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Journal of International Trade: Beginning of a New Chapter

Abhijit Das *

Introduction

The Centre for WTO Studies ("**Centre**") is an independent think-tank established by the Government of India with the mandate to conduct legal and economic research on issues relating to trade in general, and the WTO in particular. In addition to its robust research programme, the Centre also organizes conferences and seminars on vital trade-related issues, besides undertaking various capacity building initiatives. With the Centre's growth in the last decade as a trade think tank of repute, it is the right time for us to venture into publication of our own journal – the Journal of International Trade ("**JIT**") – a publication that would serve as a platform for views and opinions for academics, practitioners and government officials on issues of trade-related importance.

An important objective that is intended to be met by JIT is to fill the void in the publication of trade-related scholarship. While there are certain law journals in India published by law schools that are dedicated to international trade, there are hardly any India-based journals that focus on not just the legal aspects of international trade, but also the economics and policy aspects of the subject. We thus hope to not only cater to the legal eagles but also reach a wider audience that includes economists, policy makers and negotiators.

Having been in the pipelines for years, it is a matter of great pleasure for me and also the Faculty and Staff of the Centre to see the Inaugural Issue of the *Journal of International Trade* to finally see fruition. However, this feat would not have been possible without the untiring efforts and encouragement of certain members of the Centre. At first, I must thank Shailja Singh, Assistant Professor at the Centre for doggedly keeping the project alive despite her myriad other commitments at the Centre. Acknowledgments are also due to Satwik Shekhar, Jayant Raghu Ram, Monika and Neeraj R.S., Research Fellows at the Centre for providing valuable assistance

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in facilitating the publication of this Inaugural Issue. Shraddha Kulhari, former Research Fellow at the Centre has also contributed greatly to the finalization of this inaugural issue.

The publication of an academic journal can often be fraught with challenges, some of which may not be within the control of the editorial board. It is hoped that the Centre will be able to effectively face whatever challenges this endeavour may throw at us while maintaining our commitment to producing interesting and timely scholarship on issues of legal, economic and policy importance in the trade hemisphere.

I am confident that the articles in this Issue would serve as a valuable reference point for readers whether in their study or research or for a friendly argument at the coffee table. I am also hopeful that it would encourage readers in the field to consider contributing at least one paper for the future issues of the *Journal of International Trade*. While great care has been taken to ensure that the publication of this issue has been immaculate, we would not overlook the possibility of any shortcomings. Therefore, readers are encouraged to share their feedback with us, with one rule – to be as candid as possible.

Contents of the Inaugural Issue

This issue consists of seven articles and a book review, all authored by academics who are experts in their own domains. The authors are to be congratulated for their stellar contributions which are not only of contemporary relevance but are sure to also be of analytical interest. I discuss each of these contributions in brief below.

The first article is by Pierre Sauve on a very important issue concerning developing economies – local content requirements ("**LCR**"). Sauve's discussion centres around the loss of industrial policy space for developing economies, particularly those acceding to the WTO, on account of the stringent WTO rules prohibiting LCRs. While Sauve does highlight the availability of alternatives to LCRs, he states that these alternatives may not be the best substitutes for developing countries nor can they offer developing economies the degree of immediate and seemingly costless protection that LCRs might appear to provide. This is similar to the argument taken by India – albeit one that was rejected – in the *India – Solar Mission* dispute.[1] It is not hard to wonder whether the WTO's rules are forcing developing economies to "kick away the ladder" before they have had the time to catch up with the industrialized economies.

The next piece is an interesting article by Rajan Sudesh Ratna. The subject of Rules of Origin (**RoO**), unlike others, can be very challenging to fully comprehend and analyse. To undertake economic analysis of RoO in the context of value chains is a bigger challenge. Ratna does an astute job in analysing the linkages between preferential RoO and regional value chains. On the basis of his study of certain PTAs, Ratna debunks the belief that stringent RoO, are a deterrent, and instead supports the idea that they provide greater opportunities for PTA partners to integrate and become part of regional value chains.

1 Report of the Panel, *India – Certain Measures Relating to Solar Cells and Solar Modules*, WT/DS456/R (24 February 2016) at para 7.371

Earlier I had stated that the objective of the JIT is to cater to a wider audience. In this context, it would be ideal to feature an article addressing all perspectives. The next article, by Peter Holmes, Jim Rollo, Kamala Dawar and James H Mathis, is an economic, legal and policy analysis of the topic of qualified market access ("**QMA**") – an important issue for developing countries. Some of the conclusions they arrive in their study are sure to generate a healthy debate – especially their legal analysis of the validity of such QMA. Indeed, post the *EC* – Seals dispute, one wonders to what extent can the General Exceptions be used to defend non-product related PPMs. Holmes, *et al* go on to argue that in the absence of any cogent evidence supporting either competitiveness or consumer welfare in the importing country, prudence dictates avoiding such measures.

For the fourth piece, we are presented with a very telling article on survivability of industrial plants in India from the perspective of export orientation and import competition authored by Bishwanath Goldar and Sonia Mukherjee. As they themselves point out, theirs is the first to carry out an econometric analysis on Indian industries using the Cox Model; they thus fill a vital gap in the trade-related economic literature. The results of the study by Goldar and Mukherjee indicate that increased export orientation of manufacturing plants in India tends to improve their survivability while enhanced import competition in India tends to reduce their survivability. This is an important finding which could serve as a critical input for policy makers in India.

The next piece is by Carlos Correa on the plain packaging issue wherein he discusses the right to use trademarks under the TRIPS Agreement. Correa must be thanked for bringing our attention to a vital issue that is currently in dispute at the WTO.[2] He very aptly argues that accepting the notion of a positive right to use a trademark under the TRIPS Agreement would have wider systemic implications at the WTO including for Member's vital policy concerns such as public health. Given the importance of this issue for WTO Members including India that are contemplating the adoption of such measures to curb the tobacco incidence, readers are urged to give serious thought to the issue discussed by Correa.

The liberalization of services sector for an economy and the preparedness of its national professionals working in the sector is an issue of importance from both a policy and negotiating perspective. Taking Malaysia as the subject country of their study, Rokia Alavi, Norsiah Mohamad Ruslan and Abdul Aziz discuss the awareness and readiness of Malaysian engineers in facing the liberalization measures undertaken by the Malaysian government. Alavi, Ruslan and Aziz are to be commended for undertaking such a study which is sure to serve as a guiding model for policy makers of other economies when considering liberalization measures. As they correctly stress in their article, an economy's professionals require a high level of preparedness when they face greater competition on account of liberalization in the services sector.

Last but not the least, is Shailja Singh's book review of *A History of Law and Lawyers in the GATT/WTO*. Edited by Gabriel Marceau, Counsellor with the Legal Affairs Division of the WTO, *A History of Law and Lawyers in the GATT/WTO* is a spectacular assembly of chapters that documents the legal chronology of transition from the GATT to the WTO. With each chapter

2 Australia — *Certain Measures Concerning Trademarks and Other Plain Packaging Requirements Applicable to Tobacco Products and Packaging*. It is expected that the panel would deliver its much awaited ruling sometime in the middle of next year.

having been authored by lawyers and diplomats who were closely associated with the GATT and the WTO, the book promises to be a treat, as Shailja's review rightly notes.

Having given a brief introduction to the Inaugural Issue and its contents, without further ado, I beckon readers to an enjoyable read of the various pieces in this issue. My hearty congratulations to the Editorial Board for successfully publishing the Inaugural issue. I wish the editorial board of the Journal of International Trade the very best in publishing the future issues, which I am sure will be reflective of their hard work and perseverance.

Life beyond local content: Exploring alternative measures of industry support in the context of WTO accession

Pierre Sauvé*

ABSTRACT

This paper explores the industrial policy options and constraints confronting countries acceding to the World Trade Organization stemming from the obligation to phase out non-compliant local content requirements (LCRs). The widespread recourse to various local content practices and their political economy appeal make their removal a daunting task in many countries, particularly those characterized by weak productive diversification and a heavy reliance on extractive activities. After reviewing the policy rationale behind the prohibition of LCRs, the paper advances a number of alternative measures of industry support available to WTO acceding countries, placing particular emphasis on corporate social responsibility incentives and the design of supplier development programmes aimed at strengthening linkages between foreign invested or lead firms to an ecosystem of typically small and medium-sized local suppliers.

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The views and opinions reflected in this paper are that of the author alone.

1. Introduction

Local content requirements ("LCRs") have long represented a policy instrument of choice for countries seeking to offer support or protection to domestic producers and workers and to extract greater benefits from inward foreign investment. Such measures have long been extensively used in countries, particularly those whose development prospects are closely tied to extractive industries. In such settings, where enclave characteristics are often strongly decoupled from the rest of the host economy, the need to ensure that resource-seeking investments generate local value-added in the form of purchases of locally produced goods, services and the use of local workers may be particularly important for technological upgrading.

LCRs typically command widespread political appeal. And for good reason: they are easy to implement, relative to tariffs or subsidy programmes; do not tax the national treasury, unlike subsidies or incentives; and appear to generate benefits whose immediacy is gratifying to those bestowing them, unlike other industry support measures tackling underlying competitiveness challenges, whose impacts often materialize over longer time horizons and involve greater coordination and implementation complexities.

LCRs were broadly unconstrained by international trade and investment law until the completion of the Uruguay Round of multilateral trade talks and the entry into force of the Marrakesh Agreement establishing the WTO in 1995. The creation of the WTO saw the introduction of multilateral disciplines curtailing or prohibiting the use of a number of performance requirements ("PRs"), which included local content rules. Prior to the Uruguay Round, the vast majority of WTO Members, including its most developed ones, made abundant use of LCRs in shaping their national industries. They did so often through a combination of high tariffs, LCRs and other non-tariff instruments with a view to compelling investors into so-called "tariff hopping"[1] forms of predominantly market-seeking[2] foreign direct investment.

LCRs have featured prominently in the development and industrial policy mix of a number of recently-acceded WTO Members and continue to do so in a number of would-be members whose economies are heavily dependent on extractive industries. In countries such as Saudi Arabia, Russia, Kazakhstan, Algeria, Iraq, or Iran, all of whom recently joined the WTO or are in its accession queue, the sheer weight of extractive industries and the continued importance of state-centric procurement

1 The term "tariff hopping" investment refers to cross-border investment flows induced by the prohibitive cost of cross-border transactions resulting from high tariffs. Such costs leave foreign producers with little choice but to locate a production unit behind the trading partner's tariff wall in order to be able to sell competitively in the foreign (host country) market.

2 Market-seeking investment refers to FDI that is motivated by the potential to deliver goods and services to customers within the host country. It is almost entirely dependent on the size and characteristics of the host country's domestic market. It can be an important source of jobs, particularly of higher-skilled, better-paying, jobs associated with the service sector. Potentially, it represents a more inclusive form of economic activity than natural resource-seeking investment. Market-seeking investment can help bring international business practices, standards, knowhow and technology to the host country. This type of investment is an important means to industrialize a country and has the potential to make a particularly strong contribution to the development of linkages to the local economy, quality upgrading of local suppliers, as well as transfer of knowhow and spillover effects. Market-seeking investors can help create competition within the domestic economy, increase productivity and lower prices to consumers. Improvements in local goods and services generated by market-seeking investment can contribute to enhancing the general business climate, render the country more competitive, and provide a platform for other kinds of investors.

practices affecting markets for goods, services and workers mean that LCRs typically form a centrally important component of the industrial policy landscape. Not surprisingly, their mandated removal in the context of WTO accession and the identification of credible alternative measures of industry support, has been, and remains, contentious in political, business and policy circles.

This paper explores the above policy controversies from a law and economics perspective, taking up key elements of the policy debate spawned by the quest for sustainable policy alternatives to local content requirements in the context of WTO accession. The paper is divided into six parts. Following the above introductory and context-setting remarks, Sections 2 and 3 situate the issue of local content within the broader context of a typology of performance requirements, their main underlying economic rationales and perceived effectiveness. In so doing, a distinction is drawn between four main categories of performance requirements: (i) those that aim to strengthen domestic capacity; (ii) those aimed at creating backward and forward linkages; (iii) those targeted at enhancing labour market outcomes; and (iv) those linked to export performance. This is followed, in Section 4, by a discussion of the economic reasoning behind the prohibition of local content requirements in international trade and investment law. Section 5 explores the range of alternatives to local content requirements. It does so by first detailing how host countries can make ready use of the flexibilities foreseen under existing trade and investment instruments before drawing attention to a range of so-called "lighter touch" industrial policy options aimed at promoting economy-wide gains in competitiveness while also strengthening linkages between domestic suppliers and lead investors (domestic or foreign). The latter discussion further distinguishes between "horizontal" (or non-sector specific) and "selected" industrial policy measures targeting informational barriers between lead investors and local suppliers. Key among the latter group of industry support measures are efforts centred on the corporate social responsibility of lead investors and the deployment, notably through strengthened national investment promotion agency efforts, of supplier development programs offering incentives for lead firms to buttress the competitiveness of indigenous suppliers. Section 6 concludes with a number of additional policy observations.

2. A typology of performance requirements

Performance requirements (PRs), of which local content requirements (LCRs) form a central part, are defined as "*stipulations, imposed on investors, requiring them to meet certain specified goals with respect to their operations in the host country*"[3]. They are and have been used extensively by developed and developing countries together with other policy instruments, such as trade policy, investment screening mechanisms and various incentives, to enhance a variety of development and industrial policy objectives. There is a vast body of literature examining the economic impact of PRs.[4] As is common to almost all fields of economic enquiry, and particularly so in development economics, opinions diverge markedly regarding the effectiveness of PRs – including LCRs - as tools to maximize the host country benefits of inward FDI. While some experts regard them as an essential instrument in a country's FDI policy package, others consider their impact as limited at best and as costly and counter-productive at worst.

3 United Nations Conference on Trade and Development, *Foreign Direct Investment and Performance Requirements: New Evidence from Selected Countries* (Geneva: UNCTAD, 2003).

4 For a good summary of this literature, see Theodore H. Moran, Edward Montgomery Graham, and Magnus Blomström, ed., *Does Foreign Direct Investment Promote Development*? (Washington, D.C.: Institute for International Economics, 2005).

The economic rationale for applying a PR depends on the objective of the measure. In general, the role of such requirements is to address some form of market or policy failure related, for instance, the presence of positive or negative externalities, information asymmetries and/or investor conduct in responding to opportunities prevailing in a host country market.

Specific objectives for imposing PRs include: (i) strengthening a country's industrial base and increasing domestic value added; (ii) generating expanded employment opportunities; (iii) promoting vertical linkages between lead (foreign) firms and (local) suppliers; (iv) increasing exports; (v) balancing trade; (vi) promoting regional development and spatial gaps in development levels; (vii) fostering technology transfers; (viii) avoiding restrictive business practices; (ix) generating and distributing economic rents; and (x) pursuing various non-economic objectives, such as political independence, the promotion of minority rights or the (re-)distribution of political power.

While host countries have in recent decades increasingly welcomed inward FDI, and as cross-border competition to attract so-called efficiency-seeking FDI[5] has greatly intensified in the context of production fragmentation and the rise of global (and regional) value chains ("GVCs"), increasing attention has been devoted to raising the quality of inward investment and to enacting policies that maximize the local developmental benefits of such investment, without, however, chasing away FDI characterized by its increasingly footloose nature.

There is, today, much greater awareness within policy-making circles of variations in the quality of inward FDI and the associated impacts such inflows can exert on host countries. There is, similarly, much greater attention to the fact that some host country environments may simply be less conducive to benefiting from FDI, irrespective of the strategy or operational behaviour of foreign investors. For example, weak domestic capabilities – whether in the form of poorly trained workers or weakly competitive suppliers - will generally hamper a host country's ability to attract, retain and reap the benefits of inward FDI. Such weaknesses will also limit knowledge spillovers and backward linkages. At the same time, in countries with relatively inefficient domestic enterprises or whose firms are not yet at the technological frontier, inward FDI can produce a productivity shock able to boost the competitiveness and performance of local competitors and suppliers through the transfer of improved knowledge and production processes. In today's more footloose GVC world, recourse to PRs and LCRs has become more challenging to enact and is increasingly associated to the granting of locational and/or behavioural incentives.

5 Efficiency-seeking investment is always export-oriented, although business viability can often be built on a strong (typically larger) domestic consumer base. The key determinant for all types of efficiency-seeking investment is "competitiveness." Efficiency-seeking investment has the most transformative potential of all types of foreign investment, with its ability to transfer technology and skills and to diversify an economy rapidly by inserting it into global or regional value chains of goods and/or services. This type of FDI is potentially a powerful vehicle for transforming the export supply of a country, opening it up to new foreign markets and allowing domestic workers to move up the value chain. Such investment occurs where investors seek to increase the cost efficiency of production by taking advantage of factors that improve firm-level competitiveness. These include, among others, lower labor costs or higher labor productivity, easier or even preferential access to export markets, access to key inputs and components, and more efficient international production and supply patterns. However, efficiency-seeking investment is among the most difficult to attract and retain, not least because so many factors must align to make the host country an appropriate venue for a particular production process at a particular moment in time. Countries tend to compete aggressively for this type of investment. A key element in attracting such investment is the quality and cost competitiveness of a country's service infrastructure, from the "hardware" of physical infrastructure allowing goods and services to reach export markets efficiently and reliably to the "software" of skills and human capital required to upgrade to higher value segments of supply chains.

Developing and transition economies have traditionally made heavy use of performance requirements, the most prominent of which have been LCRs. Such measures are most prevalent in the automobile, chemical and petrochemical, electronic equipment and extractive industries. However, LCRs and other types of performance requirements have also been imposed by a number of countries in various other sectors, including in services.

PRs may cover all aspects of the investment life-cycle.[6] They can be imposed at the point of investment entry and subsequent post-entry expansion or, as is increasingly the case, as a condition for the provision of some kind of locational advantage or incentive.

As Table 1 below shows, PRs can be divided into three main categories. The first category consists of those PRs that are explicitly prohibited by the WTO Agreement on Trade-Related Investment Measures ("TRIMs") in light of their inconsistency with Articles III:4 (National Treatment) and XI (Prohibition of Quantitative Restrictions) of GATT 1994. The second category relates to measures that are explicitly prohibited, conditioned or discouraged by various international investment or preferential trade agreements ("IIAs" and "PTAs"), be they bilateral, regional or plurilateral in character. The latter measures are not subject to multilateral disciplines under the TRIMs Agreement. They are often described as "WTO+" in character. Third category covers performance requirements that are not subject to control through any international investment or trade agreements, affording countries full policy immunity for their use.

TABLE 1: CATEGORIES OF PERFORMANCE REQUIREMENTS UNDER TRADE AND INVESTMENT LAW

i) Prohibited by the WTO TRIMs Agreement	
•	Local content requirements.
•	Trade-balancing requirements.
•	Foreign exchange restrictions related to the foreign-exchange inflows attributable to an enterprise.
•	Export controls.
ii) Prohibited, conditioned or discouraged by IIAs and PTAs	
•	Requirements to establish a joint-venture with domestic participation.
•	Requirements for a minimum level of domestic equity participation (e.g. joint-venture requirements).

6 The investment lifecycle framework rests on the notion that FDI is not a one-time transaction between the host Government and a foreign firm but rather entails an ongoing relationship with many stakeholders at all stages of a foreign investor's lifecycle in the host country. The investment lifecycle consists of five elements: (i) vision; (ii) attraction; (iii) establishment; (iv) retention; and (v) linkages. The lifecycle begins with the setting of the country's investment vision, priorities and strategy for FDI. Next, investment attraction identifies how the country will market itself to potential investors. Investment establishment is the phase when an investor has made the decision to establish an enterprise in the host country and covers practical and legal steps that the investor must undertake to set up the business. For purposes of investment retention, how investors are treated and whether investors have adequate levels of protection are relevant. Given that reinvestment of earnings and expansions by existing investors are important as a source of investment, how established investors are treated is particularly relevant. Finally, the full benefits of investment are only achieved through enhancing the forward and backward linkages and spillovers from investment with the local economy.

•	Requirements to locate headquarters in a specific region.
•	Employment or training requirements.
•	Export requirements.
•	Restrictions on sales of goods or services in the territory where they are produced or provided.
•	Requirements to supply goods produced or services provided to a specific region exclusively from a given territory.
•	Requirements to act as the sole supplier of goods produced or services provided.
•	Requirements to transfer technology, production processes or other proprietary knowledge.
•	Research and development requirements.
iii)	**Not restricted**
•	All other performance requirements.

Performance requirements can be further categorized according to several criteria. First, *mandatory* PRs can be distinguished from *non-mandatory* ones. Mandatory PRs are linked to the conditions for entry and operation of an investment. The investor must agree to them to make its investment or continue to operate. Non-mandatory PRs, on the other hand, are typically linked to access to certain advantages, such as host country tax exemptions or subsidies/incentives. While an investor can decide not to comply with such PRs, it may not be easy to do so in practice as some types of incentives do not really give the investor the possibility of refusing to comply with the PRs, because of the attractiveness of incentives being offered.

To the extent that mandatory requirements are applied, they most often relate to domestic market-seeking and resource-seeking FDI. The bargaining power of host countries is stronger with respect to firms seeking access to natural resources or domestic markets than to firms that consider a number of potential sites for export production. There are consequently few examples of mandatory requirements imposed on export-oriented manufacturing. The ability of a country to use various performance requirements often depends on its economic importance, mainly in terms of market size. Even among developed countries, smaller ones, such as Belgium and Ireland, have generally relied more on "voluntary" requirements than on stringent mandatory criteria imposed at the point of entry. Similarly, while large countries like India, China, Brazil, Indonesia and South Africa have, at times, been able to leverage their large domestic markets to entice market-seeking foreign investors to start exporting; such obligations are generally more challenging for smaller or less connected economies to impose.

At the same time, developing countries may lack the institutional capacity to apply some of the strategic trade and investment policies that are used increasingly by developed countries to achieve similar objectives as certain performance requirements. This is particularly so when market size and political leverage form important policy determinants. Whereas both the United States and the EU have the potential means to engage, for instance, in strategic anti-dumping actions, to aggressively use rules of origin in their PTAs to induce inward FDI in sensitive sectors or to design defence-related procurement practices with a view to their likely positive spillovers on innovation, industrial upgrading and export performance, such options are generally not available to most nations. This arguably includes WTO acceding countries, not least because their very status as

outsiders will constrain their policy space to a greater extent than that of the founding members of the world trade body.

A second distinction to be made in regard to PRs distinguishes those measures that are imposed on the investor *before* an investment is made (so-called pre-establishment PRs) and those imposed afterwards (i.e., *post-establishment* PRs). This distinction can carry significant legal and policy implications. PRs imposed after the investment is made, particularly mandatory PRs, are more likely to breach (or to be seen as breaching) a host state's commitments under trade and investment treaties.

Finally, one can distinguish between PRs according to whether they are covered by *national legislation* or *investment contracts* between the host state and the investor. For instance, in many recently acceded countries such as Saudi Arabia, Russia or Kazakhstan, a significant share of local content requirements flow from investment contracts entered into by the Government with investors engaged in sub-surface activities.

3. Assessing the effectiveness of various performance requirements

As noted above, performance requirements aim to generate benefits from investment over and above what might normally occur in their absence. The four most common forms of PRs are: (i) requirements that aim to strengthen domestic capacity; (ii) requirements, among which LCRs, that aim to build backward or forward linkages; (iii) requirements for firms targeted by PRs to improve labour market outcomes; and (iv) requirements targeting the export performance of locally-established firms.

Because such a typology spans areas that are either subject to WTO law or immune from it - hence offering possible alternative measures that would-be acceding countries may wish to consider in replacing LCRs, the discussion that follows briefly reviews what the literature has to say about their economic and developmental efficacy.

3.1 Requirements that aim to strengthen domestic capacity include technology transfer requirements, requirements to perform research and development ("R&D") in the host country market, as well as joint-venture requirements.

Technology transfer requirements typically mandate that investors bring some specified level of technology (usually proprietary technology) to the host country, with a view to ensuring that investments operate at a global industry standard, or with the best available technology. Examining the impact of this type of requirement, Moran[7] and UNCTAD[8] found little evidence of successful implementation. Major challenges were found to arise in monitoring technology

7 Moran, Graham and Blomström, *Foreign Direct Investment and Development*; Theodore H. Moran, "How Does FDI Affect Host Country Development? Using Industry Case Studies to Make Reliable Generalizations," in *Does Foreign Direct Investment Promote Development*?, ed.Theodore H. Moran, Edward Montgomery Graham, and Magnus Blomström (Washington, D.C.: Institute for International Economics, 2005), 281-313.

