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Review of Strategies and Policies for Enhanced Participation in Global Value Chains

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Review of Strategies and Policies for Enhanced Participation in Global Value Chains

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Abstract: This article underscores the immense potential for substantial economic growth and development that can be harnessed through effective participation in global value chains (GVCs). It emphasises the role of policymakers in adeptly navigating GVCs, prioritising tasks, exploring different forms of GVC governance, and fostering a conducive environment for foreign investments. By effectively managing power dynamics and supply chain risks, countries can attract valuable foreign investors, enhance market connectivity, and improve infrastructure and services, leading to significant economic growth. The potential benefits of GVC participation are vast, and policymakers can shape the situation by understanding and addressing strategic inquiries, laying the foundation for a prosperous future. Furthermore, the article explores the potential for a country to enhance its involvement in GVCs and progress to more lucrative activities by strengthening existing connections between GVCs and the local economy. By enhancing the capacity of local stakeholders to acquire knowledge, policymakers can play a crucial role in maximising the benefits from GVC spillovers, positively impacting a country's economic development.

Keywords: global value chains; trade policy; industrial policy; international political economy

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Task-based GVC Participation

Entering Global Value Chains (GVCs) involves addressing two vital strategic questions regarding tasks performed and governance structure. The first question encompasses subquestions on GVC participation, task identification, and associated risks. It is crucial to avoid basing strategies solely on sector-based frameworks. A shift towards task-centred development strategies is not just a suggestion but a compelling and practical approach, emphasising specialisation in tasks of comparative advantage for optimal development. With a strong emphasis on functional upgrading, this approach must also consider product and inter-sector upgrading through skills, capital, and process enhancements to align with the task-based development strategies observed in higher-income countries. This approach is not just a theoretical concept but a practical necessity for countries aiming to thrive in GVCs, providing the audience with enlightenment and information (Farole & Winkler, 2014a).

Before delving into the tasks and risks within Global Value Chains (GVCs), it is crucial to understand the two approaches to GVC participation: attracting foreign investors and facilitating domestic firms' access to GVCs. The role of policymakers in attracting foreign investors, which involves seeking foreign direct investment (FDI), is of paramount importance. The need for growth stimulation primarily drives this due to insufficient domestic capital. Policymakers can achieve this through various means, such as tax incentives, infrastructure development, and streamlined regulatory processes. As a less risky source of private capital than other financial flows, FDI can significantly enhance productivity through technology transfer and other advantages. This underscores the potential for significant economic growth and development by attracting foreign investors and providing policymakers with a sense of empowerment and responsibility (Farole &

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Winkler, 2014a; Dimelis, 2002; Takii, 2005; (Crespo & Fontoura, 2007a; Toth & Semjen, 1999). Foreign investors can also help internationalise domestic firms, setting international standards and providing access to global networks, which benefits local suppliers and increases productivity. On the other hand, facilitating domestic firms' access to GVCs involves creating an enabling environment for local businesses to participate in GVCs. This can be done through capacity building, providing access to finance, and promoting innovation and entrepreneurship (Farole & Winkler, 2014a; United Nations Conference on Trade and Development, 2011).

Domestic firms can engage in Global Value Chains (GVCs) through methods beyond linking with foreign-owned subsidiaries, including exporting inputs, producing final goods with imported materials, and utilising contract manufacturers for large retailers. Contract manufacturers, a form of non-equity investment mode, involve multinational firms controlling operations in partnership with domestic firms, offering potential benefits and spillovers for development. Governance in GVCs is primarily determined by lead firms rather than public policy, though countries may implement supportive measures to capitalise on GVC opportunities (UNCTD, 2011).

Identification of GVC Tasks

Identifying tasks for which a country has a comparative advantage can be challenging due to limited task-specific production and trade data in low- and middle-income countries. Researchers can use a combination of approaches with varying data requirements to pinpoint sectors, value chains, and specific activities to guide a country's entry into Global Value Chains (GVCs). One approach involves leveraging existing expertise by expanding production within the same sector or value chain, as seen in Kenya's entry into the horticulture GVC. Another strategy involves identifying sectors where a country is inactive, focusing on optimal export sectors and value chains to maximise domestic value added and diversification potential. Economic proximity concepts can aid in understanding the challenges associated with transitioning to new industries and tasks (Taglioni & Winkler, 2016). This process of task identification is not just a theoretical concept but a practical necessity, engaging researchers and providing them with intriguing challenges.

