

# TKNREPORT

## *The Proliferation of Global Value Chains: Trade policy considerations for Indonesia*

---

*Julia Puspawati Tijaja*

*January 2013*

© 2013 The International Institute for Sustainable Development  
Published by the International Institute for Sustainable Development.

---

## About IISD

The International Institute for Sustainable Development (IISD) contributes to sustainable development by advancing policy recommendations on international trade and investment, economic policy, climate change and energy, and management of natural and social capital, as well as the enabling role of communication technologies in these areas. We report on international negotiations and disseminate knowledge gained through collaborative projects, resulting in more rigorous research, capacity building in developing countries, better networks spanning the North and the South, and better global connections among researchers, practitioners, citizens and policy-makers.

IISD's vision is better living for all—sustainably; its mission is to champion innovation, enabling societies to live sustainably. IISD is registered as a charitable organization in Canada and has 501(c)(3) status in the United States. IISD receives core operating support from the Government of Canada, provided through the Canadian International Development Agency (CIDA), the International Development Research Centre (IDRC), and from the Province of Manitoba. The Institute receives project funding from numerous governments inside and outside Canada, United Nations agencies, foundations and the private sector.

### Head Office

161 Portage Avenue East, 6th Floor, Winnipeg, Manitoba, Canada R3B 0Y4  
Tel: +1 (204) 958-7700 | Fax: +1 (204) 958-7710 | Web site: [www.iisd.org](http://www.iisd.org)

---

## About TKN

The Trade Knowledge Network (TKN) is a global collaboration of research institutions across Africa, Asia, Europe and the Americas working on issues of trade, investment and sustainable development. Coordinated by the International Institute for Sustainable Development (IISD), the TKN links network members, strengthens capacity in areas of research, training and policy analysis, and also generates new research to assess and address the impact of trade and investment policies on sustainable development.

The TKN brings together institutions and individuals working on common concerns, strengthening each others' research and communication capacity and knowledge bases, and developing solutions to share with others outside the network. It thereby provides a platform for partner-based research and specific policy engagement.

### The Proliferation of Global Value Chains: Trade policy considerations for Indonesia

January 2013

Julia Puspawati Tijaja

## Abstract

The proliferation of Global Value Chains (GVCs) has led to increasing fragmentation of production processes across countries. Trade in intermediates has now surpassed trade in final goods and services, and global trade is increasingly conducted in the form of tasks<sup>1</sup> instead of final products. These shifts require a paradigm shift in policy-making.

Like many other nations, Indonesia aspires to improve its position in GVCs by moving towards higher value-adding activities. A number of measures have recently been introduced, including some that some critics view as “protectionist” and self-defeating. At the same time, there is a growing recognition that GVC participation will not automatically confer benefits, and that conscious policy choices are required.

This paper argues that there is scope for policy intervention, but the approach must be holistic and coherent. With the aim of facilitating the development of an informed strategy for Indonesia’s participation in GVCs, the paper discusses key areas affecting potential outcomes of that participation.

It starts by looking at key internal and external factors affecting value chain governance, as governance determines the power relations and allocation of resources along a value chain. It then looks at key factors affecting firms’ technological capabilities that are necessary for upgrading.

---

<sup>1</sup> As production processes become fragmented, economic actors focus on performing specific tasks that form parts of manufacturing or service delivery, instead of manufacturing final goods or delivering final services.

## *Biography*

Julia Tijaja is a trade policy analyst with specialization in trade negotiations, regional economic integration, global value chains and the Asia Pacific region. She will be joining the Fung Global Institute as a research analyst in March 2013. From January 2011 to October 2012, Tijaja was a trade policy adviser at the Office of the Chief Trade Adviser (OCTA) for 13 Pacific Island countries based in Vanuatu, where she was also the interim chief trade adviser from September 2011 to May 2012. She worked as a trade policy analyst for the Solomon Islands' Government from 2005 to 2007 under the Overseas Development Institute (ODI) Fellowship Scheme. She also authored the trade policy chapter of Solomon Islands' Diagnostic Trade Integration Study. Tijaja was awarded a PhD in development economics by the Open University-U.K. She also holds a Master's degree in Economics for Development from the University of Oxford, and a Bachelor's degree in Economics with Politics from Queen Mary, University of London.

## *Table of Contents*

Summary .....	1
1.0 Introduction .....	7
1.1 Research Objective and Structure .....	8
2.0 Overview of the Indonesian Economy and Its Trade Landscape .....	10
3.0 GVC Participation: Policy considerations surrounding internal governance .....	15
3.1 The Role of Markets .....	15
3.2 Standards .....	17
3.3 Imports .....	17
3.4 Exports .....	18
3.5 Sector-Specific Investment Measures .....	20
3.6 Trade-offs Between Value Addition and Other Policy Objectives .....	21
4.0 GVC Participation: Policy considerations surrounding external governance .....	23
4.1 Labour Markets .....	23
4.2 Trade Regime: Transforming market access into value chain competitiveness .....	25
4.3 General Investment Regime .....	27
4.4 Services .....	28
4.5 Connectivity .....	29
4.6 Contract Enforceability .....	30
5.0 Technological Capabilities for Upgrading: Innovation systems and sector specificities .....	32
5.1 Towards an Effective National System of Innovation .....	33
5.2 Sectoral Specificities of Learning Processes for Upgrading .....	33
6.0 Conclusions .....	36
References .....	40

## Abbreviations and Acronyms

AANZFTA	ASEAN, Australia and New Zealand Free Trade Agreement
ACFTA	ASEAN China Free Trade Agreement
ADB	Asian Development Bank
AGOA	African Growth and Opportunity Act
APINDO	Asosiasi Pengusaha Indonesia (Employers' Association of Indonesia)
ASEAN	Association of South East Asian Nations
BAPPENAS	Badan Perencanaan dan Pembangunan Nasional (State Ministry of National Development Planning )
BPKM	Badan Koordinasi Penanaman Modal (Indonesia Investment Coordinating Board)
FDI	Foreign Direct Investment
FTA(s)	Free Trade Agreement(s)
GATT	General Agreement on Tariffs and Trade
GDP	Gross Domestic Product
Gol	Government of Indonesia
GVC(s)	Global Value Chain(s)
ICT	Information and Communication Technology
IK-CEPA	Indonesia Korea-Comprehensive Economic Partnership Agreement
IS	Innovation System
MFN	Most Favourite Nation
IT	Information Technology
MoT	Ministry of Trade
MP3EI	Master Plan for Acceleration and Expansion of Indonesian Economic Development (2011-2025)
NSW	National Single Window
NTMs	Non-Tariff Measures
OECD	Organisation for Economic Co-operation and Development
PPP	Public Private Partnership
RoO	Rules of Origin
RCEP	Regional Comprehensive Economic Partnership
R&D	Research and Development
RQ	Research Question
SMEs	Small and Medium Enterprises
TRIMs	Trade-Related Investment Measures
WTO	World Trade Organization

## Summary

Innovation in information, communication and production technology has led to the proliferation of global value chains (GVCs). Production processes have become increasingly fragmented and spans across countries and continents. Trade in intermediates has now surpassed trade in final goods and services, and global trade is increasingly conducted in the form of trade in tasks.

This phenomenon opens up opportunities for firms and countries to participate in GVCs, as they now require comparative advantage only in parts of the production process. However, GVC proliferation also means more intense competition among suppliers because the scope for sourcing of intermediates has been broadened. Further, the costs of any trade restrictions and uncertainties will be multiplied in GVCs since products and services cross national boundaries multiple times, and a disruption in one part will impact the rest of the chain. This calls for a paradigm shift in how trade policy should be considered.

The Government of Indonesia (GoI) recently launched the Master Plan for Acceleration and Expansion of Indonesian Economic Development 2011-2025 (MP3EI). The Plan sets the roadmap to achieving Indonesia's goal to be among the world's top 10 economies by 2025, up from its current position as the world's 17<sup>th</sup> largest economy.

Like many other nations, Indonesia aspires to promote and optimize the benefits from its participation in GVCs. GoI has recently introduced a number of measures to achieve this objective, some general and others sector-specific. Stakeholders' reactions have been mixed. While many applauded GoI's commitment to address infrastructure and connectivity issues, some criticized the newly introduced measures in the energy and minerals sector as a re-emergence of resource nationalism.

In 2011, agriculture value added contributed 16.88 per cent of Indonesia's gross domestic product (GDP), a small increase from 15.29 per cent in 2001. The share of industry value added decreased from 46.45 per cent to 44.86 per cent within the same period, while that of services fluctuated, but only marginally, and stood at 38.27 per cent in 2011 (World Development Indicators, n.d.). Trade accounted for 55.87 per cent of Indonesia's GDP in 2011; lower than the East Asia and Pacific developing economies' average of 68.88 per cent. Trade in goods and services accounted for 44.62 per cent and 6.25 per cent of its GDP respectively. For goods, this represented a decline from 59.14 per cent in 2001 and for services a decline of more than a half from 13.33 per cent in the same year.

The overall import content of Indonesia's exports is 17.77 per cent.<sup>2</sup> This is lower compared to the share for China (27.4 per cent), India (18.5 per cent), Thailand (38.1 per cent) and Vietnam (27.5 per cent) (OECD STAN Input-Output Databases, n.d.). Indonesia's involvement with GVCs is nevertheless significant, with intermediate goods dominating more than three quarters of its exports, a trend that has persisted for at least the past two decades. However, this classification does not separate Indonesia's raw materials exports from intermediate goods in Indonesia's exports. There is also a declining trend in Indonesia's exports of final goods, partly a reflection of the rise of other emerging economies, such as China, as a competitive base for final assembly and the targeting of Indonesia's own growing consumption base by the domestic industry. There has also been a very slight increase in the share of capital goods exports. The goal of GoI is to reduce the (hidden) share of raw materials in Indonesia's total exports by conducting more value addition domestically.

<sup>2</sup> The share is higher for manufactures (23.24 per cent) than for services (11.85 per cent), and for high/medium technology manufactures (34.23 per cent) than for low/medium technology manufactures (20.17 per cent).

There is scope for proactive policy measures to enhance GVC participation, but they need to be implemented in a holistic and coherent manner. A better understanding of the factors that affect the outcomes of GVC participation is required, including understanding of the external and internal governance of GVCs, and of factors affecting the capacity of value chain participants to undertake upgrading.

The chosen pathway for enhancing GVC participation is commonly narrowed to focusing on higher value adding. While important, this may not translate to higher income if rents are quickly eroded by new entrants, and earning level is affected by other market conditions. There are also possible trade-offs between policy objectives; for example, between moving to higher value-added activities and making GVC participation more inclusive of low-skilled workers and smallholders. In other words, economic upgrading may—but does not always—entail social upgrading. The potential benefits from the domestic linkages created from GVC participation are also often overlooked if the notion of value chain upgrading is overly restricted to the vertical relationships in the chain.

While GVC participation could be used as a means to achieve sustainable growth and development, the benefits are not automatically conferred and depend on (among other factors) value chain governance. Governance refers to the power relations among value chain stakeholders that affect how resources are allocated and gains distributed along the chain. It also partially determines the scope for learning and upgrading for participating domestic firms, by defining the limit of upgrading assistance that participating domestic firms are likely to receive from the lead firms.

There are two sources of governance: internal and external. Internal governance power is exercised with the direct intention of influencing the organization of the specific value chains. It is often, though not always, exercised by the lead firms, but can also be exercised by the authorities through the use of sector-specific measures. External governance refers to factors or actions that were not directly targeted, but which nevertheless affected, the organization of the specific value chains.

Contrary to the focus of much existing value chain analysis, internal governance is determined by factors beyond the actions of the lead firms, many of which are within the scope of policy intervention. The markets that a value chain participant is supplying also form a part of internal governance. In this case, the term “markets” covers both market segments as well as the types of buyers and end users. Different markets have different entry requirements and different levels of inclusivity and upgrading opportunities. They are also likely to be influenced by different types of policies and market conditions. Market segments that are focused on quality and highly customized products, for example, will attract different suppliers than those that are based on price-driven competition. A good understanding of markets allows value chain participants to better anticipate changes in demand and governments to better identify leverage points for policy intervention.

Market diversification (including both market segments and buyers diversification) can promote value chain upgrading by removing the limits on the extent of upgrading assistance and support that domestic firms would receive from a single buyer. By supplying to a more diverse portfolio of buyers, learning opportunities would be broadened. Further, market diversification improves firms’ agility through the requirements to meet more varied standards that would be applicable in the different markets or imposed by different buyers. Last but not least, having a more diversified market base also reduces the vulnerability of domestic firms to demand shocks in a particular market.

Standards are becoming increasingly important in GVCs, and are a key part of internal governance. Standards codify complex quality information to allow detailed specifications to be met by multiple suppliers in a fragmented production process. As standards become market entry criteria, standards compliance capacity becomes a requirement for value chain participation and a source of comparative advantage in GVC participation. However, the costs of standards



compliance are often beyond the reach of weaker value chain participants. From the policy perspective, governments should strive to ensure that adequate standard and conformance infrastructure available to domestic industries. Governments could also encourage and support training and other cost-saving efforts to help the private sector enhance its standards compliance capacity. Proactive participation in standard-setting bodies is also a crucial GVC participation strategy—particularly for products in which it has export interests.

Trade policy can also be used to influence the internal governance of a value chain. Tariff policy is one of the key trade policy instruments still available for governments to use. However, its use is limited by multilateral, plurilateral and bilateral commitments. Multilaterally, a country's tariff policy space is defined by its tariff overhang, while its bilateral/plurilateral space is framed by its liberalization commitments. Indonesia has a wide tariff overhang, with the average bound tariff of 37.5 per cent and average applied tariff of just 6.8 per cent. However, even within this wide policy space, frequent changes to applied tariffs without clear policy justification will create costly business uncertainties, and disproportionately so for those participating in GVCs. Further, the use of tariffs to restrict imports may backfire if it is not possible to separate importation of final goods from intermediate goods. Restrictions on importation of intermediate goods could penalize domestic processors' competitiveness in GVCs. On the other hand, import restrictions on final consumer goods may, but do not always, stimulate domestic industry development, and come at the short-term expense of consumers until domestic processing capacity catches up. The use of tariff policy will also become increasingly difficult as Indonesia enters into more trade agreements.

Indonesia's recent increase in use of non-tariff measures (NTMs), such as non-automatic licensing for horticulture imports, the use of designated ports and so on, has generated concerns and uncertainties. They could be counterproductive to Gol's effort to promote GVC participation. NTMs tend to be less transparent, are subject to discretion and—in the absence of clear policy directions—are also vulnerable to exploitation by vested interests. Their use is best minimized; however, if they are to be retained, Gol would need to clarify the policy justification for their introduction, and keep the decision-making process transparent to the public and businesses.

Regarding exports, there are currently few rules on the use of export restrictions on raw materials to promote domestic value addition, although quantitative restrictions would still be in violation of Indonesia's WTO obligations. Nevertheless, the short-term costs of export restrictions are real because supply is not fully elastic in the near term. Domestic processing industries require time to expand their capacity to absorb greater volume of inputs. In the short term, export taxes on raw commodities would reduce the income of the raw commodity producers and exporters. Such measures should ideally be time bound to avoid their turning into perpetual protection of inefficient industries. Further, export restrictions are insufficient in themselves to stimulate the development of the domestic processing industry, and complementary measures will be needed. While there are currently few limitations on export restrictions, their use is likely to be more constrained in the future.

Because resources are not unlimited, sector-specific investment-promoting measures would need to be targeted on the priority value chains or value chain segments that can best meet Indonesia's developmental objectives. Close consultations will need to be undertaken with the stakeholders, including industry and civil society actors to identify the appropriate value chains or value chain segments. Once identified, they would need to be taken into consideration in the formulation of other measures relevant to their promotion and development, such as investment incentives, tax policy, and trade promotion efforts. Gol needs to be creative in finding ways to maximize value addition and job creation in the priority value chains/value chain segments.

