dog' (Zhang and Smith, 2017: 2341). To understand the dynamics of Chinese-built urban infrastructure in Africa it is therefore important to examine it at the level of specific projects and the firms implementing them, since these exert substantial influence over the project from the earliest stages of conception.

*Contractors and the search for opportunity*⁵

Most Exim-funded infrastructure projects are driven by one major contractor, and project initiation is not necessarily a consequence of bilateral negotiations between the bank and the country government, as is normal for OECD aid. Instead, Chinese SOEs often initiate the project themselves, and then seek financial support from Exim. Even where broad financial pledges have been made by Beijing in meetings with African Heads of State, detailed discussions are usually taken forward by SOEs (Soule, 2019). Being familiar with both Exim and host country politics gives them distinct advantages, as they can persuade host governments of the need for certain projects while also working to secure financing from Beijing. Thus infrastructure projects often emerge from contractors approaching politicians with project ideas that they can then 'own' by securing the finance to make them happen (Zhang and Smith, 2017: 2340). These practices are deeply rooted in the policy banks' role in supporting SOEs abroad as part of the Chinese government's 'going out' policy (Gu et al., 2016; Lim, 2010; Shambaugh, 2013).

The tying of Exim loans to the use of Chinese firms can conflict with local laws. For example, the Uganda Public Procurement and Disposal Act stipulates that projects such as the Kampala-Entebbe Expressway should go through competitive bidding, but as with other projects supported by Exim, the contract for the Expressway was tied to a particular Chinese company (Gil, 2015). This, as we show below, was a consequence of that particular firm taking the initiative and the way in which SOEs are incentivized to hunt for context-specific opportunities. Tying loans can impede the tailoring of infrastructure to local needs; some analysts even claim that SOEs use their knowledge of the Chinese financing system, combined with informal alliances within the host country government, to ‘shape’ local infrastructure demand ‘into projects that are larger than the country needs’ (Zhang and Smith, 2017: 2339). However, the link between loans and SOEs also means that the more experienced Chinese contractors can engage in longer-term development planning.

Whether Chinese firms tailor impacts towards local needs also varies significantly because Chinese contractors are much more heterogeneous than often assumed (Gu et al., 2016). International observers often envisage a very small set of near-identical big players, compounded by confusion over similar acronyms for Chinese SOEs when translated into English. This masks a wide variety of characteristics among these companies. Most Chinese firms overseas are private companies, though the major contractors are SOEs with much bigger investment and loss-absorbing capacities (Yi-Chong, 2014). SOEs operate primarily with Chinese state capital, which combines imperatives for corporate profit-making with logics of longer-term sovereign accumulation and geopolitical bargaining: features that make it more concessionary and open to political negotiation than private capital (Lee, 2018). SOEs can thus be thought of as vehicles of China’s ‘patient capital’: a willingness to ‘sink’ money for a decade or more by investing capital in a relationship that may yield returns in the long term (Lin and Wang, 2017: 162). SOEs are particularly significant in Africa because they are less risk-averse than private firms and amenable to operating in smaller markets (Amighini et al., 2013). Yet SOEs themselves vary significantly, with some retaining much more centralized decision-making in Beijing than others. All SOEs are owned or partially-owned by SASAC (State-owned Assets Supervision and Administration Commission), but the idea that they are simply agents of the Chinese government is misleading (Yi-Chong, 2014). Rather than delivering top-down managerial orders from the government, SASAC encourages intra-sectoral competition and speculation among SOEs (*ibid*).

A closer look at the two central SOEs in our research illustrates some of the ways in which these firms differ. CCCC (China Communication Construction Corporation), builder of the Kampala-Entebbe Expressway, is one of the leading contractors in China’s overseas construction market. In its first eight years (2010-2018) it successfully contracted and delivered the first and second toll expressways in East Africa, and is quickly expanding its market in the region. Its success is built on decades of experiences in Africa; though young, its predecessors and now subsidiaries, China Road and Bridge Corporation (CRBC) and China Harbor Engineering Corporation (CHEC), have both been practicing in Africa for decades. In contrast, CREC (China Railway Engineering Corporation) – the firm behind the LRT in Addis Ababa – has a much shorter experience of ‘Going Global’. Although dating back to the 1950s, its international subsidiary was only founded in 2013. Lacking experience in overseas markets, the African subsidiary of CREC does not receive extensive support from its mother company or have the level of decision-making autonomy enjoyed by CCCC. A local manager lamented having to frequently send requests to Chengdu or Beijing for actions to be taken, sometimes waiting weeks for decisions. This in turn can create delays that sour relations with authorities in Ethiopia. The differences between these

two firms illustrate how some SOEs are much more able to act opportunistically and influentially in Africa than others.