8 UNCTAD, *Foreign Direct Investment and Performance Requirements: New Evidence from Selected Countries* (2003).

transfer requirements and, more fundamentally, in the difficulties a host country government may face in determining what technologies particular firms in specific sectors and countries should be using.

Host country governments are also prone to require that R&D expenditure be undertaken at some particular level, often specified as a percentage of a firm's operating costs or turnover. Like technology transfer requirements, these are most often used in the manufacturing sector, where they are usually formulated as voluntary performance requirements, i.e., as a condition for receiving industry support. While requirements of this type are rarely mandatory in nature, the empirical evidence shows that even voluntary requirements tend to be ignored. Setting up an effective local R&D facility may be particularly challenging in the absence of local capacity to absorb, adapt and develop the technology, and the costs of doing so may exceed the government incentives on offer.[9] To be successful, any such requirement needs to be accompanied by national efforts at establishing working national systems of innovation, including support for education and vocational training.[10]

Joint-venture requirements mandate that a foreign investor in a particular sector operate as an equity joint-venture with a local partner. In practice, such requirements are usually expressed as a demand that any investment has a certain percentage of domestic ownership. These requirements are most often aimed at building competitive capacity in domestic partners by exposing the latter to the modern technologies, improved management practices, and global marketing channels and experience of foreign partner firms. China, in particular, made heavy use of such requirements in its drive to foster globally competitive national firms in the manufacturing and heavy industry sectors from the 1980's onwards.

Experience tends to show that joint-venture requirements are not easy tools to use effectively. They are rarely welcomed by investors, who will naturally prefer to hold a majority stake so as to exercise maximum control over corporate strategies. As Cosbey[11] notes, while joint-ventures are ideally a union of entities with shared objectives and complementary strengths, mandatory joint-ventures in countries with under-developed partners will usually bring neither of these prerequisites for the foreign firm. More often than not, forced arrangements may generate lingering sentiments of mistrust, particularly with respect to the appropriation of technology. Moran[12] found that technology employed in mandatory joint-ventures was on average 3 to 10 years out of date, and that technical training provided to local affiliate staff was a fraction of that provided in wholly-owned subsidiaries. Not surprisingly, the above characteristics of mandatory joint-venture requirements may make them more prone to failure.

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9 Ibid.

10 Aaron Cosbey, "Everyone's Doing It: The Acceptance, Effectiveness and Legality of Performance Requirements," *Investment Treaty News*, IISD, February 19, 2015, https://www.iisd.org/itn/2015/02/19/everyones-doing-it-the-acceptance-effectiveness-and-legality-of-performance-requirements/ (accessed April 12, 2016); Theodore H. Moran, "Foreign Investment and Supply Chains in Emerging Markets: Recurring Problems and Demonstrated Solutions," *PIIE Working Paper 14-12*, (Washington D.C.: Peterson Institute for International Economics, 2014).

11 Aaron Cosbey, *Everyone's Doing It.*

12 Theodore H. Moran, "The Relationship between Trade, Foreign Direct Investment, and Development: New Evidence, Strategy, and Tactics under The Doha Development Agenda Negotiations" (Paper prepared for ADB's Study on Regional Integration and Trade: Emerging Policy Issues for Selected Developing Member Countries, 2002).

The examples of China, Korea, India and other large host country markets, where much FDI pursues market-seeking opportunities, do show, however, that joint-venture requirements can be effectively employed. In the end, host countries need to balance the benefits derived (both economic and non-economic) against the potential to deter FDI. Only host countries in positions of relative strengths *vis-à-vis* foreign investors should contemplate the use of such policies. This will more rarely be the case when host countries seek to attract efficiency-seeking FDI.

3.2 Requirements that aim to build backward or forward linkages include requirements for local content and/or the domestic procurement of input goods, services, and labour, as well as requirements that products are processed in-country.

The main objective of the above types of measures is to address enclave effects - common in natural resource-seeking investment projects - that contribute very little outside of expenditures on core functions, import most inputs, technology and experts needed in the course of operation, employ few locals, and often export largely unprocessed raw materials.

While local content requirements are WTO-illegal under the TRIMs and Agreement on Subsidies and Countervailing Measures ("SCM") Agreements, local procurement requirements, i.e., state purchases made contingent on the use of local over foreign goods, may be used so long as a WTO Member is not a party to the WTO's plurilateral Government Procurement Agreement or its PTA equivalent. Such requirements, which foster backward linkages into the economy, have been shown to be successful under the right circumstances and accompanying policies.[13] For instance, and as is commonly practiced in Kazakhstan, Brazil's national agency for oil and gas and biofuels - ANP - has used local content as one of its three criteria for awarding petroleum rights, and has seen commitments to local content increase from 25 per cent in the year the programme started to almost 80 per cent a decade later. As Cosbey[14] notes, part of Brazil's success can be traced to the leadership demonstrated by Petrobras, the state-owned oil producer, in fostering backward linkages in the sector. Credit also goes to Brazil's long-standing drive for localization, its attention to best practice, and a broad mix of policies of which performance requirements are only one part.

Among best practice lessons are that (voluntary) local content targets should not be set higher than local suppliers are able to meet, though they should be set high enough to push suppliers to greater efficiencies. In other words, it is important to push suppliers, but care must be taken to not do so beyond a point they cannot reach.[15] Another important lesson is that local procurement requirements by themselves may not be enough. Support from both the host country government and the firms involved (in the form of supplier development programmes, for example) can be critical in helping build up the capacity to meet ambitious local content targets. As well as capacity building, government support targeted at easing access to credit for potential suppliers can also be effective. Most are small and medium enterprises whose access to finance is difficult at best. Such problems are most acute for service producing firms, whose predominantly small size and often intangible assets constrain their ability to collateralise loans.

13 UNCTAD, *Foreign Direct Investment and Performance Requirements: New Evidence from Selected Countries*, (2003); Dani Rodrik, "What's So Special about China's Exports?", NBER Working Paper No. 11947, 2006, http://www.nber.org/papers/w11947 (accessed April 12, 2016).

14 Aaron *Cosbey, Everyone's Doing It.*

15 Ibid.

3.3 Requirements for targeted firms to improve labour market outcomes include requirements for a specified level of local employment (or management), and requirements to train local employees or build capacity in suppliers. Employment or training requirements are employed in various forms by many host countries around the world, both developed and developing.

While the results of such policies have, at times, been mixed, they rarely spark controversy inasmuch as firms have an inherent interest in enhancing the skills base and productivity of their workers if they seek to become frontier producers. Training in quality assurance and productivity-enhancing skills appear most conducive to facilitating progress into higher quality and higher value-added products. A number of countries accord special tax rebates to firms engaging in such training activities. For instance, in Malaysia, firms directing training expenditures at the acquisition of specific types of skills can benefit from a doubled corporate tax deduction scheme for training-related expenditures.

Developed countries commonly attach employment criteria to the granting of fiscal or investment incentives. In Ireland, for instance, the grant cost per job created was the key guideline for offering incentives. The grant level could increase if projects involved higher value-added and increased skill content.

As in the case of local procurement requirements, the key with local employment and management requirements is to help ensure that there is, in fact, adequate supply of quality inputs to fill market needs. In many countries, available skills are not properly aligned to investor needs. Mandating the demand for local hiring without addressing such an underlying problem – first through continuous dialogue with the firms involved to gauge their needs, second through strengthened labour market forecasting techniques, and third through joint curriculum design and training activities involving foreign firms, particularly as regards often scarce but critically important vocational skills, typically form part of the answer. An example of such pro-active engagement can once more be found in Brazil where, since the 1990s, the country has set aside a percentage of oil sector royalties for the Oil and Gas Sectoral Fund, which supports, among other things, specialised training at vocational and local university institutions. Since 1999, the programme has provided over 5,000 post-graduate scholarships for professionals destined for the oil, gas and biofuels sectors.[16] Kazakhstan's Ministry of Investment and Development has recently signalled a desire to implement a programme along similar lines in the wake of the country's recent accession to the WTO. Such PRs, it need be recalled, are not prohibited under the WTO's TRIMs Agreement, nor are they subject to constraints under the IIAs or PTAs to which Kazakhstan is currently a party. [17]

Requirements for training of local employees are, not surprisingly, widely used. As with Brazil, South Africa and Malaysia have also established skills development funds into which businesses must pay, and these have been relatively successful at improving employee skills (UNCTAD, 2003).[18] Often, such training is done as a quasi-voluntary effort by the firms involved in response to requirements for localization of the labour force to overcome the critical problem of lack of

16 Jane Korinek, "Mineral Resource Trade in Chile Contribution to Development and Policy Implications," OECD *Trade Policy Paper No. 145 (2013)*, http://dx.doi.org/10.1787/5k4bw6twpf24-en (accessed April 12, 2016).

17 AMCHAM, *Improving Kazakhstan's Investment Climate: Top Ten Barriers to Foreign Investment, Almaty: American Chamber of Commerce in Kazakhstan* (AMCHAM), (May 2014).

18 UNCTAD, *Foreign Direct Investment and Performance Requirements: New Evidence from Selected Countries*, (2003).

appropriate skills. The high cost of employing expatriate employees naturally induces foreign firms to seek to maximize local hiring opportunities.

Requirements to build capacity in suppliers are less common, even as a rising chorus of corporate social responsibility ("CSR") programmes call on investors to develop "shared value", where local supplier firms are supported to become more globally competitive, and the lead foreign investor is incentivized to strengthen local supply capacity benefits from higher quality locally sourced inputs, which may often be better adapted to local conditions than what might be available internationally (Porter and Kramer, 2011). BHP Billiton ("BHBP"), an Australian mining company, offers one example of innovative collaboration in a host country setting. In developing its Cluster Programme in Chile, BHPB identified a number of key operational challenges that it needed to solve in its country operations. It further selected a number of candidate domestic firms tasked with solving the problems, and enabled them to work innovatively on solutions.[19]

The extent to which requirements in this area have a positive impact on the stated development objectives partly depends on the value of the efforts accruing to the investors. For example, the more interested companies may be in enhancing the skills of their own workforce or that of their suppliers or distributors, the more likely it is that they will participate willingly in such programmes. Investor interest will also be governed by the manner in which employment or training requirements and incentives are implemented. An excess of administrative burdens and compliance conditions will, more often than not, prove counter-productive. The programmes depicted above may be most appropriate for countries that already have fairly advanced suppliers. Forced mandates to undertake training, without parallel supporting policies for suppliers, may produce reluctant efforts and unimpressive results.

3.4 Requirements linked to export performance represent only one of a wide range of policy measures that have been applied by countries to promote export-led growth with the involvement of inward FDI. Other measures include various incentives, tariff cuts, efforts to upgrade the physical and technical infrastructure (including through the creation of EPZs), human resource development and various trade facilitation measures. While a number of bilateral investment treaties and, especially, preferential trade agreements, featuring comprehensive investment disciplines constrain or prohibit the use of export-related performance requirements, export-related performance requirements are not prohibited under the WTO's TRIMs Agreement, having previously been found GATT-consistent by the trade body's 1984 dispute ruling on various aspects of Canada's Foreign Investment Review Act (the so-called "FIRA case").[20]

In countries that have embarked on an import substitution approach, export performance requirements have also frequently been employed to counterbalance an anti-export bias. By making market access contingent on exporting, for example, foreign firms might be induced to reconsider the orientation of their activities in favour of external markets. There are examples of such government interventions having led some first mover firms - so-called "lead investors" - to

19 Andrew Barnett and Martin Bell, "Is BHP Billiton's Cluster-Programme in Chile relevant for Africa's mining industry?," The Policy Practice Brief 7) (2011), http://thepolicypractice.com/wp-content/uploads/2014/09/PolicyBrief7.pdf (accessed April 12, 2016); also in Cosbey, "Everyone's Doing It."

20 Canada - Administration of The Foreign Investment Review Act, (FIRA), (L/5504 - 30S/140), Report of the Panel adopted on February 7, 1984.

establish new export platforms, triggering subsequent decisions by other firms to do likewise in the same industry.[21] The experience of Intel in Costa Rica offers one example of the powerful signals that a large first mover investor can send about a host country's investment climate.

Export performance requirements are widely seen to have helped Malaysia succeed in expanding its manufactured exports, especially of electronic components in which it today commands a significant share of the world market. In Chile, export performance requirements were also found to be useful in diversifying the country's thin, resource-based, export mix. In South Africa, export requirements have long formed an integral part of the Motor Industry Development Programme, which appears to have been successful in promoting the internationalisation of the South African automotive industry. It has notably allowed the country to take fuller advantage of expanded access to the United States market when the US African Growth Opportunity Act (AGOA) was implemented. In India, some domestic-market seeking FDI, for example in the agro-food and automotive industries, has complied with export requirements that were imposed as a condition for market access and resulted in some favourable externalities to the host economy in the form of vertical trade linkages as well as the diffusion of new technology.

In some instances, as Moran[22] reports, exports have continued to grow even after mandatory export requirements expired, suggesting that foreign companies (or local workers from them establishing their own enterprises) may have discovered new profit opportunities through export performance requirements. The case of Intel spin-offs in Costa Rica is once more particularly evocative in this regard, with several highly successful SMEs having been launched by former Intel employees becoming suppliers to the firms whilst also branching out into new export domains such as medical devices.

Other countries have also made use of various export performance requirements in their industrialization strategies. China, for example, successfully pushed foreign enterprises to export through such requirements imposed at the time of entry.[23] In Brazil, Mexico and Thailand, export requirements were successfully used for triggering a burst of export-focused investments in the automotive industry.[24] In the mid-1980s, the Government of Thailand started imposing similar requirements on foreign affiliates to push them to export. That prompted the Japanese automobile producers to think of integrating Thailand into their global production networks. The development of an internationally competitive automotive parts industry in the country also attracted investments by global companies such as General Motors, DaimlerChrysler and Ford. Thailand has emerged as South-East Asia's main automotive hub, ranking as the third largest exporter of automotive products in Asia after Japan and South Korea.

It bears noting that the more successful examples of the use of *mandatory* export requirements mostly relate to developing countries endowed with fairly large domestic markets, which gave their governments a relatively strong bargaining position *vis-à-vis* foreign investors. While the ability to link export performance criteria to domestic market access is likely to be less feasible in smaller economies (or may need to be voluntary in character and linked to incentives), the process of globalization and

21 Moran, Graham and Blomström, *Foreign Direct Investment and Development.*

22 Moran, *The Relationship between Trade, Foreign Direct Investment, and Development.*

23 Margaret M. Pearson, *Joint Ventures in the People's Republic of China: The Control of Foreign Direct Investment under Socialism* (Princeton: Princeton University Press, 1991).

24 Moran, *Foreign Direct Investment and Development.*

market integration has somewhat eroded the bargaining power of large countries in many industries. In the cases of Chile, Malaysia and South Africa, for instance, Moran[25] reports that export performance requirements were closely linked to fiscal incentives or equity ownership advantages and were perceived by investors more as a positive inducement to make use of host-country comparative advantages than as a burden. The electronics firms that invested in Malaysia did so from the outset mainly to supply fast-growing regional and global markets, meaning that exports would have likely increased even in the absence of the performance requirements. Still, the incentives granted to export-oriented projects may have contributed to attracting and expanding such investments in Malaysia.

4. Contending with local content requirements: the economics of prohibition

Upon joining the WTO, new Members confront the need to terminate various WTO-inconsistent local content practices and must look for alternative means of industry support. Doing so is necessary for two main reasons. A first, obvious, reason stems from the very illegality of LCRs under the WTO's SCM and TRIMs Agreements. Accordingly, acceding country governments typically agree, subject to transition periods of varying length, to phase out various LCR practices under their Protocols of Accession.

Beyond their legal anchoring in various WTO provisions (and their legal equivalents under bilateral investment treaties (BITs) and preferential trade agreements (PTAs)), a second reason for the prohibition of LCRs can be traced to a set of economic and political economy considerations that underpinned the development of trade disciplines curtailing or prohibiting their use. Several of these recur in the economic literature devoted to LCRs.[26]

First, the support provided by LCRs to domestic producers can be highly variable, relative to a tariff or a subsidy, such that government officials rarely have credible information on the effective rate of protection (expressed in *ad valorem* tariff equivalents) afforded by LCRs to domestic industry.

Second, like all instruments of protection, LCRs ultimately insulate domestic firms from foreign competition, causing potential lags in the adoption of new technology and hampering the goal of nurturing competitive infant industries and an ecosystem of vibrant suppliers. Reviewing the impact that the removal of local content and other prohibited performance requirements exerted on the industrial and trade performance of a select group of developing countries (e.g. Argentina, Mexico, Pakistan, the Philippines, Vietnam and Ethiopia), a study by UNCTAD (2007)[27] noted that:

25 Moran, *The Relationship between Trade, Foreign Direct Investment, and Development.*

26 Susan Stone, James Messent, and Dorothee Flaig, "Emerging Policy Issues: Localisation Barriers to Trade," *OECD Trade Policy Papers, No. 180*, Paris: OECD Publishing, (2015), accessed April 12, 2016, http://dx.doi.org/10.1787/5js1m6v5qd5j-en; Gary C. Hufbauer, Jeffrey Schott, and Cathleen Cimino, "Local Content Requirements: A Global Problem," *Policy Analyses in International Economics 102* (Washington, D.C.: Peterson Institute for International Economics, 2013); Theodore H. Moran, *Foreign Direct Investment and Development: The New Policy Agenda for Developing Countries and Economies in Transition* (Washington, D.C.: Peterson Institute for International Economics, 1998); Cathleen Cimino, Gary Clyde Hufbauer, and Jeffrey J. Schott, "A Proposed Code to Discipline Local Content Requirements," *Policy Brief Number 14-6*, (Washington, D.C.: Peterson Institute for International Economics, 2014).

27 United Nations Conference on Trade and Development, *Elimination of TRIMs: The Experience of Selected*

> "Firm conclusions are difficult to draw. The extent to which TRIMs have helped advance the objectives set out has varied considerably, reflecting the specific economic conditions and policy environment of the country using them. In some cases, TRIMs appear to have played a role in spurring foreign companies to source more locally in, or enhance their exports from, the host economy. The auto industry in Mexico and the motorcycle industry in Viet Nam are cases in point. In other instances, the impact appears to have been small or negative. The effectiveness of various TRIMs has been influenced by the clarity of objectives set, the capability of host country Governments to implement a given policy, the local absorptive capacity of the workforce and domestic enterprises, and the extent to which measures used have been compatible with other industrial and trade policies. For example, where local content requirements were not accompanied by efforts to boost the competitiveness of the domestic supplier base, their removal (and associated trade protection) is likely to force many local suppliers out of business."

Third, LCRs are often applied in a non-transparent manner, such that their possible impacts on downstream producers - in terms of price, quality, and potential delays - can once more be difficult to assess. This further insulates such measures from efforts at domestic reform and needed surveillance.

Fourth, LCRs can increase delays and costs, especially in infrastructure or capital-intensive projects, if quality local suppliers are difficult to find. These impacts are often unknown or go unmeasured but remain highly variable and context-specific, because they depend on supply and demand conditions in the local economy.

Fifth, because most LCR regimes involve processes imbued with some degree of administrative discretion, they are often associated with illicit practices and favouritism. This problem may be most acute when the domestic supply capacity consists of a small number of firms.

Sixth, LCRs are rarely limited in time and seldom feature "sunset" provisions foreseeing their elimination by a certain date. This latter feature can lead to long-lasting market distortions and rent-seeking behaviour by beneficiary industries.

Seventh, LCRs can generate perverse political economy outcomes, as the incentive structure for foreign investors may be skewed toward preserving a low-volume, high-profit, position within the protected host country market. In the extreme, such adverse political economy may incite foreign investors to oppose a transition towards greater openness.

5. Alternatives to local content requirements

Maximizing the benefits from alternative measures of industry support requires a good understanding of: (i) whether such requirements or support measures are needed; (ii) how they might influence firm conduct (including in terms of strengthened linkages to local suppliers) across different industries; (iii) whether the host country has the institutional capacity to monitor compliance with

Developing Countries, (Geneva: UNCTAD, 2007).

applied policies; (iv) the technological upgrading, employment creation, international certification or overall competitiveness conditions that should be attached to such requirements; (v) how much they will cost; (vi) their efficacy through the adoption of key performance indicators (KPIs) and aligned systems of monitoring and enforcement (M&E); (vii) whether evidence of policy failure over a reasonable time-frame will lead to their withdrawal.

5.1 Trade and investment policy measures

A first set of LCR alternatives can be found in the policy space afforded by various trade and investment policy instruments that remain weakly or (un-) constrained by law. Several such options can be readily identified.

5.1.1 Exploiting "water" in the tariffs

A common practice among WTO Members and signatories of preferential trade agreements in general is to preserve policy flexibility by maintaining a distance (or space) between their applied and bound tariff rates. Such space allows them the possibility of raising tariff protection levels without running afoul of their international commitments. Though the process of WTO accession typically deprives new members of the space generally preserved by founding Members – WTO acceding countries generally maintain fewer and lower tariff peaks and their tariff bindings are generally more closely aligned to applied tariffs, scope exists to maintain some space in sectors and sub-sectors that face greater competitive risks from market liberalisation.

If a government that decides to protect a certain activity or sector has a political choice between a new LCR and a higher tariff, the tariff will almost certainly represent the better economic choice. As noted earlier, the cost of a tariff is visible whereas that of an LCR is harder to determine. LCR specifications are more likely than tariffs to "play favourites" between local firms, because, in principle, tariffs are uniform and provide equal protection to all local firms whereas LCRs often favour a few firms. Tariffs need not delay the realisation of large investment projects; LCRs more often than not ensure delays. So while higher tariffs may not always represent a first-best policy, they are superior to LCRs as a means of targeted protection.[28] The scope for adjusting (raising) applied tariffs towards ceiling bindings may be significantly greater in the case of natural-resource and market-seeking forms of FDI than for efficiency-seeking investment, given the heightened sensitivity of the latter type of investors to higher input prices.

5.1.2 Exploiting flexibilities under the TRIMs Agreement

The TRIMs Agreement applies solely to investment measures affecting trade in goods and not to performance requirements, including LCRs, arising in services trade. To the extent, however, that performance requirements affect the conditions under which trade is performed in service industries, LCRs should be included in an acceding country's schedule of commitments under the General Agreement on Trade in Services ("GATS"), either in specific sectors or horizontally depending on their nature if a host country government wishes to maintain such measures in sectors, sub-sectors

28 Meanwhile, economists generally agree that subsidies are preferable to tariffs or other forms of trade protection, because they are more visible, do not foreclose the market to competitive foreign firms, and do not impose a deadweight loss, through higher prices, on household and business consumers.

and/or modes of supply in which it has scheduled a liberalization commitment. This is so because LCRs inherently run afoul of GATS Article XVII (National Treatment), as they do under Article III.4 of the GATT.

Several types of performance requirements other than LCRs remain WTO-legal, though they are not always allowed under PTAs and IIAs. Indeed, the proliferation of PTAs and IIAs has, in recent years, been characterized by a significant broadening of the scope of prohibited TRIMs.

Among those performance requirements that remain WTO-legal are: (i) local training requirements; (ii) joint-venture requirements; (iii) technology transfer requirements; and (iv) export requirements. The above requirements can all be maintained under the WTO even as the economic literature urges caution with respect to the efficacy of joint-venture and technology transfer requirements, particularly mandatory ones, as described earlier. Here again, host country governments may be able to exercise greater policy leverage – and thus extract greater benefits - from relatively immobile investors, such as those characterizing natural-resource and market-seeking FDI projects. PRs directed at upgrading of human capital, particularly when their design involves collaboration (for instance, in vocational training curriculum design) between lead firms and local suppliers, have often proved effective in facilitating technology upgrading, as have export-related PRs.

Meanwhile, new forms of LCRs relating to data localisation requirements (i.e., the obligation for suppliers of online services to establish a server in a host country in order to provide services in the local market) escape discipline under the TRIMs Agreement even as they are proving highly contentious in digital trade circles. Concerns over data privacy and the regulation of cross-border data flows, the rising threat of cybercrime as well as the need for territoriality for taxation purposes and to ascribe origin to cloud-based transactions, all suggest that the above controversies and the quest for policy space linked to them appear unlikely to abate any time soon.

Despite the continued prevalence of LCRs and a track record of generally poor compliance with prohibited measures under trade and investment law, there is surprisingly little WTO jurisprudence under the TRIMs Agreement, with only 3 cases prosecuted to date, two of which involving automobile trade, while a third involved renewable energy equipment. The relative dearth of litigation may reflect the reluctance of WTO Members to challenge measures that many of them have been prone to maintain or introduce in the wake of the latest global economic crisis.

