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Executive summary

Throughout much of the world, governments have entrusted state-owned enterprises¹ with major responsibilities for developing and managing natural resource extraction projects. In some cases these companies have been effective vehicles for the development and execution of state policy. In others, they have fostered inefficiency, revenue shortfalls and corruption. There is a growing literature on the management of state-owned oil companies, but relatively little work has been done to examine the governance of state-owned ventures in the mining sector, or tools that governments can use to promote effective performance and accountability.²

With national mining companies (NMCs) playing a huge role in many of the world's most important mineral-producing countries, and with countries like South Africa, Guinea, Eritrea, Namibia and Kenya³ investing in creating new companies, the Natural Resource Governance Institute (NRGI) commissioned country studies from Zambia and the Democratic Republic of Congo, in which NMCs have played a central role in the management of large deposits of copper, cobalt and other minerals. Both countries inherited important mining enterprises at independence, and established stateowned mining companies to exercise ownership of and control over mining activities. Combined with the findings on state-owned companies (SOCs, which include both petroleum and mining companies) from the 2013 Resource Governance Index (RGI) and the research associated with the Natural Resource Charter, the concrete experiences of these countries provide meaningful lessons for other governments facing critical questions: whether to set-up a national mining company, and what steps to take in managing or reforming existing NMCs. Through the structuring of NMCs in Zambia and the DRC has been in many ways setting-specific, these two cases provide several critical lessons that can inform other mineral producers' decision-making.

¹ Defined as any company with state ownership, of any legal status.

² Silvana Tordo, Brandon S. Tracy and Noora Arfaa, National Oil Companies and Value Creation, World Bank, http://issuu.com/world.bank.publications/docs/9780821388310

³ Mwaniki Wahome, "Kenya to form a mining corporation, says Balala," *The Nation*, May 26, 2013, http://www.nation.co.ke/Features/smartcompany/Kenya-to-form-a-mining-corporation-says-Balala/-/1226/1863538/-/nflw7v/-/index.html

Lessons learned about the governance of national mining companies

BACKGROUND

State-owned companies were a common feature of the mining industry in the early industrial age of state monopolies over key sectors of the economy: infrastructure, energy, metals and natural resources. Economic growth and the wave of liberalization in the 1990s in most of the west freed many countries' mines from government control, though some remain under government oversight. In many developing countries, after a wave of nationalization in the post-independence 1960s and 1970s, low prices and high financing costs in the late 1980s and 1990s led many to abandon state ownership of mining companies and invite foreign investors into mining through privatization. A World Bank report estimates that state shares of global metal mine production peaked at 47.2 percent in 1984, and had dropped to 21.4 percent by 2005, but has been rising since then, to stand at 23.8 percent in 2008.4

Fueled partly by the success of some state-owned oil companies and partly by rising mineral prices in the 2004-2012 period, emerging mineral producers have expressed renewed interest in state-owned or national mining companies. However, historical records of national mining companies hardly seem to justify such enthusiasm. There have been some successes, in particular LKAB, which has been producing iron ore in Sweden since the late 19th century, and Chile's CODELCO, which has prospered after a hard-fought nationalization process in 1971. CODELCO now produces 10 percent of the world's refined copper; has assets worth \$20.8 billion; and is managed according to international standards, as illustrated by its satisfactory score (84/100) in the RGI. Morocco's OCP has become a world leader in phosphate production and is also well placed in the RGI (75/100).

On the other hand, Botswana's diamond miner Debswana, though it has brought the country substantial revenues, does not stand out for its governance practices, with a low score of 32/100 on the RGI. Many national mining companies have been marked by serious problems of management and governance. In total, 6 of the 10 state-owned mining companies assessed by the RGI rank as "failing". These companies have typically not been performing and haven't served their countries' development goals.

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⁴ Magnus Ericsson and Frida Lof. Esther Petrilli Massey, *Overview of state ownership in the global minerals industry* (Extractive Industries for Development Series, No. 20; Washington, DC, 2011), World Bank, http://documents.worldbank.org/curated/en/2011/05/18550919/overview-state-ownership-global-minerals-industry

⁵ STAMICO (Tanzania), Debswana (Botswana), Gécamines (DRC), ZMDC (Zimbabwe), Erdenes MGL (Mongolia) and Northern Coal Enterprise (Afghanistan).

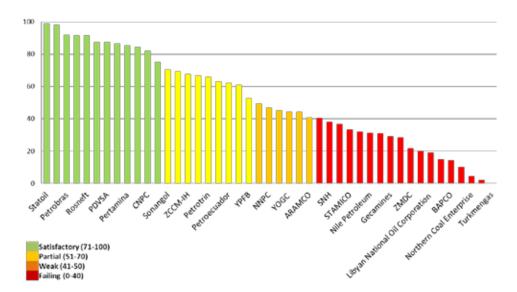


Figure 1. Resource Governance Index: Stateowned company scores

Source: http://www.resource governance.org/rgi/

The case studies of Zambia and DRC underscore the challenges facing countries trying to manage national mining companies effectively, and point to certain valuable lessons for countries aiming to reform their mining sector.

The colonial powers of both Zambia and DRC viewed the extraction of mineral resources as part of the administration of their overseas territories, which often blurred the distinction between the roles of the state and the private sector in the regulation, management and exploitation of mines. Post-independence leaders similarly viewed mining as a strategic sector that they could leverage to fund a whole range of national policies. In a time of high mineral prices, they saw the creation of state-owned mining companies and the acquisition of large equity stakes in mining ventures—51 percent (later rising to 60 percent) in Zambia and 100 percent in DRC (then called Zaire)—as a means of raising revenues, empowering their nations, improving people's welfare, providing employment, and sometimes supporting the political elite.

As the governments' and private partners' objectives began to diverge, Zambia and DRC assumed greater control over mining companies. As a consequence, the roles of private investors were limited to managing or marketing contracts, and investment declined sharply. In the 1980s, the lack of investment, deteriorating efficiency of operations, and unsound economic decisions, combined with low prices, brought both Zambia's and DRC's national mining companies to the brink of collapse.

Over the last two decades, the two countries took different paths. In Zambia, where economic mismanagement never became as acute as in the former Zaire, private investors always kept a meaningful role. Elected authorities acknowledged the failure of earlier policies after democratization in the 1990s, and undertook a privatization process whereby the government's share in mining ventures was reduced to a minority stake with no operational control and limited involvement on company boards. The Zambian government incorporated ZCCM Investments Holdings Plc. (ZCCM-IH) as a vehicle for managing the minority shareholding in the operating mines with no role in operations or marketing.

Transparency and oversight have improved, with ZCCM-IH reaching a score of 68 of 100 and ranking 15th of 45 SOCs in the 2013 Resource Governance Index. Though

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much remains to be done to turn ZCCM-H into an open and highly performing NMC, its revised ownership structure, improved public and private governance, as well as high global mineral prices have sparked increased investment in Zambian mining over the last few years.

In the DRC, decades of financial plunder, underinvestment and lack of maintenance led to a general decay of mining infrastructure, which was worsened by the wide-scale pillage of assets in the early 1990s. The DRC then endured a terrible civil war, which almost completely halted formal mining activities. Throughout an opaque and much criticized privatization process initiated by President Laurent Kabila, the largest national mining company, Gécamines, lost its monopoly over the country's minerals in the province of Katanga, though it still maintains rights over valuable mineral assets. With known and rich deposits in its portfolio, it has been able to benefit from renegotiated agreements with private companies and form new ventures covering undeveloped deposits.

As production from the projects Gécamines directly manages has remained low, Gécamines' operating branch has become much smaller. Despite its stated objectives, in practice most of the company's revenues come from awarding exploitation licenses and managing its portfolio of shares in the mining sector. Despite positive decisions like the publication of some mining contracts, the mining sector in DRC is still characterized by poor governance, opacity, corruption and inefficiencies. Gécamines received a score of 29/100 on SOC indicators in the 2013 Resource Governance Index, signifying "failing governance," and ranks in the bottom ten of the 45 SOCs assessed by the index. The government's tax revenue from the mining sector is still relatively low, due to low royalty rates and moderate corporate income tax. As the sole shareholder in Gécamines, the Congolese state is entitled to the companies' dividends. However, while Gécamines receives dividends from its share in mining projects, as well as royalties and signing bonuses, little or nothing in the way of revenues ever ends up in the national budget. Gécamines retains de facto power to select private partners for the projects in its portfolio, and contracts are awarded without due process, leading to cases of suboptimal selection of partners and intermediary companies making huge profits by flipping their assets to major international players.

LESSONS LEARNED

Post-colonial DRC and Zambia have had different experiences managing NMCs, and these case studies offer useful lessons for other governments seeking to legitimately profit from mineral resources. Some features of NMCs make them more or less likely to be performance-driven, accountable institutions. Lessons learned from the study of state-owned mining operations include:

Leadership of state-owned mining companies should have realistic ambitions, clear goals and well-defined corporate mandates.

Governments typically have a range of expectations for NMCs:

- · increase in state fiscal revenues via equity stakes
- development of skills and experience that over time will result in more national ownership and control, and therefore a better long-term financial return
- creation of large-scale employment and social goods

The examples of Gécamines and ZCCM demonstrate that meeting the first and third of these expectations can be a real challenge in today's global and volatile economy. With conflicting goals, sustainable achievement of the second type of expectations has failed in both cases.

Governments need a coherent strategy detailing the operational role of the company, and in particular the balance between passive equity partnerships with private-owned mining companies and effective exploration, development and production undertaken by the company itself. These are two different lines of activities that require different sets of skills, investment and staffing. It might not always be optimal to engage in either or both, depending on available human capability and financial capital, levels of governance, and overall economic development policies.

Depending on the available domestic capability, direct mining operations might be out of reach of a state-owned mining company. However, gradually developing capability through knowledge transfer by working in partnership with international investors proved generally successful in Zambia. Attempts at increasing the percentage of national employees should be pursued by increasing capacity and training, rather than by hiring national staff for unnecessary positions. If done well, replacing expatriate staff with nationals with the same skills should have the positive effects of reducing labor cost and increasing national benefits. In contrast, ZCCM in the 1980s saw an increase in highly-paid, low-impact bureaucratic jobs, which was an abuse of the "Zambianisation" policy but did little to sustain operations, contributing to deteriorating productivity.

Managing the state's equity portfolio is technically easier than operating mines, but it also requires dedicated resources and professional skills, to ensure that the state's shares yield an appropriate return. In particular, board members from the state-owned mining company should monitor the global corporate networks of their private partners and look into transfer pricing issues. These roles should be filled by skilled professionals who can dedicate substantial time to these tasks, rather than by those who secured jobs through political connections.

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To improve negotiating skills, NMCs should invest in staff training and capacity building, and systematically rely on independent expertise,, national and international, especially law firms, engineering consultants, auditors and financial analysts, on par with those sought by private companies. Weak negotiating skills have resulted in suboptimal deals for NMCs. For instance, Zambia bought its stake in mining companies at an unnecessarily high cost in the 1970s, and the DRC's privatization process yielded sub-market returns for the sale of mining assets.⁶

State-owned mining companies should aim for commercial efficiency.

Commercial efficiency is the best way of achieving an NMC's goals over the long term. It should protect against arbitrary, political decisions and guarantee the sustainability of the company's activities. On the contrary, diverging from core goals can lead to economically irrational decisions.

One particular risk is that the objective of the company becomes gross revenue generation, either for macroeconomic purposes (increased export earnings), to generate employment, or for political patronage; rather than the development of a sustainable business plan for a profitable enterprise. In both Zambia and the DRC, political interference made it impossible for the NMCs to be sustainable, by forcing the companies into unprofitable ventures, rendering operations inefficient, and failing to generate the cash needed to raise investment.

Using the company as a source of other public goods—including large-scale public employment, public utilities, and social services—can distract from it becoming a well-functioning enterprise. Private investors are usually required to support local development and social services, but because they are accountable to foreign shareholders, they will never do so to an extent that puts their financial interest in jeopardy. However, political interference can lead a national mining company into sacrificing its commercial viability to political goals. In the DRC, focusing on increasing gross revenues and generating employment has led Gécamines to the verge of bankruptcy, saddling it with debt it has still been unable to pay. In Zambia, using ZCCM to buy or create companies outside of the mining sector proved inefficient and partly explains the financial strains on the NMC until privatization.

Personalization of control exacerbates the threats of political interference that imperil a company's viability. Recent examples in the DRC have shown that this leads to poor economic decisions and bad deals, associated with suspicions of corruption. Appointment of board members by the president or other senior officials may be appropriate, but the selection should be transparent and competitive, based on professional merits and technical expertise. Appointments external to the national company and government can help bring in new skills and prevent patronage. Once strong candidates have been recruited there should be no excessive political meddling. Company managers should be assessed on their business performance, not on fulfilling any political objective.

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^{6 &}quot;The 10-member Africa Progress Panel, led by former United Nations Secretary-General Kofi Annan, said in May [2013] that Congo lost at least \$1.36 billion between 2010 and 2012 in deals where state-owned companies including Gécamines sold mining stakes at undervalued prices." Michael J. Kavanagh, "Gécamines Didn't Tell Government of KCC Gertler Deal," Bloomberg News, October 18, 2013, http://www.bloomberg.com/news/2013-10-17/Gécamines-didn-t-tell-government-of-kcc-gertler-deal.html

Finally, as the Zambian example has shown, the finances of a NMC should be ring-fenced from the government's budget financing. In particular, the government should not use the NMC to guarantee its sovereign debt, or secure loans that it cannot obtain itself. Neither should the government end up subsidizing a national mining company in the long-run. In Zambia, despite the deteriorating performance of ZCCM in the 1980s, the company avoided making difficult choices on restructuration by obtaining low cost financing from the government's budget. Payments of government's debt soaked up most of the operating cash flows, while the cost of the subsidy to the industry was not properly accounted for.

State-owned mining companies should plan for the long term.

Commodity markets are cyclical: prices fluctuate according to global economic activity. International investors dedicate significant resources to risk management, and make detailed plans for the future, sometimes decades ahead. Planning for price fluctuations is crucial in the mining sector. Companies must be prepared to face years of low commodity prices in order to survive in the long run. If a state-owned mining company seeks simply to generate maximum revenue while prices are high, without planning for the future, a price crash can be catastrophic. In addition, responsibly looking forward means taking account of resource depletion and aging infrastructure. Managers should thus carefully plan reinvestment to anticipate future production and prevent output shortfalls. Such shortfalls happened in both Zambia and the DRC in the late 1970s: the short-term, politically driven perspective and careless planning imposed on the companies' management through political interference could only be sustained while copper prices were high; as prices fell, mismanagement became fatal and eventually brought the NMCs to the brink of bankruptcy.

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Incorporation and organization of state-owned mining companies should promote efficiency and accountability.

As with operational roles, the government must assign the governance roles of policymaking and regulation, such as tax collection, provision of operating rights, monitoring, and the management of cadasters.