Gol also needs to be aware of issues affecting external governance of the value chains because they could affect the outcomes of GVC participation as much as internal governance. First, Gol needs to address the current volatility in

the labour markets, which is frequently identified as a constraint in Indonesia's economic growth efforts. Labour is an important factor of production, and a competitive labour market can be a source of comparative advantage. The labour force should be viewed and treated as a source of dynamic comparative advantage in—instead of an impediment to—GVC participation. The long-term interests of businesses and workers coincide in sustainable GVC participation and jobs, which could be achieved through higher labour productivity. Violent worker protests and frequent strikes can significantly affect competitiveness in GVC participation. Threats of layoffs, relocation of businesses and walkouts from tripartite discussions are often used by industries to exert pressure on Gol to “regulate” the labour market. Gol's challenge is to balance the interest of businesses in short-term profits with workers' and businesses' long-term welfare and economic sustainability. Cooperation between industry and education/training institutions should be facilitated to improve the match of skill demand and supply. Skills and productivity development, including through such means as vocational training, need to be constantly pursued to avoid being trapped in the low-rent and low-wage segments of the GVCs. Genuine workers' grievances and regulatory inconsistencies should be addressed and law enforcement strengthened.

A favourable trade regime will not deliver on its potential if the private sector is unable to utilize available market access and preferential margins. Gol needs to help the private sector optimize the use of the market access that Indonesia currently enjoys. This could be done through the streamlining of export procedures, public awareness and capacity building for businesses and relevant authorities on rules of origin (RoO) and trade facilitation. Gol also needs to continuously build on its trade negotiation capacity, including through collaboration with research and technical institutions. As tariffs continue to fall, the agenda of trade negotiations should be refocused to address other impediments to trade, including NTMs and regulatory divergence. In light of the slowing of demand from major markets, and the sluggish economic recovery of its traditional trading partners, Indonesia needs a strategy for engaging with non-traditional trading partners (i.e., Africa, Latin America, Central Asia and Eastern Europe). Last but not least, Indonesia should make use of its growing prominence in the global arena to provide leadership and push for the conclusion of the Doha Development Round. The 2013 WTO Ministerial Conference in Bali provides a timely opportunity.

A sound general investment framework can be a crucial comparative advantage in GVC participation. The introduction of the new Investment Law in 2007 is a welcome start; however, a number of implementation issues remain. A priority issue that needs urgent addressing is the existence of inconsistencies between Indonesia's national, sectoral and subnational investment policies. A clear mechanism to coordinate these policies (as well as a review procedure of the negative list<sup>3</sup>) needs to be put in place, operated effectively and communicated broadly to the stakeholders. The 2007 Investment Law and the accompanying investment negative list need to meet their original objective as the main go-to documents for investment-related matters, including areas that are closed or restricted to foreign investors.

The contribution of efficient services sectors to enhancing GVC participation can be significant. Services serve as inputs for many products and form value chains of their own. Coordinating the development of efficient services sectors can be challenging, as they are often spread across different ministries (i.e., infrastructure, transportation, finance, telecommunication and so on). A balance needs to be struck between ensuring affordable access to basic services for the wide population and introducing competition in the market that is necessary to drive up efficiency. The importance of services needs to be recognized across the government, and Gol needs to develop a more proactive strategy on trade in services and investment.

<sup>3</sup> Negative list here refers to a list of sectors or subsectors in which no liberalization commitments to foreign investors are made i.e., that are closed to foreign investment.

The fragmentation of production process requires good connectivity for a country to effectively participate in GVCs. The current state of transportation, logistics and information and communication technology (ICT) infrastructure in Indonesia places the economy at a comparative disadvantage relative to other countries. Nevertheless, the recent concerted efforts by Gol to address connectivity issue are commendable; the priority now is to see their implementation through. Gol's call for greater involvement of the private sector and committed support from other development partners are both good signs for future improvement of the country's connectivity.

Indonesia also needs to work on improving its contract enforceability. Fragmented production processes mean multiple companies are involved in the production of a single good or service. The relations between these companies are governed by legal contracts, and the quality of contract institutions becomes an important consideration for business and investment decisions. The costs of legal uncertainties are also higher for more knowledge-intensive segments of the GVCs, as firms have more at stake in protecting the information shared with partner firms. If Indonesia wishes to move up to the knowledge-intensive segments of the GVCs, its contract enforcement institutions will need to be strengthened.

Participating in GVCs alone does not guarantee (prolonged) higher earnings because rents will be eroded by new entrants. Firms have to continue to strive to upgrade, that is, to shift their activities in GVCs so as to enjoy sustained higher earnings. However, upgrading needs to be actively pursued and is not an automatic outcome of GVC participation. To upgrade, firms need to first acquire the technological capabilities that would enable them to undertake the required learning process. GVC participation provides domestic firms access to external technology, innovation and skills; however, these can only be effectively utilized for upgrading if the firms have sufficient learning capacity.

Having in place a strong national innovation system would strengthen the conditions supporting the learning process of domestic firms. Gol should support R&D initiatives, promote innovation, and facilitate interaction between industry, industry associations, universities and other research institutions to ensure there is a match between the research and innovation generated and industry needs. This calls for closer collaboration between various institutions.

Last but not least, the source and patterns for upgrading may differ across sectors due to the heterogeneity in the technological regimes. This means that there is no one-size-fits-all system of innovation across sectors. Detailed analysis will need to be carried out for the priority sectors or subsectors in which Indonesia wishes to deepen its GVC participation. By having a better understanding of the source of technology, skills and the learning process in the sectors, more specific intervention can be devised to support upgrading by domestic firms.

All the above underscore the different factors that need to be considered in enhancing GVC participation. Coordination among the different authorities and stakeholders is therefore crucial because an incomplete, piecemeal approach is unlikely to be effective. Having elaborated on the factors that affect the outcomes of GVC participation and highlighted the possible areas for policy intervention, the paper concludes by compiling the key policy recommendations for the considerations of Gol below.

**TABLE 1: KEY POLICY RECOMMENDATIONS FOR ENHANCED GVC PARTICIPATION**

1	Strengthen market intelligence in the key markets of Indonesia's export products.
2	Support market and buyer diversification through trade fairs, industry forums etc.
3	Enhance the country's standards and conformance infrastructure.
4	Strengthen the standards compliance capacity of industry actors, particularly smallholders.
5	More proactive and strategic participation in standards setting bodies.
6	Strategically use tariff policy, while minimizing uncertainties from ad hoc tariff changes.
7	Review existing non-tariff measures against policy objectives and remove unnecessary ones.
8	The use of export taxes should be complemented with other measures to support the development of domestic processing capacity.
9	Encourage investment in the priority sectors/subsectors that best match policy objectives
10	Maximize value addition and job creation in the priority sectors/subsectors by encouraging downstream activities, extending the breadth of the value chain, optimizing current participation and targeting underdeveloped potential sectors.
11	Improve labour market stability through law enforcement and better coordination.
12	Invest in education and training; improve coordination with industry to improve the match between skills supply and industry demand; pay better attention to vocational training.
13	Take proactive leadership to push for progress in the Doha Round, using the momentum of the upcoming WTO Ministerial Conference in Bali in December 2013.
14	Give due considerations to the broader trade agenda including non-tariff measures, trade facilitation, sectoral cooperation.
15	Optimize existing preferential market access through capacity building of the trade facilitation authorities and the private sector, including (but not limited to) training on rules-of-origin compliance and administration.
16	Continuously strengthen the trade negotiation capacity of the officials.
17	Develop a strategy to engage with the non-traditional markets.
18	Address inconsistencies in the investment regime i.e., between national and subnational policies and between national and sectoral policies, including by putting in place whole-of-government coordination mechanisms.
19	Adopt a proactive strategy in services and investment.
20	Ensure effective implementation of initiatives to enhance connectivity, including information and communications technology (ICT), and ensure that the industry has access to competitive logistics and transportation sectors.
21	Improve contract enforceability.
22	Strengthen national systems of innovation inter alia by facilitating collaboration between industry, universities and research institutes, and focusing on skills and workforce training and development.
23	Undertake a detailed assessment of sectoral systems of innovation in the priority sectors to better understand the source and patterns of innovation and upgrading.

## 1.0 Introduction

A value chain describes the full range of activities that firms and workers do to bring a product from its conception to its end use and beyond (Kaplinsky & Morris, 2000). Innovation in information, communication and production technology, as well as transportation and logistical systems, has enabled the fragmentation of production process, where production tasks are “sliced” along the value chains and performed in multiple locations. The general trend towards tariff reduction globally has also significantly lowered the costs of allocating production tasks across countries. As a result, goods and services are no longer produced from beginning to end within single-country boundaries, but traded across borders in intermediate forms.

As value chains lengthen across countries and continents, global value chains (GVCs) are formed. While cross-border trade is not a new phenomenon, the dominance of trade in intermediates that links the fragmented production process across countries, and the pace at which it is happening, is new. The proliferation of GVCs is evident in the estimates made by the Organisation for Economic Co-operation and Development (OECD) that trade in intermediates now dominates current trade in OECD countries; representing 56 per cent of total trade in goods and 73 per cent of trade in services. The figure is even higher for the major emerging economies of Brazil, China, India and Indonesia, as intermediate goods now represent more than 70 per cent of total imports.

Growing trade in intermediates has several key implications. First, there is a paradigm shift in international trade from trade in final goods or services to trade in tasks; this calls for reconsideration of policy perspectives. Firms increasingly perform specific tasks or composition of tasks in the value chains, instead of internalizing the entire production process. Intuitively, this translates to a lowering of entry barriers, as firms will only need to be comparatively better in parts of the production process to participate in GVCs. At the same time, it also means greater competition as the scope for sourcing of inputs becomes broader.

The second implication is the rise of import content, both in exports and in products targeted for domestic consumption. This calls for an adjustment to the conventional perspective of trade policy. Bilateral trade data no longer gives an accurate reflection of trade balance between trading partners due to the widening gap between gross trade and value added trade. As the import content of exports grows, gross trade data (the measurement that is commonly available and used) overestimates the value of exports as well as the costs of imports. Efforts are underway to address the issue of measurement. The most comprehensive one to date is the compilation of the World Input-Output Database (WIOD) under a project of the European Commission.

Last but not least, as production processes span across countries, intermediate inputs are traded across borders multiple times before the delivery of final goods or services. This multiplies the costs of trade restrictions, both those at the border and those behind the border. As interdependency between economies increases, governments need to carefully consider the costs of introducing new trade barriers.

As countries and firms around the world compete to participate in GVCs (and/or improve that participation), there is a growing realization that participation in itself does not automatically confer benefits or lead to the fulfilment of policy objectives. Further, participation in GVCs is likely to create winners and losers. The composition effect of GVC participation, such as the reallocation of gains or losses, might in fact exceed the total effect (i.e., the total net gains or losses) (De Backer, 2011). While openness to trade is imperative for participating in GVCs, strategic participation requires proactive action by stakeholders, including through conscious policy choices. It appears that while there is a general agreement on the virtue of GVC participation, there remain different views on the best strategy to do so.

Strategies to enhance GVC participation are often deemed synonymous to the promotion of value addition on the one hand, and a blanket promotion of full market openness on the other. The latter ignores the complexity of production processes and the different level of market competition. A narrow focus on value addition, however, risks ignoring alternative strategies and other supporting strategies, and in some cases the trade-offs between policy objectives that will be discussed later in this paper. A more comprehensive and strategic approach is required.

Transnational firms make investment or sourcing decisions based on where specific tasks in GVCs can be performed most efficiently. Decisions are made with systemic chain-level competitiveness in mind, as any disruptions to one part of the GVC will affect the rest of the production process. To ensure the smooth running of the production process, considerations such as time to market, business environment, the availability of complementary inputs and services, and legal certainties are given a premium. This underscores the importance of factors beyond the level of the firm, some of which warrant attention at the policy level, such as regulatory framework, business and investment climate, trade facilitation and connectivity.

Indonesia is among the countries that have expressed interest in enhancing their positions in GVCs. The Government of Indonesia (Gol) has recently adopted a number of sector-specific and non-sector-specific policies to this effect, ranging from trade restrictions, sector policy reform, and a greater policy focus on connectivity. Some of the actions (e.g., the introduction of export taxes on minerals) have invoked negative reactions, with the moves being criticized as “outdated” and self-defeating to Indonesia’s GVC participation by some, while others fear a return to protectionism and resource nationalism (Anas, 2012a & 2012b; Damuri 2012a & 2012b).

While a separate new GVC strategy or policy may not be necessary, a holistic approach to enhancing GVC participation is imperative. This requires that the formulation and implementation of all relevant policies be correctly informed by the nature of Indonesia’s participation in the particular GVCs, and the impact that any policy changes may have on its current and potential competitiveness. The objective of this paper is to provide Gol and other stakeholders a brief overview of the key areas for consideration in relation to GVC participation. Not all of the areas mentioned fall under the remit of trade policies, and they have varying scope for policy intervention. They are nevertheless useful to raise awareness of the complexity and complementarities of issues surrounding GVC participation.

## 1.1 Research Objective and Structure

The overall objective of this paper is to facilitate the formulation of an informed, coherent and comprehensive strategy to enhance Indonesia’s participation in GVCs. It will highlight the key areas for considerations for Indonesia in pursuing GVC participation, focusing particularly on the policy leverage points that would be of interests to the Gol.

Two main concepts in GVCs are *governance and upgrading*. *Governance*, as conventionally understood in GVC literature, refers to the power to coordinate production processes with or without the ownership of productive resources (Gibbon, 2001). Gereffi defines governance as “the authority and power relationships that determine how financial, material, and human resources are allocated and flow within the [commodity] chain” (1994, p. 97).

*Upgrading* is defined as the shift in firms’ activity in the GVCs to sustain higher earning (Humphrey & Schmitz, 2000). Firms in a GVC would upgrade once they acquire new capabilities, know-how or skills that improve their position and competitiveness relative to their competitors (Kaplinsky & Morris, 2000). To upgrade, the capacity to innovate faster and better than others is required in order to erect entry barriers that would prevent the erosion of rents (Kaplinsky, 1998). However, the rent capture from upgrading will eventually be eroded by competition from able new entrants (Kaplinsky, 2005). The more tacit, hence difficult to copy, the newly acquired capabilities are,

the longer the upgraded firms can appropriate the rents. The current literature introduces four types of upgrading in GVCs: product, process, functional and chain upgrading.<sup>4</sup>

This paper addresses three key research questions. The first two relate to the concept of governance, and will look at internal and external governance respectively. The third question deals with firm-level capabilities, which relates to the concept of value chain upgrading.

The three questions are as follows:

- What are the main considerations surrounding the internal governance of GVCs?
- What are the main considerations surrounding the external governance of GVCs?
- What are the main considerations surrounding firm-level capabilities building in GVCs?

A brief overview of the Indonesian economy and the nature of its participation in global trade is presented next before the research questions are addressed.

---

<sup>4</sup> Process upgrading refers to a firm's success in adopted a more efficient production process. Product upgrading takes place when a firm shifts its product line towards a more sophisticated one. Functional upgrading happens when a firm acquires new functions or abandon existing (low technology / skill) functions to move to a higher margin function. Chain upgrading refers to a firm's moving or inserting to a different value chain altogether, which is more sophisticated than the original chain it participated in.



## 2.0 Overview of the Indonesian Economy and Its Trade Landscape

Indonesia is the world's fourth most populous nation, with a population of 242 million in 2011. Its GDP in the same year was US\$846.8 billion, making it the biggest national economy in South East Asia; representing 40 per cent of the region's population and GDP. Population- and resource-rich, Indonesia has joined China and India in the ranks of Asia's economic powerhouses. The three have recently been dubbed the "new golden triangle."

Despite the size of its economy, with a GDP per capita of just under US\$3,500, Indonesia is still a lower middle income country. Over 12.5 per cent of its population still lives below the national poverty line (World Development Indicators, n.d.). The Government of Indonesia (Gol) has a forward-looking (some say ambitious) goal for the country to be among the world top 10 largest economies by 2025 from its position as the 17th largest economy in 2011 (Franken, 2011).<sup>5</sup> Enhancing its GVC participation is one of the strategies to achieve this.