Step 1 involves identifying sectors with the highest RCA based on value-added export data instead of gross export data. For instance, Malaysia exhibits an RCA greater than one in four manufacturing sectors, including electrical and optical equipment, machinery and equipment, chemicals, and wood products. However, the value-added RCA for electrical and optical equipment is slightly lower, highlighting a crucial difference. Step 2 entails analysing the upstream and downstream output of a GVC product using network analysis on input-output tables, which can reveal a country's specialisation in value chains. Despite potential bias due to technological differences, the need for comparable data globally justifies using detailed U.S. input-output tables. The method involves identifying the position of the export product within the production network, main buyers and suppliers, assessing countries as suppliers, and mapping out the value chain. Applying this approach to Malaysia's computer storage devices market shows its peripheral position in the production network, with China emerging as a key competitor and buyer, shaping GVC strategies. Step 3 involves identifying tasks within a sector that contribute the most to domestic value added or have growth potential. The availability of skilled workers and capital stock influences task dependency. Countries should focus on tasks that align with their labour and capital endowments to maximise domestic value added. Obtaining information on task value added is challenging (Gary Gereffi et al., 2001) (Gary Gereffi & Fernandez-Stark, 2010), but methods like input-output tables and firm-level data analysis can help, though they have limitations (Del Prete & Rungi, 2017; Antràs & Chor, 2013). Analysing tasks within sectors can be done through various sources like industry associations, ministries, and academic centres, using methodologies that combine strategic analysis and cluster management tools (Christensen & Kempinsky, 2004) . These tools should be complementary to the analyses suggested in this article.

Based on Michael E. Porter's concepts (Porter, 1980, 1985, 1990, 1998), the strategic analysis methodology involves evaluating competitive advantages, industry trends, strategic positioning, and value chains within Global Value Chains (GVCs). This analysis emphasises the international

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dimension of production and demand, requiring market analysis, technology assessment, end-market segmentation, and a multidimensional approach to policy intervention to recommend attainable strategic options. These strategic options could include, for example, investing in R&D to develop new products, improving infrastructure to reduce logistics costs, or implementing policies to attract foreign direct investment. By focusing on tasks and change processes, this methodology can help high-income countries face job and business challenges from lower-cost competitors.

GVC Risks

Global Value Chain (GVC) integration brings economic advantages and risks to countries, particularly concerning sourcing and selling. While governments have limited control over these risks since firms' decisions drive GVC participation, policymakers play a crucial role in managing and mitigating these risks. This underscores the importance of their role and the potential for them to make a significant impact. (Ferrantino & Taglioni, 2014). Seller's risks involve demand shocks and downstream risks in the value chain. Demand shocks can occur due to changes in consumer preferences, economic downturns, or geopolitical events. Downstream risks refer to the potential disruption of the value chain by a downstream partner, such as a manufacturer or retailer, which can affect the entire chain (Alessandria et al., 2010; Gary Gereffi & Frederick, 2010; Kolasa et al., 2010; Milberg & Winkler, 2010). On the other hand, buyer's risks relate to supply shocks from unforeseen events among upstream suppliers. Natural disasters, political instability, or changes in trade policies can cause supply shocks. Risks are amplified in GVCs, especially for complex products like automobiles with parts from various countries, increasing exposure to potential hazards. Practitioners must be aware of these risks and plan accordingly. By underlining the role of policymakers in managing GVC risks, they can feel responsible and proactive in their approach, ensuring the best outcomes for their countries.

A seller's exposure to end-market risks has long been discussed. Concentration in a sector, firm, or geography can lead to high volatility in value-added and sharp GDP readjustments during a crisis. In contrast, a diversified production portfolio can result in more stable export revenues, with independent price dynamics across different products, firms, or locations. However, suppliers in Global Value Chains (GVCs) face more significant risks due to their specialised inputs, dependency on lead firms, and challenges finding alternative buyers. During economic crises, GVCs tend to adjust to demand changes quickly, transferring risks to suppliers, which was evident during the 2008 crisis impacting apparel suppliers in LMICs. Changes in lead firms' strategies and management pose significant dangers to value chains, particularly for high-tech and small-medium businesses in Thailand reliant on Japanese companies like Nikon and Yazaki, who are shifting production to neighbouring countries to attract foreign investment, highlighting the growing importance and risks associated with regional transport links.

