

Global Value Chains and Development Policies

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Handbook on Accounting for Global Value Chains
*Meeting of the Expert Group on International Trade and
Economic Globalization Statistics*

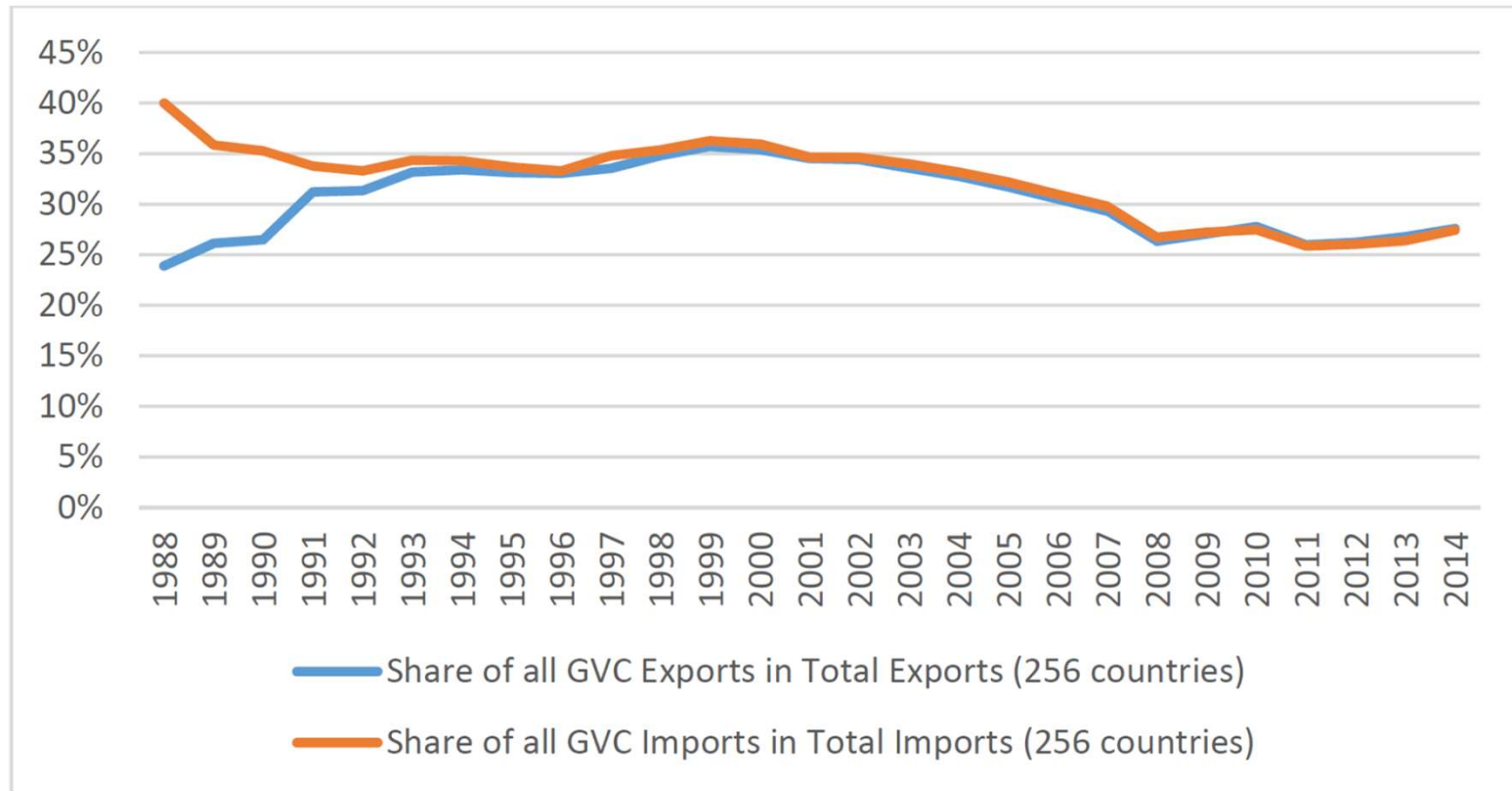
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GVCs are a fact