Detailed laws and rules on how a company is structured or incorporated, and how it interacts with state institutions, are necessary. They provide a transparent framework so that all actors know what the state-owned mining company does and does not do. They prevent ad hoc decision-making and promote accountability. Of course, these provisions can be beneficial only if the rules are applied and respected in practice. Adequate oversight from the executive and the legislature can help ensure this happens.

Too much interference by the mining ministry (or other line ministries) on internal matters of the mining company, such as reviewing sub-contracts, fixing employment policies, financial packages, or even staff travel plans, can impede strategic planning and make the company ineffective. A national mining company should be both somewhat autonomous and totally accountable. It should be able to manage itself with sufficient autonomy to make relevant and timely decisions, without depending on political patronage, but it should not use that argument to block scrutiny of its activities. A state-owned mining company should always be accountable to the legislature and the government more broadly. The line ministry should retail its influence of strategic

decisions and annual planning, while the parliament should approve long-term plans, budgets and end-of-year reviews of performance.

Partial privatization can serve as useful impetus for better management and performance, as private investors can raise standards, develop market demands for information, and grow a culture of accountability. The 2013 Resource Governance Index shows that globally, six SOCs with some private ownership listed on international stock markets with a mix of public and private ownership boast an average 80.4 score, compared to a score of 46 for the 38 SOCs that are fully owned by the state. (Mixed-ownership approaches were not tested in either of the cases in this study.) Zambia had private partners in ZCCM in the 1970s, but these were previously majority owners whose shares had been scaled down by nationalization. The DRC is planning to open Gécamines' to private shareholders in the medium-term future.

Managers can also bring in international expertise through management contracts. However, there is also a risk that foreign partners could use their position to favor related companies, consultants or contractors, so their mandate should be well defined, and their activity monitored. In addition, to obtain the best results from private shareholding, the sale of shares from the NMC should be carried out using competitive processes, and any management contract should be the result of an international tender.

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State-owned mining companies should generally not hold licensing powers.

Having the national mining company serve as a de facto gatekeeper for private company access to concessions outside of a standard, administrative process distorts incentives. As the DRC case illustrates, instead of following due process in line with the mining code and in coordination with the ministry in charge of minerals, international investors contact and negotiate directly with the NMC, disregarding key elements (e.g., environment, local community development) of a contract in national resources. In addition, it is difficult for the government to have a coordinated strategy for managing the sector if it does not have input to where and how mining projects are undertaken, and so the NMC should not function as a parallel system for awarding licenses/access.

In most cases the mining ministry, or an independent cadastral institution, directly accountable to the broader government and the legislature, should be authorized to issue mining licenses and select the private sector companies that participate in mining ventures, following legal, systematic rules and processes. In the oil sector there have been cases in which SOCs have been tasked with issuing licenses, with relative success in countries like Brazil, Malaysia or Angola, but it is not clear whether such models could apply to the mining sector. At a minimum, such authorization should be given with clear and transparent rules, oversight and links to the government's larger objectives.

NMCs should adhere to the same or higher standards of disclosure as private companies face, and should be subject to clear oversight.

A state-owned mining company should be subject to inspections and control by government agencies, just as private companies are, and be expected to pay its normal share of taxes. Public accounts should be maintained in accordance with international standards and subject to independent audits and any private ownership interests and related transactions should be clearly identified. Only by competing on a fair ground with private companies will a national mining company be able to raise its standards and

compete with global corporations. In addition, taxes, bonuses, royalties and dividends can be an important contribution of an NMC to the state's budget. A particularly critical area for transparency is the sale of oil and other minerals by national companies on behalf of the state. Disclosure should cover the amount of oil the company receives, and the price, grade, volume and date at which it is sold.

Transparency of revenue flows between the company and the state is critical, as a way to monitor company performance and to provide citizens and investors with crucial information. The Resource Governance Index's top SOC performers such as Statoil (Norway), Codelco (Chile) and Petrobras (Brazil), share several practices that enhance SOC accountability: legal requirements to publish reports; disclosure of audits and data on production and revenues; transparency in the risk-laden area of extra-budgetary spending; compliance with international accounting standards; and the inclusion of SOC financial information in the national budget.

Governments rely on 36 of the 45 SOCs assessed in the index to provide a range of services, from infrastructure construction to social services to fuel subsidies, that fall outside their core business and would ordinarily be left to other government agencies. More than half of these companies (19 in total) report no or limited information on "quasi-fiscal activities." SOCs in Bolivia, Iran, Nigeria and Venezuela, for instance, provide subsidized oil or natural gas, but publish no information on these activities. These are clear gaps in reporting that create conditions for mismanagement and unsustainability of SOCs' activities.

Transfers should be recorded and follow prescribed rules. Included in these flows are proceeds from the sale of shares, any payment (e.g., dividends, royalties, bonuses) from an operating company to the NMC and any revenues earned by virtue of the NMC receiving a share of mineral production (through production-sharing agreements). Parliaments should be given the right to monitor and scrutinize payments. Dividends and other payments should ideally be paid directly to the treasury, with a retrocession or a percentage given back to the national mining company.

If the privatizing a company or selling its shares, a government ought to conduct these processes transparently and through markets, ideally through an open tender, to ensure that it awards the sale to the best bid. An opaque or overly political process creates risks of collusion, conflicts of interest and undervalued sales, reducing the state's revenues. This happened in the DRC, where the government presided over the unjustified cancellation of licenses, followed by direct sales at below-market prices of some of the country's best copper deposits to companies with little relevant experience and capacity but some key political connections.

The new standard of the Extractive Industries Transparency Initiative makes transparency of payments and operation of SOCs mandatory⁷. This should go a long way towards creating additional oversight of SOCs activities and increasing accountability in the management of a country's natural resources.

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⁷ See requirement 3.6 and 4.2(c) in the 2013 standards: https://eiti.org/files/English_EITI%20 STANDARD_11July_0.pdf

Case Study: Gécamines in the Democratic Republic of Congo[®]

SUMMARY

With world-class copper, cobalt, tin, gold and diamond deposits, the Democratic Republic of Congo has been an important mineral exporter for the past century. Its mining history reveals the faith the state has placed in its own enterprises. Since colonial times, companies partly or wholly owned by the state have dominated the sector. The most prominent are the Générale des Carrières et des Mines (known as Gécamines), dedicated to copper and cobalt exploitation in Southern province of Katanga; the Minière de Bakwanga (MIBA) in the diamond-rich Kasai province; and the Office des Mines d'Or de Kilo-Moto (OKIMO), which exploits gold in Oriental province.

During both Belgian colonial rule and the ensuing Mobutu era, state-owned companies were a source of national pride. The companies conducted in-depth geological research, developed robust industrial infrastructure, and generated considerable revenue throughout most of the 20th century. The best-performing of them, Gécamines, ranked among the world's top copper producers until the 1980s. A legacy of colonial times, it maintained a highly paternalistic employment policy and functioned like a "state within the state," providing workers and their families with employment as well as access to quality health care, education, food rations and recreation.

The impressive production record and social achievements of Gécamines until the 1980s were counterbalanced by an unsustainable economic strategy. Fully nationalized under Mobutu Sese Seko's "Zairization" policies in the early 1970s, Gécamines' primary objective was no longer sustainable net profit but gross revenue generation to sustain a political elite. None of the company's proceeds was reinvested in mining operations, so that its industrial apparatus aged over time and eventually led to a drastic decline in production in the early 1990s.

For the past twenty years, the DRC's once highly productive state-owned companies have had a negative balance. Gécamines' debt alone is estimated at over \$1 billion. Unable to find financing, state-owned companies have partnered with private investors, especially since the entry into force of the 2002 mining code, which liberalized access to mining permits. From a company with a quasi-monopoly in Katanga's mining sector, Gécamines turned into a *de facto* minority participant in more than 20 joint ventures with private investors which it hoped would be lucrative. Its future plans now focus on increasing its own production, stagnant since the early 1990s.

But recent questionable transactions in which Gécamines lost billions in much needed cash have cast doubt on its ability to genuinely implement a profit-oriented strategy. Strong suspicions of mismanagement of company assets in recent years have led many observers, including major international business newspapers, to question whether the planned partial privatization of Gécamines, aimed at reverting it to a profit- rather than revenue-based business strategy, will ever succeed.

To better understand the relative early success and subsequent decay of Gécamines, this report details the impact of changes in ownership and governance structure of the company and assesses its role in relation to private mining operators over time.

Congo's rich experience with state-owned companies can inform other countries' decisions to create one or several new state-owned entities. The present study mainly focuses on Gécamines, operational in Katanga Province, as it has traditionally been the largest of all Congolese state-companies, and the most representative. The study dives into the long history of the company, from colonial times to present-day management, to identify implementable safeguards for preventing other state-owned enterprises from becoming obstacles to economic development.

Despite the evolution of the formal structure governing Gécamines' activities, it remains an opaque entity that has failed to viably commercially develop, and has not consistently met its payment obligations to the state. If the company is to become a true vehicle for the sustainable development of the DRC and its mining industry, Gécamines must develop and follow a clear strategy to become an autonomous commercial entity, including clear relationships with government institutions, a sustainable revenue retention plan that allows for reinvestment, and an end to the costly practice whereby Gécamines serves as a *de facto* parallel licensing authority. The transparency of the company must also improve dramatically. It should publish the contracts it signs with private investors; disclose financial statements including what Gécamines earns and what it pays to the state; and should sell any shares through market process rather than through opaque, politically motivated actions.

LESSONS FROM GÉCAMINES' HISTORY

From a chartered company to the Union Minière du Haut-Katanga9

At the end of the 19th century, mining activities in the present-day DRC were both a tool to fulfill King Leopold II's imperial ambitions and an early example of multinational investment. When he acquired Congo Free State in 1885, the king at first considered Katanga of limited importance. But British conqueror Cecil Rhodes' threat to explore "unoccupied" Katanga prompted the Belgian monarch to deploy a physical presence. The king established the Compagnie du Katanga to occupy the province based on the chartered model, which granted companies part of the state's responsibilities in exchange for considerable revenues for both the investors and the colonial treasury. The company was not only tasked with mineral exploration but with colonization itself. In compensation for these services, the king granted the company control over operations in and revenues from one-third of Katanga's vast territory.

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⁹ Much of the historical description is based on the very detailed *De la Mine à Mars: La genèse d'Umicore*, by René Brion and Jean-Louis Moreau (Lannoo Uitgeverij, 2006). The book started out as a history of the Union Minière du Haut-Katanga, based on archives of the colonial company but was extended to include the history of UMHK's Belgian successor, Umicore.

¹⁰ R. Korvac, "La congolisation de l'Union Minière du Haut-Katanga," Annuaire Français du Droit International (Vol. 13, 1967), 742, 745.

Belgian and British businessmen soon subscribed to the new company's capital. ¹¹ The company's colonization process went quickly, but the mineral prospecting proved disappointing. British investors persevered; they created the Tanganyika Concessions Ltd. (TCL) and asked the Belgian authorities for a concession of their own. The Belgian king was led to consider the practical complexities of geographically distinguishing his two-thirds of the province from the third dominated by the Compagnie du Katanga. Leopold and the Compagnie du Katanga therefore erased the geographical boundaries and instead created the Comité Spécial du Katanga (CSK), a public-private structure charged with governing the province administratively, politically and economically. One-third of the board members were appointed by the Compagnie du Katanga, the remaining two-thirds by Leopold II. Profits and losses were divided using the same ratio. ¹² In the same year, CSK signed a convention with Tanganyika Concessions Ltd., granting it permission to prospect a vast, well-defined region in southern Katanga. Less than two years later, the British discovered what was then considered "the richest copper deposits on earth, both in terms of size and value per ton of mineral ore." ¹³

After Leopold II's Congo Free State became the Belgian Congo in 1908, the public-private CSK signed a new agreement with the Tanganyika Concessions Ltd. to create Katanga's first exploitation joint venture, the Union Minière du Haut-Katanga (UMHK). TCL provided half the capital, and CSK brought in the other half as well as the concession titles. Sixty percent of profits went to CSK and 40 percent to TCL. Hence, UMHK's structure was mixed: the Belgian state had a controlling stake over CSK, which in turn had a controlling stake over UMHK, but in practice private shareholders were in charge of managing the company. The most prominent private shareholders were the British TCL and the Société Générale de Belgique, Belgium's largest holding company, which controlled about 70 percent of the overall colonial economy.

The Belgians, with their strong ties to colonial authorities, were mainly trusted with administrative tasks. The British, with their previous mining experience in Rhodesia, handled technical operations. Belgian and British interests frequently conflicted. 14 Société Générale's Katanga-based company was only one element in its copper production chain. Much of UMHK's ore was processed by other Société Générale subsidiaries outside of Katanga. Consequently, the Belgian holding company could make profit at any point of the value chain and so UMHK's primary role was to ensure production, not necessarily profits.

In contrast, British shareholders only held an interest in UMHK (not in processing), and were mainly interested in making profits at the level of the Katanga subsidiary. They counted on UMHK dividends to finance the Benguela railroad from Katanga through Angola, which would strengthen Britain's market position in southern Africa. UMHK

¹¹ Brion and Moreau, 65. Cecil Rhodes himself did not subscribe as Leopold II had hoped, but the British entities that did were his close business associates, and their consolidation in the form of the Tanganyika Concessions Ltd. was considered his creation. The Belgian business entities held two thirds of the shares; the British, one third.

¹² Brion and Moreau, 68.

¹³ Robert Williams, director of TCL, quoted by Brion and Moreau, 69.

¹⁴ R. Korvac, "La congolisation de l'Union Minière du Haut-Katanga," Annuaire Français du Droit International (Vol. 13, 1967), 747.

profits were also sought by the shareholders who bought publicly traded UMHK shares. ¹⁵ A similar focus on dividends was shared by the Belgian authorities, who held two-thirds of the Comité Special du Katanga's 60 percent stake.

This balance of interests led UMHK to become a successful company both in terms of production and profits. UMHK's production grew from 2,000 tons in 1912 to an average of 86,000 tons in the 1920s. After difficult times during the global economic crisis of the 1930s and the Second World War, copper was in high demand for postwar reconstruction, and UMHK thrived. It reached a production of 300,675 tons of copper and 8,222 tons of cobalt in 1960. At the time of independence in 1960, UMHK accounted for 70 percent of Congo's hard currency exports. As for profits, UMHK and other Belgian colonial companies became very lucrative investments. ¹⁶ This also benefited the colonial treasury. In the mid-1950s, "portfolio revenues" (dividends from colonial companies accruing to the state through its equity participations) represented 10 percent of the colony's revenues, two-thirds of which were dividends from UMHK. On top of dividends, UMHK also paid taxes and royalties directly to the colonial authorities, so that its total contribution amounted to about one quarter of the colonial budget.