In this sense, while we concur with Lee (2018) that Chinese state capital is a distinct variety of capital with particular capacities to accommodate negotiation and political bargaining, we differ in emphasising that institutional arrangements and differences between firms also matter. Moreover, when these differences come into contact with the variable processes of ‘negotiated planning’ that already commonly exist in African cities (Cirolia and Berrisford, 2017), the outcomes of Chinese state capital are highly uncertain. In what follows, we trace how these different SOE capacities, alongside other factors, affect the power dynamics between firms and host governments, and how major urban transport infrastructure projects are shaped by contingencies of context.

An infrastructural misfit? Ethiopia’s light railway

It is hard to overstate China’s importance for Ethiopia’s infrastructure development. From 2011–2017, the annual revenues of Chinese contractors in Ethiopia came second only to those in Angola in sub-Saharan Africa.⁶ Moreover, in recent years Ethiopia has been the recipient of the largest amount of Chinese concessional lending on the continent (and second to Angola in terms of overall lending)⁷ The largest component of its Chinese loans is for transport infrastructure: \$4.4bn out of \$13.7bn total loans from 2000–2013, or 33%.⁸ Most was for the Addis-Djibouti Railway, with the next most significant project being the Addis LRT. The total cost of the latter was \$475m, 85% of which was financed by Exim. According to MOFCOM (Chinese Ministry of Commerce) documents and our own interviews, the EXIM loan for the LRT was of the ‘mixed loan’ type, though the exact breakdown of the concessional relative to commercial element was, as with many such loans, confidential and reportedly adjustable over time.

The LRT comprises north-south and east-west axes, with a total length of 34km. Construction ended in 2016 and daily passenger numbers are estimated at 120,000–150,000.⁹ Fares are set at 2–6 Ethiopian Birr depending on distance,¹⁰ making it even cheaper than minibus-taxis and thus offering affordable transport to lower-income groups. Significantly, this is much lower than the 40 Birr recommended by CREC,¹¹ indicating the extremely high level of subsidy required for this level of affordability and reflecting the fact that it was originally conceived for the middle classes rather than the poor. The LRT is also depicted as an embodiment of modernity and the Ethiopian ‘renaissance’, being proudly presented as the first light rail system in sub-Saharan Africa and a model for the continent (Nallet, 2018). However, a closer look reveals the lack of integrated design between the LRT and other transportation modes, as well as rails that violently cut through historical areas of the city, often bisecting previously porous streets, with long distances between crossing points. The decision to prioritise speed of implementation over incorporating city-level expertise and collaborative planning led to numerous shortcomings in terms of the infrastructural interfaces between the LRT and broader city systems (Rode et al., 2020).

As one of the most internationally visible Chinese projects in Africa, the LRT is widely seen as a ‘Chinese’ project. This is understandable because it is largely financed by Exim, constructed by CREC, and operated through a Chinese joint venture between CREC and Shenzhen Metro. Consequently, many of its deficiencies are attributed to imposed planning and design from China, and the LRT is often invoked in the China-Africa ‘debt trap’ debate.¹² Interviews with local officials and the Chinese contractors, however, indicate a more nuanced planning narrative involving a range of other international actors and

relatively strong bargaining power from the Ethiopian side. The poorly-integrated nature of the LRT plan has less to do with China than with the project's complex evolution and the lack of co-ordination among government institutions in Ethiopia.

An unusual feature of the LRT is that it originated from planned Bus Rapid Transit (BRT) system, based on feasibility studies supported by French aid in the mid-2000s. By 2006, the agenda for BRT was well-established, with 7 BRT lines planned (Boudet et al., 2015; Nallet, 2018). The decision to switch to LRT from BRT the following year was not driven by China, coming instead directly from Federal government – although some stakeholders believed that LRT was suggested to the government by a (non-Chinese) foreign firm. The decision to opt for LRT also reflected the Ethiopian government's confidence in the new Ethiopian Railway Corporation (ERC), an operational arm of Ministry of Transport originating in a World Bank-supported institutional reform project (Boudet et al., 2015). ERC was established in 2007 mainly to plan and facilitate the Addis-Djibouti railway, though its remit was expanded to include the LRT.

