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China's spatial fix and 'debt diplomacy' in Africa: constraining belt or road to economic transformation?

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ABSTRACT

Mounting overaccumulation of capital and material has compelled the Chinese government to seek solutions overseas. The Belt and Road Initiative (BRI), with its transregional infrastructure projects connecting Eurasia and Africa, is the hallmark venture in this effort. Chinese road, railway, port and energy projects, implemented under the BRI banner, have become widespread in Africa. This article traces drivers of the BRI in the post-reform evolution of the Chinese economy and conceptualises the BRI as a multi-vector "spatial fix" aimed at addressing chronic overaccumulation. Focusing on Kenya, Djibouti and Ethiopia, the paper documents how loan financing related to BRI projects reveals contradictions that arise from China's spatial fix in Africa. Concerns about a looming debt crisis on the continent and the questionable economic sustainability of some BRI projects have become more pressing amidst the COVID-19-induced economic contraction. Hopes for Africa's economic transformation based on increasing connectivity under the BRI are unlikely to materialise.

RÉSUMÉ

La suraccumulation croissante de capitaux et de matériel a contraint le gouvernement chinois à chercher des solutions à l'étranger. L'initiative « la Ceinture et la Route » (BRI), avec ses projets d'infrastructures transrégionales connectant l'Eurasie et l'Afrique, est la marque de fabrique de cette stratégie. Les projets routiers, ferroviaires, portuaires et énergétiques chinois, mis en œuvre dans le cadre de la BRI, se sont répandus en Afrique. Cet article retrace les moteurs de la BRI dans l'évolution post-réforme de l'économie chinoise et conceptualise la BRI comme un « correctif spatial » multi-vecteur visant à remédier à la suraccumulation chronique. En se concentrant sur le Kenya, Djibouti et l'Éthiopie, l'article documente comment le financement des prêts liés aux projets de la BRI révèle les contradictions qui émergent du « correctif spatial » de la Chine en Afrique. Les inquiétudes concernant une crise de la dette imminente sur le continent et la viabilité économique douteuse de certains projets de la BRI sont devenues plus pressantes dans le contexte de la contraction économique entraînée par la COVID-19. Il est peu probable que les espoirs de transformation économique de l'Afrique basés sur une connectivité accrue dans le cadre de la BRI se matérialisent.

KEYWORDS

Spatial fix; infrastructure; Belt and Road Initiative; debt; China

MOTS-CLÉS

correctif spatial; infrastructure; Initiative « la Ceinture et la Route »; dette; Chine

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Introduction

Africa's integration into the Belt and Road Initiative (BRI), a global programme of infrastructure construction (amongst other elements), announced by China in 2013, has been framed by official discourses that promise “win-win” development results from closer cooperation and connectivity. The proceedings of the 2018 Forum for China–Africa Cooperation (FOCAC) summit are riddled with references to the BRI, speaking of Africa as “being part of the historical and *natural extension* of the Belt and Road” and an “important participant in the initiative” (FOCAC 2018, para. 4.2, emphasis added). According to the Chinese government, 37 African countries and the African Union committed to the initiative by April 2019 (Dollar 2019, 2). Central to the BRI in Africa remains the continent's integration into trans-regional infrastructure networks and corridors, as part of the new Maritime Silk Road (see Jian 2018; Mayer and Zhang 2020; Sum 2019), which complements the land-based “Belt” through Eurasia. Large-scale projects, such as port developments in Djibouti and Lamu, Kenya, and railway lines in Ethiopia and Kenya, have become BRI “flagship” projects that are expected to boost economic growth and generate widespread prosperity.

Notwithstanding the official “win-win” narrative, the BRI has caused major controversies in Africa. Van der Merwe argues that

[T]he infrastructure plans expose the initiative [BRI] as unashamedly colonial, as it reinforces the legacy of transporting resources towards ports – and not between neighbouring states. Even in the case where transport infrastructure is created between states, the assumption is still that this would facilitate the movement of Chinese remotely manufactured goods onto markets. (van de Merwe 2019, 210)

China's supposed “debt trap diplomacy” (Chellaney 2017) has caused even more consternation. All the way to the White House, it has been politically instrumentalised to discredit Chinese investments in African infrastructure (see Nyabiage 2019; Reuters 2018; The Economist 2019). A Chinese “debt trap” would imply an intentional attempt to ensnare the continent in debt and should be refuted (Carmody 2020). Nonetheless, the quantity and sustainability of debt contracted by some African states for Chinese-built infrastructure has become a valid concern, as have the economic feasibility and long-term benefits of some BRI projects. While Western corporates have generally welcomed the influx of Chinese loan finance into Africa (see Sun et al. 2017), a Moody's executive cautioned: “Unless African investment financed by Chinese loans generates substantial economic gains that boost debt servicing capacity of Sub-Saharan African governments, the credit implications of such lending include higher debt burdens, weaker debt affordability and weaker external positions” (Rogovic quoted in IOL Business Report 2018). The COVID-19-induced global economic contraction has added urgency to these matters.

