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Mozambican Labor Markets in the Face of a Natural Resource Boom

What Potential Impacts of Dutch Disease?

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OBJECTIVES OF THE STUDY

- Develop a conceptual model of the Mozambican labor market.
- Assess the potential impact of a likely appreciation of the metical caused by exports of natural resources [so-called “Dutch disease”].
- Highlight policy actions that could be taken by government to mitigate potential negative effects of Dutch disease.
- Highlight the need for the private sector to prepare.



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CONTEXT FOR THE STUDY

- Rapid growth of GDP and GDP per capita.
- Extractives booming – but few permanent jobs.
- Agricultural and manufacturing productivity low.
- Few signs of structural economic transformation.
- Exports of aluminum, minerals, coal already significant.
- “Game changer” will be start of natural gas exports circa 2018 – BUT many policy actions have long lead times. Time to act is now.



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WHAT IS DUTCH DISEASE?

- Dutch disease is real appreciation of the value of the domestic currency due to an inflow of foreign exchange, often associated with sharp rise in exports of natural resources.
- Named in 1977 for decline in the manufacturing sector in the Netherlands observed after the 1959 discovery of a large natural gas field and subsequent appreciation of guilder and declining competitiveness.
- ***Appreciation of the currency can undermine competitiveness of non-extractive sectors.***



HOW DOES DUTCH DISEASE OCCUR?

- The economy can be divided into different categories of goods and services; these react differently to exchange rate variations:

Extractives (Tradables)

- Coal
- Natural gas
- Aluminum, other minerals

Agriculture (Tradables)

- Food staples (cassava, maize, sorghum, millet, sweet potatoes, rice, beans)
- Cash crops (tobacco, cotton, sugar, cashews, soy)

Other Tradables

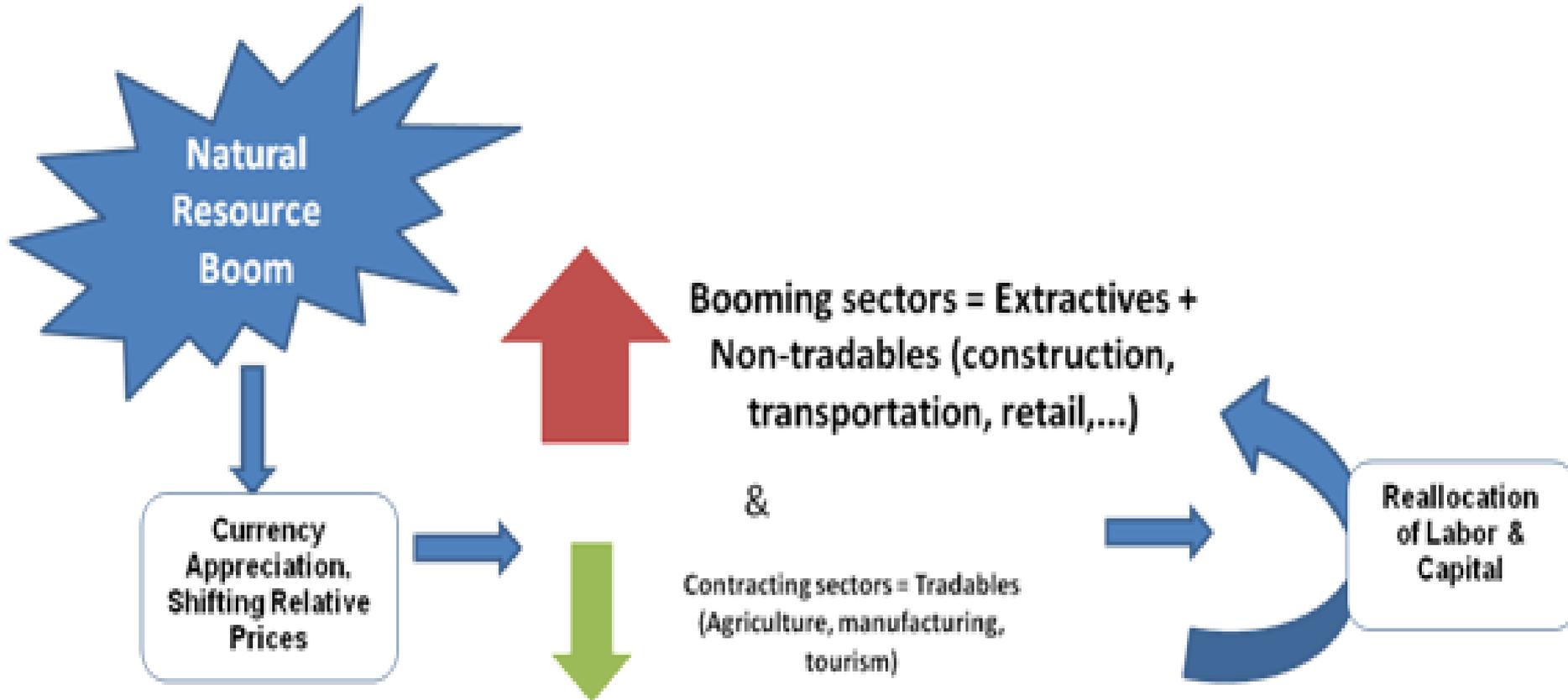
- Manufacturing (import-substitution) (agro-processing, beer, cement, personal care products, plastic wares)
- Tourism (export of services)