Dislocated infrastructure provision

With the commitment to LRT finalized, expressions of interest were invited in accordance with the 'Design and Build' model, whereby a firm is contracted to oversee design and construction together. Many international contractors submitted bids, and an Italian firm was favoured in preliminary selection. However, the firms' proposals were expensive and the source of finance uncertain. CREC then came forward with an offer at what they claim was half the cost of the Italian bidders. This was bolstered by the promise of financing through Exim, which was especially convincing given that CREC had already secured Exim finance to build the Addis-Djibouti railway. Some route designs had already been made before CREC became involved, but between the signing of the agreement between CREC and ERC in 2009/10 and the signing of the financial contract with Exim two years later, CREC's design affiliation proposed an alternative LRT route. This involved potentially better integration with the city's zoning plan and expansion process, based on considerable experience of LRT planning in cities of different sizes and growth dynamics. However, the proposal was rejected by the Ethiopian government because the cost was much higher and the implementation would take longer. The fact that the construction of the LRT went ahead on a route that had been planned for BRT arguably made it a misfit from the very start.

During construction, excess cost was nevertheless incurred. According to CREC, this was mainly due to requests from ERC to change three aspects of the design. The first was the elevation of parts of the railway to allow more space for ground-level transportation. Second was the addition of a system designed for emergency braking to limit over-speeding, an issue raised by a Swedish consultancy firm brought in for monitoring and evaluation. CREC strongly opposed this, claiming it was unnecessary under international standards and very expensive, but under pressure from ERC they installed the system. Third was additional electricity cable channels, which were not included in the original agreement but ERC requested as the planned inauguration was approaching. In all, Chinese SOE representatives estimate the excess cost at US \$60-70 million, though ERC does not accept this estimate, and negotiation was still ongoing as of the time of writing.

Project conception, procurement and construction was thus fraught with a difficulties and conflicts, and the narrative is far from being one of domineering Chinese influence. Actors from France, Sweden and Italy also played key roles along the way, but above all the Ethiopian Federal government exerted substantial influence, and CREC was not able to

resist many demands made on in order to impose its own particular visions. Its relative weakness partly reflects a lack of experience in Africa, which enabled different international players to hold significant sway over its agenda. The project is thus far from successful from the perspective of Exim, or China more generally; not only was the contractor overruled on project design and compelled to go substantially over budget, drawing on more resources from Exim, but given the highly subsidized tariffs there is no clear plan for loan payback. Interviews with both ERC and Chinese managers indicate strong concerns on this issue.

Despite this, the process does not resemble the ‘debt trap’ caricature through which a highly unbalanced power relationship between donor and recipient has engineered a situation of indebtedness from the top down. Nor can the ‘Chineseness’ of the project be held primarily responsible for how little the LRT was integrated into the city’s broader transport networks and planning processes. Rather, dominant problems have been rooted in institutional gaps between the national and local planning authority, and the fragmented way in which the project evolved. ERC, which was only established in 2007 and which was given a remit to facilitate *national and international* rail development, took full charge of planning for this city-level infrastructure project in 2010 with very little experience. Meanwhile, the city government was undergoing substantial institutional change throughout the project. Opinions vary on how much the Addis Ababa transportation authority was involved in planning and decision-making,¹³ but the lack of meaningful engagement with the Addis Ababa City Planning Office (AACPO) is clear (Rode et al., 2020). Amazingly given the LRT’s national and international visibility, the masterplan endorsed by AACPO does not incorporate it as an important element of the city’s transportation system, even three years after its inauguration. ERC clearly has a conflicting vision with AACPO on urban transport, with the former advocating an extension of the LRT network (Nallet, 2018), while AACPO largely opposes this.

In fact, the city authority has disowned the project, to the extent that the Deputy Mayor announced in November 2018 that the city had learned that LRT ‘wasn’t the right option’, being built on a capacity for power generation the city does not possess. He argued that buses are more suitable and ‘more Ethiopian’, and the city intends to ‘freeze’ any extension of the LRT.¹⁴ This, however, does not necessarily mean that the project is judged a failure by city-dwellers; as we show below, it has taken on a life of its own beyond the initial visions of the Ethiopian government, let alone any Chinese geopolitical ambitions that may have supported Exim’s decision to finance it. First, however, we explore a very different experience of Chinese overseas metropolitan infrastructure financing.

Uganda’s expressway gamble: public debt, private lands

Uganda does not have the same level of financial assistance from China as Ethiopia, with a total of \$2.9bn in Chinese loans from 2000-2013, of which \$0.8bn (28%) was in the transport sector.¹⁵ Chinese contractors have however played a huge role in infrastructure development, and over 90% of road contracts in recent times have been awarded to Chinese firms. Uganda experienced a major infrastructure push when the government reoriented from a poverty-reduction agenda to an economic growth agenda, following the 2004 revision of the Poverty Reduction Action Plan. This led to the creation of the Uganda National Roads Authority (UNRA) in 2006, with the remit of managing over 21,000 of national roads. In principle, UNRA was financed 60% through government grants and 40% through donor finance, though the latter shrank substantially after a major corruption scandal in 2012 (Gil, 2015).

