



Natural Resource Abundance and its Impact on Regional Integration. Curse or Blessing?

A Discussion Note for Session II

by

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Motivation

The linkage between resource abundance and regional integration is not a new issue

- Many integration schemes in the developing world collapsed in the seventies when the two oil price shocks and the subsequent increase of all major commodity prices accentuated the dichotomy between those which were commodity net importers and had to shoulder a rapidly rising import bill and those who were net exporters.
- Net resource exporters have often abruptly abandoned domestic policy reforms after enjoying resource windfall gains and thus injected some further erratic volatility into an integration scheme.

Motivation

The issue is back on the agenda due to strong Asian growth-rooted demand and some supply constraints.

- For Latin American countries in the near past, resource abundance has become a very relevant issue as they see their terms of trade shifting against the manufacturing sector (also because of fierce competition from labour-abundant Asian suppliers) and in favour of resource extraction.

Introduction

Section II presents the results from two papers that were presented at the Kiel conference analysing the impact of globalisation and regional integration on structural adjustment and poverty alleviation in resource abundant countries.

In Section III, we add four observations - one of these observations is particularly concerned with Latin American experiences - on the role, which resource-rich countries play in regional integration schemes.

Introduction

Section IV which elaborates on the general nexus between resource endowment, export structure and economic development draws on the distinction of groups of countries characterized by different types of resource abundance.

Section V tries to pose a number of open questions, which could be integrated into a policy-oriented research agenda.

Finally, we suggest to develop a policy memorandum, which delineates the various channels through which an integration scheme can be affected due to the fact that resource abundance is unevenly allocated among member states (Section VI).

Kiel Paper I: Paths of Development, Specialization, and Natural Resources Abundance

- The pattern of gaining comparative advantages in manufacturing goods as a country develops depends not only on whether it is natural resource abundant or not, but also on its type of natural resource abundance.
- In contrast to countries with comparative advantages in forestry and agricultural products, mining countries may never change their specialization pattern towards manufacturing goods. The combination of capital scarcity and mineral abundance implies that the capital-intensive mining sector may take the extra capital accumulated by the country.
- According to the empirical results of the paper, it is likely that mineral abundant countries could never reach the minimum threshold to become net exporters of more capital-intensive goods, and they get trapped in a long-term equilibrium of low capital/labor ratio.

Kiel Paper II: Regional Integration and Poverty: A Case Study of Bolivia

- A gravity model estimated for Bolivia, a country belonging to the mineral-abundant group, and its 66 trade partners shows quite different effects of Bolivia's preferential trade agreements.
- While the estimated gravity model of trade is silent about causality the results seem to be consistent with the hypothesis of diversion of trade away from US and EU markets towards Andean Community and Mercosur markets.

hand with equally large changes in the composition of

Observation 1:

Resource-rich countries have neither been driving forces for establishing regional integration schemes nor push factors for deeper integration

- Evidence for such benign neglect of regional integration by resource-rich countries exists especially for schemes between developing countries.
- In integration schemes between industrialised countries (Norway in the European Economic Area, Canada in the US-Canada FTA) as well as in South-North integration (Mexico in NAFTA), experiences with resource-rich countries are confined to shallow schemes without common policies.

Observation 2:

Resource-rich poor countries in South-South integration schemes seem to have been prime victims of the income-diverging trends predicted in the Heckscher-Ohlin framework

- The production structure of resource-rich countries traditionally lags behind that of the industrial centres in the schemes and is characterised by dualism.
- The main reason is that fluctuating world market prices often expose them to temporary dutch disease shocks.
- To compensate for such biases, in the past the small industrial sector has often been strongly protected by tariff escalation between tariffs on finished goods and inputs, by fiscal incentives, and the whole set of protective tools including multiple exchange rates.

Observation 3:

Because resource-rich countries are world market oriented integration schemes with basically only resource-rich economies such as the Gulf Cooperation Council are often ineffective

- Trade creation effects to the benefit of resource-rich countries on the export side are very small because intra-area tariffs imposed upon primary commodities usually do not constitute a major barrier to intra-area trade.
- With rising stages of processing, resources can be integrated into cross-border vertical value added chains.
- While being useful channels of market integration, such chains also transmit shocks cross-border and can threaten macroeconomic stability by contagion effects.