We undertake a critical assessment of the drivers of the BRI and reveal contradictions that shed doubt on official narratives such as that “openness, transparency, and win-win results are advocated and practiced [...] with a view to promoting high-quality and sustainable development for all” (FOCAC 2018, para. 4.1). While the imperatives driving the BRI have their origins in the dynamics of, and interactions between, the global and Chinese economies, the materialisation of the BRI also depends on the political demand in receiving economies for infrastructure (see Nugent 2018). In fact, the BRI has become a welcome source of funding for African governments to implement infrastructure

projects that have long been planned (Anthony 2020). By implication, there is a need for a strategic-relational coupling between state elites in Africa and those in China (as well as an increasing number of other actors from both public and private sectors) to bring BRI projects into being (Han and Webber 2020). In this paper we conceptualise the BRI as a multi-vector and -sector spatial fix (Harvey 1982), reflective of both general and specific problems and contradictions of capital accumulation in China and more widely, while also being interwoven with geopolitical dimensions. We then explore the implications of this meta-project for Africa through three case studies of countries heavily involved in the initiative: Kenya, Ethiopia and Djibouti.

The post-reform evolution of China's economy and the BRI imperative

Domestic dynamics within China now compel both policymakers in Beijing and market actors to seek opportunities overseas, as overcapacity and over-accumulation necessitate the export of these excess volumes. After economic reforms began in 1978, China moved rapidly towards the market becoming the dominant resource allocation mechanism in that society (Yao 2010). Through a "passive revolution," where a ruling elite dramatically changes policy course to cement its rule (Gramsci 1971), an ever more hierarchical and ruthless form of capitalism emerged in China (Hart-Landsberg and Burkett 2004, 26). Beijing's membership in the World Trade Organization in 2001 and thus the strictures of global neoliberalism commenced a new chapter in China's internationalisation of its economy, with additional tariff cuts and service and agricultural sectors being liberalised (Panitchpakdi and Clifford 2002, 164).

Consequent to the reforms, the export-oriented sector rapidly became the engine of growth. In 1980, China exported US\$11.3 billion globally, whereas by 2017 this had reached US\$2.4 trillion – 212 times more (World Bank 2019a). China is now characterised by "a powerful urban-industrial capitalist class, especially in the southern coastal region, significantly influencing government circles up to and including the Politburo, as well as having close ties with foreign investors and companies based in China for export purposes" (Vanaik 2013, 199). Indeed there is substantial straddling between the public and private sectors, as hundreds of members of China's parliament are billionaires (Wee 2018). Allied with the managerial elements located in the reduced state-owned enterprise (SOE) sector, they demand huge expenditure on support for the export sector and on constructing infrastructure across the country to facilitate their business interests (Lui 2007, 90–95). In the 2000s this contributed substantially to global commodity price increases, creating a spike that spawned high growth rates across Africa (see Taylor 2014). Although this was celebrated by some as a period when the continent was "rising," this narrative had little to do with socio-economic realities (Taylor 2016).

As a result of the dynamics described above, contradictions began to develop and mature in the Chinese economy. Chinese workers are no longer an inexpensive reserve pool of labour, since rapid economic growth drove wages substantially higher as shortages emerged in coastal cities where foreign direct investment (FDI) was initially concentrated. The median monthly wage in Shanghai is now US\$1135, which is close to that of Poland (\$1569) and virtually the same as that of Hungary (\$1139) (Rapoza 2017). Fundamentally for China, since around 2010 wages have increased more quickly than

labour productivity, leading to a decline in both the profit share and the profit rate (see Gaulard 2015).

To retain export competitiveness and outcompete imports, what matters to an economy is not absolute wage rates but rather how high they are relative to labour productivity. In response to rising wages some major companies, such as the Taiwanese company Foxconn, which assembles many of Apple's iPhones, relocated their assembly operations to inland China (Grimmel and Li 2018). Such relocations inland incentivised the government to improve transport links to the East through the BRI, particularly as getting high technology to market is time-sensitive, given rapid product turnover times, and land transportation is quicker than that by sea. The movement of assembly factories inland represents an initial aspect or element of the spatial fix to profit pressure, but the BRI represents its fullest expression.

From 1977 to 2007, China's output-capital ratio generally tended to increase, rising to 0.69 by 2007. Since then, China's output-capital ratio has again trended downward, falling to 0.54 by 2015. If China's output-capital ratio continues to fall, it will approach the level that historically was associated with the American Great Depression. (Li 2017, 398)

This is also reflected in the declining profit rate. Between 1990 and 2010, China's business sector profit rate was circa 25%, significantly higher than that in the United States at approximately 10% (Li 2016, 168). This profit rate accounted for China's precipitous accumulation of capital. However, China's profit rate peaked in 2011 and since then has fallen by 30%. The rate in 2019 was no higher than the annual rate for 2009, which marked the depth of the financial crisis (Green 2019, 2). Some estimates also suggest that total factor productivity in China fell at a rate of 2.3% per annum from 2008 to 2010 (Wu 2014 cited in Huang 2016), as the country struggled with the middle income trap, where it is no longer a very low labour cost producer, with the majority of the world's high-technology development remaining concentrated in core countries.

China's profit growth rate has now been considerably lower than the rate of accumulation for some time, thus decreasing the capital-output ratio. In 2017, China's gross fixed capital formation as a percentage of its gross domestic product (GDP) was 41.89% (World Bank 2019b). The contrast between China's accumulation or investment rate and its declining profit growth rate has been quite stark since 2011, as Table 1 shows.

Inter-capitalist competition within China means that profits are unevenly circulated. Thus, even if the economy-wide average rate of profit stays positive (even as low as 2.7%, for instance), substantial sections of the economy may experience negative returns if the average profit rate falls beneath an acceptable level (dependent on sector). With profits being squeezed in China, generating new avenues for profit abroad is a key motive for Chinese enterprises' involvement in the BRI.