The idea for an expressway connecting the capital Kampala to Entebbe, Uganda's former capital and site of its international airport, had existed since the early 2000s when the pre-existing 10m wide road was becoming heavily congested, to the extent that it could take three hours to travel under 50km. With UNRA inaugurated, the idea gathered momentum. China First Highway Engineering Company (CFHEC), a subsidiary of CRBC soon to be merged into CCCC, heard about the proposed highway in 2009 and approached the Ugandan government. They invited technical experts to update an earlier feasibility study undertaken by the British firm Scott Wilson, and asked Exim to consider a preferential loan offer, successfully engineering an agreement between Exim and the Ugandan Ministry of Finance. The road was costed at US \$476m, with \$350m provided by Exim in the form of a mixed loan comprising a commercial element and a preferential export buyer's credit (at 2% interest),¹⁶ which was approved by the Ugandan parliament in May 2011. The Ugandan government provided the remainder.¹⁷

The process of project development and financing was much less complicated than the Addis LRT, and in some ways more typical of Chinese-financed African infrastructure: a need was loosely identified by the government, and then brought to life by a specific SOE that sourced finance and technical support. Another Chinese firm, Beijing Expressway Supervision, was brought in to supervise design and construction, while local subsidiary of UK-based Mott MacDonald conducted independent review and further supervision. Negotiation around planning and routing mostly took place between UNRA and CCCC; influence from third parties was extremely limited. The Ministry of Lands, Kampala Capital City Authority and the government of Wakiso District (through which most of the expressway passes) were barely involved. UNRA officials themselves admit that despite various firms involved in project management, there was no plan regarding the impact of the road on surrounding areas.

Allegations of corruption between UNRA and CCCC were rife, particularly concerning environmental and social safeguards and inflated cost. Indeed, despite a relatively smooth process of initiation and contracting, one thing that spiralled out of any agency's control was cost. A Ugandan Auditor General's report claimed that the unit cost for the Kampala-Entebbe Expressway was almost double that of other CCCC-constructed roads in Uganda, even after accounting for specific characteristics, and much more expensive than the regional average.¹⁸ However, unlike in the LRT case, CCCC managers claim they did not have to draw on further funds from Exim; instead, increased costs were incurred by UNRA. Excessive costs were blamed on the lack of competitive bidding, duplication of consultancy services, and land acquisition. The debate over the cost led to considerable public anger, with claims that it was 'the world's most expensive road' per kilometre hitting the headlines in 2016.¹⁹ The cost is also unlikely to be over: as we show below, the need for more access points to increase usage and mitigate negative consequences is likely to become increasingly clear.

Land acquisition generated not only extensive cost, but major delays. Protracted disputes were rooted in provisions in Uganda's 1998 Land Act specifying that compulsory acquisition can only happen once fair and adequate compensation (for both lost assets and future profits) has been agreed and paid, which generated lengthy disputes. One notable example was that of a landowner involved in stone quarrying, whose business generated substantial profits from sales across East Africa. The inability to agree on compensation eventually resulted in the route being significantly altered. Even as early as 2013, sources claimed that one third of the proposed route had been diverted for reasons relating to land acquisition (Gil, 2015). This caused frustration among the Chinese agency representatives, who explained that the lack of planning for the local effects of the road had been difficult for

them to comprehend: ‘in China we plan for everything. . . it is hard for Chinese to understand why the Ugandan government failed to even make a 5-year plan’.²⁰ They also note that China does not, on principle, undertake urban and regional planning for African governments, instead working in alignment with governments’ own plans. In the case of the Expressway, however, there was no effective plan in place for Wakiso District, which the Expressway now carves into two.

It is clear at the surface level why the Expressway was an appealing prospect for Uganda. 65–75% of GDP is locked into the corridor between Entebbe, Kampala and Jinja some 80km to the East.²¹ The country is seen as having a latent comparative advantage within East Africa in logistics, which is held back by choked transport infrastructure. Inefficiencies in implementation of infrastructure projects are severe in Uganda, with many projects failing to materialize; one donor representative remarked that ‘you might as well drop the money out of an aeroplane and you would get a better return’.²² A streamlined process of Chinese financing and construction did at least enable the Kampala-Entebbe expressway to actually materialize. However, the future and value of the road remain highly uncertain. It effectively ‘floats’ above other transport infrastructure in the city-region, evidencing little embedding in strategic planning processes and no clarity on how it can pay for itself or generate clear social or economic returns.