Buyers face novel risks related to upstream supply shocks, such as natural disasters and changes in suppliers' strategies, which increase their dependence on upstream inputs. Events like the 2011 flooding in Thailand and the Tohoku disaster in Japan expose the vulnerability of Global Value Chains to such risks, significantly impacting industries like automotive products, computers, and consumer electronics. Additionally, changes in upstream supplier strategies within GVCs can threaten existing downstream suppliers by offering bundled tasks at competitive costs, affecting the overall structure of the supply chain (O. Cattaneo et al., 2013; Escaith & Gonguet, 2011; IMF. Research Dept., 2011).

GVC Governance

Global Value Chains (GVCs) have evolved, leading to a variety of lead firm supplier relationships beyond the traditional "make" or "buy" dichotomy (Antràs, 2017; Antràs et al., 2024; Antràs & Helpman, 2004; Pol Antras et al., 2022; Milberg & Winkler, 2013). The type of governance (O. Cattaneo et al., 2013) between lead firms and suppliers is crucial, with five potential structures identified: market, modular, relational, captive, and hierarchy (Gary Gereffi et al., 2005). Market governance involves straightforward transactions with minimal buyer input, relying on price as the

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central mechanism. On the other hand, modular governance is seen in industries like autos and electronics, where suppliers take responsibility for process technology, and interactions are more complex due to the high volume of information exchanged. In relational governance, buyers and sellers share knowledge and frequent interactions, relying on complex information that fosters trust and mutual reliance. Despite mutual dependence, lead firms still maintain some control over suppliers, who often provide differentiated products based on unique attributes. Switching partners in relational chains is challenging due to the time it takes to establish such links. Ethical leadership is crucial to ensure fair treatment of suppliers and equitable market prices. In hierarchical governance, lead firms with captive structures wield significant power, leading to thick ties and high switching costs for both parties. Vertical integration characterises hierarchical governance, with lead firms developing and manufacturing products in-house to control complex products or when competent suppliers are scarce.

Global Value Chain (GVC) governance can shift over time depending on industry evolution, with varying governance patterns within chain links. Distinctions can be made between buyerdriven and producer-driven value chains based on the leading firm's nature in the chain (Gary Gereffi, 1994). Buyer-driven GVCs are common in consumer products like apparel, driven by retailers focusing on design and marketing. At the same time, producer-driven GVCs are prevalent in industries like automobiles, led by multinational producing firms. The governance structure in GVCs is crucial as it determines power relations and dictates resource allocation within the chain, with different degrees of power asymmetries across various industries (Hertenstein, 2021; Milberg & Winkler, 2013; Scherrer, 2022). Country policies to attract Foreign Direct Investment (FDI) are influenced by the potential for knowledge or productivity spillovers, with evidence suggesting positive backward spillovers on local suppliers from multinationals (Behera, 2015; Dogan et al., 2017; Du et al., 2012; Ebghaei & Akkoyunlu Wigley, 2018; Havranek & Irsova, 2011; Jinji et al., 2022; Le & Pomfret, 2011; Marcin, 2008; Sari, 2019).

International buyer characteristics, such as motives, global production strategies, technology intensity, and the duration of supplier relations, can influence potential spillovers in Global Value Chains (GVCs), like how foreign investor characteristics mediate Foreign Direct Investment (FDI) spillover potential. Host country characteristics and institutions, including labour availability, quality, learning infrastructure, innovation, trade policy, and the movement of goods and services, also significantly facilitate spillovers through domestic firms' involvement in international trade within GVCs (Milberg & Winkler, 2013; Taglioni & Winkler, 2016).

Policy Option of GVC Links

Lead firms strategically make decisions, so governments should do the same when evaluating policies to optimise global value chains (GVCs) and enhance the business climate for foreign assets. Countries can enter GVCs by supporting domestic firms or attracting foreign investment to access technology and know-how, as seen in Costa Rica and Thailand. Establishing competitive spaces like export processing zones (EPZs) can jumpstart GVC participation by providing favourable conditions for businesses, although their impact on development outcomes varies according to empirical research (Milberg & Winkler, 2013; Taglioni & Winkler, 2016).