Table 1. China's accumulation rate versus its profit growth rate.

Time period	Ratio of accumulation (%)	Profit rate growth (%)
1991–2000	41.9	12.9
2001–2010	45.2	13.3
2011–2014	63	2.7

Data source: Li (2016, 169).

Profit-related problems were compounded by events following the North Atlantic Financial Crisis of 2008–2009. As many Western economies went into recession, the market for Chinese exports contracted. Confronting sluggishness in exports (the basis at the time for its growth model), Chinese policymakers initiated a massive stimulus package, much of it being spent on infrastructure (Yu Qin 2016). China used more cement from 2011 to 2013 than the United States consumed in the entire twentieth century (Washington Post 2015). In addition, China's steel industry produced 300–400 million tons of excess capacity (Huang 2016; Cai 2017). Largely deployed into construction, China's gross fixed capital formation swelled from US\$1.38 trillion in 2007 to US\$5.12 trillion in 2017 (CEIC 2019).

As a capitalist economy matures, industry tends to become more capital intensive; thus, investment in machinery rises relative to labour costs, depressing the rate of profit. This results in “the law of the tendency of the rate of profit to fall” (Marx, 1988 [1894], 211–266) as the contradiction between the burgeoning technological forces of production and the social relations of production develops, due to there being an inadequate market for industrial products domestically.

In China, the rapid growth of the economy has spurred wage growth, putting pressure on profit rates and encouraging growth in the organic composition of capital or the substitution of capital for labour, in addition to generating pressure for offshoring. Marx suggests that ways out from the falling rate of profit may be located in an escalating rate of exploitation of labour; depression of wages below the value of labour power; relative overpopulation so as to influence the depression of wages; and foreign expansion through trade (Marx 1988 [1894], 232–240). Other than foreign trade, none of these solutions may be initiated in China, which is in harmony with Marx's view that crisis tendencies are domestically produced within the capitalist mode of production and thus a national resolution is not feasible. Thus, locating new markets abroad and exporting surplus material and capital are potential “spatial fixes” for China's economic problems of over-accumulation and falling profits (Harvey 2016, 65).

The BRI as a multi-vector “spatial fix”

Capital's expansive tendency has been at the heart of Marxist theories of imperialism. In Lenin's 1948 [1917] thought, the over-production of capital necessitated new outlets for investment. Luxemburg (2004 [1913]) argued that capitalists strove for the continuation of profits through discharging surplus commodities abroad as well as accessing new supply sources and pools of labour. What David Harvey (1982) termed the “spatial fix,” then, is one possible reaction to over-accumulation and involves changing geographies of capital investment and sunk costs in long-gestation endeavours such as physical infrastructure. Harvey's “fix” suggests that capital is “fixed in and on the land for a relatively long period of time (depending on its economic and physical lifetime)” (Harvey 2003, 115). In a metaphorical sense, this signifies a “particular solution to capitalist crises through temporal deferral and geographical expansion” (Harvey 2003, 115) in that surplus capital is deployed abroad in investments with long gestation times. Both of these are in evidence in Chinese engagements in Africa (see Zajontz 2020a, 2020b).

Whilst we acknowledge that Chinese capitalist engagement with the African continent is necessarily historically specific, the “moving out” of Chinese surplus capital, and “loan-

debt investment” (Sum 2019, 538) under the BRI in particular, manifests spatio-temporal tendencies inherent to capitalist accumulation more generally, as described by Harvey. This assessment should be enough to take away some of the rancorous moralising about whether Chinese capitalist engagement with the continent is superior or inferior to other capitalist ventures in Africa, even if state-owned capital has, to some extent, dissimilar time frames and constraints (Lee 2017). As Ayers argues, “[c]apitalism with Chinese characteristics’ does not cease to be capitalism; yet largely absent from the voluminous literature on the role of China (and other emerging states) is a consistent theory of capitalism” (Ayers 2013, 236). The fundamental logic and impetus of capitalism and capital is the amassing of profits: the “boundless drive for enrichment” and the “passionate chase after value” (Marx 1976 [1867], 254).

Given its export-oriented growth model, Beijing’s currency reserves rocketed from US \$200 billion in 2001 to nearly US\$4 trillion in 2014. The necessity to reinvest these reserves was one of the factors that led Xi Jinping to instigate a major new plan, as the dynamics of over-accumulation combined with the specifics of China’s export-oriented economy. Xi initially announced the so-called New Silk Road as a programme of massive infrastructural construction across Eurasia to facilitate trade and investment. A Maritime Silk Road was presented later, linking China across the Indian Ocean to East Africa. The project(s) seek to quicken the economic integration of large parts of the world under Chinese economic, and consequently, in time, political leadership (Maçães 2018).