Independence: economic semi-decolonization

After independence in 1960, heated discussions arose over economic decolonization as Belgium tried to hold on to its mining interests. A few days before independence, the Belgian government dismantled the Comité Spécial du Katanga, which would have granted the newly independent authorities two-thirds of CSK's shares in UMHK. ¹⁷ Shortly after independence, Katanga—then Congo's richest province—seceded for several years (1960-1965). The Union Minière du Haut-Katanga stayed in Belgian hands. While Katanga's budget started benefiting from UMHK's tax payments, discussions about shared ownership continued.

When Mobutu Sese Seko took power in 1965 and Katanga remerged with the Congo, control over the mining sector became a major point of contention with the Belgian government. While Mobutu did not initially plan on nationalizing former Belgian companies, he soon imposed new rules, which UMHK refused to accept:

- In accordance with the new "Loi Bakajiba," Congo was to take ownership of all its mining concessions. Former owners could apply for titles of the concessions they previously owned.
- 2 Companies had to establish their headquarters in the Congo and abide by Congolese law.
- 3 There would be a new, more demanding tax regime.

When Mobutu Sese Seko took power in 1965 and Katanga remerged with the Congo, control over the mining sector became a major point of contention with the Belgian government.

¹⁵ Public share offerings for UMHK, which started in the 1920s to increase the company's working capital, were a challenge, because the initial convention creating UMHK included free-carry capital shares for both the Comité Spécial du Katanga and the Tanganyika Concessions Ltd. to prevent their dilution. In practice, this meant that each new share would have to carry a second one, making them unattractive. Eventually, four different types of titles were in circulation, each with different shareholder rights in terms of decision-making powers and dividend entitlements.

¹⁶ In the first half of the 1950s for instance, the 300 colonial companies represented about 0.3 percent of all Belgian companies but distributed almost one third of all Belgian dividends. Brion and Moreau, 267.

¹⁷ As an example, of the 4.3 billion francs of before-tax profit UMHK made in 1960, 2.5 billion francs went to the Government of Katanga. Brion and Moreau, 317.

Within days of UMHK's refusal, Mobutu set up a new company—the Générale Congolaise des Mines (GECOMIN)—to replace UMHK. Sixty percent of GECOMIN's capital belonged to the new Congolese state and 40 percent was open to subscription by national and foreign investors. But GECOMIN lacked sufficient expertise to operate the mines, and UMHK's commercial branch (Société Générale des Minerais) refused to sell GECOMIN's ore. European employees—numbering about 1,650 at the time—remained loyal to UMHK. New foreign investors refrained from subscribing to the outstanding 40 percent as long as negotiations with the former colonial power lingered.

Exports halted, producing a deadlock that benefited no one. Mobutu negotiated with UMHK's subsidiary Société Générale des Minerais (UMHK itself had become an unacceptable negotiation partner for Mobutu) and a compromise slowly emerged:

- The Société Générale des Minerais (SGM) would get a strong subcontracting position. The subcontracted services included: (1) the design of a general production and commercialization program for GECOMIN, (2) the execution of this program after approval by the GECOMIN board, (3) the recruitment of non-African staff, and (4) the commercialization and transformation of minerals produced by GECOMIN.¹⁸
- In return, the Société Générale des Minerais would get a 4.5 percent service fee (sales after Congolese tax deduction) in addition to profits generated by the commercialization and transformation activities.¹⁹

In 1971, Mobutu reinforced his "authenticity" policy, replacing most colonial names by more indigenous ones, and dropped "Congo" for "Zaire." The Générale Congolaise des Mines became the Générale des Carrières et des Mines (Gécamines), which remained a 100 percent state-owned company, partly on advice of the World Bank.20 UMHK/SGM did not receive the 20 percent of GECOMIN's shares it had hoped for in compensation for the expropriation of its industrial assets. The agreement was renegotiated in the following years and SGM's fee increased to 6 percent. Meanwhile, other Belgian companies such as the Hoboken smelting company (transformation and refinery) and the Belgolaise (bank services) that were still actively involved at various stages of the value chain made considerable profits thanks to their monopoly over the commercialization of Congolese copper and cobalt and skyrocketing copper prices in the early 1970s.

Gécamines under Mobutu: draining the state company's potential

In the following decades, Zaire's economic and political elite would thrive on Gécamines' strong portfolio—and simultaneously deplete it. While ten thousands of employees and their families enjoyed social services thanks to the company's paternalistic policies, the model was not sustainable, as most of the cash drained away from the company into the pockets of a few. Investment in new research, maintenance of existing infrastructure and stocks, and investment in new machinery was minimal-to-non-existent. Forty years after independence, Gécamines collapsed, and with it so did the social fabric the company had woven.

¹⁸ Article 1, Convention de Coopération Technique entre la GECOMIN et la SGM, concluded in Kinshasa on February 15, 1967.

¹⁹ Article 8, Protocole annexé à la Convention de Coopération Technique entre la GECOMIN et la SGM.

²⁰ Brion and Moreau, 343. The World Bank, through its president, Robert McNamara, advised Congo to keep 100 percent ownership. As shown below, 40 years later, the IFIs are the main driver behind the privatization of Gécamines' capital.

The nationalization of UMHK's state assets brought about a fundamental change in the governance of the copper-cobalt sector. Instead of trying to uphold a sustainable, competitive and profitable business, Gécamines became a tool to generate gross revenue, independent of the financial health of the company. One observer said:

As soon as the state became the unique shareholder of Gécamines, the aim was no longer to generate profit but to generate cash. It was immediately told to maximize production. When copper prices artificially went up in the early 1970s because of general strikes in the US and the Allende war in Chile, all major companies took advantage of these windfall profits to invest in more effective technology in anticipation of a subsequent copper crash. In contrast, Mobutu boosted production and spent all the earnings, not realizing this blessing would not last forever. So when prices effectively fell, Gécamines was doubly affected: not only did it generate less income, it had also become less efficient than its competitors. Barely a decade after Gécamines' nationalization, copper production had a negative balance; only cobalt production was still profitable, and Mobutu had to turn to the international financial institutions for help.²¹

"As soon as the state became the unique shareholder of Gécamines, the aim was no longer to generate profit but to generate cash. It was immediately told to maximize production."

This illustrates the end of balanced interests that governed UMHK before independence. The president embodied the state, and the state was the unique shareholder, meaning the president had a direct control over Gécamines' policy. He had a direct say over the appointment of managers and fired whoever tried to take a different route. This was reflected in the 1978 law on public enterprises. The president named all administrators (board), the main executive directors and the financial controllers (commissionaires aux comptes), and could remove them at any time. ²² The board had the most extensive powers, but the president of the republic could veto any major decision, including those related to granting concessions or signing partnerships. The government, directly responding to the president, had a say in the companies' internal code of conduct, the companies' employment policies, and other policy decisions.

As a result of its production-oriented strategy, Gécamines generated impressive copper and cobalt output. Just before nationalization, UMHK produced about 320,000 tons per year. Gécamines produced 435,000 tons in 1972 and averaged 452,000 tons annually between 1970 and 1989, making it one of the world's top producers.²³ Between 1967 and 1985, it generated 70-80 percent of hard currency export receipts and 20-30 percent of government revenues. Its workforce exceeded 20,000 people, who benefited from high-quality education, health care and food baskets granted on top of their salaries. Free education was particularly important and had several purposes: (1) stabilized the workforce to ensure steady production, by granting education to its children, (2) created a skilled and semi-skilled labor for the factories and other offices of the company, and (3) integrated Gécamines children enrolled at consular schools into the Congolese school system after Mobutu prohibited foreign education for Congolese children in 1974. Gécamines operated several good technical schools in the major mining centers of Lubumbashi, Likasi and Kolwezi, and provided "excellence scholarships" for particularly well-performing high school graduates to enroll at university both in Lubumbashi and abroad.²⁴

²¹ Interview with person knowledgeable in DRC's mining sector, January 2012.

²² Articles 7 and 9, Law 78-002 of January 6 1978 on State-Owned Companies.

²³ The most productive years were 1974-75 and 1987, with almost 500,000 tons. The least productive was 1979, with 362,800 tons. Data gathered by Didier Kilondo Nguya, *Ménages "Gécamines," précarité et économie populaire* (2004), based on statistics from Gécamines, UMHK, and Banque du Zaire.

²⁴ In 2010, Gécamines still ran 110 primary and secondary schools, although the company had difficulties

While the external appearance was that of a flourishing company, the persistent grip of Belgian companies over important segments of the industry and increasing political interference with Gécamines' finances strongly affected the company's economic health. In a very critical retrospective, former Gécamines CEO Robert Crem, charged with reviving the company between 1979 and 1984, wrote:

When I came back to Shaba (Katanga), the geological reserves had remained intact but the stocks of spare parts and consumables were low. Maintenance investments hadn't taken place. Short-term debt accumulation was excessive due to the high costs of export pre-financing from the Belgolaise. The staff was demotivated. Most of these problems were fixed in two years' time...

But the commercialization terms still escaped Gécamines' control and therefore that of the shareholding Congolese state. I was committed to changing this through a thorough revision of the commercialization and refinery agreements with [SGM and two other Belgian companies]... But there was another major problem: that of the direct takings by the state power through Sozacom [one of the subcontractors that replaced SGM]. I had negotiated this touchy problem with Mobutu and we found an acceptable solution, comparable to the mechanism of special funds in France...

These reforms and fundamental corrections pleased neither the Société Générale de Belgique nor some of the close collaborators of Mobutu, whose privileges and secret revenues were exposed. . . [A] powerful pressure group was at play. I paid the price, yes, but it is Congo—Zaire at the time—and its population that were the real victims. I estimate that the prejudice Gécamines suffered between 1967 and 1984 at \$3-4 billion for the [Belgian companies], and about \$5 billion for the state power through all kinds of commissions and illicit takings. 25

Robert Crem was dismissed and Gécamines' functioned increasingly as a slush fund for the Mobutu regime, while its industrial infrastructure and geological expertise further declined.

It didn't help that the copper price declined in real terms, adding further to the debt burden of the company and the country as a whole. By the end of the 1980s, when the price of cobalt (of which Katanga has an estimated one-third of world reserves) went up and could have given a new breath to Gécamines, its main underground mine at Kamoto physically collapsed due to poor maintenance. This led to the sharp decline of Gécamines' copper and cobalt production, as illustrated on the following page.

"I estimate that the prejudice Gécamines suffered between 1967 and 1984 at \$3-4 billion for the [Belgian companies], and about \$5 billion for the state power through all kinds of commissions and illicit takings."

maintaining the infrastructure and paying the teachers. New private companies have complained that Gécamines is unwilling to hand over some of the technical schools for refurbishment.

²⁵ Robert Crem, "La Société Générale de Belgique et le Pouvoir s'étaient partagés la 'bête'," a speech given at a conference organized by the NGO network Fatal Transactions in 2006 (author's own translation). See also T.M. Callaghy, "The International Community and Zaire's debt crisis" in G. Nzongola Ntalaja (ed.), *The Crisis in Zaire: Myths and Realities* (Africa World Press, 1986), 232.



Figure 2. UMHK-Gécamines' copper production between 1911 and 2000

	1988	1989	1990	1991	1992	1993	1994	
Mining production (000 tons)								
Copper	468.4	442.8	355.7	236.1	147.3	48.3	33.6	
Cobalt	10	9.3	10	8.6	6.4	2.2	3.6	
Zinc	61.1	54	38.2	28.3	18.8	4.2	2.5	
Mining sector (including all mining production)								
Annual changes (%)	-7.5	-3.6	-15	-22.8	-36.3	-17	-25.4	
As % of GDP	11.3	11.1	10	8.5	6	5.8	4.7	
Transportation (in tons per km)								
ONATRA	900	857	754	412	193	124	95	
SSCC	1701	1659	1340	815	448	169	193	
Aggregate statistics								
GDP growth rate (%)	0.5	-1.4	-6.6	-8.4	-10.5	-14.5	-7.2	
Total exports (US million)	2202	2131	1631	1288	1144	1271	1451	
Gécamines exports (US million)	1389	1265	896	535	232	176	295	
Gécamines/Total exports (%)	63.1	59.4	54.9	41.5	20.3	13.8	20.3	
Other exports		813	865	734	752	911	1095	
Diamonds		31%	30%	29%	31%	34%	27%	
Crude oil		20%	26%	22%	21%	14%	11%	
Coffee		15%	13%	14%	7%	7%	14%	

The collapse of Gécamines' production coincided with the end of the Cold War—ending unfaltering support to western-friendly dictators like Mobutu. Deprived of international support, Mobutu stirred local ethnic tensions to divide the population and hold on to power. In Katanga, this materialized in violence against people from the neighboring Kasai province in 1991-1993. With the repression, an estimated 50,000 Kasaian Gécamines employees and their dependents left. With them departed a tremendous wealth of knowledge and experience about Gécamines' concessions and operations.

^{26 &}quot;Zaire Inciting Hatred: Violence Against Kasaiens in Shaba," Human Rights Watch (June 1993, Vol. 5, No. 10), 20, http://www.hrw.org/sites/default/files/reports/ZAIRE936.PDF

POST-MOBUTU: LIBERALIZATION AND GÉCAMINES' AMBIGUOUS POSITION

The past fifteen years have seen major changes, for the DRC as a whole and its mining sector in particular. After Mobutu was chased from power in 1996-1997, the country became the center of a continental war that lasted until 2005, with pockets of violence still persisting in the eastern provinces. This made the DRC a particularly unattractive to investors.

Yet, over the past decade, mining sector reforms have aimed to attract new players to the Katanga copper belt and other mineral-rich territories. As part of these reforms, Gécamines and other state-owned companies have increasingly been assimilated with other mining operators and now have to abide by the same mining, corporate and bankruptcy laws. In practice however, they preserve a place of their own, with preferential treatment in accessing and keeping mining titles, as well as different practices in terms of revenue collection. The question remains whether reforms have succeeded at curtailing political interference with the company's budget and allowing Gécamines to become a profitable company.

Adoption of a new mining code and consequences for Gécamines

When Joseph Kabila took power in 2001, he immediately opened up to assistance from the international community: the United Nations for peacekeeping, bilateral donors for aid, and the international financial institutions for economic revival and financial stability. This led to far-reaching mining sector reforms steered by the World Bank. Two aspects are particularly relevant: the adoption of a new Mining Code in 2002, barely a year after Joseph Kabila became president, and the transformation of Gécamines and other state-owned companies into commercial entities.

Breaking with decades of practice, the mining code spelled out a clear division of labor between the state, in charge of regulating and monitoring the sector's operations, and the private sector, responsible for mining operations. It abolished the monopoly of state-owned companies over mining concessions, opening up the sector to foreign investment. Attracted by this new legal and fiscal environment, and in spite of a challenging security situation, foreign investment has boomed since 2002, especially in Katanga.