Observation 4:

The role of resource Abundance in Latin American integration varies between the inward-looking (old) type of regionalism in the 70s and 80s and the more outward-oriented (new) type of regionalism in the 90s

- In the first stage of integration in Latin America, the commodity dominance of the entire region relative to the outside world seems to have been a driving force to diversify the production structure towards manufacturing.
- The second new stage of regional integration seems to draw a much more differentiated picture. Commodities are well demanded inside and outside Latin America. Ownership structures have changed in favour of foreign participation through FDI. North-South integration in Latin America including North America is no longer anathema while still controversial.
- However, the jury is still out concerning the stumbling block or stepping stone role of resource abundance for regional integration.

To what extent does the kind of endowment in natural resources have an impact on growth and Regional Trade Integration (RTI)?

a. Resource endowment impact on growth and RTI

A simple comparison between specialisation structure and growth per head, as a proxy of productivity improvement, yields that the group of countries which show the strongest specialisation in manufacturing reach the highest unweighted average annual GDP per head growth over the 1993-2003 period with 2.9%, followed by countries specialised in agriculture with 1.50%, then by those specialised in minerals with 1.47% and finally by oil-rich countries with the lowest average growth of 0.76%.

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Unweighted average annual growth of GDP per head according to their export specialisation

Dominant specialisation	Average Annual Growth of real GDP per head 1993-2005	Range of export specialisation
Energy	0.76%	From 98% of total export in Algeria to 32% rest of Africa
Minerals	1.47%	From 21 % Papua New Guinea to 2 % Argentina
Agriculture	1.65%	From 54% Paraguay to 12% rest of Africa
Manufacturing	2.9%	From 98% of total export in Algeria to 32% rest of Africa

Source: CHELEM CEPII

To what extent does the kind of endowment in natural resources have an impact on growth and Regional Trade Integration (RTI)?

b. In which ways might resource-oriented specialisation impact on growth and RTI?

Measure of growth volatility

Dominant specialisation	GDP Growth Rates Standard Deviation
Energy	6.6
Minerals	5.2
Agriculture	4.2
Manufacturing	3.6
Memo: Developed Countries	2.5

To what extent does the kind of endowment in natural resources have an impact on growth and Regional Trade Integration (RTI)?

Leite and Weidman (1999: page 1) tend to support the view that “natural resource abundance creates opportunity for rent-seeking behaviour and is an important factor in determining a country’s level of corruption...The extent of corruption depends on natural resource abundance, government policies, and the concentration of bureaucratic power”. Corruption contributes to raise the opportunity costs of investment thereby reducing the propensity to invest. These effects are considerably larger for the poorest economies, notably African countries.

To what extent does the kind of endowment in natural resources have an impact on growth and Regional Trade Integration (RTI)?

c. Does resource-oriented specialisation impede the development of manufacturing industries?

- During the 1993-2003 period, emerging countries have increased their share of manufacturing trade by more than 12% (1% represents 53 billions US\$ in 2003). That has happened more or less at the expense of developed countries, first of all Japan and the USA. Gains and losses within Asia were basically compensated between developing exporters and developed exporters of manufactured products: losses for developed countries (-6.54%) match almost exactly the gains by manufactures-oriented developing countries (6.66%). To be more precise China gains of 4.72% match Japanese losses of 5%.

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Major Changes in Manufacturing Trade Shares 1993-2003, (in percentage points)

	Eurafrica		Asia		America	Total
Winners	4.21		6.66		1.15	12.02
Losers	-2.71		-6.54		-3.74	-12.99
Total	1.50		0.12		-2.59	-0.97
of which:	4.21		6.66		1.15	12.02
Ireland	0.74	China	4.72	Mexico	1.06	6.52
Italy	-0.76	Japan	-5.00	USA	-3.15	-8.91

Source: CHELEM CEPII

Note: data by region do not take into account unknown destinations

The story we would like to draw from that development of trade patterns is that progress enjoyed by developing countries in manufacturing trade have been substantial and widely shared among many countries during that 1993-2003 period.