The sectoral value-added breakdown of the Indonesian economy is not dissimilar to comparable neighbouring countries such as Thailand or Malaysia; with a slightly larger and growing share of agriculture value added, and a relatively more stagnant share of services value added. The latter could partly be attributed to Indonesia's strictly regulated services sector compared to its goods sector, as well as problems with services data measurement and reporting. In 2011, agriculture value added contributed 16.88 per cent of Indonesia's GDP, a small increase from 15.29 per cent in 2001. The share of industry value added decreased from 46.45 per cent to 44.86 per cent within the same period, while that of services fluctuated, but only marginally, and stood at 38.27 per cent in 2011 (World Development Indicators, n.d.).

Indonesia's total trade in 2011 accounted for 55.87 per cent of the country's GDP, lower than the East Asia and Pacific developing economies' average of 68.88 per cent. In 2011, trade in goods and services accounted for 44.62 per cent and 6.25 per cent of its GDP respectively. For goods, this represented a decline from 59.14 per cent in 2001, and for services a decline of more than a half from 13.33 per cent in the same year. It appears that, while services value added accounts for a high share of the country's GDP, much is concentrated in non-tradable services.<sup>6</sup>

The overall import content of Indonesia's exports is 17.77 per cent.<sup>7</sup> This is lower compared to the share for China (27.4 per cent), India (18.5 per cent), Thailand (38.1 per cent) and Vietnam (27.5 per cent) (OECD STAN Input-Output Databases, n.d.). Indonesia's insertion into GVCs is nevertheless significant, with intermediate goods dominating more than three quarters of its exports, a trend that has persisted for at least the past two decades (Figure 1). However, the disaggregation used does not distinguish between raw materials and other intermediate goods in Indonesia's exports; the share of the former can be significant. There is also a declining trend in Indonesia's exports of final goods, this is partly a reflection of the rise of other emerging economies (e.g., China) as competitive bases for final assembly and the targeting of Indonesia's own growing consumption base by the domestic industry. There is also a very slight increase in the share of capital goods exports. The goal of Gol seems to be to reduce the share of raw materials exports by conducting more value addition domestically.

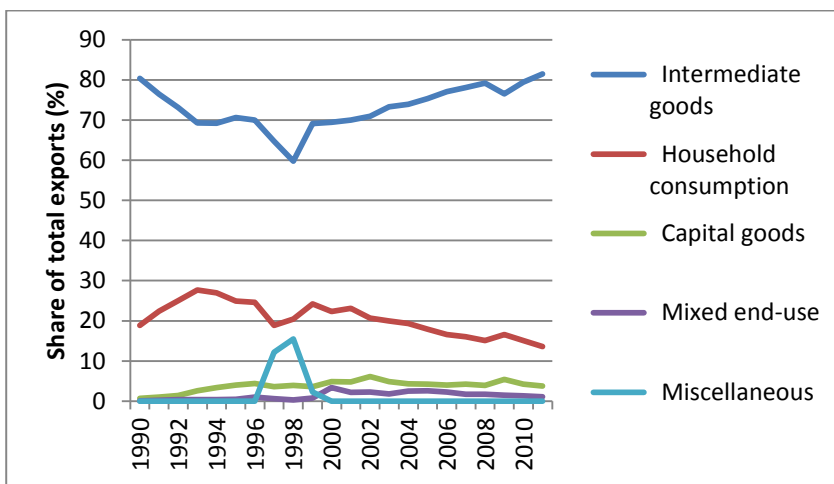
<sup>5</sup> This goal was stated in the Master Plan for the Acceleration and Expansion of Indonesia's Economic Development (MP3EI) launched by the President on May 27, 2011. The primary goal of the plan is to ease Indonesia's transition into an industrialised economy, expanding its domestic economy and moving up the global value chain.

<sup>6</sup> The term non-tradable goods or services refer to those that cannot be sold in another location distant from where it was produced. For services, the term covers activities such as construction, logistics handling, land rentals and so on. This claim is confirmed by the GDP sectoral breakdown estimated by Bank Indonesia in which construction and trade, hotels and restaurants are the service sectors with the largest contribution to GDP.

<sup>7</sup> The share is higher for manufactures (23.24 per cent) than for services (11.85 per cent), and for high/medium technology manufactures (34.23 per cent) than for low/medium technology manufactures (20.17 per cent).



Indonesia's goods exports are still concentrated in energy and natural resources-based products (minerals), with little change over the last decade. The top three products are coal, crude palm oil and petroleum products. Mining and quarrying (energy) accounted for 27 per cent of total exports in 2010, followed by food beverages and tobacco at 8 per cent. The share of Indonesia's traditional exports of textile, leather and footwear fell from 12 per cent to 7 per cent in the last five years (Leshner, 2012). In terms of sectors, the share of exports in mining has been on the rise lately at the expense of the shares of agriculture and industry exports. In 2011, mining accounted for 17.03 per cent of exports, a near tripling of the share in 2002 of 6.55 per cent. The shares of agriculture and industry fell in the same period from 4.5 per cent to 2.54 per cent, and from 67.75 per cent to 60.04 per cent respectively (Kementerian Perdagangan, 2012b).

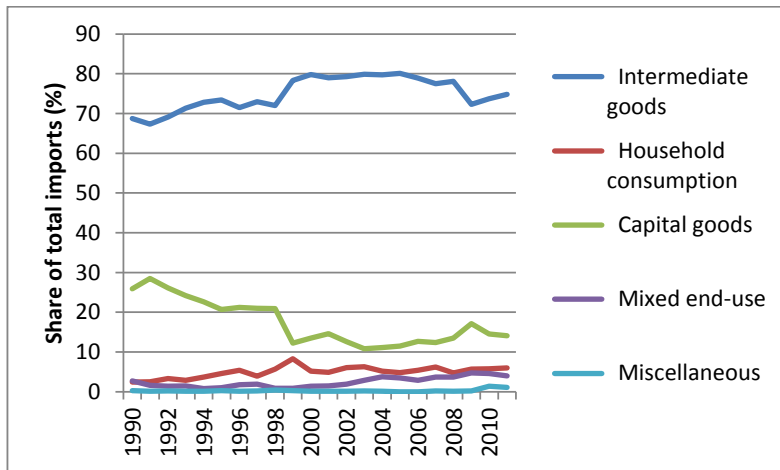


**FIGURE 1: INDONESIAN EXPORTS BY END USE**

Source: OECD Structural Analysis (STAN) Databases, n.d.

Like its exports, the bulk of Indonesia's total imports are also intermediate goods (Figure 2). Refined petroleum products, capital goods and chemicals are Indonesia's top three import product categories. There is a declining trend in imports of capital goods, with an apparent slow reversal from the mid-2000s. There is also an increasing trend in the shares of imports for household consumption and of mixed end use goods. With the growing domestic market, particularly the emerging middle class, Indonesia has a justified interest in aiming to promote greater in-country value addition, not just for exports but also for domestic consumption. In 2011, domestic consumption accounted for 60.51 per cent of GDP, almost double the share of exports (of both goods and services) at 31 per cent (World Development Indicators, n.d.).

The import figures above were confirmed by Indonesia's trade statistics and show that raw materials accounted for the bulk share of imports at 73.79 per cent in 2011, a slight decline from 77.43 per cent in 2002. The share of consumer goods in total imports was 7.55 per cent while the share of capital goods imports increased from 15.56 per cent in 2002 to 18.66 per cent in 2011 (Kementerian Perdagangan, 2012a).



**FIGURE 2: INDONESIA'S IMPORTS BY END USE**

Source: OECD Structural Analysis (STAN) Databases, n.d.

At just 6.25 per cent of GDP, the services trade in Indonesia is relatively underdeveloped, and is concentrated in just a few sectors such as tourism and transportation; however, business services have also been rising in importance (Leshner, 2012). Frequent changes to regulations and the inconsistencies between different regulations relating to the services sector create costly uncertainties. Magiera documented the inconsistencies in the investment-related regulations in Indonesia, focusing on four key services sectors of logistics (courier), health services, higher education and telecommunication (2011). The OECD also confirmed that recent regulatory changes have raised concerns among some foreign services providers, especially in the logistics and telecommunications sectors (Leshner, 2012). The introduction of the new Investment Law in 2007 and its supporting regulations is a commendable step toward improving investment climate in Indonesia, but more is needed to address other regulatory inconsistencies and ambiguities.

Having a competitive services sector is critical for successful participation in GVCs. Services serve as inputs into, and link up, different stages of production processes. In Indonesia, services inputs account for approximately 16 per cent of the value of exported outputs, a large share of which are domestically produced, and only a small part (less than 2 per cent) are imported (Manning & Aswicahyono, 2011).

Indonesia's trade patterns conform to the global trend of the shift towards Asia and developing countries more generally. This can be attributed to the rise of global (regional) value chains and the regional integration process among the Association of Southeast Asian Nations (ASEAN) members, and also by the slowing of demand in the traditional markets in the developed economies. The top five export destinations of Indonesia are Japan, China, the U.S., Singapore and South Korea. In terms of import origins, the top five trading partners for Indonesia are China, Singapore, Japan, the U.S. and Malaysia (Leshner, 2012).

In addition to the domestic regulatory framework, Indonesia's trade policy is also governed by multilateral, bilateral and plurilateral commitments. Under its WTO obligations, Indonesia has bound 96.6 per cent of its tariff lines; 94.6 per cent at a rate of 40 per cent. Its simple average bound tariff is 37.5 per cent, with an average bound tariff for agricultural products of 47.7 per cent. Despite the high bound rates, Indonesia's simple average Most Favourite

Nation (MFN) applied tariff<sup>8</sup> is only 6.8 per cent, much lower than South Korea, Brazil, India, China and other ASEAN economies, except for Singapore. Its simple average applied tariff for agricultural products is 8.4 per cent; much lower than EU, Japan or South Korea at 12.8 per cent, 17.3 per cent, and 48.5 per cent respectively; while its average applied tariff for non-agricultural products is 6.6 per cent, lower than China at 8.7 per cent (Hidayat, 2012).

Indonesia has a number of agreements in place with bilateral and plurilateral partners and is a signatory to the ASEAN Free Trade Agreement. As a member of ASEAN, Indonesia is a party to preferential trade agreements with Australia and New Zealand (AANZFTA), China (ACFTA), Japan, South Korea and India. It also has an economic partnership agreement with Japan. Indonesia is currently negotiating bilateral agreements with Iran, India, Pakistan, Australia, and European Free Trade Association countries, and undertaking joint studies on potential Free Trade Agreement (FTAs) with Chile, Turkey, Tunisia, and Egypt. In July 2012, Indonesia held the first round of negotiation for a free trade and investment cooperation agreement with South Korea known as the Indonesia Korea-Comprehensive Economic Partnership Agreement (IK-CEPA). In November 2012, Indonesia, with ASEAN, started negotiations, with the six regional free-trade partners of Australia, China, India, South Korea, Japan and New Zealand under the Regional Comprehensive Economic Partnership (RCEP). It will also soon commence negotiations for a comprehensive economic partnership agreement with the European Union (EU).

Trade agreements, both multilateral and preferential, can help expand market access opportunities. Nevertheless, commitments on tariff liberalization or sector opening would not automatically increase exports to these markets. Actual trade flows depend on, among other factors, the competitiveness of Indonesian products or services in these markets.

Indonesia's growing trade deficit has raised concerns, as the economy recorded four consecutive months of deficit prior to August 2012. The trade deficit in April 2012 was in fact the first to be recorded in two years. The deficit is expected to persist if external demand continues to be sluggish due to the global recession and the European crisis, while imports rise with Indonesia's strengthening purchasing power and growing middle class. A growing trade deficit is not a bad thing in itself if it leads to sustainable improvement in consumer welfare, or if the economy is importing capital goods and other intermediate goods that will boost productivity. A greater concern is a slowing down of external demand for Indonesia's main export commodities of coal, crude palm oil and rubber, as demand has been affected by the reduced global economic growth.

Indonesia's trade deficit with its preferential trading partners has been growing. Imports from Japan, China and South Korea have been growing faster than Indonesia's exports to these markets. Indonesia's trade deficit with China increased by 74 per cent, year on year, in the first eight months of 2012. This is mostly due to a worsening deficit in the non-oil and gas sector, as demand for Chinese exports in the major market remains sluggish. In the non-oil and gas sector, Indonesia's trade deficit with Thailand grew by 34.04 per cent in the same time period (Kementerian Perdagangan, 2012b). It is a useful reminder here that as GVCs proliferate, bilateral trade data might not accurately reflect the actual trade balance.

Perhaps a cause for greater concern is the decline in the productivity of Indonesia's industrial sector, as the economy continues to rely heavily on the mining and energy sectors. The contribution of the industrial sector to Indonesian GDP, though significant, has been growing more slowly than GDP, and its share has continued to fall from 28 per cent to under 24 per cent in the last decade (Manning & Aswicahyono, 2011). Contribution from the traditional labour-intensive sectors such as textiles and footwear has also been stagnant, if not declining. A recent report by the World

<sup>8</sup> Simple average of ad valorem tariffs only, 2006-2009 (latest), World Bank Trade Data.

Bank highlights the inadequacy of the Indonesian economy depending on strong domestic consumption and natural resource exports alone (Yulisman, 2012a). Efforts to build the productivity of the manufacturing sector should be intensified so its contribution to global market share can be increased. A large portion of Indonesia's manufacturers are small and unproductive; better access to working capital, productivity improvement and innovation drive can improve their contribution to economic growth and job creation, and move them to become medium-sized enterprises.

The figures on Indonesia's trade deficit do not invalidate the justification for Indonesia's participation in multilateral or preferential trade negotiations and other regional integration initiatives, as they are imperative to sustain economic competitiveness. Nevertheless, they remind us of the need for more strategic engagement in these areas and for more conscious and coherent policy initiatives domestically to derive benefits from greater market openness. Trade liberalization should serve as a strategic means to improve competitiveness, and also to attract investment and improve the productivity of domestic industries (Hidayat, 2012).

At the macro level, the outlook for the Indonesian economy appears positive. Indonesia's economic growth remains high despite the global financial crisis and the current economic woes in Europe. Inward foreign direct investment (FDI) stocks as a share of GDP reached their highest point in 2009, despite it being the worst year of the global economic crisis. Other macroeconomic indicators such as GDP, inflation and unemployment also remain positive, although the trade deficit has worsened. Indonesia is forecast to be the second-highest growing Asian economy in 2012 at 6.3 per cent, behind only China (Kompas, 2012a). The high growth was driven by high domestic consumption and investment, partly explaining Indonesia's resilience to external shocks (Kompas, 2012b). Growth in 2013 is expected to be even higher, at 7.2 per cent. Nonetheless, it is worth noting that the Indonesian economy has yet to fully recover after being hit hard by the Asian financial crisis of 1997–1998, which led to a 13 per cent fall in real GDP. Indonesia's GDP growth rate and share of world trade remain below pre-1997 levels, and Indonesia has experienced a steady deterioration in its terms of trade.

Indonesia's macroeconomic resilience could be at least partly attributed to Gol's proactive adoption of precautionary measures to safeguard growth. These measures include export diversification (particularly in terms of destinations as Indonesia targets the non-traditional export markets of Africa, Latin America and Central Asia), the maintenance of a modest benchmark interest rate (Jakarta Post, 2012), investment promotion and diversification, and improved commitment in trade facilitation and connectivity. While these precautionary measures are necessary and appear to be effective, the key challenge going forward is to address the real sector development and sustainable economic growth including through GVC participation.

### 3.0 *GVC Participation: Policy considerations surrounding internal governance*

For the purpose of this paper, internal governance of a value chain is defined as the factors that are introduced or actions undertaken with the direct intention of affecting the allocation of resources and relationship along a value chain. While this corresponds to the general definition of value chain governance, it is a broader take than the one commonly used in conventional value chain literature, which tends to focus narrowly on the relations between lead firms, usually the dominant global buyers, and their (first tier) suppliers. While lead firms have an important role in internal value chain governance, this narrow definition ignores other factors that are equally integral to the allocation of resources along the chain and firms' upgrading opportunities.

A broader definition that takes account of factors introduced by those other than the lead firms will be more accurate, though still non-exhaustive. This paper follows this approach by adopting a definition of internal governance that includes markets, standards, and sector-specific trade and investment regimes. In these areas there is more leverage to influence internal governance, thus providing a scope for policy intervention.