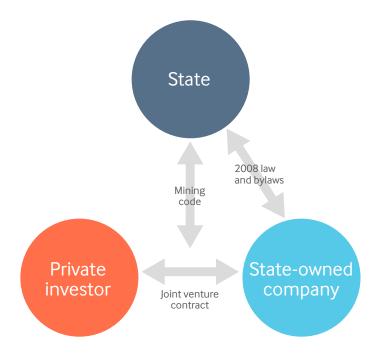
While the new mining legislation is virtually silent about state-owned companies, their role is still significant today. The mining code officially subjected all operators (including state-owned companies) to the same rules. Yet, transitional rules allowed state companies to preserve their existing titles under the new regime as long as they paid surface rents and followed other mining code rules. As a result, state-owned companies have kept exploitation titles for all the best (or best-known) deposits. This turned the state-owned companies into de facto gatekeepers to the DRC's most promising deposits. As one high-level administrator said, "when investors came, we first sent them to the mines registry [established in 2003 to manage mining titles]. But they came back and said they wanted well-known deposits, so we told them to get in touch with Gécamines and negotiate a partnership."

"When investors came, we first sent them to the mines registry [established in 2003 to manage mining titles]. But they came back and said they wanted well-known deposits, so we told them to get in touch with Gécamines and negotiate a partnership."

Thus, a multitude of partnerships were signed. These partnerships are more akin to UMHK's public-private structure before independence than to the commercialization and technical assistance agreements from the 1970s and 1980s. They take the form of joint venture agreements between Gécamines and the private investor for specific mining deposits. Usually, Gécamines' input is one of its mining titles and geological data (and sometimes infrastructure), while the investor promises to raise capital and bring in its technological know-how. Gécamines invariably has a minority share, and it is unclear whether it has special voting rights to preserve its interests. A major difference with UMHK's structure is that this public-private control over the mining sector came about in a very fragmented way. Instead of a few major private partners tied up in one joint venture, there are now more than 30 partnerships with a variety of investors.

It is worth noting that the government itself is rarely a direct contracting party in these joint venture agreements: contracts only regulate the relationship between the foreign investor and the state-owned company, using one of the contractual forms foreseen by the mining code (which could equally be used between two purely private companies). The relationship between the mining titleholder (i.e., the joint venture) and the government is regulated exclusively by the mining code.

The combination of a liberal mining code and piecemeal contracting practices resulted in an extremely fragmented mining landscape. The mines registry has granted more than 12,000 permits since 2003, and parastatals companies signed over 100 contracts. This makes monitoring and planning particularly challenging.



Restructuring Gécamines and other state-owned companies

The mining code created the same legal framework for all—state-owned companies, private investors, and joint ventures between them. But Gécamines and other state-owned companies were still subject to special corporate and bankruptcy laws, as well as to frequent political interference in their financial decisions. As a consequence, Gécamines has continued to operate as a special entity compared to the new private companies that have entered the country.

Structure and ownership

With support (and pressure) from international financial institutions, Gécamines is currently being transformed into a commercial entity. Since December 2010, Gécamines has the legal status of a *société par actions à responsabilité limitée* (SARL), the equivalent of a limited liability company. The objective is to "instill a new dynamic in the state-owned companies in order to enhance their production and profitability potential," and "to improve the competitiveness of these companies and the national economy as a whole." This new corporate form limits interference from politicians in day-to-day mining operations and finances, and the state is legally entitled only to collect Gécamines' dividends and the proceeds of asset sales. This should, at least theoretically, allow parastatals to focus more on operations and become profitable entities. The flip side of this reform is that Gécamines is no longer protected from bankruptcy, although the 2008 law (*loi relative à la transformation des enterprises publiques*) still foresees a temporary waiver protecting it from bankruptcy during the first three years. The flip side of the state is the first three years.

For now, the state is the only holder of Gécamines' 10,000 shares, which are not publicly traded. However, the 2008 law on the transformation of state-owned enterprises (SOEs) foresees a potential sale of SOE shares to third parties through a competitive tender process (tender or listing). Partial privatization is seen as a way to bring in much-needed capital, and the minister of mines said in a recent interview that Gécamines could be the first company listed on the nascent Kinshasa Stock Exchange. Yet, with little publicly available, audited data on the company's assets and liabilities, and persisting concerns about political interference in management practices, as well as a debt burden estimated at over \$1 billion, it is uncertain that such listing would be successful if it were to take place in the near future. However, which are not publicly available, and the successful if it were to take place in the near future.

Administration and oversight

The transformation also has had an impact on management bodies and governmental oversight. Until the commercialization of Gécamines, its board of directors included representatives from the presidency, the prime minister's office, and the ministries of finance, mines, and portfolio—in other words, a highly politicized board. The government (and the president himself in Mobutu's case) appointed not only the board but also all executive directors. As shown above, management was under direct administrative supervision from the ministry of mines for technical issues (reviewing

- 28 The initial plan was to turn it into a *société anonyme*, a legal status that does not exist in Congolese law but that would allow for greater flexibility in share trading. (The current SARL form requires presidential approval for changes to the bylaws, including of shareholders.)
- 29 Though the treasury has not always been able to collect proceeds of asset sales by Gécamines in practice, and Gécamines' position is that it should keep such proceeds, as a private company would.
- 30 Article 14 of the 2008 law blocks the bankruptcy law for three years after the promulgation of the law. If interpreted strictly, the SOEs could have gone bankrupt as of July 7, 2011. However, it took about 18 months for the transformation to take place, effectively dividing the waiver period by two. So far, none of the SOEs has been declared bankrupt, although they would in some cases clearly qualify, so that the July 7, 2011 deadline, if applicable at all, does not seem to have been respected in practice.
- 31 Law N° 08/007 on State-Owned Companies transformation, July 7, 2008, *Journal Officiel Numéro Spécial –* July 12, 2008.
- 32 Law N° 08/008 on privatization of State Owned Companies from the State portfolio, July 7, 2008, *Journal Officiel Numéro Spécial –* July 12, 2008.
- 33 Gécamines SARL, "Communiqué de Presse: Plan stratégique de développement," August 2011, 5. The company estimated its debt at \$1.5 billion when the commercialization took place in December 2010. About two thirds of that debt is considered non-insurable, and the plan is to transfer the debt to the Congolese state so that the company can become economically viable again.

contracts, fixing employment policies, etc.), and the ministry of portfolio for the management of assets. This supervision touched upon daily matters. As one director said, "if you needed to travel for business purposes, the executive director would have to ask approval from the board, which would request an 'ordre de mission' (travel permit) from the minister of portfolio."³⁴

Commercialization abolished this close control. The state's role is now largely limited to its powers as single shareholder—effectively the minister of portfolio, who has 100 percent control over the company. The president, on recommendation of the council of ministers, still appoints key mandate holders (board members and the two top executive directors). Mandate holders sign a management contract with the state (the ministry of portfolio) and receive a fixed salary. They have to account for their management at frequent intervals and whenever the government requires it. This includes reporting on financial performance, as the General Assembly has to approve the books on an annual basis.

Beyond this control, the board has the "largest powers to act in any circumstances in name of the company." It determines the company's policy, has a permanent control over daily management by the executive staff, fixes quantitative and qualitative performance indicators, and consolidates financial statements for approval by the General Assembly.³⁸

Business plan

Eight months after its transformation, Gécamines adopted a new business plan in August 2011. Disappointed by the partnerships with private investors (detailed below), it wanted to focus on its own production and increase it from 18,500 tons of copper in 2010 to 100,000 tons of copper in 2015. It requires an investment of \$952 million to implement the following strategic priorities:³⁹

- Relaunch Gécamines' geological research program.
- Restart production on the basis of refurbished transformation units and reconstitution of the (now depleted) strategic stocks.
- Restructure Gécamines' debt.
- Reduce the company's workforce, recruit younger staff, and restart Gécamines' training program.
- Valorize non-mining activities through the creation of profit poles.
- Disengagement from social programs (e.g., health, education), devolving them into independent entities.

To date, the company claims to have reached its 35,000 ton benchmark for 2012, while central bank statistics show only a production of 18,475 tons of contained copper from

³⁴ Interview with Gécamines employee, December 2011.

³⁵ In practice, the ministry of mines participates in shareholder meetings in a consultative role.

³⁶ Law N° 08/008 on privatization of State Owned Companies from the State portfolio, July 7, 2008, *Journal Officiel – Numéro Spécial –* July 12, 2008, in particular artcles 10-11.

³⁷ Idem, Articles 17-18.

³⁸ Article 35, Gécamines bylaws, December 29, 2010.

³⁹ Gécamines SARL, "Communiqué de Presse: Plan stratégique de développement," August 2011, (see note 30), 2.

January to November 2011. Audited data would be necessary for a more thorough assessment of whether the company is fulfilling its objectives.

The transformation into a commercial company is only one element of the reform. A second is to internally restructure the company into a holding company with three subsidiaries:

- Gécamines Participations, to manage all the stakes in the 20 or so joint ventures with private investors
- Gécamines Production, to carry out its own 100% controlled mining activities, and
- Gécamines Social, in charge of all social programs, staff costs and the company's debt.

This process is still ongoing, with the challenge being the third subsidiary, which effectively consists of Gécamines' liabilities. The idea is to negotiate with creditors to cancel debt in exchange for shares in the new holding. Such deals can be finalized relatively easily with creditors who owe Gécamines money in return (e.g. other Congolese state-owned companies, such as water and electricity providers), but they are more complicated with external private creditors.⁴⁰

Addressing Gécamines' financial situation

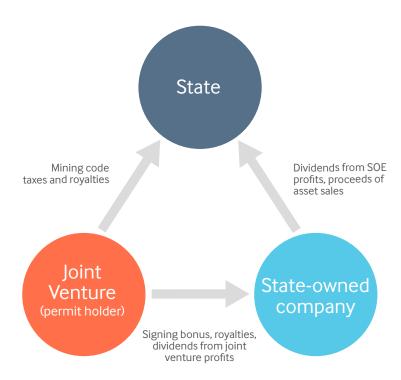
The reforms—introducing the new mining code, and transforming and restructuring Gécamines—were aimed at getting Gécamines back on a profitable track. To evaluate the chances of Gécamines' future profitability, one has to assess its current business practices, and whether they effectively increase income and minimize payments. Income is expected from two sources: joint venture partnerships and the company's own production. Outgoing payments are extremely difficult to track and raise many questions about the purported benefit of a strong state-owned company.

Income from partnerships

The largest source of revenues is expected from the partnerships Gécamines has formed with private investors. For cash flows to materialize, these contracts have to provide sufficient safeguards for considerable revenue flows to the state-owned company. However, many of the contracts were signed during the war and the transition, in a very poor business environment, at a time when Gécamines staff lacked the capacity and were not in a position to negotiate good terms, as political interference and corruption were high. Consequently, many of the agreements were seen as unfair to Gécamines.

Shortly after the 2006 elections, the newly elected government promised to address these flaws through a "contract revisitation" process. Sixty mining contracts involving state-owned mining companies were selected for review, about half of which were partnership agreements signed by Gécamines. Upon review, all contracts were slated for either renegotiation or cancellation. The main discussion items revolved around increased payments for Gécamines, like additional signing bonuses and contractual royalty payments, although some attention also went to balancing management positions on the boards and councils of the joint venture companies.

The ministry of mines website qualifies the revisitation as "the best thing that has happened to our state-owned mining companies in several decades." In contrast, Gécamines still claims that it is receiving no financial benefit from these partnerships. It announced "limited audits" to ensure that Gécamines is getting its due 42 and recruited three international audit firms to conduct them. The report may be used to take action against some of Gécamines' partners. 43



It is difficult to confirm or disprove this claim since the company explicitly refused to publish the renegotiated agreements, so it is impossible to know to which cash flows the state-owned company is entitled. 44 It is known though that the 20 or so partnerships vary from one contract to the next, with variations in loan/debt structures, interest rates for loan repayments, Gécamines' shares and royalty rates. This makes monitoring even more difficult, and transparency even more necessary. Major bonus payments are easier to monitor as they are usually communicated by either Gécamines or its partners. Between 2009 and 2012 the company received bonus payments from China's Sicomines (\$175 million in 2009 and \$175 in 2012), about \$120 million in revisitation bonuses in 2010, and \$189 million from the sale of Gecamines' shares in Mutanda and Kasuki in 2011. Revenues from royalty or dividends are much harder to track and measure, but could be above \$100 million per year.

Revenue transparency initiatives implemented in the DRC have not facilitated better insights into Gécamines' revenues. There are three relevant mechanisms: the Extractive Industries Transparency Initiative (EITI), quarterly publications by the minister of

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^{41 &}quot;Un Premier Bilan des Actions Entreprises," Ministry of Mines, April 21, 2014, http://mines-rdc.cd/fr/index.php?option=com_content&view=article&id=86

⁴² Gécamines Board of Directors, Plan de Développement Stratégique, August 2011.

⁴³ Michael J. Kavanagh, "Gécamines of Congo May Take Action Against Partners After Audit," Bloomberg News, October 7, 2013, http://www.bloomberg.com/news/2013-10-07/Gécamines-of-congo-may-take-actionagainst-partners-after-audit.html

⁴⁴ Although some contracts have now been published (available at http://www.congomines.org/fr/category/type-document/contrats/), it is not done systematically.

finance reflecting all revenues from extractive industries, and Gécamines' own financial statements. The companies' statements are extremely difficult to obtain, and auditors consistently report that they cannot approve Gécamines' statements due to a lack of supporting documentation.

EITI implementation is improving in DRC, with six reports published by end 2014, covering years 2007-2012, and validation achieved in July 2014. The first three reports, covering payments and revenues for 2007 to 2009, showed less than \$30 million in annual revenues for Gécamines. This did not reflect real income from partnerships, as some of the payments were not included in the initial EITI reporting (e.g., the payment Gécamines received for selling tailings to one of its partners, estimated at around \$89 million in 2007 alone⁴⁵ and an additional \$45 million in signing bonuses at least ten exploration joint ventures went unreported⁴⁶). The persistent lack of reliable information in the EITI reports became such that the EITI secretariat suspended the DRC in April 2013.⁴⁷

Reporting has become progressively more comprehensive, which explains the steep increase in reported payments, though some are still missing, including dividends from joint venture partners to Gécamines and other state-owned enterprises. A key and steady flow of revenues is reported in the last three reports: contractual royalties for Gécamines, which in 2011 and 2012 reached over \$40 million annually. Adding the sale of assets in 2011 was remarkable, as it shows the large flow of revenues accruing to

Gecamines from the sale of its shares in joint-ventures.

The persistent lack of reliable information in the EITI reports became such that the EITI secretariat suspended the DRC in April 2013.