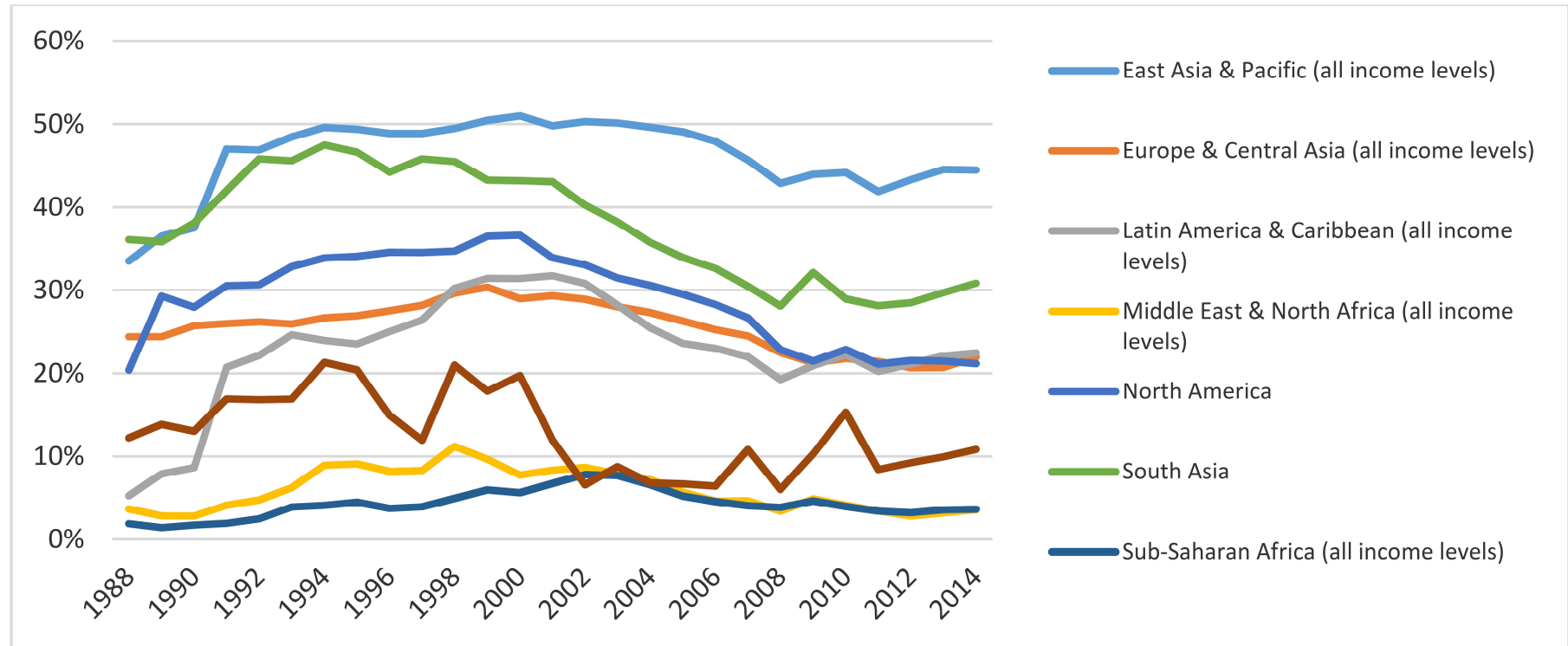
Figure 1: Share of all GVC Trade in Total Trade, 1988-2014



Source: Ferrantino M. and Schmidt G., 2018, “Using Gross Trade Data to Map Archetypal GVCs”, World Bank Policy Research Working Paper 8296, January

Uses the MC-GVC (Measuring Competitiveness in Global Value Chains) World Bank dataset to **map intermediate and final goods** in autos and parts, electronics and textiles, apparel and footwear. **Complementary** to other databases based on value-added concepts,

Figure 3: Share of GVC Exports in Total Exports by World Regions, 1988-2014



Why so much interest in GVCs? Why does it matter for development?

1. Access to demanding and sophisticated markets
2. Access to knowledge, technology, organization,
3. Opportunities for learning and innovation

GVCs are not only a trade phenomenon



Why does it matter?.....

GVC integration is associated to higher productivity

Montalbano P., Nenci S., Pietrobelli C., 2017, “Opening and Linking up: Firms, Global Value Chains and Productivity in Latin America”, *Small Business Economics*, July.

