RFI agreements hold promise for resource-rich developing countries because of the positive spillover effects infrastructure developments can spur.

RFI agreements must be transparent: due to their omnibus character they can be difficult for third parties to analyze and monitor.

Infrastructure projects financed through RFI must be subjected to third party controls, especially since they can easily become politicized.

To assess RFI deals, and account for long time horizons and multiple risk channels, risk calculations must be carried out assiduously and conservatively.

The Risks and Rewards of Resource-for-Infrastructure Deals: Lessons from the Congo’s Sicomines Agreement

David G. Landry

RFI Agreements

RISK CALCULATIONS PLAY AN IMPORTANT ROLE IN DETERMINING the interest rates of development financing. That said, certain countries’ risk levels make it challenging for their governments to obtain credit—at almost any interest rate. Resource-backed financing has largely emerged in response to this constraint. In the words of Brautigam and Hwang: “Our explanation of commodity-secured finance below suggests that the purpose of this security is much less about locking up natural resources and more about reducing the risks of lending to poor and unstable countries”.

China’s first experiences with resource-backed loans took place at home. In the 1980s, Japan made substantial infrastructure loans to China, which helped to develop its extractive sector, and the Daqing Oil Field in particular. In fact, the Japanese Ministry of International Trade and Industry explicitly pushed for Japan’s first package of foreign aid loans to China to be mainly used to build railroads and ports to facilitate the export of Chinese oil and coal—to Japan.

In turn, as China developed economically over the past decades, it itself rose to prominence as a provider of development finance. During that period, Chinese infrastructure projects mushroomed in Africa. This represents a key effect of China’s “going global” policy, which has prompted the internationalization of its largest state owned enterprises (SOEs).

The key difference between RFI deals—which have been employed almost exclusively by China’s policy banks, including Eximbank and China Development Bank—and other resource-backed loans is that the money from RFI arrangements is spent exclusively on infrastructure. The World Bank report titled Resource Financed Infrastructure: A Discussion on a New Form of Infrastructure Financing states: “Under an RFI arrangement, a loan for current infrastructure construction is securitized against the net present value of a future revenue stream from oil or mineral extraction, adjusted for risk”.

In Africa, the Angolan government was the first to make extensive use of resource-backed loans. During the 1980s and 1990s, multiple banks extended profitable
loans—backed by oil—to the Dos Santos government, which was then at war. By the end of the war, Angola had taken 48 such loans, most of which were arranged by large Western banks. In 2004, China Eximbank extended its first oil-backed loan to the Angolan government, a practice that has since grown and evolved substantially.

**Sicomines**

IN 2007, KABILA'S GOVERNMENT SIGNED an enormous RFI agreement valued at a total of over USD 9 billion with China Railway Engineering Corporation (CREC). As part of the deal, Congolese exploitation licenses 9681 and 9682, both located in the Kolwezi District, would be allocated to a Chinese consortium led by CREC. In exchange, the consortium would secure the financing of USD 6.565 billion worth of infrastructure projects and invest about USD 3 billion in the mining project itself. The mine’s revenues would be used to reimburse the infrastructure financing.

Gaining a grasp of the intricacies of the deal, and its impacts for the DRC, has proven difficult for third party analysts. For example, much debate exists as to how the deal first arose. According to Jansson, CREC, seeking to expand into resource extraction activities, was the initiator of the deal. She recounts that, according to a well-placed Chinese respondent, CREC first sent a negotiating delegation to Brazil, Chile, and Peru, and then to Zambia before setting its sight on the DRC’s Katanga province. Other sources have reported that the Congolese government was the originator of the deal, and that the Kabila administration approached the Chinese government upon learning about its agreements in Angola, and after the west had failed to deliver financial support to his government. Finally, Brautigam reports that, according to an interviewee who previously worked for CREC, the negotiations for the agreement started as early as 2003, and experienced a breakthrough in 2006. Brautigam’s interviewee also reveals that CREC first approached the Congolese government to offer its services as a contractor in the 1990s. The government responded that, while it did not have any money, it had “a lot of copper”.

In any case, on September 17th 2007, the two parties signed a Memorandum of Understanding (MOU). This represented the first stage of negotiations of a deal granting the consortium a 68 percent stake in a new joint venture (JV) named the Sino–Congolais des Mines (Sicomines), with the DRC’s Gécamines holding the other 32 percent. Interestingly—as the line of credit was to remain open ended—this is the only document that mentions a figure for the project’s infrastructure component. The investment made to develop the mining concessions themselves—later confirmed to be of USD 3.2 billion—was not mentioned in any of the original documents.

A subsequent document—the Convention de Collaboration—was signed on April 22nd 2008 by the government of the DRC and Sinohydro (on behalf of Sicomines). The document specified that two tranches of infrastructure financing—reportedly worth USD 3 billion each—would be disbursed, in addition to the loan for the development of the mine. The financing would be disbursed to the contractor of each project. However, the Congolese government would act as a guarantor for the loans. The Congolese government also agreed that the project’s feasibility studies should ensure Sinohydro an internal rate of return (IRR) of 19 percent. Otherwise, it agreed to adopt “all measures likely to ameliorate the conditions of cooperation in order to reach the 19 percent IRR in the profit of Sinohydro”.