EPZs, as designated areas within a country, play a crucial role in attracting export-oriented companies through tax breaks, tariff exemptions, and regulatory benefits. Their incentives, such as tax exemptions, duty waivers on imports, relaxed foreign exchange controls, and enhanced infrastructure, are critical factors in their success. While EPZs have significantly contributed to national exports in many lower-income countries, they require assistance integrating with the broader economy. This is due to their initial focus on attracting foreign firms, which has led to a dominance of foreign firms that have established relationships with foreign input producers. Many foreign firms in EPZs rely on imported inputs or require established foreign input suppliers to enter the zones. Studies show minimal backward links from EPZ firms to domestic orders, leading to terms-of-trade weakness in LMIC manufacturing exports. EPZs allowing duty-free imports of material inputs put non-EPZ domestic firms at a cost disadvantage, as the share of inputs purchased

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from domestic suppliers remains low in many countries. (A. Aggarwal, 2005; Engman et al., 2007; Farole & Akinci, 2011; Kusago & Tzannatos, 1998).

EPZs and competitive spaces present a unique challenge in attracting foreign investors. It is the role of governments to focus on broader, nationwide measures to establish a sustainable investment attraction strategy. Policymakers must consider various factors, especially those targeting FDI, when designing investment promotion measures. Countries entering GVCs can attract foreign investors by assessing their nature, motivations, technology contribution, and potential spillovers. Designing public policy to attract FDI and NEMs should prioritise creating an attractive investment climate and considering the nature and motivations of potential investors to maximise spillover benefits. Assessing technology contributions during Foreign Direct Investment (FDI) evaluation involves determining the possible absorption of investor technologies in the economy. Efforts should target global suppliers beyond original equipment manufacturers to promote spillovers effectively. Avoid diluting spillover benefits by offering excessive incentives to attract FDI and New Emerging Markets. Recognise the importance of both foreign and domestic investors in delivering spillovers to ensure unbiased investment policies that support mutual interaction. Facilitating joint ventures (JVs) can enhance technology transfer, particularly for low-income countries, but coercion should be avoided. A light-handed industrial policy can help overcome challenges in low-income countries by strategically addressing market failures and coordinating externalities. (Becattini, 2017; Farole & Winkler, 2014a; Porter, 1990).

Governments can play a crucial role in assisting both domestic and international potential buyers and suppliers find suitable trade partners and technology. They can create online directories containing detailed firm profiles, sector expertise, and certification information. Local suppliers need to meet specific quality, legal, labour, health, safety, and environmental standards to become suppliers to lead firms like Walmart, which has responsible sourcing requirements. Tools such as Standard Maps by the International Trade Centre can provide verified information on voluntary standards. At the same time, government e-tools can aid domestic companies in commercialising intellectual property or establishing licensing agreements, as seen in Morocco's Horizon 2015 program. In the context of Global Value Chains (GVCs), enhancing a country's ability to participate relies on promoting imports to access topquality inputs, with examples like JETRO in Japan establishing import promotion facilities in the 1990s. The effectiveness of a country's logistics infrastructure in connecting to global markets is influenced by geography and policies, such as infrastructure investment, regulatory practices, and trade facilitation efforts. Improving international connectivity through various means, like tightening links within GVCs, securing input/output flows, and reducing trade barriers, can significantly benefit countries, especially Lower- and Middle-Income Countries (LMICs), facing transport cost challenges in GVC participation (OECD, 2011; Pietrobelli, 2008).

The drivers behind offshore outsourcing go beyond cutting labour costs, encompassing factors like predictability, reliability, and timeliness, which are crucial for global value chains. Delays in exporting can result in significant tariffs for time-sensitive products (Hummels et al., 2007), hindering countries like Sub-Saharan Africa from participating fully in the electronics value chain (Jean-François Arvis et al., 2010; Christ & Ferrantino, 2011). The World Bank introduced the concept of logistics performance to assist policymakers in reforming the sector, emphasising the importance of trade infrastructure, trade procedures, and logistics services in enhancing a country's connectivity to international markets through various policy interventions (Jean-Francois Arvis et al., 2010, 2007; Jean-François Arvis et al., 2023, 2014, 2016, 2024). Policies addressing obstacles at the border should focus on traditional trade barriers and customs efficiency (O. Cattaneo et al., 2013), especially within Global Value

Chains (GVCs). GVCs expand the importance of addressing both export and import barriers, with high tariffs hindering efficiency in value chains, making it crucial for countries at intermediate production stages to have lower tariffs (OECD, 2012). Implementing a national single-window system to simplify border procedures requires strong government support, political will, stakeholder engagement, and institutional reform across multiple government agencies. Your role in this process

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is not just crucial; it is indispensable, and your insights and expertise will significantly contribute to the success of these initiatives (Dessus et al., 2013).