- the last wave of WBES **firm-level data** and the OECD–WTO **TiVA data**, at the firm-level, for 30 LAC countries
- **firms integrated in GVCs are more productive**. Some of the opportunities for learning and innovation opened by GVCs are at play in the countries we study in Latin America, as they often involve knowledge exchanges, deeper interactions, and “learning by supplying”.
- Moreover, firms operating in the industries exporting intermediates used in other countries’ exports (forward integration) tend to be more productive than firms operating in industries whose value-added comes primarily from imported inputs (downward integration).

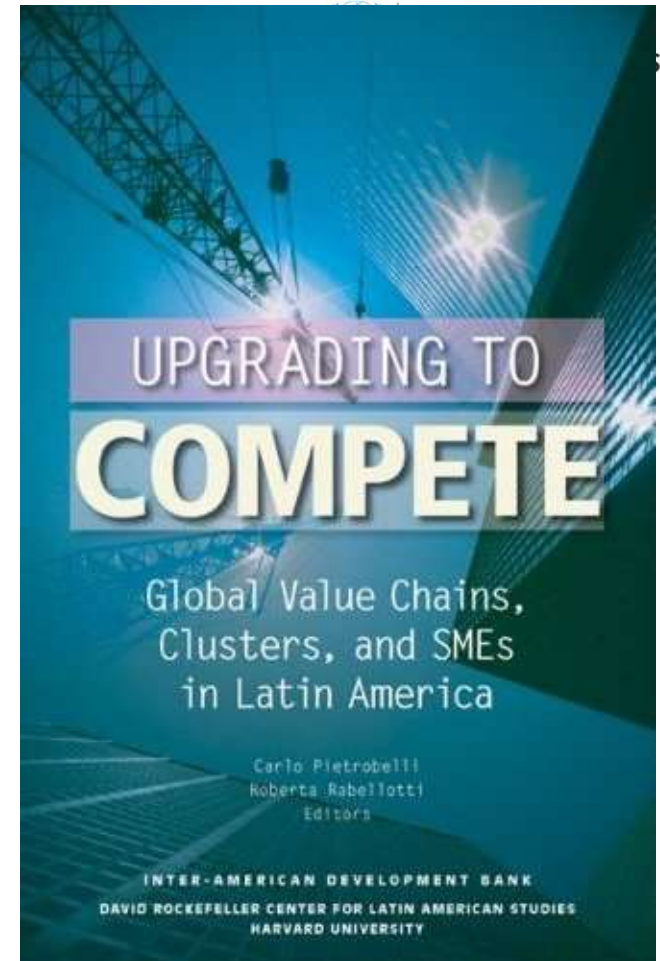
GVCs may foster processes of **upgrading** in local firms – an example of Functional Upgrading

		Textiles	Accesorios- Etiquetas	Corte	Ensamblaje	Lavado y acabados	Distribución	Marketing	Retail
ESTADOS UNIDOS	1993								
TORREÓN	1996								
	2000								

Upgrading in the Mexico-US blue jeans value chain.
Maquiladoras in Torreón, Mexico.

Linking clusters to GVCs: Upgrading is possible within GVCs, but **it depends on GVC governance**)

- Participation in GVCs led by large buyers (buyer-driven chains) **fosters the relationships with the international market.**
- Foreign chain leaders buyers favour **product and process upgrading** in traditional manufacturing sectors;
- However, functional upgrading is rarely achieved;
- **Several forms of GVC governance coexist** in the same cluster, and may offer **profitable alternatives;**
- GVCs with network and less hierarchical governance offer greater opportunities.