Non-Tradables

- Construction (industrial, housing)
- Transportation, other infrastructure, utilities
- Retail, other services



HOW DOES DUTCH DISEASE OCCUR?





DUTCH DISEASE EXPERIENCES IN OTHER COUNTRIES

	Norway	Mexico	Nigeria	Indonesia	Angola	Botswana
Exchange Rate	Petrol Fund	Official Devaluation of Currency	Appreciation (political resistance to devaluation)	Official Devaluation of Currency	Steady Appreciation	10 devaluations between 1977 and 2005
Spending	Counter cyclical inv.	Deficit spending	Civil Service Expansion	Pro-poor spending	Infrastructure	↑ public spending
Labor Market	Controls on collective bargaining		↑ public sector, ↓ food, agriculture	Moderate ↑ public sector		Rapid ↑ public sector
Agriculture, Tradables	Policy measures to support manuf and exports. Inv in human capital	Support to exports – free trade agreement	Export agriculture collapsed; import sub agriculture weakened.	Active policy measures to ↑ productivity – growth remained balanced	Agriculture stagnated	↑ food imports from RSA.



DUTCH DISEASE AND THE LABOR MARKET

Theory suggests:

- Labor is mobile, geographically and intersectorally, and “flows” out of sectors whose relative prices fall during appreciation (e.g., agriculture, manufacturing, tourism).
- Demand for labor rises in “booming” sectors, increasing wages in this sector (e.g., extractives).
- Increased spending in the economy leads to increased demand for non tradables, increased demand for labor, increasing wages, and flow of labor into non tradables (e.g., construction, infrastructure).



LABOR MARKET CONSIDERATIONS

- What is the structure of the labor market?
- What characterizes employers' demand for labor?
- What characterizes the workforce supply?
- How well do demand and supply connect, at what wage levels, with what premia or discounts?
- How is the domestic labor market shaped by institutional and policy forces?
- To what extent is labor mobile within the domestic market and vis-à-vis regional and global markets?



LABOR MARKETS IN MOZAMBIQUE: Minimum Wages

- In 1996: single minimum wage; today: 15 categories.
- Minimum wages, set annually by tripartite discussions of the Consultative Labor Commission, raised on April 1, 2014; average increase 11.6%. The CLC formula for increases takes inflation and GDP growth into account.
- However, seen in context of global markets (as viewed by international investors), Mozambique's minimum wages are now substantially higher than reference wages in SE Asia, for example, and higher than labor productivity within Mozambique.
- ***Mozambique's minimum wage policy may threaten competitiveness if labor productivity does not rise concurrently.***



LABOR MOBILITY: DOES LABOR “FLOW” IN MOZAMBIQUE?