5.1.3 Exploiting flexibilities under the Agreement on Subsidies and Countervailing Measures ("ASCM")

The ASCM allows for a broad range of subsidies to be provided to local producers with a view to enhancing their competitiveness, subject to them not being contingent on favouring local purchases over imports nor being mandatorily linked to exporting, both of which are explicitly prohibited under the Agreement. Subsidies that target the domestic market are actionable only when (among other characteristics) they are specific to an industry and cause "adverse effects" to the interests of another WTO member.

So long as they are not framed in a sector or industry-specific manner but broadly available, production subsidy and incentive programmes enjoy significant policy immunity and are not

actionable under the ASCM. In practice, few WTO dispute cases have arisen when subsidies alter market conditions solely within the territory of a WTO member. Only when the subsidized firm exports to foreign markets, does it become likely that another WTO member might bring a countervailing duty case. In practice, countries enjoy considerable room within the WTO rulebook to subsidize domestic firms. The most binding constraint on industry support is typically that flowing from countries' limited budget capacity. Furthermore, when industry support takes the form of investment incentives, foreign investors may, in practice, have a limited desire to challenge host country LCRs even as they impose costs on them.

In a manner reminiscent of the TRIMs Agreement, the ASCM does not impose disciplines on subsidies granted to service industries. Negotiations foreseen under Article XIV of the GATS on subsidies have hardly progressed since the days of the Uruguay Round, revealing a clear (and recurring) revealed preference (echoed as well under PTAs and IIAs) for regulatory inaction in this area and the preservation of policy space aimed at helping host states nurture infant service industries and, especially, design locational incentive programmes aimed at attracting foreign service suppliers.[29] In the absence of agreed subsidy disciplines under the GATS (and PTAs), only the obligations of Most Favoured Nation (MFN; Article II) and National Treatment (Article XVII) apply. In the case of the national treatment obligation of the GATS, it only applies when specific commitments are scheduled. Accordingly, acceding countries must inscribe all MFN- and NT-inconsistent subsidy and incentive measures in their GATS schedules of commitments and lists of MFN exemptions in completing their WTO accession negotiations.

Beyond subsidy disciplines, acceding members can further make use of various trade defence instruments in the goods trade area, such as safeguards, anti-dumping and countervailing measures under WTO law and their PTA equivalents. Many WTO members use such measures to regulate imports of various products with a view to achieving "substantially equivalent competitive opportunities" in the domestic market. While contingent protection instruments are not available for services trade, their use in goods trade offers scope for acceding country governments to address instances where domestic producers previously benefiting from LCRs are injured by import competition following WTO accession.

5.1.4 Exploiting flexibilities under the (plurilateral) Government Procurement Agreement

There is, as noted earlier, no obligation for an acceding member to join the WTO's plurilateral Government Procurement Agreement ("GPA"). Such flexibility may be of considerable importance to countries in transition with an extensive state presence in the economy (e.g. China, Russia, Vietnam, Kazakhstan), not least in light of the sheer weight of state purchases, but also to the extent that, so long as they eschew GPA membership, governments can continue to subject state purchases to local content rules that are not constrained by WTO law.

In many WTO Member states, rules governing public procurement are designed precisely to achieve local content objectives. This is so even in developed countries: Krugman and Obstfeld,[30] recall how, in

29 Pierre Sauvé and Marta Soprana, "Learning from Not Doing: Subsidy Disciplines in Services Trade," in *E15 Task Force on Rethinking International Subsidies Practices,* (ICTSD and World Economic Forum, April 2015).

30 Paul R. Krugman, and Maurice Obstfeld, *International Economics: Theory and Policy*, 6th ed. (Boston: Pearson Addison-Wesley, 2000).

order to qualify as a domestic product and claim a 25% price preference under the Buy American Act, foreign manufacturers of buses had to buy United States-made engines, transmissions, axles and tires.

Moreover, it bears recalling that even if a prospective WTO Member ultimately decided to join the GPA at some point in the future, it would still enjoy significant flexibility in regard to the scope of covered entities and applicable procurement thresholds with a view to offering a measure of protection to smaller or targeted local firms, including those previously subject to LCR benefits.

5.1.5 Addressing localization requirements

In preparing for WTO accession and the abandonment of LCRs, many would-be Members contemplate the introduction of mandatory localization requirements for various types of services related to imports and/or use of machinery and equipment, such as repair and maintenance services. Beyond the generation of local employment and associated benefits (local purchases, value added, and taxes), such requirements respond to the need to avoid or reduce the possible production delays to investment projects – particularly sub-surface activities - that might result from having such services performed in the exporting or home country.

In considering such a policy alternative, acceding country governments may wish to ponder a number of considerations. These include the fact that firms using expensive or technically complex technologies or machinery will have a natural inclination to minimize the scope for any productive interruptions. The best way to do so is to localise key support functions in the host country and avoid the delays and transport costs that performing maintenance abroad would entail. Rather than mandating localization, host country governments may wish to work proactively with lead firms and focus on supplying the right ingredients of efficient "back-office" services – including properly trained specialised labour as well as access to low priced or weakly taxed (imported) spare parts. As with innovative supplier development programmes using a host of tax and other incentives (such as accelerated depreciation and wage subsidies) to reward lead firms working closely with domestic suppliers to strengthen their capabilities and competitiveness, lead investors can be voluntarily incentivized to train local workers in state-of-the-art repairs and maintenance and other related services.

It bears noting, however, that to the extent that localisation requirements constitute measures "*affecting trade in services*" able to modify conditions of competition in sectors and modes of supply subject to scheduled GATS commitments, acceding country governments may wish to avoid scheduling full cross-border (Mode 1) commitments (i.e., remain unbound) and entice foreign suppliers to trade and supply services through a commercial presence in the host country (Mode 3). By remaining unbound with regard to Mode 1 supply, a WTO Member would retain the right to introduce localization requirements in future.

Still, it is important to note that some degree of legal uncertainty characterises the treatment of localisation requirements under the GATS. This can be seen, for instance, in the context of ongoing plurilateral negotiations among a group of like-minded WTO Members towards a Trade in Services Agreement (TISA), from a recent submission by the European Union that proposed horizontal market access commitments for services that included a prohibition on LCRs, specifically LCRs "*to set up a commercial presence, to be resident, to designate a local agent, or to establish in any*

form of presence, including computing facilities, in its territory as a condition for the cross-border supply of a service covered in its commitments."[31]

5.1.6 Making use of other flexibilities under trade agreements

While a number of sources point to a recent spike in the use of WTO-illegal LCRs following the financial and economic crisis of 2008-09,[32] the longer-term trend, since the end of the Uruguay Round, has been marked by a progressive decline in the incidence of various performance requirements, including LCRs. Among the reasons for such a decline are the progressive liberalization of host country investment regimes, the need to comply with newly-agreed multilateral disciplines, notably those of the TRIMs and SCM Agreements, a rising tide of WTO+ disciplines on performance requirements arising from a proliferating set of PTAs as well as from IIAs further eroding industrial policy space, growing empirical evidence questioning the developmental efficacy of LCRs, as well as a marked intensification of cross-country locational competition directed at efficiency-seeking FDI in a world marked by increasing production fragmentation and the rise of GVC-driven trade and investment flows.

The above trends do not mean, however, that host countries have given up on their desire to influence the behaviour of firms. As LCRs and various other performance requirements have been phased out, there has been a trend towards using trade policy measures that achieve objectives similar to those of selected performance requirements. These include rules of origin in preferential trade agreements, as well as growing recourse to anti-dumping measures and various other non-tariff measures such as product standards.

Taking advantage of flexibilities allowed under Article XXIV of the GATT, 1994 regarding the creation of preferential trading areas, PTA signatories have made extensive use of rules of origin to increase local value added. Rules of origin determine the extent of domestic content a product must have to qualify as an internal product in a preferential trading area and, hence, have similar effects as local content requirements.

In addition to the non-LCR performance requirements described above, examples of other measures can be found in the literature. Environmental assessments are today a mandatory requirement of investment projects in many countries, particularly in extractive industries, but more generally in all sectors susceptible of exerting an impact on the environment. Such requirements provide host country governments with a means to reject investment project proposals that are seen as environmentally harmful. It can also generate local expertise in the provision of environmental impact assessments, all the more so as requirements for the performance of such assessments by local service providers are not prohibited under the GATS, so long as limitations are scheduled or no commitment is undertaken in the relevant sector.

5.2 Adopting "light-touch" industrial policy measures

Beyond the flexibilities available under trade and investment agreements, WTO acceding countries have a number of tools at their disposal to replace LCRs with economically efficient alternatives

31 See European *Union, Plurilateral Services Agreement: Draft Text Provisions - Proposal by the European Union*, Brussels. European Commission, (July 2014), http://trade.ec.europa.eu/doclib/docs/2014/july/tradoc_152687.pdf (accessed April 12, 2016).

32 Hufbauer et al., *Local Content Requirements: A Global Problem; Stone et al., Emerging Policy Issues: Localisation Barriers to Trade.*

able to promote economy-wide gains in competitiveness and strengthen linkages between domestic suppliers and lead firms, be they domestic or foreign. For the most part, these fall under the broad rubric of industrial policy. Following Pack and Saggi (2006),[33] industrial policy can be defined as "any type of selective intervention or governmental policy that attempts to alter the sectoral structure of production toward sectors that are expected to offer better prospects for economic growth than would occur in the absence of such intervention."

All countries at some point in their development path make use of industrial policy. The merits and demerits of such policies have long been debated and such debates tend to be strongly influenced by prevailing ideological currents in economics and approaches to governance and policy-making. Considered with some measure of scepticism during the heyday of the "Washington consensus", the more recent years have witnessed a significant reappraisal of the case for more activist state support to industry.[34]

Industrial development objectives incorporate a range of policies, from reasonably broad to quite specific. The broader objectives tend to focus on creating new sectors to diversify a country's industrial base. More targeted measures focus on developing upstream industries, increasing the competitiveness of existing industries with a view to developing exports, as well as supporting the development of targeted types of enterprises (e.g. SMEs) or special interest groups (e.g. minorities or specific regions in an economy). They can also encompass other objectives, such as reducing a country's carbon footprint through the development of alternative energy sources or promoting agglomeration economies through the advent of clusters within special purpose industrial parks or economic zones. Political economy forces are also often at play in the design of industry support policies, matching a public desire to direct government procurement spending on domestic firms and products, to prop up newly developed (infant) industries or to offer protection to sectors made vulnerable by greater exposure to foreign competition.[35]

Industrial policy can, thus, be framed in a horizontal manner or pursue sector-specific objectives. Horizontal measures aim to provide the best possible environment for the economy to expand along its existing areas of comparative advantage. Such measures avoid providing unduly targeted measures towards specific sectors of the economy and focus instead on how best to enhance

33 Howard Pack and Kamal Saggi, "The Case for Industrial Policy: A Critical Survey," *Policy Research Working Paper, No. 3839*, (Washington, D.C.: The World Bank, 2006).

34 Philippe Aghion, Julian Boulanger, and Elie Cohen, "Rethinking Industrial Policy," *Bruegel Policy Brief* 2011/04, (June 2011); Bernard M. Hoekman, "Subsidies and Spillovers in a Value Chain World: New Rules Required?," *E15 Task Force on Rethinking International Subsidies Practices*, (Geneva: ICTSD and World Economic Forum, April 2015); Patrick Low and Julia Tijaja, "Effective Industrial Policies and Global Value Chains," in *A World Trade Organization for the 21st Century: The Asian Perspective*, ed. Richard Baldwin, Masahiro Kawai, and Ganeshan Wignaraja, ADBI Series on Asian Economic Integration and Cooperation, (London: Edward Elgar, 2014), 110; Mariana Mazzucato, "The Creative State," *Project Syndicate*, April 16, 2015, https://www.project-syndicate.org/commentary/government-investment-innovation-by-mariana-mazzucato-2015-04(accessed April 12, 2016); Theodore H. Moran, "Industrial Policy as a Tool of Development Strategy," in *E15 Expert Group on Reinvigorating Manufacturing: New Industrial Policy and the Trade System*, (Geneva: ICTSD and World Economic Forum, January 2015); Isabelle Ramdoo, "Industrial Policies in a Changing World: What Prospects for Low-Income Countries?," *E15 Expert Group on Reinvigorating Manufacturing: New Industrial Policy and the Trade System*, (Geneva: ICTSD and World Economic Forum, May 2015); Dani Rodrik, "The Return of Industrial Policy", *Project Syndicate*, (April 12, 2010) http://www.project-syndicate.org/commentary/the-return-of-industrial-policy#2mk4iiYbUAWJT7p8.99 (accessed April 12, 2016).

35 Stone et al., *Emerging Policy Issues: Localisation Barriers to Trade.*

economy-wide performance, allowing the economy to move to a higher productivity plane, a process Ghani, Grover Goswami and Kharas[36] have dubbed "growth escalators".

The challenge for governments is to ensure that horizontal and selective policy responses work in a complementary manner, all the more so as they typically operate over different time horizons. Many of the horizontal initiatives described below require upfront investments in capacity and institutions whose benefits can only realistically accrue over the medium- and long-term. Meanwhile, selective lighter touch industrial policies can be designed to produce results more closely attuned to political economy realities (e.g., the political life-cycle of governments). The interaction of the two policy fronts can lead to needed short-term gains while building the underlying long-run framework necessary for growth and sustainable development.

Reviewing a range of experiences across countries and over time as industrial policies have evolved, Harrison and Rodriguez-Clare[37] and Moran[38] draw attention to the difference between "hard/heavy-form" and "soft/lighter form" industrial policies. "Hard" or "heavier touch" industrial policy uses measures to distort prices or affect quantities rather than addressing the underlying problems related to industrial development. Their work, and that of others, finds generally little evidence supporting the claim that such policies will lead to long-term growth or sustainable diversification in the economy.[39]

Measures commonly used in "hard/heavy form" industrial policy include protective tariffs shielding local producers from global competition, strategic anti-dumping and restrictive rules of origin aimed at diverting FDI towards the host country market, export subsidies, tax breaks for foreign companies, local content requirements, as well as mandatory technology-sharing and joint-equity/ownership requirements.

Much recent literature draws attention to the aims and means of "soft" or "lighter touch" industrial policy, which addresses a range of problems that hamper productivity growth in existing sectors or create barriers to developing new ones. The goal of the latter type of industrial policy is to develop a process where industry, government, and other actors in the public and private spheres work together to set strategic priorities, address information asymmetries, resolve coordination problems, experiment with potential interventions, minimize the impact of vested interests, and improve productivity.[40]

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36 Ejaz Ghani, Arti Grover Goswami, and Homi Kharas, "Service with a Smile," *PREM Economic Premise, No. 96,* (November 2012), http://siteresources.worldbank.org/EXTPREMNET/Resources/EP96.pdf (accessed April 12, 2016).

37 Ann Harrison and Andrés Rodriguez-Clare, "Trade, Foreign Investment and Industrial Policy for Developing Countries," *NBER Working Paper 15261,* (August 2009), http://www.nber.org/papers/w15261.pdf (accessed April 12, 2016).

38 Theodore H. Moran, "Foreign Investment and Supply Chains in Emerging Markets: Recurring Problems and Demonstrated Solutions," *Working Paper No. 2014-12,* Peterson Institute of International Economics (December, 2014).

39 Harrison and Rodriguez-Clare, *Trade, Foreign Investment and Industrial Policy for Developing Countries;* Moran, *Foreign Investment and Supply Chains in Emerging Markets; Hufbauer et al., Local Content Requirements: A Global Problem; Patrick Low and Julia Tijaja, Effective Industrial Policies and Global Value Chains.*

40 Harrison and Rodriguez-Clare, *Trade, Foreign Investment and Industrial Policy for Developing Countries;* Hufbauer *et al., Local Content Requirements: A Global Problem; Moran, Foreign Investment and Supply Chains in Emerging Markets; Stone et al., Emerging Policy Issues: Localisation Barriers to Trade.*

While an all-encompassing list of measures falling within the realm of "soft/light touch" industrial industry policy is difficult to compile, none offer policy-makers and politicians the immediacy of the perceived short-term gains associated to LCRs which, alongside their fiscal neutrality, make them such an attractive industrial policy tool. In searching for workable, effective and WTO-compliant alternatives to local content requirements, it is important to recall that there are no short-term magic bullets able to confer the same, immediate, degree of protective relief to domestic producers. Rather, countries are confronted with a mix of policy tools that can be used with one common objective in mind: that of enhancing the productivity of firms and workers, reducing the cost and increasing the quality of locally produced goods and services and enhancing the business environment in which firms and workers operate.

The key consideration in seeking credible industrial policy alternatives to LCRs is that the measures proposed be directed at resolving specific barriers or bottlenecks to development and competitiveness, and not at distorting prices. The alternative policy suggestions made below all fall under the heading of "soft" or "light touch" industrial policies. These policies can be directed to the same objectives as those envisaged by LCRs, namely industrial development, technological upgrading, and employment creation, but generate less distortive outcomes whilst also promoting gains in economy-wide efficiency and good governance.

Following the typologies set out in Hufbauer et al. (2013),[41] Moran (2014),[42] and Stone et al (2015),[43] alternative policies can be differentiated between horizontal and selective policies. Horizontal policies aim to improve the "framework conditions" or the general business environment in the economy, whereas selective policies are those targeted at a specific sector, technology, or task depending on the nature of the barrier that has been identified. Selective measures can focus on an economic sector or sub-sector, a technology that can be used across multiple sectors, or a specific task within a supply chain.

5.2.1 Horizontal policies

The role of horizontal policies is, as noted above, to provide the best possible environment for the economy to expand along its existing areas of comparative advantage. Horizontal industrial policy measures include issues such as: (i) improvements in the business and regulatory environments (often referred to as "doing business" conditions); (ii) pro-competitive reforms in key service (input) industries, such as telecommunications, transportation, and financial services; (iii) enhancing the quality of physical (connectivity) infrastructure and logistics performance to reduce trade costs; (iv) boosting productivity, including through technological upgrading and the development of human capital through targeted training programmes; (v) institutional upgrading, particularly as concerns the formulation and implementation of trade and investment policies capable of avoiding regulatory or political capture and rent-seeking conduct; (vi) providing better access to finance through financial deepening and financial sector reforms.

None of the above policy measures will likely come as a surprise to policy officials involved in the day to day formulation and implementation of industry support measures. Yet, the fact that the

41 Hufbauer et al., *Local Content Requirements: A Global Problem.*

42 Moran, *Foreign Investment and Supply Chains in Emerging Markets.*

43 Stone et al., *Emerging Policy Issues: Localisation Barriers to Trade.*

above policy tools are not new does not mean that the results secured could not be enhanced with a view to making the domestic economy more robust and local firms better able to meet the sourcing needs of lead investing firms. No host country is immune from the need to review and improve the business regulatory environment, and attempts should be made to do so across the whole range of regulatory processes that impact on business efficiency.

The rising tide of trade in intermediate goods and services, linked in global value chains with inputs from multiple countries and coordinated by numerous business trips, product and data exchanges, greatly increases the importance of trade transaction costs ("TTCs") and of policies directed at their minimisation. Evidence shows that TTCs decisively separate countries that participate fully in world commerce from those that remain more isolated. As Hufbauer et al.,[44] note, TTCs are not simply a matter of geography and fate. Targeted policies - grouped under the label of "trade facilitation" -can sharply reduce the TTC burden even for landlocked countries. TTCs often represent much greater impediments to commerce for most developing countries than are tariffs. Not surprisingly, logistics outperformers have been shown to enjoy faster trade expansion, more rapid economic growth, and more diversified exports.

5.2.2 Selected industrial policy support measures

Selective industrial policies are targeted at particular barriers affecting a specific sector or sub-sector of the economy. To be successful, policymakers need to identify the market failure in the specific sector, and then develop the precise measure that will resolve the failure as efficiently as possible. The use of selective policies – often likened to "picking winners" - has been particularly contentious in the past, confronting policy-makers with acute informational problems that complicate attempts at properly scaling the needed policy intervention.

A key aspect of needed institutional adaptation involves recognition that the focus of the government should not be on "picking winners" but rather on encouraging strategic collaboration and coordination with the private sector and other key stakeholders (Rodrik, 2008).[45] Such collaboration is intended to identify the most significant barriers to sector development, design effective interventions, evaluate those interventions, and then learn from possible mistakes in the process. Because policymakers generally have limited knowledge about the activities that are most deserving of support, it is best to design flexible policies with well specified objectives able to improve overall allocative efficiency, operate within agreed timelines (including sunset provisions), evolve key performance indicators and clearly defined exit strategies when policies reveal themselves ineffective.

The existence of significant information barriers requires mechanisms to obtain information about market failures from market participants. A prime example of such barriers concerns information gaps between lead investors and suitably qualified domestic suppliers. Rodrik (2008)[46] and Moran (2014),[47] both, emphasize how such mechanisms need to be 'embedded' within the market to enable closer collaboration between the private sector and the government. Existing examples

44 Hufbauer et al., *Local Content Requirements: A Global Problem.*

45 Dani Rodrik, "Normalizing Industrial Policy," *Working Paper No.* 3, World Bank on behalf of the Commission on Growth and Development, (2008).

46 Ibid.

47 Moran, *Foreign Investment and Supply Chains in Emerging Markets.*

of such mechanisms include deliberation councils, supplier identification and development programmes (e.g., "talent scouts" and "marriage counsellors" linking foreign invested firms to potential local suppliers), investment advisory councils, sectoral round-tables, private-public venture funds, supplier qualification and certification programmes, design of vocational training curricula developed in partnership with private (foreign) firms, etc.

The most prominent types of targeted industry support measures include the following: (i) *labour and skills upgrading*: targeted skills policies, apprenticeships, training partnerships with foreign firms, overseas scholarships to address skill gaps, long-term collaborative strategies for education and research between industry and universities; joint development of vocational training programmes between lead firms and local suppliers; attraction of foreign universities; capacity building for enhanced labour market forecasting; creation of a fund for local training upgrading via levies on firm turnover; (ii) *technological upgrading*: nurturing the emergence of firm clusters, providing R&D subsidies and grants for innovative projects proposed by local firms and carried out by local research institutions; awarding prizes and tax benefits to innovative firms; promoting long-term collaborative strategies for education and research between firms, industry associations and universities; developing production subsidy programmes whose disbursements are linked to meeting internationally agreed standards and certification; (iii) *investment promotion*: enhanced overall investment promotion agency ("IPA") performance to identify a select range of priority sectors for investment attraction and retention, address informational deficits and match lead foreign firms with a range of qualified domestic suppliers. The role of IPAs is particularly important in addressing informational deficits between lead investors and local suppliers through a range of "marriage counselling" activities whilst offering various corporate social responsibility-related incentives to lead firms who identify, work with and durably strengthen promising local suppliers; (iv) i*nvestment incentives* directed to attracting lead firms in target sectors (and, perhaps more controversially, their lead foreign suppliers) with a view to increasing competition in the domestic market and compelling local suppliers to raise their overall performance at a faster pace, but subject to weighing the fiscal costs involved and developing robust means of measuring the efficacy of incentive programmes; (v) *systems and institutions*: sectoral competitiveness strategies, cluster policies, and strategic planning with industry. Experience from other countries suggests the centrally important role of investment promotion agencies and of special economic zones endowed with the critical mass of human capital, business services and logistics and telecommunications connectivity, and (vi) *access to land*: provision of infrastructure, creation of special economic zones (SEZs) and changes to zoning policies to enable the clustering of firms in related lines of business so as to promote agglomeration externalities.

5.3 The crucial role of corporate social responsibility and supplier development programmes

Creating incentives for large companies, especially multinational firms ("MNCs"), to partner with local enterprises can help host country firms to become reliable suppliers and enhance their own productivity and competitiveness, including in export markets. MNCs represent an important gateway for local companies to join global value chains and thus tap the potential of foreign markets. MNCs are generally keen to source locally a large proportion of the inputs they require for manufacturing purposes. For MNCs, finding reliable local suppliers will mean lower cost of inputs, including lower costs of transport and reduction of inventories.

Quality and prices are key drivers of the competitiveness of local firms. Local companies and

MNCs will buy local goods and services provided they meet international quality standards and can compete with the price of imports. Quality and safety are the primary considerations for the procurement decisions of these companies. Thus, promotion policies will be successful if the achieved quality of the output of local firms as suppliers meets international product and process standards, including safety and environmental protocols.