Forms of organization and Governance of VCs

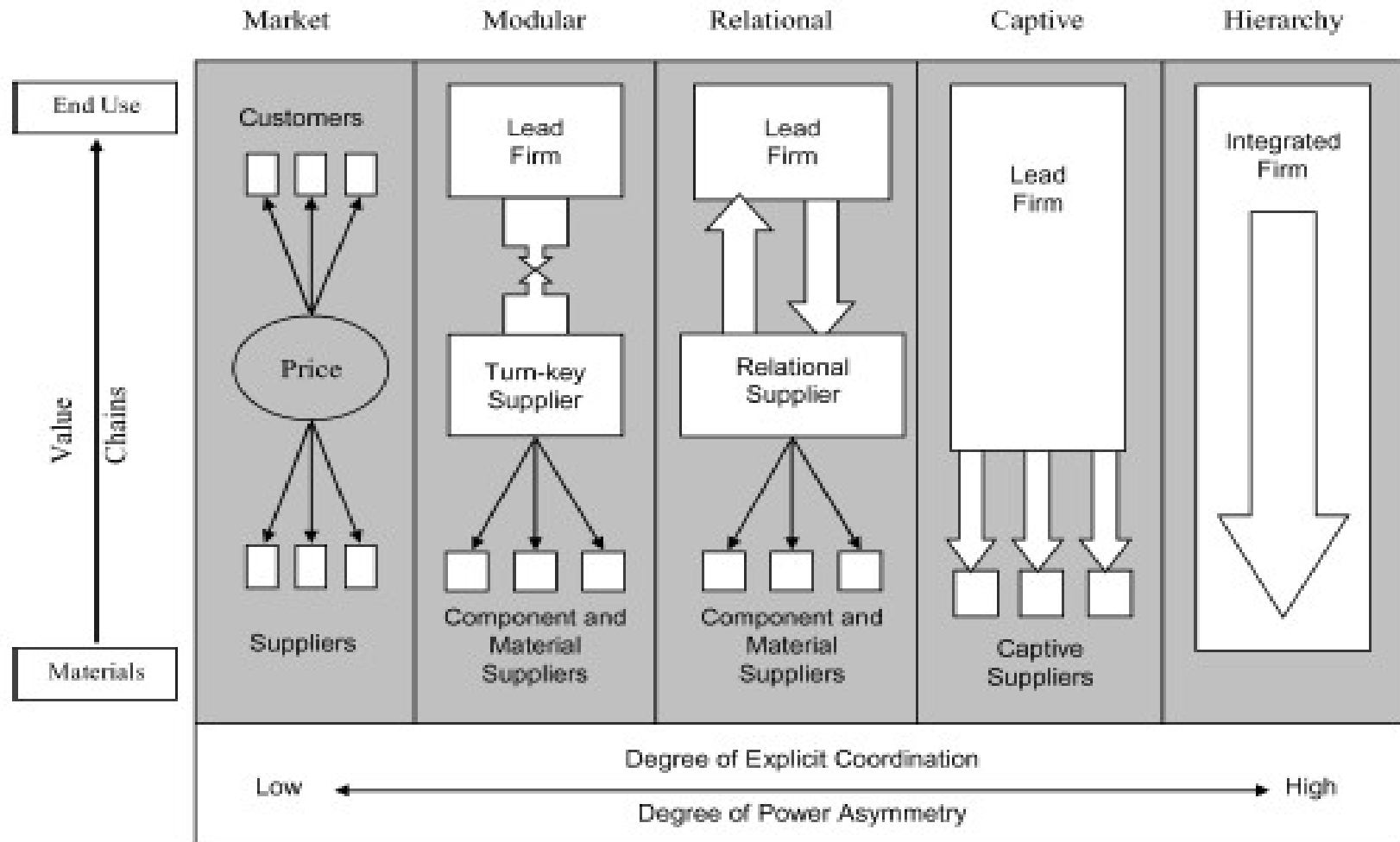


Figure 1 Five global value chain governance types.

Adapted from: Gereffi-Humphrey-Sturgeon, IRPE 2005, and Pietrobelli-Rabellotti, WD 2011

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Upgrading depends also on the interactions between GVCs and the Innovation System

Innovation Systems framework:

- **Focus** on how interactions among enterprises, institutions, research bodies and policy making agencies contribute to learning and innovation within firms;
- **Limitation**: little attention to external linkages in the generation and diffusion of knowledge and innovation;

Global Value Chain framework:

- **Focus** on the role of leading firms and inter-firm networks in firms upgrading;
- **Limitation**: little attention on the understanding of the upgrading itself. How is knowledge accessed? How can firms in GVCs learn and innovate? Do lead firms hinder/foster suppliers' learning?

The bridge between GVCs and IS occurs through the role of learning within GVCs



How do different **learning mechanisms** operate in different types of GVCs?