Infrastructural repurposing and speculation in the metropolis

Both of the above cases suggest that Chinese finance and capacity can enable the development of transport infrastructure forms that would not otherwise be possible in these metropolises, but also that this involves largely bypassing both public investment planning and urban planning institutions. Yet despite the distinctly Chinese financing and implementation processes, the outcomes are often far from ‘Chinese’ in their realization. Instead, these transposed infrastructures involve the mediation of context-specific political rationalities and are subject to substantial repurposing and reimagining. In this section, we draw on our exploratory questionnaire surveys to examine how these infrastructures were used in their early months and years of operation, often in unexpected ways. Following this, we examine the consequences of these mega-infrastructure investments for land speculation, populations living on nearby land, and the prospects for value capture.

Unanticipated trajectories of usage

Our research on the Addis LRT supports other recent findings suggesting that it offers a highly affordable option for lower-income segments of society, and generates high degrees of satisfaction (Nallet, 2018). Unlike this earlier survey, however, we focused not on users across various locations but on residents and workers in a specific location (Ayat) at the extreme Eastern end of the LRT. This enabled us to explore broader dimensions of the railway’s impact on the area, and to acquire data from people who choose *not* to use it as well as those who do. At the time of our survey, the LRT had been in operation for almost three years. We found that many people never or hardly ever use it, despite regularly commuting to and from Ayat and despite the rail line’s direct city centre connections. 39% reported ‘never’ using it, with a further 16% having used it in the past but very rarely, and 31% once a week or less. Only 14% used it ‘most days’ or ‘several times a week’. Even commuters coming to Ayat from more central areas (who are significant in number, given the area’s construction boom) were likely to use it only occasionally or never, opting instead for minibuses and buses. Our qualitative data suggests this was sometimes because street

vendors, construction workers and some small businesspeople were not able to transport goods and materials on it. People commuting the other way (from Ayat towards the city centre) were even less likely to use the LRT, despite the fact that providing periphery-to-centre commuting was integral to its rationale. Instead, buses, minibuses or private vehicles remain more commonly used, depending on income; car-owners generally did not even contemplate using it.

Despite this, the LRT was evidently being heavily used. Indeed, one widespread reason for not using it was intense (even dangerous) overcrowding, particularly at peak hours, along with irregular times and long gaps. Consequently, when asked about the most urgent transport needs facing the city, the most common responses were more light rail lines or more frequent and longer LRT trains. It is striking that despite many people not using it, a large majority of all respondents – whether residents or workers – were positive about it: 82% said that it was good for the area (with the rest seeing no obvious effect), and 90% believed it was good value for money. But perhaps the most interesting finding is that even those who used it did not generally do so for commuting. 78% used it for shopping, going to the bank and social activities, as compared to just 15% who used it to access work. The LRT can thus hardly be seen as a failure from the perspective of the population, but its use is far removed from that of the original stated intention (at least in the context of Ayat, its most far flung extremity). Instead of being a commuting option for the burgeoning middle classes, it has been appropriated by lower-income groups as an occasional, useful and cheap means of accessing urban life. Qualitative responses strongly indicate that people value the sense of *alternatives* the LRT provides, as well as its modernity and connectivity to the city.

Despite its non-integration into the city's broader transport networks, it may therefore be considered a success politically; it is used by poorer groups, and celebrated across the socioeconomic spectrum. But this success is both *haphazard*, in that it is not strategic or based on any integrated planning, and highly *contingent* on heavy subsidization of fares to allow accessibility to lower-income groups. Its political success thus does not reflect effective transport planning for a population suffering lengthy commutes to work, and nor does it make it remotely sustainable. In fact, quite the opposite; many respondents believe it is worsening road traffic by disrupting flow, and there is little if any possibility of it covering its operational costs, let alone generating enough resources to repay the loan – as we explore more below.

Meanwhile, taxi drivers using of the Kampala-Entebbe Expressway offered similarly positive attitudes in its early months of use, with a majority (72%) of the drivers surveyed at Entebbe Airport using the new road in preference to the old. However, the toll for the road – which was central to its rationale and financing – was still not operation at the time of writing. Legislation allowing for the operation of toll roads in Uganda was significantly delayed, such that a year and a half after the road's official opening there was no mechanism to collect tolls or begin repaying the loan.²³ Conflicting media reports generated widespread uncertainty about the likely toll fee, with UNRA staff unable to shed any light. Adding to the confusion were reports of criminal activity and extortion through 'fake' toll collectors.

