Export diversification as a commodity price risk management strategy: introducing new tools and approaches

By
Amir Lebdioui
Centre of Development Studies, University of Cambridge

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Agenda

1. How to measure resource abundance? : *The multidimensional diagnostic tool*

2. How to manage resource revenues...for economic diversification?
Towards a multidimensional approach to examine resource abundance

- Weights different indicators of resource *abundance* and *dependence*
- Can serve as the basis of a diagnostic tool to identify the policy challenges a resource rich country is facing
- All indicators are expressed in per capita terms and in USD (apart from the share of mineral resources in total exports and government revenues)
Case 0

Mineral reserves

Mineral production / rents

Government revenues from mineral rents

Share of mineral revenues in total government revenue

Share of mineral exports in total exports

Mineral exports

Both resource rich and resource dependent
Seven Different Scenarios 2/2

**Case 1**
Domestic consumption or value addition

**Case 2**
Low attractiveness for extractive investments

**Case 3**
Low appropriation of resource rents

**Case 4**
Resource dependent but resource poor

**Case 5**
Resource rich but not resource dependent

**Case 6**
Resource poor but resource exporter
Resource abundance comes in several shapes: the cross country evidence (2010)
Evolution over time for selected countries 1/5

MALAYSIA

Mineral exports

Minerals in total exports (%)

Government mineral revenues

Mineral reserves

Minerals in total government revenue (%)

Mineral rents

MALAYSIA

2016

2010

1997
Evolution over time for selected countries 2/5

CHILE

- Mineral exports
- Government mineral revenues
- Minerals in total government revenue (%)
- Mineral reserves
- Minerals in total exports (%)
- Mineral rents

- 2016
- 2010
- 1997
In times of low commodity prices, Algeria’s “shape” shifts from case 0 to case 4 (extreme dependence).

In contrast to Malaysia and Chile, Algeria remained dependent on commodities despite the decrease in commodity prices, which is dangerous and highlights the economic vulnerability of the country.
• Within four years, the DRC has managed to appropriate more government revenues.

• This is the result of the reform of the mining tax code in 2012, which aims to increase government revenues from mineral extraction. Results are already visible & further efforts are required in that direction.
Takeaways from part 1

It is important to grasp the **multidimensionality** of resource abundance to distinguish resource abundance, resource dependence and helps shift attention away from the “all encompassing” resource curse argument towards understanding the **specific salient challenges** of resource-based development in a given country at a given time.

Case 0, Case 3 and Case 4 are the ones that reflect the most **vulnerability to commodity price fluctuations** and **urgency to diversify**.
Part 2

How to manage resource revenues...for economic diversification
Options for resource revenue spending

- **Resource rents**
  - **Investment**
    - **Real Assets**
      - Abroad: Acquisition of foreign companies, technology, etc.
      - Domestically: Eg. KWAN fund in Malaysia, Algeria’s Fond de regulation des recettes
    - **Financial Assets**
      - Domestically: Eg. Recurrent government expenditures.
      - Abroad: eg. citizen dividend schemes in Alaska or or lowered taxes (MENA region and GCC countries)
  - **Consumption**
    - **Public spending**
      - Untargeted Transfer: Low risks assets for savings purposes.
        - eg. investments in bonds and stocks abroad, as done by the Botswana’s Pula Fund, Chile’s ESSF
      - Targeted Transfer: Investments in strategic and high yielding assets to generate high returns.
        - eg. Qatar Investment Authority, Norwegian Pension Fund
    - **Private spending**
      - Targeted transfer: eg. consumption subsidies, transfers for specific purposes.

- **Public sector**
  - General Capabilities: eg. Infrastructure, human capital, governance capabilities for investment efficiency, etc.
  - Specific capabilities: eg: investments to promote the non resource tradable sector
- **Private sector**
  - General: e.g. bank lending or subsidised credit for instance
  - Targeted: eg: Conditional credit upon certain activities (ex: non resource tradable sector)
Options for resource revenue spending

**Resource rents**

- **Investment**
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  - **Financial Assets**
    - **Domestically**
      - Eg. recurrent government expenditures.
    - **Abroad**
      - Eg. citizen dividend schemes in Alaska or lowered taxes (MENA region and GCC countries)
  - **Public spending**
    - **Safe Assets**
      - Low risks assets for savings purposes. Eg. investments in bonds and stocks abroad, as done by the Botswana’s Pula Fund, Chile’s ESSR.
    - **High yielding Assets**
      - Investments in strategic and high yielding assets to generate high returns. Eg. Qatar Investment Authority, Norwegian Pension Fund.
  - **Private spending**
    - **Untargeted Transfer**
      - Eg. consumption subsidies, transfers for specific purposes.
    - **Targeted transfer**
      - General: Conditional credit upon certain activities (ex: non resource tradable sector). Specific capabilities: Eg. bank lending or subsidised credit for instance.

**Neoclassical/Standard policy advice/ Permanent Income hypothesis**
Options for resource revenue spending

Resource rents

Investment

Real Assets

Eg. KWAN fund in Malaysia, Algeria’s Fond de regulation des recettes

Financial Assets

Domestically

Eg. citizen dividend schemes in Alaska or lowered taxes (MENA region and GCC countries)

Abroad

Eg. consumption subsidies, transfers for specific purposes.