- In which chains are lead firms promoting learning only through increased pressure ('competition effect)?
- In which ones are lead firms supporting innovation through deliberate knowledge transfer and direct involvement in the learning and innovation process?
- In which type of chains is learning resulting from unintended knowledge spillovers?

How do different innovation systems affect the determinants of GVC governance and through this, the opportunity for enterprise learning and upgrading?

Learning mechanisms within GVCs need to be considered for policy purposes. They vary according to the form of GVC governance

Governance Type	Complexity of transactions	Codification of transactions	Competence of suppliers	Learning mechanisms within GVC
Market	Low	High	High	<ul style="list-style-type: none"> ▪ Knowledge spillovers ▪ Imitation
Modular	High	High	High	<ul style="list-style-type: none"> ▪ Learning through pressure to accomplish international standards. ▪ Transfer of knowledge embodied in standards, codes, technical definitions
Relational	High	Low	High	<ul style="list-style-type: none"> ▪ Mutual learning from face-to-face interactions
Captive	High	High	Low	<ul style="list-style-type: none"> ▪ Learning via deliberate knowledge transfer from lead firms confined to a narrow range of tasks – e.g. simple assembly.
Hierarchy	High	Low	Low	<ul style="list-style-type: none"> ▪ Imitation ▪ Turnover of skilled managers and workers ▪ Training by foreign leader/owner ▪ Knowledge spillovers

Networks (bracketed on the left side of the table)

Role of IS is stronger here (blue callout box with arrows pointing to the Modular, Relational, and Captive rows)

Source: adapted from Gereffi *et al.*, 2005

How do Development Policies Change with GVCs?

Important to consider both:

1. Integration into GVCs

2. Capturing value within GVCs

- ✓ challenge to enter segments of higher value added,
- ✓with larger opportunities for learning and innovation (capacity to attract knowledge, intangibles)
- ✓ Help develop local technological capabilities

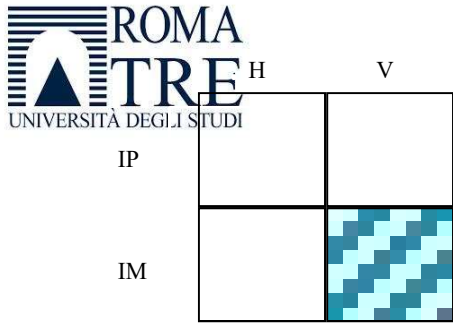
How do Development Policies Change with GVCs?

1. Trade Policy: Import protection may hinder capacity to produce/export.
2. Investment Attraction: needs to be selective and consistent with the country's characteristics and its production capacity (potential for linkages, local procurement, development of local suppliers,).
3. Innovation system needs to be consistent with GVCs and FDI – mutual interactions between GVCs and IS to mutually strengthen.
4. Education and Training Policy needs to be consistent.
5. Migration policy also consistent, talents attraction.
6.

A Typology of **GVC and Innovation-related Policy** Interventions - examples

	Horizontal	Vertical
Public Inputs	<ul style="list-style-type: none"> • Monitor opportunities for selective attraction • Streamline procedures for FDI and lead-firm (e.g. One-stop shops). 	<ul style="list-style-type: none"> • FDI and lead-firm attraction: <ul style="list-style-type: none"> ✓ Skills training center ✓ Quality, Standards, Certification Organizations
Market Interventions	<ul style="list-style-type: none"> • R&D&i subsidies for local providers' capabilities • Matching grants for collaborative R&D • "<u>Force</u>" externalities: <ul style="list-style-type: none"> ✓ training commitments ✓ local suppliers' development, 	<ul style="list-style-type: none"> • Temporary tax exemptions to new local providers • Selective R&D&i subsidies/grants





The missing link in the value chain: sterilization of medical devices in Costa Rica



Concluding:

1. Challenge to rethink development policies in light of GVCs
2. GVC integration as well as how to gain from it
3. Careful measurements are required
 - Not only of trade flows but also of inter-firm linkages

Thank you!