#### 3.1 The Role of Markets

The markets that a value chain supplies, broadly defined as country markets, market segments, and types of buyers or users, can affect the allocation of resources along (and the distributional outcomes from participating in) a value chain. Markets determine product and technology choice through consumer preferences and buyers' competencies, and consequently pose different upgrading opportunities for domestic suppliers.

Each market has its own requirements in terms of quality, quantity, order frequency and composition, production processes and technical specifications; the last two may be reflected in codified standards. The product or technology choice of a market would determine factor utilization in the production process and the rate of return of factors of production (Stewart, 1978). Value chains supplying to high-income quality-centric market segments (where the emphasis is more on quality, service and product differentiation than on price) will attract different participants than those supplying the mass market, where price competition still dominates.

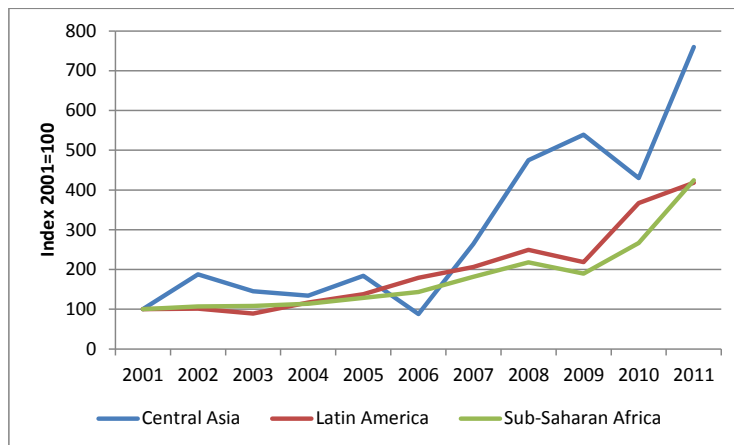
The rise of the emerging markets has important implications, as their economic growth boosts domestic purchasing power and sees the emergence of a new middle class. First, these economies were previously participating mostly as suppliers in GVCs but are increasingly becoming the final markets themselves. Second, these new markets have different consumer tastes and preferences from traditional developed country markets (Baldwin, 2012). These implications are exacerbated by sluggish demand in the traditional developed economy markets. GoI should enhance the market intelligence of Indonesia's export industries, in collaboration with the private sector, including industry associations, overseas trade and diplomatic missions. An understanding of emerging and other non-traditional markets should be enhanced.

Market diversification should be supported for a number of reasons. The assumption that (traditional) developed country markets would better promote technological upgrading ignores the heterogeneity in the markets. Not all segments of low-income markets demand low-quality products, particularly with the emergent middle class in many of these countries and the fact that these economies further feed into other developed country markets. Second, the product and technology choice of developed country markets might not always be compatible with factor endowments in the local economy (Stewart, 1978). This mismatch may result in the underemployment of abundant local resources, such as low-skilled labour, and increasing dependency on imports, hence vulnerability to external shocks.

Another justification for market diversification is that a value chain’s vulnerability to shocks increases with the degree of market concentration. In extreme cases where a value chain supplies only a single buyer, all suppliers will be vulnerable to any demand shocks. The scope of upgrading would also be constrained by the buyer’s core competency, (to be elaborated upon later). Efforts to diversify buyers and markets might, however, be constrained by the types of transaction contracts and intellectual property provisions.

The impact of market concentration on learning and upgrading is ambiguous in the short term. High market concentration leads to captive supplier-buyer relationship, in which learning opportunities might be intensified as buyers are less concerned about knowledge spill-overs to other firms. On the other hand, buyers would exercise restraint in assisting their suppliers to upgrade into their own areas of core competency for fear of future competition, unless where such action is deemed to be a win-win situation; for instance, for reasons of economies of scale or where resources can be freed for buyers to concentrate on higher profit activities. In this case it pays to diversify markets/buyers, as it opens up learning and upgrading opportunities.

Indonesia’s export diversification efforts have started to bear results as some industries have successfully expanded their markets, and penetrated new ones in Africa, Latin America and Central Asia. Exports to these non-traditional markets grew much faster than those to traditional markets, albeit from a very low base amount<sup>9</sup> (See Figure 3). Critics have warned against premature celebration of these achievements (Yulisman, 2012c). However, these criticisms mostly revolved around volume and perhaps the unrealistic expectations for exports to the new markets to offset the decline in the traditional markets overnight. The focus shall be to develop a long-term strategy for export development into these markets by looking at current and future export opportunities and complementarities in product and resource endowments and core competencies.



**FIGURE 3: INDONESIAN EXPORTS TO NON-TRADITIONAL MARKETS (2001 = 100)**

Source: UNCOMTRADE, n.d.

<sup>9</sup> Sub-Saharan Africa and Latin America accounted for less than 2 per cent of Indonesia’s total exports each in 2011, while the share of Indonesian exports to Central Asia (Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan and Uzbekistan) remained marginal, at just 0.01 per cent.

Gol, in close collaboration with industry actors, could introduce initiatives to support market and buyer diversification. These could include conducting market studies, improving access to market information, co-organizing trade fairs or other dialogue forums between potential buyers, suppliers and trade promotion and facilitation authorities. The capacity of Indonesia's overseas missions to support trade promotion should also be strengthened, including through the use of ICT.

### 3.2 Standards

The proliferation of GVCs is facilitated significantly by standards<sup>10</sup> and standards compliance capacity. By codifying complex quality information, standards enable hands-off coordination among firms in GVCs without the need for equity control. Standards facilitate the modularization of production processes so complex tasks can be performed by independent firms spread across multiple countries (Gibbon & Ponte, 2005). Standards compliance qualifies the entry of products into certain markets, as standards compliance capacity qualifies firms' participation in GVCs. Some standards, such as technical regulations, are compulsory; others are private; the latter, while non-compulsory, still determine the acceptability of products in certain markets.

Gol has three key roles in regard to standards—to strengthen the country's standards and conformance infrastructure; to enhance the compliance capacity of domestic industry actors (particularly the smallholders); and to strategically participate in standards-setting bodies. The availability, accessibility and affordability of conformance assessment services is critical and can be supported with the development of accredited metrology and testing laboratories and training of certified conformance evaluators. Most conformity assessment services can be competitively provided by the private sector, provided there are no unnecessary entry restrictions, but others might need to be provided by public institutions on a reasonable/ concessional user-pay basis. The costs of standards compliance can be prohibitive for smallholders, particularly for training and certification. Gol could assist, in collaboration with the private sector, private sector associations and other technical bodies, through joint training and other capacity building measures. Participation in relevant standards-setting bodies is important, particularly for unique products of export interest, in which Indonesia should be proactive in playing a leading role in the setting of such standards.

### 3.3 Imports

As the import content of production rises, the impact of import-regulating measures on production costs and efficiency increases. Import restrictions, such as tariffs or licensing regulations, increase the price of imports and consequently of production costs, which would affect the ability to participate in GVCs on a cost-competitive basis (at least in the short term).

Despite contributing less than 4 per cent of tax revenue in 2007, tariffs remain a main trade policy instrument for Indonesia. The ability of a country to use tariff-related measures is constrained by its multilateral, bilateral and plurilateral commitments. As earlier shown, with an average bound tariff of 37.5 per cent and an average MFN applied tariff of just under 7 per cent, Indonesia has a wide binding overhang. A wide binding overhang gives considerable policy space. However, excessive use of tariff policy would be self-defeating to Indonesia's efforts to enhance GVC participation. Frequent changes in applied tariffs coupled with wide tariff overhang create costly uncertainties not only to foreign businesses but also domestic industries. The costs of uncertainties are even higher in industries that are participating in GVCs, as any disruption in one part of the chain will have repercussion impact on the rest of the value chain.

<sup>10</sup> Defined as the "commonly accepted benchmarks that transmit information to customers and end-users about a product's technical specifications, its compliance with health and safety criteria or the processes by which it has been produced and sourced" (Nadvi, 2008, p. 3).



Tariff policy, however, is one of the few industrial policy tools left for developing country governments to use. On the defensive side, tariffs are used to shield domestic industry from premature import competition. On the offensive side, tariff liberalization on intermediate products has been shown to double the improvement in productivity of domestic plants compared to tariff liberalization on final goods (Amiti & Konings, 2005).

Indonesia has become increasingly active in using its tariff overhang in recent years by periodically changing its applied rates. In 2009 and 2010, Gol increased tariffs on a range of goods that directly compete with locally manufactured products, including chemicals, electronic products, milling machines, cosmetics, medicines, and a range of agricultural products. In December 2011, Gol increased applied import duties for wheat and soybeans from 0 per cent to 5 per cent. While this might reflect a more proactive, and arguably strategic, use of tariff policy to promote value addition, it will not be sufficient in itself to achieve this objective and would have short-term implications for domestic industries currently relying on imported inputs.

Indonesia has also introduced a number of non-tariff import measures.<sup>11</sup> Regulations on non-automatic import licensing were applied to a broad range of products that are final consumer goods, and there is also a requirement for pre-shipment verification for some. In these cases, import licences will now be issued subject to the discretion of the relevant sectoral ministries. Importation of certain horticulture products is now restricted to specific designated ports and airports.<sup>12</sup> Separate import licences for goods imported for use in production process (value-added manufacturing) and those for further distribution (not for further processing) have also been introduced for some products.<sup>13</sup> Various import restrictions are also in place for salt, sugar and alcoholic beverages, and rice. In all cases these regulations introduce new uncertainties to businesses in the absence of sound and clear policy justification.

The increasing use of non-tariff measures (NTMs) has generated concerns amongst businesses and investors. NTMs are less transparent and often less coordinated due to their cross-agency nature and are more prone to discretion. In the absence of clear policy direction, they are prone to pressures from vested interests. The increasing use of NTMs could undermine Indonesia's effort to develop the real sector and to participate competitively in GVCs. Gol needs to communicate clearly the policy objectives of any new measures that are being introduced. Equally important is the need to have in place a clear and transparent process for decision making.

### 3.4 Exports

GVCs improve access to external markets by enabling industry actors in an economy to participate in selected parts of a value chain. Whilst GVC participation facilitates greater inclusivity, it also intensifies competition among suppliers. Buyers are now presented with broader multi-country sourcing options beyond what is available in a single country.

Like imports, the impact of any measures regulating exports is also amplified. Export-regulating measures can be categorized into export-restricting measures and export-stimulating measures. Export restrictions, apart from quantitative restrictions, are not currently regulated under the General Agreement on Tariffs and Trade (GATT), because it was not perceived during the Uruguay Round that members would wish to restrict their own exports. On

<sup>11</sup> In 2009, the Indonesian government introduced Decree 56 on non-automatic import licensing procedures on a broad range of products. This was extended by Ministry of Trade Regulation 57/M-DAG/PER/12/2010 in December 2010, and it will remain in effect until December 31, 2012.

<sup>12</sup> Ministry of Trade regulation No. 24/M-DAG/PER/9/2011 and Ministry of Agriculture regulation No. 50/PERMENTAN/OT.140/ 9/2011 dated September 7, 2011.

<sup>13</sup> Ministry of Trade Regulation No. 45/M-DAG/PER/9/2009, as amended and clarified by Regulation No.17/M-DAG/PER/3/2010, Regulation No. 39/MDAG/ PER/10/2010.



the other hand, measures to stimulate exports are more regulated, with export subsidies falling under prohibitive subsidies under the GATT.<sup>14</sup>

In reality, export restrictions are increasingly being used by countries for a multitude of reasons, including encouraging value addition on raw materials.<sup>15</sup> Export restrictions are imposed to secure the availability, and lower the price, of input supply with the aim to support the domestic processing industry. These restrictions may come in the form of licensing requirements, taxes, quantitative restrictions or prohibition. While quantitative restrictions are currently prohibited, there are general exceptions for countries under certain legitimate objectives, such as environmental sustainability, public morale and public health. It is likely that the use of export restrictions would be increasingly constrained by multilateral rules and preferential trade agreements. The current agriculture modalities text in the Doha Round includes more disciplines on export restrictions. Developed countries, particularly the EU, have been pushing for disciplines on (if not the elimination of) export taxes in their trade negotiations with other developing countries (*Solomon Star*, 2012).

The Indonesian mining sector provides a concrete example of the use of export restrictions with the objective of stimulating value addition, and the complexities that came with it.<sup>16</sup> The sector, worth US\$93 billion, comprised 12 per cent of the country's GDP in 2011. Indonesia is the world's largest exporter of refined tin and nickel ore and a significant exporter of iron ore and bauxite. In May 2012, Gol issued a ministerial decree in support of the 2009 Mining Law. The Decree, among other things, imposes an average of 20 per cent export taxes on 65 types of raw materials excluding coal. The rate is expected to increase to 50 per cent next year, leading to a complete ban in 2014 barring some exemptions.<sup>17</sup> Gol introduced the regulations to stimulate the development of domestic downstream industry in the sector. However, the industry feels that the timeframe given was unrealistic. In anticipation of this regulation, businesses hiked up exports in the preceding months, resulting in a nosedive of exports in June. Major importers have expressed their concerns, and Japan had signalled the possibility of taking the case to the WTO.<sup>18</sup> In early November 2012, the Supreme Court annulled four articles of the ministerial decree, including one that would place a ban on exports (*Supriyatna & Jensen*, 2012). In response, Gol insisted that it will not change the policy on ore exports despite the ruling, and that it is currently preparing amendments to bring the decree in line with the Supreme Court decision (*Listiyorini & Rusmana*, 2012). The uncertainties surrounding these regulations highlighted the political difficulties of using export restrictions as a policy tool even if makes strategic sense. In addition to minerals, Gol also banned exports of raw and semi-processed rattan in late 2011.

In a real-life situation of less-than-perfect supply elasticity, export restrictions will result in an increase in the domestic supply of the commodities in question, and a fall in the domestic price. Because Indonesia is a major global supplier of some commodities, the use of small country assumptions shall be revisited. As a major supplier of certain commodities, any significant reduction in Indonesia's supply to the world market would place upward pressure on global prices, and the domestic prices could also increase, although by relatively smaller amount. An example of this is the palm oil export tax, in which any changes in the export tax on Indonesian palm oil will have significant impact

<sup>14</sup> Prohibited subsidies are those that are contingent on export performance. To qualify as subsidies, funding needs to meet three criteria—it needs to: 1. be provided by the government, 2. confer benefits, and 3. meet the specificity requirements.

<sup>15</sup> Export restrictions may also be imposed for other policy objectives, such as to raise government revenue, to protect food security and/or the environment, or to reduce price volatility.

<sup>16</sup> Some argue that it is an example of the reemergence of resource nationalism.

<sup>17</sup> The big companies holding mining business licences are exempt from the restrictions. This includes big players such as Freeport-McMoRan Copper and Gold and Newmont Mining Corp.

<sup>18</sup> While there is no binding WTO obligation as regards export taxes, quantitative restrictions/prohibitions are disallowed for both imports and exports.

on the global price and on the relative competitiveness of Indonesia's palm oil vis-à-vis Malaysia's as the other major supplier of the commodity.

Because supply is rarely fully price elastic, there would be a time lag before the intended effect of export restrictions can be felt, particularly if the domestic processing industry's existing capacity is insufficient to absorb the excess supply. In the short run, export restrictions will negatively affect the earnings of raw material producers and exporters, leading to a reduction in export earnings and export tax revenue. Opponents of export restrictions also warn of importers switching to alternative suppliers from other countries, and the difficulty of regaining these markets once lost. Over time, countries that manage to develop their value added industry are likely to diversify their potential markets. The markets for value-added goods are often different and broader than those for raw materials. Efficiently developed value-added industries may even compete in the same market with their previous raw material buyers.

In the long run, the artificially low domestic price would rise again as domestic absorption capacity increases. There is nevertheless a risk of value chain concentration in the hands of the few, particularly if entry barriers in the downstream processing industry are high in terms of capital, technology and skills requirements. However, this is a common problem of industrialization, one that is not specific to a policy to encourage domestic value addition.

