WORKING PAPER

CHINA AFRICA RESEARCH INITIATIVE

NO. 52 APR 2022

How Africa Borrows From China: *And Why Mombasa Port is Not Collateral for Kenya's Standard Gauge Railway*

Deborah Brautigam, Vijay Bhalaki, Laure Deron, and Yinxuan Wang

JOHNS HOPKINS SCHOOL of ADVANCED INTERNATIONAL STUDIES

sais-cari.org

CARI

WORKING PAPER SERIES

NO. 52 | APRIL 2022:

"How Africa Borrows From China: *And Why Mombasa Port is Not Collateral for Kenya's Standard Gauge Railway*"

by Deborah Brautigam, Vijay Bhalaki, Laure Deron, and Yinxuan Wang

TO CITE THIS PAPER:

Deborah Brautigam, Vijay Bhalaki, Laure Deron, and Yinxuan Wang. 2022. *How Africa Borrows From China: And Why Mombasa Port is Not Collateral for Kenya's Standard Gauge Railway.* Working Paper No. 2022/52. China Africa Research Initiative, School of Advanced International Studies, Johns Hopkins University, Washington, DC. Retrieved from http://www.sais-cari.org/publications.

CORRESPONDING AUTHOR:

Deborah Brautigam

Email: dbrautigam@jhu.edu

ACKNOWLEDGEMENTS:

We are deeply grateful for the gracious assistance we received from colleagues in Kenya, as well as exceptionally helpful and often detailed comments on an earlier draft of the paper from many people, including J. C. Alden, Patrick Anam, Olga Boltenko, Daniel Bradlow, Kenneth Hansen, Won Kidane, Kanyi Liu, George Macharia, Paul Nantulya, Thierry Pairault, Anita Plummer, Shuilin Wang, Yuan Wang, Hong Zhang, and especially Christine Brautigam and Yunnan Chen. We appreciate input from the participants in CARI Writing for Impact and Journalist workshops, and a presentation at the Faculty of Law, University of Hong Hong. We alone are responsible for any errors that remain. This research was supported by the Carnegie Corporation of New York, Grant #129871.

NOTE:

The papers in this Working Paper series have undergone only limited review and may be updated, corrected or withdrawn. Please contact the corresponding author directly with comments or questions about this paper.

Editor: Daniela Solano-Ward

ABSTRACT

SAIS-CARI WORKING PAPER NO. 52 | APRIL 2022:

"How Africa Borrows From China: *And Why Mombasa Port is Not Collateral for Kenya's Standard Gauge Railway*"
by Deborah Brautigam, Vijay Bhalaki, Laure Deron, and Yinxuan Wang

In December 2018, a leaked letter from Kenya's Auditor General (AG) warned that Kenya Ports Authority's assets—of which Mombasa Port is the most valuable—risked being taken over by China Eximbank if Kenya defaulted on the Standard Gauge Railway (SGR) loans. The rumor that Kenya had used Mombasa Port as collateral for the railway became widely accepted globally as another example of "Chinese debt trap diplomacy". Our research shows why this rumor is wrong. Unpacking this complicated case required expertise in the practice of international contract law, auditing, and commercial project finance. Our scholar-practitioner team's forensic analysis of all available primary documentation, over nearly two years, found significant mistakes in the AG's analysis. The AG's misreading was amplified by media misinterpretations of the project's take-or-pay agreement (TOPA) and its sovereign immunity waiver clause, both common features in international commercial project finance. Instead of a deliberate debt trap, the railway project was carefully and creatively designed to reduce the risks of a sovereign default and enhance the bankability of a project with high costs but significant long-term benefits for Kenya and the region. Our research puts Kenya's SGR in the context of debates over Chinese strategy and African development. We shed new light on how China Eximbank lends to large Belt and Road Initiative (BRI) infrastructure projects – and how African and other governments borrow. And for Kenyans, we provide the explanation that Kenya's government has failed to give: a detailed account of why they can rest easy that China is not going to be seizing their port – or indeed, any port.

I. INTRODUCTION

In late 2018, a journalist for *The East African* broke a story with the headline "Mombasa Port at Risk as Audit Finds it was Used to Secure SGR Loan."[1] With its claim that Mombasa Port had been used as collateral for the multi-billion Chinese loan package funding the largest public works project Kenya had ever undertaken–the Standard Gauge Railway (SGR)–the article set off a sustained firestorm in Kenya that reverberated across Africa and around the world.

The fear that Kenya had put up Mombasa Port as collateral for the China Eximbank railway loan fit into the "debt trap diplomacy" narrative that became widespread in 2018: the idea that China was deliberately extending loans that could not be repaid in order to seize borrowers' strategic assets. The collateral claim was repeated in a flurry of Kenyan and international social media posts, think tank reports, and news media articles.[2] International headlines such as "China to take over Kenya's main port over unpaid huge Chinese loan," pushed the story.[3] But is it true?

In this paper we argue that this claim is not true. Rather than a deliberate debt trap, we document a straightforward commercial deal, using gold standard international project finance mechanisms that both parties expected would ensure the viability of the project. Investors from Canada to Cairo use similar techniques.

The SGR project was carefully and creatively constructed to reduce the risks of a sovereign default and enhance the bankability of a project with significant benefits to Kenyans, now and in the future. Instead of serving as collateral or security for the loans, the profitable Mombasa Port was linked into the SGR project as its major customer. The port's only role was to help Kenya Port Authority (KPA), its owner, ensure that a set level of cargo would be transported between Mombasa and Kenya's inland capital of Nairobi. If cargo levels dropped below that level, KPA agreed to draw on its own revenues to make up the difference. Repayment of the SGR loan will largely come from Kenya's Railway Development Levy (RDL), a tax on all imports into the country.

For many observers, the debate over the SGR and Mombasa Port was complicated not only by geopolitics, but by the lack of transparency around the public contracts, a deep trust deficit between government and many of its citizens, politicization of the issues, and a host of technical terms and practices used routinely in accountancy and international project finance law, but not in common use. We see these issues in similar rumors about Chinese-financed projects in Sri Lanka (Hambantota Port), Zambia (Kenneth Kaunda Airport and Zambia National Broadcast Corporation), Uganda (Entebbe Airport), and Montenegro (Bar Boljare Highway).

Our multilingual scholar-practitioner team developed the SGR case study to shed light more generally on how China Eximbank's lending works across the Global South. We bring together multidisciplinary expertise in the practice of international commercial law, accountancy and international project finance, and the political economy of the China-Africa economic engagement. Locating and analyzing the primary documents for this case took nearly two years of forensic research. Although this topic is highly sensitive and, citing national security concerns, the

Kenyan government has released few of what is likely a dozen or more separate agreements for the SGR project – agreements that in comparative commercial projects would run, in total, to a thousand pages or more – enough pieces have emerged to give us a sturdy foundation for this analysis.

We argue that the Mombasa Port collateral rumor arose through misinterpretations by various stakeholders of four highly technical documents: a loan contract between Kenya's National Treasury and China's export credit agency China Eximbank; a four party Payment Arrangement Agreement among China Eximbank, the Kenyan National Treasury, Kenya Railway Corporation (KRC), and KPA; a Take-or-Pay Agreement between KRC and KPA, and an Audit Report of KPA by Kenya's Auditor General (AG).

Our research reveals how China Eximbank works with borrowers to fund projects of considerable promise but also significant risk. For Kenyans, we provide the explanation that Kenya's government has failed to give: a detailed account of why Kenyans can rest easy that Chinese banks are not going to be seizing their port – or indeed, any port.

The paper is organized as follows. Section II provides background on the context for railway modernization decisions in East Africa and introduces Kenya's SGR project, while Section III explains how the SGR was financed, introducing the key stakeholders and legal contracts. In Section IV we present the collateral rumor as it unfolded at the time, focusing on the audit of KPA that is the origin of the rumor. Section V is the heart of our analysis, explaining how the AG was mistaken about the risks to KPA, revealing how the AG had misread one tiny but essential clause in the complex contracts, and showing why the loan contracts and the Payment Arrangement Agreement required a "waiver of sovereign immunity". In Section VI we consider the cash flows of the project as they relate to KPA's risks, and more broadly, to the National Treasury and Kenyan taxpayers. Section VII concludes.

II. CONTEXT FOR KENYA'S STANDARD GAUGE RAILWAY: MARKETS VERSUS STATES

There are many criteria—technical, economic, financial, social, environmental, political—to consider when making a large public works decision. These debates reflect different values and, often, fundamental ideological differences over the role of states and that of markets. They also reflect strategic debates over investment timing, and political decisions over the distribution of costs and benefits. Should economic infrastructure be required to pay for itself as a commercial investment, or, given potentially large differences between financial and social benefits, be supported by governments (and taxpayers)? Should roads, rail, bridges, and ports be built to create markets and stimulate development (broadly defined), or be built to meet an existing demand? How to distribute the costs of economic infrastructure built today that will benefit future generations?

In Europe and Asia, railways are generally considered "public goods" that are subsidized to deliver positive externalities: benefits for the environment (lower carbon emissions), and society (congestion, safety), while stimulating regional growth and connectivity. Across European countries, anywhere from 10 to 70 percent of shipping goes via rail. The European Commission (EC) is financially supporting a goal that by 2030, 30 percent of European shipments going further than 300 km should shift from road to rail or waterborne transport, with a target of 50 percent by 2050.[4]

In the United States, public spending on rail is more controversial. Forty percent of intercity freight is shipped, profitably, by rail.[5] However, the Amtrak passenger system in the United States was subsidized by US$ 45 billion between 1970 and 2013, and these subsidies continue to be heatedly debated in the US Congress.[6]

Thus, new railway investments around the world are usually controversial. For example, India debated harmonizing its disjointed colonial railway network for 50 years before deciding to adopt a

Box 1: Railway Gauges

Rail gauges measure the distance between the inner sides of the rails, in millimeters (Box 1 Table). They range from 500 mm to 1,676 mm. Meter-gauge rail has 1,000 mm between rails. The international standard gauge is a distance of 1,435 mm between the inner sides of the rails. The meter gauge line built in the 19th century in East Africa is also referred to as a narrow gauge line (1,000 mm).

Although some reports have suggested that the standard gauge is a "Chinese" standard, it is a gauge originally developed in the United Kingdom and adopted as the British standard in the 1840s. Standard gauge is today used by most North American railroads, most of Europe, North Africa, and the Middle-East, Australia, as well as most of East Asia. Most meter gauge railways in Europe were closed in the post WWII period and replaced with standard gauge.

The rail gauge determines, to a certain extent, the loading gauge and configuration of rolling stock, i.e., the maximum height, weight, and width for locomotives, carriages, wagons, and other vehicles used on the railroad. The wheels and axles of rolling stock must match the gauge of the rails, although it is possible to connect railway tracks with different gauges by wheelset adjustment: lifting each wagon and replacing its wheels and axles, an operation that takes several hours in a train of normal length.

Box 1 Table: Railway Gauges (all in millimeters, mm)

Width	Term	Locations of Use
500 - 1,435	Narrow gauge	Varies: narrower for mines, industries, mountain terrain
1,000	Meter gauge	East Africa, Malaysia, Thailand, Switzerland, northern Spain
1,067	Cape gauge	South Africa
1,435	Standard gauge	North America, Europe, Australia, East Asia, North Africa
1,435 - 1,676	Broad gauge	South Asia

uniform gauge (Box 1: Railway Gauges) in 1993.[7] Europe is still debating gauge harmonization, as well as how to implement the 2011 EC decision. Chinese planners, believing that infrastructure drives growth, have accepted a very high level of indebtedness for their railways, but this decision is also very controversial.[8] While freight trains are generally more profitable than passenger lines, new lines, like new ports, require time to develop their shipping business.[9] These debates played out in the arena of East Africa's railway modernization.

Kenya and the East Africa Railway Masterplan

Kenya's SGR at this writing carries passengers and freight from the Port of Mombasa to a newly constructed "dry port" at Naivasha in central Kenya. The railway is intended to be the first stage of a much larger regional infrastructure program (Figure 1: Map East African SGR). In 2004, leaders in the East African Community (EAC), much of which is land-locked, met and launched an EAC railway master plan to improve weak transportation links within the EAC and its wider region.[10] They adopted the international standard gauge (Box 1: Railway Gauge) as the norm for the regional railway.

Kenya's own century-old, British-built, meter gauge railway was in "dire" condition.[11] In 2006, with World Bank assistance, it would be concessioned to the private Rift Valley Railway consortium, but a decade later it would still only be handling about five percent of the region's shipping.[12]

In keeping with the United Nations' 2030 Strategic Development Goals, Kenya's government launched its Vision 2030 strategic plan in 2008.[13] In January 2009, the East African Railways Master Plan for the

Figure 1: Map East African SGR©

EAC was completed.[14] The Canadian consultants concluded that with US$ 1.2 billion in refurbishing, the old EAC meter gauge railway would be able to handle a projected 6.7 percent annual growth in regional demand, but only for 10 or 20 years, i.e., until 2019, or 2029.[15] By 2011, the Port of Mombasa would be handling nearly 20 million tons of freight. As a study by KRC's own consultants noted then, this was already:

> More than five times the maximum capacity of the existing metre gauge railway in optimum working condition…The situation is bound to worsen with freight volumes at the port of Mombasa projected to grow at an average rate of 8% exceeding 45 million tonnes by the year 2030.[16]

Kenya would clearly need a much larger investment to support the economic growth plan embedded in Vision 2030. But how large?

Some engineers and planners supported a new, unified standard gauge for its clear technical improvements. For example, a group of researchers pointed out that to boost African competitiveness, "the need for a uniform rail gauge among countries cannot be overemphasized".[17] Some extolled the non-financial benefits provided by rail: a lower carbon footprint, better safety record, and other positive externalities. Other analysts focused on debt sustainability, and whether a new railway would generate enough revenue up front to cover its investment costs. A briefing note written by the World Bank's Africa Transport Unit reflected this view, arguing that "[t]here is no economic or financial case for standard gauge in the East African Community area at this time [2008]."[18]

As the EAC governments were considering their next step, China Road and Bridge Corporation (CRBC), a major state-owned engineering company that had built a section of the Shanghai-Beijing high speed rail project, entered the scene, at the invitation of a prominent Kenyan industrialist, who introduced CRBC to the Kenyan president.

CRBC proposed an EPC arrangement, where CRBC would be given an Engineering, Procurement, and Construction (EPC) contract, and would help Kenya secure finance.[19] Offering an attractive, unsolicited bid for a project that is dear to the heart of the political leadership in a borrower country is a timeworn strategy for Chinese firms. These firms will then work hard to lobby Chinese financiers to support the projects, and in particular, China Eximbank, which is mandated to support Chinese firms' overseas contracting business.

On August 12, 2009, CRBC and the Kenyan government signed an MOU that tasked CRBC with carrying out a feasibility study and preliminary design for a new standard gauge railway between Mombasa and Nairobi, without charge (see Appendix F: SGR Timeline).[20] Submitted in February 2011, CRBC's feasibility study concluded that Phase I of the railway could have an economic internal rate of return of nearly 15 percent.[21] In July 2012, the Kenyan government signed a construction contract for Phase 1 of the SGR, from Mombasa to Nairobi (470 km) with CRBC. Using the feasibility study developed by CRBC for Phase 1, Kenya applied to China's export credit agency, China Eximbank, for financing.[22]

Negotiations and meeting financial preconditions took two more years, and the loans were signed in May, 2014. By this time, Kenya, sub-Saharan Africa's fourth largest economy, had become an African node on China's Belt and Road Initiative. The country was growing robustly at six percent annually: "an African lion," as a study by the Brookings Institution, a US think-tank, put it.[23]

Construction began in December 2014. Phase 1 was completed early in May 2017, in time for the election, which the incumbent won. Africa Star Railway Operations Company (Afristar), a locally-registered subsidiary of CRBC's parent company, was contracted by KRC to operate and maintain the railway for 10 years, with an option to reconsider after five years.[24] The passenger rail between Mombasa and Nairobi proved hugely popular with the Kenyan public, and seats were often sold out. The project, running across the technically difficult Rift Valley, won a global award for "outstanding design and construction" from the US-based *Engineering News-Record*.[25]

Phase 2A, from Nairobi to Naivasha (120 km), was completed in 2019. At present, the 590 km SGR stops 365 km short of the border with Uganda. China Eximbank has declined, as of this writing, to finance the rest of Phase 2, allegedly asking the Kenyan government for an improved feasibility study.[26] In the meantime, the Kenyan and Ugandan governments have continued the network by implementing a stop-gap measure: refurbishing the colonial era meter gauge line to connect with the SGR (See Box 1: Rail Gauges).[27] The Kenyan and Ugandan governments continue to negotiate the future of the SGR. A visit to Kenya by China's Minister of Foreign Affairs in January 2022 suggested that the Chinese government remained interested in supporting the EAC's railways modernization effort.[28]

The railway never seemed to escape controversy. Kenyans were worried about corruption and transparency, concerned about the absence of competitive bidding for the project and procurement irregularities, sometimes acrimonious labor relations, and environmental impact, particularly as the new path of the railway traversed the edge of a national park close to Nairobi.[29] One of the most frequently voiced worries about the railway, however, concerned the expected burden of repaying the loans after their grace periods expired.[30] In the next section, we dive more deeply into the key stakeholders and financial arrangements.