The policy's primary focus on enhancing domestic markets' connectivity through logistics, transport, and telecommunications, particularly for goods transport and offshoring services via ICTs, is a crucial step towards significant economic development. The efficiency of importer logistics, a critical factor in parts and components trade, can be significantly improved, positively influencing lead firms' location decisions. This potential for economic development through policy interventions should inspire us all to strive for more excellent connectivity and efficiency in our global value chains (Saslavsky & Shepherd, 2014). ICTs have played a transformative role in Global Value Chains by facilitating the transfer of design specifications and enabling cross-border service exports. This technological advancement has benefited LMICs, although challenges persist for the poorest nations. The liberalisation of service sectors in LMICs, driven by privatisation, competition, and independent regulation, has attracted substantial FDI by transitioning from protectionist policies to foreign company ownership. (O. Cattaneo et al., 2013; Managing Aid to Achieve Trade and Development Results: An Analysis of Trade-related Targets, 2012).

Policy Option of GVC Climate

Cost competitiveness is pivotal for countries aspiring to attract foreign tangible and intangible assets and maintain their competitiveness in the global value chains. While low wages may provide an initial advantage for countries to enter global value chains, various factors such as production costs, labour costs, transportation, and tax incentives influence lead firms' decisions to invest in or source production from low- and middle-income countries. A robust business climate is essential to avoid excessive costs resulting from inadequate infrastructure, lack of competition in services, administrative burdens, stringent labour laws, political instability, or corruption. Instead of solely focusing on low wages, countries should strive for higher labour productivity and wages to sustain cost competitiveness amidst improving living standards. These feasible strategies can significantly enhance a country's engagement in global value chains (Mayneris et al., 2014). They should leverage investment and tax incentives to boost productivity, skill development, and technological empowerment (O. Cattaneo et al., 2013).

Improving the drivers of investment, particularly in protecting foreign assets, significantly impacts a country's appeal to foreign investors (World Bank, 2014). Protecting assets involves safeguarding firm-specific technology and know-how, with some elements being defendable through intellectual property laws. However, other aspects, like business models and production processes, remain unprotected. In global production networks, incomplete contracts (Rodrik, 2000)arise due to various factors influencing firms' decisions on location and boundaries (P. Antras, 2014; Antràs & Yeaple, 2014). Metrics like political stability, governance, and corruption levels influence firms' choices to engage in Global Value Chains (GVCs). Entry into Global Value Chains (GVCs) via foreign investment necessitates the smooth movement of production factors. Obstacles to foreign direct investment (FDI) can result in a country's exclusion from significant GVCs or limit its participation in specific governance forms. Ensuring contract stability, engaging in international arbitration, and enhancing domestic value chains are crucial for a country's integration into GVCs (OECDWTO, 2013; OECD, 2014).

Expanding and Strengthening GVC Participation

This section explores the potential for a country to enhance its engagement in global value chains (GVCs) and progress to more lucrative activities. By prioritising the strengthening of existing links between GVCs and the local economy, as well as improving the ability of local stakeholders to gain knowledge, policymakers can play a critical role in maximising the benefits from GVC spillovers. These spillovers, which are the positive secondary effects that occur when a firm's activities in a GVC benefit other firms or sectors, can significantly bolster a country's economic development, underscoring the potential for substantial growth and the influence and responsibility of policymakers in shaping the future.

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Promoting Economic Upgrading and Densification in GVCs is a collaborative endeavour involving expanding the network of firms beyond the initial enclave and integrating GVCs into the domestic economy. Your involvement in this integration is crucial as it facilitates the dissemination of knowledge, technology, and expertise from foreign investors or trade partners. Economic upgrading enhances competitiveness in higher value-added products, tasks, and sectors, while densification involves engaging more local stakeholders in the GVC network.

Your policy efforts should transform GVC participation into sustainable development by increasing a country's added value by extending development beyond the initial enclave and enhancing the absorptive capacity of domestic firms. This underscores the value and significance of your role as a policymaker.