Tariff escalation, a phenomenon whereby the tariff rate increases with the degree of processing, is sometimes used by importing countries wishing to develop or protect their own processing industry, and disproportionately so by developed countries. This is, however, a zero-sum policy, as it denies trading partners the opportunity to develop their own processing industries. Currently, there are few if any WTO rules on tariff escalation: the Doha Round attempts to address it (as well as tariff peaks) more substantially. This underscores the need to push for progress in the Doha Round. If Indonesia aims to deepen value addition in its exports, then the issue should also be given a priority in the different trade negotiations in which it is currently participating.

### 3.5 Sector-Specific Investment Measures

In GVCs, it is not possible to isolate production from investment. Investment, either by foreign or domestic firms, may be undertaken by firms wishing to specialize in the specific segment(s) of the value chain, to internalize other production functions, or to provide supporting services to value chain operations.

There are broadly four different types of investment: resource-seeking investment, market-seeking investment, strategic asset-seeking investment and efficiency-seeking investment. The most common GVC-driven offshore investment is efficiency-seeking investment. However, as a resource-rich country with a significant and growing domestic market, resource-seeking and market-seeking investments are also prominent in Indonesia. The types of investment are neither mutually exclusive nor static.

The objective of Gol should be to encourage investment into areas where policy objectives can be better achieved. These policy objectives can range from tax revenue, technological and skills capability building, employment generation, environmental and social sustainability, value addition and a combination of these; the list is not exhaustive. Sector-specific investment promoting measures are complementary, and are not substitutes for a sound general investment framework. They could take the form of tax incentives, specific skill development initiatives, specific infrastructure development, licensing requirements, market entry restrictions or other requirements including legal forms criteria. Two investment measures are prohibited under the WTO Agreement on Trade-Related Investment Measures (TRIMS): local content requirements and restrictions on the use of imported products.

A common pitfall in developing countries' investment policies is the inadequate attention paid to domestic investors, due to the old development doctrine of prioritizing Foreign Direct Investment (FDI). Today, domestic investors can contribute to the economy, although often from a much lower base. In the third quarter of 2012, domestic investment in Indonesia rose by 33 per cent, while foreign investment increased by 22 per cent (*Jakarta Globe*, 2012b). At the same time, foreign investment will continue to play an important role by offering valuable intangibles such as greater access to finance, new technology, international best practice and connectivity to international markets.

Sector-specific investment policy incurs costs, such as revenue foregone, the costs of developing sector-specific support infrastructure, the utilization of scarce expertise and implementation costs. Due to resource constraints, investment incentives should be focused on sectors that will generate the greatest development impact to the most vulnerable. In identifying the priority sectors, Gol should work in close consultation with local governments, the private sector, civil society, local communities and other development partners. Prior consultation is important in order to avoid, or at least minimize, unanticipated adverse effects on stakeholders.

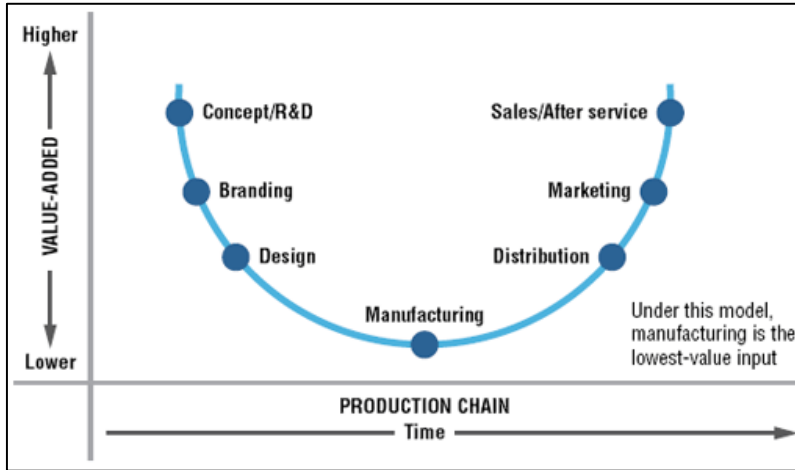
There are four possible ways to maximize value addition and job creation in the target value chain segments.<sup>19</sup> The first is to encourage investors to focus on the value-added components of the value chains. The second is to encourage investors to enter into adjacent activities to extend the breadth of the existing value chains and stimulate external economies. The third is to optimize the current value chain participation, perhaps by addressing identified market or government failures. Lastly, it is possible to target underdeveloped potential sectors, where Indonesia has the required endowments but for various reasons they have not been fully developed.

### 3.6 Trade-offs Between Value Addition and Other Policy Objectives

With regard to GVC participation, policy is often narrowly focused on the promotion of value addition. The underlying assumption is that value addition in itself is a good thing, which it is, all other things being equal. An area that remains under-explored is the possible trade-off between value addition and other policy objectives, particularly job creation, inclusivity and even income earnings. The reason for this could be the technological specificities of different value chain activities. While value addition facilitates learning and technological capability building in the domestic industry, the additional impact on job creation and inclusivity may be negative, as production activities become more capital, technology and skill intensive. Hence as a firm moves to value-adding activities, it may marginalize those without the required endowments or capabilities.

The figure below illustrates activities in the production process and the corresponding value they generate (Figure 3). Activities that generate higher value addition are located at either end of the curve, and involve mostly services instead of manufacturing activities. These activities are more capital, skill and technology intensive, and hence less likely to generate employment for low-skilled workers, or may not have low enough entry barriers for smallholders (which developing countries have in abundance) to participate. In other words, economic upgrading does not automatically result in social upgrading, and may even come at the expense of it. While the costs of technology acquisition have been falling, it will only confer optimal benefits if the firms have the requisite technological capabilities. This will be elaborated under the next research question.

<sup>19</sup> Inter-Agency Working Group on the Private Investment and Job Creation Pillar of the G20 Multi-Year Action Plan on Development (2011).



**FIGURE 4: STAN SHIH'S "SMILING" CURVE**

Source: <http://www.dec-ced.gc.ca/eng/publications/economic/studies/2012/268/page-3.html>

One way to address the trade-off between economic upgrading and social upgrading is by building the domestic linkages to optimize value addition and jobs creation in activities that are linked to the particular segment of the value chains. This way, it would be possible for some firms to move up to more technology intensive activities, while others remain in the labour-intensive parts of the value chains. The possibility to do this is higher in a large, heterogeneous economy like Indonesia.

## 4.0 GVC Participation: Policy considerations surrounding external governance

External governance of a value chain is defined as the factors or actions that were not directly intended to, but did, affect the allocation of resources and relationship along a specific value chain. Its common omission from value chain analysis ignores the reality that GVCs do not exist in a vacuum but are embedded in the localities they touch down upon. External factors that commonly affect the way GVCs are shaped and organized range from non-sector specific (horizontal) policies, such as general trade and investment regime, supporting conditions (i.e., factor markets, infrastructure and services), to the governance of other value chains that have impact by way of complementarity, substitutability or price effects.

This section highlights some of the main factors affecting external governance as follows: factor markets (labour), trade and investment regime, services, connectivity and contract enforceability. The list is non-exhaustive, but these were selected based on the potential for policy leverage.

### 4.1 Labour Markets

Labour is integral to the systemic competitiveness of a value chain through several channels: as a key factor of production, through the provision of the requisite skills, and by determining the sustainability of the chains.<sup>20</sup>

As a factor of production, labour costs feed into the competitiveness of a value chain. Capital, by nature and by regulation, is more mobile than labour. In the face of high labour costs, over time firms may decide to operate from a comparatively cheaper location or reduce labour intensity through automation.<sup>21</sup> At the same time, factors of production are not fully substitutable, for socioeconomic and political reasons.

Indonesia's economic growth has driven up living costs, which has in turn increased demand for a rise in the minimum wage. In November 2012, the minimum wage in Jakarta was increased by over 40 per cent, generating concern from businesses and prompted workers across the country to demand the same. This demand is likely to persist, and Gol has to balance justified wage increases with improving labour productivity and the stability of the labour market.

Skills shortage is a common impediment to competitive GVC participation in many developing countries. The skill-intensive parts of production process generate higher value. They are also more tacit, in that capabilities are built upon accumulated learning and experiences. This prevents lead firms from changing their sourcing strategy on the basis of costs alone; providing greater business and job certainty. The quality of the labour force is critical to move up to high value-added activities. A proactive education and training policy should be an integral part of GVC participation strategy. Industries and academic and training institutions should move in tandem to ensure a better match between skills supply and industry demand. Vocational training should be given the attention it deserves, as it can significantly contribute workforce with the practical work-ready skills required in the market.

<sup>20</sup> The latter underlies the assumption that labour is different from other commodities by recognizing that labour markets are also determined by social and political norms and relations beyond commercial ones (Juliawan, 2010)

<sup>21</sup> During the labour protests in Indonesia demanding a ban of outsourcing, the representative of the Employers' Association of Indonesia (APINDO) was quoted on the radio threatening the replacement of workers with machineries should such strikes continue to disrupt businesses in the future. Another threat from the business community, particularly the APINDO, was that some of their members were thinking of moving elsewhere outside Indonesia.

In many developing countries, including Indonesia, the base of high-skill labour is often small. A narrow focus of GVC participation in skill-intensive activities, aside from the fact that this is probably unachievable by many, can marginalize the majority of the workforce and increase firms' dependence on externally-sourced skills, at least in the short run. The less skill-intensive parts of GVCs (like assembling), often serve as entry points for low-skilled workers, providing much-needed income. The objective is to balance the static comparative advantage in abundant low-skilled workers with dynamic capacity building efforts to avoid being locked into a low-order growth trajectory.

In February 2012, 59.21 per cent of Indonesia's working population aged 15 and above had only primary school education or lower. The share of those with junior high school education was 17.99 per cent, senior high school 15.25 per cent, vocational high school 8.56 per cent, diploma/academy 2.76 per cent, and university education 6.43 per cent (Badan Pusat Statistik, 2012). However school enrolment rates are still low by regional standards and improving the quality of Indonesian education remains a challenge. Skills shortages are prevalent and are likely to worsen due as the industry sector increases their skills requirements. The current unemployment rate is highest among those with senior high school education (10.34 per cent) and lowest for primary school and below (3.65 per cent). The unemployment rates of those with junior high school, vocational high school, diploma/academy and university qualifications were all above the average of 6.42 per cent. These numbers are likely to be underestimated because a high number of workers are in the informal sector. The high rates of unemployment calls for a reform of the education system to ensure a better match between the teaching and training at the Indonesian educational institutions and industry requirements.

Workers recently took to the streets demanding a higher minimum wage, access to social security and a ban on outsourcing. Under outsourcing arrangements, firms hire contract workers through private employment agencies on short-term basis, and pay a daily wage, often without benefits. Outsourcing is estimated to provide employment to 16 million people, almost 40 per cent of Indonesia's 41 million-strong formal workforce. Outsourcing lowers the cost of employing and releasing labour, and hence allows businesses to more efficiently respond to fluctuating demand (Evani et al., 2012). The Labour Law of 2003 includes provisions that open up possibilities for outsourcing, prompting many businesses to replace permanent or long-term contract workers (whom they employ directly) with contract workers. However, this comes at the expense of those contract workers, who are faced with lower job security, often no access to other benefits, and at times have to pay management fees to the private employment agencies out of their minimum wages (Juliawan, 2010). The main problem is law enforcement. Following the strikes, Gol has committed to prohibiting companies from outsourcing their core jobs. This is, in fact, something already prohibited by the 2003 Law, but which in reality many companies do. Industry representatives have voiced their need for more flexible rules on outsourcing to remain competitive, and have been threatening to walkout of tripartite discussions when they feel that their views are not taken into account in the government decisions. However, the worsening of workers' welfare when their contracts are made non-permanent is a real issue to be addressed. The applicability of minimum wage requirements and other benefits to contract workers also remains unclear. To address these, Gol would need to clarify labour policy, prioritize law enforcement and enhance regulatory transparency (*Jakarta Globe*, 2012a).

More workers' protests have also taken place in regard to the implementation of social security law. The relevant laws have in fact been in place for quite some time (2004 and 2008, respectively) and the latest one introduced in 2011 on Social Security. Implementation has, however, been painstakingly slow, and no details have been put out with regard to the allocation of responsibilities between workers and employers. The conjecture about a 2 per cent contribution from workers is deemed burdensome for those at the lowest end of the pay scale.

Gol needs to prioritize the enforcement of, and coordination between, the different laws and regulations on labour. More public consultations and awareness are required. Genuine workers' grievances should be addressed—not only to minimize future incidents of workers' protests, but also because a productive workforce and a stable labour market is a source of comparative advantage in GVC participation. The long-term mutual interests of workers and firms in the form of business sustainability need to be cultivated. The benefit may be further enhanced by evolving consumer preferences, where a premium is placed on sustainable sourcing practices of multinational firms, including through fairer compensation to workers.

## 4.2 Trade Regime: Transforming market access into value chain competitiveness

A country's trade regime can be a source of comparative advantage in GVC participation. The preferential unilateral access that an economy enjoys in key external markets, or from being party to a free or preferential trade area, could boost its competitiveness in performing specific value chain tasks. An example of this was how a number of countries in Africa were able to attract investment in their garment industries from third countries because of the preferential access to the U.S. market under the African Growth and Opportunity Act (AGOA). Note, however, that market access is but one of many factors contributing to a country's competitiveness in GVC participation.

In multilateral trade negotiations, one major area of contention is agriculture. The world agriculture market is still highly distorted, with tariffs averaging 62 per cent, more than double that of non-agriculture products. The sector also accounts for more than two thirds of all trade-distorting policies, 80 to 90 per cent of which come in the form of tariffs and tariff rate quotas. As a commodity-exporting economy, Indonesia should continue to push for a multilateral deal in agriculture using its growing global presence.

Market access, however, does not automatically confer benefits. Even as tariffs have been falling, NTMs have not fallen—and in some cases have actually increased. The use of NTMs is allowed for legitimate objectives under the WTO as long as they do not go beyond what is least trade restrictive. However, developing countries often do not have the capacity to prove otherwise when faced with unjustified NTMs of their trading partners. Taking advantage of market access is made harder by regulatory divergence in the qualifications, testing procedures and so on. Enhancing transparency and harmonization of regulations, and addressing the issue of equivalence and mutual recognition shall be prioritized in the trade negotiation agenda.

Gol should put these issues at the forefront of current negotiations and in the review process of existing ones. Detailed consultations with exporters are imperative in getting a clear understanding of the real barriers faced in exporting. Often the impediment to exports may be identified from within the country of exportation, and, in such cases, Gol should prioritize addressing the identified problems.

In the case of preferential market access, there is also the issue of stringent rules of origin (RoO). When the requirement for a product to qualify for preferential market access is too onerous, the costs of compliance might more than offset the preferential margins. This may lead to exporters choosing to forego the preferential margins by exporting under most favoured nation (MFN) arrangements, resulting in a low utilization rate and undermining the effectiveness of the preferential trade agreement. At the same time, RoO that are too lenient may lead to trade deflection, which would also undermine the common objectives of parties to the agreement. This is in fact the argument that is often used by proponents of multilateralism against preferential trade agreements.



RoO negotiations have recently been moving towards product-specific rules. Critics have pointed that this trend is happening to the disadvantage to the developing countries, which have less experience in negotiating, developing and administering the full schedule of product-specific rules. In this situation, close dialogue between the private sector and the relevant authorities, as well as consumer groups is imperative, as the negotiating positions of parties would need to be defined at a very detailed level. Having too many preferential trade agreements with different rules of origin might however result in the so-called “spaghetti bowl” effect<sup>22</sup>. The task of Gol is to negotiate for RoO that strike the right balance and that would best support the development of the value-adding industry in Indonesia. At the same time the capacity of customs administrations in administering RoO (including verification capacity and the capacity of exporters in meeting the RoO administrative and technical compliance) will need to be continually strengthened.

Last but not least, the broadening of the agenda of trade negotiations is a trend that Gol must closely follow. Traditionally, trade negotiations were conducted around the opening up of market access through tariff liberalization. Over time, the agenda has expanded to cover areas such as trade in services, trade facilitation, investment, competition, development cooperation, sectoral cooperation and so on. GVC participation and growing trade in intermediates calls for a rethinking of how to define offensive and defensive interests in trade negotiations (Ciuriak, Lapham, Wolfe, Collins-Williams, & Curtis, 2011). Greater attention must be given to these issues.