III. FINANCING THE SGR: STAKEHOLDERS AND CONTRACTS

Multibillion dollar projects like the SGR project normally involve multiple parties and have a multi-partite set of legal agreements outlining the reciprocal duties of each party. As a 2015 Organization for Economic Co-operation and Development (OECD) report on infrastructure finance noted, these complex legal arrangements are set up to enable "risk-sharing to align the incentives of all parties."[31] Table 1 provides a summary of the main stakeholders involved in the financing of the SGR, while the contracts and payments arrangements are shown in Figure 2, below. Although these details are complex, and the vocabulary can be quite technical, they are important for understanding the collateral controversy, to which we return in Section IV.

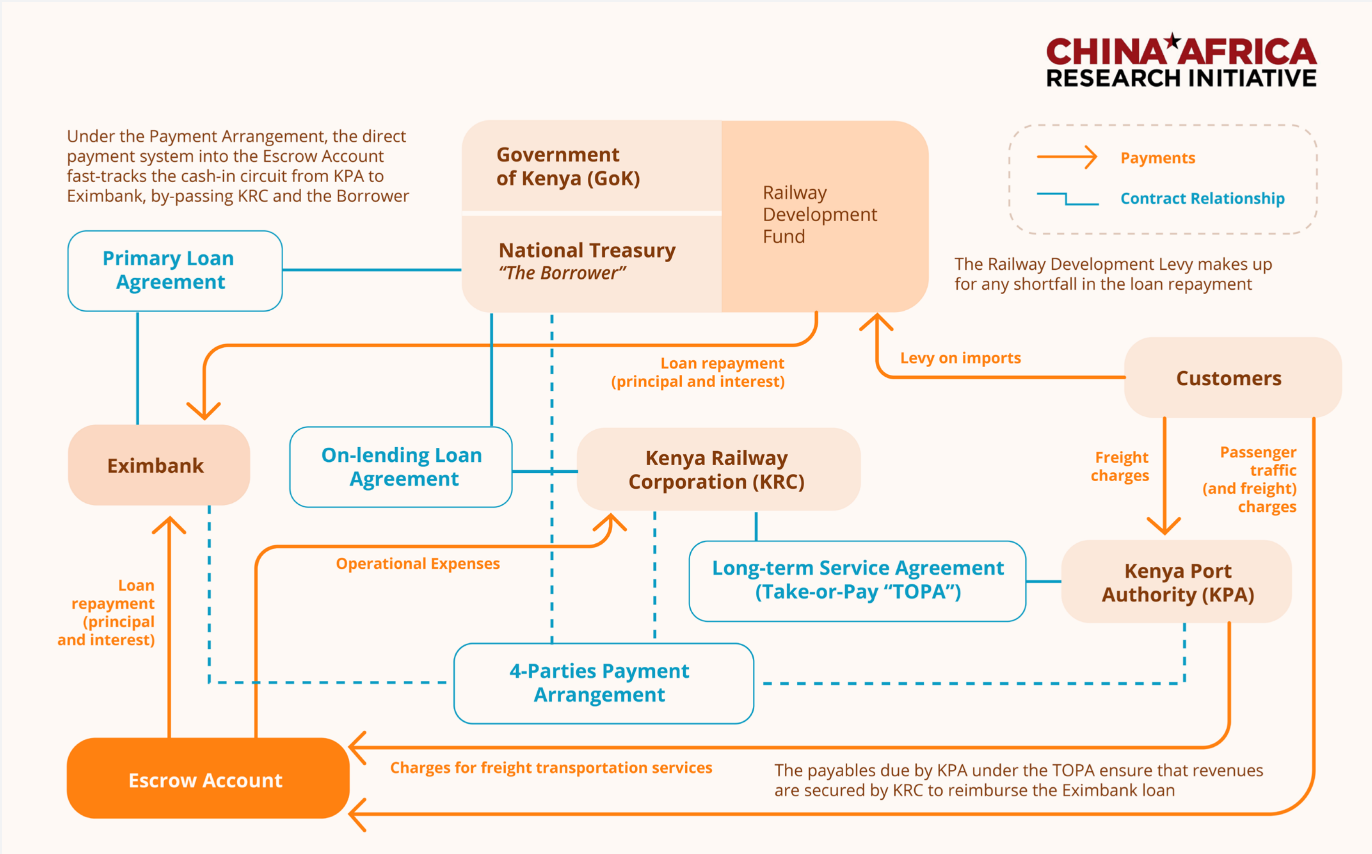
Table 1: Principal Stakeholders

Name	Role	Notes
Export-Import Bank of China (Eximbank)	Lender (China's export credit agency)	The loan contract is between Kenya's National Treasury and China Eximbank
China Road and Bridge Corporation (CRBC)	2009-2011: Conducted the feasibility study and preliminary design for a new SGR between Mombasa and Nairobi. 2012: The Kenyan government signed a construction contract for Phase 1 of the SGR, from Mombasa to Nairobi (470 km) with CRBC.	Is a major state-owned engineering company that had built a section of the Shanghai-Beijing high speed rail project. CRBC's parent company set up AfriStar, a railway operations and maintenance company, which in 2017 received a 10-year contract from KRC to operate the SGR
Kenya's National Treasury	Borrower and signer of both 2014 loan agreements.	Also referred to as "National Treasury"
Kenya Ports Authority (KPA)	State-owned enterprise (SOE). Primary customer of the SGR.	Owns Mombasa Port and has constructed and owns "dry ports" or inland container depots near Nairobi (Embakasi) and the current terminus of the SGR near Naivasha. KPA is in charge of the process of bringing inland-bound containers from the port onto the railway.
Kenya Railway Corporation (KRC)	SOE and project owner of SGR. KRC supplies rail services to KPA's shipping clients, and passenger service	KRC, which runs at a loss, does joint marketing with KPA of the new Naivasha port to importers in the Kenyan hinterlands and Uganda. KRC transports containers to KPA's inland ports. These inland depots are linked to the Mombasa Port container terminal by the SGR, but they are operated by KPA.[32]
Sinosure	Sinosure is a Chinese export credit insurance company.	Kenya's National Treasury was required to take out an export credit insurance policy from Sinosure for the Eximbank commercial loan, at a one-time cost of US$ 113 million (6.93% of US$ 1.63 billion).
Kenya Revenue Authority	Administers and collects Railway Development Levy Together with KPA issued a directive for cargo to be transported on the SGR.	Railway Development Levy is levied on value of imports as provided by the miscellaneous Fees and Levies Act of 2016 (Section 8). In 2019, KPA and the Kenya Revenue Authority issued a directive stating that all imported cargo for delivery to Nairobi and the hinterland would henceforth be conveyed by the SGR and cleared at the Inland Container Depot – Nairobi.
Auditor General (AG)	A civil servant whose office is mandated to review, audit, and report on government financial transactions.	The office of the AG is an independent agency reporting to Kenya's parliament.

Financing Agreements and Credit Enhancements

In February 2014, as the Kenyan government was finalizing the loans with China Eximbank, Kenya's Cabinet Secretary for the National Treasury went before the National Assembly to explain the loan terms and arrangements.[33] He explained that the first phase of the SGR project would be financed with a blended package combining a preferential (subsidized) export buyer's credit of US$ 1.6 billion at a fixed rate of two percent and a commercial loan of US$ 2 billion (Table 2).[34]

Figure 2: Legal Entities and Contracts Relating to Loan Payments, Kenya SGR©



The Cabinet Secretary noted that the government expected the railway to repay the loans through its operational revenues "to the extent possible".[35] However, China Eximbank required credit enhancements. As a global law firm headquartered in the UK notes, credit enhancements like this are a routine step: "most international project financings ... minimize the lender's risks by incorporating a number of back-up or secondary means of credit support provided by the host government, sponsors, purchasers or other counterparties."[36]

Table 2: Standard Gauge Railway, China Eximbank Loan Terms[37]

Loan	Signed	Loan Amount (US$ billion)	Interest Rate	Grace Period	Repayment Period
Mombasa-Nairobi SGR (Phase 1 Preferential Export Buyer's Credit)	May 2014	1.60	2%	7	13
Mombasa- Nairobi SGR (Phase 1 Commercial Loan)	May 2014	2.00	LIBOR + 3.6%	5	10
Nairobi-Naivasha SGR (Phase 2A Commercial Loan)	December 2015	1.48	LIBOR + 3%	5	15
TOTAL		**5.08**			

Notes: LIBOR, the London Interbank Offer Rate, was a variable commercial rate originating in London but used globally by banks to lend to each other. Loans are quoted with a margin or percentage above LIBOR. Chinese loans usually used the 6-month LIBOR rate. The 2020 exchange rate (1USD = 0.0093KSH) was used to convert outstanding amounts from KSH to USD.

Kenya's Cabinet Secretary explained the credit enhancements to the parliament in some detail.[38]

- **Insurance**: The government was required to take out an export credit insurance policy from Sinosure, the Chinese export credit insurance company, for the Eximbank commercial loan, at a one-time cost of US$ 113 million (6.93 percent of US$ 1.63 billion).
- **Off-taker**: China Eximbank asked the government to set up a Long-term Service Agreement (an off-taker arrangement, or "take-or-pay agreement"; see Box 3) between KRC and KPA.
- **Escrow Account:** KRC, together with the Government of Kenya (GOK, represented by the National Treasury, i.e., the Borrower) and the Eximbank (project lender) would need to set up an escrow account "into which revenues from the railway operations will be deposited [by KPA[39]] and from which loan repayments will be made."[40]
- **Policy Directive**: Kenya was to issue "an appropriate policy directive ... to ensure freight is shifted from road to rail transport."[41]
- **Railway Development Levy**: The Cabinet Secretary noted that China Eximbank had asked for confirmation that the RDL would also be used to repay the loan. Kenya's National Treasury confirmed that the RDL "will act as insurance in case revenues under the take-or-pay arrangement[42] fall short of the amount required to service the loan."

The Kenyan government had established, in July 2013, a 1.5 percent levy on all imports into the country for the purpose of financing the railway (the RDL), which was expected to raise at least Ksh 20 billion (US$ 180 million) each year.[44] The RDL bears a strong resemblance to China's Railway Construction Fund (See Box 2: China's Railway Construction Fund below).

Asked whether KPA or its workers will be responsible for repaying the Chinese loans, the Cabinet Secretary replied that loan repayment was not the problem of KPA, but the responsibility of the National Treasury, who signed the loans as the Borrower.[45] China Eximbank and the Kenyan National Treasury subsequently signed the first two loan agreements on May 11, 2014.[46] The Eximbank loans are thus sovereign debts of the central government.[47] The National Treasury onlent equivalent amounts to KRC.

Box 2: China's Railway Construction Fund

In 1991, when China's rail system needed to be expanded, the Chinese government set up a Railway Construction Fund, raising money for expanding the rail network through fees paid by cargo shippers.[48] Railway companies could draw on the fund to subsidize construction or debt service due to borrowing to cover operating losses.[49] The Railway Construction Fund paid for 42 percent of railway construction costs between 1991 and 2003; railway bonds were also issued to support construction.[50]

The Long Term Service Agreement (Take-or-Pay Agreement or TOPA)

On September 14, 2014, KRC and KPA signed a Long Term Service Agreement[51] involving a "take-or-pay arrangement" (See Box 3: TOPA). This formalized KPA's responsibilities for ensuring that the new railway and KPA's improved inland ports gained a minimum of business.[52]

In the Kenya SGR project, KPA (the off-taker) agreed to "take" a minimum level of transport services (described in Schedule 1 in Appendix Table A1) offered by KRC via the SGR, collect the transport charges due to KRC for travel along the railway to the Nairobi container depot from the customers, and remit those charges to a project escrow account (See Box 4: Purpose of an Escrow Account).[53] Although TOPA contracts can be negotiated when conditions change, normally, whether KPA was able to "take" or use the minimum level of freight transportation capabilities booked, or not, KPA would still have to pay the equivalent price to Kenya Railways: take-or-(still) pay.[54]

Box 3: Take-or-Pay-Arrangement (TOPA)

A Take-or-Pay Agreement (TOPA) is a kind of off-take agreement. Off-take agreements are one way that an infrastructure project producing products or services ensures that it will be able to have a steady market. The buyer of those products benefits by receiving a guarantee that the producer will steadily supply the product to them for an agreed period of time, at an agreed price. For example, the developers of a power plant (the seller) sign an off-take agreement with an electricity utility (the buyer, or "off-taker") to buy 100 percent of all the electric power it produces for 10 years. If the plant produces the amount of power that the contract calls for, but the utility's customer base did not grow as the utility had expected, the utility would still have to pay for the volume of power it contracted to buy, but did not "take".

As a prominent textbook on the law and business of international project finance notes, these agreements "are the linchpins of project finance transactions."[55] They are put in place to ensure the bankability of the project and to distribute risks and align incentives fairly among the various project beneficiaries. Lenders generally require these company-to-company contracts to be in place before financial closure.

The contractual mechanics of the TOPA–the "gold standard of international project finance," as one lawyer commented to us–were not well understood in Kenya.[56] "The Chinese loans are very expensive," a prominent Nairobi editor would tell Radio France International in early 2019. "They brought in the Ports Authority to sign a take or pay, meaning that they had to give SGR enough freight so that they can service the Chinese loan. **If not, they will just take the port** [emphasis added]."[57]

Box 4: The Purpose of an Escrow Account

Escrow accounts are established in situations of uncertainty as to whether one or another party to a transaction will be able to meet their obligations. These accounts, held by a third party, generally a bank, hold funds that will later be drawn on only for agreed purposes: to pay a debt, reimburse a seller for a purchase shipped to a buyer, or meet another obligation such as income taxes or insurance premiums.

In project finance, the escrow account would consist of a sales collection account, where revenues are deposited (and from which operating costs can be debited), and a repayment reserve account, from which loan payments are made. Having the participating parties connected through bank accounts that can be monitored by the Borrower and the Lender provides transparency. This, in turn, boosts the "bankability" of the project, rendering it more likely to be financed.

Furthermore, China Eximbank loans normally require large payments twice a year, instead of smaller payments every quarter, rendering payments rather lumpy and possibly challenging to the Ministry of Finance in a lower income borrower whose foreign exchange supply and demands may vary. Therefore, under normal circumstances, these accounts build up a cash balance with scheduled deposits, which eases the biannual payments. Setting up these accounts protects the lender and the borrower. By requiring the buildup of funds in advance of the loan payment, repayment reserve accounts are a safety measure that allows the borrower some flexibility to resolve temporary cash flow problems, and helps to prevent payment defaults.

Although some researchers have described similar escrow accounts required by Chinese loan contracts as "liquid collateral" that can be "seized" in cases of non-payment, this is not an accurate description.[58] Collateral is pledged as security for repayment of a loan, to be forfeited in the event of a default. An escrow account is a current asset at the disposal of the project. The escrow account in the SGR project, as with other Chinese loan contracts and project finance more generally, was designed as a payment route to *prevent* defaults. Escrow accounts carry cash balances to the benefit of intended parties as per the project escrow agreement. The lender would automatically have a lien over the escrow account. So, characterizing it as a 'collateral' is misleading.

As we have explained, a "take-or-pay" agreement means that the off-taker guarantees that it will "purchase" (and pay) a guaranteed amount of the service (here, rail transport for cargo) or product, or waive the service and still pay the equivalent value to the producer. It does not mean that if the loan cannot be paid, the Chinese "will just take the port."

The TOPA commenced in 2020, with KPA agreeing to transfer a minimum tonnage of 6 million to Nairobi that year, rising to a maximum of 7.58 million tons in 2022, thus providing a minimum fixed revenue to KRC.[59]

A Technical Committee was set up comprising the Chief Financial Officers, Chief Operations Officers, and business/commercial managers and corporation secretaries of KRC and KPA. They were tasked to meet quarterly and oversee the implementation of the Agreement, and any adjustments necessitated by cases of *force majeure*. (This would presumably include shortfalls caused by the pandemic.)

On August 3, 2019, KPA and the Kenya Revenue Authority issued the directive stating that all imported cargo for delivery to Nairobi and the hinterland would henceforth be conveyed by the SGR and cleared at the Inland Container Depot – Nairobi.[60] As a Kenyan government official later noted to a reporter, "Kenya took the demand risk and that is why it is our job to ensure the trains are full."[61]

The TOPA created a "contingent liability" for KPA. That is, if KPA was unable to persuade enough shippers to use, and pay for, direct shipping from Mombasa Port to the inland container ports, it would have to draw on its own funds to make up the difference. This has, in fact, been the case. In the first six months of the TOPA coming into effect (January through June 2020), which coincided with the COVID-19 pandemic, KPA only shipped 1.98 million tons instead of the pledged three million tons.[62] This meant that KPA would need to remit to KRC the value of 1.02 million tons, unless the Technical Committee decided that COVID-19 was a *force majeure* situation. KPA is a profitable company (Table 3). We return to the issue of KPA's contingent liability in Section VI. Why did KPA enter into the TOPA? KPA's vision – supported by a number of multilateral and bilateral creditors – is for Mombasa Port to become a world-class port. KPA expects that the port's future growth–estimated to be close to eight percent annually in the short term and 6.5 percent annually in the long term–will largely come from traffic heading to, and from, Nairobi and beyond.[63] The new railway was expected to help KPA's Mombasa Port build its container traffic and transshipment business as the gateway to Uganda, South Sudan, Rwanda, Burundi, and parts of the Democratic Republic of Congo. It would add value to KPA's business proposition, enabling Mombasa Port to increase its overall competitiveness and maintain its dominant position in the region.