	2007	2008	2009	2010	2011	2012
Signing or transfer bonus	0 / 20.4	8.8 / 5.049	21.3 / 22.0	129	38.3	35.3
Dividends from partnerships	0 / 11.5	6.8 / 13.4	0/0	n/a	n/a	n/a
Royalties	n/a	n/a	n/a	20.7	46.3	42.8
Sale of assets	n/a	n/a	n/a	n/a	189.1	28.8
Preemption right renunciation cost	n/a	n/a	n/a	n/a	n/a	15
Leases and rents	n/a	n/a	n/a	n/a	4.8	45.4
Services	n/a	n/a	n/a	n/a	n/a	2.3
Total	0/31.9	15.6 / 18.4	21.3 / 22.0	149.7	278.5	169.6

Table 1. Declared revenues from Gécamines joint ventures, in USD millions⁴⁸

Source: DRC EITI

- 45 "Par souci de transparence, le Groupe FORREST tient à publier la fiscalité totale générée par l'activité de ses societiés et payée à l'état congolais en 2007.... La Gécamines a ainsi perçu \$89,000,000 (50 milliards de Francs congolais) par la vente de sa scorie au partenariat [STL-GTL]." Communiqué du Groupe Forrest, May 2008. These payments, worth several tens of millions each year, are currently blocked after a court in Jersey recognized that Gécamines is an entity of the state, the income of which can be used to alleviate DRC's outstanding debts.
- Data collected from various sources within and outside the DRC mines administration, July-December 2011.
- 47 EITI, "Democratic Republic of the Congo temporarily 'suspended," EITI website, http://eiti.org/news/democratic-republic-congo-temporarily-suspended
- 48 Fair Links/EITI DRC, Rapport de l'Administrateur independent de l'ITIE sur les revenus 2008-2009, February 2012, 8-9.
- 49 These two figures (\$8.757 million vs. \$5 million) do not relate to the same signing bonus. In one case, Gécamines said it had received \$5 million, whereas its partner did not declare so, while in a different case, a partner declared having paid \$8.757 million while Gécamines said it had not received anything. The same goes for the signing

Another potentially valuable source of information is the quarterly extractive industries revenue publication from the ministry of finance, a measure to improve revenue transparency in the natural resource sector. However, Gécamines and other stateowned mining companies have barely declared any revenue through this means: for 2011, no dividends and only \$1.3 million in signing bonuses for the entire year were declared. While Gécamines did not indeed received substantial dividend payments in 2011, it is unlikely that the other figures are correct. Reports for the years 2012-2013 similarly lack adequate information on Gécamines' revenue. ⁵⁰

As with EITI figures, some material payments were not included in the list of revenues to report on in the quarterly extractive industries revenue publication, such as the contractual royalties. Based on the 2010 EITI report, royalties alone amounted to \$20 million in 2010, and signing bonuses of \$129 million. Also unreported were the proceeds of Gécamines' shares in some of the joint venture companies. Gécamines has sold its stake in several joint ventures: in 2009 (\$15 million) and in 2011 (\$189 million)—but the quarterly publications did not cover these sales.

It is not only the lack of transparency that made the sale of shares controversial. The stakes concerned some of Gécamines most productive mines and business analysts estimated that the real market value was about eight times higher than the sales price (\$1.1 billion instead of the \$137 million at which the shares were initially valued). The sales took place without a tender process, probably violating the 2008 law. ⁵² And the buyer who benefited from the bargain is a business associate of the president. Bloomberg News broke the story with the headline "Gécamines Sale of Congo Copper Assets May Undermine Share Offer." Indeed, the sales cast serious doubt on Gécamines' ability to become a genuine commercial profit-oriented company: why not sell at market value (\$1.1 billion), which would have covered the financial needs of Gécamines' business plan (\$952 million)?

The lack of revenue transparency for Gécamines makes it very difficult to assess its claim that it is receiving insufficient money from partnerships. They could be estimated at approximately 120 to 250 million USD a year from signing bonuses, royalties, dividends and the sale of tailings, excluding the sale of shares and income from its own production.

Income from own production

Gécamines' own production is another source of income. In contrast with other mining companies in Katanga, which usually export two or three different products, Gécamines exports about ten varieties of minerals, all in different quantities for different prices, making it hard to estimate exact income from the company's own production, as it does not publish disaggregated production figures.

Gécamines' aggregated production figures have not increased at the same pace as other joint venture companies or purely private investors. While Gécamines' own production

bonus figures of 2009; the matching figures hide discrepancies at the disaggregated level.

⁵⁰ Many companies are still in the exploratory or early production phase, and transfer pricing seems common.

⁵¹ DRC government, "Situation des pas de porte des partenariats miniers Gécamines au 30 Novembre 2010," December 2010.

⁵² Law N° 08/008 on privatization of State Owned Companies from the State portfolio, July 7, 2008, *Journal Officiel – Numéro Spécial –* July 12, 2008.

⁵³ M. Kavanagh and F. Wild, "Gécamines Sale of Congo Copper Assets May Undermine Share Offer," Bloomberg News, July 12, 2011.

has stagnated at about 20,000 tons of copper and 1,000 tons of cobalt over the past decade, the partnerships and privately owned companies' aggregated production went up from 16,000 tons in 2001 to almost 500,000 tons of copper in 2010, and from a little over 8,000 tons of cobalt in 2001 to 105,000 tons in 2010. This can partially be explained by the fact that many of the best-known deposits are locked up in partnerships. Figures from 2012 and 2013 seem to indicate a growing production by Gécamines, although these are still provisional.

	2006	2007	2008	2009	2010	2011	2012(p)	2013(p)
Total copper production	98,585	96,391	335,066	309,181	497,537	499,198	619,942	919,588
GECAMINES	22,440	23,031	23,475	13,274	20,015	17,287	36,452	158,960
Gecamines Partners & others	76,145	73,360	311,592	295,907	477,522	481,911	583,490	760,628
Total cobalt production	15,384	17,886	42,461	56,258	97,693	99,475	86,433	76,517
GECAMINES	738	599	314	456	877	715	1,522	2,263
Gecamines Partners & others	14,646	17,287	42,147	55,802	96,816	98,760	84,911	74,254

Table 2. Copper and cobalt production volumes (tons)

Source: Central Bank of DRC, Statistical bulletin N° 12/2014

These production figures, even if relatively low in the past decade, still represent a relatively large amount in gross revenues. Thanks to the copper price boom, gross revenues from Gécamines' own production were close to 170 million USD in 2010.54

Revenue flows from Gécamines to the government

What happens to mining revenues after they are earned by Gécamines is even more difficult to trace than the company's income. In theory, Gécamines is subject to the same corporate and mining laws as any other mining company. This means that Gécamines is supposed to run its business in a profitable way, paying for its exploration and production costs, salaries, and service its debt. It also means that it is subject to the same tax regime as other mining operators, including a 30 percent profit tax, a 2 percent royalty, customs, surface rents and so on. The only additional revenue to which the state is entitled should be Gécamines' dividends (if any). Also, special rules apply when stateowned companies sell their assets, in which case proceeds should go to a special fund of the public treasury. ⁵⁵

In practice, government officials have given frequent instructions to transfer a substantial part of Gécamines' revenue to authorities in Kinshasa. When the contract renegotiation process came to an end, and new revenues were expected for Gécamines, the prime minister immediately ordered the company to transfer half of the signing bonuses and of the royalty payments to the central government. The same is true for revenues from Gécamines' own production. As one insider put it, "Gécamines is the only state-owned mining company that produces *something*—and although it's not much, if you take 20,000 tons of copper at \$10,000 per ton, it's still a considerable amount of money. So you make your business plan, you determine which machine to

⁵⁴ EITI, 2010 EITI report.

⁵⁵ This is highly debated between Gécamines and line ministries, as mentioned above.

buy and which hole to drill, but you have to revise your ambitions because the money is gone." 56

The sales of Gécamines shares in 2011 illustrate the potential link with politics. Just as in 2006, when the country's first democratic elections were preceded by controversial mining deals, there are suspicions that proceeds of the current sales may have funded the 2011 elections. ⁵⁷ Documents from another state-owned mining company, Sodimico, show that at least one-third of the \$30 million it received for its stake in one of the joint ventures was intended for a special elections account at the central bank. Some within Gécamines say that similar requests were addressed to Gécamines early on in the campaign process.

Another suspicion is that of personal enrichment of the political elite. A British parliamentarian recently disclosed a set of documents claiming the DRC lost \$5.5 billion through contracts involving state-owned companies like Gécamines and Sodimico. He said "a series of complex arrangements between [the Congolese] government and various [tax haven] companies means that a few are enriched at the terrible cost of the many."58

"A series of complex arrangements between [the Congolese] government and various [tax haven] companies means that a few are enriched at the terrible cost of the many."

⁵⁶ Interview with senior Gécamines staff, December 2011.

^{57 &}quot;Mutanda Mining's Missing Millions," Congo Siasa blog, July 2011, http://congosiasa.blogspot.com/2011/07/mutanda-minings-missing-millions.html

⁵⁸ Eric Joyce, "Billions in underpriced DRC state asset sales," Eric Joyce website, November 18, 2011, http://ericjoyce.co.uk/2011/11/congo-fire-sale/

ANALYSIS AND CONCLUSION

In theory, the DRC's state-owned enterprises are subject to the same rules as other mining companies. They have to abide by the 2002 Mining Code and since their transformation, they must also respect common trade and bankruptcy laws. In practice however, Gécamines and other state-owned companies have a shifting status in the mining sector all along the value chain, sometimes taking over the role of the state, sometimes acting like regular mining companies. This mutability status turns them into a parallel governance system that is hard to monitor and hold to account.

Allocating resources: a parallel track

Under the 2002 Mining Code, the main agency in charge of allocating mining titles is the mining registry, which allocates permits on a first-come-first-serve basis and checks progress of mining operations in compliance with the mining code. However, state-owned companies' monopolies under the previous regime have resulted in vast tracts of land still belonging to them, although some haven't paid surface rent for years, which should otherwise lead to the immediate revocation of the mining title. ⁵⁹ Some investors have committed in their partnership agreements with state-owned companies to paying surface rent arrears, although this is an implicit recognition that the title in question was no longer validly owned by the state-owned company.

Consequently, state-owned mining companies have become a de facto parallel mining registry, and the criteria and procedures they rely on for transferring mining titles to investment partners are not clearly defined. As such, any mining titleholder can transfer its title to investors through concession or leasing contracts—and so can Gécamines. The difference is that state assets are at stake, so that their transfer should be subject to special rules on the state's disengagement from state assets, which prescribe a tender process so that the terms of the agreement can bring the greatest benefit to the country. In practice, state-owned companies select partners that are invariably either offshore shell companies or small-scale mining juniors with little track record on industrial mining production. In 2011, Gécamines refused to comply⁶⁰ with a request from the ministry of mines to transfer copies of its partnership agreements for publication,⁶¹ in spite of a decree making such publications a legal obligation. This makes control over its contracting practices even more difficult.

This parallel track could be a mere result of the transitional regime, and could fade out in the coming years, but licensing data shows otherwise. Since 2008, Gécamines has increased the number of exploitation permits from 38 to 73, exceeding by far the limit of 50 exploitation permits established in the mining code. All of its remaining research permits are in the process of being transformed into exploitation permits.

⁵⁹ World Bank, Growth with Governance in the Mining Sector, 2008.

 $^{60 \}quad \text{G\'ecamines responses to IMF questionnaire, http://mines-rdc.cd/fr/documents/Vente_Mumi.pdf}$

⁶¹ Demande de transition des avenants de contrats revisités, Ministry of Mines, http://mines-rdc.cd/fr/documents/avenants/Publication_contrats.pdf

Contributing to mining operations: disappointing performance

As a commercial company, Gécamines should be managed as a profitable mining business that provides dividends for its shareholders, in this case the Congolese state. It should be able to execute its business plan, prospect and search for new deposits, find capital to fund exploitation activities, and invest in a solid industrial apparatus. Under Mobutu, Gécamines was clearly prevented from playing this role, as the government raided its coffers rather than paying dividends. Laurent Kabila inherited a set of bankrupt, moribund companies, and the war didn't allow for more than a series of partnerships with disreputable private investors. However, over the past few years, the revisitation process and historically high copper prices provided the company with an opportunity to be more critical of its investment partners and restart its own production. But while production of private investors has boomed over the past six years, Gécamines's own production has stagnated at about 20,000 tons of copper. Meanwhile, Gécamines' formerly generous employment conditions have been replaced by months if not years of salary arrears. A new business plan is supposed to address a long list of difficulties, but questions exist as to how that plan will be financed. The cancelation of a mining contract that was about to start production and the 2011 sale of mining assets far below their market value illustrate contradictions in the incentives that Gécamines must set for itself.

Contributing to the state budget: lack of transparency

In theory, Gécamines' main contribution to the state budget is twofold: taxes paid just like any other mining company, and dividends paid to the state as single shareholder. Exceptional proceeds from asset sales should go to a special fund of the ministry of portfolio. Here again, there is a discrepancy between theory and practice.

To begin with, Gécamines arguably contributes much more than just taxes, as governmental actors have long demanded cash payments on the basis of its gross revenues. Likewise, proceeds from the revisitation process—mainly new signing bonuses and royalty payments—were split in half between the government and the state-owned company. Dividends—which should be the primary contribution to the state treasury—to this day are sparse to non-existent.

There is no law or decree governing these additional transfers; there are only face-to-face meetings, letters, phone calls and text messages about what they should be used for. The result is inconsistent policy and budgetary decisions. Gécamines' board minutes for instance show that the company had already spent the proceeds of the sale of its SMKK stake by the time it received an (oral) instruction from the prime minister that the money should be transferred to the government. Similarly, the order to split signing bonuses and royalties came in a mere letter, not a parliamentary act or a governmental decree. The new Gécamines board's position is that the company should only contribute through regular tax payments and dividends now that it has become a commercial company.

⁶² DRC prime minister, *Notification Conclusions Revisitation des Contrats*, letter to Gécamines CEO, dated January 24, 2009.

⁶³ Gécamines Board of Directors, board meeting minutes of April 9, 2010, agenda item 11.

Finally, and most problematically, these additional flows are very hard to track and monitor. Some of them are anticipated by the state budget under the category "exceptional revenues," but there are few traces of their actual transfer to the treasury. The 2010 budget for instance anticipated about \$145 million in signing bonuses, but only about \$13 million was registered as paid, although internal government documents show this should probably have been at least three times as much. While tax-collecting agencies have published their receipts from mining operations on a quarterly basis since January 2011, payments to state-owned companies (e.g., signing bonuses) are either left blank or not broken out (e.g., royalties, which probably amounted to over \$50 million in 2011).

Thus, in spite of a legal framework that today hardly distinguishes between state-owned companies and other mining companies, practices are clearly different. State-owned enterprises are still immune from political interference, especially with regards to their finances. Cash demands are common for all mining companies—at least one investor helped the Government meet financial requirements for completion of the IMF's debt relief initiative, and at least two investors provided major advances on their tax payments before the latest presidential elections. But in the case of Gécamines, demands have been repeated and have not been limited to tax payments but also pre-tax revenues. These demands have prevented the development of a healthy state-owned business. Yet Gécamines still possesses enough assets (fully owned mining titles and stakes in joint venture companies) that it can manage in a competitive and productive way if its management practices and policies are changed to execute its business plan in a rational manner.

RECOMMENDATIONS

On the basis of Gécamines' experience, two main recommendations can be drawn for other countries establishing a state-owned mining company.