- **Yes**, for the few highly qualified individuals with transferable skills.
- **To some extent**, for some (usually men) who move in search of work in other districts or even outside Mozambique.
- **No**, for the vast majority of the workforce.
- **No**, in terms of inter-sectoral mobility.
- ***Need to better understand labor market dynamics to understand limitations on labor sector mobility and how to improve.***



LABOR MARKETS IN MOZAMBIQUE: Stylized Facts

- Mozambique's population is young, rural, and growing rapidly.
- Rates of labor force participation are high, unemployment is low and principally confined to urban youths.
- Under employment is rife.
- The informal sector is large and is the principal locus of new job creation.
- Levels of education (skills) remain low throughout the economy.
- Structural change in the labor market has been limited.
- There are large spatial differences in the distribution of Mozambican labor.
- Productivity gaps between sectors are large and widening, largely due to slow productivity growth in agriculture.
- Household income sources have diversified over time.
- Social discontent appears to be rising, particularly among the urban youth.

Source: Jones and Tarp (2012)

LABOR MARKETS IN MOZAMBIQUE: Skills Definitions

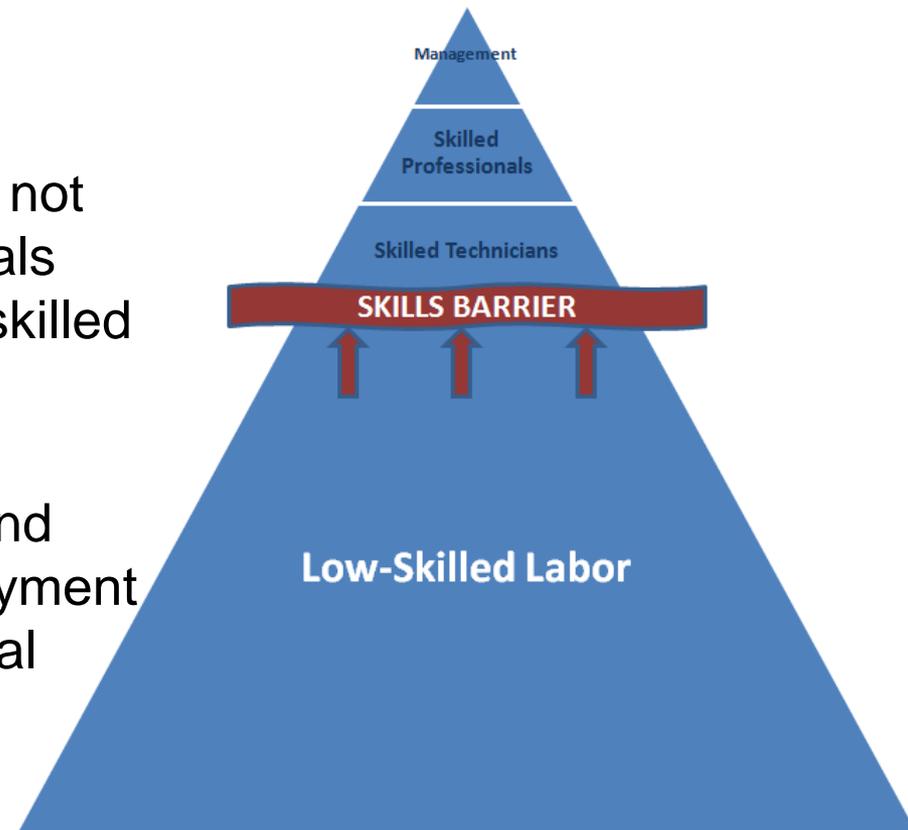
Labor Category	Examples of Occupations	Technical Qualifications, If Any
MANAGEMENT	Administration, finance, managers, strategic direction	Any occupation for which a minimum of post-graduate training and 5-10 years of professional experience is required.
SKILLED PROFESSIONALS	Engineers, scientists, senior sector experts, accountants, financial auditors, heads of departments, human resource managers, chefs, agricultural specialists,...	Any occupation for which a minimum of 4 years of post-secondary education is required, and preferably 3-5 years of prior work experience is offered.
SKILLED TECHNICIANS	Machinists, mechanics, metalworkers, electricians, carpenters, heavy machinery operators, drivers, tour guides, receptionists, food preparers, supervisors, ...	Any occupation for which specialized vocational training and certification is required, and preferably 1-2 years of prior work experience is offered.
LOW-SKILLED LABORER	Manual workers, cleaners, commercial farm labor, chambermaids, gardeners,...	Any occupation for which no training or education is required.