Rather than relying on WTO-illegal local content quotas, host countries around the world have in recent years increasingly turned their attention to working with foreign investors in developing innovative supplier development programmes.[48] Such programmes can be promoted as part of a broader competitiveness strategy for local firms. These programmes aim at ensuring that local companies have or acquire the capability and skills to provide goods and services to other companies in the value chain. By partnering with larger multinational firms, local enterprises can acquire technology, skills and improved manufacturing and managerial practices.

Supplier development programmes typically reward those foreign companies that undertake extra efforts to help local suppliers, whether by means of tax deductions (for instance through accelerated depreciation of investments in new machinery) or other payments to partially reimburse firms' expenditures in helping local industries. Such programs are proving increasingly effective alternatives to LCRs and as means to build durable backward linkages between lead investors and local suppliers.

The scope of a supplier development programme will depend on the identifiable needs of local companies to allow them to become part of a specific value chain. In general terms, the objective is for foreign investors and dynamic local firms to be able to source high quality, high value-added goods and services from local companies.

Moran[49] showcases the model developed by Singapore's Economic Development Board as one example of incentive compatible best practice. The Board offered to reimburse the salary of a manager from each multinational affiliate who had responsibility for inviting local firms to participate in the affiliate's own training programmes and identify which firms showed promise of qualifying as suppliers. Such a "vendor development" model used foreign investors as talent scouts to sort through potential suppliers, and then helped the most capable to finance those improvements recommended by the investors.

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48 Supplier development programmes are an important tool to promote the competitiveness of local companies. They may help to reduce and eliminate constraints to competitiveness of local companies by: (i) helping firms to achieve relevant international certifications; (ii) linking firms to MNCs; (iii) providing consultancy on specific aspects of business; (iv) creating a forum for MNCs to disclose their sourcing needs to local firms; and (v) developing important links for technology transfer to SMEs from both MNCs and training institutions. Supplier development contributes to industrial upgrading. These programs can help in a variety of areas, e.g. adoption of new technologies, enhancement of managerial processes and skills, and improvement of quality standards and certification processes. Longer term benefits to other sectors may also be achieved through supplier development programs. The development and accumulation of new skills and competencies among local workers will generate spillovers that may be transferred to other sectors in the economy. The promotion of local suppliers will contribute to increased local employment, skills, and may even lead to technology transfer and improved capital provision for local small and medium sized enterprises. Supplier development programs contribute to develop backward linkages between multinational companies and local suppliers. Backward linkages between multinational companies and local suppliers are increasingly recognized as key channels for dissemination of benefits from FDI into a local economy.

49 Moran, *How Does FDI Affect Host Country Development*?.

To a considerable degree, supplier development programmes proceed from best practices emerging from corporate social responsibility ("CSR") policies. For instance, the Global Reporting Initiative, a leading NGO initiative aimed at promoting the use of sustainability reporting, recommends that manufacturing multinationals report on how much they buy locally. Similarly, the OECD's CSR Guidelines focus on two important issues taken up by supplier development programmes: (i) encouraging local capacity building through close co-operation with the local community, including business interests, as well as developing the enterprise's activities in domestic and foreign markets, consistent with the need for sound commercial practice; and (ii) encouraging human capital formation, in particular by creating employment opportunities and facilitating training opportunities for employees.[50]

CSR pressures can inspire targeted actions on the part of lead investor firms. As Moran (2011)[51] notes, socially responsible firms can ask themselves several questions: Has the firm designated a manager to be a "talent scout" to search out potential indigenous suppliers? Does the firm provide production assistance, managerial advice, and advance purchase orders to potential indigenous suppliers? Does the firm have procedures to "qualify" and "certify" potential indigenous suppliers (e.g., ISO 9000 certification)? Does the firm have a programme to introduce qualified indigenous suppliers to sister affiliates in the region, thereby promoting exports?

Governments can help implement CSR prescriptions. Singapore and Malaysia, for example, have set up industrial parks for local suppliers adjacent to their export processing zones that house multinational corporations. They have also established programmes to link foreign multinationals with lists of indigenous firms in each sector; they finance equipment recommended by the foreign firms and offer certification instruction (Moran 2011).[52]

Requirements to implement an approved supplier development programme represent an attractive alternative to enforcing local content rules. To succeed, such programmes should: (i) foster adoption of new technologies by the suppliers and produce measurable improvements in value-added; (ii) upgrade managerial and technical skills; (iii) achieve measurable improvements in managerial practices; (iv) achieve measurable improvements in quality output and quality processes and management; and (v) result in the insertion of local suppliers into GVCs, domestically at least and preferably within export markets over time.

Moreover, successful supplier development programmes are ones where information is made available to suppliers on the needs of larger companies, thereby enabling suppliers to promote themselves on the basis of their understanding of customers' needs.

6. Concluding remarks

This paper explored a number of industrial policy options and constraints that confront countries that

50 Organisation for Economic Cooperation and Development, *OECD Guidelines for Multinational Enterprises*, 2011 Edition (May 25, 2011), II. General Policies.

51 Theodore H. Moran, *Foreign Direct Investment and Development: Launching a Second Generation of Policy Research: Avoiding the Mistakes of the First, Reevaluating Policies for Developed and Developing Countries* (Washington, DC: Peterson Institute for International Economics, 2011).

52 Ibid.

accede to the World Trade Organization and stem from the obligation to phase out non-compliant local content requirements (LCRs). The widespread recourse to various local content practices and their political economy appeal make their removal a daunting task in many countries, particularly those characterized by weak productive diversification and a heavy reliance on extractive activities.

The paper reviewed the key policy rationales behind the prohibition of LCRs and highlighted a number of alternative measures of industry support available to WTO acceding countries, placing particular emphasis on corporate social responsibility incentives and the design of supplier development programmes aimed at strengthening linkages between foreign invested or lead firms to an ecosystem of typically small and medium-sized local suppliers.

The process of WTO accession confronts decision-makers with the need to phase-out those LCRs that run afoul of WTO law. This is notably the case under the Agreement on Subsidies and Countervailing Measures (ASCM), which prohibits the granting of subsidies made contingent on local content use. It is equally the case under the Agreement on Trade-Related Investment Measures (TRIMs), which counts LCRs among its list of prohibited performance requirements. WTO membership similarly compels acceding country policy-makers to ensure that the purchase and sales practices of state-affiliated enterprises are conducted on a non-discriminatory basis when such enterprises are engaged in commercial activity.

At the same time that it forecloses the continued use of instruments long present in the industrial policy arsenal of would-be members, WTO accession also affords them space for maintaining or enacting various types of performance requirements (PRs), subsidies and incentives that do not contravene the SCM and TRIMs agreements. Joining the WTO also makes it possible for an acceding country to safeguard or enact LCRs that remain permissible under the General Agreement on Trade in Services (GATS). Meanwhile, acceding country governments must weigh the pros and cons of assuming the additional LCR-related constraints that would result from a decision to (voluntarily) join the WTO's plurilateral Government Procurement Agreement (GPA).

Even before concluding their WTO accession negotiations, it bears recalling that the ability of candidate countries' for accession to use LCRs is often already constrained. This may notably be the case under various preferential trade agreements entered into, the vast majority of which today feature comprehensive investment chapters that prohibit a range of performance requirements that is typically greater than those subject to WTO disciplines under the TRIMs Agreement. The policy space of acceding countries may be further constrained by the commitments agreed to under bilateral investment treaties (BITs), notably those entered into with developed countries, the majority of which specifically proscribe the use of a large number of performance requirements, including LCRs.

Joining the WTO offers acceding countries the opportunity to take stock, subject to careful economic scrutiny regarding their efficacy, of a range of WTO-compliant alternatives to LCRs able to lend support to local suppliers, industries and workers with a view to promoting sustained gains in productivity, competitiveness and economy-wide performance whilst also helping secure needed economic diversification aims. Such alternatives can be found both in the realm of trade and investment policy instruments that remain free of legally binding constraints or whose use is permissible under trade and investment law, as well as in the realm of industrial policy,

particularly so-called “lighter touch” industry support measures that aim at enhancing economy-wide performance.

A closing word of caution is nonetheless in order. The various LCR alternatives identified in this paper offer no magic bullets to would-be WTO Members. In becoming a full-fledged member of the multilateral trade community, such Members will confront the same obligations, policy constraints and competitiveness challenges that all other WTO Members face. And they will have to do so with the same policy toolbox available to their WTO partners. None of the alternatives on offer in this paper can offer acceding country governments the degree of immediate and seemingly costless protection that LCRs might appear to provide.

To a considerable degree, the above discussion is largely moot to the extent that the use of LCRs is no longer a viable legal option for WTO Members. This does not imply, of course, that the objectives of promoting more rapid industrialization and economic diversification, improving export performance or encouraging local sourcing have ceased to matter to host country governments. Nor does it mean that WTO members have fully renounced the use of PRs, including LCRs. Quite the contrary. A major paradox of global governance today, made more evident in the wake of the policy response to the financial crisis of 2008-09, is that the international community has agreed to ban policy tools that most countries continue to use widely and get away with.

Still, the above discussion underlines the importance of exploring alternative measures of industry support that can help achieve desired policy objectives without violating internationally-agreed principles. This paper’s review of the literature devoted to PRs and LCRs suggests that the optimal policy mix best able to address industrialization objectives remains highly country- and context-specific. In considering the alternatives on offer in this paper, policy makers must accept, even if grudgingly, that there is no ready-made policy tool that can be taken out of a magician’s hat and applied across the board as a perfect substitute to what are and remain WTO-illegal LCR measures.

Preferential RoO - Facilitators of Regional and Global Value Chains

Rajan Sudesh Ratna*

ABSTRACT

Many studies have focused on Regional Trade Agreements (RTAs) as well as on Rules of Origin (RoO). These have mostly seen how stringent RoO act as a deterrent to regional trade. Only a few studies have discussed the development role that preferential RoO play. With the help of the OECD-WTO database on TiVA (Trade in Value Addition) many researchers are now focusing on the existence of regional and global value chains. Most of these new studies are linked to country case studies with a focus on global trade. A very limited number of studies have focused on the linkages between the preferential RoO and regional or global supply chains. Is it possible to promote regional value chain with the most simple RoO or there is a need for some onerous manufacturing obligations or the so-called 'restrictive RoO'? This paper analyses the case of the so-called restrictive RoO with regard to Mexico, Sri Lanka and Bangladesh to examine whether these RoO facilitate these countries in becoming a part of regional value chains or not. The study relies on the ex-post facto analysis of trade data to explore this relationship using various techniques. It finds that in these cases, the existence of more onerous RoO criteria were instrumental in integrating these countries with larger economies by way of greater linkages among the industries, thereby facilitating the regional value chains. The study also finds that the value added criteria will be able to promote greater regional value chains through provisions of cumulation rather than the CTC (Change in Tariff Classification) criteria.

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The views and opinions reflected in this paper are that of the author alone.

1. Introduction

In recent times two subjects have been drawing greater attention of researchers: the surge in regional trade agreements ("RTAs") along with an increase in the complexities of Rules of Origin ("RoO") and the regional/global value chains ("RVCs"/"GVCs"). RTAs are drawing attention due to the fact that negotiating countries are undertaking commitments on issues which they opposed in the multilateral talks. This raises the question of whether such RTAs pose a challenge to multilateralism or not. Another issue that is drawing attention is to examine how the formation of regional or global value chains as a part of international production networks is taking place, as the present trading environment has emerged from the fragmentation of production and distribution of manufacturing activities in different parts of the world. It has become important to understand at which stage of a value chain a particular country is positioned and how much real value is being contributed to the economy, even when the country is at the highest end of production network. However, till now little attention is given to understand the linkages between these two issues and how they are related with each other. This paper examines some free trade agreements ("FTAs") and explores the relationship between the preferential Rules of Origin which are integral part of these FTAs and the production networks or value chains. The paper uses the cases of the North American Free Trade Agreement ("NAFTA"), the India-Sri Lanka FTA and Bangladesh's Ready Made Garments ("RMG") exports to EU under the Generalized Scheme of Preferences ("GSP Scheme") to explore their relationship with RVCs/GVCs and evaluate if the RoO have been able to facilitate the regional and global value chains.

2. Rules of Origin

The term 'Rules of Origin' speaks for itself. It refers to criteria that need to be fulfilled for determining the origin of a product for granting preferential treatment by RTA partners. The objective of preferential RoO is to promote intra-regional trade and to prevent trade deflection, or simple trans-shipment. RoO can also play a developmental role for the RTA partners. By their design they enforce value addition in exporting country and augment intra-RTA trade through the provisions of cumulation, thereby leading to a greater economic activity in RTA partners. Thus, RoO integrate RTA partners and promote regional value chains through backward-forward linkages of industries. Substantial transformation is often called 'sufficient manufacturing or processing'. Determination of origin of manufactured goods is done on the basis of certain manufacturing requirements which should be carried out in order to guarantee a certain amount of manufacturing taking place in the country which is party to RTA. Substantial transformation in most of the RTAs is usually defined in terms of a minimum value added content that must be met by the exporting country in order to grant origin. Another criterion that is used is in terms of the Change in Tariff Classification ("CTC") between non-originating inputs and export product. The most common CTC is Change in Tariff Heading ("CTH") which means that there shall be a change at the 4 digit Harmonized System ("HS") level. In several RTAs a combination of these two criteria are used, which is treated as the most stringent.

Regional value chains can be established through the process of cumulation, which allows trade in raw materials and intermediate products among the RTA partners in order to meet the substantial transformation criteria. Requirements relating to checking the import content or value addition have the potential for generating higher degree of manufacturing operations among the RTA partners and these at times facilitate higher intra-industry trade. In order to meet the substantial

transformation criteria, especially if this is a value added criteria (where a ceiling on percentage of non-originating inputs are prescribed), a country seeking preferences for its export products has to ensure that higher manufacturing process takes place in that country. Such manufacturing process has to go beyond simple operations like simple assembly operations, packing and repacking etc. The presence of large SMEs (Small and Medium Enterprises) and the fragmentation of production could create tremendous opportunities to get in these international production networks within the RTA members.

To increase intra regional trade and facilitate the sourcing patterns within the region, in the context of an RTA, the concept of cumulation plays a crucial part in RoO. Cumulation is an instrument allowing producers to import materials from another RTA partner country without undermining the origin of the product. It extends the possibility of using low cost inputs, without compromising on the originating status of a final export product as the intermediate products are sourced from RTA partner (Please see Box 2 for illustration). Through regional integration, especially in terms of cumulation and value added criteria, the exporting country not only sources cheaper raw material/inputs from the RTA partner but through the backward-forward linkages among industries, flow of technological knowhow also happens. This, thus, enhances production efficiency for a particular country, which, in turn, enhances the possibilities of getting into the global market as the country is able to diversify its production of high quality product. At the same time, the RTA partners create supply chain among themselves for the finished product that is for the international market i.e. outside the RTA zone and thus this also facilitates global supply chain.

The objective of preferential market access is to reduce the cost of trade for the RTA members which can also be done through the cumulation provisions of RoO over and above tariff reductions. RTA partners can promote development of certain productive activities (sectors) by making them more cost-efficient. Thus RoO can be used as a tool to promote establishment of a value chain within the region as they can ensure the supply of cheaper and/or higher quality intermediate inputs. RTAs having different economies - one large and another small - can grant greater benefits to the smaller partners as the country can effectively become a part of a regional value chain. This is because its industries can be linked to the industries of the larger economy. Countries which suffer from limited supply capacity, in terms of quantity, quality and variability of products, can benefit from the expansion of intra-RTA trade and resulting integration through the cumulation provisions in the RoO. The most basic form is bilateral cumulation, which applies to materials provided by either of two partners of an RTA. A comparison of different types of cumulation provisions is given below:

BOX 1: ABCs OF CUMULATION

Bilateral cumulation
Bilateral cumulation is the most basic form of cumulation as it operates between two parties and allows producers in either partner country to use materials and components originating in the other's country as if they originated in their own country.
Diagonal cumulation
Diagonal cumulation operates between more than two countries and allows producers to use materials and components *originating* in either country that is part of the agreement. In one form this is an extension of bilateral cumulation by extending it to the regional level.

Partial cumulation
Partial cumulation is the most common form of cumulation under which an input originating in one member of a Preferential Trade Arrangement ("PTA") will be considered as originating input in other member country(ies) of PTA. In such a case the full value of the input/material is taken as originating and not the actual value content of processing in the PTA partner. On the other hand if the input is not originating the value added in one country is totally disregarded as it does not meet the origin criteria.
Full cumulation
Full cumulation takes into account all of the operations conducted within the countries who are members to PTA - even if they are carried out on non – originating material. Thus, there is no more restriction to only use originating materials and components for the final good. This concept allows more fragmentation of the production process among members of a trade agreement and increases economic linkages and trade in PTAs.

(Source: Das and Ratna, 2011)[1]

How cumulation promotes regional value chains by enhancing the intra-regional trade can be illustrated by the following illustration (Box 2):

BOX 2: CUMULATION: HOW IT PROMOTES VALUE CHAIN?

The box illustrates the case of ASEAN FTA.

A manufacturer in Viet Nam produces transmission line for motor vehicles. He plans to export the transmission line to the ASEAN market and uses the inputs which are sourced from Indonesia (another member of the ASEAN) and from China (which is outside the ASEAN). The process of manufacturing by using different inputs are as follows:

Description of Materials/Others		Origin	Origin Status	Value (US$)
a.	Part A	Viet Nam	Originating	1500
b.	Part B	Indonesia	Originating	1500
c.	**Part C**	**China**	**Non-originating**	**2000**
d.	Other costs + profit	Viet Nam	Originating	500
	F.O.B Price (a+b+c+d)			5,500

The ASEAN FTA RoO prescribes that regional value content (RVC) must be at least 40%.

Part B which is produced in Indonesia is considered to be originating in Viet Nam due to the cumulation rules. In this case, the transmission line will be considered as originating due to the following calculation:

RVC = [(5500 – 2000)/5500]X100 = 63.6% and thus it will get preference in ASEAN market.

However, if the cumulation was not allowed in ASEAN rules of origin, the calculations would have been:

1 Ram Upendra Das and Rajan Sudesh Ratna, *Perspectives on Rules of Origin: Analytical and Policy Insights from the Indian Experience* (London: Palgrave Macmillan, 2011).

RVC= [(5500 – 3500[2])/5500]100 = 36.3% and therefore will not get preference when exported from Viet Nam.

(Source: ESCAP, 2013)

One important point that should be stressed while determining the origin of a product under cumulation provisions, especially in the case of Asia -Pacific, relates to the minimal value added criteria in the exporting country. ESCAP (2013) points out that in the SAFTA ("South Asian Free Trade Agreement"), the overall regional value added under the cumulation provision is 10% higher than the single country obligation of 40%. Additionally, for regional cumulation the agreement prescribes that within the aggregate regional content of 50%, at least 20% value added must come from the final exporting country. A similar provision exists in India-Sri Lanka FTA where under regional cumulation an overall value added of 35% is prescribed with a minimum of 25% coming from the exporting country. This means that the other country is allowed to do a value addition of only 10% under the regional cumulation. Similarly in the APTA (Asia-Pacific Trade Agreement), the regional value added content for cumulation is 60% (15 percentage points higher than single country value added). In the case of ASEAN FTA, there is no such extra obligation on the final exporting country to have a minimal valued added, thus with only a total value addition of 40% within ASEAN members a product will get the originating status. In ATIGA (ASEAN Trade in Goods Agreement),

ASEAN has used a combination of partial and full cumulation by allowing alternative routes. However, full cumulation has put some restrictions through the requirement of minimum value added content of at least 20% in order to enjoy this benefit. It has been observed that cumulation provisions are not designed to create a 'regional or PTA identity' of a product and thereby act against the actual objective of regional integration for creating supply chains within the bilateral/ plurilateral/regional PTAs. Baldwin and Kawai (2013) pointed out that for small nations the bilateral cumulation hinders their prospects of sourcing of inputs since they need to import many inputs from different countries for manufacturing export products.[3] They, therefore, suggest for a broader rules for cumulation so as to reduce the restrictiveness of regionalization.

Unfortunately, in the Asia-Pacific region, the current situation is such that among several types of RoO frameworks that are in existence, the RoO vary significantly, even in cases involving the same countries but different PTAs. Among the ASEAN+1 agreements themselves, there are 22 different RoO types and furthermore only 30 percent of the tariff lines share a common RoO. In each PTA, there are several criteria for determining origin and therefore, harmonizing them is one of the most difficult tasks (Menon, 2013) even though it is almost certain that such an exercise would contribute to intraregional trade and facilitate sourcing from the lesser developed countries[4].

2 Indonesian input = 1500 USD and Chinese input = 2000 USD (a sum of 3500 USD as Indonesian input will be treated as non-originating without cumulation provision).

3 Richard Baldwind and Masahiro Kawai, "Multilateralizing Asian Regionalism," *ADBI Working Paper Series, no. 431* (August, 2013).

4 Jayant Menon, "The Challenge Facing Asia's Regional Comprehensive Economic Partnership," *East Asia Forum, Vol. 23, 2013,* http://www.eastasiaforum.org/2013/06/23/the-challenge-facing-asias-regional-comprehensive-economic-partnership (accessed June 23, 2015).

In the EU GSP rules, as revised and made effective from 2011, the cumulation rules prescribe a concept of "regional origin" instead of a single country origin or 'global cumulation', especially in the context of least developed countries. The products are deemed to originate in the last country (in the group) of final processing. Regional cumulation between countries in the same regional group applies only when the working or processing carried out in the beneficiary country, where the materials are further processed or incorporated, goes beyond "minimal" operations. Under the European Union rules for partial and regional cumulation, materials or parts imported by a member country of one of the four notified groupings[5] from another member country of the same grouping for further manufacture are considered as originating products of the country of manufacture and not as third-country inputs, provided that the materials or parts are already "originating products" of the exporting member country of the grouping. Originating products are those that have acquired origin by fulfilling the individual origin requirements under the basic rules of origin for GSP purposes. For example, European Union rules of origin require cotton jackets (HS 6203) to be produced from "originating" yarn. With regional cumulation, however, preference-receiving country A may utilize imported fabrics from country B (note that these fabrics must already have originating status B), which is a member of the same regional grouping, and the finished jacket will be considered as an originating product. This is because the imported fabric, which, again, must already have come from an originating producer in the same grouping, is counted under the cumulation rules as a domestic input and not as an imported input.

3. Literature survey

Global value chains have become an important component of today's international trade and are no longer confined within domestic borders or a single firm. Production now involves multiple countries and multiple firms with complex webs and several layers of interaction. Empirical evidence suggests that the emergence of international production networks ("IPNs") in East Asia resulted from market-driven forces such as vertical specialization, higher production costs in the home country and institutional factors such as free trade agreements (Kimura and Obashi, 2011).[6] Recent literature suggests that countries engaged in global value chains have shown enhanced access to regional and global economies, improved production techniques and greater capacity to generate employment (Banga, 2013).[7]

The IPN could be established to promote regional value chains through preferential RoO as the intra-RTA trade and investment flows could be influenced by the cumulation provisions. Nag and De (2011) have noted that RoO play a significant role in promoting trade in low value components and

5 Regional cumulation between countries within the same group applies to the following four separate regional groups:
   (a) Group I: Brunei Darussalam, Cambodia, Indonesia, Lao PDR, Malaysia, Philippines, Singapore, Thailand, Viet Nam;
   (b) Group II: Bolivia, Colombia, Costa Rica, Ecuador, El Salvador, Guatemala, Honduras, Nicaragua, Panama, Peru, Venezuela;
   (c) Group III: Bangladesh, Bhutan, India, Maldives, Nepal, Pakistan, Sri Lanka;
   (d) Group IV: Argentina, Brazil, Paraguay and Uruguay.

6 Fukunari Kimura and Ayako Obashi, "Production Networks in East Asia: What We Know So Far," *ADBI Working Paper Series*, no. 320, November, 2011, http://www.adb.org/sites/default/files/publication/156175/adbi-wp320.pdf (accessed April 12, 2016).

7 Rashmi Banga, *Measuring Value in Global Value Chains*, UNCTAD Background Paper no. RVC-8. (Geneva: UNCTAD, 2013).

although tariff reduction is the most important tool for making a trade agreement work efficiently, RoO can act as a catalyst even if tariff rates are not so low.[8] They further noted through regression analysis that a higher RoO restrictiveness index inhibits the positive growth of intra-industry trade.

