Zambia's Lumwana copper mine

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When the 'Winds of Change' and political independence swept the continent in the 1960s, and retreating empires granted states independence often on the basis of a single commodity, copper mining became the foundation stone of the southern African state of Zambia

Over 40 years later, Zambia still relies on copper for 75 per cent of its foreign currency earnings, but in recent years the industry has appeared to be in chronic decline.

Decades of state control have starved the mines of investment, tens of thousands of miners were laid off as the global price slumped and a protracted privatisation process has been hamstrung by the withdrawal of the principal concessionaire.

Thus the financing of Equinox Minerals' US$1 billion Lumwana project in northwest Zambia - on the back of resurgent copper prices - could mark the start of a welcome resurgence.

The project mirrors the Chad-Cameroon pipeline in combining commercial with development objectives, amply demonstrated by the involvement of no fewer than six international development banks including the EIB.

For the three commercial MLAs: Standard Bank, Standard Chartered and WestLB, the deal offers highly priced debt in a flat global market.

Background - The Copperbelt and beyond

Since a mineral-rich swathe of land, which became known as the Copperbelt, was discovered in then Northern Rhodesia in the 1920s the region's fortunes have revolved around copper.

In the post-war period, the British Commonwealth Office attempted to groom the copper-rich state into the lynch-pin of a self-sufficient trading bloc alongside Southern Rhodesia (Zimbabwe) and Nyasaland (Malawi).

However as the process of decolonisation began in the early 1960s, Zambia achieved independence under Kenneth Kaunda's UNIP in 1964. For the next decade the country's copper wealth was instead poured into a conflict with the white-minority-ruled Southern Rhodesia.

After the global copper price collapsed in the 1970s Kenneth Kaunda nationalised the mines. However with the industry in dire need of modernisation, the state-run Zambia Consolidated Copper Mines (ZCCM) was split up and privatised in 1997, with Anglo American set to become the main benificiary.

But tensions between the government and private sector have persisted.

In 2002, having invested US$350 million on modernisation, Anglo American pulled out of the giant Konkola Deep Mine, which accounted for two-thirds of the country's metal exports, citing the unwillingness of banks to provide project finance and a fall in global copper prices.

The decision put 11,000 jobs at risk and was the biggest blow to the country's economy since the collapse of the copper price in the 1970s and crudely exposed Zambia's dependence on the copper belt.

The Lumwana project - One door closes…

The Lumwana project offered Zambia's copper industry a lifeline, with Equinox Minerals committing to the project in June 2002, in the same week Anglo American announced their abrupt exit strategy from Konkola.

Unlike previous copper projects, Lumwana is situated to the west of the Copperbelt 65km from the city of the Solwezi, in an area previously cut off by poor transport and electricity links.

However after the discovery of two large copper deposits in the region, Malundwe and Chimiwungo, in 1999, Australia-based Equinox formed a 51:49 JV with Phelps Dodge to exploit the finds

The EIB loaned €7 million for a banking feasibility study (BFS) carried out by consultants Kvaerner and Golder Associates, but Phelps Dodge pulled out.

Then, in 2003, the BFS found proven and probable 263 million tonnes of copper ore, the second largest deposit after the Copperbelt - and crucially at a shallower depth than the marginally viable Konkola Deep. The reports were confirmed by a second feasibility study in May 2005.

Buoyed by the find, Equinox pressed ahead, signing a 20-year power construction and supply contract with Zambian state electricity company ZESCO in 2005. In addition the state highway company completed construction of the T5 highway linking the site to the national network.

In January 2006, Australian Engineering firms Bateman and Ausenco were contracted on a reimbursable FEED contract which in October was renegotiated into a full EPC contract, which will be completed by mid 2008.

The Lumwana project will now proceed at an average rate of 18 million tonnes of ore per year over a 17-year eriod yielding 23 million tones of copper. Reserves have been recalculated as totalling 321 million tonnes of ore grading at 0.73 per cent copper.

Financing

To raise the debt contingent of the financing, Equinox mandated the project's commercial MLAs Standard Bank, Standard Chartered and WestLB in August 2005.

The commercial tranche provides part of a much larger financing package provided by the EIB, which had already funded the feasibility study alongside several European and African development banks and British and Australian ECAs.

The financing was structured on the following basis:

- An US$81 million commercial tranche jointly arranged and underwritten by Standard Bank, Standard Chartered and WestLB
- A US$110 million ECA tranche provided by the Export Credit Insurance Corporation of South Africa (ECIC) and Hermes. The ECIC finance was arranged and underwritten by Standard Bank and Standard Chartered, while the Hermes facility covers the KfW-IPEX Bank and West LB lenders
- A US$173 million DFI tranche of loans are provided by the African Development Bank (AfDB), DEG-Deutsche Investitions-und Entwicklungsgesellschaft (DEG), EIB, the Export Finance and Insurance Corporation of Australia (EFIC), FMO of the Netherlands, KfW and the OPEC Fund for International Development (OFID)

- A US$165.8 million tranche of asset-backed finance for the mining fleet provided by Fortis Bank. in conjunction with Export Development Canada (EDC), Caterpillar Financial Services (UK) and Caterpillar Financial and Sandvik Mining and Construction Zambia.
- A US$54 million subordinated debt facility provided by the EIB.