The first is to **establish the company in such a way that it can function as an effective autonomous company**, meaning that its objective should be to be profitable in a competitive environment. If the objective of the company is to become a constant generator of gross revenue for the political elite, rather than to develop a profitable long-term business plan, it becomes impossible for the company to be sustainable. To safeguard this objective, several measures can be taken:

- The government should clearly determine lines of authority, according to which the board receives sufficient authority to establish and implement a coherent business plan but where the government, as a shareholder, can safeguard its own interests. Personalization of control is very dangerous—appointment of board members by the president may be appropriate, but selection should be based on professional merit and once strong people are put in the job there should not be excessive political meddling. Too much interference by ministries on internal matters (e.g., reviewing sub-contracts, fixing employment policies) makes the company ineffective and impedes strategic planning. Granting bonuses to directors as a function of realized profits by the company could be an option, but should be spelled out in advance and declared publicly.
- The mandate of the company should be clearly defined and focused on mining activities. A coherent strategy should balance minority participation in joint ventures with the company's own production, based on well-defined guidelines using strict performance benchmarks.
- Using the company as a source of other public goods—including large-scale public
 employment—has proven to detract from its development as a well-functioning
 enterprise. Even though it might appear to be socially (and politically) appealing,
 this option cannot be sustained and was a major factor in Gécamines' poor
 performance in the 1980s.
- Reinvestment and planning for price fluctuations is crucial. If the company seeks
 simply to generate as much revenue as it can while prices are high, without planning
 for the future, a price crash can be catastrophic. This means that the government
 should only collect taxes, royalties and dividends rather than extract part of the
 gross revenues, and that the company should build sufficient reserves to absorb
 price shocks.
- The state should attract or train skilled agents to staff the company. Weak
 negotiating skills have resulted in the company getting sub-optimal deals. Weak
 labor skills make the company less competitive than its peers. The involvement of
 a foreign investor in day-to-day management can contribute to build the capacity
 of local staff, as long as adequate legal or contractual provisions require capacity
 transfer and a balance between international and local hiring.
- The company should not function as a parallel system for awarding licenses/access
 to mineral deposits. Having the state-owned enterprise serve as de facto gatekeeper
 for private company access to concessions distorts incentives and makes it difficult
 for the government to have a coordinated strategy for managing the sector.

Establish the company in such a way that it can function as an effective autonomous company.

Even with a combination of public and private shareholders, there is still a risk that individual actors will mismanage the company and divert its assets for personal gain. Laws and rules on how the company is structured/incorporated, and how it interacts with public institutions are useful, but only if the rules are applied/respected in practice. To prevent any abuse of discretionary power, there is a need for absolute transparency about the company's management:

- There is a need for absolute transparency about the company's management.
- The contracts it signs with private investors should be published. These include joint venture contracts, lease contracts, and sales of shares.
- The company's revenues and their subsequent allocation—in particular to the government—should follow predefined rules and be carried out transparently. Financial statements should be subject to strict scrutiny from both the government and parliament, and easily accessible to a broader audience to ensure maximum transparency and accountability.
- Compliance with performance indicators in terms of production and profit should be established and closely monitored by its shareholder (i.e. the government) through the ministry charged with managing government equity.
- If there is a privatization or sale of shares, it is important that this occurs
 transparently through market processes, rather than through opaque or overly
 political processes, which creates risks of corruption and the sales being
 undervalued.
- If shareholding is available to private investors, the selection process should be open and transparent, with well-defined selection criteria and benchmarks to evaluate subsequent performance.

In summary, a carefully designed institutional structure and mandate with modern corporate governance can help ensure that the company is operating as a profit-oriented entity, and overall public scrutiny of the company's operations will allow a wider set of oversight actors to assess whether the company is fulfilling its objectives and delivering adequate benefits to the country.

Case study: ZCCM in the Republic of Zambia⁶¹

SUMMARY

Since its independence in 1964 Zambia has applied five different ownership and operating structures to its copper mining industry. After years of private ownership and control, the government acquired a controlling share of the two largest mining companies in 1969. For a brief period, government hired private management companies to manage operations until 1973, after which the government took over operational control. In 1982 the state directed the companies to consolidate forming the company Zambia Consolidated Copper Mines (ZCCM) in the hope of achieving efficiencies. However, the continuing fall in copper prices forced government to privatize in 2000. The industry has come almost full circle (although the state retains some shareholdings in the post-privatization ventures). This nationalization-privatization cycle roughly correlates with the global copper price and industry production in Zambia, as figure 3 shows.

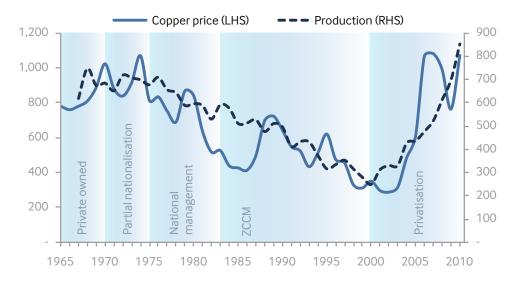


Figure 3. State-ownership, production (tons, thousands) and copper prices (US\$ per ton)

Source: Bank of Zambia, US Geological Survey

The cycle of nationalization to privatization suggests Zambia has been caught in a "natural resource trap"⁶⁵, nationalizing the industry when the copper price was high only to be forced to sell it at a discount when prices fell. The financial contribution of the Zambian mining sector to the state has been poor throughout the various shifts in ownership; the return on state equity has been low or negative even at conservative discount rates, and revenues from taxes and royalties have been negligible in times of low prices and have failed to capture a sufficient share even in higher-price environments. The state has had some success at its goals of developing national capacity and using mining to generate large-scale employment, but has failed at promoting economic diversification and at developing sustainable private Zambian mining-affiliated industry building off of mining ventures.

The cycle of nationalization to privatization suggests Zambia has been caught in a "natural resource trap", nationalizing the industry when the copper price was high only to be forced to sell it at a discount when prices fell.

⁶⁴ By David Manley and Webby Wake

⁶⁵ William Hogan and Federico Sturzenegger, eds., *The Natural Resources Trap: Private Investment Without Public Commitment* (MIT Press, 2010).

Arguably, it was exogenous factors rather than the inefficiency arising from state-ownership that was the main cause of the Zambian industry's poor performance. However, state ownership may have exacerbated the impact that declines in international metal prices have had on Zambia. Our conclusions about the impact of state ownership on are divided into two categories: the financial performance for the state; and the impact economic development.

Financial performance for the state

From 1969 until 1980, the Zambian government owned 51 percent of equity in the ventures that dominated mining; this share increased to 60 percent, where it remained until privatization in 2000. This majority position had major impacts on the performance and impact of mining:

- Rising opportunity cost of national ownership. As the mining industry
 underperformed for decades, the government was drawn into bailing out the major
 companies with funds that it could have used for other development goals, such as
 diversifying the economy away from mining.
- High exposure to industry risks. Under a nationalized structure, the exogenous
 risks usually borne partly by private investors were borne almost exclusively by the
 government. In other words, nationalization eliminated an important risk shield for
 the government. The Zambian economy and hence the government's tax base has
 therefore remained undiversified. The country could not bear the downside risks
 without accumulating exceptionally high debt and damaging the general economy.
- Insufficient supply if capital. Merely maintaining efficiency levels requires investment, to replace aging machinery and find new mineral sources to replace old ones. Maintaining national ownership of all mining assets requires a long-term supply of capital. While Zambia may have afforded the initial purchase of mining assets at market prices, there were insufficient additional funds to undertake the necessary investments to maintain production levels. This resulted in a vicious spiral as shrinking production and profits resulted in smaller economies of scale, smaller or negative margins and fewer funds to reinvest in the industry.

Economic development

In order to enhance the direct impact of the mining sector on the economic development of the country (aside from the financial performance), the Zambian state employed varying levels of controls over its equity ownership throughout the period of study. The state increased its influence over decisions over the period 1969 until 2000, after which control over investment decisions was ceded back to private companies.

- Poor development of supply chain and affiliated industries. National mining
 companies built large portfolios of non-mining subsidiaries, which diverted funds
 away from investment in the mining sector. Most of these subsidiaries did not prove
 to be successful ventures in the long-term, likely due to their corporate structures
 and inefficient markets.
- Trade-off between full employment and commercial efficiency. As is often true for state-owned companies, the Zambian companies were obliged to

maintain full employment even in loss-making activities. This reduced profitability substantially. Such concerns might still be relevant in a privatized industry, though not on the same scale; any loss-making private company would eventually close.

- Innovative tax administration procedures. National ownership does not
 necessarily eliminate tax avoidance practices, but the state alleviated some of these
 problems by separating the marketing and operating components of the industry.
- Successful indigenization policy. Zambia's indigenization eventually resulted in the replacement of expatriate managers with local staff. The government first allowed a slow pace of change, but saw little progress. A more intensive training programmer produced results but with substantial impacts on profits, thereby reducing tax revenues and dividends for the state. To build domestic capacity without undermining profitability, the right pace of replacement of expatriate staff by nationals has to be found.
- Enhanced efficiency drives via industrial policy. In some instances, national control may have increased efficiency. It gave the government the ability to lead large-scale industrial reforms leading to the formation of ZCCM. This appears to have led to significant cost reductions. Nationalization is not necessarily required for such a strategy, although it may have made some reforms easier to accomplish. The current privatized structure incorporates a consolidated system in which companies share some assets such as smelters (via tolling arrangements), while the government regulates power supply.

This study is made of two parts. The first describes the ownership, management and operating policies that the government chose to implement. The second examines the consequences of these decisions and asks to what extent the performance of the industry, which was poor for much of the period under review, was a result of these policy choices.

OWNERSHIP AND MANAGEMENT STRUCTURES

Since independence in 1964 the Zambian mining industry has operated under five ownership structures, summarized in table 3. For ease of reference, these labels will be used throughout the rest of this study.

Structure label	Date	Description
Private ownership/ private management	Before 1969	Totally private operation, no state ownership.
National ownership/ private management	1969 to 1973	State ownership of 51 percent of the largest firms in the industry. Contracted a private management company to manage operations.
National ownership/ national management	1973 to 1982	State ownership of 51 percent of industry (rises to 60 percent in 1979-80 as a result of debt-to-equity swap). Management undertaken by state company, with consultancy services from former private owners.
Consolidation of operations	1982 to 2000	State ownership of 60.3 percent of industry. Management undertaken by state company, with consultancy services from former private owners. Industry consolidated under one operating company.
Majority private ownership/private management	2000 to present	Majority private ownership, state retains 10 to 20 percent in operating assets. Completely private management.

Table 3. Summary of ownership and management structures in the Zambian mining industry.

Reasons for nationalization

According to then President Kenneth Kaunda, the Zambian government took over a majority ownership of the industry in 1969 primarily because it wanted to: control excessive dividend payments to foreign share-holders, expand and diversify the mining industry, and increase the government's share of profits.⁶⁶

It appears that the government thought that private investors "could not be trusted" to support Zambia's economic development and that national control of companies would lead to increased economic spillovers and broad-based development.

Government saw the profit motive of private investors as an obstacle to this type of investment, rather than as a source of capital. Mining companies were interested in investment but only where it was considered profitable.⁶⁷ Government was concerned that mining companies repatriated too much of their profit and left little for investment in Zambia.

Government aimed for both geological and geographical diversification of the mining industry. It is not clear that it aimed to diversify out of mining altogether. Zambia was heavily dependent on copper, with little production of other minerals. In addition, almost all production was located in one region of central Zambia known as the Copperbelt. The government hoped to use retained earnings of the nationalized companies to invest in new mining projects. Each mining project would act as a growth cluster, in which the mining company would invest in production and social projects. ⁶⁸

⁶⁶ Ronald T. Libby and Michael E. Woakes, "Nationalization and the Displacement of Development Policy in Zambia," *African Studies Review* (1980): 33-50.

⁶⁷ Libby and Woakes, 1980.

⁶⁸ Of course, including the social projects made this much more expensive—by about one third, according to Libby and Woakes.

Some studies have also added the political consideration that nationalization consolidated Zambia's attainment of political independence and the development of a strong state⁶⁹ by controlling the primary industry in the economy.⁷⁰

The rest of this section describes the ownership and management structures of these phases starting with partial nationalization in 1969.

National ownership/private management

By 1969, Zambia already had a long history of copper production led by two foreignowned companies: Anglo American Company (AAC) and Rhodesian Selection Trust (RST).⁷¹ That year the government announced its intention to control major industries in Zambia, including mining. Known as the Matero reforms, this gave the government a 51 percent controlling share in the two mining companies, subsequently renamed Nchanga Consolidated Copper Mines (NCCM) and Roan Copper Mines (RCM). ZIMCO, a government holding company, managed the equity shares in these companies, as well as smaller mining entities in Zambia (see figure 2 below for the organizational chart). The takeover was amicable, with relatively limited coercion on the part of the government.⁷² The shares were purchased by issuing bonds. The agreement stated that while these bonds remained unpaid, the private minority shareholders retained rights to appoint five of the 11 directors of each company and gave the five directors veto of major investment decisions. The main elements of this structure are summarized in table 4.

Issue	Description	
Share ownership	51 percent state-owned	
Board of directors	Six chosen by Government, five chosen by minority shareholders	
Management	Contracted out to private management company (owned by minority shareholders)	
Marketing	Contracted to private management company (owned by minority shareholders)	
Operations	Previous operating assets consolidated under two operating companies: RCM and NCCM	

Table 4. Elements of the corporate structure of the industry, 1969-1973

As part of the takeover agreement, RST and AAC which were actually holding companies of various assets in Zambia, and incorporated in Zambia consolidated their operations to become RCM and NCCM. While majority-owned by the government, operational management was undertaken by the previous owners, who were kept on as a management team and who earned fees based on the sales revenues and profits of the companies.

⁶⁹ Libby and Woakes, 1980.

⁷⁰ Michael Shafer, "Capturing the Mineral Multinationals: Advantage or Disadvantage?," *International Organization* (1983): 93-119.

⁷¹ Rhodesia Selection Trust was renamed Roan Selection Trust after independence in 1964.

⁷² The leader of the government negotiating team said "the overall tenor of the bargaining was friendly, the sessions were conducted efficiently, and the result was a relatively speedy compromise." Marcia Burdette, "Nationalization in Zambia: A Critique of Bargaining Theory," *Canadian Journal of African Studies* (1977): 471-496.

⁷³ In addition, the new companies incorporated overseas. The reasoning was that it would reduce the minority shareholders' global tax burden without harming the tax or dividend payments to Zambia. In other words, the companies were allowed to benefit without any harm to Zambia.

National ownership/national management

The national ownership/private management phase lasted four years until the government increased its control over the industry. The 1969 contract stated that the government could only do this if the government repaid the full amount of the bonds used to purchase the 51 percent stake, and compensate the companies for a loss in management fees. President Kaunda explained the goals behind the government's decision:

- Exercising greater control over investment decisions, in particular revoking the minority shareholders' veto over major investment projects and the terms that prevented investment in non-mining projects
- Eliminating the cost of the management contract held by the minority shareholders⁷⁴
- Reducing the financial burden of the payment schedule undertaken to purchase the mining company shares⁷⁵
- · Gaining freedom to increase taxes on mining companies
- Gaining greater operational control to accelerate "Zambianisation" of the workforce
- Gaining greater control of purchases and marketing departments

The main elements of the new structure are summarized in table 5.