To enhance policy targeting effectiveness, nations must identify the primary transmission channels for economic and social advancement. These channels include forward links, which involve selling GVC-linked intermediates locally to boost production in downstream sectors, and backward links, which entail GVC-linked purchases of local inputs to enhance productivity in upstream sectors. GVCs support development and industrialisation by generating demand and assistance effects, improving productivity, fostering competition, and enhancing infrastructure (WEF, 2013; Farole et al., 2014). They benefit labour markets through three main effects: demand effect, training effect, and labour turnover effect. The demand effect involves the higher demand for skilled labour from Multinational Corporations (MNCs) and other GVC participants, leading to increased wages and benefits; the training effect results in local firms receiving training from MNCs or their international buyers; and the labour turnover effect sees knowledge transferring from participating firms to other local businesses.

Upgrading and Densification

Economic upgrading is multifaceted, extending beyond a simple movement up the value chain. It encompasses various strategies, including product, functional, and inter-sector upgrades. Product upgrading involves advancing to more sophisticated products within the existing value chain, measured by increased unit values. For instance, a country's automotive industry could upgrade its products from basic sedans to electric vehicles. On the other hand, functional upgrading entails moving into more technologically advanced tasks within a production process, such as transitioning from manual assembly to automated production. Inter-sector upgrading is about entering new value chains with higher value-added shares. This can be achieved by identifying sectors with similar tasks but higher value addition, using measures like labour's share in value added, sector skill intensity, and technology intensity. (Humphrey, 2004; Humphrey & Schmitz, 2002).

The significance of measures is maximised when implemented at a highly detailed sector level. Analysts should use qualitative information from various sources to identify similar tasks with higher value added in different industries. This data can pinpoint sectors with comparable processes and tasks and successful inter-sector upgrading strategies in other nations, ideally supported by evidence of past success. Economic upgrading indicators include profit growth, export expansion, and increased capital intensity. Upgrading production factors such as labour and capital and enhancing total factor productivity can help achieve three key objectives. Policy options should focus on improving workforce skills, enhancing firms' absorptive capacity and technology, and increasing productivity in existing tasks within global value chains (Humphrey, 2004; Humphrey & Schmitz, 2002). Densification, which involves engaging more local actors in GVC networks, contributes to economic upgrading by boosting a country's value added. The aim is to make existing local GVC participants more competitive, enabling them to move into higher value-added products and sectors. Densification seeks to involve more local firms and workers in existing GVC-related activities within the country to drive value addition through scale effects. Enabling local participation in GVCs by enhancing absorptive capacity and worker skills is crucial for policymakers to determine the priority areas for a country.

Influencing Spillovers

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Various factors influence the spillover potential of foreign firms in host countries, affecting local productivity (Farole et al., 2014; Havranek & Irsova, 2011). The degree of foreign ownership plays a crucial role, with higher ownership correlating positively with knowledge transfer incentives. For instance, a foreign firm with a majority stake in a local subsidiary is more likely to transfer its technology and know-how to the local workforce (Crespo & Fontoura, 2007a; Takii, 2005). Due to potential vertical links and technology leakages, joint ventures exhibit more positive spillover effects (Abraham et al., 2010; Javorcik & Spatareanu, 2008). Different types of foreign investment, such as resource-seeking or manufacturing, have varying spillover potentials, with manufacturing investment often considered more beneficial due to its labour intensity and reliance on local suppliers. Market-seeking investments, particularly in retail, also offer potential for spillovers by sourcing from local producers, although evidence on spillover effects remains inconclusive and context-specific. A multinational corporation's sourcing strategy can impact spillover potential, mainly if it adopts a global co-sourcing approach that relies heavily on imported inputs. The presence of established foreign suppliers can hinder the entry of new local suppliers, particularly in sectors like clothing, footwear, electronics, and automotive. The technology intensity of a multinational's products in the host country plays a significant role in spillover effects, with high-tech products potentially offsetting the benefits through low-tech processes (Gorodnichenko et al., 2007b; Smarzynska Javorcik, 2004).