Although taxi drivers are relatively well-off in the Ugandan context, and could transfer the cost of the toll to passengers, the number speculating that they would use the road after the toll is introduced dropped to around 50%. Moreover, users' appreciation of the road is not unqualified, and many also had long lists of complaints. Enhanced speed means fuel consumption also increases, and there are no fuel stations or garages along the way even though most drivers depend on small, regular inputs of fuel. The free-flow also leads to reckless driving, which combined with a lack of street lights and a common complaint of

slipperiness in bad weather makes some drivers hesitant to use it. It is widely believed to have substantially worsened congestion around its access point in central Kampala, putting some people off using it at all. Thus the users' appreciation is tenuous, and contingent on the lack of toll payments being in place. The more time that elapses, the greater the sense that introducing a toll will be politically difficult, as a series of status quo interests begin to embed. Meanwhile, for people in the wider area, major transformations and speculative manoeuvres linked to the road have generated intense resentment.

Value set loose and uncaptured: Consequences for land along the route

To more fully analyse the overall impact of the Kampala-Entebbe Expressway requires considering its impact on land values, land access and land use. One major consequence is rampant speculation by actors able to acquire land along the route prior to acquisition by the government; some allegedly even developed properties such as hotels just in order to claim compensation not only for buildings but lost future earnings. By April 2017, compensation costs had reached over twice the planned figure of UGX 100bn.²⁴ Meanwhile, there was a scramble to acquire land near the road to develop real estate that was expected to be highly lucrative. Land values rose precipitously in the areas close to the three access points (Busega at the Kampala end, Mpala at the Entebbe end and Kajjansi in the middle): property agents reported three-fourfold price increases in some of these areas between 2008 and 2018, significantly higher than other areas of the city where they work.

Despite this, evidence suggests that expressway-adjacent areas far from access points, such as Namulunye, have been severed from parts of the city or surrounding villages. Here land values have declined, with agents predicting they might soon plummet dramatically. Many people living part-time in such areas are cut off from their own land and livelihoods on the other side of the Expressway, having to take lengthy, traffic-choked detours to get to geographically proximal places. Both developers and residents emphasized that locals did not realize the extent to which they would be shut out of the road, resulting in expectations far removed from the eventual reality and extreme bitterness. Expectations of booming trade or real estate in areas such as Namulunye have mostly not been realized, with many new houses remaining empty. Moreover, in Mpala, where the Expressway joins the old Entebbe Road South, properties were destroyed due to inadequate drainage provided in the overall design for the joining of two roads in this swampy area, causing severe flooding. All of these consequences point to the expressway's extensive 'collateral damage', which cannot be dissociated from the lack of both planning and popular consultation. 73% of respondents claimed they had no opportunity to comment on the expressway in any way. While 20% said that local councillors had approached them to discuss the impacts, no-one had been approached by any UNRA representative. The only reported engagement with implementing authorities was in relation to land valuation for compensation.

In the Addis LRT case, land acquisition was more straightforward and the potential for state revenues from increased land values along the route was significant, given its public leasehold system (see Goodfellow, 2017). Indeed, the financial model proposed for the LRT by the Chinese firms, borrowed from the Shenzhen Metro experience, is based partly on land value capture. Capital-intensive public transport systems such as LRT can rarely cover costs based on fares alone. Many operate with significant subsidies, but costs can be recouped through value capture where a public authority either owns surrounding land or can exact levies based on the value uplift generated by the infrastructure. The Addis LRT offered significant potential through the leasing of land near the LRT stations for lucrative commercial development.

There has however been a relative failure to realize this: the city government as the primary landowner lacks the resources necessary to adequately invest in the surrounding land, and the fact that the LRT is mainly used by the poor limits high-value use of station areas on the scale required. The LRT has also generated some pedestrian immobility due to limited crossing points, which in some cases is believed to have worsened business prospects along the route. Private investors have started developing surrounding land in a speculative manner, but the disconnect between ERC and the city planning authorities has impeded a coherent plan for transit-oriented development and value capture around the LRT. This is worsened by the poor integration between transport and city planning authorities more generally, despite attempts to overcome this through the creation of the Addis Ababa Road and Transport Bureau in 2012 (Nallet, 2018; Rode et al., 2020). Now that the LRT has effectively been disowned by the city government, co-ordination of land along the route is unlikely to improve, as the government shifts its attention back to a new BRT plan. As with the expressway in Kampala, the evolution of land surrounding this massive investment is developing according to logics that differ significantly from the visions embodied in high-level designs.