Source: Developed by the assessment team.



THE LABOR MARKET IN MOZAMBIQUE – ASSESSMENT FINDINGS: Skills Barrier to Mobility

- Highly segmented by skill level.
- Supply constraints are observed not only for highly skilled professionals and managements, but also for skilled technicians and (at times) rural laborers.
- For low-skilled labor, technical and “soft skills” are barriers to employment outside of agriculture and informal labor.





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THE LABOR MARKET IN MOZAMBIQUE – ASSESSMENT FINDINGS: Skills Initiatives

- Interventions are occurring to address skills gaps – but not at sufficient scale or with sufficient urgency, and lacking coordination.
- INEFP opening training centers (e.g., Palma) and now has one course internationally recognized.
- Technical and commercial Institutes encourage internships but are underfunded - perception from industry is of declining quality of training, in particular practical aspects.
- PIREP – WB-funded program to develop curricula in key skills areas, improve teacher training, and modernize training equipment (limited to 7 centers).
- Anadarko/UEM Masters in Petroleum Engineering.
- Limitations on foreign workers at times undermines up-skilling opportunities for nationals – need for more nuanced approach.



THE LABOR MARKET IN MOZAMBIQUE – ASSESSMENT FINDINGS: The Mozal Experience

- From next year – up to 10,000 construction jobs in Palma.
- Mozal’s Project Labor Agreement
 - Discussed before project started at high level (Prime Minister)
 - PLA agreed between unions and investors, witnessed by government.
 - Defined standards and wages for all labor, irrespective of contractor/ subcontractor.
 - No worker allowed on site without “entry pass” provided by training center.
 - 5700 people trained for construction, 93% pass rate, 72% employed.
 - Over 1000 permanent operations staff, of which by year 5, 75% Mozambican.
 - One interviewee stated that quality of Mozambican labor was “much higher quality than initially foreseen by the company.”
- ***Despite constraints, it is possible to train national workers to an internationally accepted standard and use predominantly national labor even in the extractive sector, as done by Mozal.***



THE LABOR MARKET IN MOZAMBIQUE – ASSESSMENT FINDINGS: Labor Market Information

- Limited statistical information, fragmented, and non-comparable.
- Limited or no information at school or university on career pathways – although internships and university informal networks play some role.
- Insufficient data to underpin a more strategic approach to foreign workers (e.g., a quota system based on skills levels).
- Some specialized job agencies but most information (especially about rural jobs) word of mouth.
- ***Results are weak or no “signals” to young people about what to specialize in (or indeed, whether to stay in school or leave); mismatch between supply and demand (e.g. sugar workers); insufficient ‘levers’ for government to encourage certain skills.***



THE LABOR MARKET IN MOZAMBIQUE – ASSESSMENT FINDINGS: Conclusions

1. The natural resource boom is already underway – DD will come.
2. Skilled labor does “flow” but needs for specific skills and for significant numbers, especially skilled technicians, will mean foreign labor will still be necessary.
3. Unskilled labor – the vast majority of workforce – faces severe constraints & is unlikely to “flow” out of agriculture into extractives, or related industries.
4. Natural resource exploitation has raised expectations about job creation.
5. In the short run skilled labor will have to be “imported.”
6. Some entrepreneurial and informal development around mines/gas fields may occur.
7. Impossible to predict investment spending (public and private) – but skills for infrastructure development will likely be in high demand.
8. Pressures of DD will force companies to review cost structures, and possibly reduce wage bill.
9. Wages in Mozambique are already high compared to (e.g.) SE Asia – if the metical appreciates, will be even more expensive – need to invest in productivity.