Table 3: Kenya Ports Authority Revenue and Profit (US$ millions)

	FY 2015/16	FY 2016/17	FY 2017/18	FY 2018/19	FY 2019/20
Total Revenue	410	409	439	548	492
Pre-tax Profit	106	105	100	137	80

Source: Kenya Ports Authority Annual Report and Financial Statements FY 2019-2020, p. 11.

Evaluating ports in East and Southern Africa, the World Bank in 2019 ranked Mombasa as the region's technically most efficient port.[64] The Bank's analysts noted that among the five main factors contributing to port efficiency was "the existence of an effective rail connection to the port."[65] KRC's railway service benefits KPA's Mombasa Port by reducing port congestion caused by the entry of hundreds of trucks each day, improving efficiency and port performance: allowing a shorter turnaround time for ships.

Section III introduced the stakeholders and explained the complex legal arrangements for the project–arrangements, we stress, that are typical and standard for commercial international project finance used by banks and export credit agencies doing infrastructure finance but less common in foreign aid agreements like those used by donors like the World Bank. With this background in place, we can now turn to the controversy itself: the rumor that Mombasa Port served as collateral for the SGR.

IV. THE MOMBASA PORT CONTROVERSY ERUPTS

Kenya's Mombasa Port collateral controversy has to be seen in the context of the rising geopolitical tensions between the US and China. In June 2018, the *New York Times* published an enormously influential article detailing what their reporters believed to be an exposé of a Chinese port "asset seizure" in Sri Lanka. Although researchers later found that the asset seizure claim was not supported by the facts, the idea of "Chinese debt trap diplomacy" swept through the global press and policy circles.[66] On November 14, 2018, for example, a report by Moody's Investors Service warned that countries "with strategically important infrastructure, like ports or railways in Kenya, are most vulnerable to the risk of losing control over important assets in negotiations with Chinese creditors."[67]

As worries about Chinese asset seizures were rising, the KPA was undergoing its annual audit. The purpose of an audit of a government-owned company is not only to go over the accounts, but to point out any financial and compliance risks that the auditor sees, and which should be disclosed in the public audit report.[68] On November 18, 2018, two days after the Moody's report about risks, Kenya's AG's office sent the management letter and draft copy of the audit report to KPA. As is normal for an audit, the management letter asked for clarification and additional information on several points that had arisen during the audit. KPA would review and respond to those points in its own letter, and then the audit would be finalized and published.

The Management Letter and Draft Audit: November 16, 2018

After it arrived at KPA, three pages of the management letter were leaked by a KPA whistleblower to a prominent Kenyan anti-corruption activist, who tweeted them to his Twitter contacts on December 18, 2018.[69] The letter, penned by a staff member on behalf of the AG, pointed to the Payment Arrangement Agreement for the SGR project (described on page 17) as a significant risk that KPA had not disclosed in its financial report. We quote here from the leaked letter:

> The payment arrangement agreement substantively means that the Authority's revenue would be used to pay the Government of Kenya's debt to China Exim bank if the minimum volumes required for consignment are not meet [sic] as per schedule one. China Exim bank would become a principle [sic] in over [sic] KPA if KRC defaults in its obligations and China Exim bank exercise [sic] power over the escrow account security.

The first sentence describes KPA's responsibility factually (and accurately), although as we have noted, the revenues KPA is obligated to provide are limited as per the TOPA and its Schedule 1 (Appendix Table A1). The second sentence provides an opinion: that the TOPA poses a far more significant risk to KPA than a potential cut in its profits. It mistakenly, in our view, treats the escrow account as a collateral that can be "seized", rather than a repayment route. And it suggests that KPA *and China Eximbank* are also linked through the TOPA's escrow account.

The letter continues:

> The KPA assets are exposed since the Authority signed the agreement where it has been referred to as a borrower under clause 17.5 and any proceeding against its assets by the lender would not be protected by sovereign immunity since the government waived the immunity on the Kenya Ports Assets by signing the agreement. The agreements [sic] is biased since any non-performance or dispute with the China Exim bank (the lender) would be referred to arbitration in China, whose fairness in resolving the disagreement may not be guaranteed.

Box 5: Floating Charges

Assets can be fixed, as in land or buildings, or "floating", as in a revenue stream. A "charge" is an encumbrance or a lien on an asset that does not transfer title to that asset but rather requires the asset to discharge relevant obligations. A *floating* charge is a lien on an asset or a group of assets whose value(s) might fluctuate over time. For example, a hydroelectric project might be financed with support of a floating charge on the revenues of the transmission company in the same group. In project finance, it is common practice to secure loans by a charge on current assets such as receivables or revenues, whose value is not fixed but fluctuates over time. A floating charge requires a binding agreement between the two parties that current assets, i.e., the entirety of one party's revenues, (in this case, the entirety of KPA's revenues) will support the loan repayment. It collateralizes the current assets of that party. Creating a floating charge also requires other lenders, if any, to agree to the floating charge.

The letter asked KPA to disclose these risks in its revised financial statement and to confirm in its response that "KPA assets are not a floating charge/guarantee [See Box 5: Floating Charge] to the Government of Kenya loan as the borrower."

The controversy soon made it into the international media. Asked about the Kenya case at her regular press conference on December 24, 2018, a spokesperson for the Chinese Ministry of Foreign Affairs, stated: "We have checked with the relevant Chinese financial institution and found that the allegation that Kenyan side used the Mombasa Port as a collateral in its payment agreement with the Chinese financial institution for the Mombasa-Nairobi Railway is not true."[70]

On December 28, 2018, when pressed by a Kenyan reporter about the controversy, Kenyan President said, "You want a copy of the contract, my friend, I'll get it to you tomorrow."[71] This did not happen.

However, early in 2019, a reporter for the *Sunday Nation* managed to obtain a copy of the preferential export buyer's credit loan contract between Kenya's National Treasury and China Eximbank.[72] "Kenya's key strategic assets at home and abroad will not be protected by 'sovereignty' and risk being seized by the Chinese government should there be a default," he concluded on January 12, 2019, quoting Clause 5.5 of the loan contract:

> Neither the borrower (Kenya) nor any of its assets is entitled to any right of immunity on the grounds of sovereignty or otherwise from arbitration, suit, execution or any other legal process with respect to its obligations under this Agreement…

The *Sunday Nation* story noted the denial from the Chinese Foreign Ministry about the allegation that Mombasa port was used as collateral for the SGR but dismissed it:

> It is a statement that could be true if viewed with a narrow lens, considering that **there is no specific reference to the port** [authors: emphasis added] in the contract seen by the *Sunday Nation*, but the sweeping statement … makes all assets fair game.

Article 201 of Kenya's 2010 Constitution requires the public to be informed about matters relating to public spending, while the Access to Information Act 2016 privileges the "duty to disclose" government information, subject to specific limitations.[73] In contrast to a number of other countries, there is no specific Act requiring that foreign loan contracts be published in Kenya's *Gazette*, or presented to parliament for approval.[74] This lack of specificity means that despite the Constitutional statement of principle, interpretation of transparency requirements is hotly debated, in the press and in the courts. In April 2019, Kenya's Attorney General weighed in against the President's impromptu pledge, citing clauses in the commercial contracts that oblige confidentiality unless required by Kenyan law.[75]

The Final Audit Report: April 17, 2019

The final Audit Report was revised to reflect KPA's responses. Importantly, the revised report mentions nothing about KPA assets being a floating charge, so KPA must have confirmed to the Auditor that there was no formal agreement to this effect. The convoluted (and confusing) sentence in the management letter– "China Exim bank would become a principle [sic] in over [sic] KPA if KRC defaults in its obligations and China Exim bank exercise [sic] power over the escrow account security" –is no longer in the final report, suggesting that KPA had also alleviated this concern in its response to the (leaked) management letter.[76]

Here, we lay out the auditor's remaining concerns in more detail. All quotations are from the final Audit Report published in April 2019.[77]

(1) Payment Arrangement Agreement - Disclosure. The auditor interpreted the TOPA as meaning that "in the event of default by Kenya Railway Corporation to pay China Eximbank collected freight and service charges, Kenya Ports Authority would be compelled to deposit the amount due to Kenya Railways Corporation to [sic] bank account designated by the China Eximbank." KPA had not disclosed this responsibility, he charged.

(2) **Payment Arrangement Agreement - Misrepresentation.** In the Auditor's opinion, KPA had misrepresented its true obligation regarding loan repayment. KPA (and KRC) were both actually borrowers, according to the Auditor's interpretation of Clause 17.5 in the Agreement:

> The Agreement in clause 17.5 also refers to Kenya Ports Authority as a borrower, contrary to the aforementioned details that Kenya Ports Authority's only obligation is to facilitate/ guarantee minimum freight volumes to meet the requirements of the Long Term Service Agreement. Under this Clause, the Agreement provides that each of the borrowers, in this case Kenya Railways Corporation and Kenya Ports Authority agrees...

(3) **Take-or-Pay Agreement.** The Final Report repeated the opinion that the take-or-pay arrangement "substantively means that the Authority's revenue would be used to pay the Government of Kenya's debt to China Eximbank if the minimum volumes required for consignment are not met as per Schedule 1."

(4) **Risk of KPA Asset Seizure.** The concern here relates to the standard sovereign immunity waiver, discussed below, and is worth quoting in detail, as it is the centerpiece of the worries about Mombasa Port:

> Kenya Ports Authority assets are exposed to risk of takeover by the lender since the Authority signed the Payment Arrangement Agreement. Clause 17.5 of the Agreement states that, 'Each of the Borrower, KRC and KPA agrees that in any proceedings against it or any of its assets (present or future) in connection with this agreement no immunity (whether characterized as sovereign or otherwise) from such proceedings shall be claimed by it or in respect to its assets (present or future) and it irrevocably waives any right of immunity (whether characterized as sovereign immunity or otherwise)'. It appears from the Payment Arrangement Agreement that Kenya Ports Authority's revenue **and assets** [emphasis added by authors] have expressly guaranteed the repayment of the loan amounting to Kshs. 363.96 billion financing the standard gauge railway, a material fact which has not been disclosed in the financial statements."[78]

To summarize, the AG's report was clear about its opinion that the Kenyan government had created a risk that China Eximbank would seize KPA's "**revenue and assets**". Revenues are floating assets; this phrasing of "revenues and assets" strongly implies that the AG believed that KPA's *fixed* assets, of which Mombasa Port is the most valuable, were also at risk.

The 2018 Audit Report was finalized in April 2019, but it was not presented to Parliament until March 2021.[79] The tabling of the report sparked a revival of the story with the now familiar headlines. Kenya's Cabinet Secretary for the National Treasury & Planning, immediately tried to defuse the issue with a press release.[80] The SGR loans were the responsibility of the National Treasury, he repeated. They are "part of the public debt" and will be paid by the National Treasury.

> The Government of Kenya, through the National Treasury, is servicing the SGR loans... The Port of Mombasa is a strategic asset financed by the Government of Kenya with support from both multilateral and bilateral development partners. The Port has absolutely no adverse exposure to any lender or category of lenders through existing loan arrangements with the Government of Kenya.[81]

During the long delay in the publication of the Audit Report, the assumption that Mombasa Port was collateral for the loan was repeatedly stated in news stories and analyses in and outside of Kenya. In the next section, we turn from the narrative of the controversy itself to our analysis.

V. WAS KENYA'S AUDITOR GENERAL CORRECT ABOUT THE RISKS TO KPA?

The AG's 2017-2018 audit of KPA raises some valid concerns, but we believe it is mistaken on several key points. Our argument rests on two key findings: first, that the AG's opinion was based on a mistaken interpretation that KPA was a Borrower, legally responsible, along with the National Treasury, for repaying the Chinese loan. The second misinterpretation was that the standard waiver of sovereign immunity clause meant that KPA had essentially pledged their assets as security for the loan.[82]

This section is organized as answers to a number of frequently asked questions raised by the AG's report that are central to this case. We explain why KPA is not a Borrower, and has no direct responsibility for the China Eximbank loan repayment. We explain the general nature of a sovereign immunity waiver, why KPA agreed to sign the waiver, and what the waiver means in practice, in the event Kenya defaults, or otherwise fails to observe the loan contract. We also explain why KPA's risks are not open-ended but quite limited. Finally, we briefly discuss the issue of the contract requiring arbitration in China and what that means for KPA, and Kenya.

(1) Is KPA a borrower? Did KPA fail to disclose its responsibility for loan repayment?

One of our most important findings is that the AG was mistaken to call KPA a Borrower. Therefore, KPA had no direct or indirect responsibility for loan repayment to disclose.[83]

Clause 17.5 of the four party Payment Arrangement Agreement quoted by the AG actually spelled this out clearly: "**Each of the Borrower, KRC and KPA agrees** [emphasis added] that in any proceedings against it ..."[84] To a legal expert, it is immediately clear that Clause 17.5 refers to three parties: the Borrower (i.e., the National Treasury), KRC, and KPA. Each of them agrees to waive its sovereign immunity.

We have already established that the National Treasury alone signed the loans, but we add here that in a loan contract, the parties and important concepts are usually defined, and capitalized, at the start of the contract in a definition section, i.e., who is the "Lender" who is the "Borrower" and so on. This defined term is used consistently throughout all of the other legal agreements. Here, the drafting is designed to highlight that "each" one of these three parties, in its own right, "agrees" to the commitment. It does not refer to three borrowers, and it does not define KRC and KPA as borrowers.

Yet this distinction seems to have been misunderstood by the AG's office, which paraphrased Clause 17.5, as noted above: "Under this Clause, the Agreement provides that **each of the borrowers, in this case Kenya Railways Corporation and Kenya Ports Authority agrees** [emphasis added] ..." Without noticing the mistaken paraphrasing, the AG pointed to Clause 17.5 to support its interpretation that KPA was actually a borrower and had misrepresented its obligations.[85] This matters because it shows that from the start of its analysis, the AG was operating from incorrect assumptions that may have influenced its view of KPA's risks.

The AG also appears to have misinterpreted how the TOPA worked. KPA is responsible for collecting freight and service charges from its customers on behalf of KRC and depositing them in the escrow account jointly set up by KRC, the National Treasury, and China Eximbank, where they will contribute to loan repayment (Figure 2). Yet the AG wrote that "in the event of default by Kenya Railway Corporation to pay China Eximbank collected freight and service charges, Kenya Ports Authority would be compelled to deposit the amount due to Kenya Railways Corporation to [sic] bank account designated by the China Eximbank."[86]

As Figure 2 (page 11) shows, this is not how the arrangement worked. First, KPA is obligated to pay the service charges it collects into the designated escrow account, (or make good the shortfall, as per Schedule 1) not in the event of default by KRC, but because it has signed the TOPA. Second, the National Treasury has onlent the funds to KRC, but the National Treasury remains responsible for loan repayment from the various sources of revenue it has available, including the RDL. KRC itself is not in the position of "defaulting" to China Eximbank. Third, the escrow account bank would not be unilaterally designated or assigned by the China Eximbank, but mutually agreed upon by both sides. In the SGR case, the escrow account is held in a bank inside Kenya. Using language like "in the event of default" and "compelled to deposit" distorts the relationship among KRC, KPA, the National Treasury, and China Eximbank.

(2) Why did KPA (and KRC) agree to waive their sovereign immunity if they are not borrowers? What does this mean?

Waivers of sovereign immunity are standard clauses in international commercial loan contracts.[87] Under international law, sovereign States are generally immune from lawsuits. Contrary to a private market actor (like an individual or a corporation) a State cannot be compelled to appear before an international judge or arbitration venue, for example by creditors for forced payment if a loan goes into default (this is called immunity from jurisdiction). Similarly, the State is immune from enforcement of a foreign judgment rendered against it, for example if a foreign creditor obtained a court order to liquidate government property as a means of repayment: State property cannot normally be seized (immunity from execution).
Yet few international banks will offer a loan, if there is no legal way to recover their money should the borrower default. As an American lawyer who works for a major international law firm based in

Washington DC put it in an interview with us: "leaving out a sovereign immunity waiver in a commercial loan contract would be grounds for professional malpractice". Hence, as Hoffman's textbook on international project finance puts it, "In agreements with the host-government and with entities controlled by the government, a waiver of sovereign immunity is required."[88] A database of 38 non-Chinese commercial project finance loan contracts released by the government of Cameroon shows that banks from Belgium, Germany, Spain, Turkey, Austria, and the UK all required sovereign immunity waivers.[89]

Some worry that waiving sovereign immunity means "losing" national sovereignty. However, national sovereignty continues undiminished even when a State agrees to allow itself to be a defendant or subject of an international court proceeding. (This is a characteristic of rights more generally. For example, one's right to free speech continues unbroken even if one voluntarily puts a limit on that right by signing a contract to rent an apartment in a community with strict noise ordinances.)