The speed and inconsistency of foreign entry can impact knowledge spillovers by limiting multinational firms' ability to establish stable relationships with local suppliers, reducing reliance on domestic inputs (Havranek & Irsova, 2011). Insufficient time for local firms to observe best practices and for workers to acquire skills can result in adverse competition effects (Javorcik, 2004). The duration of foreign presence can also affect spillovers, with more extended presence leading to more positive productivity effects due to extended supplier relationships. Various host country characteristics and institutions can influence the interaction between foreign and domestic firms, affecting the transmission of knowledge from multinationals to local entities (N. Aggarwal et al., 2011; Alfaro et al., 2010; Crespo & Fontoura, 2007b; Harrison et al., 2004). A nation's trade policy impacts foreign investment quantity and type, with more significant spillovers in more trade-friendly countries (Du et al., 2011; Havranek & Irsova, 2011). An open trade environment attracts foreign firms with fewer constraints, leading to adopting new technologies and the potential for more significant spillovers (Du et al., 2011; Harding & Javorcik, 2012). Special economic zones (SEZs) can impact spillovers, with local Chinese manufacturing firms in SEZs experiencing smaller productivity spillovers from FDI compared to non-SEZ domestic firms (Abraham et al., 2010). This could be due to SEZs focusing on export processing with a high percentage of imported inputs, limiting FDI spillovers by constraining demand for local suppliers. Collaboration with foreign firms and support for local supplier networks have proven effective in facilitating spillovers in sectors like automotive and electronics. At the same time, weak institutions, such as corruption and red tape (Gorodnichenko et al., 2007a, 2007b), may hinder foreign investors from fully utilising their competitive advantages and influence the types of FDI attracted (Farole & Winkler, 2014b; Meyer & Sinani, 2009).

Absorptive Capacity

At the domestic firm level, factors such as R&D, human capital, firm size, location, export behaviour, technology gap, ownership type, and sector competition shape policies for GVC participation and determining absorptive capacity. While the focus is on FDI spillovers, various firm characteristics can influence spillovers from GVC involvement, particularly in governance forms with high knowledge sharing. The technology gap between foreign and domestic firms is a crucial mediating factor for FDI spillovers (Grünfeld, 2006; Kokko et al., 1996), with studies indicating a nonlinear relationship between a domestic firm's technology gap affecting productivity benefits induced by FDI (Blalock & Gertler, 2009; Jordaan, 2011; Smeets, 2008; Winkler, 2014).

Several factors influence FDI productivity spillovers in domestic firm locations (Girma & Wakelin, 2007; Winkler, 2014). Agglomeration of foreign firms in the same sector and region can boost local firms' productivity (Barrios et al., 2006; Farole & Winkler, 2014b). SEZs focused on export

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processing with high imported inputs may help prevent spillovers. Exporting can enhance a domestic firm's absorptive capacity, impacting productivity gains from FDI (Suyanto & Salim, 2010), with different effects seen across sectors and types of ownership. The level of competition also plays a role, with local firms in competitive sectors potentially benefiting less from FDI spillovers (Buckley et al., 2007; Keller & Yeaple, 2009; Temenggung, 2007).

Policy Option of GVC–Local Economy Links

Policy measures to enhance Global Value Chain (GVC) participation include reinforcing current GVC connections, strengthening a nation's capacity to use intensified GVC integration and developing a highly skilled workforce (Farole & Winkler, 2014b).

Policies that strengthen links between Global Value Chains (GVCs) and local economies focus on foreign investors and international buyers. These policies should avoid favouring foreignowned companies over local integration. Incentives should be tied to actions supporting technology spillovers rather than offering benefits without clear outcomes. Local content regulations must be clearly defined, focusing on value addition rather than strict ownership requirements. Flexible localisation plans should be encouraged, allowing investors to propose strategies for promoting spillovers to the local economy. A comprehensive framework is crucial to support the growth of local companies and enhance supplier development programs led by foreign investors. Traditional linkage programs are ineffective and should be part of a broader policy approach. The framework should focus on bridging information gaps, improving contract enforcement, and incentivising collaboration with local educational institutions to enhance the skills of domestic firms and workers participating in Global Value Chains (GVCs). Prioritising the absorptive capacity of local firms and skill development is essential for successful GVC participation (Morris et al., 2011).

Policy Option of Absorptive Capacity

Enhancing Absorptive Capacity to Maximize GVC Spillovers involves attracting foreign investors and international buyers to connect with the local economy, enabling local firms and workers to benefit from knowledge and technology transfers. The effectiveness of this benefit depends on the absorptive capacity of domestic entities, with the government playing a crucial role in building this capacity and facilitating access to opportunities. For instance, the Czech Republic implements policies to establish a competitive local supplier network. These policies should encompass supporting supply-side capacity building, focusing on productive domestic firms capable of servicing foreign investors, upgrading technical capabilities, and meeting quality standards. Additionally, efforts should be directed towards bridging the skills gap with foreign investors, promoting imports and skilled immigration, and fostering collaboration with academic institutions to embed spillovers and enhance the competitiveness of local firms in the long term (Farole & Winkler, 2014b).