Within a year of its launch, Beijing established the Asian Infrastructure and Investment Bank with US\$100 billion in capital; 56 states swiftly signed up as members. China also inaugurated a US\$40 billion Silk Road Fund, intended for private equity projects. In May 2017, China hosted the Belt and Road Summit, which national leaders from nearly thirty countries attended. Xi Jinping (2019) has closely aligned the BRI to his own character and rule. Reflecting its immensity, “the projected investment under BRI ranges from USD1.4 trillion to USD6 trillion” (Fan Zhai 2018, 85). That the BRI serves as an effective spatial fix for China was openly admitted by He Yafei, vice minister of the Overseas Chinese Affairs Office of the State Council, who stated that:

The excess capacity has been caused by China’s fundamental economic readjustments against the global economy. With the ensuing knock-on effects of the global financial crisis manifesting in the economic stagnation of advanced nations, coupled with the slowdown in China’s domestic demand, industrial overcapacity, accumulated over several decades, has been brought into sharp relief ... [and] has resulted in a steep drop in profits [and] the accumulation of debt and near bankruptcy for many companies. If left unchecked, it could lead to bad loans piling up for banks, harming the ecosystem, and bankruptcy for whole sectors of industries that would, in turn, affect the transformation of the [Chinese] growth model and the improvement of people’s livelihoods. It could even destabilise society. The Chinese government, guided by the principles laid out at the third plenum, has put forward guidelines for its resolution. The most important thing is to turn the challenge into an opportunity by “moving out” this overcapacity on the basis of its development strategy abroad and foreign policy. (He Yafei 2014)

President Xi has also argued that China’s neighbours have “extremely significant strategic value” (quoted in Cai 2017). The BRI, then, and the associated Industrial Capacity Cooperation (ICC) project to export surplus industrial capacity overseas (Kenderline and Ling, 2018) cannot be separated from domestic considerations in China. Overcapacity and over-accumulation

are, as has been noted, the stimuli behind Beijing's drive to export the products of excess capacity overseas and transfer surplus capital abroad (China became a net exporter of capital in 2014). This therefore represents a multi-vector spatial fix, as the BRI will achieve a variety of objectives simultaneously. Trade remains the primary vector of the spatial fix under the BRI. Already by 2014–2016, trade between the nations involved in the BRI and China had reached more than US\$3 trillion (Ehizuelen and Abdi 2018), massively surpassing Chinese investments in the infrastructure and other sectors in those countries. "Expansive accumulation" in the context of the BRI relates to the entirety of the Chinese economy, including trade, and should not be reduced to outward FDI. BRI partner countries provide a spatial fix through the provision of market, investment and debt outlets.

In its concrete manifestation of the BRI, the Chinese spatial fix spans a multitude of locales, territories and scales, thereby firmly integrating Eurasia and Africa into a "China-oriented infrastructural mode of growth in production, finance and security" (Sum 2019, 529; see also Mayer and Zhang 2020). The BRI is a way to open up markets for Chinese goods through infrastructural improvements and the spreading of Sino standards. It will also integrate other territories into China-centred global production networks to take advantage of factor inputs or endowments, such as low-cost labour or high-quality and/or low-cost raw materials. "Beijing is attempting to create a connected and cohesive Eurasian entity with China as [the] focal point of the underlying connectivity" (Wolf 2020, 1), with an increasing emphasis on advanced manufacturing and innovation domestically (Cai 2017).

These aspects are also securitised as the BRI serves as a geopolitical project to embed allies economically, where loans can be potentially securitised against existing assets. Although highly controversial, this hypothetically allows China to exercise substantial/excessive influence over host governments' policy regimes if there is debt distress or loans go into default. China prefers to give concessional loans rather than grants to recipient states in order to maintain political leverage (confidential personal communication, 2019). The diversion of China's problems overseas via the BRI and associated ICC projects announced in 2014, however, holds within its dynamics challenges for Africa. In particular, so-called "debt diplomacy" has been identified as a major issue of concern.

The BRI in Africa: high costs, limited benefits?

If successfully implemented, the BRI will involve around seventy countries and have a declared total investment in the trillions of dollars (Balding 2017). Doubts about the availability of such colossal financing, concerns about the sustainability of the debt incurred by participating states and the question as to how Beijing will respond to such uncertainties are critical. Indeed, Ansar et al. (2016, cited in Plummer 2019) found that in most cases in China, infrastructural investment had a negative effect on the economy through the debt channel. The sustainability of BRI financing will no doubt depend in part on the productivity of BRI projects themselves, with a mixed record to date. Some, such as the Chinese purchase of the Greek port of Piraeus, have boomed (Mações 2018), whereas others (some of which are described in more detail below) have experienced severe problems. In this instance, it is crucial to remember that at one point during China's transition towards state-steered capitalism, up to 40% of China's domestic policies were designated as experimental (UNDP 2014). The BRI can in this sense be conceptualised as an extension of an experimental sovereignty regime from China to

Eurasia and beyond (Carmody, Krageulund, and Reboredo 2020). Indeed, Narins and Agnew (2020, 6) see the BRI promoting “a new, aspirational *globalist* sovereignty regime identity” (original emphasis).

The opacity of Chinese policy on its loan disbursements is of concern (Dollar 2019; Horn, Reinhart, and Trebesch 2019; Hurley, Morris, and Portelance 2019; Morris et al. 2020). Official data on Chinese loans are not publicly available, and thus all circulated statistics are approximations. Beijing is not a member of the Organisation for Economic Co-operation and Development (OECD), and it does not take part in that organisation’s Creditor Reporting System. Furthermore, Chinese state banks rarely publish information with regard to financing contracts, while recipients of such loans habitually do not make such information known. However, data show that from 2000 to 2017 the Chinese government, banks and contractors extended US\$143 billion worth of loans to African governments and SOEs (Infomineo 2018), and estimates suggest that loans to Africa by the China Development Bank and the Export–Import Bank of China are approximately 23% of China’s overseas total (Alden and Lu Jiang, 2019).