In Kenya, both KPA and KRC are state-owned enterprises controlled by the government, and are parties to some agreements within the overall package (Figure 2). Any international lawyer advising China Eximbank would have routinely had all the parties involved in the various legal agreements related to the loan also waive their sovereign immunity in the contract, in case they are one of the parties involved in a dispute that goes to arbitration.[90]

The sovereign immunity waiver is not well understood outside of the world of international law.[91] For example, a reporter wrote: "A leaked report by the Auditor-General's office shows that the Kenyan government had in 2013 waived the port's sovereign immunity in order to use it as a security for the Chinese loan."[92] However, there is quite a large gulf between a standard sovereign immunity waiver signed by all the parties to a contract, and the specification of a particular asset like a port as collateral, as we explain next.

(3) The Auditor General said that KPA's revenue and assets guaranteed the repayment of the SGR loan. Does KPA's Mombasa Port serve as collateral for the SGR loan?

No. The AG appeared to believe–perhaps because of its mistaken assumption that KPA was a borrower–that KPA had agreed to pledge its revenues and its assets to repay a debt that was not KPA's debt. Understanding this requires a discussion of the difference between a legal guarantee, security, or collateral, and a "guarantee" or "comfort" in the economic sense.

A legal security or guarantee, i.e., collateral, is a back-up payment mechanism that is only activated when the debtor defaults. KPA's only legal guarantee is to KRC, collecting the proceeds from KPA's shipping customers (i.e., sales collection) and remitting these payables into the escrow account's sales collection account. In case of shortfall as per Schedule 1, KPA tops up the sales collection account as per the TOPA agreement. KPA's role in the overall project is to provide credit enhancements, i.e., comfort for the lender.

Furthermore, if KPA's physical assets such as Mombasa Port had been separately pledged as collateral, the Government of Kenya would have had to create a specific lien on these physical assets. This would show in the public records, much as a mortgage on a house shows up during a title search as a lien on the property. Filing the papers to create a lien is expensive; it is also, by nature, traceable and would likely give rise to political controversy upon being created. And it would require all of the other creditors to KPA to agree to the lien.[93] Kenya's Cabinet Secretary effectively confirmed that KPA had not signed a lien in his March 15, 2021 statement referenced above: that Mombasa Port "has absolutely no adverse exposure to any lender or category of lenders".[94]

Therefore, Kenya has not used Mombasa Port assets as security, but rather used Mombasa Port's profitability, dynamism, and overall financial capacity as a support to the SGR project. The TOPA mechanism allowed the Kenyan government to create a bankable project when the main project owner, KRC, operated at a loss. The SGR, as a 2020 KPA report put it, "has been a key step in the challenge of dealing with additional freight flows."[95]

Finally, KPA made it very clear that it did not see any risk to its physical assets, such as the port. In its *2019/2020 Annual Report and Financial Statement*s, KPA included a discussion of its obligation under the TOPA.[96]

> The TOPA places the Authority as guarantor for minimum traffic and commits to pay KRC any shortfall. This arrangement increases the level of commitment and hence the risk **on KPA cash flows** [emphasis added by authors].

The primary unstated risk that the AG's report identified in 2018 is here explicitly (and in our view, appropriately) answered. KPA faces a risk to its cash flows – not its ports.

(4) Will KPA's revenues be used to pay the Government of Kenya's debt to China Eximbank if the minimum volumes required for consignment are not met? Should KPA have disclosed this risk?

The short and narrow answer is yes although as noted above, KPA's risks are limited to the TOPA. The National Treasury is the stakeholder that must repay the debt, using all of these revenue streams under its control (Figure 2). Under the TOPA, KPA has an unconditional, precisely defined, yet difficult to predict, obligation to KRC to generate a minimum volume of revenue for the railway.

KPA was required to disclose this TOPA risk as a contingent liability. The International Accounting Standard (IAS) 37 defines contingent liabilities as "possible obligations whose existence will be confirmed by uncertain future events that are not wholly within the control of the entity".[97] As best practice, IAS 37 requires adequate disclosure of a contingent liability in the financial statements when the liability can be estimated and the uncertain future event is likely to occur.

However, as we saw above, KPA quite properly addressed this issue in its *2019/2020 Annual Report and Financial Statements*, where it estimated and disclosed the SGR related contingent liability in the year that it became effective.[98] The AG's audit was correct to flag this impending risk, but it is reasonable that KPA did not disclose in its 2017/2018 Financial Statements a contingent liability that was not going to take effect until 2020.

(5) Is Arbitration in China a Risk for KPA?

The AG's leaked management letter of November 2018 had stated that the four party Payment Arrangement Agreement was "biased" against KPA, since it required resolution of any contract disputes through arbitration (See Box 6: Arbitration), and specified use of the China International Economic and Trade Arbitration Commission (CIETAC) in Beijing, "whose fairness in resolving the disagreement may not be guaranteed.[99] The concerns about "bias" and "fairness" were absent from the final report, but the AG retained the concern that requiring arbitration at the CIETAC was "unfavorable" to Kenya.

Box 6: Arbitration

Arbitration is a largely extra-judicial, alternative dispute resolution method. All parties in contracts consent to arbitration in advance, to avoid having to negotiate it after a dispute has arisen. The parties will submit their differences to private arbitrators (normally, a three-member panel) that they chose themselves. Parties to the arbitration process can decide to keep the proceedings confidential, and they can decide whether or not to admit amicus briefs, while other kinds of court proceedings may be required to be public.

A number of reputable international institutions compete to offer arbitration services (which can be quite lucrative): the London Court of International Arbitration, the Hong Kong International Arbitration Center, the International Chamber of Commerce in Paris, or other venues.[100] It is important to underline that while national courts serve justice in the name of their State and people, by contrast arbitrators act as a-national, independent justice actors. Contrary to judges, their mission is not to serve the state and its laws.

In other research, we reviewed a number of Chinese loan contracts and found that, like the Chinese loan contracts in this case, they all specify that disputes will be resolved by arbitration.[101] The specific location for arbitration is a point that can be negotiated by the respective legal teams. Some Chinese loan contracts specify Paris, others London or Hong Kong. However, most often they specify the CIETAC.

The CIETAC in Beijing originally started its activities in 1956. Dozens of international arbitration centers now exist around the world. As Chinese banks and companies sharply increased their investments overseas, China has sought to promote the use of arbitration venues on its territory. This is partly to profit from the immense potential of China-related disputes as the Chinese economy becomes more globalized, and also to offer a list of arbitrators familiar with recurrent issues in a Chinese context, able to speak Chinese and who understand Chinese cultural practices.

Chinese loan contracts generally note that disputes should be solved through "friendly consultation," but should this fail, the parties agree that the dispute will be submitted to binding arbitration. While a detailed review of this concern is beyond the scope of this paper, in this section we explain why most payment and other contract disputes involving sovereign states do not proceed to arbitration. The SGR is not likely to be an exception.

Arbitration would be used if Kenya defaulted on the loan, or if there was another significant dispute (for example, if KPA refused to carry out its obligation under the TOPA). Yet most contract disputes involving sovereign States do not proceed to arbitration, even if the State has waived sovereign immunity to allow it.

First, even when arbitration results in an award to the creditor, there are legal and practical limits on the collection of debts. As two legal scholars note: "Many sovereign assets are immune from attachment and execution, and sovereigns can easily (if not cheaply) keep the rest away from creditors. Courts can inconvenience sovereigns; they cannot make them pay."[102] Theoretically, were it to win an award, China Eximbank could apply to Kenyan courts to enforce its claim inside Kenya. Yet most national courts will be either reluctant to grant a sentence constraining their own State and agencies, or be under downright political pressure not to do so. As a Kenyan expert noted, Kenyan courts have generally "declined to enforce awards" from foreign courts that conflict with public policies, including the transfer of assets, whether commercial or related to national security.[103]

Second, the negative political and practical repercussions of China Eximbank proceeding down this route – going after a sovereign State's commercial assets in courts around the world, or even in Kenya – cannot be overstated. At a minimum, reverting to the courts creates a risk of Chinese companies being blacklisted for future projects in the country.

For these reasons, the preferred option to resolve a payment dispute in international projects, whether Chinese or other, is to engage in intensive consultations and amicable talks, in particular when contracts are for a long-term project where maintaining good rapports between parties is critical for the future of the transaction.[104] If a problem arises, the parties will normally settle their differences using "friendly consultation" (although the playing field might not be level) since arbitration's costs, duration, relationship damage, and lack of enforceability act as effective deterrents.

Research shows that in the past, as a result of such amicable discussion on debt settlement, China Eximbank has sometimes agreed to a re-negotiation of the loan terms and/or the payment dates.[105] In other cases, discussions have prompted injections of equity from investors to assist with balance-of-payments problems, or borrower invitations to third party financiers to take-over some of the debts at more preferential commercial conditions.[106] The prospects of China Eximbank getting a repayment through refinancing, rescheduling or investor equity injections would be far better than by initiating a litigation case.

* * *

In 2018, Kenya's AG was of the opinion that KPA had not disclosed all of the risks it faced in relation to the SGR project and that KPA's revenues and other assets were exposed to the risk of take-over by the lender. We have provided evidence here that the AG mistakenly identified KPA as "a borrower" and how that mistake contributed to the widespread but mistaken conclusion that Kenya's government had positioned Mombasa Port as collateral for the SGR project loan.

Yet KPA does have a contingent liability under the TOPA. The next section looks at KPA's ability to meet the TOPA agreement. These estimates allow us to specify the actual risk KPA faces to its cash flows. In developing these estimates, we are also able to shed some light on how the four party Payment Arrangement (Figure 2) is expected to work in repaying the SGR loan.

VI. FINANCIAL AND DEBT SUSTAINABILITY: KPA AND NATIONAL TREASURY

Kenyans are worried about two financial aspects of this project: the impact on Mombasa Port (via KPA), and the larger question of the overall debt sustainability of the SGR project. These questions became even more salient in May 2020 as a result of the global shock of the COVID-19 pandemic, which pushed Kenya's risk of debt distress from moderate to high.[107]

In this section we explain how KPA will comfortably meet its TOPA financial obligations under its agreement with KRC. According to the IMF, even with the SGR project, Kenya's overall debt remains at a sustainable level, and Kenya is expected to continue to grow at an average rate of six percent.[108] While a full retrospective re-analysis of the economic and financial sustainability of the SGR project – its internal rate of return and net present value – is beyond the scope of our work, we can also shed light on how Kenya's government planned to use the credit enhancements to repay the SGR debt.

Our analysis relies primarily on data from Kenyan documents and publications, although we have had to make assumptions when data was unavailable (See Appendix D for details). We projected SGR's cargo volume, KPA's revenue and profit, and KPA's cargo traffic. We also conducted sensitivity analyses, as all of these parameters can fluctuate.

KPA's TOPA Obligations

Based on the cargo handling capacity of Mombasa port and SGR, we expect that KPA is likely to face a five to 25 percent annual shortfall in transported volume between 2022 and 2025 but then will be able to fully meet the TOPA freight obligations in Schedule 1. However, KPA is a profitable corporation. According to our estimates, KPA's profit can fully cover the liability corresponding to shortfalls as high as 40 percent.

As noted previously, the TOPA has a clear mechanism – the Technical Committee noted in Clause 8 – to determine the attribution of shortfall for reasons within the control of KPA or within the control of KRC.[109] KPA is only responsible to compensate for the shortfall caused by its inability to load/unload the cargo from SGR (Appendix Table A1). In cases of *force majeure*, which might have included the start of the pandemic in 2020, KPA's actual responsibility can be negotiated.

The TOPA mechanism has been working since 2020. In 2020, KPA handled 34 million tons of cargo, of which the SGR transported 12.9 percent or 4.4 million tons of cargo.[110] Compared with the six million tons stipulated in the TOPA, the shortfall amounted to 1.6 million tons, or 26.4 percent.[111] KPA's *Annual Report 2019/20* notes:

> The minimum tonnage for the calendar year 2020 is 6,000,000 tons. If this is prorated, it means that for the first six months of the year, KPA should have railed 3,000,000 tones [sic]. However, 1,983,059 tones [sic] were railed and US$ 9,255,917 remitted to the SGR escrow account, against the expected US$ 14,002,483. The maximum reduction of profit or the contingent liability for the year 2019/2020 (6 months) is therefore USD 4,746,567.[112]

The contingent liability resulting from this shortfall accounts for approximately 12 percent of KPA's six-month profit in 2020. If this shortfall continued at the same rate for the rest of 2020, the total shortfall for that year would have been about 26 percent of KPA's average pre-tax profits during the period 2015 to 2020 (See Table 3: KPA Profits). Presumably the Technical Committee has worked as intended to mitigate this liability during the pandemic, and so KPA's liability would likely be even lower.

Given the monopoly nature of the project and the purported cost advantage of shipping containers on SGR against trucks, KPA's ability to fulfill its TOPA commitment is linked to its cargo handling capacities and cargo availability. The SGR's current capacity limit is assumed to be 8.7 tons.[113] With double-stacking, which KRC implemented on a trial basis between January and June 2021, SGR's ability to transport KPA's cargo can expand beyond this capacity limit.

Suppose the SGR operator implements double-stack railings after SGR's annual cargo volume reaches its current capacity limit (assumed to be 8.7 tons).[114] In that case, the annual tonnage transported through SGR could grow beyond 10 million tons by 2030, while the TOPA cargo commitment will decline significantly after 2030 as loan repayments continue. This further strengthened our confidence in KPA's ability to fulfill TOPA arrangements in the medium to long term.

However, much of the cargo being transported on the SGR may only have made the switch from road due to directives issued by the Kenyan government. There have been court challenges to these directives, which have so far not affected the mandate.[115] Should Nairobi and hinterlands freight be released from the requirement that it travel by rail, it is possible that KPA will find it more challenging to fulfill its TOPA requirement. In addition, as Tanzania considers reviving its troubled Bagamoyo port project, KPA's Mombasa Port may face increasing competition in the long run, which could hinder the Mombasa port's ability to maintain the current growth rate.[116] Nevertheless, even in the case of a shortfall of 40 percent in freight traffic, KPA is well within its financial capacity to compensate KRC, without in any sense mortally injuring its financial position.

SGR Cash Flows and Loan Repayment

According to the IMF, the black swan event of the COVID-19 pandemic moved Kenya from moderate to high risk of debt distress. In January 2022, Chinese lenders (mainly China Eximbank, and mainly for the SGR) accounted for 19 percent of Kenya's external debt.[117] Although debt sustainability is not the central focus of our analysis, it is central to Kenyan worries. Calculating the cash flows for the project and KPA's role allows us to comment on how this complicated deal is unfolding from the perspective of Kenyan taxpayers.

Our research (details in Appendices) confirms that the SGR by itself does not have the inherent capacity to generate freight and passenger revenues to repay the loans, as others have also argued.[118] SGR revenues can currently cover operating expenses, but barely. Public finances provide the primary support for loan repayment through the RDL.[119] Even that is not enough to cover debt service on the loans in the early years. Additional support from the National Treasury is required from 2020 to 2025. In 2021, the SGR loans accounted for 12 percent of Kenya's public exertnal debt.

None of this should be surprising. As we noted above, complicated government infrastructure projects like this routinely require credit enhancements to make them viable.

Although Kenyan taxpayers are subsidizing the project through their taxes, and the debt is high, the SGR project is a significant public asset on the positive side of the ledger sheet. Its revenue generation potential will last for many decades beyond 2035 when, *ceteris paribus*, the loans for Phase 1 and 2A will be fully repaid. By 2036, even without any further investment, the SGR should be able to generate around US$ 70 million in profits. Kenya has invested in a railway that matches its Vision 2030 aspirations to become "a globally competitive and prosperous country".[120]

Concerned about debt distress, Kenyan officials have expressed interest in restructuring the SGR loans. In 2018, Ethiopia's government was successful in achieving a 20-year extension in repayment for its own Chinese-financed railway. China Eximbank has provided 10-year payment extensions in several other cases.[121] With a 10-year payment extension, SGR revenues and the RDL could fully cover all principal and interest payments after the peak year of 2022. This would effectively ease pressure on Kenya's foreign exchange reserves and further reduce the already low probability of default on the SGR debt.

VII. CONCLUSION

This paper examined Kenya's SGR project, focusing on the widespread conspiracy theory that the Kenyan government had used Mombasa Port as collateral for the China Eximbank loan. Although Kenya's government has not released the actual loan documents, we believe that enough evidence exists to say, categorically, that Mombasa Port was not used as collateral and, further, that there is no question of the port ever being "seized" by China Eximbank should Kenya default on the SGR loans.[122]

It is quite probable that in December 2018, the AG's office, the whistleblower at KPA who leaked the draft management letter, and Kenya's media were primed to worry about Chinese asset seizures. For most of that year, the rumor that China had deliberately indebted Sri Lanka in order to seize its port when Sri Lanka couldn't repay Chinese loans was widespread and essentially unchallenged. Scholars later determined that the Sri Lanka case was far from being an asset seizure. Although Hambantota port had struggled under Sri Lankan management and was indeed losing money, leasing the port to a foreign joint venture followed the original plans for the port, plans devised by Canadian and Danish consulting firms.[123] Yet the myth remains persistent. It forms the basis for concerns about Chinese intentions regarding ports and other strategic assets around the world.