Issue	Description	
Share ownership	51 percent state-owned	
Board of directors	All appointed by government	
Management	Undertaken by operating company	
Marketing	Operated by a separate, 100 percent state-owned company	
Operations	Operating assets consolidated under two operating companies: RCM and NCCM	

Table 5. Elements of the corporate structure of the industry, 1973 – 1982

The financial price paid for these freedoms was significant. Following the contract terms, government compensated the private companies for the loss of management fees on the remaining seven years of the contract, ⁷⁶ US\$46m to AAC (equivalent to three percent of GDP) and US\$31m to RST (two percent of GDP). In addition, instead of redeeming the bonds at market value, the government had to redeem the bonds at their full residual value, ⁷⁷ a premium of about 130 percent on the market value. ⁷⁸ The

⁷⁴ While the state gained more control over the industry, a number of service agreements between AAC and RST were drawn up to continue some of the provisions in the previous contracts.

⁷⁵ A sharp drop in mining profits hurts ability to repay bonds: "Although not the most important inspiration in the redemption of the bonds, this financial bind did exert pressure on the decision makers, as did the lure of super-profits in the copper boom expected in late 1972 and 1974." Burdette, 1977.

⁷⁶ Burdette (1977) refers to "long and acrimonious negotiations."

⁷⁷ Face value less repayments already made.

The bonds were trading on the market at 48 cents, while residual value is estimated at 110 cents. Andrew Sardanis, *Africa: Another Side of the Coin: Northern Rhodesia's Final Years and Zambia's Nationhood* (l.B. Tauris, 2003). This operation illustrates either weak financial capacity within the Zambian government at the time or some other motive. A more effective course of action would have been to buy the bonds from the open market, where they were trading at a discount of 50 to 55 percent; then any redemption of the bonds at face value would have benefitted the government. The government would have had to pay the discounted market value and then effectively pay the redemption amount to itself. However, there may have been further elements to the contract. The accusation that a London financier close to the Zambian government had recently purchased the bonds himself adds another dimension to the story.

full cost of the redemption was US\$210 million (US\$1.18 billion in 2012 prices), equivalent to nine percent of GDP in 1973. Government did not have the funds to pay for this and thus issued a new bond. Paradoxically this new bond placed an even greater financial burden on the government than the previous bonds, which appears to invalidate one of the justifications for the policy.

Government control

Many rights accorded to the minority shareholders were removed in 1974. Under the new structure, the government influenced operations via the managing directors, who articulated government policy on the economy and in particular the mining sector. The two companies reported to the Zambian government through quarterly Board Reports. Management would also provide specific reports as requested by the government, other stakeholders or the minority shareholders. Dividends were only payable when the mines posted profits. Payment of dividends overseas, as with all other sectors in Zambia at the time, was at the approval of the central bank and subject to foreign exchange availability.

State-owned marketing unit

It was in the belief that the mining companies were hiding income that the government set up its own marketing company to control the revenue side of mining enterprises. Before the 1973 reforms, private minority shareholders controlled the marketing of the industry's production. Their marketing teams were replaced by a state-owned office called Metal Marketing Corporation of Zambia (Memaco). Its subsidiary, Memaco Services, undertook the servicing of NCCM, RCM and later ZCCM's sales contracts.

The marketing and sales system, illustrated in figure 4 below, was designed to prevent possible abuse by ensuring that no single organization had complete control over the process. There were three sets of organizations in this system:

- Private mining companies produced the output and had no direct contact with clients, though they did have contact with suppliers. (Meaning abuse of input prices was still technically possible.)
- Memaco negotiated the sales contracts with buyers and undertook marketing
 intelligence through a worldwide network of sales agents.⁸⁰ By using a governmentowned entity to control the sales process, the system countered the private mining
 companies' tendency of under-reporting sales revenues. For this Memaco took a fee
 based on a percentage of the minerals sold.
- Finally, the central bank (Bank of Zambia (BoZ)) received the cash proceeds from
 each deal, but had no direct contact with the client either. It also controlled the
 disbursement of foreign exchange to mining companies (and to all other industries
 in Zambia) for the purchase of inputs.

⁷⁹ This usually included the CEO of ZCCM, the secretary of the treasury, permanent secretaries to finance and mines, central bank governor, the Zambia Chamber of Commerce, the CEO of the marketing unit (Memaco, see below), and the Mineworkers' Union of Zambia.

⁸⁰ The government, NCCM/ZCCM, the Bank of Zambia and the minority shareholders formulated the sales terms. Any alterations to the terms of the contract required approval from ZCCM for all annual off-take contracts. Ad hoc sales or spot contracts were conducted through a tender process. Therefore, information on sales revenues and costs was available to all stakeholders.

In addition, the system allowed the government to control the rationing of foreign exchange by stepping in before the mining companies could receive the sales proceeds. The state also got greater control over finances to pay overseas government creditors (shown as Government of the Republic of Zambia (GRZ)) financing costs in figure 4 below).

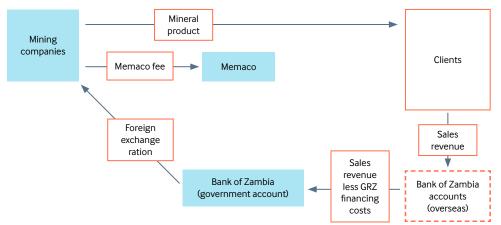


Figure 4. The tripartite system designed to prevent abuse by each party

Yet greater government control over cash flows was a double-edged sword. By rationing cash, the government prevented the mining industry from receiving the necessary capital to reinvest and increase productivity.

Consolidation of operations

In 1982, the government reorganized the industry by merging NCCM into RCM to form a new company, Zambia Consolidated Copper Mines (ZCCM). This reorganization had been a response to the prolonged depression in the copper price that had begun in 1975. Government anticipated that the centralized control of the industry would allow for more effective use of resources sharing of processing and power plants, for example.⁸¹

Despite this reorganization, Anglo American (the primary foreign minority shareholder) was given pre-emptive rights to acquire ZCCM if the government share in ZCCM fell below 50 percent. ⁸² Anglo American also had an effective right of veto over the sales of any major assets. ⁸³ However, it did not have any executive role in the management of ZCCM other than policy guidance as through its representatives on the ZCCM board of directors. Further, Anglo American provided technical assistance to ZCCM on a consultancy basis.

⁸¹ John Craig, "Privatisation into Practice: The Case of Zambia Consolidated Copper Mines Limited," *The Journal of Modern African Studies, 39*(3) (2001): 389-410

⁸² Christopher Adam and Anthony Simpasa, "Harnessing Resource Revenues for Prosperity in Zambia," Oxford Centre for the Analysis of Resource Rich Economies, OxCarre Working Papers 036 (2010).

⁸³ Craig, 2001.

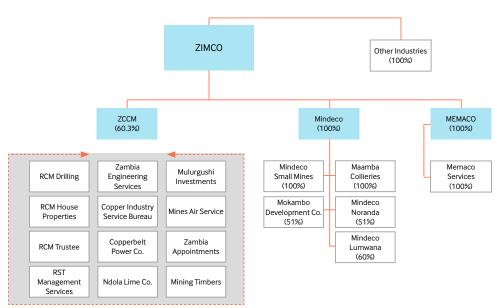


Figure 5. Organization and state ownership of mining industry and related industries after the formation of ZCCM

Source: Various ZCCM annual reports.

Notes: Mindeco and Memcao were
government holding companies for a
range of small mining assets in Zambia,
outside the ZCCM organization. ZIMCO
was a further layer of organization, a
holding company for the government
shares in ZCCM, Mindeco and Memaco.

Subsidiaries, ZIMCO ownership 60.3%

Majority private ownership/private management

ZCCM lasted 18 years and came to dominate the economy and politics of Zambia. Its performance declined throughout the period of consolidated control, beginning in the 1970s and continuing through the 1980s and 1990s. The government privatized the industry in poor conditions: low international copper prices and an inability to continue bailing out an industry facing very high levels of debt. ⁸⁴ Government started privatization in the early 1990s but only in 2000 that it sold most of the assets.

To make it easier to sell, ZCCM was split into eight groups. The government, through a newly formed holding company called ZCCM Investment Holdings (ZCCM-IH), held on to a small minority stake in each of these, but relinquished all operational control.

ZCCM-IH has been a particularly opaque organization; as such it is difficult to understand the full extent of its role. Representatives sit on the boards of the companies in which ZCCM-IH owns a share, but their roles appear to be passive.

ZCCM-IH is charged with some managed of liabilities incurred during previous ZCCM operations. The company is responsible for environmental cleanup of actions undertaken by ZCCM before privatization. Further, the pension liabilities of ZCCM were transferred to ZCCM-IH. It appears that a large share of the dividends from the ZCCM-IH's shares in the mining companies and other sources has gone to pay down these legacy debts. At the time of writing, there has been no cash flow from ZCCM-IH to the government since privatization. Although the government did receive cash for the initial sale of the assets, it appears that this was not sufficient to compensate for the legacy debts. Thus Zambia is still paying today for liabilities created during national control of the mining industry, despite privatization.

PERFORMANCE ANALYSIS

Section two outlined the operational and ownership structures of each of the industry phases in Zambia. This section examines the performance of these structures in terms of the impact on state finances and wider economic goals of the country.

FINANCIAL PERFORMANCE

Return on equity

The Zambian government paid a total of US\$294 million for 51 percent of AAC and RST. From 1970 to 1982 government received on average US\$24 million a year. From 1983 until privatization in 2000, government received no more dividends. The majority state-owned holding company ZCCM-IH received US\$269 million in 2000 for the sale of ZCCM assets. Based on these numbers alone, using a discount rate of 8.1 percent⁸⁵ the Zambian government lost 18 percent of its original investment in present value terms.

government lost 18 percent of its original investment in present value terms.

The Zambian

This estimate does include the costs of the bond redemption in 1973, the significant amounts that the government loaned the industry during the 1980s and 1990s at very low interest rates, nor the liabilities that ZCCM-IH received along with the sales proceeds of privatization. Including these outflows means that Zambia lost a great deal more than our basic calculation shows. In purely financial terms, nationalization was a disaster. The Zambian government would have got a better deal for the country merely by investing in US Treasury Bills.

Taxation

Figure 6 below shows the dollar amounts of tax (including royalties) collected on a cash basis (not when tax is realized), in addition to the dividend payments made throughout this period.

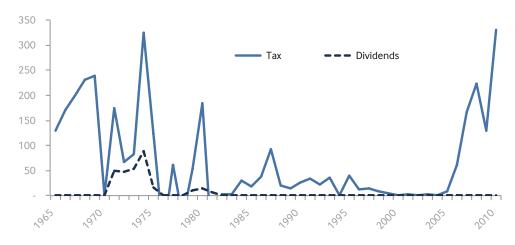


Figure 6. Tax revenue and dividends (US\$ millions)

Source: William A. Stoever, "A Business Analysis of the Partial Nationalization of Zambia's Copper Industry, 1969-1981," Journal of International Business Studies (1985): 137-163, various ZCCM annual reports, and authors' calculations

⁸⁵ Based on the average 10-year U.S. Treasury Rates from 1970 to 2000. Robert J. Shiller, *Irrational Exuberance* (Crown Business, 2006).

The graph shows significant tax collections from 1964 to 1974, and from 2004 to the present. The negligible tax collections from 2000 to 2004 are a result of low copper prices, low tax rates, and heavy capital expenditure, which was deductible against income tax payable. However, when we account for inflation, even the recent performance is low relative to pre-1974 revenues.

It is not possible to understand with precision the degree to which these tax revenues were reduced by tax evasion and avoidance. As described above, the government did set up its own marketing company to prevent companies from deflating sales revenues, but the government's ability to detect cost inflation was probably still poor. The Zambian government did not have a highly skilled cadre of civil servants and tax inspectors. Despite a relatively successful indigenization program (see below) capacity was probably low for the whole period under review. (The tax authority in Zambia did not have a dedicated mining tax unit until 2008. §6) Instead, the government relied on the nationalized industry to regulate its own taxes. It is not possible to know to what extent this worked. Tax avoidance does not appear to have been a concern for government after Memaco was established, although true taxable profits were probably so low that tax avoidance would not have been a major issue anyway.

The conclusion is that Zambia did not benefit substantially during the periods of heightened national control from 1973 to 2000.

The post-2000 period of private ownership/private control has, at least so far, also produced relatively weak benefits in comparison to the earlier period of high prices (1964 to 1974), when one considers the real (i.e., inflation adjusted) value of tax receipts. Government revenue remained low for a long time in spite of the rise in prices. In 2008, government revenue collection from mining represented just 1.4 percent of GDP and eight percent of total tax revenues, paltry levels in light of the industry's share of GDP (15 – 18 percent) and an estimated US\$3 billion in copper exports. ⁸⁷ It has only been in recent years that Zambia started to see growing benefits from its privatized industry: by 2011, government revenue was 18 per cent of total tax revenues, and 3.5 percent of GDP. This disappointing revenue collection is primarily attributable to the generous fiscal concessions given to private companies at the time of privatization, which included extraordinarily low royalty rates (0.6 percent), low taxes and generous capital allowances. ⁸⁸ Although the generous concessions were themselves a consequence of the government having to attract private investment in an industry that had been severely weakened by under-investment during the nationalized era.

The conclusion is that Zambia did not benefit substantially during the periods of heightened national control from 1973 to 2000.

⁸⁶ Before 1994, taxes were administered by the ministry of finance. An autonomous tax authority was established in 1994, but there were only two staff members who audited all the large agriculture and mining companies in the country. Only in 2008 was a dedicated unit established. From that time onwards seven staff members have concentrated on mining tax administration. Source: Authors' interview with Zambia Revenue Authority staff.

^{87 &}quot;Worldwide, taxes represent between 25-40 percent of export revenues. In Zambia, they represent 3-5 percent." World Bank, "Zambia: What Would It Take for Zambia's Copper Mining Industry to Achieve Its Potential?," Report No. 62378-ZM (2011).

⁸⁸ World Bank, 2011.

Impact of national ownership on financial performance

Zambia's disappointing financial results have primarily derived from tax policy and exogenous factors, but the national ownership and management structures may have exacerbated these problems. Here, we consider four elements:

- Declining terms of trade
- Operational efficiency
- Impact of non-operational costs (financing and exchange rate losses)
- Investment levels in the industry

Declining terms of trade

It is likely that an important contribution to the poor performance was the long-term decline in the industry terms of trade. In the 1970s, the prices of imported inputs into the mining industry (particularly energy) rose faster than the price of copper.