Bottom Line: Need for much greater (and faster) development of skills.

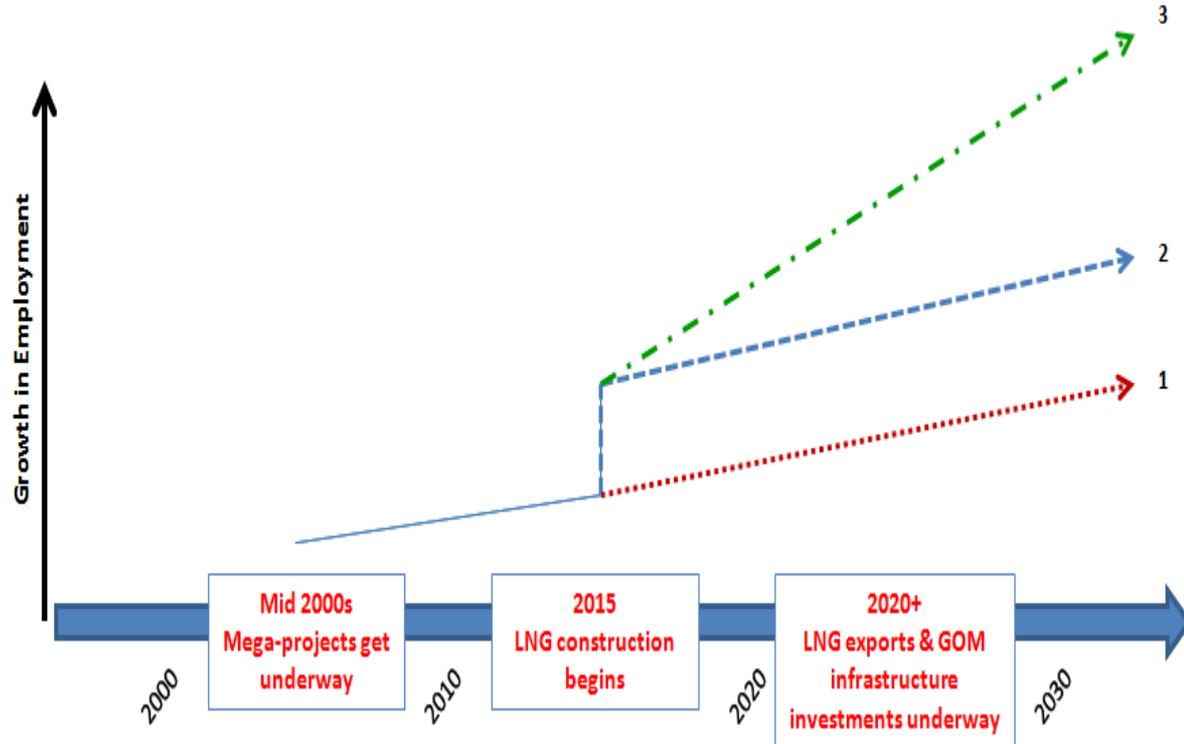


EXPECTED IMPACT OF DUTCH DISEASE ON LABOR MARKETS IN MOZAMBIQUE

Scenario 1: “Business as usual”

Scenario 2: Demand-led training for extractive industry only

Scenario 3: Comprehensive support to skills, employment generating industries, productivity etc leading to structural transformation of the economy.





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WHAT CAN BE DONE?

Achieving Scenario 3 implies:

- A coordinated, comprehensive national development strategy with job creation at its heart.
- Massive investments in skills – for the whole economy not just extractives.
- Support to labor intensive industry.
- Improved agricultural productivity.
- Using income from extractives as a support for the rest of the economy.
- More rational, business-driven approach to foreign workers.