We have argued that worries about the risks to the port were heightened by the Auditor General's misreading of several clauses in the four party Payment Arrangement Agreement – leading to an assumption that KPA was an actual borrower, rather than simply a party to the TOPA. Any obligation that KPA has to this project rests on its obligation to "take" a certain quantity of freight service from KRC, and, if unable to do so, to "pay" KRC the equivalent value, *not* its obligation to repay the China Eximbank loans. KPA's proven profitability even through the pandemic means that under any but the most extreme assumptions, it can comfortably make up any cargo shortfall, living up to its obligations under the TOPA.

From KPA's perspective, the SGR is bringing Kenya's rail system from the 19th century into the 21st. KPA was facing hundreds of trucks jostling in its yards to meet the arrival of every ship. The SGR significantly boosted KPA's cargo handling capabilities and therefore its inherent valuation. A railway project that increased their ability to offer seamless service to their customers enhanced their own goals. It also created an opportunity for Kenya, in the longer term, to emerge as a multi-modal logistics hub for the region, even if that goal is now delayed by uncertainties over the SGR's expansion. In January 2022, as we were completing this research, KRC announced that the temporary integration of the SGR and the meter-gauge line was weeks away from being finalized. The CEO of the Shippers Council of East Africa called the integration "a game changer," as long as it was efficiently operated:

> Importers consider cost and efficiency. If the consignment reaches on time at the cheapest cost, that is what they will go for. The introduction of railway is what we have been pushing for as it will give importers an alternative means of hauling their cargo.[124]

Transparency has been a significant failure in this case, with blame on both the Chinese lender and the Kenyan borrower side. As one Kenyan remarked: "No one outside of an elite circle within the State House has even the faintest idea as to why they're so afraid to tell us the truth about this loan that we, the people, are obligated to pay!"[125] This failure fueled the conspiracy theory.[126]

Kenya's National Treasury did not make the loan contract documents available to the auditors during the KPA audit, despite the Auditor's request. China Eximbank's loan contracts have a standard confidentiality clause, similar to those used by France's Agence Française de Développement.[127] This clause allows borrower governments to disclose loan contracts when "required by applicable law." Kenya's laws are ambiguous on this requirement, and Kenya's vibrant civil society have pressed their government in court (unsuccessfully, as of this writing) to release the contracts.

Allowing the AG's office confidential access to contracts that they consider essential for doing their job properly might have helped the National Treasury clarify the risks to KPA. Kenya might consider the further step of instituting a specific Act of parliament, requiring loan contracts to be routinely published in the government *Gazette*, as other countries have done.

This may create short-term challenges, as legal documents are complicated, and easily politicized. Political opponents, the media, even other researchers may not take the time to understand these complicated and multi-dimensional documents; some may deliberately distort them. For example, reporters and some parliamentarians in Montenegro, Nigeria, Uganda, and the European Union proved unable – perhaps deliberately – to understand standard clauses such as "waiver of sovereign immunity" in Chinese loan contracts.[128]

Rumors about asset seizures in these countries have simmered in the media despite multiple attempts by legal experts to explain the concepts to the general public. Yet as a colleague put it: "it is incumbent on the government to provide explanations of how it understands the obligations it is incurring in the contract."[129] This can lead to healthier debate–among lawyers with different interpretations, and others–and has the benefit of better educating the public about these complex matters.

Why did China Eximbank, a policy bank, require waivers of sovereign immunity and the use of escrow accounts and TOPAs, features that are unusual in foreign aid and more commonly seen in straight commercial project finance? Part of the answer is that none of the loans in this deal were "official development assistance" (ODA), according to criteria developed by the OECD. The Chinese loans were commercial loans. The features they employ only seem unusual to those who have become used to seeing project finance as coming from donors like the World Bank, which is a preferred creditor with multiple ways to protect its loans from the risks inherent in frontier and emerging market countries.

Furthermore, after the 1980's debt crisis, infrastructure finance from multilateral banks, and OECD bilateral aid agencies shrank sharply. Between 2007 and 2020, Chinese lenders provided 2.5 times more finance for African infrastructure than all other bilateral development finance institutions combined.[130] The history of debt crises in Africa, and globally, shows that sovereign guarantees on their own often provide no real guarantee of repayment. Chinese financiers are wary of relying solely on sovereign guarantees, hence the use of routine, yet complex, private sector risk mitigation techniques in order to be able to lend where others feared to go.[131]

Although the purpose of this research was to understand and explain what happened in the Mombasa Port collateral controversy, we emphasize that other important questions remain beyond the scope of our inquiry. Did the Kenyan government invest in a 21st century, visionary project that will, over time, stimulate growth and prosperity, connecting the East African region, or a costly white elephant that will be a long-term burden on Kenyan citizens? Why do Kenya's media and the public have so little trust in their government, and the Chinese government, disregarding repeated public assurances that the port was not being used as collateral?

This analysis also does not directly answer the larger question underpinning worries around this and other Chinese-financed projects: Will China leverage its creditor position to press debtor governments to make decisions they would not otherwise make? Like other powerful countries and lending institutions, China and its banks certainly have the capacity to put pressure on borrowers. Yet the concern about leverage has often been linked in the public square to the belief that Chinese loans are deliberately structured for the purpose of asset seizure. The care with which China Eximbank insisted on multiple credit enhancements strongly suggests that what Chinese banks care about is what banks care about around the world: being repaid, not obtaining a strategic asset like Kenya's Mombasa Port.

The "debt trap diplomacy" fear that borrowers' strategic assets and sovereignty are directly at risk from China is appealing in its narrative simplicity, but lacks supporting evidence. Pundits, reporters, and politicians misrepresent the risks, for both sides, of China's project finance. In reality, as in any commercial deal, what is at stake is, instead, a long-term, intertwined economic relationship between African and Chinese investors, where *both* stand to win if a project goes well – or to lose, in case it does not. ★

APPENDIX A

Table A1: Long Term Payment Agreement (TOPA) Schedule 1 - Minimum Freight Volumes

Year	Minimum tonnage to cover repayment per year	Minimum tonnage to cover repayment per day	No. of trains per day	Repayment Est. (US$ millions)
2020	6,000,000	13,973	5.23	385
2021	5,723,333	13,328	4.99	536
2022	7,583,333	17,660	6.61	583
2023	7,309,000	17,021	6.37	567
2024	7,051,333	16,421	6.15	550
2025	6,777,000	15,782	5.91	534
2026	6,502,667	15,143	5.67	518
2027	6,228,333	14,504	5.43	502
2028	5,954,000	13,865	5.19	486
2029	5,696,333	13,265	4.97	369
2030	2,255,333	5,252	1.97	258
2031	2,214,333	5,157	1.93	251
2032	2,173,333	5,061	1.90	245
2033	2,132,333	4,966	1.86	238
2034	2,108,000	4,909	1.84	170

Note: Assumed tariff US$/tkm used by the Agreement is US$ 0.12 per tkm. The actual tariffs have varied between US$ 0.04 and US$ 0.07. The purpose of the TOPA is to help ensure the payment of the loans for Phase I (see Table 1). The loans' principal will be reduced each year due to repayments, and their grace periods end at different times. The amount of tonnage that KPA is required to remit reflects these expectations.
Source: Replicated from "Agreement Between Kenya Railways Corporation and Kenya Ports Authority" p. 11.

APPENDIX B: DETAILS OF FINANCIAL ANALYSIS

B1. KENYA PORT AUTHORITY'S TOPA LIABILITY[132]

We conducted a simple scenario analysis to project potential shortfall compensation from KPA. After SGR's freight service started operation in 2018, SGR transported 4.2 million tons of freight in 2019 and 5.3 million tons in 2021, reaching an annual growth rate of 13.3 percent. KRC also projected that cargo volumes at the Mombasa Port would grow by eight percent annually through 2030. Conservatively estimating future SGR cargo volumes with the eight percent growth rate, we find that KPA is well within the capacity to deliver on the minimum tonnage starting from 2025.[133] SGR's annual cargo volume could grow to 7.2 million tons by 2025, 0.5 million tons over the TOPA requirement. From 2021 to 2024, we expect KPA to transport five to 25 percent less than the minimum tonnage stipulated in the TOPA.

We projected KPA's revenue and profit based on its pre-pandemic performance and estimated its annual financial responsibility under either a 20 or 40 percent tonnage shortfall from 2021 to 2028 (Table B2, on the following page). We used shortfalls higher than our projection to estimate KPA's contingent liabilities in worst-case scenarios. In the model, we used SGR's revenues per ton*kilometer in 2019 and 2020 to estimate the tariff rate payable by KPA to KRC. SGR's revenue per ton*kilometer was US$ 0.0651 in 2019, which was assumed to be the regular price, and its revenue per ton*kilometer was US$ 0.0469 in 2020, which was assumed to be the discounted tariff rate under the impact of the COVID-19 pandemic. Calculations show that even under the pre-pandemic tariff rate (US$ 0.0651 per t*km), KPA's profit is always at least US$ 37 million even after remitting TOPA payments due to the financial responsibility brought by a 40 percent shortfall in the transported cargo. In summary, KPA is well within capacity to deliver on the minimum tonnage in the medium to long run.

Table B2: KPA's Estimated Revenue, Profit & Commitment in the Case of Shortfall (US$ Millions)

	2021	2022	2023	2024	2025	2026	2027	2028
KPA Revenue	452	497	548	603	665	732	807	888
KPA Profit	112	122	133	145	158	172	187	204
TOPA Required Tonnage (million tons)	6.0	5.7	7.6	7.3	7.1	6.8	6.5	6.2
Tonnage Shortfall - by 20% (million tons)	1.2	1.1	1.5	1.5	1.4	1.4	1.3	1.2
Tonnage Shortfall - by 40% (million tons)	2.4	2.3	3.0	2.9	2.8	2.7	2.6	2.5
Avg Tariff/tkm (US$) - based on 2020 rate	0.047	0.049	0.052	0.054	0.057	0.060	0.063	0.066
KPA Commitment - 20% Shortfall	27	27	38	38	39	39	39	39
KPA Commitment - 40% Shortfall	54	54	75	76	77	78	78	79
Avg Tariff/tkm (US$) - based on 2019 rate	0.0651	0.0684	0.0718	0.0754	0.0791	0.0831	0.0873	0.0916
KPA Commitment - 20% Shortfall	38	38	52	53	54	54	54	55
KPA Commitment - 40% Shortfall	75	75	105	106	107	108	109	110

Note: KPA's 2020/2021 revenue, profits, and growth rates are projected based on the average of its pre-pandemic performance from 2015 to 2019. The average tariff rate is estimated based on SGR's revenue per ton-kilometer in 2019 (regular rate of US$0.0651) and 2020 (discounted rate of US$0.0469) with a projected annual growth rate of 5%. KPA revenue and profit figures are fiscal year figures, but we use them as calendar year data for estimation purpose

Source: Calculated by authors using data in https://www.knbs.or.ke/wp-content/uploads/2021/09/Economic-Survey-2021.pdf; Financial Report in the Auditor General Report; "Long Term Service Agreement" [Take-or-Pay Agreement], p. 11.

B3. SGR LOAN REPAYMENT

We estimated SGR's cash flow based on SGR's revenue, freight transport, handling capacity, operating and capital costs, and data on imports and the RDL in Kenya (details in Appendix Table E4). We also simulated the influence of double-stacking containers, which can lift SGR's cargo handling capacity. The data are mainly from Kenya's official economic reports and annual reports of Kenya's state-owned agencies, but some supplementary data were found in media reports. Appendix D lists all the assumptions involved in the model.

With the Railway Development Levy

Kenya developed the RDL expressly to pay for the SGR. Incorporating the RDL into our model, we found that the SGR project (Phases 1 and 2A) still has a negative cash flow in the early years, from 2020 through 2025. The Kenyan government would need to cover these negative cash flows with other public funds, such as its foreign exchange reserves. The most significant negative cash flows occur in 2022 (about US$ 179 million). After 2022, the negative cash flow will gradually decrease as the loan repayments progress and project revenues increase. Double-stack railings will not raise SGR's revenue to the level that can cover loan servicing costs.

Without the Railway Development Levy

In the absence of the RDL, SGR's revenue alone would still be able to cover operating expenses by 2019/20, but will not be able to also cover debt service throughout the term of the three loans, i.e., until 2038. In this scenario, the SGR would have faced the largest negative cash flow (exceeding US$ 550 million) in 2022.

With RDL and Reprofiling the Three SGR Loans

Given that the Kenyan government has discussed repayment extension on the loan, we also calculated how a reprofiling, in this case a 10-year repayment extension for all three loans beginning in 2022, with other loan terms unchanged, would affect the SGR project. SGR revenues and the RDL could fully cover all loan repayments and interest payments after 2022. Extending the term by 10 years could effectively ease pressure on Kenya's foreign exchange reserves and further reduce the already low probability of default on the SGR debt.[135]

Appendix C1: Standard Gauge Railway Project with Railway Development Levy - Cash Flow Analysis (US$ Millions)

	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036
Inflows																				
Passenger Revenue	6	16	17	8	19	20	21	22	23	24	25	26	27	28	30	31	32	34	35	37
Freight Revenue - Single Stacking	-	40	116	117	120	127	134	142	149	158	166	176	179	183	186	190	194	198	202	206
Freight Revenue - Double Stacking	-	40	116	117	120	127	134	142	149	158	166	176	185	196	207	218	230	243	256	271
Outflows																				
Operation Expenditure	60	123	122	116	113	120	126	132	139	146	153	161	169	177	186	195	205	216	226	238
Interest																				
Loan 1a	32	32	32	32	32	31	28	26	23	21	18	16	14	11	9	6	4	1	-	-
Loab 1b	96	96	96	91	81	72	62	53	43	34	24	14	5	-	-	-	-	-	-	-
Loan 2	37	50	62	62	62	58	54	50	45	41	37	33	29	25	21	17	12	8	4	-
Principal Repayment																				
Loan 1a	-	-	-	-	62	123	123	123	123	123	123	123	123	123	123	123	123	62	-	-
Loan 1b	-	-	100	200	200	200	200	200	200	200	200	200	100	-	-	-	-	-	-	-
Loan 2	-	-	-	-	99	99	99	99	99	99	99	99	99	99	99	99	99	99	99	-
Net Project Cash Flow - Single Stacking	**(219)**	**(244)**	**(278)**	**(377)**	**(510)**	**(556)**	**(538)**	**(519)**	**(501)**	**(482)**	**(464)**	**(445)**	**(332)**	**(224)**	**(221)**	**(219)**	**(217)**	**(154)**	**(92)**	**5**
Net Project Cash Flow - Double Stacking	**(219)**	**(244)**	**(278)**	**(377)**	**(510)**	**(556)**	**(538)**	**(519)**	**(501)**	**(482)**	**(464)**	**(445)**	**(326)**	**(211)**	**(201)**	**(191)**	**(181)**	**(109)**	**(38)**	**70**
Railway Development Levy	201	211	280	308	361	384	409	436	464	494	526	560	597	636	677	721	768	818	871	928

Appendix C2: Standard Gauge Railway Project with Railway Development Levy - Cash Flow Analysis (US$ Millions)

	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036
Net Funding Cash Flow - Single Stacking - After RDL	(18)	(33)	2	(68)	(149)	(172)	(129)	(84)	(37)	12	62	116	265	412	456	502	551	664	779	933
Net Funding Cash Flow - Double Stacking - After RDL	(18)	(33)	2	(68)	(149)	(172)	(129)	(84)	(37)	12	62	116	271	425	476	530	587	709	833	997

APPENDIX D: MODEL ASSUMPTIONS

Loan 1a

- Disbursement period: 2015 to 2017
- Principal repayment moratorium: Until July 2021
- Interest was paid during the principal repayment moratorium (interest was not capitalized)
- Repayment period: 13 years
- Payment frequency: Semi-annual
- Interest rate: 2%

Loan 1b

- Disbursement period: 2015 to 2017
- Principal repayment moratorium: Until July 2019
- Interest was paid during the principal repayment moratorium (interest was not capitalized)
- Repayment period: 10 years
- Payment frequency: Semi-annual
- Interest rate: LIBOR+3.6%
- LIBOR: 1.18%

Loan 2

- Disbursement period: 2015 to 2019
- Principal repayment moratorium: Until January 2021
- Interest was paid during the principal repayment moratorium (interest was not capitalized)
- Repayment period: 15 years
- Payment frequency: Semi-annual
- Interest rate: LIBOR+3%
- LIBOR: 1.18%

Kenya SGR Revenues

- Operation start date for passenger service was late 2017 and for freight service was January 2018.
- Revenue and annual freight volume data for October 2021 and earlier are pulled from Kenya Leading Economic Indicators. Later data are projected.
- Passenger revenue growth rate: 4.5%
- SGR freight capacity under the single-stacking scenario is 8.76 million tons per year.[136]
- SGR freight capacity under the double-stacking scenario is 17.52 million tons per year.

- Freight Revenue from Table E1: SGR Revenue - Freight Revenue. Data for 2022 and later are projected.
- Passenger Revenue from Table E2: SGR Revenue - Passenger Revenue. Data for 2022 and later are projected.
- Annual freight volume growth rate: 8%
- Freight revenue growth before the freight volume reaches the capacity limit: 5.6%
- Freight revenue growth after the freight volume reaches the capacity limit: 2%

Kenya SGR Operation Costs

- In 2017, Kenya only paid half of the annual operation cost.
- From 2018 to 2021, the annual operating costs are actual costs; the US$ equivalent of 12.4 billion Kenyan shillings at the then annual exchange rate.
- In 2022, the operation cost is assumed to be US$ 120 million.
- After 2022, the operation cost is projected under the assumption that operation expenditure inflation is 5% per year.