Debt sustainability concerns in Africa have also mounted in the light of the COVID-19-induced global economic contraction, which leaves several African states, such as Zambia, Kenya and Djibouti, on the brink of default. Two key issues on the financing of BRI projects in Africa have arisen. The first centres around the question of whether the capital lent will leave recipient countries with an amount of debt that may hinder other investment in sectors that need financing. The second is, will the large amounts going towards countries as part of the BRI spawn an unhealthy dependency on China?

Rana Mitter has noted that deliberately attempting to entrap countries in debt would run the risk of generating a backlash, amongst both populations in general and, over time, politicians (cited in Carmody 2020). Depending on the politico-institutional context, the latter are to a greater or lesser degree accountable to the general public. However, the structural power and importance of China as a market may now insulate it from any backlash in particular cases. For example, Michael Sata, who ran an election campaign for the presidency of Zambia on an explicitly anti-Chinese platform, had the Chinese ambassador as his first official visitor to State House after his inauguration and quickly rowed back from any anti-Chinese sentiment (Carmody 2016). Debt entrapment would also discredit the policy of non-interference espoused in the Five Principles of Peaceful Coexistence, although China has already conditioned loans, as in the case of Angola, on having an International Monetary Fund (IMF) austerity programme in place (Lwanda 2019).

The narrative of China’s alleged “debt diplomacy” has partly sprung from the opacity of Chinese lending. Neither of the two main lenders, the China Development Bank and the China Exim Bank, disclose their lending terms, although it appears that this varies from interest-free loans to fully commercial rates. The African countries under scrutiny in this article, associated with the BRI, and the amount received in loans from China from 2000 to 2018 are presented in Table 2 (note that the data indicate quantities borrowed after 2000; they do not specify current debt figures given repayments have been made on such loans).

It is important to emphasise that in discussions of the so-called “Chinese debt trap,” Beijing’s share of Africa’s debt is often exaggerated. A Jubilee Debt Campaign report in

Table 2. Chinese loans to selected Belt and Road Initiative (BRI) countries, 2000–2018 (\$ millions).

Year	Djibouti	Ethiopia	Kenya
2000	0	0	0
2001	0	1	6
2002	0	0	6
2003	12	0	0
2004	0	0	0
2005	0	0	0
2006	0	1,900	46
2007	0	207	65
2008	0	0	57
2009	0	619	365
2010	36	555	263
2011	8	1,158	225
2012	64	177	1,191
2013	814	5,933	32
2014	0	773	3,730
2015	0	613	1,670
2016	365	824	1,095
2017	115	735	296
2018	0	234	0
TOTAL	1,414	13,729	9,047

Data source: Bräutigam et al. (2019).

2018 found that, on average, only 20% of African government external debt is owed to China, and around 17% of external interest payments by African governments were identified as being made to China. At the same time, 32% of African government external debt is owed to private lenders, and 35% to multilateral institutions such as the IMF (Jubilee Debt Campaign 2018). Reckless lending to the continent by the Western capitalist world, in particular the immense quantities that may be reasonably characterised as odious debt (Ndikumana and Boyce 2011), has been far more destructive to Africa. However, Chinese loans have recently increased substantially, and in the context of the BRI, there are signs that several African nations involved in the initiative are now in danger of debt distress, with financial arrangements for infrastructure projects being the main problem. Given its growing loan portfolio on the continent, China is also implicated in the looming debt crisis for the continent as a whole in the context of COVID. We now turn to the specifics of flagship BRI projects in our case study countries.

Kenya: piles of debt and a new “Lunatic Line”

In Kenya,¹ the government has commissioned both semi-concessional and commercial loans from China (as well as from global markets) since 2014 in an attempt to kick-start infrastructure development. This came after Kenya’s ascent into the “lower middle-income economy” category in 2014, which ended the country’s access to concessional loans from the international financial institutions. Beijing’s prominent role started with the China Exim Bank funding 90% of the US\$3.6 billion for the 485-kilometre Mombasa–Nairobi Standard Gauge Railway (SGR) line (Munda 2019), which has been cast as a flagship project of both the BRI and Kenya’s own “Vision 2030” development framework (Wissenbach 2020). The SGR construction was largely responsible for driving up Kenyan debt to China from US\$756 million in 2014 to US\$6.47 billion by 2019 (Olander 2020). Kenya has also issued Eurobonds to international markets to the tune of US\$6.1 billion

(Olander 2020). China accounted for 22% of Kenya's external debt portfolio by the end of 2018 (Munda 2019).

The end of the five-year grace periods for SGR loans drove up debt service payments to Chinese lenders, which reportedly add up to about US\$888 million in 2020 (Olander 2020), although Chinese lenders have agreed to pause debt repayments until the end of 2020 as part G20's Debt Service Suspension Initiative (Bilal and Tadesse 2020). In 2017, transport minister James Macharia still expected that the SGR would boost Kenya's GDP by 1.5%, enabling the government to pay back the loans "in about four years" (quoted in Kacungira 2017). Currently, it seems unlikely that Kenya will be able to repay the loans within the agreed 15-year period, unless the country gets significant debt relief from other creditors. Since the railway's inauguration in May 2017, the SGR has failed to yield profits. By May 2020, the SGR had incurred a combined operating loss of about US\$200 million. At the same time, the Kenyan government is contractually obliged to pay a fixed quarterly operation fee of about US\$28.8 million to the operator Afristar, which is owned by the China Communications Construction Company (CCCC) (Mutai 2020). In June 2020, the Budget and Appropriations Committee of the National Assembly ascertained that Kenya Railways was unable to pay outstanding dues of about US\$350 million to the operator, causing fears of operations coming to a halt (Mutua 2020). A committee report stated that "[t]he committee recommends that renegotiation on the current Operating Agreement by planning to reduce the operation costs by at least 50% be initiated by the government" (quoted in Mutai 2020). Yet it seems unlikely that the set operation fees will be slashed by half, considering that such compensation for Chinese firms provides for another means of capital repatriation which is essential to China's spatial fix. The losses incurred fortify long-standing doubts about the economic feasibility of the project.