Medalla (2011) examined the nexus between RoO and value chain in the ASEAN-plus one agreements. He found that the type of applicable RoOs (especially in terms of restrictiveness), the number of FTAs the exporter has to deal with, along with the Operational Certification Procedures (OCP) would have impacts on RoO compliance costs, and thus on the global value chain. He concluded that so long as these costs add up to less than the margin of preference provided by the FTA, exporters benefit and the FTA would have a positive impact on the value chain.[9] Estevadeoral et al. (2013) observed that the regional pattern of GVCs is largely determined by the existence of regional trade agreements, particularly deep ones, because they tend to incorporate disciplines like rules in investment policy, services, standards, intellectual property rights or the harmonization of custom procedures considered to be important for the multifaceted mix of trade, investment and knowledge flows associated with GVCs.[10]

In the past, several studies have examined the benefits of NAFTA. Hummels (1998) observed that the "regionality" of supply chains is intrinsically related to certain agreements and/or arrangements that occur across countries. He noted that before the 1965 US-Canada Auto Agreement, trade in auto parts between these two countries practically did not exist. After the 1965 agreement reduced the tariffs to zero, auto trade soared, igniting a successful US-Canada auto supply chain in which 60% of US auto exports to Canada were engines and parts, while 75% of Canadian auto exports to the US were finished cars and trucks.[11]

Gereffi and Martinez (1999) pointed out that the NAFTA brought a change in the rules of the game for producers in Mexico, especially for the apparel industry. A transformation in production activities in the Torreón region happened, which in 1993 was dedicated as a region exclusively to apparel assembly. By 1996 Mexican-made denim, trim, and labels were used for blue jean exports, and even laundering and finishing were carried out in Mexico. By 1998, cutting and distribution processes were emerging in the region as well. They also found that the apparel is an industry characterized by labor-intensive work, not by state-of-the-art technology. However, many American companies with high status and valuable brand names did not want to be associated with a production system that could be accused of exploiting labor. For example, Levi's expected its subcontractors to build new plants with modern equipment because that would be the only type of production with which they wanted their products identified. Although cheap labor continued to be one important reason for U.S. operations in Mexico, companies with advanced technology strategies and big production volumes made considerable investments. For example, Wrangler spent $40 million in the construction of one plant for cutting, assembly, and laundering, while Kentucky-Lajat spent approximately the same amount in its laundering and finishing facility.

8 Biswajit Nag and Debdeep De, "Rules of Origin and Development of Regional Production Network in Asia: Case Studies of Selected Industries," *ARTNeT Working Paper Series*, no. 101, (May 2011).

9 E. M. Medalla and M. A. D. Rosellon, "ROOs in ASEAN+1 FTAs and the Value Chain in East Asia," in *ERIA Research Project Report 2010-29*, ed. C. Findlay (Jakarta: ERIA, 2011), 156-184.

10 Antoni Estevadeordal et al., "Global Value Chains and Rules of Origin," *E15 Expert Group on Global Value Chains: Development Challenges and Policy Options*, December, 2013.

11 D. Hummels, D. Rapoport, and Kei-Mu Yi, "Vertical Specialization and the Changing Nature of World Trade," *Economic Policy Review* 4, no. 2 (1998).

The Cone-Parras joint-venture denim mill required an investment of nearly $100 million. These investments demonstrate that NAFTA had attracted companies with a great diversity of strategies concerning labor-capital relationships, with a number of them focused on efficient and modern production systems, while bringing Mexico in the higher value chain in textiles sector.[12]

While analysing the empirical evidence after 6 years of implementation of NAFTA, Sanchez and Karp (2000) found that the average annual investment flow tripled for Mexico during the periods of 1985-1993 to 1994-1999, with an increase in average ratio of FDI to GDP and the largest investor was USA. They estimated that the NAFTA led to a 25 percent annual rise in FDI growth rate. In turn, for each percentage point rise in FDI growth rate there has been a 0.11 and 0.12 percent increase in the maquiladora and the non-oil, non-maquiladora export growth rate respectively.[13]

Haufbauer and Schott (2005) noted that NAFTA was successful in promoting economic growth by not only increasing competitions in domestic markets but also promoting investments from both domestic and foreign sources. For Mexico, the FDI increased not only from the USA and Canada but outside NAFTA also. It is also pointed out that the restricted rule of origin in textiles, apparel and auto were main cause of use of intermediate materials from other NAFTA members, leading to increase in intra-NAFTA trade and investments flows.[14] Ahmad (2007) looked at USA's imports of textiles and clothing from top 30 preferential suppliers and noted that during 1990-2000 Mexico's share ballooned from 2.4% to 13.5%. He also observed that Mexico's 83% of exports to USA qualifies for NAFTA benefits, while remaining 17% comes under MFN tariff due to strict RoO of yarn forward rule.[15]

Developed countries have often used the rules of origin for developmental purposes, though in some cases they do act as NTBs (Non Trade Barriers). NAFTA is a case in point. For the automotive sector different percentages of the regional value content are laid down for various phases, for instance, 56 per cent between 1998 and 2002 and 62.5 per cent thereafter for some categories of motor vehicles. In the case of textiles and apparel, there is a "triple-transformation test" that requires fabrics or clothing items to be spun from yarns or fibres produced in North America as well as to be cut and sewn within the FTA. Cutting does not determine the country of origin as the new rules are based on processing or assembly operations.[16]

4. Methodology

This study examines the examples of NAFTA, India-Sri Lanka FTA and Bangladesh's RMG exports to EU. In this regard, the analysis of trade and investment linkages has been used as a parameter to examine

12 Gary Gereffi and Martha A. Martinez, Blue Jeans and Local Linkages: The *Blue Jeans Boom in Torreón, Mexico,* World Bank Working Paper 27906 (Washington DC: World Bank, October 1999), http://www-wds.worldbank.org/external/default/WDSContentServer/WDSP/IB/2004/02/25/000265513_20040225125354/Rendered/PDF/wdr27906.pdf (accessed April 12, 2016).

13 Manuel Sánchez and Nathaniel Karp, "NAFTA's Economic Effects on Mexico" (paper presented at NBER 12th Annual Inter-American Seminar on Economics, Buenos Aires, December 2-4, 1999).

14 Gary Clyde Haufbauer and Jeffrey J Schott, *NAFTA Revisited: Achievements and Challenges* (Washington DC: Institute of International Economics, 2005).

15 Munir Ahmad, "Impact of Origin Rules for Textiles and Clothing on Developing Countries", *ICTSD Programme on Competitiveness and Sustainable Development, International Centre for Trade and Sustainable Development*, no.3 (2007).

16 Das and Ratna, *Perspectives on Rules of Origin.*

if the RoO have played a positive role in regional integration and, thereby, generating greater economic activity. However, the limitation of this analysis is the lack of preferential trade data or data on investment which went under the RTA. The analysis is done on the basis of available data which includes MFN trade as well as preferential trade, thus, a bias regarding the estimates cannot be ruled out.

To examine the linkages between RoO and value chains, the trade patterns of certain sectors were evaluated over a fixed time period for different agreements. Here the patterns of trade of finished and related inputs at 2 digit HS level have been used. For textiles sector Standard International Trade Classification (SITC) version 3 was used with the classification of garments, fabrics and yarn. An intra-industry trade ("IIT") index was calculated using the Grubel-Lloyd method, with the index ranging between 0 and 1. The value indicates the extent of bilateral trade on similar products. A higher IIT indicated the existence of an IPN. The TiVA data was used for Mexico to evaluate the effect of NAFTA, while in other cases where the TiVA data for a country was not available, the value addition was calculated using the formula prescribed under RTAs, between the related raw materials and finished export products by using the built down method.

5. Mexico in NAFTA – case of textiles

Since the RoO of NAFTA is stated to be one of the most stringent (especially in the apparel segment), the case of Mexico is studied here to explore whether the RoO established a regional value chain between Mexico and USA under NAFTA. Article 401 of NAFTA and its Annex contain the defining set of origin specifications. Article 401 of NAFTA states that goods can be deemed to have origin in 4 ways:

(i) Goods wholly obtained or produced in the NAFTA region;

(ii) Goods produced in the NAFTA region wholly from originating materials;

(iii) Goods meeting the Annex 401 origin rules; and

(iv) Unassembled goods and goods classified with their parts which do not meet Annex 401 rules of origin but that contain 60 percent regional value content using the transaction method, or 50 percent regional value using the net cost method.[17]

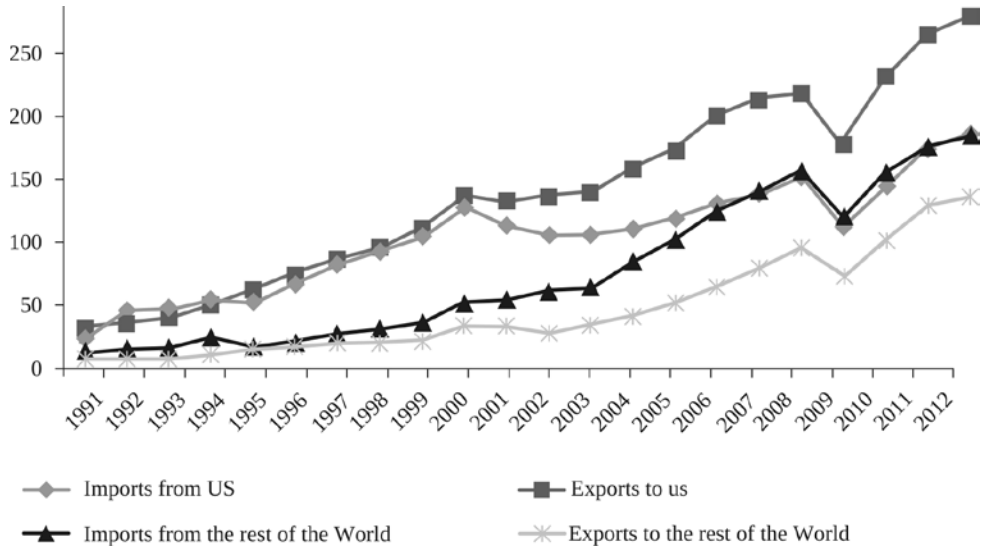
NAFTA rules of origin for apparel and other made up articles (Chapters 61-63 of the Harmonised System of Nomenclature) are more stringent than other products. The RoO prescribes that the 'yarn forward' rule is to be followed on non-originating inputs for the items of Chapters 61-63 to be considered as originating. At the same time, goods produced in any or all of the three NAFTA countries, with components and materials that are wholly sourced or manufactured in any of the three countries, qualify as originating goods entitled to preferential tariff treatment.

Prior to NAFTA, Mexico could export apparel to USA through the outward processing trade (OPT) mechanism, in which Mexican suppliers only did assembling work on the components imported from USA. NAFTA changed the processing activities in Mexico as all the activities relating to manufacturing (not merely sewing) were now allowed in Mexico. Mexico was able to

17 "Guide to the Treatment of Textiles, Textile Articles, and Apparel under NAFTA", Canada Revenue Agency (formerly Canada Customs and Revenue Agency), 2001, http://cscb.ca/node/88006.

consolidate its regional clusters of textiles and clothing expertise by moving beyond sewing and created backward-forward linkages with USA as well as within the domestic industries. Thus in the case of textiles and clothing Mexican manufacturers sourced their inputs from USA in order to meet the regional content requirement, creating an effective production network between Mexico and USA for successful utilisation of the NAFTA. The overall trade scenario between Mexico and USA indicates a higher degree of Mexico's reliance on USA – both in terms of exports and imports since 1991 (pre NAFTA) than the Rest of World ("RoW") as can be seen from the figure below (Figure 1).

FIGURE 1: MEXICO'S TRADE WITH USA AND [ROW]



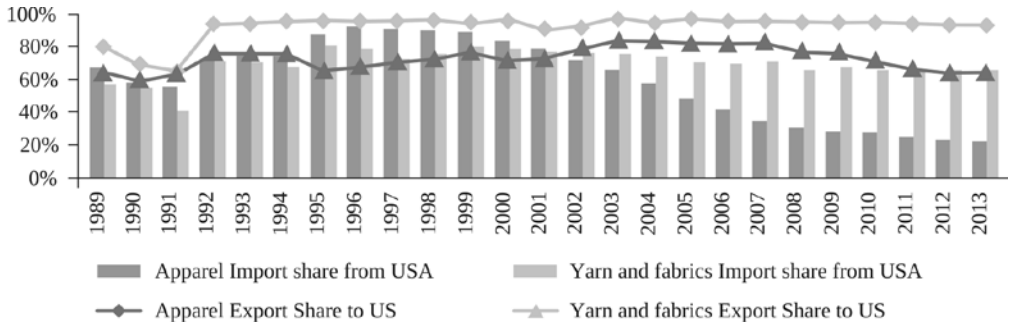
(Source: Author's calculation using WITS database)

From 1991 to 2000 the exports and imports with USA have followed the same trends. After 2000, Mexico saw a rise in favourable balance of trade with USA, though the same situation was not true with the RoW. This illustrates the possibility of the use of imports from RoW for further processing in Mexico and either using the products for domestic consumption or for export to USA, thus explaining the possibility of developing an IPN between RoW, Mexico and USA. In fact by creating a backward-forward linkage between its domestic industries and the industries in USA, Mexico was able to move up in the value chain by manufacturing clothing which developed beyond sewing.

How Mexico integrated with USA can be seen from the figure below (Figure 2). Increase in Mexico's export share to USA post NAFTA regime is apparent, which is consistently above 90% of Mexico's total exports of apparel to the world. It is also observed that over the years, the share of imports of fiber, yarn and fabrics from USA increased and the imports of apparel from USA declined. To a certain extent Mexico also saw an increase in its exports share of yarn and fabrics to USA. It is clear from the figure below that Mexico has integrated well with the USA at least in the garment sector through a supply chain of imports of yarn and fabrics from USA to process and

produce apparel and exports to USA. Since 2007, the gap between the imports share of yarn and fabrics from USA and the exports to USA has declined but the share of its exports of apparel to USA remained at the same level. This also establishes formation of a high degree of supply chain in Mexico by using the inputs from RoW and thus shifting from the regional value chain to the global chain in textiles sector.

FIGURE 2: MEXICO'S SHARE OF EXPORT AND IMPORT WITH USA



(Source: Author's calculation using WITS database)

A country enters the value chains both as a recipient of foreign inputs for the items it exports as well as a supplier of intermediate products that act as inputs in third countries' exports to which it has supplied. How Mexico has performed in terms of the magnitude of involvement of countries in the value chain through the production process (i.e. to have both forward and backward linkages) can be explained by the Participating Index developed by TiVA (OECD and WTO database). The index is expressed as a percentage of gross exports and indicates the share of foreign inputs (backward participation) and domestically produced inputs used in third countries' exports (forward participation). The higher the foreign value-added embodied in gross exports and the higher the value of inputs exported to third countries and used in their exports, the higher is the participation of a given country in the value chain. The index is expressed as percentage of gross exports and hence the value range is 0-100. It is evident that the backward and forward participation index of Mexico has seen an increase since 1995 (Table 1).

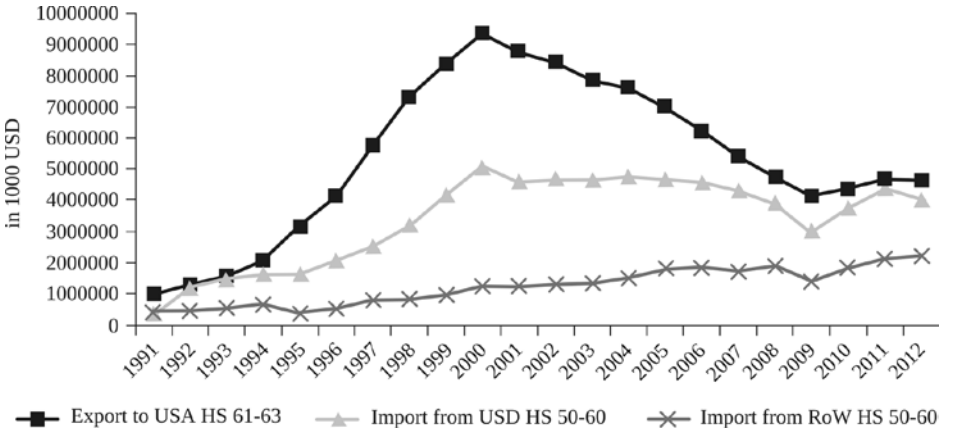
TABLE 1: PARTICIPATION IN GVC BY MEXICO: YEAR-WISE PARTICIPATION INDEX (%)

Participation Index	1995	2000	2005	2009
Total	36.9	**41.2**	**40.7**	**41.8**
Forward	10.3	9.3	10.0	11.5
Backward	26.5	31.8	30.6	30.3

(Source: T-IVA WTO OECD database)

The correlation between imports of raw materials and exports of finished goods (apparel) in case of Mexico can be illustrated in Figure 3 below.

FIGURE 3: MEXICO: EXPORT AND IMPORT OF TEXTILE SECTOR



(Source: Author's calculation using WITS database)

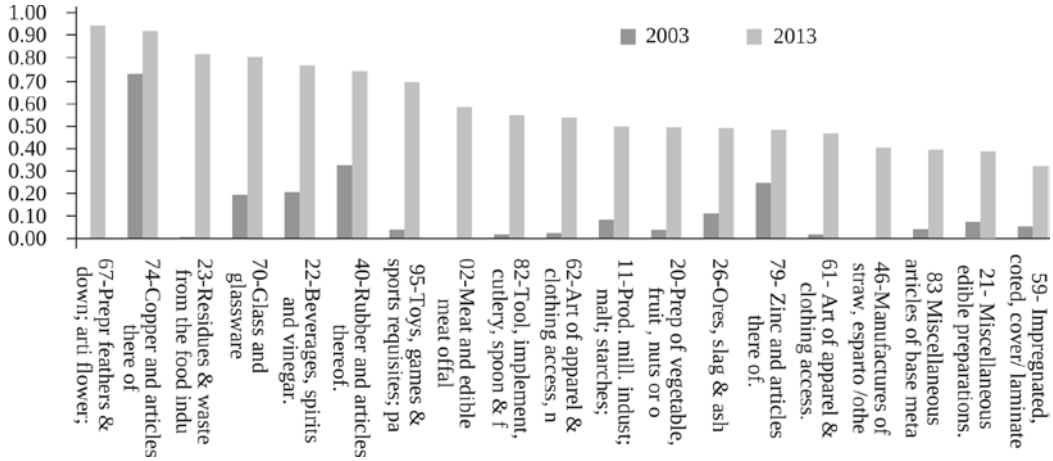
It is clear that Mexico has used sourcing of raw materials from USA and RoW for exports of apparel to USA, thus becoming a part of regional and global value chain, despite having a more stringent RoO of triple transformation process.

6. India-Sri Lanka FTA

The case study of India-Sri Lanka FTA ("ISLFTA") is also similar to Mexico as the qualifying criteria for origin is simultaneous application of CTH and 35% local value added content. Despite being a conventional FTA covering goods, it successfully integrated Sri Lanka with India not only in terms of goods trade but also increased investment flows leading to the integration of industries (see Box 3). Starting from March 2000, India granted duty-free treatment to Sri Lanka's exports from 2003. Unlike NAFTA, the ISLFTA has the general rule, which applies to all sectors, and hence a cross-sectoral analysis was done in this case. To understand the trade in different sectors, the IIT index was calculated using the Grubel-Lloyd method, with the index ranging between 0 and 1. The value indicates the extent of bilateral trade on similar products. A higher IIT indicated an existence of IPN. The post FTA shift in IIT and investments has been examined here.

Over the years, the intra-industry trade between Sri Lanka and India increased almost in all the sectors (Figure 4), indicating a higher level of backward-forward linkages among these sectors. It would be observed that there are several sectors where there was no IIT and over the years a very high IIT has been achieved.

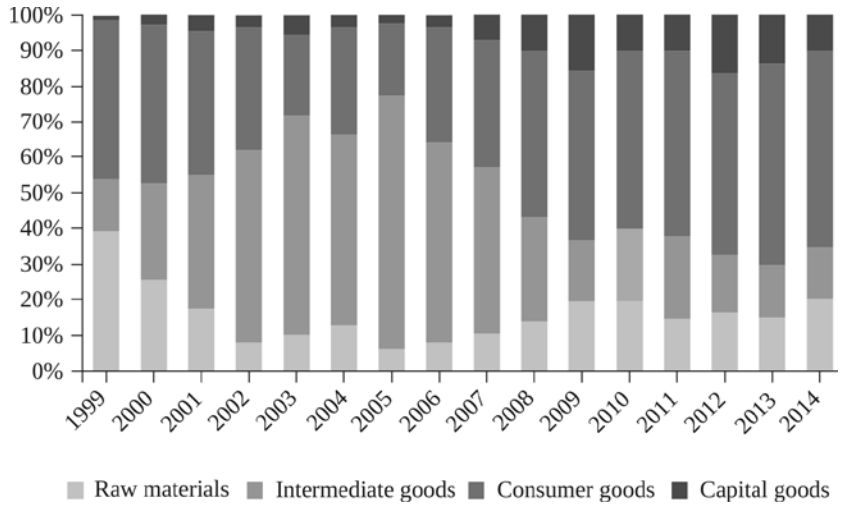
FIGURE 4: INTRA INDUSTRY TRADE BETWEEN SRI LANKA AND INDIA



(Source: Author's calculation using WITS database)

An analysis of composition of various categories of products (based on WITS classification) which were exported by Sri Lanka to India over the years is illustrated in Figure 5 below.

FIGURE 5: SRI LANKA'S EXPORTS TO INDIA



It is evident that starting from high composition of raw materials and intermediate products, in due time, Sri Lanka's highest composition of export products belonged to consumer goods and capital goods. Over the years, the dependence on export of raw materials and intermediate products has declined (around 35% of total exports in 2014). Thus the FTA allowed Sri Lanka to become part of bilateral value chain and allowed it to move up on the value chain over the years, despite having one of the stringent RoO. The above outcome is also substantiated by the figures and facts below

which states how the India-Sri Lanka FTA helped Sri Lanka attract investments from India and created an opportunity for integration of industries in select sectors:

BOX 3 : THE INDO-LANKA FREE TRADE AGREEMENT AND FDI

The free trade agreement gives duty-free market access to India and Sri Lanka on a preferential basis. In covering 4,000 products, it was foreseen that there would be a gradual reduction of import tariffs over three years for India and eight years for Sri Lanka.

To qualify for duty concessions in either country, the rules of origin criteria spelled out value added at a minimum of 35 per cent for eligible imports. For raw materials sourced from either country, the value-added component would be 25 per cent.

The effect of these changes led to an increase of Sri Lankan exports to India from US$71 million in 2001 to $168 million in 2002. India's exports to Sri Lanka increased from $604 million in 2001 to $831 million in 2002. Although the agreement does not address investment, it has stimulated new FDI for rubber-based products, ceramics, electrical and electronic items, wood-based products, agricultural commodities and consumer durables. Because of the agreement, 37 projects are now in operation, with a total investment of $145 million.

(Source: UNCTAD, 2003, World Investment Report)[18]

During January-June 2015, Indian investment amounted to US$ 33.05 million out of a total investment of US$ 515.09 million in the country. In 2014, Indian investment amounted to US$ 51.8 million out of total investments of US$ 1616 million in the country. India emerged as the eighth largest overall investor in Sri Lanka with investments of US$ 50.52 million in 2013. The main investments from India are in the areas of petroleum retail, hospitals, telecom, real estate, telecommunication, hospitality & tourism, banking and financial services, IT and food processing (tea & fruit juices). The notable Indian investments committed in 2014 are as follows: (i) ITC Ltd., hotel project (US$ 300 million) and (ii) Tata Housing project for real estate development (US$ 400 million).[19]

Due to Indian investments to Sri Lanka, mostly in the labour intensive sectors of vegetable oil & fat, metals, ferrous metals, oilseeds, wood products and machinery equipment, greater opportunities for employment were available to the local people. However, the possibility that these employment opportunities arise at semi-skilled or unskilled level cannot be ruled out. The impact of FTA on employment was studied by De Mel (2009) who estimated that as of the end of 2007, some 6747 individuals received employment as a result of Indian investment in 70 projects.[20] On the other hand, Kelegama and Karunaratne (2013) observed that within the first two years of the implementation of the ISLFTA, several sectors experienced over 100% growth, including industries such as chemical product manufacturing, cement manufacturing, and pearl harvesting. Quoting that there is no valid data on employment, they stated that some 5,900 jobs were created as a result of Indian investment projects and in few cases these related to relocation of labour from one company to another. The FTA has not only facilitated the

18 United Nations Conference on Trade and Development, *World Investment Report (2003)*.

19 Government of India, High Commission of India, *Sri Lanka, India-Sri Lanka Economic and Trade Engagement*, http://www.hcicolombo.org/pdf/Trade_Economic_Engagement_2112015.pdf.