Conclusions

The above narratives of unanticipated mobility and immobility, divergences in land values and absent coordination evoke Star's claim that 'Nobody is really in charge of infrastructure' (Star, 1999: 382), as well as Monson's quote opening this article. Indeed, when it comes to infrastructure, debating Chinese versus African agency may be something of a dead end. Infrastructures represent constellations of political agendas, planning visions, design principles and economic rationalities, but also a series of practices that evolve through time. The outcomes of these infrastructure projects are thus highly contingent in both senses of the word: they subject to chance and unanticipated occurrence, but also dependent on specific circumstances for their present impact and usage – in particular, the heavy subsidization of fees and the non-implementation of the toll.

Nothing about these infrastructures was therefore inevitable. In emphasising this, our metropolitan-scale study contrasts with literature that highlights the overriding significance of colonial legacies in shaping mega-infrastructure corridors traversing rural areas (Enns and Bersaglio, 2020), or that views China's activities primarily through the lens of its quest for resources (Economy and Levi, 2014; Hung, 2015). Instead, we echo Lee (2018) in arguing that although Chinese state capital is centrally controlled, it is also subject to significant local improvisation. We go further than Lee, however, in our emphasis on the importance of different firm capacities and histories in shaping infrastructural outcomes; indeed our cases show that negotiations over routes, technology and cost can have highly varied outcomes depending on the bargaining capacities of different actors. Moreover, in institutionally complex city-regional contexts, infrastructures can be rapidly swallowed up into the political-economic landscape, producing benefits and disbenefits that are far removed from the visions of any planners – Chinese or African, past or present.

It is clear that in the conception, financing and realisation of these infrastructures, their 'Chineseness' matters. They probably would not exist without Chinese support. The LRT was struggling for finance before CREC stepped in with its route into Exim, and a project with such questionable 'developmental' credentials as the Kampala-Entebbe Expressway would not attract OECD donor funding. Indeed, many Chinese-financed infrastructure projects have already been rejected by other donors (Feyissa, 2011; Soule, 2019). The profitability of both projects was also far too uncertain to attract private international finance.

The specificities of Chinese state capital, in terms of both its ‘patience’ and negotiability (Lee, 2018; Lin and Wang, 2017), were therefore central to allowing these projects to happen.

However, this does not mean that project outcomes were determined by grand Chinese geopolitical visions. In fact, SOEs act as speculative entrepreneurs, often entering into uncertain territory; though they have the security of Beijing’s backing, they put their reputations and financial fortunes at risk to realize these projects. At the metropolitan level we see therefore not cities neo-colonized by the Chinese state, but ‘contractor cities’: urban spaces in which Chinese firms of varying types create opportunities for themselves and others, and ultimately set in motion infrastructures beyond their control that are subsumed into the local context. They create these opportunities not by fulfilling a ‘Chinese vision’ but by adapting to, and interacting with, the visions of African governments striving to realize their futures in concrete. Between contractors and these national agencies, city-level governance and planning are sidelined – but simultaneously the city reasserts itself as range of activities on the ground come into play to reinvent these infrastructures as opportunities for social, economic and political gain.

To speak of the relative importance of African versus Chinese agency in this situation cannot adequately capture the interactive and contingent constitution of these infrastructures. Like most transport projects, both of those studied here reflected an underlying political agenda on the part of national governments. In Uganda, the Expressway can be seen as part of a broader attempt to build support among the growing middle classes in the Kampala metropolitan region, while in Ethiopia the LRT was a flagship component of wider urban renewal, spurred by the urban uprisings of 2005. Through financing and expertise, ‘Chineseness’ *enabled* and *mediated* these political projects. However, it is equally important to recognize the degree to which political realities then *diluted* this Chineseness. In Ethiopia, the growing fear of unrest among the urban poor meant that plans to make the LRT a middle-class commuter infrastructure were subverted, and the land value capture aspect of the Chinese model was undermined. In Uganda, the power of private landowners led to sub-optimal route design, rampant speculation and sky-high costs that were beyond the comprehension, let alone the plans, of the Chinese agencies. As the Chineseness of these infrastructure projects was diluted, one morphed into an infrastructure for the poor, while the other into a site of private value extraction. Yet what made the infrastructural outcomes especially haphazard is that this mediation and dilution played out against a highly fragmented planning system, in which the key institutions concerned with planning at the city or metropolitan level were either sidelined or non-existent. As metropolitan-scale projects without metropolitan-scale planning, both projects have threaded their own influence into contingent trajectories of urban development.