A 2013 report by the World Bank Africa Transport Unit stated that freight traffic within the entire East African Community (EAC) rail network could, by 2030, reach 14.4 million tons annually. The same report concluded that "the construction of a new standard gauge line in a new right-of-way is only justified if additional traffic attracted to the line amounted to 55.2 million tons per year" (World Bank 2013, 4; see also Taylor 2020). In other words, there were clear indications that projected demand would not suffice to redeem the immense costs related to the construction of a new SGR and that a refurbished metre-gauge network would have been a sufficient and more economical alternative. The fact that Kenyan decision makers opted for the SGR suggests that the demand for a BRI "flagship" was first and foremost political.

Thus far, the SGR has remained uncompetitive compared to road hauliers. Reuters reported a container travelling from Mombasa to Nairobi to cost US\$800 on the road but \$1100 on the SGR (Mirire 2019). Road hauliers usually charge \$1900 for transporting a 40-foot container from Mombasa to Kampala, whilst the same container, if it travels on the SGR to Naivasha and from there on the road to Kampala, cost US\$2180 in mid-2020 (Andae 2020). A Railway Development Levy, consisting of a 1.5% tax on any goods imported into Kenya, that has been introduced to help repay the SGR loans has a deadweight effect. In other words, Kenya has had to increase the cost of doing business in the country, making the country less attractive to investors, in order to create revenues for debt service (Taylor 2020). Furthermore, realisation of the plan for a regional SGR network that serves the entire Northern Corridor is becoming increasingly unlikely. For

one, in the light of Kenya's waning debt sustainability, China has decided not to extend another loan for the remaining stretch between Naivasha and the Ugandan border, causing a situation in which the railway currently terminates in the middle of "nowhere" (see Mirire 2019), from where cargo must be transhipped, at additional cost and time.

Initially, an SGR was planned to stretch along the entire Northern Corridor serving the entire East African region, with connecting lines planned to extend to Kampala, Juba, Kigali and the Kivus, which would have created revenues for Kenya Railways for transit traffic destined for the country's landlocked neighbours (Kacungira 2017). As the Chairperson of Kenya's parliamentary Budget and Appropriations Committee, Kimani Ichung'wa, put it:

It[s] time we ask ourselves what we are getting from the SGR and take a walk down to Naivasha. How many trains utilise this railway? [...]. If you read our Public Investments Committee report in the past parliament, you know that the viability of the line ends here (Nairobi), unless if you interconnected the port of Mombasa with landlocked countries, but without that interconnection, it is not possible. (quoted in Anyanzwa 2020)

What is more, competing rail infrastructure in the form of Tanzania's SGR, which competes for Rwandan, Ugandan and Eastern Congolese cargo and whose construction is steadily approaching Lake Victoria under the rigid "supervision" of President Magufuli, further compromises the economic viability of Kenya's SGR "flagship" (Zajontz 2020a, 177–179). BRI projects have also been highly problematic in other countries in the region.

Djibouti: China's now highly indebted geo-strategic hub

Djibouti has received US\$1.4 billion in loans from the Chinese to expand the Ghoubet salt port; the Damerjog livestock export port; the Addis–Djibouti Railway (Djibouti's share being US\$492 million); the Djibouti–Ethiopia Water Pipeline; and the Doraleh Container Terminal/Multipurpose and Djibouti Port as the terminal of the Ethiopia–Djibouti Railway, which cost US\$590 million (Zhou 2017). Chinese companies are also building Africa's largest free trade zone there, with the first phase having opened in 2018 (Maritime Executive 2018).

It is reported that Chinese finance now accounts for 77% of the country's debt (Dahir 2019) and that it was under pressure from China that the country evicted Dubai Ports (DP) World from the operation of the port next door to its first ever overseas military base in 2018 (see Bräutigam 2020 for more details). DP World is suing the state-owned China Merchants Company for "bypassing its concession agreement with Djibouti and acquiring an indirect shareholding in the Doraleh terminal" (Dahir 2019, 3). Some have suggested this is part of a geopolitical and economic competition to dominate the trade through the Red Sea.

There is some evidence that Chinese aid and investment are deployed geo-strategically. For example, Dreher et al. (2018/2019) find that African leaders' birth regions receive substantially more Chinese aid than others in their countries. Moreover, Djibouti sits astride one of the world's most important shipping lanes. In 2016 China passed a law that forces all Chinese industries involved in international transportation to provide aid and supplies to its navy if needed (Maçães 2018). Djibouti is the site of China's first ever overseas military base, which it

had said previously it would never have any of. Djibouti also provides a “natural port and railhead for its giant neighbour Ethiopia” (Styan 2019, 192).