To what extent does the kind of endowment in natural resources have an impact on growth and Regional Trade Integration (RTI)?

- So why is it that, during that same period, Latin American countries seemed to have lagged behind all other regions of the world?

A few data on the *Brazilian trade specialisation* patterns might allow for some explanations. We use an index to measure revealed comparative advantage and analyse the results starting from the most aggregated level to the group of product level.

- The most important transformation of Brazilian Comparative advantage affects agricultural goods and food products, which has increased a lot since 1993: from 0.9 per cent of GDP to 2.5 per cent of GDP in 2003. On the other hand, the comparative advantage in manufacturing products has decreased from about -0.1 per cent of GDP to less than -2 per cent of GDP.

To what extent does the kind of endowment in natural resources have an impact on growth and Regional Trade Integration (RTI)?

d. Does resource-oriented specialisation play against regionalisation of trade patterns?

Specialisation in manufacturing industries, even in the same industry, offers opportunities for more varieties and therefore for two-way trade developments.

On the other Hand specialisation in primary industries offer few opportunities for two-way trade developments: oil producers have few, if any, opportunities to exchange products.

To what extent does the kind of endowment in natural resources have an impact on growth and Regional Trade Integration (RTI)?

In Latin America case we see that for :

- **Minerals trade patterns:**

- Asia is by the main destination for mineral export, its share increase from 32% in 1993 to 43% in 2003;
- Second is Europe-Africa, it has declined from 31% to 25%; Intra-regional trade is only 2%.

- **Energy trade patterns:**

- Nafta is the dominant but declining destination from 59% to 48%;
- Intra regional is increasing from 28% to 34%; EU comes third from 9% to 11%.

To what extent does the kind of endowment in natural resources have an impact on growth and Regional Trade Integration (RTI)?

- **Agribusiness trade patterns**

- Europe-Africa is by far the first destination and remained between 51% and 48% (but EU decline from 40% to 33%);
- Asia is the second partner and its share increases from 11 to 18%.

- **Manufacturing trade patterns**

- Nafta is the first destination increasing from 32% to 40%;
- Intra regional trade accounts for 33% in 1993 and declines towards 27%;
- Europe-Africa comes third with 20% and remains at that level; Asia is a small and declining destination from 14% to 11%.

Towards a Policy-Oriented Research Agenda: Major Open Questions

1. Is a distinction between different types of resource abundance needed to explain specialization patterns?
2. Given the similarity of intra- area and extra-area trade patterns of resource-rich countries, is there evidence that in the past these countries helped to blur such differences and mitigated discrimination against non-member countries and how could that be achieved?
3. Does regional integration provide a meaningful response to world price hikes for commodities by deepening integration in order to achieve a critical mass for incentives toward structural change toward non-traditional goods (manufacturing) which a single country could not achieve on its own?

Towards a Policy-Oriented Research Agenda: Major Open Questions

4. Could the coherence of integration schemes be strengthened if resource rents would be used to finance internal fiscal redistribution schemes in favour of poorer member states?
5. Do income disparities between regions within resource abundant countries constrain both the volume and the structure of cross-border trade and factor flows?
6. Can strategies of pro-poor growth be extended from the national to the regional level by spillover effects in an integrated region, which an isolated resource-abundant country would miss?

Towards a Policy-Oriented Research Agenda: Major Open Questions

7. Which buffer mechanisms are available in order to contain and reduce idiosyncratic business cycles in resource abundant countries decoupled from those of their more industrialized partner countries?
8. Resource extraction often absorbs environmental capacities from partner countries or demands inputs such as energy which can only be supplied by joint projects (for instance, water dams in border areas) which themselves are resource-absorbing. Do integration schemes provide a basis for agreements on joint resource management to improve environmental capacities and energy supply?

Aiming for a Policy Memorandum

- Resource abundance today is a major asset in forming regional coalitions and may encourage specific countries to claim a driver seat of regional integration once they are prepared to co-shoulder some burden of partner countries.
- This is why the link between regional integration and resource abundance is critical, in particular for a resource-rich region like Latin America.
- Given that importance, a memorandum of best practice recommendations should summarize the evidence available from past and current integration schemes.