Railway Development Levy

- See Table E4: Railway Development Levy for data.
- Starting from 2019, RDL is estimated based on Kenya's national import.
- Kenya's import data for 2022 and later are projected.

Exchange rates

- 2015: 1 KSH = 0.010165328 USD
- 2016: 1 KSH = 0.009857959 USD
- 2017: 1 KSH = 0.009684174 USD
- 2018: 1 KSH = 0.009881891 USD
- 2019: 1 KSH = 0.009805571 USD
- 2020: 1 KSH = 0.009391374 USD
- 2021: 1 KSH = 0.009110983 USD

APPENDIX E: STANDARD GAUGE RAILWAY REVENUE

Table E1: SGR Freight Revenue (in US$)

	2018	2019	2020	2021
January	251,991	9,974,893	10,259,964	9,589,599
February	492,894	7,736,401	7,835,285	9,183,990
March	1,793,959	8,829,486	7,094,369	15,188,732
April	2,554,473	9,928,396	8,729,056	13,714,551
May	2,906,054	9,222,016	9,040,772	8,774,122
June	4,203,160	9,541,278	9,672,180	8,292,720
July	5,211,871	11,238,793	11,587,713	8,213,919
August	4,243,499	10,514,837	10,472,355	8,560,475
September	4,175,801	10,020,983	9,745,594	9,440,549
October	4,705,050	10,041,799	11,068,867	9,385,765
November	4,941,141	9,802,455	10,921,857	10,034,442*
December	4,947,847	9,484,236	10,364,811	10,034,442*
Total	**40,427,741**	**116,335,574**	**116,792,823**	**120,413,307**

*November and December 2021 data are projected
Exchanges rates used: 1 KSH = 0.009881891 USD in 2018, 1 KSH = 0.009805571 USD in 2019, 1 KSH = 0.009391374 USD in 2020, and 1 KSH = 0.009110983 USD in 2021
Source: Calculated by authors from data in Leading Economic Indicators December 2021, December 2020, December 2019, and December 2018, Kenya National Bureau of Statistics, https://www.knbs.or.ke/data-releases/.

Table E2: SGR Passenger Revenue (in US$)

	2017	2018	2019	2020	2021
January	-	1,088,991	1,231,614	1,223,313	1,492,091
February	-	1,007,272	1,226,744	1,201,463	1,426,399
March	-	1,240,505	1,722,725	894,261	1,589,192
April	-	908,865	1,208,743	55,465	616
May	-	1,279,351	1,388,740	0	1,388,296
June	770,383	1,308,058	1,430,911	0	1,665,122
July	845,168	1,917,340	1,452,659	214,439	2,214,011
August	719,914	1,193,259	1,625,544	370,692	2,070,671
September	564,123	1,202,943	1,303,361	486,821	1,782,537
October	774,023	1,634,821	1,330,919	1,178,089	2,230,354
November	1,369,479	2,182,569	1,377,075	1,210,756	1,585,929*
December	1,035,302	961,410	1,550,356	1,579,640	1,585,929*
Total	**6,078,392**	**15,925,385**	**16,849,392**	**8,414,939**	**19,031,145**

*November and December 2021 data are projected
Exchanges rates used: 1 KSH = 0.009881891 USD in 2018, 1 KSH = 0.009805571 USD in 2019, 1 KSH = 0.009391374 USD in 2020, and 1 KSH = 0.009110983 USD in 2021
Source: Calculated by authors from data in Leading Economic Indicators December 2021, December 2020, December 2019, and December 2018, Kenya National Bureau of Statistics, https://www.knbs.or.ke/data-releases/.

Table E3: SGR Cargo Movements (in metric tons)

	2018	2019	2020	2021
January	22,346	365,356	375,828	449,731
February	57,633	308,540	293,088	456,136
March	164,254	331,906	259,138	507,924
April	208,577	356,906	327,091	460,787
May	228,800	319,757	342,326	434,733
June	268,787	337,024	383,782	430,455
July	306,105	394,717	421,745	361,309
August	309,902	369,647	414,775	398,925
September	309,873	343,819	369,246	446,954
October	344,283	342,877	427,388	506,157
November	331,752	350,611	412,426	445,311*
December	346,362	337,934	391,610	445,311*
Total	**2,898,674**	**4,159,095**	**4,418,443**	**5,343,733**

*November and December 2021 data are projected
Source: Calculated by authors from data in Leading Economic Indicators December 2021, December 2020, December 2019, and December 2018, Kenya National Bureau of Statistics, https://www.knbs.or.ke/data-releases/.

Table E4: Railway Development Levy (in millions)

	2015	2016	2017	2018	2019	2020	2021
KSH	17,273	18,903	20,780	21,303	28,587	32,844	41,710
US$	176	186	201	211	280	308	380

Note: From 2015 to 2018, the levy amounts are converted from data for FY 2015/16 to FY 2018/19. Railway Development Levy collected in 2019, 2020, and 2021 are estimated based on total imports of Kenya.
Source: Calculated by authors from data in "Annual Revenue Performance Report FY 2018/19," (Kenya Revenue Authority, 2020), https://www.kra.go.ke/images/publications/Revenue-Performance-Report-2018-19.pdf; Leading Economic Indicators December 2021 and December 2020, Kenya National Bureau of Statistics, https://www.knbs.or.ke/data-releases/.

APPENDIX F: STANDARD GAUGE RAILWAY TIMELINE

Table E1: SGR Freight Revenue (in US$)

Date	Description
April 2004	Leaders in the East African Community (EAC) adopted the international standard gauge as the norm for the regional railway
April or September 2008	CRBC proposed an EPC+F arrangement for the construction of SGR
October 2009	The Governments of Kenya (GOK) and Uganda signed a memorandum of understanding (MOU) to construct the railway line from Mombasa to Kampala
August 2009	GOK and CRBC signed MOU tasking CRBC with carrying out feasibility study and preliminary design for a new SGR between Mombasa and Nairobi
July 2012	GOK signed a construction contract for Phase 1 of the SGR, from Mombasa to Nairobi (470 km), with CRBC
August 2013	The governments of Kenya, Uganda, and Rwanda signed an agreement to expedite the construction of standard gauge railways connecting their capital cities
May 2014	GOK signed a US$ 1.6 billion Preferential Export Buyer's Credit and a US$ 2 billion commercial loan agreements with China Eximbank for Phase 1 of the SGR
December 2014	Construction of the Phase 1 Nairobi – Mombasa SGR line commenced
December 2015	GOK signed a US$ 1.48 billion commercial loan agreement with China Eximbank for the Phase 2a Nairobi-Naivasha section of the SGR
March 2016	GOK signed construction contracts for Phase 2a and 2b of the SGR
October 2016	Construction of Phase 2a Nairobi-Naivasha SGR commenced
June 2017	The Mombasa-Nairobi passenger service opened
January 2018	The Mombasa-Nairobi freight service opened
July 2019	Repayment of the commercial loan for Phase 1 of the SGR started
October 2019	The Phase 2a Nairobi-Naivasha railway line commissioned
January 2021	Repayment of the commercial loan for Phase 2a of the SGR started
July 2021	Repayment of the Preferential Export Buyer's Credit for Phase 1 of the SGR started
January 2029	The commercial loan for Phase 1 of SGR is expected to be fully repaid
January 2034	The Preferential Export Buyer's Credit for Phase 1 of SGR is expected to be fully repaid
July 2035	The commercial loan for Phase 2a of SGR is expected to be fully repaid

Note: repayment schedules of SGR loans are estimated based on the original terms in the loan agreements. This table does not reflect potential changes that may be caused by debt relief, such as suspensions under the G20 Debt Service Suspension Initiative.

ENDNOTES

1. George Omondi, "Mombasa Port at Risk as Audit Finds It Was Used to Secure SGR Loan," *The East African*, July 5, 2020, https://www.theeastafrican.co.ke/tea/business/mombasa-port-at-risk-as-audit-finds-it-was-used-to-secure-sgr-loan-1408886.
2. For example, Fox Business television commentator Lou Dobbs reported that "the communist nation will soon take over Kenya's largest port in Mombasa," https://twitter.com/i/status/1374747312854011911; James Anyanzwa writes of Kenyan's "concern that the country's ballooning debt and particularly the Chinese loans, have put national assets at risk of being seized by the Chinese government in the event of loan default," "East Africa's Joint Mega Railway Project at the Crossroads," *The East African*, January 28, 2019 https://www.theeastafrican.co.ke/tea/business/east-africa-s-joint-mega-railway-project-at-the-crossroads-1411240; "Mombasa Port serves as collateral for the railway loans," in Jacob J. Lew et al., "China's Belt and Road: Implications for the United States," Independent Task Force Report (Washington, D.C.: Council on Foreign Relations, 2021), p. 47, https://www.cfr.org/report/chinas-belt-and-road-implications-for-the-united-states/download/pdf/2021-04/TFR%20%2379_China%27s%20Belt%20and%20Road_Implications%20for%20the%20United%20States_FINAL.pdf.
3. "China to Take over Kenya's Main Port over Unpaid Huge Chinese Loan," Hellenic Shipping News, November 22, 2019, https://www.hellenicshippingnews.com/china-to-take-over-kenyas-main-port-over-unpaid-huge-chinese-loan/.
4. European Court of Auditors, *Special Report: Rail freight transport in the EU: still not on the right track* (Luxembourg: Publications Office of the European Union, EN 2016 No. 08, 2016) https://www.eca.europa.eu/Lists/ECADocuments/SR16_08/SR_RAIL_FREIGHT_EN.pdf.
5. Michael Grunwald, "Back on Tracks: Freight rail's renaissance is powering the U.S. economy even without Uncle Sam's help," *Time*, July 9, 2012, https://business.time.com/2012/07/09/us-freight-railroads/.
6. https://www.cbo.gov/budget-options/2013/44782.
7. "India and Africa: Forging a Strategic Partnership" (New Delhi, India: Brookings Institution India Center, October 2015), 78, https://www.brookings.edu/wp-content/uploads/2015/10/india-africa-briefing-book-brookings-india.pdf.
8. See David M. Lampton, Selina Ho, and Cheng-Chwee Kuik, *Rivers of Iron: Railroads and Chinese Power in Southeast Asia* (Oakland, California: University of California Press, 2020); According to Cong Wang and Haisheng Hu, "Status Quo and Standardized Management of Railway Construction Fund," *Journal of Beijing Jiaotong University (Social Science Edition)* 19, no. 1 (2020): 33–40, https://doi.org/10.16797/j.cnki.11-5224/c.20200106.006 the Chinese railway system has a "huge … unsustainable debt".
9. Shana Cui, Russell Pittman, and Jian Zhao, "Restructuring the Chinese Freight Railway: Two Scenarios," *Asia and the Global Economy* 1, no. 1 (January 2021): 100002, https://doi.org/10.1016/j.aglobe.2021.100002.
10. CPCS Transcom Limited, "East African Railways Master Plan Study Final Report" (Bridgetown, Barbados: CPCS Transcom Limited, January 2009), https://africog.org/wp-content/uploads/2017/06/The-East-African-Railways-Master-Plan.pdf. Today the EAC comprises Burundi, Kenya, Rwanda, South Sudan, Tanzania, and Uganda.
11. World Bank, "Kenya Economic Update" (The World Bank, June 2013), p. 3, https://www.worldbank.org/content/dam/Worldbank/document/Africa/Kenya/kenya-economic-update-june-2013.pdf.
12. Brendon Cannon, "Inland Container Depots and the Future of Handling East Africa's Cargo," *Kenya Engineer*, January 18, 2018, https://www.kenyaengineer.co.ke/inland-container-depots-future-handling-east-africas-cargo/. This discussion also includes an excellent analysis of the role of inland container depots.
13. The UN Sustainable Development Goals (SDGs), negotiated to cover the period 2015-2030, were a follow-up to the UN Millennium Development Goals (MDGs), which covered the 2000-2015 period. While the MDGs targeted developing countries, the SDGs, with the title "Transforming our world: the 2030 Agenda for Sustainable Development," are for all countries.
14. CPCS Transcom Limited, "East African Railways Master Plan Study Final Report."
15. CPCS Transcom Limited, "East African Railways Master Plan Study Final Report," ii.

16. Kenya National Assembly, Eleventh Parliament- Second Session, Public Investments Committee, "Special Report on the Procurement and Financing of the Construction of Standard Gauge Railway from Mombasa to Nairobi (Phase I)" (Nairobi, Kenya: National Assembly of Republic of Kenya, April 29, 2014), https://africog.org/wp-content/uploads/2017/06/PIC-REPORT.pdf.

17. World Bank, "The Africa Competitiveness Report 2013" (The World Bank, 2013), p. 85, https://www.worldbank.org/content/dam/Worldbank/document/Africa/Report/africa-competitiveness-report-2013-main-report-web.pdf.

18. World Bank-Africa Transportation Unit, "The Economics of Rail Gauge in the East Africa Community" (The World Bank, August 8, 2013), https://africog.org/wp-content/uploads/2017/06/World-bank-Report-on-the-Standard-Gauge-Railway.pdf. Authors' note: This four-page briefing memo drew on 2008 data from CPCS Transcom Limited, "East African Railways Master Plan Study Final Report." It is not available on the World Bank's website.

19. Kenya National Assembly, Eleventh Parliament- Second Session, Public Investments Committee, "Special Report on the Procurement and Financing."

20. Kenya National Assembly, Eleventh Parliament- Second Session, "Report of the Departmental Committee on Transport, Public Works and Housing, on the Statement Sought by Hon. Hezron Awiti, MP, on the Tendering and Construction of the Standard Gauge Railway from Mombasa to Malaba" (Nairobi, Kenya: National Assembly of Republic of Kenya, February 2014), https://africog.org/wp-content/uploads/2017/06/Transport-Committee-FINAL-REPORT-ON-Standard-Gauge-Railway.pdf. "The funding or financing options floated by CRBC at the time included, direct investment from CRBC; and/or buyer's credit from the Kenya Government; and/or seller's credit from CRBC; and/or direct investment from other financial institutions; and/or other sources identified in future, see "Court of Appeal at Nairobi, "Civil Appeal No.13 of 2015 Consolidated with Civil Appeal No.10 of 2015" (Kenya Law, June 2020), http://kenyalaw.org/caselaw/cases/view/196972/.

21. China Road and Bridges Corporation, "Chapter XII Economic Evaluation," in *Feasibility Study Report of Kenya-Mombasa-Nairobi Railway Project* (China Road and Bridges Corporation, 2011), 128.

22. Kenya National Assembly, Eleventh Parliament- Second Session, "Report of the Departmental Committee on Transport." A Kenyan Appellate Court later ruled that the government had violated its public procurement rules by handling the contract in this manner: "Kenya Railways Corporation, as the procuring entity, failed to comply with, and violated provisions of Article 227 (1) of the Constitution and Sections 6 (1) and 29, of the Public Procurement and Disposal Act, 2005 in the procurement of the SGR project." Interestingly, the court ruled that the government's argument that China Eximbank required procurement from a single source was wrong: "it is the procurement that dictated the terms of the loan that ousted the procurement procedures under the Act as opposed to the terms of the loan agreement dictating the procurement procedure or who the supplier of the goods and services would be." See Court of Appeal at Nairobi, "Civil Appeal No.13 of 2015 Consolidated with Civil Appeal No.10 of 2015."

23. Mwangi S. Kimenyi, Francis M. Mwega, and Njuguna S. Ndung'u, "The African Lions: Kenya country case study," Brookings Institution, May 16, 2016 https://www.brookings.edu/research/african-lions-kenya-country-case-study/.

24. AfriStar's contract commenced on May 31, 2017. Kenya Railways Corporation did exercise the option to terminate the contract after five years, i.e., in May 2022. Shem Oirere, "Kenya Railways to End SGR Contract with Afristar," *International Railway Journal*, March 12, 2021, https://www.railjournal.com/africa/kenya-railways-to-end-sgr-contract-with-afristar/; "Kenya Railways, Chinese Firm Sign Operations Agreement," Xinhua News, May 31, 2017, http:// www.xinhuanet.com/english/2017-05/31/c_136326487.htm.

25. Scott Blair, "Mind-Bendingly Complex Efforts Rewarded as ENR 2018 Global Best Projects Winners," *Engineering News-Record*, July 13, 2018, https://www.enr.com/blogs/13-critical-path/post/44866-mind-bendingly-complex-efforts-rewarded-as-enr-2018-global-best-projects-winners.

26. Jevans Nyabiage and Keegan Elmer, "African Railways Feel Pinch of China's Belt and Road Funding Squeeze," *South China Morning Post*, December 19, 2020, https://www.scmp.com/news/china/diplomacy/article/3114551/african-railways-feel-pinch-chinas-belt-and-road-funding.

27. Duncan Miriri, "Kenya to Upgrade Old Rail Track to Deliver Uganda Link," *Reuters*, May 8, 2019, sec. Financials, https://www.reuters.com/article/kenya-railway-idUSL5N22K6MC.