International financial institutions and civil society organizations flagged a host of issues following the signature of this agreement. Chief among the concerns they raised was the structure of the deal, which the IMF argued would saddle the DRC with unsustainable debt. It perceived that taking on such a large loan would make the DRC’s debt position unsustainable. Following these issues, an Avenant (amendment) was made to the Convention, capping the size of the infrastructure loans at USD 3 billion. It also removed the Congolese government’s guarantee for the mining loan (but not for the infrastructure loan).

The Sicomines venture has experienced multiple setbacks, the most important of which was the downward adjustment of the estimated deposits of its concessions. As part of the 2008 Convention, the deposits were estimated to contain 10.6 million tons of copper and over 600 thousand tons of cobalt. In 2013, Reuters reported that the total estimated copper reserves of the concessions had been adjusted downwards to 6.8 million tons. If, as interpreted by Reuters, the proven reserves represent the total reserves, this would mark a 35 percent downwards adjustment. The project has also been plighted by delays. The Sicomines concession was originally expected to be in production by 2013, and to reach a peak output of 400,000 tons of copper per year within three years. The mine’s peak output has since been adjusted downwards to 250,000 tons per year, and it will not be reached before 2021.
### Recommendations

**THERE ARE IMPORTANT TRADEOFFS** that must be weighted when comparing infrastructure projects financed through loans or taxation and ones obtained via RFI arrangements. On the one hand, RFI arrangements provide guaranteed infrastructure investments, which happen quickly. For example, as reported by Kabemba, the Congolese government only turned to the Sicomines agreement after it perceived it had failed to secure the infrastructure financing it was expecting from western donors. The deal saw a total of over USD two billion invested in the Congolese economy in a relatively short time, in addition to the USD 350 million immediately injected in the Congolese government’s coffers. Such agreements may hold a second advantage as well. As the money used for the infrastructure projects does not pass through the government, RFI deals can prevent the possibility that other types of political spending take precedent over infrastructure investments, as well as the possibility of mismanagement or embezzlement.

On the other hand, infrastructure projects delivered as part of RFI deals—in their current form—are more likely than their counterparts to suffer from some key shortcomings. First, they are likely to have a higher price tag, because they often bind host governments to select firms or consortiums, and rarely entail competitive bidding procedures. RFI deals can also be prone to quality problems. As part of RFI projects, firms seeking opportunities in the extractive or infrastructure sector generally partner with financiers and submit unsolicited bids to host governments. Therefore, if the host government wants to receive the funding, it must also bind itself to the attached firms.

Furthermore, as the contractors handle the loans directly, the role played by host governments in the delivery of the projects is diminished, potentially leading to situations where effective oversight can fail to materialize. Halland et al. state: “For the infrastructure component of an RFI transaction, the government must take the primary responsibility for construction supervision. As discussed above, the lender for the infrastructure investment will look for repayment to the committed government revenue stream from the resource component, so it has little incentive to enforce quality standards beyond ensuring that loan disbursements are made in good faith upon submission of the relevant documents evincing milestone achievements.”

Finally, RFI deals are often less transparent than other infrastructure contracts. RFI deals have an omnibus character, whereby multiple financial and commercial agreements are weaved together. Their sheer size makes them more difficult to interpret, and less transparent, than their counterparts.

Civil society actors have voiced concerns about Sicomines’ ability to deliver on its engagements and whether the project’s expected social and economic impacts would materialize. In other words, the very notion that the agreement was of a “win-win” nature has been criticized. While few concerns raised regarding the quality of the projects can be substantiated, a report published by the African Association for the Defense of Human Rights found that many of the projects built through the Sicomines agreement were overpriced compared to equivalent projects financed by other actors.

The notion that the deal was not of a “win-win” nature is thoroughly addressed in the attached paper, which debunks the claim that the Chinese “won” the agreement. That said, the concerns raised regarding the Sicomines agreement’s relative lack of transparency and the weak oversight mechanisms are critically important. One would be hard pressed to argue that the Congolese people would have benefitted less from the Sicomines agreement if it had been implemented more transparently and with more consistent third party oversight mechanisms. The way in which this agreement played out in the Congolese context provides important policy lessons.

1. First, some of the shortcomings of RFI would be addressed if there existed more competition on the supply side of RF deals. Fundamentally, RFI agreements are not so different from other financial vehicles. Therefore, it is unclear why other financiers shy away from RFI agreements (if they make sense from a financial perspective). Furthermore, because of the positive aspects of RFI addressed in this case study, such financing instruments could generate positive spillover effects in the resource-rich debtor countries where they are used (as long as the other recommendations, below, are followed).

2. Second, RFI deals must be made more transparent. The omnibus character of RFI deals makes them particularly difficult for third parties to analyze and monitor. This can potentially lead to a host of problems, including infrastructure projects of a suboptimal quality, as well as poorer resource exploitation practices among debtor countries.

3. Third, infrastructure projects financed by RFI projects must be subjected to the same third party quality...
controls as their counterparts financed through traditional means. This is particularly true because of the all-encompassing nature of RFI deals, which lends them political importance, and can in turn reduce debtor governments’ incentives to control quality.

4. Finally, in the assessment of RFI projects, risk calculations must be carried out assiduously and conservatively. While risk looms large in any infrastructure financing or resource extraction project, it is particularly salient in the case of RFI agreements. Since, as part of RFI deals, the infrastructure loans are disbursed upfront, only to be repaid decades later, any significant risk exposure can jeopardize projects by dramatically reducing their NPV.★

ENDNOTES


8. The internal rate of return—which is used to evaluate the attractiveness of a project or investment—represents the discount rate for which the NPV of all its cash flows equal zero.


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