20 Deshal De Mel, "Indo-Lanka Trade Agreements: Performance and Prospects," *Economic Review* 35, Nos. 5 & 6 (August & September 2009): 23-28.

investment in manufacturing sector, but also in services sector like telecom which provides greater opportunity for employment with a greater opportunity for software engineers and other high waged employment.[21] This was also recognized by the President of Indo-Lanka Chamber of Commerce and Industry[22] who stated that a win-win for both the nations has been achieved on the investment front due to the FTA.

Over the last few years one has also witnessed an increasing trend of Sri Lankan investments into India. Significant examples include Brandix (about US$ 1 billion to set up a Brandix India Apparel City spread over 1,000 acre land in Vishakapatnam), MAS holdings, John Keels, Hayleys, Aitken Spence (Hotels), Ceylon Biscuits (Munchee brand), Carsons Cumberbatch (Carlsberg) and DRH Logistics International; apart from other investments in the freight servicing and logistics sector.

7. Bangladesh: EU GSP benefits for RMG

Bangladesh is a GSP beneficiary for its exports of Ready Made Garments (RMG) to European Union (EU). The original GSP RoO for RMG prescribes that goods would be considered as originating if they were manufactured from Yarn (known as the 'yarn forward rule'). Therefore, for export of RMG under EU GSP, a country can import yarn and manufacture fabric and RMG locally for qualifying for GSP. In 2011, a change in the criteria for LDCs was made under the EU GSP. The new rule is based on a sector-by-sector approach and provided that if LDCs manufacture RMG from imported fabric (a single stage of transformation) it will be considered as originating and thus, preferences will be available under GSP. This was the case when the RoO criteria were relaxed for the LDCs. As per the changed RoO, Bangladesh can export by importing 'fabric' from anywhere and make garments – which will be eligible for GSP preferences. This was not the case earlier. In that case, one would presume that it would facilitate more exports of RMG from Bangladesh as well as generate more economic benefits. Bangladesh's top 4 items of export to EU are HS 6109 (T-shirts, singlets and other vests), HS 6110 (Jerseys, pullovers, cardigans, etc.), HS 6203 (Men's or boys' suits, ensembles, etc.) and HS 6204 (Women's or girls' suits, ensembles, etc.). From the perusal of exports of Bangladesh to EU, it appears as if Bangladesh benefitted by virtue of the increase in exports over the years. However, if one looks at the percentage share of Bangladesh's exports to EU vis-a-vis its exports to the world (this is done by using the mirror data, i.e., taking EU's imports from Bangladesh and world's imports from Bangladesh – as a proxy of Bangladesh exports, since the data of Bangladesh is not update) as well as overall imports of EU from Bangladesh, it will be evident that Bangladesh's share has been declining and this decline was noticed ever since the introduction of new RoO which became more relaxed in 2011. From 2009 to 2012, the shares of exports of Bangladesh to EU on HS 6109, 6110, 6203 and 6204 declined from 84% to 75%; 74% to 65%, 47% to 44% and 48% to 49% respectively. However, in order to be conclusive, one would need to examine data for some more years in this case.

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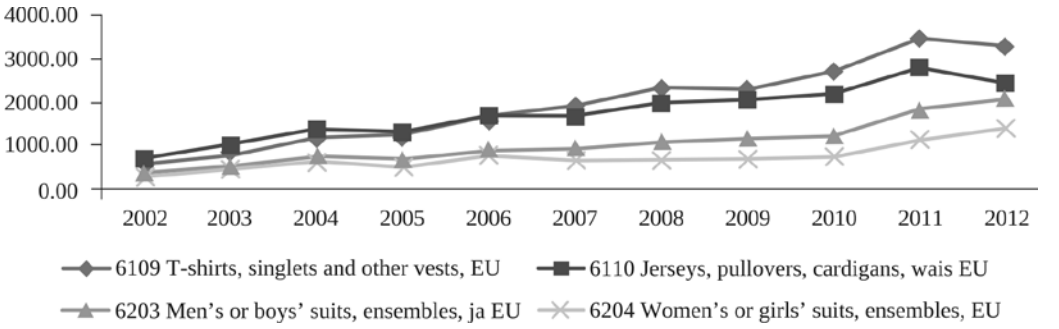
21 Saman Kelegama and Chandana Karunaratne, *Experiences of Sri Lanka in the Sri Lanka–India FTA and the Sri Lanka–Pakistan FTA*, UNCTAD Background Paper no. RVC-10 (Geneva: UNCTAD, 2013).

22 Press Trust of India, "FTA has benefited India, Sri Lanka: ILCCI", *The Economic Times*, July 30, 2013, http://articles.economictimes.indiatimes.com/2013-07-30/news/40895327_1_indo-lanka-free-trade-agreement-fta-sri-lanka.

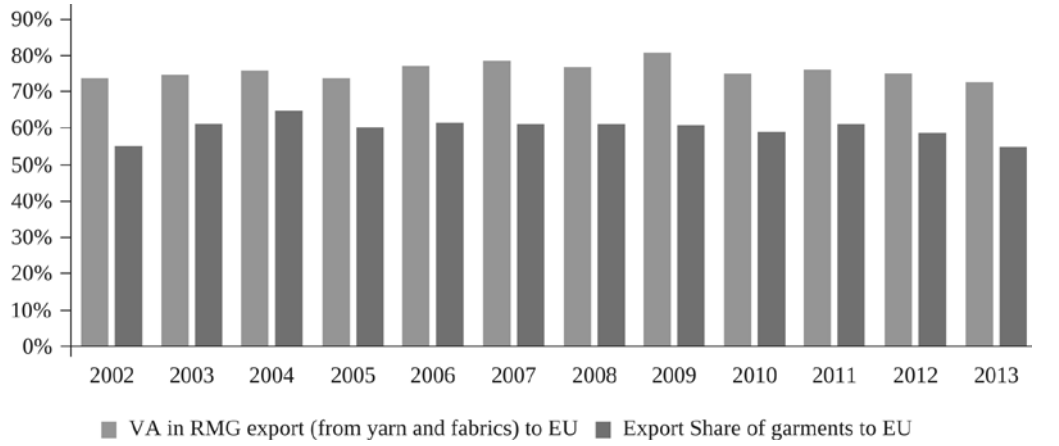
FIGURE 6: EU'S IMPORT OF TOP RMG ITEMS FROM BANGLADESH



(Source: Author's calculation using WITS database)

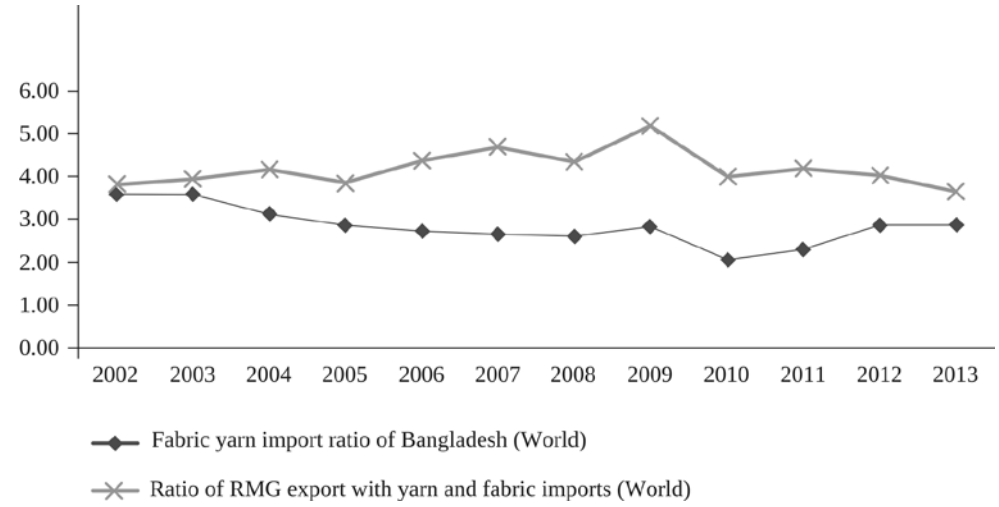
For the RMG sector, an analysis of value addition for RMG from combined yarn and fabrics imports was made. The calculation of value addition was done through a standard built down method. It would be seen from the figures (Figures 7 and 8) below that the value addition component in Bangladesh's export of RMG has declined after the introduction of new RoO.

FIGURE 7: BANGLADESH'S EXPORTS OF RMG TO EU



(Source: Author's calculation using WITS database)

FIGURE 8: EXPORT IMPORT RATION OF RMG, FABRIC AND YARN



(Source: Author's calculation using WITS database)

It would be observed that since the new RoO allowed imports of fabrics for manufacture of RMG, Bangladesh's exporters started importing more fabrics post 2011 than the yarn which was an earlier case. This is illustrated by an increasing import ratio of fabrics vis-à-vis yarn. In the process, the overall value added in Bangladesh has declined in this sector as the processing from yarn to fabrics and then RMG has been switching to fabrics to RMG. Therefore, it might be observed that a comparatively relaxed RoO has lessened the chances of Bangladesh to generate more economic activity in the country and perhaps decling the higher integration of domestic textiles inductry. One would need to exaine data for some more years to really examine if Bangladesh benefitted in this case in the long run or not, and thus, there is an ample possibilty of future research in this area.

8. Conclusion

Promoting regional value chains can be possible through the process of cumulation provisions. However, the provisions having the biggest impact need to be assessed. ESCAP (2013) suggests that an ideal situation for promoting regional value chain through establishment of IPNs would only emerge if the cumulation provisions provide a full cumulation scenario without any additional requirement. Secondly, it may also be important for the PTA blocks like ASEAN and SAARC to allow cumulation provisions like European Union's GSP; where the expert product loses its origin with regard to its 'nationality' by acquiring the origin of the 'PTA identity'. With ASEAN consolidating its PTAs with the trading partners, especially through RCEP, it would be important to consider having a product with an origin mark of 'Made in ASEAN' than the origin of individual ASEAN member. Having a provision of cumulation akin to the one in ASEAN (where there is no extra value added obligation on the exporting country) is likely to facilitate a better intra-regional trade and integration of industries than the one in SAFTA, as the individual country obligation of

20% sometimes may be very difficult to achieve and even if a product has a regional content of more than 50%, it may not qualify for preferences.

Whether the RoO are in the form of meeting a local-content requirement as a proportion of value-added or change in the tariff heading or a particular processing requirement, all of them have the potential to create greater economic activities among the RTA members. The RoO have important implications for development of the manufacturing sector as a whole, which in turn contributes towards enhancing the export supply capabilities of the member country, and to greater economic activity and growth in the region. The case studies of NAFTA, ISLFTA and EU GSP establish the developmental role that the RoO can play through creation of value chains amongst the RTA partners. It may also need to be understood that if a value added is an RoO criteria, it would have greater potential to create regional value chains as it will promote generation of higher processing in the exporting country and will promote utilising the provisions of cumulation. On the other hand, if CTC is the only criteria for the RoO, a product will qualify even if it composes 100% non-originating raw materials. CTC, by its nature does not facilitate the regional cumulation and thus intra-regional trade. Thus, while the CTC may facilitate establishment of global value chain even with the RTA partners, the possibility of being part of regional value chain is much less. Much contrary to the belief that most stringent RoO act as a deterrent, it is true that they provide greater opportunities for the countries to integrate and become part of regional value chains.

Qualified Market Access: An Economic, Empirical and Legal Analysis

Peter Holmes[#], Jim Rollo[+], Kamala Dawar[^] and James H Mathis[*]

ABSTRACT

In the aftermath of the debate on trade and "collective preferences" launched by Pascal Lamy in 2004, this paper considers a proposal for non-product related production process measures developed within the European Parliament, which involved surcharges on the imports of products produced in ways which do not satisfy the EU's rules mainly but not exclusively for agricultural commodities and in particular on animal welfare. The proposal called "Qualified Market Access" would also have made the revenues from surcharges available to exporting countries to finance compliance. This paper discusses the philosophy behind this specific proposal to qualify market access and address consumer preferences and competitiveness concerns, as identified in a number of other actual and proposed measures, including the ban on seal fur imports into the EU and the ensuing challenge to this measure in the WTO Dispute Settlement Body. The paper contends that it cannot be ruled out that such a measure would be welfare improving if consumers have strong preferences regarding what other people consume, in which case labelling alone will not work and the case for such a proposal cannot be excluded a priori, even from a legal perspective. However, in reviewing the evidence, the paper concludes that there is no empirical evidence to support such a proposal.

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1. Background

Qualified Market Access ("QMA") schemes seek to "qualify" the market access of products on the basis of how they are produced or their production methods, rather than the properties associated with the final products. These production methods are known as non-product related production process methods ("NPR PPMs"). Such QMA NPR PPM schemes can be imposed either as a fiscal[1] or non-tariff measure.[2] Further, they can either be border measures operating 'upon the importation' of products, or alternatively, as so-called 'behind the border', domestic regulatory measures. While the dividing lines between these categories are not always clear, General Agreement on Tariffs and Trade ("GATT") law nonetheless applies different rules based on these distinct characterisations.

This paper seeks to explore in particular the implications of a specific "QMA" proposal for agricultural products that would penalise, but not ban, products produced in ways not compliant with EU production process measures and did not affect the product as such.[3] The novelty of the proposal and the analysis is that it deals with a case where no outright ban is being sought on non-compliant imports. It puts forward an economic, empirical and legal examination of the proposal to qualify market access which ultimately submits that while there may be a legal avenue for defending such policies, there is no empirical case to be made for such a proposal.

QMA discussions emerged over a decade ago, most notably in 2004, when Pascal Lamy argued that where there could be clearly defined "collective preferences" which, if implemented, would cause it to restrict certain imports, in that context, WTO rules should allow such measures; albeit subject to certain conditions.[4] Commentators were respectful, but mostly unconvinced.[5] However, the notion has resurfaced in a number of concrete proposals, including the "Qualified Market Access" concept discussed here. In 2015, Lamy again sought to rethink collective preferences and international trade. He identified the old world of trade, as one where production systems were national and obstacles to trade were about protecting domestic producers from foreign competition. By contrast, the new world is where production is transnational along global supply chains of goods and services, and where obstacles to trade are about protecting the consumer from risks.[6] A recent indicator that the salience of NPR PPM in trade policy is the inclusion of labour and environmental standards in the Trans Pacific Partnership ("TPP") agreement concluded in October 2015.

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1 Fiscal measures include import tariff duties or internal taxes such as excise or sales taxes.

2 Non-tariff measures (or so called quantitative measures) include quantitative restrictions in form of quotas or prohibitions that operate at the point of importation, and a wide variety of internal regulatory requirements including product and food safety standards that govern the marketability of products.

3 Wolfgang Sachs and Tilman Santarius, "Slow Trade– Sound Farming A Multilateral Framework for Sustainable Markets in Agriculture," *Ecofair Trade Dialogue*, Heinrich Böll Foundation and MISEREOR, April 2007, http://www.misereor.org/fileadmin/redaktion/slow_trade_sound_farming.pdf (accessed April 11, 2016).

4 Pascal Lamy, "The Emergence of Collective Preferences in International Trade: Implications for Regulating Globalisation" (speech, Brussels, September 15, 2004), http://europa.eu.int/comm/archives/commission_1999_2004/lamy/speeches_articles/indexpldat_en.htm#2004 (accessed April 11, 2016).

5 Steve Charnovitz, "An Analysis of Pascal Lamy's Proposal on Collective Preferences," *Journal of International Economic Law*, 8 no. 2 (2005): 449.

6 Pascal Lamy, "The New World of Trade" (The Third Jan Tumlir Lecture, Brussels, March 9, 2015), European Centre for International Political Economy, http://ecipe.org/app/uploads/2015/05/JAN-Tumlir-POLICE-Essays-%E2%80%94-20151.pdf.

What these plans have in common is that a majority is able to determine trade policy for consumers as a whole, and hence, is able to impose their preferences on a minority. This view is gaining currency, particularly since the WTO Appellate Body upheld the finding that the EU Seal Regime to prohibit the importation and marketing of seal was discriminatory, but the Appellate Body, nevertheless, found the discriminatory measure provisionally justified under the public morals exception of Art. XX (a).

The issue of utility-based externalities, for that is what Lamy was invoking, has a history going back to Adam Smith's notion of "sympathy" in his Theory of Moral Sentiments.[7] Sen has also observed that if one person's consumption does impose genuine utility externalities on another, there is an unavoidable tension between liberalism (free choice) and welfare maximisation.[8] In his comments on Lamy, Wyplosz suggests that this can be addressed by the use of the Coase theorem.[9] To elaborate, if in Sen's example, the right to wear whatever tie you wish is given to tie wearers, those offended by the colours of my tie must pay me to remove it, but if a dress code has been legislated I must respect the wishes of those who have views on what I wear.

It would once have been argued that GATT law assigned property rights to those who wish to consume without restraint, but since the WTO Dispute Settlement Understanding ("DSU") recommendations on the US -Shrimp dispute, it is clear that the Appellate Body recognises some rights akin to those sought by Lamy. Howse and Regan argued that this is appropriate, since citizens in one domain may well experience real disutility from the actions of others abroad.[10] In a Coaseian world, there would always be a market in which we could pay others to desist or they could purchase from us the right to carry on. But as Lamy observes, even the simple matter of when we have a right to act collectively by restricting imports is imprecise. He argues that these rules should be clarified on a systemic rather than case-by-case basis. In fact, as the legal analysis under Section 6 indicates, WTO has proceeded on a case-by-case basis and as such, there is no clear positive legislation or rule.

2. The Origins of the QMA Proposal

In 2007 the QMA proposal submitted that if the EU imposed environmental and social standards (mostly) on agricultural production methods within the EU and its trading partners did not, there would be a loss of competitiveness for EU farmers and a risk of pressures for a "race to the bottom." So there should be an incentive to foreign producers to comply with EU standards. This incentive would take the form of a tariff surcharge on non-compliant imports, which in turn would finance a subsidy to encourage adoption of these norms in exporters' markets. We define a QMA

7 "How selfish soever man may be supposed, there are evidently some principles in his nature, which interest him in the fortune of others, and render their happiness necessary to him, though he derives nothing from it except the pleasure of seeing it." Adam Smith, *The Theory of Moral Sentiments*, ed. D. D. Raphael and A. L. Macfie (Glasgow: Oxford University Press, 1976).

8 Amartya Kumar Sen, "The Impossibility of a Paretian Liberal," *Journal of Political Economy*, 78, no. 1 (1970): 152.

9 Charles Wyplosz, Pascal Lamy and Steve Charnovitz, *Mondialisation et préférences collectives: la réconciliation*?, (2005), 42, http://entempsreel.com/mondialisation-et-preferences-collectives-la-reconciliation/ (accessed April 11, 2016).

10 Robert Howse and Donald Regan, "The Product/Process Distinction- an Illusory Basis for Disciplining 'Unilateralism' in Trade Policy," *European Journal of International Law*, 11, no. 2 (2000): 249.

policy more broadly and not just as one that makes the terms of access for goods to a specific market conditional on their production process being compliant with the importing country's process norms, but which relies on financial incentives rather than outright bans.

As noted, the QMA concept which forms the basis of this discussion falls into the category of so-called 'non-product-related process and production measures' (NPR PPMs). It addresses the compliance costs of environmental and social regulations on production processes not related to the product itself. The environmental or social harm is caused by the impact at the location of production. As we shall see, however, an argument can be made that where an activity physically occurs in one place but causes disutility to persons elsewhere, it could indeed be said to have cross-border externality effects.[11] In this paper we review the likely impact of such proposals based upon on analysis of the proposals and a welfare economics analysis based on a simple formal model, which is to be followed by a legal assessment of the permissibility of this proposal. The paper is based on a study commissioned from the authors by Director-General ("DG") of Trade.[12]

We consider whether it makes sense viewed from the point of economic welfare, above all in the EU, if we assume that the psychic externalities are indeed present. For although the original QMA plan was abandoned, the underlying idea has resurfaced in a variety of forms, both as proposals and in some actual policies. President Sarkozy and the chairman of the EP agriculture committee both suggested that compliance with EU norms should be a condition of market access into the EU for food products.[13] Border carbon adjustments are based ("BCAs")on a similar idea.[14]

The EU has long banned the imports of fur products caught using leg traps judged to be cruel.[15] The ban is designed to improve the well-being of animals and also that of EU citizens who feel psychic pain when animals are hurt even abroad. Proposals to restrict the import of oil products from the Athabasca Tar Sands due to the pollution caused by their exploitation also fall into this category.[16] Whereas an argument could be made that exploitation of the tar sands increases carbon

11 United Kingdom, Cabinet Office, Performance and Innovation Unit (PIU), *Rights of Exchange: Social, Health, Environment and Trade Objectives on the Global Stage, London, 2000; Howse and Regan,* "The Product/ Process Distinction-an Illusory Basis for Disciplining 'Unilateralism' in Trade Policy", 249; Sen, "The Impossibility of a Paretian Liberal", 152.

12 CARIS, "Qualified Market Access."European Commission, October, 2008, http://trade.ec.europa.eu/doclib/docs/2009/february/tradoc_142341.pdf (accessed April 12, 2016).

13 Alan Matthews, "Sarkozy Offers a Deal on CAP Reform", March 9, 2010, CAP Reform, http://capreform.eu/sarkozy-cap-reform-deal/ (accessed April 11, 2016).

14 United States Government Publishing Office, *President Obama's Address Before a Joint Session of Congress on the State of the Union*, January 24, 2012, DCPD-201200048; Francois Hollande, "Le changement c'est maintenant: mas 60 engagements pour la France", Paris, Parti Socialiste, 2012; see also Benhamou Eric, "Derrière les mots de... Nicolas Sarkozy," La Tribune, March 27, 2010, http://www.latribune.fr/journal/edition-du-2703/editos-et-opinions/392484/ derriere-les-mots-de-nicolas-sarkozy-.html (accessed April 11, 2016); "Sarkozy Vows to Fight Unwinding of EU Farm Policy," EurActiv, March 25, 2010, http://www.euractiv.com/section/science-policymaking/news/sarkozy-vows-to-fight-unwinding-of-eu-farm-policy/; "De Castro: EU Should Seek 'Reciprocity' in Green Farm Rules," EurActiv, March 31, 2010, http://www.euractiv.com/section/agriculture-food/interview/de-castro-eu-should-seek-reciprocity-in-green-farm-rules/(accessed April 11, 2016); Lamy, "The New World of Trade", 2015.

15 Gillian Dale, "The European Union's Steel Leghold Trap Ban: Animal Cruelty Legislation in Conflict with International Trade," *Colorado Journal of International Environmental Law and Policy*, 7 (1996): 441.

16 European Parliament, *MEPs favour EU-Canada Trade Deal, But Worry About Seals, Tar sand Oil and Asbestos*, June 8, 2011, http://www.europarl.europa.eu/news/en/news-room/20110608IPR20931/meps-favour-eu-canada-trade-deal-but-worry-about-seals-oil-and-asbestos (accessed April 11, 2016).

emissions and this creates a cross border externality, it is hard to argue that a ban on imports into the EU would reduce this externality if the products would be sold elsewhere. An externality does still exist within the EU however if there is disutility caused by the knowledge that fuel being used is "dirty".

Such legislation imposes a ban on the sale of the product in question, with some exceptions, and legal controversies arise very much from the nature of the exceptions. The QMA proposal that we discuss here is distinct in that it did not seek to ban imports that did not comply with EU norms but sought to impose a financial penalty on them. In the plan tariffs would be raised on products produced in a manner not approved within the EU. The revenues raised however would not be kept by the EU but would be recycled to the countries concerned to support the improvement of standards.[17] Although related to general social and environmental rules, they bear no relations to how specific products are made and involve no rebates. The supporters of QMA rejected this as a model since existing tariffs were held to be too low for their reduction to be a sufficient incentive. One other recent idea recalls this proposal, namely the one put forward by Thomas Cottier for industrial importers to raise Most Favoured Nation ("MFN") tariffs across the board on carbon intensive products. Under that scheme there would be no distinctions by country or production process however.[18]

The sponsors of the QMA proposal discussed here were focussed very much on agriculture and our attention in this paper is also addressed to that. The argument that EU measures to ensure respect for environmental and social standards in farming would lead to increased imports from non compliant jurisdictions and as a result pressure within the EU for relaxation of standards is core to the justification of the proposed scheme. The proponents therefore put forward the QMA proposal for tariff surcharges for non-compliant imports and revenue recycling to developing countries to assist them upgrade.