All the above reiterates the fact that trade negotiations are a highly complex arena. Gol should continue to ensure that Indonesia has a strong, highly capable cadre of trade negotiators. Building the technical capacity of the negotiators, beyond economic diplomacy, should be given a priority. The effort to strengthen trade negotiation capacity has to start early from the academic and training level. To date, international trade has not featured strongly in the curriculum of Indonesian universities. The University of Gajah Mada appears to be one of the few that offer a specialized degree on the subject. The establishment of the Center for World Trade Studies in 2010 (at the same institution that looks at, among other things, GVCs) is also a commendable start. While much of its work is currently focused on the academic, Gol can benefit from more collaboration with this and also other similar institutions.

Indonesia should optimize the opportunities arising from being located in the world’s most dynamic region. It has been shown that GVCs are essentially regional in nature, with East/South East Asia being one of the competitive region of value chains in the world. Further, Indonesia should also develop a strategy for engaging with the non-traditional markets, such as Africa, Latin America, Central Asia and the Pacific Islands through trade and economic partnership arrangements. There is already some evidence of this, but Gol should also ensure that the approach is comprehensive instead of piecemeal (Yulisman, 2012b). Tariffs in many of these markets remain high, while future market growth is promising, particularly as many of these economies are also parties to wider free trade or preferential trade arrangements and have growing middle classes of their own. Like Indonesia, these economies also aspire to develop their own domestic industries, and this aspiration should be accommodated in the negotiations. Because Indonesia is increasingly seen as a new economic powerhouse, an asymmetry of commitments might be expected in the negotiations by these countries. The objective should be to think in the long term, both in terms of current and future trade and investment interests. With more similar level of development and better mutual understanding of development challenges, the opportunity for South-South cooperation and intra-industry trade is huge. Indonesia could set the bar if it can prove that the pursuit of trade and economic cooperation agreement is not necessarily a zero-sum game.

<sup>22</sup> The “spaghetti bowl” effect refers to the complication that arises from signing up to different preferential trade agreements, so the same commodity would be subject to different rules of origin, tariffs and tariff reduction trajectories across trading partners.



### 4.3 General Investment Regime

GVCs are shaped by transnational firms' decisions on where and how to locate investment (vertical integration), source inputs, and sell their products and services. These decisions consequently influence global trade and investment patterns. The role of private investment in economic development is linked to job creation, capital, skill and technology transfer, spillover effects to the wider economy and the broadening of the tax base. The type, size and pattern of investment can have varying impacts on the domestic efforts to build productive capacity and competitiveness, inclusivity of SMEs, and the well-being of workers and the wider society.

As countries around the world compete for investment, proactive efforts and strategies are needed to attract investment. At the very least, sound general conditions for investment should be in place, including the legal and regulatory framework, supporting institutions and processes. Certainty, through transparency of process and consistency of policy directions, is highly valued by investors, particularly foreign investors who are less familiar with Indonesia's institutional and regulatory framework. In GVCs, uncertainties reduce chain sustainability, as disruptions in any part of the chain will affect the rest of the production process.

The new Investment Law of 2007 marked a significant step forward by the Indonesian Government to improving the investment climate. The law enhances transparency and provides protection for foreign investors in terms of national treatment, protection against expropriation, and recourse to international arbitration in the event of a dispute with the government. The law sets out the guidelines for investment incentives, an institutional arrangement to administer investment projects, and a list of obligations or responsibilities for investors. In a general sense, the law signals Gol's commitment to an open and transparent investment regime. The support of effectively functioning and implemented regulations is needed for the law to be operational (Otsuka, Thomsen & Goldstein, 2011).

A priority area to be addressed in the Indonesian investment regime is the existence of inconsistencies between national and sectoral policy, and between national and subnational policy. These inconsistencies undermine Gol's effort to provide business certainties to—and hence gain confidence from—investors.

An example of inconsistency between national and sectoral policies with regard to the investment negative list was the prohibition of foreign equity participation in owning and managing telecommunication towers, a prohibition introduced by the Ministry of Communication and Information in 2008. This sector was not listed in the original negative investment list introduced by the Government in 2007 alongside the new law. The list is meant to be the definitive list for investors and potential investors that seek to find out sectors where foreign investment is either prohibited or restricted. While this inconsistency was later rectified in the revised negative list in 2010, such ad hoc ex-post measures would still create uncertainties. It would better if transparent review procedures for the negative list, supported by participatory consultation mechanism, are incorporated into the regulations. Such a process, once set up, should be adhered to in any review of the sectoral policies that would affect investment.

Indonesia's move towards decentralizing investment-related policies is aimed at reducing bureaucratic red tape and making investment more responsive to regional needs and priorities. However, the unintended consequence is increased uncertainties and inconsistencies for investors, because subnational policies at times contradict national ones. This is partly due to the varying capacity of local authorities to formulate, implement and enforce the regulations, and the lack of a framework (or weak implementation of such a framework) to coordinate investment policies at all levels of government. Decentralization efforts, when not properly managed, might even result in a proliferation of taxes or levies on business activities at the subnational level.

To promote investment in value-added activities and improve the general investment climate in Indonesia, these inconsistencies should be addressed, and so should any overlapping and/or contradictory laws and regulations. A systematic mechanism to develop, monitor, evaluate and review any laws and regulations relating to investment is needed, and it needs to be based on a whole-of-government approach, with oversight from the Investment Coordinating Body (BPKM). Under the current Medium-Term Development Plan (2010–2014), GoI, led by the State Ministry for National Development Planning (Bappenas), plans to conduct a comprehensive regulatory review to inventory, review and simplify laws and regulations at all levels of government. This effort, if successful, will build on the current momentum of high investment flows.

#### 4.4 Services

The services sectors plays two key roles in GVCs: by connecting each point along the GVCs and by constituting their own GVCs. In 2011, it was estimated that services accounted for 24 per cent of gross global trade, and double that in value added terms (Low, 2012). Embedded services may be found to account for as much as half of world trade (Stephenson, 2012). The WTO estimates that services will account for half of global trade by 2020.

Bank Indonesia estimated that services contributed just under half of Indonesia's GDP,<sup>23</sup> far more than agriculture (15.42 per cent), mining and quarrying (11.41 per cent) and manufacturing (23.87 per cent) (Bank Indonesia Statistics, n.d.).<sup>24</sup> Since the middle of 2000, services have employed more workers than any other sector, and in 2010 provided just under half of overall employment. The value of services output grew almost twice as fast as other key sectors, and employment has been increasing more than in the agriculture, manufacturing and mining sectors.

Services inputs accounted for approximately 16 per cent of the value of Indonesia's exports. A large share was domestically produced; only a small part (less than 2 per cent) was imported. Dynamic services sectors are therefore needed to competitively participate in GVCs. However, Indonesia records a significant deficit in services trade, with imports twice the size of exports. This could, however, be partially attributed to problems of data measurement, including the omission of embedded services in goods exports. While contributing to just a small share of trade,<sup>25</sup> services exports are labour intensive; accounting for just under a fifth of total jobs created from overall exports, but up to 7.1 million jobs in total services related to all exports. This is more than all jobs created in the manufacturing sector and second only to primary industry (Manning & Aswicahyono, 2011).

Indonesia would benefit from having a more proactive strategy on trade in services. The Ministry of Trade seems to have acknowledged this, and efforts are now underway to develop an overarching strategy on service trade and investment. This initiative will help the rest of the government to realize the important contribution of services trade to the Indonesian economy. The complementarity between the production and consumption of goods and services provides numerous avenues for the development of services sectors. The state of development of the tourism sector in Indonesia, for example, is still far below its real potential, despite the numerous comparative advantages the country has in terms of nature, history, culture and costs. It is also a sector that would have strong domestic linkages to other sectors, such as arts and crafts, food and beverages, transportation, entertainment, and the health and well-being sector. Further, the high labour intensity in services means that enhancing participation in services GVCs or strengthening can be an effective policy tool for employment generation.

<sup>23</sup> The share differs from that in page 9, as it is here presented in gross instead of value-added terms.

<sup>24</sup> Services represented 49.37 per cent of GDP in the third quarter of 2012, broken down as follows: 11.81 per cent in trade, hotels and restaurants; 10.44 per cent in construction, 7.19 per cent in finance, lease and business services; 6.69 per cent in transportation and communication and the rest (10.44 per cent) in other services.

<sup>25</sup> 6.25 per cent of GDP in 2011 (World Development Indicators).

## 4.5 Connectivity

Good connectivity is imperative in GVC participation for two reasons. First, fragmented production processes require that countries have good connectivity to effectively link themselves to GVCs and to optimize the gains from GVC participation through the creation of domestic linkages. Second, trade in intermediates underscores the importance of timeliness in trade as a source of systemic value chain competitiveness (Gamberoni, Lanz & Piermartini, 2010).

A country's connectivity can therefore be a source of comparative advantage in GVC participation. It covers not just transportation system but also logistics system and information and communication technology (ICT) infrastructure. The quality of infrastructure in Indonesia has been ranked as the second lowest in Asia ahead only of the Philippines (Purwanto, 2012). Indonesia came 87th in a survey of 92 countries as other Asian economies were ranked well ahead.<sup>26</sup>

The ability to source and deliver components and parts in a timely manner determine cost competitiveness as inventory hold-ups significantly increase production costs. The ability to seize market opportunities in time-sensitive sector also depends on the suppliers' response time to consumer demand, and to identify and address any value chain bottlenecks (Gamberoni et al., 2010).

It is not only the time to export that matters. As import content of exports increases and task specialization deepens, the ability to timely source imported intermediates is also equally important. Indonesia performs better in export facilitation than in import. Indonesia's median lead time to export was 2.1 days in 2010, an improvement from 2.5 days in 2007 and compares favourably to the average of developing Asia Pacific economies of 3.6 days, including China (2.8), India (2.3), Malaysia (2.6) and Thailand (1.6). However, Indonesia's median lead time to import was significantly longer at 5.4 days, a worsening off from 4.7 days in 2007 and longer than the average of developing Asia Pacific economies of 4.9 days. It is also considerably longer than (2.6), India (5.3), Malaysia (2.8) and Thailand (2.6) (World Bank Doing Business Indicators, 2012). Most recently, Gol has announced its plan to reduce the time at ports down to 4 days.

While there has been recent improvement in air transport in Indonesia, seas transportation has only been slowly expanding and overly regulated. A big disadvantage as Indonesia is an archipelago. The growth of road transport in the meantime has been moderate. The greater focus on both road and seas transport in the MP3EI is an encouraging development.

Last but not least, the use of ICT in Indonesia, whilst improving, is lagging far behind other countries in the region. In 2011, 18 out of 100 people in Indonesia were internet users, more than triple the 2007 figure, but pales in comparison to China (38.4), Malaysia (61) and Thailand (23.7). The figure for fixed broadband subscribers was even lower at just 1.13 per 100 people, compared to 11.61 (China), 7.44 (Malaysia) and 5.38 (Thailand).

Gol has recently reinvigorated its commitment to address connectivity issues, from a more than doubling of state budget allocation on infrastructure spending between 2009 and 2011<sup>27</sup> to regulatory reform on infrastructure regulation and development (Raharjo, 2012)<sup>28</sup>. Gol is also encouraging greater Public Private Partnership (PPP) in

<sup>26</sup> China came 69th, Thailand 49th, India 87th, Malaysia 29th while Singapore was ranked second of the list.

<sup>27</sup> Although the relative share of infrastructure spending remains low at less than two per cent of the country's forecasted GDP for 2013, overshadowed by the share of fuel subsidies at three per cent.

<sup>28</sup> Law No. 38/2004 on Roads and Toll Roads, Law No.23.2007 on Railway, Law No.17/2008 on Sea Transportation and Port, Law No.1/2009 on Air Transportation, and Law No.22/2009 on Road Traffic and Land Transportation. Law No 2/2012 on Land Acquisition for Public Interest.

infrastructure development pursuant to Presidential Regulation No 13/2010<sup>29</sup>. Further, Gol launched the Multimode Transportation Blue Print in 2010 and National Port Master Plan in June 2009. The National Single Window (NSW) Initiative was set up in 2010 pursuant to the ASEAN Single Window Agreement<sup>30</sup>.

Strengthening national connectivity was expressly listed as one of three main pillars of MP3EI. The plan aims to address connectivity in a holistic manner through an integrated system of national logistics, national transportation system, regional development, and communication and information systems. Six economic corridors are proposed for Sumatra, Java, Kalimantan, Sulawesi, Bali, Nusa Tenggara, and Papua - Maluku Islands to connect these regions with one another and with the external markets.

These Gol-led efforts to improve connectivity are perhaps the most important policy move to date to enhance Indonesia's GVC participation. The demonstrated commitment has won the support of key development partners including the Asian Development Bank (ADB) and the World Bank<sup>31</sup>.

In addition to actions by Gol, efficient provision of these services by the private sector in the market also needs to be ensured. As competition intensifies and customers demand evolves, the chains that connect the GVCs i.e. transportation and logistics need to be efficient. To remain competitive, manufacturers or service providers in GVCs would increasingly have to focus in their areas of core competence. They need to be supported with an efficient transportation and logistics sector to obtain systemic competitiveness. Modern logistics services have continued to evolve to meet the increasing demand from the GVCs, through innovations in containerization, intermodal transport and the application IT in physical distribution and materials management (Memedovic et al., 2008). It is important for Indonesia to have access to efficient services as the costs of anything less will be detrimental to many other sectors. Gol should consider carefully the level of competition in the sector as inefficiency in this area will have significant impact on Indonesia's overall participation in GVCs.

A number of major global logistical companies have demonstrated their mastery of advanced supply chain services. Their core competence often goes beyond transportation and logistics to include the orchestration of the GVCs, and their strength often lies in tacit local knowledge in the sourcing countries. These companies have started to form another genre of 'lead firms' as global suppliers<sup>32</sup>. Global suppliers and their role they in GVCs are still relatively under studied and would warrant further research to be undertaken.

## 4.6 Contract Enforceability

The quality of contractual institutions, and subsequently contract enforceability, can also be a source of comparative advantage in GVC participation. The importance of contract enforceability can be attributed to three factors. First, production processes in GVCs involve multiple companies that are spatially dispersed. This necessitates effective use of contracts to legally manage the relations between these companies. Secondly, knowledge-intensive tasks require more complex contracts to prevent unintended 'leakage'. Studies have shown that countries with better legal system have relatively higher exports in contract-intensive sectors (Van Assche, 2012). Thirdly, customized goods

<sup>29</sup> PPP is estimated to contribute 29 per cent of US\$155 billion infrastructure investment required for 2010-2014.

<sup>30</sup> The NSW is a system that provides for single submission of data and information, single and synchronised processing of submitted data and information and single decision making for customs release and clearance of cargo.

<sup>31</sup> ADB provided Indonesia with a US\$300 million programme loan to improve domestic and international connectivity. It is the goal of the programme to reduce infrastructure gaps within Indonesia and strengthen linkages to poor, rural areas to support sustainable and inclusive growth. The World Bank has also approved US\$100 million loan to support Gol in its efforts to improve connectivity.

<sup>32</sup> An example of such companies is Li & Fung, a Hong Kong-based global trading group focusing on time sensitive consumer products. It is among the biggest suppliers to some of the world's top retailers such as Wal Mart without actually owning any production facilities.

or services attract higher value but customization requires higher ex-ante investment. Investors place a premium on business certainties, and contract enforceability is a key consideration in making major investment decisions. In fact the costs of producing customized products decrease with contract enforceability (Gamberoni et al., 2010).

Currently there is much room for improvement in Indonesia's relative performance on contract enforceability. In 2011, Indonesia ranked 144 out of 185 countries in contract enforceability, significantly lower than other Asian economies including Hong Kong (10), Singapore (12), China (19),<sup>33</sup> Thailand (23), Malaysia (33) and Vietnam (44) (World Bank Doing Business Indicators, 2012). More specifically, Indonesia seems to perform very poorly in terms of the costs of contract enforcement where the costs of court and attorney fees represented 139.4 per cent of the debt value, among the highest of the 185 countries on the list. If Indonesia wishes to "move up" the value chain through a greater focus on such tasks, improving the quality of its judicial systems must be an integral part of such strategy.