While some argue that Djibouti has been able to skilfully negotiate its strategic geography to achieve greater policy autonomy (e.g. Styan 2016; Le Gouriellec 2018), there is a moral hazard attached to loans under the BRI umbrella as politicians in recipient countries are attracted by the quick economic growth and employment creation such projects offer, even as debt has to be repaid over the long term. For example, according to the IMF (2019), real GDP growth in Djibouti averaged close to 7% during 2014–2017, with new infrastructure projects being a major driver (IMF 2017, cited in Zhou 2017). However, as noted above, its debt profile deteriorated dramatically during that time. A substantial debt overhang will reduce future economic growth as payments go to debt service rather than social spending, infrastructure development or other sectors, thereby depressing domestic demand and undermining the economy’s longer term growth potential. Djibouti’s debt service ratio, i.e. debt service as percentage of exports of goods and services, averaged 15.6% between 2000 and 2015 but reached a shocking 57.8% in 2017 (World Bank n.d.a).

An IMF report (IMF 2017, 7) noted that

Djibouti remains at a high risk of debt distress ... solvency and liquidity risks are significant over the projection horizon, and all the debt burden indicators breach their respective policy dependent thresholds by sizeable margins ... All the solvency debt burden indicators exhibit protracted breaches of their respective thresholds. In addition, liquidity risks have increased significantly compared with ... 2015.

Indeed, Chinese loans to Djibouti are rather inconsequential in the wider global picture. Yet Djibouti’s annual GDP is only circa US\$1.8 billion. While there have been overblown accusations about the “billions” in Chinese loans, the fact is that for a country with such a small economy, like Djibouti, assuming such levels of debt is problematic in general and particularly serious if that debt is owed to a single source.

Ethiopia: costs and benefits of the “TAZARA of the new era”²

Ethiopia is home to another BRI “flagship project,” the country’s new, partly electrified SGR linking Addis Ababa with the port of Djibouti. At first sight, the project looked promising in terms of “win–win cooperation.” Landlocked Ethiopia received a “lifeline” on rails to the Gulf of Aden, financed through a US\$4.2 billion loan from China Exim Bank. In return, Africa’s second most populous country was firmly integrated into the BRI and its underlying Chinese-oriented mode of accumulation (see Sum 2019). However, the railway has contributed to the country’s growing external debt levels. As Table 2 shows, by the end of 2018 Ethiopia had contracted US \$14 billion in Chinese loans. Ethiopia’s debt-to-GDP ratio, which, following major multilateral debt relief initiatives, stood at 35.1% in 2009, rose to 59.2% in 2018 (World Bank n.d.b). Ethiopia has faced similar problems to Kenya and fell behind in scheduled repayments for the SGR loans as well as management fees to the operator. As a result, the Ethiopian government engaged China in negotiations about extending the repayment period from 15 to 30 years – with success (Chen 2019). Equally, the operations of the Addis–Djibouti railway have yet to reach profitability. In 2019, the railway reportedly created US\$40 million in revenues; its operating costs, however, were US\$70 million, a situation the operators have tried to ameliorate by doubling the number of freight trains that run between the two termini from two to

four per week (Wondewossen 2020). Whether there is sufficient demand for this measure remains to be seen.

The relatively successful developmental state in Ethiopia is now unravelling, largely due to external debt pressures, in which China plays an important part (see Carmody, Krageulund, and Reboredo 2020). Debt is both a vector and an outcome of dependence, and despite substantial Chinese manufacturing investment in Ethiopia its main export to China is still sesame seeds. Irrespective of the developmental constraints that have arisen from Ethiopia's indebtedness, the BRI infrastructure projects, especially the new SGR, at least principally bear developmental spillovers by linking the country's (Chinese-run) special economic zones (SEZs) with export markets. However, as we have argued elsewhere, the Ethiopian experience of the Chinese-inspired SEZ model has itself been problematic, with employment created being largely low skilled and low paid (and feminised) and linkages to the local economy remaining minimal (Giannecchini and Taylor 2018).

Conclusion

The BRI is a peculiar medium upon which to pin African development hopes, unless there are serious and qualitative adjustments towards the goal of Africa's structural transformation (Carmody 2017). This transformation's ultimate goal must be "to break with production for production's sake (or surplus for surplus's sake) and to organize a society geared to optimum consumption and optimum output in accordance with genuine human needs: a society in which the surplus and its utilization were democratically planned" (Foster 2007, 14). Africa's resources must be taken control of by Africans and used to lessen inequality and promote sustainable development:

autonomous and hence continuous development will only occur when the periphery can establish exchange relations ... which do not tie it into a system of dependency likely to perpetuate the underdevelopment created by ... subordination to the dominant institutions of international capitalism. (Brett 1992, 13)

With its rise and incorporation into the global structures of power and governance in accordance with the normative principles of capitalism, China has joined these "dominant institutions"; consequently, South-South solidarity coming from this direction is likely to be largely voided of content, despite the progressive rhetoric that envelops the BRI (see Taylor 2017). As Ehizuelen and Abdi (2018, 290) note, participation in the BRI

is conditional on the involvement of Chinese firms overseas, whether in construction, the operation of projects, or the supply of materials. As a result, the initiative acts as an indirect subsidy for firms, especially state-owned enterprises (SOEs), suffering financially from industrial oversupply.

