Case study 3

FINANCING THE MOZAL PROJECT

MCF – Group2 – Team7
Adel Karpunina, Chia Hua Hsieh, Edoardo Monte,
Nicolò Granello, Kexin Wang, Paulo Sulanjaku

Agenda

- ✓ Case Overview
- ✓ Alignment of Objectives
- ✓ The IFC’s Role – "Honest Broker" & Anchor Investor
- ✓ Key Risks for the Mozal Project
- ✓ Financial Evaluation
- ✓ Comparison with Similar Countries
- ✓ Final Conclusion

Case Overview

1

Project background

Mozal is a US$1.4 billion greenfield aluminum smelter project in Mozambique, a post-civil war country with weak institutions and high political risk. The project size was almost equal to Mozambique's GDP, making it an unusually large and risky investment for the host country

2

Sponsors and structure

The project was sponsored by Alusaf (a subsidiary of South Africa's Gencor Group) and the South African Industrial Development Corporation (IDC), with plans to bring in additional strategic equity partners. Mozal was structured as a limited-recourse project finance deal

3

Economic Rationale

Mozal aimed to exploit Mozambique's access to low-cost hydroelectric power, port infrastructure, and inexpensive labor. Thanks to long-term supply contracts and price-linked input costs, the smelter was expected to be among the lowest-cost aluminum producers worldwide

4

Role of the IFC

The International Finance Corporation (IFC) considered a US$120 million investment, its largest ever in Africa. IFC participation was critical to reduce political risk, improve deal credibility, and catalyze private and export-credit financing in a high-risk environment

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Alignment of Objectives

1

The Sponsors (Alusaf & IDC): Financial Focus

- **Objective:** Secure low-cost aluminum production (lowest 5% of global cost curve) by leveraging Mozambique's cheap labor and electricity
- **Constraint:** Cannot secure commercial loans due to Mozambique's high political risk; they need the IFC's "umbrella" to unlock capital

2

The IFC: Development Impact

- **Objective:** Poverty reduction and economic growth (projected +9% GDP impact) rather than maximizing pure profit
- **Constraint:** Requires the project to be commercially viable to ensure sustainability; "if it's not fair, it's not sustainable"

3

Conclusion: Aligned on Viability

The IFC accepts lower *financial* returns in exchange for high *economic* returns, provided the project generates enough cash flow to survive political turmoil

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The IFC's Role – "Honest Broker" & Anchor Investor

1

Why Advisory is Not Enough

- **Legal Integration:** The IFC is required to bridge the gap between Mozambique's Civil Law (Portuguese heritage) and South Africa's Common Law systems
- **Risk Definition:** Must define "political events" (e.g., creeping expropriation vs. tax hikes) to settle completion guarantees

2

Why Investment is Mandatory ($120M)

- **"Skin in the Game":** Commercial banks explicitly refused to lend unless the IFC invested its own capital. Advisory alone does not provide enough comfort.
- **The Halo Effect:** IFC investment grants the project "Preferred Creditor Status," deterring the host government from seizing assets, as defaulting on the IFC cuts off all World Bank funding

3

Recommendation

Approve the $120M investment to break the financing logjam, but retain the advisory role to finalize the legal structure

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Key risks for the Mozal project

Political / Institutional Risks

- Post-civil war context with fragile peace and weak institutions
- Inefficient bureaucracy → investment approvals can take years
- Outdated and weakly enforced legal system
- High risk of regulatory uncertainty and government intervention
- Direct impact on project implementation and operations

Key point: Institutional weakness is the greatest challenge to the project.

Economic / Financial Risks

- Mozambique was among the poorest and most highly indebted countries
- Weak sovereign creditworthiness and fragile macroeconomic conditions
- Exposure to foreign exchange risk
- Infrastructure construction risks, including port facilities and power lines
- Aluminum price volatility, as revenues depend on long-term

Key project risks for the Mozal project

Have These Risks Been Adequately Addressed?

Political / Institutional Risks

1. Reduced but **not eliminated**
2. Bilateral investment treaty, government liaison committee, and **IFC participation** enhance credibility and coordination
3. However, these measures **cannot fully offset weak governance and legal enforcement**

Economic / Financial Risks

1. Better managed through **ECA coverage, guarantees, and project finance structuring**
2. Nonetheless, **macroeconomic vulnerability** and **underdeveloped infrastructure** persist

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Financial Evaluation (IRR, CAPM)

Assumptions:

	Year 2000
Initial investment	-1,365
Aluminum Industry Beta	1.5
Risk free rate	6.5%
Market Risk Premium	2.87%

	Timeline												
	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
cash flow before interest and principal repayment	170	189	190	190	186	187	187	171	170	171	170	170	170

Results	
IRR	8.78%
CAPM Required return= rf + Beta(Rf-rm)	10.81%

Conclusion:

IRR of the project is lower than CAPM, hence investors should not proceed with this project

Financial Evaluation (ERB, Harvey, Viskanta)

In 1996 ERB, Harvey and Viskanta examined relationship between country's credit rating and return on investments by running a regression analysis. Following formula was built:

$$R_{i,t+1} = \gamma_0 + \gamma_1 * \ln(CCR_{it}) + \varepsilon_{i,t+1}$$

Where:

- γ_0 is intercept =**53.17**
- γ_1 is **slope** coefficient **= -10.47**
- $\ln(CCR_{it})$ is natural logarithm of country's credit rating = **ln(14.9)** (exhibit 8)

Plugging-in all numbers we receive semi-annual expected return of 25%, which we double to transform it into *annual return*.

For Mozambique, annual return on investment given credit rating is equal to 49.77%. High return number is aligned with low credit rating, indicating that riskier country is, the higher return on investment is.

Comparison with similar Countries

To better contextualize Mozambique's high required return, we applied the same ERB–Harvey–Viskanta methodology to two additional countries with different sovereign risk profiles.

The estimated annual required return is:

- 25% for Botswana, reflecting its relatively low country risk
- 62.54% for Congo, consistent with an extremely high-risk environment
- 49.55% for Mozambique

Mozambique's value lies between the two benchmarks, confirming that it represents a **high-risk investment** context and helping to explain why the project's financial IRR falls short of purely commercial return requirements.

ERB, Harvey and Viskanta Approach	
Intercept is the US marker return	53%
Beta is country risk sensitivity coef nt	-10,47%
Mozambique rating	14,9
Expected return Mozambique	49,77%
Expected return Botswana	25%
Expected return Congo	62,54%

Final Conclusion

Financial Perspective

From a strictly financial perspective, the Mozal project appears only marginally attractive. The project generates a real project IRR of approximately 9%, which is relatively low given the scale of the investment, the long construction period, and the significant country and political risks associated with Mozambique. As such, the project would likely be unattractive to purely commercial investors in the absence of risk mitigation and concessional financing.

Economic & Development Perspective

However, when evaluated from an economic and developmental perspective, the project represents a highly valuable opportunity for Mozambique. Mozal is expected to generate substantial employment, increase exports and foreign exchange inflows, stimulate infrastructure development, and contribute to human capital formation. These broader economic benefits justify the involvement of development institutions such as the IFC, whose mandate allows them to accept lower financial returns in exchange for higher economic and social returns.

Therefore, while the project may not be fully justified on a standalone financial basis, it can be considered economically attractive and developmentally sound.

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