---

<sup>33</sup> Subnational data.

## 5.0 Technological Capabilities for Upgrading: Innovation systems and sector specificities

The discussions around governance highlight areas for policy considerations on matters that are primarily external to the domestic firms participating in GVCs. The last section of the paper focuses on matters that could be internalized by the firms. Whilst the main policy concern relating to GVC participation is national competitiveness, the main actors involved in upgrading are the firms, which themselves are heterogeneous entities. In GVC literature, domestic firms upgrade as they access the technology, skills and knowledge that are made available to them from participating in GVCs, usually by the lead firms.

Existing GVC literature focusses mostly on whether and how upgrading takes place under different forms of value chain governance. Findings from empirical studies show that upgrading assistance provided by global buyers is often limited by conflict of interests, as buyers are reluctant to assist or allow suppliers to upgrade to their higher-value areas of core competencies. So, if the global buyers are processors in the downstream industry, domestic suppliers might be assisted in product and process upgrading, but not in functional or chain upgrading. Other studies differentiate the upgrading outcomes of supplying to the developed country markets vis-à-vis domestic or regional markets and suggest that, while typically more assistance in product and process upgrading was received in the former, incidence of functional upgrading was found more in the latter as the relations between suppliers and buyers are less captive.

However, upgrading is not an automatic process, and lead firms (global buyers) are not the only source for learning. GVC literature is often silent on the fact that before firms can make use of the learning opportunities to upgrade, they need to first have the learning capacity. These are referred to as technological capabilities. These would allow for learning opportunities to be effectively seized by the firms, but they in turn need to be developed and continuously enhanced (Morisson, Pietrobelli, & Rabelotti, 2006).

In the context of GVC participation, the term technological capabilities should not be interpreted in the narrow sense, but should also extend to the organizational (i.e., coordination, managerial, institutional capabilities), which are often more difficult to achieve. A firm participating in GVCs may “upgrade” by tapping into new markets or using alternative, more efficient, inputs without necessarily employing new technologies. While this may not fit into the conventional value chain upgrading taxonomy, this firm “upgrades” by diversifying its market or sourcing strategy, hence reducing the risks in GVC participation. All these capabilities will contribute to the adoption, adaptation and modification of technologies and knowledge required for value chain upgrading.

The outcomes of the firms’ learning efforts would be affected by the context in which learning is taking place. Firms can better develop technological capabilities in a place with strong national and subnational systems of innovation, defined as the flow of technology and information among people, enterprises and institutions that facilitate innovation which is key to the domestic firms’ competitiveness.

This is the juncture between GVCs and the Innovation System (IS) literature, where GVC participation and IS are mutually reinforcing (Pietrobelli & Rabelotti, 2011). Firms participating in GVCs are stimulated to learn by the requirement to meet external market standards and the assistance they receive and interaction with other value chain actors, particularly the lead firms. Firms located within an efficient IS would cope better with the complexity of transactions in GVCs and benefit from the knowledge spillover from the interaction of actors in the systems. So what can a government do to ensure that its national system of innovation is efficient in a world where production process is globalized?

## 5.1 Towards an Effective National System of Innovation

A critical point that has been mentioned earlier is the need to make sure that the education and training system in Indonesia is responsive to industry needs. Sustained effort in strengthening the skill base of the workforce is perhaps the most important component of any country's technology development policy. Without a critical mass of the required skill pool, other measures will be futile.

Responsiveness between the education and training system and industry is not just essential in terms of skills and workforce development but also for knowledge and technology development and dissemination. The public and private R&D rates in Indonesia are very low by global or regional standards. In 2009, Indonesian R&D expenditure (both public and private) accounted for only 0.08 per cent of its GDP, much lower than the developing East Asia and Pacific economies' average of 1.47 per cent (World Development Indicators, n.d. Gol should therefore seek to support R&D efforts in priority sectors in accordance with its development strategy. This could be done either through supporting R&D activities to be undertaken by universities or other government research institutes that are not tied to firms, or by supporting R&D to be undertaken within the firms themselves. The latter might, however, be constrained by Indonesia's WTO obligations on subsidies, and in any case needs to be supported with well formulated eligibility and evaluation criteria if this involved providing financial support to firms.

Gol has demonstrated commitments by identifying the strengthening of national human resources capability and science and technology as one of the three pillars of MP3EI—the challenge is to implement this effectively. Gol needs to support and facilitate interaction and networking between universities, research institutes, industry and other relevant partners, regardless of where R&D is being undertaken. Studies have shown that successful industries are often found supported by close interactions with universities or research institutes. The interaction goes beyond merely conducting research to also include information dissemination, training and problem solving (Nelson, 1992). Activities and initiatives such as industry-specific dialogues or conferences, science competitions, internships or work placements, tendering of research projects to universities/research institutes, joint R&D, joint publications, information sharing platforms, and personnel mobility should be encouraged.

Last but not least, it is important not to narrowly link the acquisition of technological capabilities to the eventuality of downstream upgrading or the move to higher technology industry. The deepening of technological capabilities may not necessarily entail these. It is important not to undervalue other forms of learning. Firms may deepen their technological capabilities horizontally (that is, within their current value chain function) without moving to downstream activities. In many cases, due to capital and other constraints, it is simply impossible for the smallholders to move down (or up) to the next node in the value chains. Similarly, there has been no evidence that national economies are broadly more advantaged if their firms are focused on high tech than if they are not (Nelson, 1992). This is a reminder of the importance of R&D in primary industries such as agriculture and minerals, especially for countries like Indonesia, which is well endowed with the relevant resources.

The last section of this paper deals with the fact that within a national system of innovation there is no one-size-fits-all approach to different industries and sectors.

## 5.2 Sectoral Specificities of Learning Processes for Upgrading

The source and process of learning for value chain upgrading differs across sectors. This difference is due to heterogeneity in the technological source, depth and complexity. The building of firm-level technological capabilities therefore takes place not just within the context of a national or subnational system of innovation but also sectoral



systems of innovation. Frances Malerba (2002, p. 248) defines a sectoral system as “a set of products and the set of agents carrying out market and non-market interactions for the creation, production and sale of those products.”

The pattern of innovation in a particular sector is the outcome of its technological regime. A technological regime is in turn determined by the particular combination of technological opportunities, appropriability of innovations, cumulativeness of technical advances and properties of the knowledge base (Breschi, Malerba, & Orsenigo, 2010). In some sectors, technology might be embedded in capital goods; hence, close interactive relations with input suppliers would be an important source of product and process upgrading. In others, it might be in the marketing strategy, which would place more emphasis on the relations between suppliers and their global buyers. In some sectors, like agriculture, due to the low appropriability of innovations, the learning process may require prompting by public and other external institutions, such national R&D institutions, universities or development partners to spearhead innovation instead of individual firms’ efforts. In others, industry associations may play an important role for learning and upgrading and disseminating innovation.

The technological specificities of the different sectors would affect the length and strength of the GVCs. The easier it is to “slice” the tasks along the chain, perhaps due to modularization through standards or technological progress, the longer the chain would be. On the other hand, the more “sticky” the tasks are to the location (i.e., in terms of capital and skill requirements), and the stronger the domestic linkages, the shorter the chain is likely to be. The more complex or tacit the specific tasks are (i.e., the less codifiable or modular), the stronger the relations between suppliers and buyers. This is particularly true where the costs of switching suppliers are high due to a limited supply of capable suppliers. In this case, we can expect global buyers to be more heavily involved in upgrading the capacity of their input suppliers. On the other hand, if the tasks are simple, or can be easily codified, or can easily be performed by other suppliers, then the relations between buyers and suppliers would be more market based.

The role that can be played by Gol in strengthening the sectoral systems of innovation depends on the sectors involved. The choice of sectors would in turn depend on its policy objectives. These objectives could be economically or socially driven, or both. For example, Indonesia might wish to target upgrading in sectors that are more knowledge intensive; where it has comparative advantage in terms of resource endowments; or that are deemed to have the greatest developmental impacts, perhaps through employment and linkages to the domestic economy, such as agriculture and tourism.

The details of what needs to be done in each sector are beyond the scope of this paper. However, more in-depth analysis needs to be conducted on the priority sectors or even subsectors, particularly on their sectoral systems of innovation and value chain upgrading patterns. These studies need to be undertaken because the conditions required to facilitate learning in the different sectors would differ across countries for a number of reasons, some pertaining to the sectors (or industry) and others to the countries (Malerba & Nelson, 2011).

The detailed mapping of the value chain and the sectoral systems of innovation will inform the leverage points of intervention that can be considered by Gol to facilitate, support and speed up the upgrading process in GVCs. The main elements of sectoral systems of innovation that need to be assessed are: actors, knowledge base, institutions, government programs and policies, and specificities of the dynamic catching-up processes.

Actors that are involved in the sectoral systems of innovation go beyond simply the producing firms, to include buyers (direct consumers and industrial users, both current and potential), upstream suppliers (physical input and complementary services), universities and other research institutes, firms’ in-house R&D units, industry associations, financial institutions, development partner and the public sector. One advantage of the sectoral systems of innovation is that it allows the analysis to capture more stakeholders than a conventional value chain mapping exercise.



There are a number of sources of knowledge that base innovative activities in the different sectors, from the R&D efforts in universities and public laboratories, firms' in-house R&D, suppliers of complementary products or services to international standard bodies. The effectiveness with which firms can access them depends on the interaction and relations with these sources of knowledge and the firms' technological capabilities.

Last but not least, institutions will regulate the way firms act and interact with each other and with other actors, in an industry and along the value chains. Institutions range from rules, laws, codes of practice, standards, norms, to the intellectual property regime. Some institutions are binding, while others more interactive and informal in nature. Some could be national in scope while others sector specific. Where the institutions in place are better developed for, and fit to, specific sectors, innovation and learning in that sector would be better facilitated.

## 6.0 Conclusions

The proliferation of GVCs and growing trade in intermediates call for a paradigm shift in how trade policy should be considered. Like many other nations, Indonesia aspires to improve its position in GVCs by moving towards higher value-adding activities. This paper argues that while there is scope for policy intervention to enhance GVC participation, this needs to be done in a holistic and coherent manner. Policy formulation needs to be aware and take account of the factors affecting the governance of GVCs, as well as the ability of the value chain participants to upgrade.

The policy objectives for GVC participation need to be clarified before the appropriate scope for possible policy leverage can be considered. This is too often reduced to higher value addition, but this paper has highlighted a number of other considerations. First, greater value addition does not necessarily translate to higher income earnings if rents are quickly eroded by new entrants, and also because earnings are also affected by other market conditions. Second, there are possible trade-offs between different policy objectives, for example between moving to higher value-added activities and economic inclusivity for low-skilled workers and smallholders. Hence, economic upgrading may, but does not always, entail social upgrading. Third, the potential benefit from the domestic linkages created from GVC participation is too often underestimated by over-restricting value chain analysis to the vertical relations in the chain, and a narrow pursuit of upgrading in terms of moving downstream.

Value chain governance affects how resources are allocated and gains distributed along the chain. It also partially determines the scope for learning and upgrading for participating domestic firms. There are two sources of governance: internal and external. Internal governance power is exercised with the direct intention of influencing the organization of the specific value chains. It is often, though not always, exercised by the lead firms, but can also be exercised by the authorities through the use of sector-specific measures. The use of sector-specific measures, however, entails the risk of “picking the wrong winners,” at the expense of consumers and other sectors in the economy at large. External governance, on the other hand, refers to factors or actions that were not directly targeted at, but nevertheless affected, the organization of the specific value chains.

The paper elaborates on the main factors affecting internal governance and highlights the possible leverage points for Gol. It highlights the fact that different markets have varying entry requirements and will have different level of inclusivity and upgrading opportunities. A good understanding of the markets for Indonesia’s export products can help the domestic industry to maximize its competitiveness. Market diversification needs to be encouraged as it can support firms’ upgrading effort by removing the constraints on the scope of upgrading, and improving firms’ agility to meet different standard requirements. It also reduces the risk of demand shocks.

Standards have become increasingly important in GVCs, and standards compliance capacity a key source of comparative advantage in GVC participation. The costs of standards compliance might, however, be beyond the reach of some industry actors. Gol can help improve the domestic industry’s standards compliance capacity by ensuring that efficient standards and conformance institutions are in place. The costs of standards compliance can be lowered for smallholders through joint training and other capacity building and cost-saving efforts. Gol also needs to be proactive in relevant standards-setting bodies, particularly for products of export interests to Indonesia.

One way that Gol could, and indeed has tried to, influence internal governance is by introducing import-regulating measures. The impact of any trade restrictions is amplified in GVCs as production crosses country territories. Restrictions on the importation of intermediate goods could penalize domestic processors’ competitiveness in GVCs. On the other hand, import restrictions on final consumer goods may, but not always, stimulate domestic industry

development, albeit at the short-run expense of the consumers. Tariffs continue to be a main trade policy instrument for Indonesia. As a member of the WTO and a party to a number of preferential trade agreements, Indonesia's tariff regime is constrained by its multilateral, plurilateral and bilateral commitments. While Indonesia currently enjoys policy space from having wide tariff overhang, frequent changes to applied tariffs without clear policy direction create costly uncertainties. The use of tariff policy is also expected to become increasingly difficult as Indonesia enters into more trade agreements. The recent increase in Gol's use of NTMs (such as a non-automatic import licensing regime for horticulture) has generated concerns and uncertainties. NTMs tend to be less transparent, and prone to discretion and influence by vested interests. Their use is best minimized, and if they are to be retained, Gol needs to clarify the policy justification and decision-making process to the public and businesses.

In regards to exports, the proposed use of quantitative restrictions on mineral exports may run counter to Indonesia's obligations as a WTO member and commitments under various trade agreements. While there are currently few multilateral disciplines on other forms of export restrictions, their use is likely to be more constrained in the future. Assuming that the domestic processing industry requires time to expand the capacity to absorb greater volume of inputs, export taxes on raw commodities, would, in the short run, reduce the income of commodity producers and exporters until domestic absorption capacity catches up. Such measures should ideally be time bound to avoid them turning into perpetual protection of inefficient industries. Further, export restrictions are insufficient in themselves to stimulate the development of the domestic processing industry. A more holistic approach (as well as a clear policy direction) is needed.

Due to resource constraints, sector-specific investment measures need to be targeted at the value chains or value chain segments that can best meet Indonesia's developmental objectives. Close consultations need to be undertaken with the stakeholders, including industry actors and civil societies, to identify the priority sectors. Once identified, they would need to be taken into consideration in the formulation of other measures relevant to their promotion and development, such as a framework on investment incentives, tax policy, skills and workforce development.

With respect to external governance, Indonesia needs to address the current labour market volatility. The labour force should be viewed and treated as a source of dynamic comparative advantage—instead of an impediment—to GVC participation. The long-term interests of businesses and workers coincide in sustainable GVC participation. Genuine workers' grievances need to be addressed, while labour productivity should be continuously improved. Gol should facilitate cooperation between industry and education and training institutions to ensure that the skills and supply of graduates match industry needs. Enforcement of labour law and regulations needs to be enhanced, and any unfair employment practice should be acted upon.

In terms of the trade regime, Gol needs to help the private sector to optimize the utilization of market access that Indonesia currently enjoys. This could be done through initiatives such as streamlining of export procedures, public awareness and capacity building for businesses and relevant authorities on RoO and trade facilitation. Gol also needs to continuously strengthen its trade negotiation capacity: this effort needs to start early from universities, supported by collaboration with relevant research institutes. As tariffs continue to fall, the agenda of trade negotiations should be refocused on addressing other impediments to trade, including NTMs and regulatory divergence. Indonesia also needs to develop a long-term strategy for engaging with non-traditional trading partners. Last but not least, Indonesia should use its growing prominence in the global arena to push for the conclusion of the Doha Development Round. The next WTO Ministerial Conference (to be held in Bali) provides good momentum.

Having a sound general investment framework is key to competitive GVC participation. The priority issue to be addressed in Indonesia's general investment framework is the existence of inconsistencies between national, sectoral

and subnational policies. A clear mechanism to coordinate these policies (as well as a clear review procedure and consultation mechanism) needs to be put in place, operated effectively and communicated broadly to the stakeholders. The 2007 Investment Law and the accompanying investment negative list need to meet their original objective as the main go-to documents for all investment related matters, including which areas are closed or restricted to foreign investors.

