

The Impact of the Coal Mining Industry on Government Revenue in Mozambique

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Motivation

- On the verge of a natural resource boom
- Gas discoveries in Cabo Delgado
- Mining projects for heavy sands, tantalum, iron, rubys, gold...
- What will be the impact of the coal mining industry on government revenue?
- What other benefits and risks are associated with this sector?

The Model

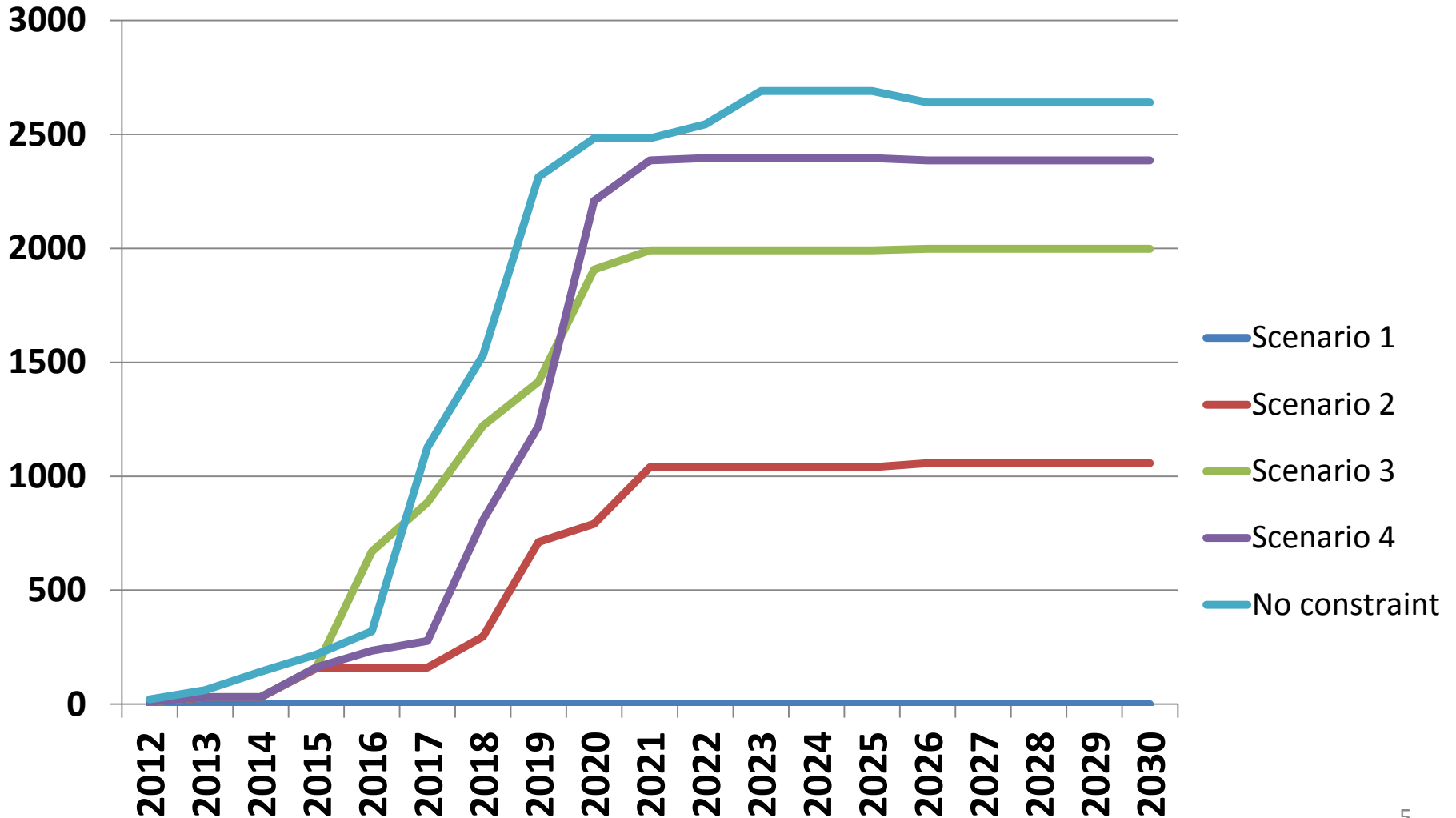
- Prices: \$175/t of coking coal, \$100/t of thermal coal
- 9 mines
- Mine and company specific information: capital expenditure, operating expenditure, losses carried forward 5 years and capital depreciation

The Model

- Transport scenarios:
 1. Sena line– 6mtpa
 2. Sena line and Nacala line – 31 mtpa
 3. Renovated Sena line and Nacala line – 50 mtpa
 4. Renovated Sena line, Nacala line and third railway – 85 mtpa
- Main assumptions:
 - All coal is to be exported, and the only way to bring it to the ports is by rail
 - Thermal coal is only exported if transport capacity is higher than coking coal production
- We only consider corporate taxes (32%) and royalties (3%)

Results

Government revenue (in millions of dollars):



Results

	Scenario 1	Scenario 2	Scenario 3	Scenario 4	No constraint
Value of annual coal exports by 2015 (millions of dollars)	0	5,386	5,386	5,386	7,248
Annual government revenue from coal by 2015 (millions of dollars)	0	158	161	162	218
Increase in GDP relative to baseline in 2015	0.0%	11.7%	11.7%	11.7%	15.8%

Results

	Scenario 1	Scenario 2	Scenario 3	Scenario 4	No constraint
Maximum transport capacity (mtpa)	6	31	50	85	Unlimited
Quantity of coking coal exported annually by 2020 (mtpa)	0	31	50	51.5	51.5
Quantity of thermal coal exported annually by 2020 (mtpa)	0	0	0	33.5	36.7
Total value of coal exports from 2012 to 2030 (millions of dollars)	0	89,253	137,829	177,280	200,236
<i>Value of annual coal exports by 2020 (millions of dollars)</i>	0	5,425	8,750	12,361	12,683
Total government revenue from coal from 2012 to 2030 (millions of dollars)	0	12,835	26,277	28,884	34,512
<i>Annual government revenue from coal by 2020 (millions of dollars)</i>	0	791	1,908	2,209	2,482
Increase in GDP relative to baseline in 2020	0.0%	8.2%	13.3%	18.8%	19.3%

Other Economic Benefits

- Little direct job creation – 7,500 on the long run, 25,000 during construction phase
- Large scale investments in transport infrastructure (railways, ports...) can reduce transport costs for other sectors
- Plans to build thermal energy plants of over 8,000MW capacity would reduce production costs for all sectors, and could create over 2,000 jobs
- The presence of iron deposits raises the possibility of producing steel

Risks

- “Dutch Disease”: currency appreciation could penalise other sectors
- Exchange rate volatility
- Waste, social tensions, corruption

What to do with the revenue?

How to transform a temporary source of revenue into revenue and growth in the long run?

- Create a savings fund
- Create fiscal rules
- Direct transfer for citizens

Conclusion

- The coal sector can have a very large impact on government revenue
- The presence of transport infrastructure is crucial for the expansion of the coal sector
- It can have other positive impacts on the economy (employment, transport, energy)
- There are risks in terms of exchange rate appreciation and volatility, and may generate waste, social tensions and corruption
- It is important to start thinking about how to use this new source of revenue
- It is a great opportunity to start a new phase of economic growth and poverty reduction

THANK YOU
OBRIGADO