The debt facilities carry interest rates of LIBOR plus 350-440bp during the construction period, then 300-390bp thereafter. The tenors extend for 7-9 years, with repayments scheduled to start in March 2009.

Political Risk Insurance is still being negotiated to cover the commercial tranche, while debt drawdown is should start in the second quarter of 2007.

Crucially first drawdown on the debt has been restricted until Equinox has completed its equity expenditure for the project financing and met a number of conditions precedent.

These CPs include:

- The provision of sufficient equity funds for project completion
- The issue of Equinox shares to the value of US$5 million to EIB as required under the subordinated debt facility
- The commitment to provide village housing for Equinox employees
- The implementation of a hedging strategy
- The commitment to deliver concentrate offtake arrangements with smelters that in aggregate relate to no less than 80 per cent of anticipated Lumwana production over the first 5 year
- Equinox will also hedge up to 30 per cent of the initial three years of production, with the aim of ensuring that Lumwana benefits from long-term protection from adverse movements in the copper price.

Norton Rose acted for Equinox while Milbank, Tweed, Hadley & McCloy acted for the lenders.

Conclusion

Lumwana will prove another exercise in finding whether commercial and development objectives in Africa - which have faced severe tensions on projects such as the Chad-Cameroon pipeline - can go hand in hand.

Financially, the mine's fundamentals rely on the thesis that the costs saved by opencast development will make Lumwana more economical than the established deep mines of the Copperbelt. That will largely depend on the metals market.

For the commercial banks, in a market starved of high yield loans the three-handle plus spread on Lumwana will diversify WestLB and Standard Chartered's lending portfolio.

In the development terms, Lumwana has spearheaded the opening of northwest Zambia to investment, but the development banks will have to access whether the US$173 million could have been better spent on diversifying Zambia's copper-reliant economy.

Whatever the outcome, Equinox Minerals, the Australian minnow that has pumped resources into the project for seven years through an arduous and cumbersome process has earned the right to reap any upside.

The project at a glance

Project Name	Lumwana copper/cobalt mining project
Location	Northwest Zambia, 200km west of the Copperbelt region and 65km from the provincial capital of Solwezi
Description	Opencast copper mine developed to exploit two deposits - Malundwe and Chimiwungo with a combined total of 321million tonnes of copper ore
Sponsors	Equinox Minerals
Operator	Equinox Minerals
EPC Contractor	Bateman/ Ausenco

Project Duration (Including construction)	18 months construction period followed by anticipated mine life of 17 years
Operational date	Mid 2007
PPA	Signed for 20 years with state power company ZESCO
Offtake agreements	Copper offtake agreemnets signed for 80 per cent of mined ore
Total Project Value	Circa US$1 billion
Total equity	US$416 million
Equity Breakdown	Equity commitments to be finalised by Q2 1007
Total senior debt	US$584 million
Senior debt breakdown	• An US$81 million commercial tranche jointly arranged and underwritten by Standard Bank, Standard Chartered and WestLB • A US$110 million ECA tranche provided by the Export Credit Insurance Corporation of South Africa (ECIC) and Hermes (further details below) • A US$173 million DFI tranche of loans are provided by the African Development Bank (AfDB), DEG-Deutsche Investitions-und Entwicklungsgesellschaft mbH (DEG), EIB, the Export Finance and Insurance Corporation of Australia (EFIC), FMO of the Netherlands, KfW and the OPEC Fund for International Development (OFID) • A US$165.8 million tranche of asset-backed finance for the mining fleet provided by Fortis Bank. in conjunction with Export Development Canada (EDC), Caterpillar Financial Services (UK) and Caterpillar Financial and Sandvik Mining and Construction Zambia. • A US$54 million subordinated debt facility provided by the EIB
Senior debt pricing	LIBOR plus 350-440bp during the construction period, then 300-390bp thereafter.Tenors are 7-9 years, with repayments scheduled to start in March 2009
Debt:equity ratio	58:42
Political risk guarantees	Commercial bank tranche has PRI cover
Export credit agency support	The ECIC finance was arranged and underwritten by Standard Bank and Standard Chartered, while the Hermes facility covers the KfW-IPEX Bank and West LB lenders
Agency loans	AfDB, DEG, EIB, EFIC, FMO, KfW and OFID
Mandated lead arrangers	Standard Bank, Standard Chartered and WestLB
Legal Adviser to sponsor	Norton Rose
Legal adviser to banks	Milbank, Tweed, Hadley & McCloy
Date of financial close	1 December 2006