Participating in Global Value Chains (GVCs) can alleviate capacity constraints for countries by not requiring a fully integrated industry (O. Cattaneo et al., 2013). Capacities, productivity, and innovation are crucial for foreign investors and lead firms seeking global offshore locations (World Bank Group, 2010). Adhering to process and product standards is essential for GVC functioning (Govindarajan & Trimble, 2012), as failure to comply can lead to exclusion from the chain. Standards, encompassing labour, social, environmental, and product quality criteria, are crucial in the value chain to ensure the final product or service's quality (Gereffi et al., 2011; Kaplinsky et al., 2010). In the agrifoods sector, such standards are seen through traceability requirements to safeguard consumer health and enhance product information (Lee et al., 2012). While private standards play a role in Global Value Chains (GVCs), public standards, infrastructure for certification, and enforcement by public authorities are vital to attracting production segments, as inadequate or excessively high local standards can hinder trade and investment opportunities (Brenton et al., 2009; Cadot et al., 2012; Lee et al., 2012). The shift towards GVC consolidation indicates that countries need to offer a bundle of tasks instead of single tasks for economic upgrading, which involves performing new tasks that build upon existing ones, referred to as functional upgrading in this book. Task bundling is essential for

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GVC consolidation as lead firms aim to streamline intermediates and expect suppliers to provide a more comprehensive package with increased service content while enabling potential offshore locations to attract production by bundling tasks that cannot be performed independently (Gereffi & Frederick, 2010; Lanz et al., 2013).

Policy Option of World-Class Workforce

Skill development plays a crucial role in competitiveness, Global Value Chains (GVCs), and economic advancement, with a proven correlation between human capital and services exports (O. Cattaneo et al., 2013; Saez & Goswami, 2010). Economic upgrading in GVCs necessitates acquiring new skills either by enhancing the skill level of the workforce or by developing expertise in specific market segments (Humphrey & Schmitz, 2002). Successful economic upgrading in countries like Chile, Costa Rica, Ethiopia, and Rwanda is seen when paired with effective workforce development strategies tailored to meet job requirements and overall upgrading goals (World Bank 2014a; World Bank 2014b). Lead firms in GVCs play a significant role in skill development by training their employees to meet industry standards. This highlights the importance of public and private investment in skill development to support international trade and GVC participation. Workforce skills are crucial for economic advancement, emphasising the need to align skill development with local and global demands. The workforce must acquire a new skill set to engage in Global Value Chains (GVCs) with varying requirements at different industry stages. In today's work environment, workers must possess soft and quantifiable hard skills. Managerial skills for GVCs are lacking in Low- and Middle-Income Countries (LMICs), necessitating more professionals and technicians in critical positions for successful upgrading. Education systems need to adapt to the skill demands of GVCs, requiring closer collaboration between technical training institutions, universities, and industry stakeholders. Private sector entities and public-private partnerships are vital in facilitating skill development and upgrading in response to global standards (Gereffi et al., 2011).

Conclusions

It is vital to involve national companies (suppliers and final manufacturers) in global value chains (GVCs) for low- and middle-income countries to accelerate industrialisation, shift to services, and progress towards development goals. This article offers guidance on measuring different aspects of GVC involvement to identify crucial policy requirements. It centres on strategic inquiries and corresponding policy alternatives, utilising real-world examples to propose a diagnostic process to recognise two main areas: approaches for entering GVCs and attracting foreign investment while also boosting domestic firm engagement and improving value addition and densification within GVCs through economic upgrading. The article examines insights on entering global production networks, attracting foreign investors, enhancing domestic firm participation, and creating a conducive business environment. Recommendations for entering GVCs include ensuring high-quality connections to the global economy and creating an inviting environment for foreign tangible and intangible assets. Expanding GVC participation involves leveraging positions for economic upgrading and densification, concentrating on competitiveness in higher-value-added products, tasks, and sectors, and engaging more local actors in the GVC network to enhance value-added and overall economic development.

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