The value of input-output modelling for assessing development impact

An AfDB perspective

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Outline

1. Challenging context
2. Better measuring our impact
3. Opportunities & Lessons
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AfDB has high ambitions for Africa
The High-5s Aim to Transform Africa by 2025

- Light up & Power Africa
- Feed Africa
- Industrialise Africa
- Integrate Africa
- Improve quality of life
We are setting ambitious targets

Achieving the targets requires a step change

People connected
Agricultural output
Industrial output
Intra-Africa trade
Jobs created

2016
2025

X 2.3
X 1.9
X 2.5
X 2
X 10

WHAT CAN WE LEARN FROM MICRO- AND MACRO-BASED IMPACT ASSESSMENTS?
International context is challenging
More pressure for MDBs to demonstrate impact

1. Political support for aid is waning
2. Increasing demand for accountability
3. Heightened competition for development resources
4. Pressure from evaluators: « Theory of Change »
What does this mean for MDBs?
MDBs have to innovate

1. MDBs need to work harder to make their development case

2. Traditional “results” approaches have shown their limitations

3. Need for conceptual and methodological innovations

4. Shift narrative from “results” to “development impact”
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WHAT CAN WE LEARN FROM MICRO- AND MACRO-BASED IMPACT ASSESSMENTS?

Three key features of Input-Output Model
It provides ex-ante assessment of number of jobs created

**INPUT**
- AfDB investment data
  - Country
  - Sector
  - Revenue
  - Employment
  - Investment & %stake
- Macro-economic data
  - GDP per sector
  - Labor force data
  - Private sector capital
  - Energy statistics

**MODEL**
- Social Accounting Matrix

**OUTPUT**
- Direct, indirect, induced and forward effects
WHAT CAN WE LEARN FROM MICRO- AND MACRO-BASED IMPACT ASSESSMENTS?

Captures the financial flows of AfDB investments through the economy

- **DIRECT ECONOMIC OUTPUT**
  - Jobs
  - GDP contribution
  - Local procurement

- **SUPPLY CHAIN REVENUES**
  - Jobs
  - GDP contribution
  - Expenditures

- **INDUCED IMPACT DUE TO SPENDING OF SALARIES**
  - Jobs
Different investments have different impact
We look at different investment types

**INVESTMENT TYPES**

- Project investment
- Energy investment
- Going-concern investments

**FINANCIAL FLOWS**

- Construction expenditures (backward effect)
- Construction expenditures Additional economic activity
- Recurring expenditures (backward effect)

**DEVELOPMENT IMPACT**

- Non-permanent impact
- Non-permanent impact + Permanent impact
- Permanent impact
AfDB investments exited between 2013 and 2015 in East Africa

30 Public sector investments totaling $1.1 billions
(Education, roads, water, etc.)

9 private sector investments totaling $314 million
(Transport, energy, banks, etc.)

IMPACT INDICATORS

EMPLOYMENT
• In full-time equivalent (FTE)

VALUE ADDED
• Sum of salaries, business income and taxes

IMPACT ROUNDS

Direct impact related to effects at the investment itself

Indirect impact related to effects in the supply chain of the investment

Induced* impact related to re-spending of earned salaries

Forward impact related to enabling effect of additional products and/or services provided by the investment
What does the pilot tell us?
Deep impact of “supply chain” and “salary spending”

383,000 jobs
of which 134,000 for women

Re-spending of salaries 98k
Enabling effect 29k
Direct 40k
Supply-chain effect 215k

$1,265m value added

Enabling effect $91 million
Direct $121 million
Supply-chain effect $1,053 million

What can we learn from micro- and macro-based impact assessments?
WHAT CAN WE LEARN FROM MICRO- AND MACRO-BASED IMPACT ASSESSMENTS?

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WHAT CAN WE LEARN FROM MICRO- AND MACRO-BASED IMPACT ASSESSMENTS?

DEVELOPMENT PATHWAY ANALYSIS

Increased power capacity

Power prices

Economic output

Growth & employment

More capacity

Capacity: +400MW

Cheaper electricity

Prices: -5%

More manufacturing

Output: +1%

More growth & jobs

Jobs: 72k – 110k
Growth: +0.2%

NB: These are notional data used to illustrate concepts and tools.

Example: Development Pathway Analysis

Improving understanding of development
Some early lessons: unfulfilled potential

- Model provides a more meaningful and “directionally accurate” assessment of development impact.
- Allows us to do things we just cannot do with traditional approaches (RMF).
- Strengthens our understanding development and improves narratives.
- But also has limitations that we need to be very candid about (need for complex validation).