

Fourth African Railway Summit

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Birchwood Hotel & O. R. Tambo Conference Centre

“Railways in Africa – do we have an ROI?”

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“Aligning financial cost with real economic value”

What this talk is about

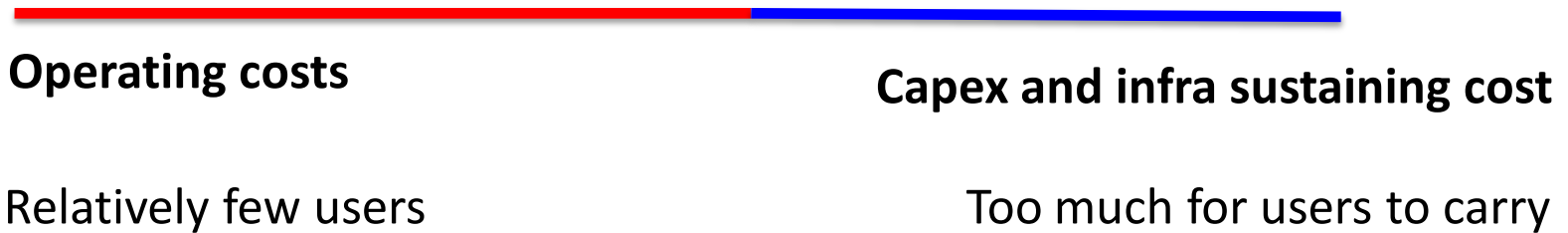
1. Why rail, generically, struggles to generate a ROI
2. Why some elements of the rail sector still generate a ROI
3. Some lessons from Africa's largest general freight railway
4. Characteristics of projects with uncertain rail ROIs
5. Characteristics of projects with encouraging rail ROIs

1. Why rail struggles to generate a ROI

- Its intrinsic, technology driven, cost structure
- Misunderstanding of the role of institutional structure / the business model
- Businesses' preference for control of their supply chains

Rail's cost structure (compared to road)

RAIL



ROAD



CONCLUSION: Rail's cost structure is a function of dated technology

Misunderstanding the role of a business model

- Many African railways have concessioned their systems, hoping to recover business. Most have failed to perform
- Reasons given for failure include:
 - ‘Greedy concessionaire’ (Zambia)
 - ‘Greedy Government’ (Mozambique – Sena)
 - Inadequate regulatory powers (SADC reviews)
- The underlying reality in most cases is that demand is too low. A business model is not the same as a business case!

The need to control your own supply chain

- The very nature of competition is the requirement to distinguish your product or service from the opposition's
- Transport options that enable businesses to control their own supply chains give flexibility in market performance
- In competitive markets, with multiple players, rail offers relatively limited ability to respond to markets proactively
- This is, ultimately, a historical / technological fact of life; not a judgment on the owners or operators of railways

2. Why some elements of the rail sector can still generate a reasonable ROI

- Rolling stock supply contracts
- Railway construction contracts
- Very high volume mineral railways

Rolling stock supply contracts

- Usually the most attractive deals, for both supplier and local agents. They are visible signs of action & progress!
- But these contracts carry the greatest risk of becoming disengaged from the reality of the underlying business!

- Supplier ROI's are easier to protect in fully funded deals; leasing deals may depends on business performance



Railway construction contracts

- African rail construction projects may well yield good ROIs to construction companies if managed well & tightly funded
- **But, because contractors and funders do not usually carry freight or patronage risk, ROIs give misleading impression**
- **Some projects may risk becoming ‘stranded investments’ because construction risk is not aligned with business risk**

Very high volume mineral railways

- Several bulk railways in Africa yield adequate ROIs:
 - Coal: Ogies-Richards Bay
 - Iron ore: Sishen-Saldanha / Zouerate- Nouadhibou (Mauretania)
 - Bauxite: Boke-Kamsar, (Guinea)

- And emerging prospects:

- Coal: Tete-Nacala
- Iron ore – Mali / Cameroon / Guinea / Liberia

(But all subject to global commodity prices . . .)



3. What about general freight railways?

- Transnet Freight Rail (TFR) is Africa's largest general freight railway, and Durban-Gauteng (15mtpa) the busiest corridor
- Transnet 2015 accounts report a positive ROI for the whole business. TFR also reported to be generating a positive ROI
- But Transnet's investment programme, driven by its Market Demand Strategy, cannot be supported by general freight
- Accounts say Transnet could default on both the MDS, and debt servicing if ports and pipeline businesses were corporatised

3. What about general freight railways (contd.)

- If the busiest GF railway in Africa requires cross-subsidy from its monopoly owned, very high priced ports, what of others?
- Consider the following:
 - The TFR tariff for containers on the Durban-Gauteng corridor is 30% that of road tariffs; yet the railway has about 30% market share
 - Rift Valley Railway (Kenya) is targetting 40% of the Mombasa-Nairobi trade by offering a tariff that is 60% that of the road tariff
- The new, standard gauge railways in Ethiopia and Kenya will almost certainly have to be subsidised if there is to be an 'ROI'

Characteristics of projects with uncertain ROIs

- Where the underlying business case doesn't stack up, e.g.:
 - the World Bank's ex-post review of the Sena Railway concession project in Mozambique
 - The comparison (above) of Kenya's RVR with Transnet's Durban-Gauteng tariff vs. market share analysis
- Where there are no state guarantees of intermodal transfer
 - Ethiopia's bold new electrified network? (requires 90% mode share!)
 - Transnet's Market Demand Strategy (needs +/- 60% mode share)
- Where there is no commitment to subsidise operations
 - Lobito line: built by China but will Angola make tariffs affordable?
 - Tanzania Railways Limited: Govt. 'to withdraw subsidy at end of June'

Characteristics of projects with encouraging ROIs

- Where the rail investment and the traffic risks are well aligned:
 - TiZir mineral sands project, Senegal
- Where integration of concessions allows a viable high volume bulk railway to cross-subsidise access for low volume general freight:
 - Nacala coal line offering subsidised access to Malawi's general freight
- Where urban economic functionality is underwritten by Govt:
 - Gautrain; Algiers and Cairo metros; other future urban rail systems??
- Where technical competence underpins operational efficiency:
 - CFM (Morocco)

Prize winner at Transport Africa Awards 2015, in category ‘best rail project’:

TiZir mineral sands project, Senegal; Consultant, Ausenco (Canada) –

“Alignment of technical design of railway with business reality of underlying business”

Grande Côte



Thank you