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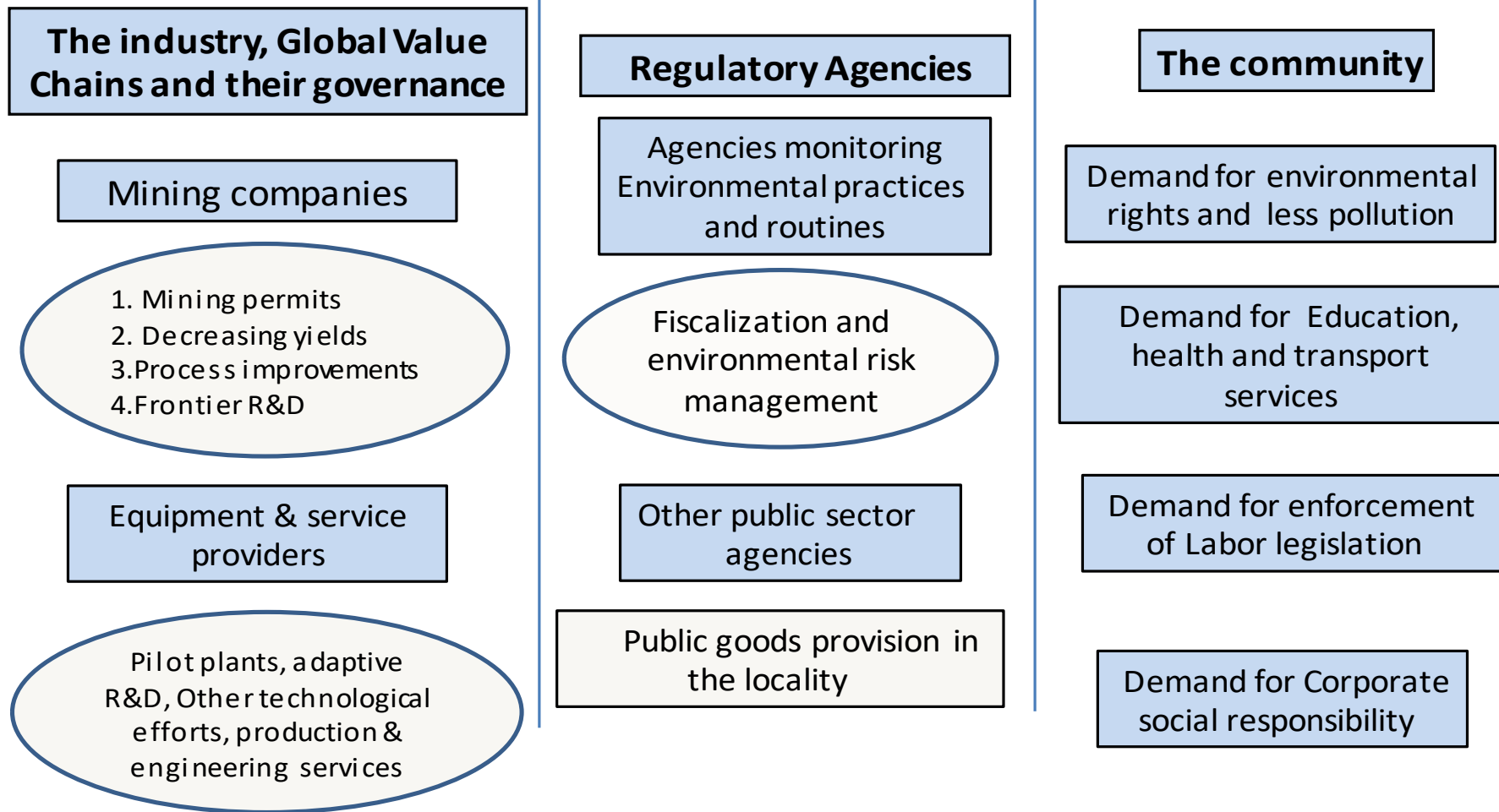
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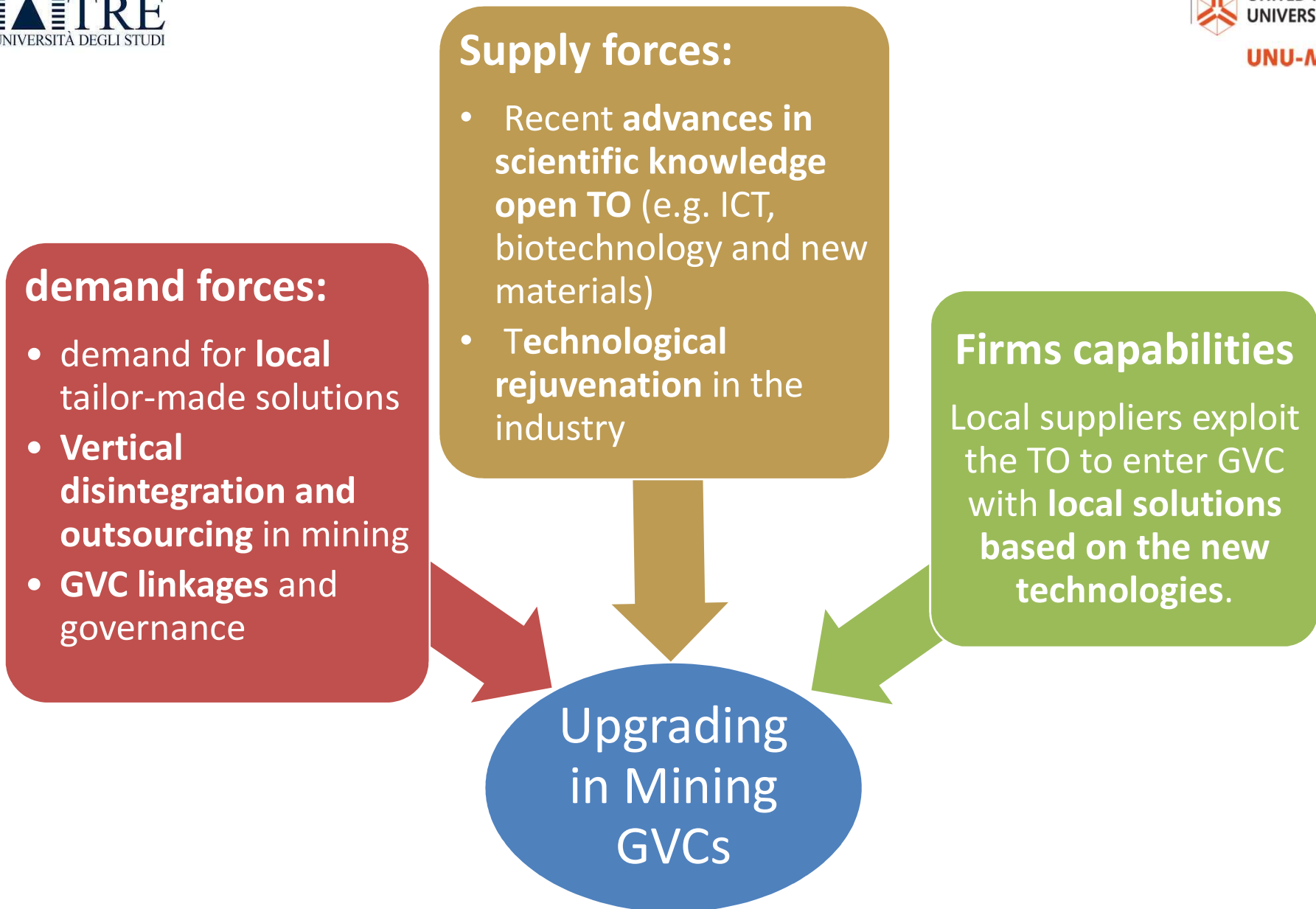
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5. New emerging emphasis on enterprise clusters based on NATURAL RESOURCES and MINING

Diagram 1. Mining Production involves co-evolution between commodity producers and their providers, environmental regulatory agencies, and local communities





1. Resource-based industries

- Agro-industry: melon in Rio Grande do Norte, mangos in Petrolin, apples in Santa Catarina, BRAZIL
- Salmon cluster in Southern CHILE
- Milk and dairy cluster in Boaco and Chontales, NICARAGUA

2. Complex Product Systems' industries

- Metalworking sector, State of Espirito Santo, BRAZIL

3. Traditional Manufacturing Industries

- Traditional furniture in Chipilo, Puebla, MEXICO
- Manufacturing Clusters in Mezzogiorno, ITALY

4. High Tech industries

- Software clusters in Guadalajara, Monterrey, D.F., Aguascalientes MEXICO

5. An extensive survey on the existing literature

- 50 cases of clusters and value chains in Latin America