There are, thus, two interrelated motives for advocating compulsion for non-EU farmers to comply. First to protect consumer sentiments, and second to seek protection for a level playing field for trade in agricultural products in the interests of EU food producers and to avoid regulatory competition presumed to be unfair, potentially leading to a race to the bottom, social dumping, etc. This topic is extensively covered in the literature[19] so we deal briefly with both the analytics and empirics below.

Since imports of non-compliant products create psychic externalities among EU consumers, QMA would increase EU consumer welfare by ensuring that consumers get the goods that meet their preferences, even if they have been produced abroad. There is a presumption that consumers would feel dissatisfaction from consuming goods produced through social exploitation or in environmentally unsound ways. In order to avoid surcharges exporters ought to implement EU regulations having measures that affect the local environment and animal welfare in the place of production. Proponents of the original QMA idea stated:

17 This idea also bears some resemblance to the EU's GSP+ scheme where compliance with certain NPR norms secures tariff reductions greater than GSP.

18 Thomas Cottier, Nartova Olga and Anirudh Shingal, "The Potential of Tariff Policy for Climate Change Mitigation: Legal and Economic Analysis," *NCCR Trade Working Paper No. 2011/36* (2011).

19 Jagdish Bhagwati and Robert Hudec, eds., *Fair Trade and Harmonization* (Cambridge MA: MIT Press, 1996).

> Countries which have achieved a higher level of social and environmental legislation and standards should effectively safeguard these standards in their territory. Based on these inclusive achievements, they may claim the right to apply levies on imports which could undermine these existing standards.[20]

Within the EU single market the NPR PPMs applying to EU agriculture –the Statutory Management Requirements (SMR)- aim to protect public, plant and animal health, the environment and the welfare of animals and apply to all farmers. Additionally the Good Agricultural and Environmental Conditions (GAEC) rules' directive[21] includes standards where farmers are required to maintain soils, habitats and landscape features.[22] GAEC rules are standards that EU farmers must comply with in order to be eligible for direct payments under the Common Agricultural Policy ("CAP"). They are set by member states and impose higher standards than relevant EU minimum standards. As a result, farmers incur compliance costs that presumably affect their competitiveness against foreign suppliers who do not face such regulation. The parallel with QMA is clear: farmers are allowed to ignore GAEC rules but they lose subsidies if they do so.

The advocates of QMA are concerned about 'unfair competition' if the foreign producer is able to charge lower prices in the EU export market only because they do not pay the true social or environmental cost of their production. Fears have been expressed that regulatory competition in this context can lead to a competitive lowering of standards, a 'race to the bottom' or 'social dumping' or, in more neutral economic jargon, regulatory competition.[23] Advocates seek to deter such imports into the EU on the grounds they may create pressure on EU to lower standards. Advocates of trade liberalisation on the other hand claim that this is an opportunistic excuse invoked by protectionists. A case could in fact be made that the famous US –Shrimp case[24] was not solely driven by environmental concerns, as we observe that there has also been successful pressure for anti-dumping duties on Shrimps, which has in fact led to a further WTO Shrimp case brought by Vietnam against the United States ("US").[25] Many free trade economists are firmly opposed to any willingness to concede the principle of allowing trade restrictions to be used for environmental purposes for fear that it will unleash a tide of thinly disguised "green protection"[26] and consequential retaliatory behaviour.

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20 Ecofair Trade Dialogue, "Slow Trade- Sound Farming", 2007.

21 Council Regulation 73/2009/EC establishing Common Rules for Direct Support Schemes for Farmers under the Common Agricultural Policy and Establishing Certain Support Schemes for Farmers, O.J. L. 30, January 19, 2009.

22 Alliance Environement.. "Evaluation of the Application of Cross Compliance as Foreseen Under Regulation 1782/2003", Executive Summary, Directorate-General for Agriculture and Rural Development, 2007. The Institute for European Environmental Policy published a report on the Executive Summary on September 30, 2007. The Executive Summary can be found at http://www.ieep.eu/assets/373/cc_evaluation.pdf.

23 Deardorffs' Glossary defines 'social dumping' as: "Export of a good from a country with weak or poorly enforced labour standards, reflecting the idea that the exporter has costs that are artificially lower than its competitors in higher-standards countries, constituting an unfair advantage in international trade." *Deardorffs' Glossary of International Economics*, comp. Alan Deardorff (2012), s.v. "social dumping".

24 Appellate Body Report, *United States – Import Prohibition of Certain Shrimp and Shrimp Products*, WT/DS58/AB/R (November 6, 1998).

25 Appellate Body Report, *United States – Anti-Dumping Measures on Certain Shrimp from Viet Nam*, WT/DS429/AB/R (April 22, 2015).

26 *See* Briefing Note by World Wildlife Fund for 5th WTO Ministerial Conference at Cancun, *Green Protectionism*, https://www.wto.org/english/forums_e/ngo_e/wwf_greenprotec_e.pdf (accessed April 12, 2016).

3. Instruments to enforce NPR PPMs and QMA

Given the mix of motives, a variety of measures or instruments could be used to address the issue of what are deemed unacceptably low standards abroad. They include:

- private voluntary labelling schemes;
- compulsory labelling of production process conditions;
- the imposition of taxes or higher tariffs on non-compliant imports;
- outright bans on the import of products that do not comply with internal rules

3.1. Labelling

Labelling enables producers to demonstrate to consumers that they have met the standard and claim a premium on the price for doing the same. Profit maximisation will drive them to do so. There will emerge two versions of the product – the non-PPM one as before and a PPM one, - assuming constant costs and competition in both markets, the latter will command a price premium equal to the cost of meeting the standard. Producers are indifferent about which they produce considering both generate normal profits, but consumers potentially reap additional surplus. The non-PPM consumers are unaffected, whereas for those who care about the standard some of them may place such a high value on meeting the standard that they were previously not consuming at all, or at least begin to consume more once they know that production meets the standard. The absence of any labelling results in indistinguishable versions of a product. Consumers expect, and hence producers deliver, the non-PPM version of the product. Absence of labelling leads to a "lemons" problem -consumers' inability to distinguish good and bad products will lead them to offer only the lower price for non-compliant products and this will drive compliant ones out of the market.[27]

The above analysis assumes that the price differential between compliant and non-compliant goods is a simple addition to variable costs. Other more complex outcomes are also possible. With upward sloping cost curves the relative price of non compliant goods might end up falling by more if reduced demand drives prices down. The fall may be less if individual consumers do not in fact value the compliance characteristics and actually switch demand to non-compliant products. Where there is a high fixed cost of compliance we might see the non-compliant product withdrawn from the market.

In order to pursue a labelling solution, the labelling has to be credible: there has to be a way in which firms are induced to label honestly. If they do not, the labels are devalued and the market risks a collapse back to the single non-PPM good. The threat of litigation and a free press may be able to achieve this. Alternatively the industry may be able to set up a certification process with sufficient independence to ensure firms' honesty. The next step is to make the certification official: even if firms are not obliged to certify that they do or do not adhere to the standard, then if they claim to do so, this fact must be verified by the government or a government accredited agency. Provided that the costs of certification are covered by the industry (and indirectly their customers) this seems like an efficient use of the government's reputational capital, provided of course that

27 George Akerlof, "The Market for 'Lemons'," *Quarterly Journal of Economics*, 84, no. 3 (1970): 488.

they are capable of certifying honestly. If some of the costs are publicly funded, it becomes a subsidy to the standard and would need to be justified by some sort of public interest argument. We turn to this case below.

A further extension of this line of thought is compulsory labelling, whereby the government insists that all varieties of the good be labelled as either satisfying or not satisfying the standard. This is not quite the same as food labelling, where calorific values and nutrient values have to be displayed. In the latter case labelling refers to a continuous variable, so that 'no label' could not be equated with either no calories or infinite calories. In the case of an on-off standard 'no label' might reasonably be thought of as indicating non-compliance. Governments might not be convinced that in the absence of a label consumers are clear what standard actually applies, this in turn might justify a compulsory label. Also the presence of an 'off-standard' label might be a way of encouraging consumption of 'on-standard' products, where the premium paid by willing consumers does not cover the cost of implementation of the standard or simply signalling government approval of a voluntary standard.

Finally, labelling can turn into a barrier to entry – an anti-competitive practice – if the certification process is not cheaply and rapidly available to firms that can achieve the standard, especially if it involves a high fixed cost. In many cases if the labelling is effective, it can achieve all that we desire. Those who value the standard can observe it, while those who do not, don't. However, labelling has its limitations. Information asymmetries occur when high transaction costs make it difficult or impossible for consumers to obtain relevant information on product characteristics or production methods potentially offending their values and reducing their welfare from unrestricted consumption of the product. In these circumstances, neither voluntary nor compulsory labelling works, and thus the information asymmetry has to be overcome by a mandatory standard.

It needs to be established that there are, indeed, externalities in the regulatory domains associated with QMA. This is not self-evident. However, since mandatory PPM standards already exist and are implemented in the EU home market to reduce and/or remove perceived externalities, we will assume that such externalities can exist. This is a crucial assumption in this analysis.

3.2. Tariffs plus Subsidies

The actual plan advocated in the QMA scheme was not simply for tariff surcharges on non-compliant imports. It included provision for returning the tariff revenue to the governments of non compliant exports, ostensibly to provide revenue to upgrade their standards. Clearly this is a form of compensation, but the logic does not seem to be very coherent. The incentive effects would depend precisely on the terms of refunding. It seems somewhat perverse to offer revenue to the government conditional on the scale of non-compliant exports unless the pay-out is verifiably linked to increased expenditure on compliance. Different distortions would be created if the revenue were handed to producers, whether to compliant exporters as an additional reward or else to non-compliant exporters. This could be directed either as assistance to support compliance or as compensation for loss of market access. Simple economics suggests that if the EU wants to promote animal welfare or other social goals at home and abroad it should use its own resources and target them in an incentive compatible way.

4. The Economic Analysis

In this economic analysis, we examine first the case of an externality in production and the impact of various policy responses to that involving both domestic and foreign producers. We explore the issues under a number of assumptions about preferences of home consumers of the good to the removal of the externality at home and abroad. Individuals may differ in their valuation of an 'environmental bad' - say air pollution - or feel greater or less disgust about say the treatment of animals in food production. Some consumers may care about the presence of the externality abroad even if it has no physical implications for them, for instance, local water or air quality. We therefore explore the two key assumptions:

- where preferences in Europe about the externality and hence the resulting standards are universally held, i.e. where there are no dissenters; and
- where preferences apply to domestic and foreign production and specifically they apply to imports

We will look at two cases:

- A domestic standard that does not apply to imports; and
- QMA: a tariff along with a standard with specified exemptions from the tariff or a subsidy paid to foreigners to cover the cost of compliance funded from tariff revenue.

In each case we look at the impact on producers, taxpayers, where relevant, and consumers, as well as the net impact on the community as a whole. We also consider impacts on foreign producers and the impact of exporting the standard where preferences abroad are the same as or different from domestic preferences, or where absorption capability, for instance, for pollution is different abroad.

4.1. Trade Policy and Externalities

Figure 1 assumes that the rest of the world can supply as much of the good as the home country (Europe) can absorb at the prevailing world price P_w, thus the world supply curve is horizontal.[28] This may be because European consumption is small relative to world production or because the rest of the world is producing at constant costs. However, European producers have a rising supply curve S, which indicates rising costs of production as the quantity produced increases. The domestic demand curve is D when there are no barriers to imports. Price is P_w, at which price domestic production is Q_0, consumption is Q_w and imports are I_{Pw}. This is the base case for all that follows.

Now assume that there is an externality in production and assume further that all consumers in Europe uniformly value (homogenous preferences) the externality at €C per unit of production, i.e. this is the amount they would be willing to pay to have the externality removed. We also make the simplifying assumption, that €C per unit also represents the cost to producers of correcting the externality. If they do so, this implies that removing the externality would shift the European

28 This draws on Drusilla K. Brown, Alan V. Deardorff and Robert M. Stern, "Computational Analysis of the Economic Effects of an East Asian Preferential Trading Bloc," *Journal of the Japanese and International Economies*, 10, no. 1 (1996): 37.

supply curve from S to S+C in Figure 1 as cost of production increases by C per unit. In our graphic representation we show the externality as a shift in the supply curve even though it is partly a consumption externality, because the social cost arises from the sale of the offending item, not only its consumption by buyers.

An important distinction needs to be made here relative to the discussion of labelling, in section 3.1 above. There we assumed that people who cared for the standard were prepared to pay extra for goods that embodied it. But here we will analyse a situation where they are not willing. They do value the standard, but there is a co-ordination failure because of the public good nature of the problem. Because we treat the failure to achieve the standard as an externality, advocates feel disutility from *every* unit of consumption. Paying extra to achieve the standard on their own consumption makes only a very small insignificant contribution to their welfare if everyone else continues to violate it. Hence, they are now no longer willing to pay extra unless they are assured that everyone will have to do so, and the problem will be fixed. Indeed, in the latter case, they might still rather that everybody else paid to achieve the standard and that, in their own personal case; they could buy the good at the original, standard-violating price. This is the classic externalities analysis.

Now let us introduce a regulation that requires producers to remove the externality in this fashion. Their costs rise to S + C but price remains P_w as imports continue to enter freely. European production falls to Q_1 and imports increase to h+i+b. Consumption remains at Q_w because the price is unchanged. The value of removing the externality to consumers is C times the initial level of production plus imports; this is decomposed in the figure into part due to the fall in domestic production (b) (replaced by imports) and part reflecting the fact that remaining domestic output is externality-free (a). At the same time producers face the cost (€C) of the achieving the standard on their initial level of output, i.e. the area represented by rectangle c + d. But since their production falls to Q_1 they save the excess cost over price on units Q_0- Q_1 represented by triangle d, so in net terms they are worse off by c. Overall, Europe is thus worse off a-c = -½b, since c= a+½b.

Intuitively, the standard increases domestic welfare to the extent it has eliminated the externality at home (in part by reducing domestic production and shifting resources to other more efficient uses), but European consumers import the rest of consumption from overseas which does not have/meet the standard and in doing so imposes an externality. This welfare calculus depends crucially on:

- all Europeans suffering from the externality (hence the 'homogeneous' label)
- there being an externality abroad, i.e. all Europeans experience an externality as imports rise;

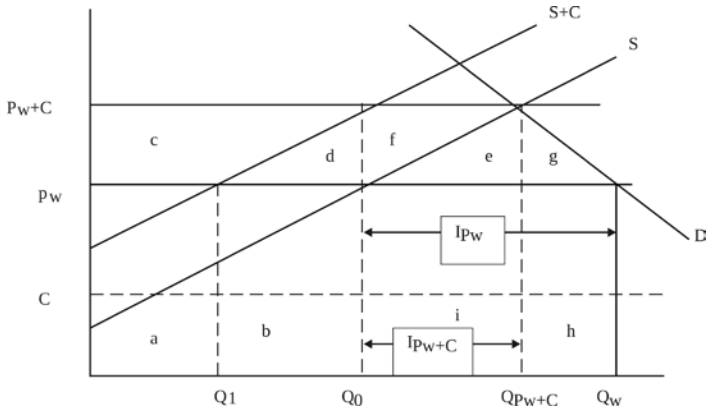
The assumption that consumers perceive the externality on imported goods as well as home produced, seems plausible – otherwise why conceive of an instrument such as QMA? The analysis is the same for 'real' – that is, with actual or potential physical or economic effects on individuals, and for 'psychic' externalities, for instance, disgust, provided the latter are genuinely and universally felt.

4.1.1. A tariff to buttress the standard in Europe

When producers and consumers overall lose as a result of this policy compared with free trade and no standard, there is a room for lobbying by producers to get protection against "unfair"

competition and lobbying from consumers to substitute domestic "good" production for foreign "bad" production (remember consumers are assumed to be willing to pay price P_w+C to get access to externality free goods). There is then a political economy driven case for a tariff.

FIGURE 1: A EUROPEAN STANDARD PLUS A TARIFF, HOMOGENOUS PREFERENCES



First, assume the tariff just equals €C, the cost of rectifying the externality. Import prices increase from P_w to P_w+ C and domestic production remains where it was under free trade (the tariff increases import prices to the exact price necessary to allow domestic producers to meet the standard while maintaining output at Q_0). Consumption falls from Q_w to Q_{Pw}+C and imports fall from I_{Pw} to I_{Pw}+C. Consider first the comparison relative to the situation where Europe has a domestic standard, but no tariff (See Figure 1). Given that (S+C) is, in fact, the 'correct' supply curve – it reflects the true social marginal cost of production allowing for the externality – we have the perfectly standard tariff story: consumers lose c+d+e+f+g; of this, c accrues locally as producer surplus and e+f accrues locally as tariff revenue, so the efficiency losses are the triangles d and g. The former derives from the excess cost of producing units Q_1 to Q_0 at home and the latter from the consumption foregone. The tariff is as usual harmful to consumers.

What is different here from the free trade baseline is that consumers gain from the removal of the externality on domestic production (a+b) and since imports do not meet the standard, the fact that they have fallen from Q_w to Q_{pw+c} generates a removal of the externality valued at €C per unit represented by the rectangle h. Thus to set against the standard efficiency losses above of d+g we have gains from the removal of the externality of a+b+h. Since b=2d and h=2g, then the net effect is a gain of a+½b+½h.[29] This suggests that the combination of a tariff at the frontier and a compulsory standard at home under the very restrictive assumptions we deploy (100% of the population share the perceived externality, that the value of the externality to consumers, the cost of compliance to producers and the value of the Tariff is €C per unit and there is no tit-for-tat retaliation at local or systemic level) could exceed the resource loss imposed by the tariff. To the extent that less than 100% of the population share the psychic loss imposed by the externality, and/

29 If European preferences are not homogenous, the case for imposing the standard is weaker and the tariff losses remain, so the case for the combined intervention is weaker *pro rata*. The tariff does nothing to reduce the weakening effect that non-homogeneous preferences have on the case for intervention.

or the valuation of avoiding the externality was less than the compliance cost to producers or the tariff, this net benefit would fall and possibly disappear or indeed become a net cost.

4.2. The QMA Proposal

The point about the specific QMA plan under discussion here is that foreign suppliers who adhere to the standard are exempted from the tariff. If the cost of doing so is €C, exactly as in the EU and exactly the rate of tariff, Figure 1 applies with just a little re-interpretation. Foreign suppliers have a choice of paying €C either in the form of standards compliance costs or face an exactly equivalent tax (the incidence of which falls on European consumers in the case where the import supply curve is infinitely elastic). The former entails real resource costs as €C per unit is transferred to foreign suppliers whereas the tariff generates transfer from consumers to government and so *ceteris paribus* would be preferable. But if Europeans experience disutility from the violation of the standard abroad (again assumed to be €C per unit), the equivalence is restored, for Europe either gains revenue (paid by domestic consumers) in the tariff case or utility where the foreign supplier meets the standard,[30] in terms of Figure 1 Europe transfers e+f to foreigners to comply with the standard and Europeans get $Q_{pw+c} - Q_o$ imports that comply with the standard which is worth *i* to them and is just (under the strong assumptions that preferences are homogenous and that the consumers are willing to pay €C above the world price which is equal to the compliance costs for producers at home and abroad). In those circumstances the cost of paying e+f to foreigners to comply is just equal to the value *i* consumers put on compliant imports.

Thus, in this light, the QMA scheme is resource cost-neutral. Of course it runs into the paradox that if all imports are compliant there is no tariff revenue to cover foreign compliance costs. That suggests that there might be some sort of cycle through which once Europe runs out of hypothecated revenue to fund compliance the foreigners send non compliant products which raise tariff revenue to fund compliance and so on ad infinitum. In the phase where tariffs are being paid because foreigners are non-compliant, consumers are losing both –e+f in cash terms and psychic welfare worth i, since the externality has popped back into existence abroad! This suggests that when the foreigners are compliant the welfare effect is neutral since i=e+f and when foreigners are non-compliant consumers are worse off by e+f+i.

What we draw from this complex formal analysis is that there are certain circumstances in which the QMA proposal can raise welfare above simply doing nothing. This will not always be the case. We can rule out the extreme conclusions that either the QMA proposal is always welfare improving or that it is necessarily harmful. We would need more case specific information or else to make a decision on grounds other than welfare economics.

5. The Empirical Evidence

Although the main purpose of this paper is conceptual, it would be incomplete without a brief note on the evidence that would be needed to support a case for QMA. On the competitiveness issue, there is little evidence that EU or other developed country producers costs are significantly increased relative to external suppliers by agricultural regulations on food safety, animal welfare and environmental protection, on environmental protection more widely or even on labour

30 The 'triple equivalence' assumption (consumer benefits in EU = producer compliance costs in EU = producer compliance costs outside the EU) is a very strong assumption, not likely to be achieved in reality but making the analysis much simpler.

standards.[31]Developing country producers may however incur significantly higher costs in the process of meeting developed country PPMs especially on costs of testing and certification.[32]

Studies have also been done on the benefits to consumers. These fall into three types:

1. Those which use actual data to assess quality premia obtained in the market-place, whether by simply direct observation or by econometric inference
2. Surveys of stated willingness to pay
3. Experimental results

The first type is the most reliable, but hardest to find. In addition there may also be gains in volume terms to producers if they are able to obtain price premia or guaranteed market access, which more than compensates for the cost of compliance. Estimates in the study by Van den Bossche, Schrijver and Faber do look at actual prices. They suggest that within the EU animal welfare costs can be recovered in the form of a higher price:

> Free-range chicken breast fetches a much higher price premium, which may be as much as 50 per cent.
>
> Complying with animal welfare standards may increase the cost of pig production in the UK by approximately 10 per cent (free range compared to minimum standards), which is covered by a price premium.[33]

A United Nations Environment Programme ("UNEP") study observes that the apparent market share of fair trade labeled products is extremely small:

> 'While the rate of growth in fair trade markets is significant, overall market penetration by fair trade products is relatively insignificant. For example, the relative proportion of total world trade for any single commodity listed is no greater than 0.2% (bananas, 2000). The volume of fair trade sugar increased by 38.8% between 2001 and 2002, but the total volume represented less than 0.0019% of global sales. The total value of certified sustainable coffee sold in 2000 is reported to have been US$ 565 million, or roughly 1% of the global coffee market.'[34]

It also quotes studies on the share of 'organic' products. For most European states the share of

31 Wiil Martin and Keith E. Maskus, "Core Labor Standards and Competiveness: Implications for Global Trade Policy", Review of International Economics, 9, no. 2 (2001): 317 (accessed April 11, 2016); Dani Rodrik, "Labor Standards in International Trade: Do They matter and What Do We Do About Them," in *Emerging Agenda* For Global Trade: High Stakes for Developing Countries, Robert Z. Lawrence, Dani Rodrik and John Whalley (Baltimore: Johns Hopkins University Press, 1996), 35; Robert M. Stern and Katherine Terrell, "Labor Standards and The World Trade Organization: A Position Paper, University of Michigan (2003).

32 Omar Aloui and Lahcen Kenny, "The Cost of Compliance with SPS Standards for Moroccan Exports", *Agriculture and Rural Development Discussion Paper for World Bank*, 2005, http://siteresources.worldbank.org/INTRANETTRADE/Resources/Topics/Standards/MoroccoCountrySurveyF.pdf (accessed April 11, 2016); Peter Van den Bossche, Nico Schrijver and Gerrit Faber, Unilateral Measures *Addressing Non-Trade Concerns: A study on WTO Consistency, Relevance of other International Agreements, Economic Effectiveness and Impact on Developing Countries of Measures concerning Non-Product-Related Processes and Production Methods* (Hague, The Ministry of Foreign Affairs of the Netherlands, 2007), 235, https://openaccess.leidenuniv.nl/handle/1887/12563 (accessed April 11, 2016).

33 Peter Van den Bossche et. al., *Unilateral Measures Addressing Non-Trade Concerns* (2007), 236.

34 "The Trade and Environmental Effects of Ecolabels: Assessment and Response", United Nations Environment Programme, 2005, http://unep.ch/etb/publications/Ecolabelpap141005f.pdf (accessed April 11, 2016).

organics is 1.5-2.5% of total food sales, with a maximum of 3.7% in Switzerland. Narrower estimates for fruit and vegetables suggest a range of about 3-10% of sales. The evidence on the willingness of EU consumers to pay more for high standard compliant food is incomplete and ambiguous. High-grade food can sometimes command a premium but we do not know how high premia could be sustained if a large share of the market were to be involved. Moreover, there is inconclusive evidence on who is able to take advantage of this premium and who is excluded.

The result of the review of evidence is such that at present we do not have enough data to firmly conclude that there are either competitiveness needs or consumer benefits to justify QMA. However, we cannot demonstrate the contrary. Ultimately, the likely systemic impact of such a plan should cause us to refrain from such action in the absence of hard evidence of gain.