Where does this leave us in terms of the analysis of Chinese-financed infrastructures in Africa? Clearly some of the above dynamics might apply to large infrastructure projects more generally, while others do not. The significance of the Chinese element is not that these projects have created Chinese enclaves within African cities, but that Chinese state capital and entrepreneurial SOEs enabled them to happen. Rather than viewing China as a profit-maximiser, geopolitical strategizer or development partner, it is the blurring of all these motivations – alongside a range of contingent circumstances – that fundamentally shapes these infrastructures. As the implementation of projects is negotiated among a range of stakeholders, including Chinese actors with highly variable bargaining power and local elites with shifting political priorities, initial plans and visions are twisted into emergent infrastructural forms that are then seized upon and reframed by city populations themselves.

In exploring contingency and the dilution of Chineseness, this article offers new directions in conceptualizing and analyzing large infrastructure projects in African cities and city-regions. In contrast to the situation with mega-infrastructures traversing rural areas, which often build directly on historical and colonial patterns, the forces shaping metropolitan infrastructure are less linear, messier and more contemporary. Understanding the prospects for infrastructure development at the city scale requires analysing how plans and designs are continuously mediated and diluted across fragmentary and overlapping institutional configurations, with unpredictable results and often rapid repurposing. These dynamics are likely to grow in importance as a widening range of international actors joins China in supporting infrastructure finance in African cities, diversifying the range of financial and bargaining modalities at play.

Acknowledgements

This article is co-authored with equal overall input from both authors. We would like to acknowledge the invaluable research assistance of Daniel Bwanika and Yohana Eyob for their work in implementing small-scale questionnaire surveys, and helping with some interviews, in Uganda and Ethiopia respectively.


Declaration of conflicting interests

The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

Funding

The author(s) disclosed receipt of the following financial support for the research, authorship, and/or publication of this article: The research was funded through an ESRC Future Research Leaders grant (grant no. ES/N018095/1).

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Notes

1. Although African external debt has increased substantially since 2015, under 20% of African government external debt is owed to China, as compared with 35% to multilateral institutions and 32% to private lenders (Jubilee Debt Campaign, 2018).
2. It is interesting to note that Zhao Yali, the former Chinese ambassador to Uganda, noted this point in 2012 explicitly in relation to the Kampala-Entebbe Expressway (Gil, 2015).
3. China-Africa Research Initiative, October 2018 Data, available at: <http://www.sais-cari.org/data-chinese-loans-and-aid-to-africa>.
4. Evidence is provided by several Chinese SOE interviewees during the fieldwork.
5. This section draws extensively on interviews with Chinese SOEs in Addis Ababa and Kampala throughout 2018.
6. China-Africa Research Initiative contracts data, 2019. Available at <http://www.sais-cari.org/data-chinese-contracts-in-africa>; accessed 2 April 2019.
7. China-Africa Research Initiative, October 2018 Data, available at: <http://www.sais-cari.org/data-chinese-loans-and-aid-to-africa>.
8. Ibid.
9. Data provided by CREC and ERC, November 2018.
10. USD 0.07 – 0.2 at 2019 exchange rates.
11. Interview with SOE representative, 20 March 2018.

12. See for example Olingo(2018).
13. See Boudet et al. (2015) and Nallet(2018) for different perspectives.
14. Presentation by Solomon Kidane, Deputy Mayor of Addis Ababa, Urban Age Conference, Addis Ababa, 30 November 2018.
15. China-Africa Research Initiative contracts data, 2019. Available at <http://www.sais-cari.org/data-chinese-contracts-in-africa>; accessed 2 April 2019.
16. Interview with SOE representative, 28 October 2018.
17. <https://china.aiddata.org/projects/14235>
18. <https://observer.ug/news-headlines/46002-entebbe-highway-cost-was-inflated-auditor-general>
19. <https://pesacheck.org/is-ugandas-entebbe-expressway-the-costliest-road-per-kilometer-in-the-world-f5e1730758a9>
20. Interview with SOE representative, Kampala, 9 April 2018.
21. Interviews with officials and international donors, May 2018.
22. Interview with donor representative, 3 May 2018.
23. <http://www.pmldaily.com/news/2019/04/no-money-to-finance-kampala-entebbe-expressway-loan-unra.html>
24. <https://www.monitor.co.ug/News/National/Compensation-wrangles-delay-Kampala-Entebbe-Expressway/688334-3889162-bg6y0f/index.html>

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