The contribution of services sectors to the Indonesian economy could be optimized by having in place a more proactive strategy and clear policy on services. The effort to develop competitive services sectors should be undertaken using a whole-of-government approach. It is important for the different elements in Gol to realize the complementarity between services and goods production due to the high content of embedded services in the final goods, and the high costs of having uncompetitive services sectors to Indonesia's GVC participation.

As production processes become increasingly fragmented across countries and continents, the importance of having good connectivity cannot be overemphasized for any nation that would like to enhance its GVC participation. The state of transportation, logistics and ICT infrastructure in Indonesia pales relative to comparable countries. Nevertheless, the recent concerted efforts by Gol to address this issue are commendable and their implementation should be seen through.

Indonesia also needs to work on improving its contract enforceability. As production processes involve an increasing number of firms, the quality of contract institutions is important to effectively manage the relations between firms. The need for good contract enforceability also increases for more knowledge-intensive activities. If Indonesia wishes to move up to the knowledge-intensive segments of the GVCs, it needs to strengthen its contract enforcement institutions.

Last but not least, enhancing GVC participation goes beyond influencing the governance of the chain to supporting the upgrading efforts of participating domestic firms. Because upgrading is not an automatic outcome of GVC participation, firms need to first acquire technological capabilities. Whilst GVC participation provides domestic firms with access to external technology, innovation and skills, these can be effectively utilized for upgrading only if they have sufficient learning capacity. Having a strong national innovation system in place would strengthen the supporting conditions for an effective learning process by the firms. Gol could help by supporting R&D initiatives and facilitating interaction between the industry and universities and other research institutions to ensure there is a match between the research, skills and innovation and industry needs. This calls for closer collaboration between stakeholders such as the industry, research institutes, universities, and trade associations.

The paper concludes by highlighting the sectoral specificities of innovation patterns due to heterogeneity in technological regime. The source and process of learning and upgrading may vary for different sectors. While detailed assessment of the policy required for each specific sector is beyond the scope of this paper, it highlights the need for sectoral-level assessment to be undertaken.

The paper has highlighted the numerous factors affecting the outcomes of GVC participation. It underscores the complexities of the policy framework that needs to be considered. It also reiterates the point that while there is scope for proactive policy intervention, it will need to be approached cautiously, in a coherent and holistic manner. The key policy recommendations emanating from the paper are compiled in the following table for ease of reference.

1	Strengthen market intelligence in the key markets for Indonesia's export products.
2	Support market and buyer diversification through trade fairs, industry forums etc.
3	Enhance the country's standards and conformance infrastructure.
4	Strengthen the standards compliance capacity of industry actors, particularly smallholders.
5	More proactive and strategic participation in standards-setting bodies.
6	Strategically use tariff policy, while minimizing uncertainties from ad hoc tariff changes.
7	Review existing non-tariff measures against policy objectives and remove unnecessary ones.
8	The use of export taxes shall be complemented with other measures to support the development of domestic processing capacity.
9	Encourage investment in the priority sectors / subsectors that best match policy objectives
10	Maximize value addition and job creation in the priority sectors/subsectors by encouraging downstream activities, extending the breadth of the value chain, optimizing current participation and targeting underdeveloped potential sectors.
11	Improve labour market stability through law enforcement and better coordination.
12	Invest in education and training, improve coordination with industry to better the match between skills supply and industry demand; pay better attention to vocational training.
13	Take proactive leadership to push for progress in the Doha Round, using the momentum of the upcoming WTO Ministerial Conference in Bali in December 2013.
14	Give due considerations to the broader trade agenda, including non-tariff measures, trade facilitation and sectoral cooperation.
15	Optimize existing preferential market access through capacity building of the trade facilitation authorities and the private sector, including but not limited to training on rules of origin compliance and administration.
16	Continuously strengthen the trade negotiation capacity of the officials.
17	Develop a strategy to engage with non-traditional markets.
18	Address inconsistencies in the investment regime i.e., between national and subnational policies and between national and sectoral policies, including by putting in place whole-of-government coordination mechanisms.
19	Adopt a proactive strategy in services and investment.
20	Ensure effective implementation of initiatives to enhance connectivity, including ICT, and ensure that the industry has access to a competitive logistics and transportation sector.
21	Improve contract enforceability.
22	Strengthen national systems of innovation inter alia by facilitating collaboration between industry, universities and research institutes, and focusing on skills and workforce training and development.
23	Undertake a detailed assessment of sectoral systems of innovation in the priority sectors to better understand the source and patterns of innovation and upgrading.

## References

- Amiti, M., & Konings, J. (2005). *Trade liberalization, intermediate inputs and productivity: Evidence from Indonesia* (IMF Working Paper WP/05/146). Retrieved from <http://www.imf.org/external/pubs/ft/wp/2005/wp05146.pdf>
- Anas, T. (2012a). Indonesia's new protectionist trade policies: A blast from the past. *East Asia Forum*. Retrieved from <http://www.eastasiaforum.org/2012/06/18/indonesia-s-new-protectionist-trade-policies-a-blast-from-the-past>
- Anas, T. (2012b). Indonesia's new trade restrictions and their impacts on domestic production and export performance. *Indonesian Quarterly* 40(2), 105-117.
- Ayuningtyas, R., & P. Slamet. (2012, November 26). Revised oil and gas law slated for 2013. *Jakarta Globe*. Retrieved from <http://www.thejakartaglobe.com/business/revised-oil-and-gas-law-slated-for-2013/558175>
- Bank Indonesia Statistics. (n.d.). Retrieved from <http://www.bi.go.id/sdds/>
- Badan Pusat Statistics. (2012, May 7). Labour force situation in Indonesia (Report No. 33/05/Th. XV.).
- Baldwin, R. (2012). *Global supply chains: Why they emerge, why they matter and where they are going* (Fung Global Institute Working Paper FGI-2012-1). Retrieved from <http://www.fungglobalinstitute.org/images/docs/338.pdf>
- Breschi, S., Malerba, F., & Orsenigo, L. (2010, April). Technological regimes and Schumpeterian patterns of innovation. *Economics Journal* 110, 388-410.
- Ciuriak, D., Lapham, B., Wolfe, R., Collins-Williams, T., & Curtis, J. (2011). *New-new trade policy* (Queens Economic Department Working Paper No. 1263). Retrieved from [http://qed.econ.queensu.ca/working\\_papers/papers/qed\\_wp\\_1263.pdf](http://qed.econ.queensu.ca/working_papers/papers/qed_wp_1263.pdf)
- Damuri, Y. R. (2012a, August 9). Indonesian trade policy and the search for added value. *Jakarta Post*, 6.
- Damuri, Y. R. (2012b, August 10). Indonesia's import phobia. *East Asia Forum*. Retrieved from <http://www.eastasiaforum.org/2012/08/10/indonesia-s-import-phobia>
- De Backer, K. (2011, October). *Global value chains: Selected policy issues*. Presentation made at the Revisiting Trade in a Globalised World – Global Value Chains and Their Impact workshop, Chengdu, China.
- Evani, F. S., Marhaenjati, B., & Primanita, A. (2012, November 4). Indonesian workers demand an end to outsourcing. *Jakarta Globe*. Retrieved from <http://www.thejakartaglobe.com/economy/indonesian-workers-demand-an-end-to-outsourcing/548109>
- Franken, J. (2011, June 13). Analysis Indonesia: Thinking big. *Jakarta Post*. Retrieved from <http://www.thejakartapost.com/news/2011/06/13/indonesia-thinking-big.html>
- Gamberoni, E., Lanz, R., & Piermartini, R. (2010, November). *Timeliness and contract enforceability in intermediate goods trade* (WTO Staff Working Paper ERSD-2010-14).
- Gereffi, G. (1994). The organization of buyer-driven global commodity chains: How U.S. retailers shape overseas production networks. In G. Gereffi & M. Korzeniewicz. (Eds.), *Commodity chains and global capitalism*, pp. 95-122. Westport, CT: Praeger.
- Gibbon, P. (2001). Upgrading primary production: A global commodity chain approach. *World Development* 29(2), 345-363.

Gibbon, P., & Ponte, S. (2005). Quality standards, conventions and the governance of global value chains. *Economy and Society* 34(1), 1–31.

Hidayat, M. S. (2012, October 12). Dilema industrialisasi. *Kompas*, 7.

Humphrey, J., & Schmitz, H. (2000). *Governance and upgrading: Linking industrial cluster and global value chain research* (IDS Working Paper 120). Brighton: Institute of Development Studies.

Inter-Agency Working Group on the Private Investment and Job Creation Pillar of the G20 Multi-Year Action Plan on Development. (2011, September). *Indicators for measuring and maximizing economic value added and job creation from private sector investment in value chains* (Report to the High-Level Development Working Group).

*Jakarta Globe*. (2012a, October 10). Indonesia manpower ministry to update outsource provisions. Retrieved from <http://www.thejakartaglobe.com/business/indonesian-manpower-ministry-to-update-outsource-provisions/549216>

*Jakarta Globe*. (2012b, November 21). Indonesian workers rally against social security law in Jakarta. Retrieved from <http://www.thejakartaglobe.com/business/indonesian-workers-rally-against-social-security-law-in-jakarta/557516>

*Jakarta Post*. (2012, October 12). Central Bank keeps rate at record low to boost exports. Retrieved from <http://www2.thejakartapost.com/news/2012/10/12/central-bank-keeps-rate-record-low-boost-exports.html>

Juliawan, B. H. (2010). Extracting labour from its owners: Private employment agencies and labour market flexibility in Indonesia. *Critical Asian Studies* 42(1), 25–52.

Kaplinsky, R. (1998). *Globalisation, industrialisation, and sustainable growth: The pursuit of the Nth rent* (IDS Discussion Paper 365). Brighton: Institute of Development Studies.

Kaplinsky, R. (2005). *Globalization, poverty and inequality: Between a rock and a hard place*. Cambridge: Polity.

Kaplinsky, R., & Morris, M. (2000). *A handbook for value chain research*. Ottawa: International Development Research Centre.

Kaplinsky, R., Morris, M., & Readman, J. (2002). The globalization of product markets and immiserizing growth: Lessons from the South African furniture industry. *World Development* 30(7), 1159–1177.

Kaplinsky, R., & Readman, J. (2005). Globalization and upgrading: What can (and cannot) be learnt from international trade statistics in the wood furniture sector? *Industrial and Corporate Change* 14(4), 679–703.

Kementerian Perdagangan. (2012a, November 25). Statistik perkembangan ekspor impor Indonesia. Retrieved from [http://www.kemendag.go.id/statistik\\_perkembangan\\_ekspor\\_impor\\_indonesia/](http://www.kemendag.go.id/statistik_perkembangan_ekspor_impor_indonesia/)

Kementerian Perdagangan. (2012b, November 26). Statistik neraca perdagangan dengan negara mitra dagang. Retrieved from [http://www.kemendag.go.id/statistik\\_neraca\\_perdagangan\\_dengan\\_negara\\_mitra\\_dagang](http://www.kemendag.go.id/statistik_neraca_perdagangan_dengan_negara_mitra_dagang)

*Kompas*. (2012a, October 11). Pertumbuhan ekonomi Indonesia nomor dua in Asia. Retrieved from <http://bisniskeuangan.kompas.com/read/2012/10/11/07384837/Pertumbuhan.Indonesia.Nomor.Dua.di.Asia>

*Kompas*. (2012b, October 12). Pertumbuhan ekonomi Indonesia 6.3 persen. 17.

Leshner, M. (2012). *The OECD regulatory reform review of Indonesia: Market openness* (OECD Trade Policy Working Paper No. 138).



Listiyorini, E., & Rusmana, Y. (2012, November 9). Indonesia to maintain metal export policy amid court ruling. *Bloomberg*. Retrieved from <http://www.bloomberg.com/news/2012-11-09/indonesia-to-keep-metal-export-policy-amid-supreme-court-ruling.html>

Low, P. (2012, November). Understanding the role of services in global supply chains. Paper presented at GVC Global Dialogue 2012, Singapore.

Magiera, S. (2011). Indonesia's investment negative list: An evaluation for selected services sectors. *Bulletin of Indonesian Economic Studies* 47(2), 195–219.

Malerba, F. (2002). Sectoral system of innovation and production. *Research Policy* 31, 247–262.

Malerba, F. & Nelson, R. (2011). Learning and catching up in different sectoral systems: Evidence from six industries. *Industrial and Corporate Change* 20(6), 1645–1675.

Manning, C. & Aswicahyono, H. (2011). Trade and employment in services in Indonesia. Policy Brief. Geneva: ILO. Retrieved from <http://www.ilo.org/eutrade>

Memedovic, O. Ojala, L., Rodrigue, J.-P., & Naula, T. (2008). Fuelling the global value chains: What role for logistics capabilities? *International Journal of Technological Learning, Innovation and Development* 1(3), 353–374.

Morisson, A., Pietrobelli, C., & Rabelotti, R. (2006). *Global value chains and technological capabilities: A framework to study industrial innovation in developing countries* (KITeS Working Paper No. 192.).

Nadvi, K. (2008). Global standards, global governance and the organization of global value chains. *Journal of Economic Geography* 8, 323–343.

Nelson, R. R. (1992). National innovation systems: A retrospective on a study. *Industrial and Corporate Change* 1(2), 347–374.

OECD STAN Input-Output Databases. (n.d.). Retrieved from <http://www.oecd.org/trade/input-outputtables.htm>

Otsuka, M., Thomsen, S., & Goldstein, A. (2011, February). Improving Indonesia's investment climate. *Investment Insights* 1. OECD. Retrieved from <http://www.oecd.org/daf/internationalinvestment/47556737.pdf>

Pietrobelli, C., & Rabelotti, R. (2011). Global value chains meet innovation systems: Are there learning opportunities for developing countries? *World Development* 39(7), 1261–1269.

Purwanto, D. (2012, December 5). Kualitas infrastruktur di Indonesia terendah kedua Se-Asia. Retrieved from <http://bisniskeuangan.kompas.com/read/2012/12/05/14102269/Kualitas.Infrastruktur.Indonesia.Terendah.Se-Asia>

Raharjo, J. T. (2012). *Indonesia's connectivity* (Research report). PT Indonesia Research Institute Japan.

*Solomon Star*. (2012, December 8). Export taxes first on EPA agenda. Retrieved from <http://solomonstarnews.com/news/business/16650-export-taxes-first-on-epa-agenda>

Stephenson, S. (2012, August 13). Global value chains and services: Implications for African countries. *ICTSD Bridges Africa Review* 1(4).

Stewart, F. (1978). *Technology and underdevelopment* (2nd ed.). London: Macmillan Press.



Supriyatna, Y., & Jensen, F. (2012, November 5). Indonesia court scraps mineral export regulations: Industry body. *Jakarta Globe*. Retrieved from <http://www.thejakartaglobe.com/business/indonesia-court-scraps-mineral-export-regulations-industry-body/554331>

Van Assche, A. (2012, June). *Global value chains and Canada's trade policy* (ITPP Study No. 32). Montreal.

World Bank Doing Business Indicators. (n.d.). Retrieved from <http://www.doingbusiness.org/data>

World Development Indicators. (n.d.). Retrieved from <http://data.worldbank.org/data-catalog/world-development-indicators>

Yulisman, L. (2012a, October 11). RI manufacturing "could boost global market share." *Jakarta Post*, 3.

Yulisman, L. (2012b, October 17). Indonesia eyes PTA with SA to boost exports. *Jakarta Post*, 14.

Yulisman, L. (2012c, December 5). New export markets too small. *Jakarta Post*, 1.

## *Further details and contact information*

**For further information contact Damon Vis-Dunbar at: [dvis-dunbar@iisd.org](mailto:dvis-dunbar@iisd.org) or +41 22 917 8630.**

---

International Institute for Sustainable Development  
Trade Knowledge Network  
International Environment House 2, 9 chemin de Balexert, 1219 Châtelaine, Geneva, Switzerland  
Tel: +41 22 917-8373 | Fax: +41 22 917-8054

---