Operational efficiency

Unit costs rose considerably from the time of independence until 1982 (during the period of national ownership/private control and the period of national ownership/national control). A number of qualitative factors suggest why costs increased:

- For much of the period of nationalization, foreign exchange was rationed. While the majority of it went to the mining industry, mining companies complained that it was not sufficient to pay for all required inputs. 89 The resulting fall in revenues during the 1970s as copper prices fell exacerbated the problem, reducing the supply of foreign exchange that would have allowed the industry to respond positively to the price shock.
- Cutting links with Rhodesia (now Zimbabwe) and South Africa, in opposition
 to these countries' racial policies, increased transport costs, as supplies had to be
 imported via longer routes. Transport costs per ton ranged between 8 to 14 percent
 of operating costs.⁹⁰
- Job fragmentation to facilitate Zambianisation (see below for details) resulted in costly over-staffing and inefficiency.⁹¹

Unit costs appear to have increased in nominal terms until 1982, after which costs remained comparatively low until 1993. This suggests that the consolidation of the industry, started in 1982, may have increased operational efficiency. Consolidation allowed for greater opportunities for economies of scale. This result was driven by the fall in global inflation after the oil price shocks of the 1970s. However, even when we account for inflation (measured by the US Consumer Price Index), unit costs still fell during the consolidation period.

⁸⁹ Libby and Woakes, 1980.

⁹⁰ William A. Stoever, "A Business Analysis of the Partial Nationalization of Zambia's Copper Industry, 1969-1981," *Journal of International Business Studies* (1985): 137-163. Libby and Woakes (1980) and authors' calculations.

⁹¹ Libby and Woakes, 1980.

Aside from these government policies, the extent to which government influence decision-making appears to be small. The day-to-day management remained in the hands of technicians. Schafer (1986) states that the complexity of mining "scared many would-be meddlers off" so that it was technicians who had risen through the ranks of ZCCM, rather than politicians, who controlled operations. Por instance, he states that "[m]anagement initiated 86 percent of NCCM projects in the 1970s; it implemented only three government-initiated projects (i.e., projects proposed by members of government rather than by the company) and blocked implementation of others". Nor was it likely that these technicians were significantly subject to political influence. Technicians were committed to the company and appraised on the basis of their competencies and contributions to the performance of the company. Company management offered employees performance bonuses to promote productivity.

Non-operational expenditure: Debt and exchange rate losses

While operating costs rose before 1982, and then fell after consolidation of the industry (at least until the mid-1990s), non-operating costs followed the opposite pattern. Non-operating costs as a proportion of sales revenue performed well until 1974 (during national ownership/private control), and still totaled on average only four percent of revenues until 1982 (during the period of national ownership and control without consolidation). After this date non-operating costs increased dramatically, averaging 12 percent of sales revenue from 1982 until 2000. This is equivalent to 62 percent of operating profits. In other words almost two-thirds of the profit made at the operational level funded these non-operational costs. This goes a long way to explaining the poor profitability of the industry. Importantly, these losses eliminated much of the gains in operating profits that occurred once ZCCM was formed in 1982.

The two most significant costs in this category are interest payments and exchange losses. ⁹⁴ We have no information on these two costs before 1982, although total non-operating costs in general appear to have been very low. From 1982 to 2000, as a proportion of revenue, both expenditures were costly for the company, median debt cost was seven percent; exchange losses were six percent. ⁹⁵

Financing costs and investment

With low profitability and no equity investment in the industry, the industry's stock of debt increased from 1982. We do not have data from before 1982, although the government did undertake a debt-for-equity swap which increased its ownership of the industry from 51 to 60 percent. This suggests that debt was also increasing before 1982, likely due to the fall in copper prices and generally low profitability during the period of national control and ownership (1973 to 1982).

- 92 Michael Shafer, "Winners and Losers: How Sectors Shape the Developmental Prospects of States," Economic Development and Cultural Change, Vol. 46, No. 1 (1997).
- 93 In fact, Shafer posits that ZCCM had significant power in the economy. This dominance may have provided it with the power to exert influence on other sectors and firms, forcing suppliers such as transport and energy to reduce the rates they charged ZCCM.
- 94 Some of this exchange loss can be explained by the exponential depreciation in the kwacha, which began in 1988. Here is an example of the macroeconomic system affecting the mining industry system.
- 95 Note that a summation of the individual debt costs and exchange loss ratios does not equal the ratio of non-operating costs to revenue, because non-operating costs include other items that may be positive or negative.

The debt-for-equity swap would have reduced the costs of debt for the companies, but effectively meant that the government was risking more of its capital in the industry.

As stated above, the continued rise in debt after 1982 placed a high burden on profitability. However, compared with the larger increase in the *value* of debt, these costs were low. If the debt stock grew, but debt costs did not, this implied a falling interest rate on this new debt. We estimate the average interest rate on the industry's debt by dividing total debt costs by total debt stock. This measure falls from five percent in 1982 to virtually zero over the rest of the decade.

The financial statements do not provide sufficient details to know exactly who the industry's creditors were, but we assume the large growth in debt came from the government at very low to zero interest rates. In other words, the government was heavily subsidizing the industry throughout much of the period from 1982 to 2000.

This represents a significant cost to government both in terms of providing funds at zero cost and the indication that government transferred much of this debt to ZCCM-IH (during privatization in 2000) and so continues to reduce the benefit streams for government. It is beyond the scope of this study to quantify these costs but they should be deducted from the meager benefits to the country that we calculated for the return on equity above.

Furthermore, by assuming the industry's debts, government weakened its finances considerably. This shows how nationalization can dangerously tie the fortunes of government to an industry it owns. Nationalization forced the government to bear the high risks associated with mining ventures. The government could not easily diversify these risks because the rest of the economy and non-mining tax receipts were so heavily influenced by the mining industry.

While the government was able to provide enough funds to stem the industry's losses, it appears there was insufficient capital to make new investments, or indeed replace aging equipment. During the periods of national control and ownership (1973-1982, 1982-2000) there was little investment in the industry. We do not have data for the whole period under investigation, however one proxy for mining investment is gross capital formation in the entire country. By this measure, investment peaked in 1974 after which it fell year-on-year until privatization and the increase in copper prices after 2000. In particular there were very low investment levels from 1983 to 2000. It is not possible to conclude whether private ownership would have provided greater funds for investment, but Libby and Woakes (1980) show that AMAX and AAC, the two foreign minority shareholders, were also shareholders in Botswana RST and were able to raise US\$263 million in debt in 1976, equivalent to about one-third of the value of fixed assets in Zambia at the time. In addition, Libby says:

The fact that Amax and Anglo were prepared to raise large sums of money to keep a marginally viable mining project in Botswana where Amax and Anglo were principal shareholders...was doubly significant in light of the much smaller operation in RST Botswana compared with RCM and NCCM's operations in Zambia.

This suggests that private capital could have been used to bolster investment in Zambia. This might have allowed Zambia to increase production and profits and so alleviate the need for government support.

By assuming the

industry's debts, government weakened its finances considerably.

⁹⁶ This overstates the true investment in the mining industry, although it is likely that a significant amount went to the mining industry.

Economic development performance

National control after the 1973 reform gave the government the opportunity to pursue three economic development policies:

- Zambianisation of management
- Maintenance of full employment
- Diversification of the mining sector and the wider economy

Zambianisation

From 1969, the government embarked on a policy of "Zambianisation" of the management in the mining industry. Expatriates had previously occupied almost all technical and managerial positions. However, progress was initially slow as the government tried to ensure that it did not work against the operational efficiency of the industry. 97

The general managers were responsible for all major technical decisions. The managing directors (half of whom were Zambian before 1973, after which time all the managing directors were nationals) did not play a large role in these decisions, according to Libby. Even then, the managing directors relied on technical consultants who were non-Zambian.

Libby and Woakes show that even by 1977 (eight years after nationalization), only two of the eleven general managers and other top managers in NCCM were Zambian. In addition, these positions were entirely in administration, while the technical mining functions were still managed by non-Zambians. At the formation of ZCCM in 1982, none of the general managers was Zambian.

The slow pace of Zambianisation was one of the reasons for the 1973 reforms. However, this pace was probably justified as there simply were not enough qualified Zambians to take general manager positions.98 When the government increased its efforts, particularly in the late 1970s and 1980s, there was more dramatic progress. For instance, by 1987, 60 percent of general managers were Zambian.99 There was some criticism that Zambianisation weakened productivity in the industry through the need for costly on-the-job training and doubling of staff positions in which both a trainer and trainee were employed.100 But many of these costs appear to have been unavoidable given the need for intense training of local staff to replace expatriate workers. Instead the loss in productivity was more likely due to the requirement to maintain full employment, as is described below.

⁹⁷ Stoever, 1981.

⁹⁸ The establishment of the University of Zambia was motivated in part by the government's desire to train engineers and other professionals so as to expedite the Zambianisation process. Zambia Appointments Limited, a ZCCM UK-based subsidiary, had a mandate to recruit expatriate miners and train secondary-school graduate Zambians overseas (mostly in the U.K. and U.S.).

⁹⁹ Various ZCCM annual reports.

¹⁰⁰ Shafer, 1983.

Non-mining subsidiaries

Another way in which government policy potentially conflicted with the management of an efficient mining industry was the proliferation of subsidiaries outside core mining interests. While the privately owned mining companies had owned a small number of subsidiaries, until 1982 these appeared to support the main operations of the mining companies. After this point, the number of subsidiaries and the range of activities outside core mining interests grew.

Table 6 shows the subsidiaries that existed pre-1982, and those added by 1983 and 1985. In 1987 as part of the reorganization, ZCCM operated most of these subsidiaries under the holding companies Mulungushi Investments and ZAL Holdings. It is not possible to track their evolution after that change. However, information at the time of privatization in the late 1990s shows that ZCCM created additional subsidiaries after 1987.

1985 Additions identified at Pre-1982 1983 Additions Additions the time of privatization Circuit Mines Air Services Hyperion Munkumpu Farms Construction Copper Industry Services Bureau (Provision of support Circuit Mpelembe Drilling services like metal sales Engineering Sawmilling & Joinery accounting. This ceased to be Company and Tooling a subsidiary when ZCCM was formed) Circuit Safaris Mpelembe Copperbelt Power Company (Running **Properties** (Electricity supply to the mines MIL Construction (maintenance of Tourism from generating institutions) properties) Ventures) Circuit Mulungushi Traveller (road passenger Mining Timbers Company Nchanga Farms Sawmilling transport) Mulungushi Investment (Holding Co.) (Holding Redirection company for MIL Rycus Heavy Haulage Placement Construction, Mulungushi Traveller) Ndola Lime Company Sand Sales MIL Engineering & Tooling (production of lime and cement) **Technical Management Services RCM Drilling Company** of Zambia (Holding Co.) (Holding ZAL Elevators (supply and servicing (became Mpelembe Drilling) company for Techpro Zambia and elevators) Techpro UK) Zamcargo (Port Techpro Zambia (procurement of agency services **RCM House Properties** Technical services for ZCCM) and other transport logistics) Zuva Zambia (dealing in jewelry and **RCM Trustees** precious minerals) **RST Management Services** Coolwell Systems (air conditioning (ceased when Memaco and supply, installation and servicing) ZCCM were formed) Zambia Appointments (recruitment and training Lake Hotel services) Copper Mining Enterprise Trust Zambia Engineering Services (COMET) Zambia Procurement Services Zambia Detonators Prime Marble Products (supplying marble and marble products) Scaw (supplying milling balls and engineering services) IPX International IPX Holdings

Table 6. Selected ZCCM subsidiaries

Source: Various ZCCM annual reports

Most of the subsidiaries were initially established to directly support the core activity of mining. Over time the policies of diversification of the economy and maintenance of high employment levels significantly affected the creation of non-mining companies such as Circuit Safaris and ZAL Elevators. Rather than contract services of maintaining ZCCM elevators for instance, ZCCM established ZAL Elevators not only to maintain ZCCM elevators, but for all elevators in the country, as ZCCM and its work culture were considered technically superior.

A possible justification of these investments was to increase sources of foreign exchange for mining companies. Despite receiving most of the country's holdings ZCCM's access to foreign exchange was not sufficient for the necessary imports of inputs. For instance the 1983 ZCCM annual report says:

Shareholders will be interested to know that, for its part, the Company has embarked upon various programmers, which extend to agriculture, in order to assist in alleviating this problem [shortage of foreign exchange].

Government influence may also have played a part. In the 1985 annual report, the chairman stated:

I am pleased to report that in complementing the national effort, your company has already embarked on a number of diversification ventures in industry, agriculture and tourism. These ventures are making worthy contributions towards the recovery of the economy and will become prominent in the years ahead as mining operations contract.

Andrew Sardanis, a prominent businessman in Zambia and founder of ZIMCO (the state holding company for ZCCM assets), agreed that government directly influenced the proliferation of these subsidiaries: 101

If the public complained that the price of mealy meal was high, the politicians would decree that it was due to profiteering by the millers. ZCCM would then be instructed to buy the milling companies in order to save the general public from the millers' exploitation and ZCCM's management would oblige without protest.

Few of these subsidiaries still exist. This indicates that these efforts have not proven to be a viable element of economic development policy, although the skills and business expertise developed during these initiatives may have benefited the wider supply of business expertise in the Zambian labor force.

Maintenance of full employment and foreign exchange earnings

Government's goal to provide employment and foreign exchange worked against the objective of profit maximization: 102

During the year, your management critically examined the question of closure of some mines or sections thereof. This exercise had profound implications both of the company and, more importantly, the nation since the Company still provides as much as 95 per cent of Zambia's foreign exchange earnings. . . In the long term, however, some saving would be realized but at the risk of some mines not being re-opened. The other notable point was that the company's ability to earn forex would be seriously impaired, with virtually no substitute source of forex from the other sectors of the Zambian economy at present. For these reasons, the company could not, literally, afford to shut down a section of the Zambian economy. 103

Figure 7 shows the growth indices of mining production and employment. One interpretation of this graph is the flexibility of labor practices in the industry. If these were perfectly flexible one should expect that as production falls employment should be cut.

Libby and Woakes show that there was a deliberate policy to maintain employment even where mines were making losses. But both projects were kept open to maintain employment.

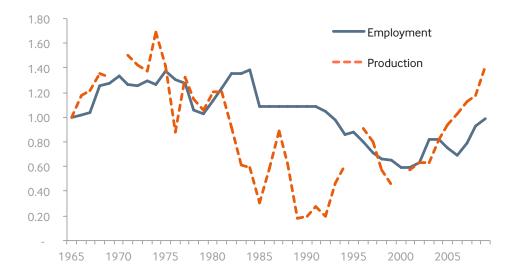


Figure 7. Employment and production growth indices

Sources: Central Statistics office, US Geological Service, authors' calculations

Note: These two figures (\$8.757 million vs. \$5 million) do not relate to the same signing bonus. In one case, Gécamines said it had received \$5 million, whereas its partner did not declare so, while in a different case, a partner declared having paid \$8.757 million while Gécamines said it had not received anything. The same goes for the signing bonus figures of 2009; the matching figures hide discrepancies at the disaggregated level.