Furthermore, regarding the spatial-fix foundations of the BRI, infrastructural spatial fixes do not take place in smooth social spaces. Rather, they must deal with the actuality of contradictory and multifaceted social dynamics (van der Merwe, Bond, and Dodd 2019). Violence against Chinese workers and managers in Africa has already occurred and if the dynamics identified above and associated with the BRI intensify, an unfortunate situation – not least for China – may develop. This is not new, of course: Lenin (1948 [1917]) noted that the drive to export capital overseas, and the subsequent need to defend that capital, propels states to

project their political, and sometimes military, power abroad, motivating expansion and simultaneous competition with other capital-exporting countries, although the dynamics of globalisation and interdependence may have altered this. Nonetheless, China has become much more involved in African security in recent years (Alden and Yixiao 2018).

The BRI is designed to serve China and the needs of the Chinese Communist Party (CCP). However, according to Jones and Jinghan (2019, 1416),

projects like BRI are not meticulously planned by top leaders; rather they are loose “policy envelopes,” whose parameters and implementation are shaped by internal struggles for power and resources ... Accordingly, BRI is already unfolding in a fragmented, incoherent fashion, departing significantly from both its original design, in 2013, as part of “periphery diplomacy,” and from formal, top-level plans issued in 2015. This may generate outcomes that, far from reshaping the world in China’s image, could undermine Chinese foreign policy objectives.

They argue that the Chinese state is increasingly characterised by fragmentation, decentralisation and internationalisation, where regional states and SOEs, for example, may ignore central guidance, even if President Xi has increased “cadre discipline and ideological control.” The BRI and increased authoritarianism in China are related. As Kenderine and Ling (2018, 41) argue, “through exporting the capital-works project model under the ‘Belt and Road’ brand, ICC is effectively an acceptance of the reversal of the 3rd Plenum market reforms, avoiding the hard transition to a consumption-driven economy.”

Some econometric and modelling studies find that “Chinese-financed infrastructure reduces spatial inequalities and accelerates the diffusion of economic activity across geographic space” (Bluhm et al. 2018, 7) or that “with moderate assumptions on BRI investment, the simulation results indicated a global welfare gain of 1.3% of global GDP by 2030” (Maliszewska and van der Mensbrugghe 2019, 3). However, such projections are notoriously unreliable and neglect the temporal dimension of debt overhang. And, as a consequence of the COVID-19 pandemic and its economic impact, African governments are now seeking to renegotiate the terms of loans provided by Chinese lenders and increasingly calling on Beijing to provide debt relief measures. The IMF estimates that sub-Saharan Africa’s GDP will shrink by 1.6% in 2020 due to the effects of the virus, depressed oil prices and reduced commodity prices (see UNCTAD 2020). This has come together with the decline in demand by China for African imports (due to the virus) to produce a perfect storm that has highlighted the problems associated with taking on excessive external debt: “The coronavirus outbreak has revealed cracks in the China–Africa dynamic. Gone are the days of Chinese big loans and major borrowing” (Deutsche Welle 2020). Interestingly, even before COVID-19, studies found that most of Africa would see little growth from the project: “[T]he non-BRI area sees some gains with an increase of 0.3%, most of which is captured by Ethiopia, Europe and the Rest of High-Income countries” (Maliszewska and van der Mensbrugghe 2019, 7), with some countries suffering as a result of trade diversion.

Whilst the spatial fix may see a reorganisation of fixed capital to serve as a safety valve for China’s crisis tendencies, the temporal nature is critical. The BRI fix may buy time for Beijing, but the contradictions of China’s development model may become obvious (see Bello 2019). China’s current economic problems make apparent the fact that it is very much integrated into the global capitalist system and that capital accumulation in China follows the same logic and experiences similar flaws as capitalist development does

elsewhere. Spatio-temporal fixes are in the long run unsustainable (Harvey 1982), partly now because of global ecological constraints (Moore 2015), but also because they depend on fragile social, political and institutional fixes (see Jessop 2013). While deferring the moment of reckoning, they do not address long-term problems.

Indeed, Kenderdine and Ling (2018, 42) argue that the capital being exported under the ICC “is essentially local government debt with unpriced risk, [and] that a debt-deflation scenario is being exported to China’s trading partners ... which is introducing unaudited risk to the global capital pool.” The BRI is part of the global system of accumulation and its dynamics (van de Merwe 2019). This interacts with the priorities of the CCP, which as Lake (2017, 379) notes is Leninist in orientation, thereby empowering it “or China as a whole to act on behalf of subordinate peoples without their consent or even acquiescence.” The spatial fix of the BRI helps alleviate the crisis of overaccumulation in China by transferring capital to new spaces, with the prevailing regime of capital accumulation being thus expanded as new spatial systems are produced, and capital is redirected to zones where more profitable returns can be generated. These new spaces, as seen in Africa, are then bequeathed new infrastructures to construct diverse and swifter circuits of production, dissemination and utilisation – but with Chinese interests at heart. For Africa to intensify its own vulnerabilities as some sort of footnote to China’s own contradictions and CCP priorities will yet again highlight the continent’s desperate need for structural transformation and autocentric developmental visions.

Notes

1. “Lunatic Line” is the name given by some media to the British railway constructed in colonial times in Kenya (see Hyam 2006, 134).
2. Harking back to the glory days of Chinese solidarity with Africa, in China, the Chinese-built and -operated Addis Ababa–Djibouti line is commonly called the “Tanzania Zambia Railway of the New Era” (新时代的“新坦赞铁路”; *xin shidai de xin tan zan tielu*).

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