28. "Wang Yi Talks about the 'Initiative of Peaceful Development in the Horn of Africa,'" Ministry of Foreign Affairs of the People's Republic of China, January 7, 2022, https://www.fmprc.gov.cn/mfa_eng/wjdt_665385/wshd_665389/202201/t20220107_10479933.html; Specifically, the Minister recommended that regional development should be accelerated "to overcome development challenges. The two principal axes, the Mombasa-Nairobi Railway and the Addis Ababa-Djibouti Railway, should be enlarged and enhanced with the aim of expanding to neighboring countries at an opportune moment. Meanwhile, the development of the Red Sea coast and East Africa coast should be accelerated, so as to form a development framework of 'two axes plus two coasts', speed up the construction of industrial belt and economic belt, create more employment and growth, improve independent development capacity and catch up with the pace of the times."

29. These are helpfully summarized in a report by Kenyan scholar Oscar Otele, "China's Approach to Development in Africa: A Case Study of Kenya's Standard Gauge Railway," *Asia Unbound (Blog)*, Council on Foreign Relations, October 13, 2021, https://www.cfr.org/blog/chinas-approach-development-africa-case-study-kenyas-standard-gauge-railway.

30. Regarding these concerns, see in particular: David Ndii, "SGR by the Numbers – Some Unpleasant Arithmetic," *The Elephant*, July 21, 2018, https://www.theelephant.info/op-eds/2018/07/21/sgr-by-the-numbers-some-unpleasant-arithmetic/; Pauk Wafula, "Let's Talk About SGR Viability Before We Load More Debts on Country," *Nation, Kenya Edition*, April 26, 2019, https://www.nation.co.ke/oped/opinion/Let-s-talk-aboutSGR-viability/440808-5089932-rw40u5z/index.html.

31. OECD, "Infrastructure Financing Instruments and Incentives" (OECD, Paris, 2015), https://www.oecd.org/finance/private-pensions/Infrastructure-Financing-Instruments-and-Incentives.pdf.

32. Kenya Ports Authority Annual Report & Financial Statements FY 2019/2020, p. 48.

33. Kenya National Assembly, Eleventh Parliament- Second Session, "Report of the Departmental Committee on Transport."

34. The World Bank's International Finance Corporation (IFC) defines blended finance as the use of concessional or preferential funds "to mitigate specific investment risks and help rebalance risk-reward profiles of pioneering investments that are unable to proceed on strictly commercial terms." "Blended Concessional Finance," International Finance Corporation, accessed March 23, 2022, https://www.ifc.org/wps/wcm/connect/topics_ext_content/ifc_external_corporate_site/bf.

35. Kenya National Assembly, Eleventh Parliament- Second Session, "Report of the Departmental Committee on Transport," 35.

36. Damian McNair, Alex Guy, and Evelyn Chan, "Project Finance in Asia," Asia Pacific Projects Update (DLA Piper, 2011), https://www.dlapiper.com/~/media/files/insights/publications/2012/03/project-finance-in-asia/files/projectfinanceinasia/fileattachment/projectfinanceinasia.pdf.

37. The National Treasury Public Debt Management Office, "Summary Statement of Public Debt for 2019/20 FY" (National Treasury of Republic of Kenya), accessed March 23, 2022, https://www.treasury.go.ke/wp-content/uploads/2021/09/External-Public-Debt-Register-as-at-End-June-2020.pdf; Kenya Engineer (Kenya Engineer, 2014), https://issuu.com/kenyaengineer/docs/kenya_engineer_sept-oct_2014; "The Republic of Kenya" (The Republic of Kenya, November 28, 2014), https://ise-prodnr-eu-west-1-data-integration.s3-eu-west-1.amazonaws.com/legacy/Prospectus+-+Standalone_c24912ac-2336-42f9-bb48-a05e5f3d7260.PDF; Kenya National Assembly, Eleventh Parliament- Second Session, "Kenya National Assembly, Eleventh Parliament- Second Session, "Report of the Departmental Committee on Transport."

38. Kenya National Assembly, Eleventh Parliament- Second Session, "Report of the Departmental Committee on Transport." A report by a journalist who had seen a copy of the China Eximbank preferential export buyer's credit loan contract mentioned that the financing model used by the Kenyan government had included other credit enhancements: "initiate road transit toll levy, green tax in new vehicle registration and an insurance levy, fuel levy and the sale of the current Metre Gauge Railway — assets estimate to be capable of raising Sh41 billion [about US$405 million]. There would also be various port levies on imports and exports in addition to a road haulage tax to discourage the use of trucks and divert some cargo to the railway." However, it was not clear that these were part of the loan contract as requirements, and we have seen no other indication that these other elements became part of the financing agreement. "SGR Pact With China A Risk To Kenyan Sovereignty," Africa.com, January 18, 2019, https://www.africa.com/sgr-pact-with-china-a-risk-to-kenyan-sovereignty/.

39. Authors' note. The payables due by KPA to KRC for freight transportation services, instead of being paid to KRC, are deposited into the escrow account and so, are directly accessible in turn by KRC's own creditor: the National Treasury. See mapping of the payment flows in Figure 2.

40. Kenya National Assembly, Eleventh Parliament- Second Session, "Report of the Departmental Committee on Transport," 38. We assume that passenger (non-KPA freight revenues) are also deposited into this account, although that does not affect the analysis. The escrow account is "opened and operated under the terms of the financing agreements between the GOK, KRC and Exim Bank of China in respect to the SGR." "Agreement between Kenya Railways Corporation and Kenya Port Authority in Respect to Delivery and Movement of Freight to the Embakasi Inland Container Depot Using the Standard Gauge Railway Line," September 30, 2014, 2.

41. Kenya National Assembly, Eleventh Parliament- Second Session, "Report of the Departmental Committee on Transport," 38.

42. Author's Note. Under the Long-Term Service Agreement.

43. Kenya National Assembly, Eleventh Parliament- Second Session, "Report of the Departmental Committee on Transport," 36, 39. We do not know if there were additional legal documents entered into to support that pledge. The Railway Development Levy was raised to 2 percent in November 2019, except for raw materials and a few other exemptions. The RDL revenues do not seem to be escrowed.

44. "The Financial Bill, 2013" (2013), http://kenyalaw.org/kl/fileadmin/pdfdownloads/bills/2013/FinanceBill2013.pdf. It is not clear if the levy was a requirement imposed by China Eximbank. The National Treasury appointed the Principal Secretary for Transport matters to administer the Fund. Kenya National Assembly, Eleventh Parliament- Second Session, "Report of the Departmental Committee on Transport," 38.

45. Kenya National Assembly, Eleventh Parliament- Second Session, "Report of the Departmental Committee on Transport," 40.

46. He Yan, "Kenya's Multi-Billion-Dollar Railway to Be Launched Soon," CGRN, May 24, 2017, https://news.cgtn.com/news/3d636a4e356b7a4d/share_p.html.

47. A March 15, 2021 press release also states that "The Government of Kenya, through the National Treasury, entered into three (3) loan agreements with The Export Import Bank of China to finance the construction of the Standard Gauge Railway...[and] is servicing the SGR loans." The National Treasury & Planning, "The Port of Mombasa Is Safe: Clarification on SGR Loan Story Carried by The Star" (The National Treasury & Planning of the Republic of Kenya, March 15, 2021), https://www.treasury.go.ke/wp-content/uploads/2021/03/Press-Release-15th-March-2021-Clarification-on-SGR-Loan.-part1.pdf. Another article discusses the Consolidated National Government Investment Report 2020, presented to Kenya's parliament by Treasury Cabinet Secretary Ukur Yatani. The report mentions the debt of KSh 539.3 Billion [about $4.77 billion] Kenya Railway Corporation owes the central government for the SGR loan. It also mentions that KRC is a loss-making corporation. Jackson Okoth, "Kenya Railways Corporation Losses Hit KSh 24.2 Billion," The Kenyan Wall Street, November 12, 2020, sec. n Infrastructure, Kenyan News, Transport, Logistics & Warehousing, https://kenyanwallstreet.com/kenya-railways-corporation-losses-hit-ksh-24-2-billion/.

48. Wang and Hu, "Status Quo and Standardized Management of Railway Construction Fund."

49. "Railway Construction Fund [铁路建设基金]," Baidu Baike, accessed November 19, 2021, https://baike.baidu.com/item/%E9%93%81%E8%B7%AF%E5%BB%BA%E8%AE%BE%E5%9F%BA%E9%87%91/2836224.

50. Wang and Hu, "Status Quo and Standardized Management of Railway Construction Fund."

51. "Agreement Between Kenya Railways Corporation and Kenya Ports Authority" [Long Term Service Agreement, also known as the Take-Or-Pay Agreement (TOPA)].

52. "Agreement between Kenya Railways Corporation and Kenya Port Authority," 10.

53. This Escrow Account was to be "opened and operated under the terms of the financing agreements between the GOK [Government of Kenya], KRC and Exim Bank of China in respect to the SGR". "Agreement Between Kenya Railways Corporation and Kenya Ports Authority," p. 2.

54. Clause 7 (c) from the Long Term Service Agreement between KRC and KPA states this clearly: "KPA shall make good any short fall arising either on account of failure to consign the minimum cargo as stipulated in Schedule or to remit the amount of money commensurate with the volume of cargo so consigned and shall pay to Kenya Railways Corporation such an amount as required to make good the short fall within a period of 30 days following the completion of reconciliation exercise." https://www.oagkenya.go.ke/wp-content/uploads/2021/09/Kenya-Ports-Authority-2017-2018.pdf, p. 10.

55. Scott L Hoffman, *The Law and Business of International Project Finance* (New York: Cambridge University Press, 2007), 209, https://doi.org/10.1017/CBO9780511818387.

56. Personal email communication, Olga Boltenko, February 17, 2022.

57. William Niba, "Kenya's struggle with the burden of Chinese loans," *Radio France Internationale*, January 3, 2019, https://www.rfi.fr/en/africa/20190102-kenyas-struggle-burden-chinese-loans.

58. Brad Parks, Ammar A. Malik, and Alex Wooley, "Is Beijing a Predatory Lender? New Evidence from a Previously Undisclosed Loan Contract for the Entebbe International Airport Upgrading and Expansion Project" (Williamsburg, VA: AidData at William & Mary, February 27, 2022), https://www.aiddata.org/publications/uganda-entebbe-airport-china-eximbank.

59. "Agreement Between Kenya Railways Corporation and Kenya Ports Authority"; Kenya Port Authority, "Annual Report and Financial Statements FY 2019-2020" (Kenya Port Authority, July 2021), 127, http://www.parliament.go.ke/sites/default/files/2021-07/Report%20of%20the%20Auditor%20General%20on%20Kenya%20Ports%20Authority%20for%20the%20year%20ended%2030th%20June%202020%20%281%29.pdf.

60. The directive was later adjusted to apply only to importers with tax registration in Nairobi or the hinterlands. It has been contested through several lawsuits but appears to still be operating.

61. Paul Wafula, "Chinese Firm Withholds Key Detail in SGR Deal Review," Nation Kenya Edition, June 28, 2020, https://nation.africa/kenya/news/chinese-firm-withholds-key-detail-in-sgr-deal-review-230886.

62. See Schedule 1 (Table A1 in Appendix A).

63. "Managing Director's Speech during the Launch of the KPA 2018-2047 Master Plan," Kenya Port Authority, August 7, 2019, https://www.kpa.co.ke/Pages/Managing-Director%27s-Speech-during-the-launch-of-the-KPA-2018-2047-Maste-Plan.aspx.

64. Martin Humphreys *et al*., *Port Development and Competition in East and Southern Africa: Prospects and Challenges* (Washington, DC: World Bank, 2019), https://doi.org/10.1596/978-1-4648-1410-5.

65. Humphreys *et al*., *Port Development and Competition in East and Southern Africa*.

66. On the Sri Lanka case, see Meg Rithmire and Yihao Li. "Chinese Infrastructure Investments in Sri Lanka: A Pearl or a Teardrop on the Belt and Road?" Harvard Business School Case 719-046, January 2019. (Revised January 2022.); Deborah Brautigam and Meg Rithmire, "The Chinese 'Debt Trap' Is a Myth," *The Atlantic*, February 6, 2021, sec. Global, https://www.theatlantic.com/international/archive/2021/02/china-debt-trap-diplomacy/617953/; Deborah Brautigam, "Misdiagnosing the Chinese Infrastructure Push," *The American Interest*, April 4, 2019, https://www.the-american-interest.com/2019/04/04/misdiagnosing-the-chinese-infrastructure-push/; Dushni Weerakoon, "Sri Lanka's Debt Problem Isn't Made in China," *East Asia Forum*, February 27, 2019, https://www.eastasiaforum.org/2019/02/28/sri-lankas-debt-problem-isnt-made-in-china/; Umesh Moramudali, "The Hambantota Port Deal: Myths and Realities," *The Diplomat*, January 1, 2020, https://thediplomat.com/2020/01/the-hambantota-port-deal-myths-and-realities/; Lee Jones and Shahar Hameiri, "Debunking the Myth of 'Debt-Trap Diplomacy': How Recipient Countries Shape China's Belt and Road Initiative," Asia-Pacific Programme (Chatham House, August 2020), https://www.chathamhouse.org/sites/default/files/2020-08-19-debunking-myth-debt-trap-diplomacy-jones-hameiri.pdf.

67. "China's Lending Supports Growth, Exacerbates Fiscal and External Pressures in Sub-Saharan Africa," Moody's Investors Services, Sector in-Depth (Moody's Corporation, November 14, 2018), 8.

68. For a useful description of the typical steps in an audit, see https://case.edu/auditservices/audit-plan-process. The management letter, revised, later becomes the introduction to the audit, which is finalized on the basis of the client's response.

69. F.T. Kimani, "Management Letter for the Financial and Compliance Audit Performed for Year Ending 30 June 2018" (Republic of Kenya, Office of the Auditor General, November 16, 2018). Comments written by hand on the letter indicate that the leak occurred after the draft report was provided to Kenya Ports Authority. Retrieved from Twitter https://twitter.com/johngithongo/status/1075187915875971072.

70. Chunying Hua, "Foreign Ministry Spokesperson Hua Chunying's Regular Press Conference", Ministry of Foreign Affairs of the People's Republic of China, December 24, 2018, https://www.fmprc.gov.cn/mfa_eng/xwfw_665399/s2510_665401/2511_665403/t1624697.shtml.

71. *Chinese Ambassador Says Disclosing SGR Contract Details a No-No*, NTV Tonight (NTV Kenya, 2019), https://www.youtube.com/watch?v=TfcgWFjDZGY&ab_channel=NTVKenya.

72. Edwin Okoth, "SGR Pact with China a Risk to Kenyan Sovereignty, Assets," *Nation*, January 12, 2019, updated on June 28, 2020, Kenya Edition edition, https://nation.africa/kenya/news/sgr-pact-with-china-a-risk-to-kenyan-sovereignty-assets-127328.

73. The Constitution of Kenya, 2010, Article 201, http://www.kenyalaw.org:8181/exist/kenyalex/actview.xql?actid=Const2010; Personal email communication, Patrick Anam, March 17, 2022.

74. The Constitution of Kenya, 2010, Article 227, http://www.kenyalaw.org:8181/exist/kenyalex/actview.xql?actid=Const2010.

75. Reportedly, the Attorney General stated that "only the organization with locus should request for [sic] an agreement that is signed by two institutions which are bound by confidentiality clauses and must go through the public audit process." As the President's Chief of Staff explained, "The President is a human being and if he gave a commitment that cannot be followed through, it is not for the world to cry. His hands are tied by the law." Nahashon Musungu, "Forget it: State House makes U-turn on releasing SGR contract," *Nairobi News*, April 29, 2019 https://nairobinews.nation.africa/forget-it-state-house-makes-u-turn-on-releasing-sgr-contract/. At the time of this writing, these questions are being worked out in Kenya's courts, https://www.okoamombasa.org/wp-content/uploads/2021/06/Final-Petition-21-June-2021.pdf. We appreciate the discussion with Patrick Anam on these issues. Personal email communication, March 17, 2022.

76. The only detailed discussion we have seen of the "Mombasa Port collateral" issue in the academic literature "translated" the convoluted sentence of the Auditor General's letter as saying: "China Exim Bank had secured the right to step in as principal shareholder of the KPA in any event of a loan default, establishing an escrow account for the KPA's income and then employing the revenue to cover any repayment shortage." Ian Taylor, "Kenya's New Lunatic Express: The Standard Gauge Railway," *African Studies Quarterly* 19, no. 3–4 (October 2020): 38. We believe this interpretation is inaccurate. In addition to the terms we have explained in the body of our paper, this sentence refers to "step-in" rights. tep-in rights are a common feature in commercial project finance deals. In cases where the project company is unable to produce the services or goods financed by the loan, thus putting the whole deal at risk, step-in rights allow the lender to "step-in-rights" on a short or longer term basis, appointing a new manager, or taking other steps to keep the project company operating, and thus preserve the chance that the loan will be repaid. However, the Audit Report does not refer to any step-in rights for China Eximbank regarding KPA. Depositing freight revenues into KRC's sales collection account is a requirement of the Take-or-Pay Agreement signed between KRC and KPA. It is not something established "in any event of a loan default".

77. Edward R. O. Ouko, "Report of the Auditor-General on Kenya Ports Authority for the Year Ended 30 June 2018" (Nairobi, Kenya: Office of the Auditor-General of the Republic of Kenya, April 17, 2019), https://www.oagkenya.go.ke/wp-content/uploads/2021/09/Kenya-Ports-Authority-2017-2018.pdf.