Public spending

eg. Recurrent government expenditures.

Private spending

Untargeted Transfer

eg. investments in bonds and stocks abroad, as done by the Botswana’s Pula Fund, Chile’s ESSF

Targeted transfer

eg. consumption subsidies, transfers for specific purposes.

Public sector

Eg: investments to promote the non resource tradable sector

Private sector

Eg: Conditional credit upon certain activities (ex: non resource tradable sector)

General Capabilities

eg. Infrastructure, human capital, governance capabilities for investment efficiency, etc.

Specific capabilities

eg: bank lending or subsidised credit for instance

General

Absorptive Capacity

Eg: Lowered taxes in MENA region and GCC countries

Safe Assets

Low risk assets for savings purposes.

High yielding Assets

Investments in strategic and high yielding assets to generate high returns. e.g. Qatar Investment Authority, Norwegian Pension Fund

Neoclassical/Standard policy advice/ Permanent Income hypothesis

FISCAL INSTABILITY

POPULISM

ELITE CAPTURE

WASTEFUL

FISCAL CAPTURE

Safe Assets

High yielding Assets

Neoclassical/Standard policy advice/ Permanent Income hypothesis
Options for resource revenue spending

- **Resource rents**
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      - Domestically
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- **Public sector**
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  - Specific capabilities
  - General
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- **Short term fiscal stabilisation**
- **Long term export diversification**
Why, When and How does export diversification matters?
Observation 1: The correlation between GDP growth and Export diversification varies over time

Low commodity prices

High commodity prices
Observation 1: GDP growth and diversification in times of high commodity prices

CHANGES IN GDP PER CAPITA AND DIVERSIFICATION RATES 2000-2010

Average annual GDP per capita growth (%)

Change in IMF export diversification rate (%)

Source: IMF (2018), World Development Indicators (2018) and author’s calculations
Observation 1: GDP growth and diversification in times of low commodity prices

CHANGES IN GDP PER CAPITA AND DIVERSIFICATION RATES 1990-2000

Source: IMF (2018), World Development Indicators (2018) and author’s calculations
Observation 2: The correlation between unemployment and diversification varies over time

Low commodity prices

High commodity prices

CHANGES IN EMPLOYMENT AND DIVERSIFICATION RATES 1990-2000

Change in employment rates (%) vs. Change in the IMF export diversification rate (%)

CHANGES IN EMPLOYMENT AND DIVERSIFICATION RATES 2000-2010

Average annual GDP per capita growth (%) vs. Change in IMF export diversification rate (%)
Observation 2: Unemployment and Diversification in times of high commodity prices

CHANGES IN EMPLOYMENT AND DIVERSIFICATION RATES 2000-2010

Average annual GDP per capita growth (%)

Change in IMF export diversification rate (%)

Source: IMF (2018), World Development Indicators (2018) and author’s calculations
Observation 2: Unemployment and Diversification in times of low commodity prices

**CHANGES IN EMPLOYMENT AND DIVERSIFICATION RATES 1990-2000**

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<th>Change in employment rates (%)</th>
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Source: IMF (2018), World Development Indicators (2018) and author’s calculations
Export diversification matters

Export diversification is strongly correlated with growth and unemployment in resource rich countries......but:

1. The impact of diversification depends on commodity prices. we should not be fooled by the commodity boom!

2. Diversification matters particularly for medium resource rich per capita countries: We should not be fooled by the Norwegian or Qatari experience!

Those findings should contribute to reshape the discourse on resource based development, which has in recent years emphasised the “Norwegian solution” while neglecting the role of export diversification and production.
Main elements of a ‘new’ Developmental Investment Approach?

- Dynamic approach to the trade-off
- Gradual scaling up of domestic investments
- Emphasis on tradable sectors
- Institutional capacity building and corporate governance
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- Dynamic approach to the trade-off
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**Dynamic approach to the trade-off**
- Across space, time and institutional conditions
- Trade off depends on the level of resource wealth per capita, the need for domestic investments
- Avoid over-insurance at the expense of ‘development’

**Gradual scaling up of domestic investments**
- Develops the capacity to invest through learning by doing
- Dynamic optimal savings rate and judging the duration of a commodity boom
- Considers the marginal utility of public investment and avoids spending in excess of absorptive capacity

**Emphasis on tradable sectors**
- Orient investments towards exportable sectors
- Expands the absorptive capacity of the domestic economy
- Reduction of dependence on commodity sectors

**Institutional capacity building and corporate governance**
- Monitoring and evaluation, ex ante and ex post, to reduce elite capture
- Transparent reporting regarding the resource revenue spending, savings and investment decisions of the government
- Oversight by parliamentary committee and civil society representatives

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Takeaways from part 2

- We need to address the root causes of the vulnerability to commodity price volatility and diversification of production needs to reappear in the resource revenue management agenda.

- The ladder is being kicked away through the standard resource management policy advice.

- The set of policy recommendations outlined aims to maximise the developmental impact of the commodity sectors by orienting the management of resource revenues towards achieving export diversification objectives.
Thank you for your attention

Amir Lebdioui

aal38@cam.ac.uk
amirlebdioui@gmail.com