78. Edward R. O. Ouko, "Report of the Auditor-General on Kenya Ports Authority," 12.

79. Moses Odhiambo, "China Could Seize Mombasa Port over Sh364bn SGR Loan," *The Star*, March 15, 2021, https://www.the-star.co.ke/news/2021-03-15-china-could-seize-mombasa-port-over-sh364bn-sgr-loan/. This story was published after the report was tabled in Parliament. The report was finally published on the Auditor General's website in September 2021.

80. The National Treasury & Planning, "The Port of Mombasa Is Safe."

81. The National Treasury & Planning, "The Port of Mombasa Is Safe."

82. "[I]n the event that KRC is unable to repay the loans to the China Roads and Bridge Company and the Government of China, these corporations [KRC and KPA] will be taken away the same way it has happened in countries like Sri Lanka, among others." comment made in Kenya's Parliament. "Hansard of Senate Debate on Tuesday, 25th May, 2021" (Parliament of Kenya, May 25, 2021), http://www.parliament.go.ke/sites/default/files/2021-05/Hansard%20-%20Tuesday%2C%2025th%20May%2C%202021%20-%20Morning.pdf.

83. One reader of an earlier draft asked the excellent question: "why did KPA not clarify the matter with the AG?" We hope to follow up on this in future field research.

84. As quoted by the Office of Auditor General. Ouko, "Report of the Auditor-General on Kenya Ports Authority for the Year Ended 30 June 2018," 12.

85. Ouko, "Report of the Auditor-General on Kenya Ports Authority," 11.

86. Ouko, "Report of the Auditor-General on Kenya Ports Authority," 10.

87. Hoffman, *The Law and Business of International Project Finance*, 158.

88. Hoffman, *The Law and Business of International Project Finance*, 158.

89. The only creditors that did not include a waiver were from Kuwait and Saudi Arabia. *How China Lends Dataset*, version 1.0 [data from over 100 foreign loan contracts, 2000-2019] https://docs.aiddata.org/ad4/datasets/how_china_lends_dataset_version_1_0.zip.

90. To clarify: in case one of them does not waive its immunity, the other parties could still go to arbitration - but not force a decision against the party that did not grant the waiver. So, the award will be at risk of being incomplete, because one of the key parties to the contract is missing from the arbitration procedure and cannot answer for its obligations.

91. Deborah Brautigam and Won Kidane, "China, Africa, and Debt Distress: Fact and Fiction about Asset Seizures," Policy Brief (Washington, DC: China Africa Research Initiative, School of Advanced International Studies, Johns Hopkins University, 2020), http://www.sais-cari.org/s/PB-47-Brautigam-Kidane-Debt-distress-Asset-seizure.pdf; Laure Deron, Thierry Pairault, and Paola Pasquali, "Montenegro, China, and the Media: A Highway to Disinformation?," Briefing Paper (Washington, DC: China Africa Research Initiative, School of Advanced International Studies, Johns Hopkins University, 2021), http://www.sais-cari.org/s/V4-Briefing-Paper-7-Montenegro-Case-Study-Dec-2021.pdf; Laure Deron, "Did Nigeria Really Cede Its Sovereignty to China in a Loan Agreement?," *The Diplomat*, August 12, 2020, https://thediplomat.com/2020/08/did-nigeria-really-cede-its-sovereignty-to-china-in-a-loan-agreement/.

92. Omondi, "Mombasa Port at Risk as Audit Finds It Was Used to Secure SGR Loan."

93. National Treasury & Planning, "The Port of Mombasa Is Safe."

94. National Treasury & Planning, "The Port of Mombasa Is Safe."

95. Kenya Ports Authority Handbook 2020-21 (by Land & Marine Publications Ltd., 2020), 17, https://issuu.com/landmarine/docs/kpa_handbook2020_e.

96. Kenya Ports Authority, "Annual Report and Financial Statements FY 2019-2020," 127.

97. "IAS 37 Provisions, Contingent Liabilities and Contingent Assets," The International Financial Reporting Standards Foundation, 2021, https://www.ifrs.org/issued-standards/list-of-standards/ias-37-provisions-contingent-liabilities-and-contingent-assets/.

98. Kenya Ports Authority, "Annual Report and Financial Statements FY 2019-2020," 127. A reviewer of this paper asked whether KPA acknowledged in any way in its revised Financial Statements for 2017/18 "that this issue was raised by the AG in a letter in the course of the audit and that KPA would address the matter in the relevant FS after TOPA becomes operational." We have consulted KPA's Annual Reports for 2017/18 and 2018/19 and do not see any reference to the TOPA in those years. The reviewer adds some excellent questions: "Why did KPA not reflect this in the 2017/18 FS? It is problematic to ignore issues raised by auditors." We appreciate these insights.

99. Kimani, "Management Letter."

100. "Guide to International Arbitration" (Latham & Watkins, 2017), https://www.lw.com/thoughtleadership/guide-to-international-arbitration-2017.

101. Brautigam and Kidane, "China, Africa, and Debt Distress." The contracts also specify that Chinese law will be the prevailing law. It is rational for a lender to prefer disputes over an international agreement to be governed by the laws of its own country rather than be subject to the laws of the borrower country. Contracts could also agree that parties use laws of a third country.

102. Mark C Weidemaier and Anna Gelpern, "Injunctions in Sovereign Debt Litigation," Georgetown Law Faculty Publications and Other Works (Georgetown Law, November 15, 2013), https://scholarship.law.georgetown.edu/facpub/1319.

103. Patrick Anam, Personal email communication, March 17, 2022.

104. We thank Olga Boltenko for this observation: "As of January 2022, there are 19 claims brought by Chinese investors against sovereign states, so the trend of "reluctance" and "friendly negotiations" is changing." Zhang Sheng, "Statistics of International Investment Arbitration Cases Initiated by Chinese Investors as Applicants," [中国投资者作为申请人提起的国际投资仲裁案件统计] (Silk Road Institute for International and Comparative Law, January 29, 2022), https://mp.weixin.qq.com/s/2BsTaBjTeiNN40USSWpyfA.

105. Kevin Acker, Deborah Brautigam, and Yufan Huang, "Debt Relief with Chinese Characteristics" (Washington, D.C.: China Africa Research Initiative, School of Advanced International Studies, Johns Hopkins University, 2020), https://www.ssrn.com/abstract=3745021.

106. Brautigam and Rithmire, "The Chinese 'Debt Trap' Is a Myth"; Deron, Pairault, and Pasquali, "Montenegro, China, and the Media: A Highway to Disinformation?"

107. "Kenya Joint World Bank-IMF Debt Sustainability Analysis" (International Development Association, International Monetary Fund, May 2020), https://documents1.worldbank.org/curated/en/796991589998832687/pdf/Kenya-Joint-World-Bank-IMF-Debt-Sustainability-Analysis.pdf.

108. "Kenya Joint World Bank-IMF Debt Sustainability Analysis" (International Development Association, International Monetary Fund, May 2020), https://documents1.worldbank.org/curated/en/796991589998832687/pdf/Kenya-Joint-World-Bank-IMF-Debt-Sustainability-Analysis.pdf.

109. Clause 7 'Take or Pay' of the Long Term Service Agreement between Kenya Railways Corporation and Kenya Ports Authority, in respect to the delivery and movement of freight to the Embakasi Inland Container Depot using the Standard Gauge Railway Line. See "Agreement between Kenya Railways Corporation and Kenya Port Authority."

110. "Leading Economic Indicators, December 2021" (Kenya National Bureau of Statistics, February 21, 2022), https://www.knbs.or.ke/download/leading-economic-indicators-december-2021/; "Leading Economic Indicators, December 2020" (Kenya National Bureau of Statistics, February 17, 2021), https://www.knbs.or.ke/download/leading-economic-indicators-december-2020/.

111. "Leading Economic Indicators, December 2021"; "Leading Economic Indicators, December 2020."

112. Kenya Ports Authority, "Annual Report and Financial Statements FY 2019-2020," 128.

113. Based on information in David Ndii, "SGR by the Numbers," which cites an internal study by KIPPRA.

114. Ndii, "SGR by the Numbers."

115. In November 2020, the Mombasa High Court ruled that the Kenyan government should have allowed for comments on the requirement that cargo bound for Nairobi be transited on the SGR, but it did not void the requirement. https://muhuri.org/wp-content/uploads/2020/11/Mombasa-Pet.-159-and-201-William-Odhiambo-Ramogi-and-3-Others-v-AG-and-4-Others-Judgment-Final.pdf.

116. "Constitutional Petition No. 159 of 2018 Consolidated with Constitutional Petition No. 201 of 2019" (High Court of Kenya at Mombasa, November 6, 2020), https://muhuri.org/wp-content/uploads/2020/11/Mombasa-Pet.-159-and-201-William-Odhiambo-Ramogi-and-3-Others-v-AG-and-4-Others-Judgment-Final.pdf.

117. The National Treasury of the Republic of Kenya, "Quarterly Economic and Budgetary Review First Half, Financial Year 2021/2022 Period Ending 31st December, 2021" (The National Treasury of the Republic of Kenya, 2022), https://www.treasury.go.ke/wp-content/uploads/2022/02/SP-7223-2ND-QEBR-.pdf.

118. Ndii, "SGR by the Numbers."

119. In the short term, we understand that the company CRBC formed to operate the railway, Afristar, is subsidizing the project, since the Kenyan government has been significantly in arrears on payments for their contracted fees. Dipanjan Roy Chaudhury, "China Keeps Key Eastern African State of Kenya on Tenterhooks," *The Economic Times*, August 18, 2021, https://economictimes.indiatimes.com/news/international/world-news/china-keeps-key-eastern-african-state-of-kenya-on-tenterhooks/articleshow/85418563.cms.

120. "About Vision 2030," Kenya Vision 2030, accessed March 22, 2022, https://vision2030.go.ke/about-vision-2030/.

121. Acker, Bräutigam, and Huang, "Debt Relief with Chinese Characteristics."

122. As another legal scholar put it: the controversy "is sensationalist nonsense." Anonymous, Personal email communication, February 14, 2022.

123. Brautigam and Rithmire, "The Chinese 'Debt Trap' Is a Myth."

124. Kabona Esiara and Anthony Kitimo, "Uganda Protests Kenya Move to Dump Cargo at Malaba on Old Railroad," *The East African*, January 15, 2022, https://www.theeastafrican.co.ke/tea/news/east-africa/uganda-protests-kenya-move-to-dump-cargo-at-malaba-old-railroad-3683112.

125. Cliff Mboya, "Kenya: Why Is the Government Hiding Its Chinese Loan Contracts?," The Africa Report, September 8, 2021, https://www.theafricareport.com/125090/kenya-why-is-the-government-hiding-its-chinese-loan-contracts/.

126. Chris Alden, personal email communication, February 28, 2022.

127. A typical China Eximbank confidentiality clause reads: "The Borrower shall keep all the terms, conditions and the standard of fees hereunder or in connection with this Agreement strictly confidential. Without the prior written consent of the Lender, the Borrower shall not disclose any information hereunder or in connection with this Agreement to any third party unless required by applicable law," while the nearly identical French AFD clause reads: "The Borrower shall not disclose the contents of the agreement without the prior consent of the Lender to any third party, unless required by law, applicable regulation or a court decision." *How China Lends Dataset*, version 1.0 [data from over 100 foreign loan contracts, 2000-2019] https://docs.aiddata.org/ad4/datasets/how_china_lends_dataset_version_1_0.zip.

128. Deron, "Did Nigeria Really Cede Its Sovereignty to China in a Loan Agreement?"; Femi Falana, "Foreign Loans, Sovereign Immunity," *This Day*, August 12, 2020, https://www.thisdaylive.com/index.php/2020/08/12/foreign-loans-sovereign-immunity/; Deron, Pairault, and Pasquali, "Montenegro, China, and the Media: A Highway to Disinformation?"; Yasiin Mugerwa, "Uganda Surrenders Airport for China Cash," *The Monitor*, November 26, 2021, sec. News, https://allafrica.com/stories/202111260118.html.

129. Daniel Bradlow, personal email communication, February 18 2022; Christine Brautigam, personal email communication, March 1, 2022.

130. Nancy Lee and Mauricio Cardenas Gonzalez, "Stuck Near Ten Billion: Public-Private Infrastructure Finance in Sub-Saharan Africa," CGD Policy Paper (Center for Global Development, February 9, 2022), https://www.cgdev.org/publication/stuck-near-ten-billion-public-private-infrastructure-finance-sub-saharan-africa.

131. A non-recourse contract would depend only on the revenues generated by the project to repay the loan. A full recourse contract would depend fully on the Borrower to repay the loan. This deal depends on project revenues, credit enhancements, and the creditworthiness of the sovereign Borrower.

132. KPA's obligation to ensure a certain level of use (to "take" - or purchase - the service provided by the railway) is the principal comfort or security. The additional comfort or guarantee for the project is that Kenya will continue to import goods and the RDL on these imports will support repayment of the loan for the project, in the case that the KPA payables are inadequate to do so. As we explain below in Section VI, in practical terms, the RDL has indeed become essential to the viability of the project. As we analyze it, the portion of revenues derived from the TOPA is only sufficient to allow the operational costs of KRC to break even, but fall far short of covering service of the debt.

133. KPA's revenue growth, SGR's revenue growth, and SGR's cargo volume growth are not necessarily proportional because of complications brought by prices, tariffs, operation costs, etc.

134. "Economic Survey 2021" (Nairobi, Kenya: Kenya National Bureau of Statistics, 2021), 229, https://www.knbs.or.ke/wp-content/uploads/2021/09/Economic-Survey-2021.pdf.

135. Calculations for the reprofiling can be found at https://docs.google.com/spreadsheets/d/1wE4kaWl2LNlogFTLjbKeQ6gN62qPe93flUXDdSbNs6Y/edit?usp=sharing.

136. David Ndii 2018, https://www.theelephant.info/op-eds/2018/07/21/sgr-by-the-numbers-some-unpleasant-arithmetic/.

137. Oliver Cuenca, "Kenyan Parliamentary Committee Recommends Renegotiation of SGR Costs," International Railway Journal, September 26, 2020, https://www.railjournal.com/.

AUTHOR BIO

DEBORAH BRAUTIGAM

Deborah Brautigam is the Bernard L. Schwartz Professor of International Political Economy and founding director of the China Africa Research Initiative (CARI) at Johns Hopkins University's School of Advanced International Studies (SAIS). She has been writing about the fact and fiction of China and Africa; state-building; governance and foreign aid for more than 30 years. She is the author of 3 books on China in Africa, including *The Dragon's Gift: The Real Story of China in Africa*. Her current research focuses on Chinese lending in risky overseas markets.

VIJAY BHALAKI

Vijay Bhalaki is co-founder of Athena Infonomics, a global development solutions group. He advises development finance institutions, private investors, and governments, focusing on structuring investments in emerging markets. Vijay is an Adjunct-Faculty at the SAIS, Johns Hopkins University, where he teaches courses on International Development Finance and PPPs. Vijay is a Chartered Accountant and holds a Master's degree in Economics.

LAURE DERON

Laure Deron is a member of the Paris Bar and has worked as an international corporate lawyer in Paris and Beijing. She has taught company law and Sino-European economic relations at the University of Paris 1 - Pantheon - Sorbonne and the Central University of Finance and Economics in Beijing.

YINXUAN WANG

Yinxuan Wang is SAIS-CARI's Senior Research Assistant and an M.A. student from Johns Hopkins SAIS. She holds a B.A. in International Relations & the Global Economy and a B.S. in Applied & Computational Mathematics from the University of Southern California.

ALSO FROM SAIS-CARI

POLICY BRIEFS:

Chinese Resource-Backed Infrastructure Financing Investments: Comparing Governance in Guinea and Ghana
Policy Brief 59/2021,Qianrong Ding, Hayden Hubbard, Emily Larkin, and Dawalola Shonibare

China's Digital Silk Road in Africa and the Future of Internet Governance
Policy Brief 60/2021, Henry Tugendhat and Julia Voo

How Zambia and China Co-Created a Debt "Tragedy of the Commons"
Policy Brief 61/2021, Deborah Brautigam

View the complete list of SAIS-CARI publications: www.sais-cari.org/publications

ABOUT THE SAIS CHINA-AFRICA RESEARCH INITIATIVE

Launched in 2014, the SAIS China-Africa Research Initiative (SAIS-CARI) is based at the Johns Hopkins University School of Advanced International Studies in Washington D.C. SAIS-CARI was set up to promote evidence-based understanding of the relations between China and African countries through high quality data collection, field research, conferences, and collaboration. Our mission is to promote research, conduct evidence-based analysis, foster collaboration, and train future leaders to better understand the economic and political dimensions of China- Africa relations and their implications for human security and global development. Please visit the SAIS-CARI website for more information on our work.

SAIS China-Africa Research Initiative
1717 Massachusetts Avenue NW, Suite 733
Washington, DC 20036
www.sais-cari.org
Email: sais-cari@jhu.edu

Support for this working paper was provided by a grant from Carnegie Corporation of New York. Carnegie Corporation of New York is a philanthropic foundation created by Andrew Carnegie in 1911 to do "real and permanent good in this world."