6. The Legal Analysis[35]

QMA schemes based on NPR PPMs can be imposed either as a fiscal or non-tariff measure. Further, they can either be border measures operating 'upon the importation' of products, or alternatively, as so-called 'behind the border' domestic regulatory measures. This section begins by examining the use of fiscal QMA measures under GATT Articles I and II. It then assesses regulatory or non-fiscal QMA measures as regards the internal treatment rules under GATT Article III. The analysis then focuses on the general exceptions that are available to WTO Members under GATT Article XX. The paper concludes with a summary discussion of the extent of the flexibilities offered under the GATT to WTO Members wishing to qualify market access according to social and environmental standards without the use of product labels.

6.1. Qualifying Market Access through Tariff Duties

A QMA proposal could call for raising tariff levels on 'bad' products in one of two ways: (i) a new tariff rate can be charged in excess of the existing scheduled tariff binding. This would likely be the case where the government imposing the new tariff rate is already charging the conventional and negotiated bound tariff duty rate; or (ii) a new tariff rate can be charged where the government imposing the QMA measure is charging an applied rate on qualified products at a rate below its negotiated binding. The first option is problematic under GATT law. Any charge that is higher than the negotiated scheduled rate will trigger a violation of GATT Article II.[36] Under Article II, WTO Members have agreed not to charge a tariff duty that is higher than set out their negotiated scheduled rate. Imposing a higher tariff is therefore an obvious violation of the GATT rules. The GATT Agreement does provide a legal possibility for adjusting bound tariff rates through the process of negotiation and agreement under Article XXVIII:2. This permits compensatory adjustment with respect to other products, and the attempt to maintain the 'general level of reciprocal and mutually advantageous concessions not less favourable to trade than that provided for in the Agreement prior to such negotiations.'

35 This legal analysis is based on the assessments undertaken by J. Mathis and K. Dawar in the 2008 CARIS QMA Report and a subsequent paper based on those findings. See James H. Mathis and Kamala Dawar, "Qualified Market Access," *SSRN* , October 15, 2008, http://dx.doi.org/10.2139/ssrn.1970550.

36 Article II:1. (a) states "Each contracting party *shall accord* to the commerce of the other contracting parties *treatment no less favourable than that provided for* in the appropriate Part of the appropriate Schedule annexed to this Agreement."

An adjustment based on a QMA scheme could be effected through lowering tariffs on other products to adjust the compensation that is owed to the detrimentally affected Members. In practice this means that those Members with diversified trade can more easily rebalance the levels of compensation. Those Member countries that only trade in a few products, or do not trade in volumes adequate to offset the tariff increase, will find rebalancing compensation levels more difficult. This may result in the affected exporting country withdrawing 'equivalent concessions' on products of originating in the country imposing the QMA scheme. This type of suspension can operate as a 'penalty' both upon (unrelated) producers who lose market access, but also to the detriment of consumers and producers in the country retaliating.

The second tariff adjustment option deals with varying tariff rates 'below the binding'. GATT law offers more possibilities if the Member imposing the QMA scheme is charging an applied rate below the binding level. That is, if a WTO Member charges an applied import duty rate below the binding level it is free to alter that rate up or down without violating Article II: 1(a) of the GATT. WTO Members are allowed to create fine differentials among very similar competitive products. Tariffs are a legitimate means of providing for economic protection for domestic producers, and countries are permitted a wide scope to differentiate products for applying different tariff rates. While almost any characteristic differences can be established and justified in a tariff negotiation, the violating line will be those more blatant characterizations.[37] Differentiations will be objected to when they are closer to an explicit distinction between countries than to a distinction between products according to their objective characteristics.[38] Further, it is the WTO Member who claims to be prejudiced by this practice of tariff differentiation that bears "the burden of establishing that such tariff arrangement has been diverted from its normal purpose so as to become a means of discrimination in international trade.[39]

While a Member is free to create fine tariff differentials and raise tariff levels up to the bound level, a Member is not free to treat physically identical products more or less favourably without risking a violation of the most-favoured nation obligation under GATT Article I. This brings to the fore the central problem with the legality of all QMA schemes: the like-product analysis. The flexibility for Members to make fine distinctions among products is not unlimited when it comes to those distinctions associated with production process differences that are not based on physical characteristic or even end-use distinctions. In one WTO dispute, US –Poultry (China),[40] the Panel noted that like product analysis must always be conducted on a case-by-case basis. The traditional approach for determining 'likeness' has, in the main, consisted of employing four general criteria that a Panel must examine in turn to assess its significance in validating a distinction between products:

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37 The classic example of finely tuning product distinctions for the purpose of a tariff duty is drawn from the 1904 Swiss-German Treaty reducing tariffs on, "… large dapple mountain cattle reared at a spot 300 meters above sea level and having at least on month grazing each year at a spot at least 800 meters above sea level."

38 Robert E. Hudec, ""Like product": The Differences in Meaning in GATT Articles I and III" in *Regulatory Barriers and the Principle of Non-discrimination in World Trade Law*, ed. Thomas Cottier and Petros Mavroidis (Ann Arbor: University of Michigan Press, 2000): 101. The cattle example can also be cited for the use of a process standard in a tariff description. Another example a PPM-based tariff might be different applied rates for 'handcrafted' products.

39 GATT Panel Report, *Canada/Japan – Tariff on Imports of Spruce, Pine, Fir (SPF) Dimension Lumber*, L/6470 - 36S/167 (July 19, 1989).

40 Panel Report, *United States – Certain Measures Affecting Imports of Poultry from China*, WT/DS392/R (25 October, 2010), paras 7.424–7.427, 7.429.

- the properties, nature and quality of the products
- the end-uses of the products
- consumers' tastes and habits — more comprehensively termed consumers' perceptions and behaviour — in respect of the products; and
- the tariff classification of the products

Consumer tastes and habits clearly offer the most potential to defend a QMA scheme based on NPR PPMs. Panels have seen legitimate expression of consumers' perceptions and behaviour reflected in national legislative enactments. The criterion for assessing like products also includes consideration of 'any other relevant factor' that may be identified. This could include identifiable international obligations or declarations adopted by the Member imposing the QMA scheme, which might support the argument for production differentiation based primarily on 'consumer tastes and habits.' An additional obligation under Article I requires that '… any advantage … granted to any product … shall be accorded immediately and unconditionally to the like product originating in … the territories of all other contracting parties.' This means that irrespective of the like-product question for Article I MFN, this article imposes a separate requirement that tariff advantages may not be made subject to 'conditions'. For a QMA arrangement granting better (or worse) tariff duty treatment on the basis of other country characteristics or legal regimes, this 'unconditionality' requirement also provides a basis for a WTO legal challenge.

6.2. QMA and the National Treatment Principle

This examination focuses on whether a taxation-based QMA scheme could be consistent with the GATT Article III national treatment requirement. This provision seeks to ensure that internal measures are not applied to imported or domestic products so as to afford protection to domestic production.[41] The intention was to treat the imported products in the same way as the like domestic products once they had been cleared through customs. Otherwise indirect protection could be given.[42] This analysis assumes that the QMA scheme is origin neutral, focusing on 'bad' production processes or firms, rather than 'bad' countries.[43]

The legal status of an origin neutral NPR PPM taxation requirement, such as the QMA scheme, within the GATT/WTO system is not uncontroversial. There are two broad schools of thought on their legality within the WTO. One of which argues that a contested NPR PPM should be assessed under Article III because this provision does not prohibit PPMs per se, only protectionist PPM-based measures.[44] The other school of thought contends otherwise: QMA Measures using NPR PPMs to distinguish between physically indistinguishable products violate Article III on

41 GATT Panel Report, *United States — Section 337 of the Tariff Act of 1930*, L/6439 - 36S/345 (November 7, 1989), para 5.10.

42 GATT Panel Report, *Italian Discrimination Against Imported Agricultural Machinery*, L/833 - 7S/60 (October 23, 1958), para 11; Appellate Body Report, *Japan – Taxes on Alcoholic Beverages* , WT/DS8/AB/R, WT/DS10/AB/R, WT/DS11/AB/R (November 1, 1996), para 16.

43 This assumption allows an assessment of the legality of QMA schemes beyond a narrow discussion of a *prima facie* violation of the non-discrimination requirement according to GATT Article III.9.

44 Howse and Regan, "The Product/Process Distinction- an Illusory Basis for Disciplining 'Unilateralism' in Trade Policy", 249.

the basis that these products are indistinguishable.[45] Their permissibility must be ascertained under the GATT Article XX which provides specified exceptions to the commitments of the entire Agreement, as is discussed below.

GATT Article III national treatment requirement seeks to ensure that internal measures are not applied to imported or domestic products so as to afford protection to domestic production.[46] Otherwise indirect protection could be given.[47] Article III obliges WTO Members to grant foreign products treatment that is 'as least as favourable' as the treatment granted to domestic or national 'like products.' Article III:2 covers domestic taxation policies, such as the measure set out in the proposed QMA scheme. The first sentence of this paragraph prohibits Members from taxing 'like' imported products in excess of 'like' domestic products. The second sentence states that Members will be in violation of their obligations if, under their tax regimes, 'directly competitive or substitutable' imported and domestic products are 'not similarly taxed' and then applied 'so as to afford protection.' The obvious legal challenge to be made in defending taxation based QMA measure is the ambiguity arising from the absence of definitional criteria within the provisions of Article III for distinguishing between traded products based on differences that are not physically embodied in a product – NPR PPMs. Such criterion is generally absent in the GATT/WTO with a few exceptions, such as the use of prison labour, set out in GATT Article XX(e). Consequently, Article III jurisprudence on 'likeness' has been conducted on a case-by-case basis, involving an 'unavoidable element of individual, discretionary judgment.[48]

Article III:2 has two categories of comparable products. Firstly it requires Members to ensure that 'like' imported products are not taxed at all 'in excess'[49] of 'like' domestic products. Any level of taxation imposed on imported products that exceeds the level imposed on domestic 'like' products will be deemed inconsistent with the first sentence of Article III:2.[50] Secondly, but equally important,[51] under Article III:2 if Members do not subject 'directly competitive or substitutable products' to similar levels of taxation, there must be an assessment to determine whether the different rates of taxation are applied 'so as to afford protection to domestic production'. While the scope of 'directly competitive or substitutable products' is broad, it is governed by the overall anti-protectionist thrust of Article III:I through an examination of whether or not the measure is applied 'so as to afford protection.'

Complementing this, Article III:4 obliges Members to ensure that non-taxation based internal regulatory measures afford imported products treatment that is 'no less favourable' than that offered to 'like' domestic products. A QMA scheme that required firms producing socially 'bad'

45 Sanford E. Gaines, "Processes and Production Methods: How to Produce Sound Policy for Environmental PPM-based Trade Measures?," *Columbia Journal of environmental Law*, 27 (2002): 383.

46 Panel Report, *Italy- Agricultural Machinery*; Appellate Body Report, *Japan- Alcoholic Beverages II*.

47 This assumption allows an assessment of the legality of QMA schemes beyond a narrow discussion of a *prima facie* violation of the non-discrimination requirement according to GATT Article III.9.

48 Appellate Body Report, Japan –*Alcoholic Beverages II*.

49 In Japan – *Alcoholic Beverages II*, Appellate Body found that any level of taxation imposed on imported products that exceeds the level imposed on domestic 'like' products will likely be deemed inconsistent with the first sentence of Article III:2. *Op cit. (Section H.1.b).*

50 Ibid.

51 Ibid. The Appellate Body clarified that the phrase 'like products' in Article III:2 must be interpreted narrowly so as to not overshadow Article III:2's second, broader category of 'directly competitive or substitutable products.'

products to inform consumers of their 'unacceptable' production methods would be considered under Article III:4.[52] Article III:4 solely refers to 'like products.' Nevertheless, the Appellate Body in EC – Asbestos stated that to give effect to the purpose of Article III, the combined product scope of Article III:2's product categories should not differ significantly from the scope Article III:4's 'like products' category.

If, under a non-taxation based QMA measure products were found to be 'like' under Article III:4 provisions, the WTO Panel would move to examine whether the imported products are afforded treatment 'less favourable' than their domestic counterparts. The examination would find that under such a scheme there is origin-based discrimination if the different requirements afforded to these 'bad' and 'good' products result in a bigger overall disadvantage to the group of like ('good' and 'bad') imports as compared to the group of like ('good' and 'bad') domestic products. A Member's regulations may formally discriminate between imported and domestic products as long as those regulations do not modify the conditions of competition in the relevant market to the disadvantage of the imported product.[53] A QMA scheme operates to modify the competitive environment among products that are in a close competitive relationship. However, the question is whether this also results in a competitive disadvantage for ('good' and 'bad') imports compared to the group of like ('good' and 'bad') domestic products.

Clearly, if under Article III 'likeness' were to be interpreted so as to consider environmentally or socially harmful products as 'unlike' similar but environmentally or socially 'good' products, the WTO's non-discrimination provisions offer considerable flexibility for Members wishing to enact a QMA scheme, whether taxation based or not. The difficulty with this interpretation is that precise boundaries of 'likeness' and the impact of a 'likeness' determination on domestic policy making are still unclear within both the text of Article III provisions and GATT/WTO jurisprudence. In the 1987 Japan-Alcoholic Beverages dispute,[54] the Panel examined the criterion of consumers' tastes and habits, and concluded that such an analysis could be misleading because of the potential for differential taxes to crystallize consumer preferences for domestic products. The Panel also found that 'directly competitive or substitutable products were those with common characteristics, and which consumers seemed to view or use as alternatives or substitutes for others. Some products that the Panel did not conclude were 'like' were nevertheless found to be 'directly competitive or substitutable'.

Further guidance is offered by the criteria set out in the Border Tax Working Party Report for determining like products:[55]

- the product's end-uses in a given market;
- consumers' tastes and habits, which change from country to country;
- the product's tariff classification;
- the product's properties, nature and quality.

52 The Kimberly Process Certification Scheme (KPCS) for example, requires that a certificate accompanies all rough diamonds to ensure that they are not 'conflict' diamonds, used as a source of finance by rebel forces to undermine governments.

53 *See Appellate Body Report, Korea – Measures Affecting Imports of Fresh, Chilled and Frozen Beef*, WT/DS161/AB/R, WT/DS169/AB/R, (January 10, 2001).

54 GATT Panel Report, *Japan – Customs Duties, Taxes and labelling Practices on Imported Wines and Alcoholic Beverages*, L/6216 - 34S/83 (November 10, 1987).

55 Working Party Report, *The Border Tax Adjustments*, L/3464 (December 2, 1970).

The Appellate Body has emphasised that panels must look at all evidence relevant to a 'likeness' determination, assessing each criterion separately, and then weighing all relevant evidence together when concluding whether or not the different products examined are 'like products'.[56] In cases where the products are '....physically very different, a panel can still conclude that they are 'like products' if it examines the evidence relating to all four criteria in analysing 'likeness'.

In defending a QMA measure that differentiates between desirably and non-desirably produced goods, once again, it is most obviously criterion (ii), that is consumers' tastes and habits, that presents the most potential for justifying a differential policy on the basis of the products being "unlike". This was the case in the EC - Asbestos dispute where the Appellate Body relied on the nature of the 'competitive relationship' between two products in determining product likeness, and on 'consumer tastes and habits' in determining product distinctiveness. Thus a QMA scheme may be considered consistent with Article III based upon evidence that the NPR PPMs in question have well-established markets and/or well established health or environmental risks which significantly shape consumer behaviour.[57] However, consumer tastes and habits is but one of the four criteria to be considered. A QMA scheme, taxation based or regulatory, would be found to differentiate between like products under the other three criteria since for each of those factors there are no differences between the products being compared.

6.3. GATT Article XX Exceptions

Even if a WTO Member's domestic regulatory measure is found to violate the non-discrimination obligations of the GATT, a Member may still defend the measure under the Exceptions of Article XX. These are the main provisions in the GATT that aim to balance conflicts arising between the GATT's free trade objectives and other listed legitimate domestic non-trade policy goals. The most relevant QMA measures exempted under Article XX are set out in these following paragraphs:

(a) necessary to protect public morals;
(b) necessary to protect human, animal, or plant life or health;
(c) relating to the conservation of exhaustible natural resources if such measures are made effective in conjunction with restrictions on domestic production or consumption.

Although the Article XX exceptions are seen to balance the obligations of Members with the right to implement legitimate domestic measures relating to the environment or social welfare, these provisions may not be sufficient to justify all NPR PPM QMA schemes. Moreover, under Article XX the burden of proof is shifted from the complainant onto the respondent – the implementer of the QMA scheme – who must prove the 'necessity' of the measure within the framework of the provisions governing the individual exceptions.

A QMA scheme could potentially satisfy the requirements of these Article XX exceptions under certain conditions. Firstly, the scheme must be origin neutral, focusing instead on 'unacceptable' products or firms. It is also likely that the scheme will be perceived to be more legitimate if the policy objectives are based on internationally determined standards rather than domestic

56 Appellate Body Report, *European Communities – Measures Affecting Asbestos and Products Containing Asbestos*, WT/DS135/AB/R (April 5, 2001), paras101–103.

57 *See* Jason Potts, *The Legality of PPMs under the* GATT: *Challenges and Opportunities for Sustainable Trade Policy*, (Winnipeg: International Institute for Sustainable Development, 2008).

preferences. A trade measure can be considered to be 'extraterritorial' when it either relates to practices that are beyond its own customs territory (regulation of practices on the high seas, for example), or when it seeks to compel another Member to comply with its own domestic requirements.

The Article XX exceptions do not address the territorial application of national measures. That is, while Articles XX (a) and (b), for example, allow Members to take measures necessary to protect public morals or life and health respectively, they do not say whether the application of this provision should be only within the jurisdiction of the WTO Member implementing the measure. And while Article XX(g) allows for the protection of exhaustible natural resources, it does not explicitly limit such protection to the territory enacting the measure. Article XX(e), in contrast, can only apply meaningfully to imports, i.e. to products made by prison labour abroad.

The issue of extraterritoriality has not been static in GATT/WTO jurisprudence.[58] Most recently, in the EC - Seals dispute, the Appellate Body left open the question whether purely extraterritorial public morals measures can be justified under Article XX(a), noting that the EU Seal Regime[59] clearly addresses the morality of persons on EU territory consuming seal products from inhumane commercial hunts.[60] NPR PPM QMA measure imposing 'extra-territorial' requirements is potentially capable of receiving validation under the GATT exceptions set out under Article XX. The exceptional categories that appear to relate most closely to a QMA regime's environmental and social objectives include those necessary to protect public morals, health, life or the environment. For all of the exceptions under Article XX, a defence will be more convincing, and more successful, if the standards they aim to uphold are internationally recognised, such as fundamental International Labour Organization ("ILO") labour rights. Unilateral trade measures seeking to implement domestically determined standards of behaviour may be more difficult to defend if contested.

6.4. Article XX(a): Necessary to Protect Public Morals

Article XX(a) states that nothing in the GATT 1994 shall prevent the adoption or enforcement of any measure 'necessary for the protection of public morals.' While the GATT does not define

58 The *US-Shrimp* case reversed the earlier restrictive approach to 'extra-territorial' measures found in the unadopted GATT US – Tuna/Dolphin I Panel. The US- Shrimp panel explicitly stated that no measure of this type could ever be validated under the Chapeau of Article XX.(Panel Report, *US-Shrimp*, para 7.45) 45 On appeal, the Appellate Body found, however, that all measures seeking validation under Article XX had to first be considered according to the terms of the individual exceptions provided for in that Article (Appellate Body Report, *US- Shrimp*, para 121). The *US – Tuna/Dolphin* I case concerned the US law prohibiting the import of tuna caught by dolphin-unfriendly methods. The Panel, therein, declared this US NPR PPM measure incompatible with the GATT on the grounds that to rule otherwise would allow any Member to unilaterally determine the life, health and conservation policies of other parties, which would jeopardize the trading rights guaranteed by the GATT. GATT Panel Report, *United States- Restrictions on Imports of Tuna*, DS21/R- 39S/155 (September 3, 1991) paras 5.27. 5.32.

59 Council Regulation 1007/2009/EC on Trade in Seal Products, O.J. L286, September 16, 2009; Council Regulation 737/2010/EC on Detailed Rules for the Implementation of Regulation (EC) No 1007/2009 of the European Parliament and of the Council on Trade in Seal Products Text with EEA relevance, O.J. L 216, August 10, 2010.

60 Appellate Body Report, *European Communities – Measures prohibiting the Importation and marketing of Seal Products*, WT/DS400/AB/R / WT/DS401/AB/R (June 18, 2014).

'public morals', the US-Gambling Panel Report stated that what constitutes public morals can vary in time and space, depending upon a range of factors, including prevailing social, cultural, ethical and religious values.[61] It went on to define 'public morals' as 'standards of right and wrong conduct maintained by or on behalf of a community or nation'. Therefore, the protection of public morals could be invoked as a ground for justifying a QMA scheme which discriminates against the sale and use of goods produced in a manner inconsistent with minimum labour standards, basic human rights, minimum animal welfare or accepted environmental standards.

The analysis developed within the WTO DSB requires the party invoking an Article XX exception to demonstrate a nexus between the measure and its chosen policy objective by proving a connection between the targeted product and the risk posed by that product.[62] Thus, in order to justify a QMA scheme under Article XX(a), it must be shown that the measure falls under the specified general policy objective. The limit to what constitutes a risk to public morals under Article XX(a) is not definitive. The analysis will necessarily be country specific. Article XX(a) was successfully invoked by Saudi Arabia in its Accession to the WTO to justify the ban on the importation of any alcoholic and all types of machines, equipment and tools for gambling or games of chance.[63] Article XX(a) was invoked by China to justify censorship of its imported publications and by the US to justify its ban of on-line gambling services.

This defence was also applied to the EU's ban on seal imports. Here the Appellate Body accepted the EU's position that moral concern regarding the protection of animals is a value of high importance in the European Union.[64] The European Union was able to show that the discriminatory aspects of the measure – which was the exception under the EU Seal Regime for indigenous communities and seal products obtained from seals hunted for purposes of marine resource management - were consistent with the public morals exception and therefore necessary under Article XX(a). Significance for this discussion, is that the discriminatory aspects of the EU Seals Regime would not have been consistent with a defence under either Article XX(b) or (g), even if the Regime also had aspects that fall under both of these two exceptions.

Moreover WTO Members may set different levels of protection even when responding to similar interests of moral concern. So even if the EU has the same moral concerns regarding seal welfare and the welfare of other animals, and recognizes the same level of animal welfare risk in seal hunts as it does in its slaughterhouses and terrestrial wildlife hunts, the EU is not required by Article XX(a) to address such public moral concerns in the same way.[65]

6.5. The Necessity Test

Necessity tests are designed to establish the WTO consistency of a measure based on whether the measure is "necessary" to achieve certain policy objectives. They reflect the balance between preserving the

61 Panel Report, *United States – Measures Affecting the Cross-Border Supply of Gambling and Betting Services*, WT/DS285/R (April 20, 2005), para 6.462.

62 See Panel Report, *European Communities – Measures Affecting Asbestos and Products Containing Asbestos*, WT/DS135/R (September 18, 2000).

63 World Trade Organisation, *Report of the Working Party on the Accession of the Kingdom of Saudi Arabia to the World Trade Organization*, WT/ACC/SAU/61 (November 1, 2005), Annex F, List of Banned Products.

64 Panel Report, *EC-Asbestos.*

65 Ibid., para5.200

freedom of Members to set and achieve regulatory objectives through measures of their own choosing, and discouraging Members from adopting or maintaining measures that unduly restrict trade. Despite textual similarities between different necessity tests in WTO provisions, each provision would have to be interpreted in the light of the object and purpose of the Agreement of which it is part.

In the 2001 EC – Asbestos Appellate Body Report, it was found that for a measure to be deemed 'necessary' it does not need to be 'indispensable' or 'inevitable'.[66] Rather, situated somewhere between an 'indispensable' measure and a measure 'making a contribution to' a goal, albeit significantly closer to the pole of 'indispensable'. The Appellate Body subsequently set out the following three factor balancing test for deciding whether or not a measure is necessary when it is not per se indispensable:[67]

- The contribution made by the measure to the legitimate objective
- The importance of the common interests or values protected
- The impact of the measure on trade

Under this balancing test, a QMA scheme could potentially be defended under (1) and (2) if it aimed to prevent child labour, for example, which is widely held to be socially unacceptable by the international community. However, the scheme most likely does significantly affect the competitive environment of those countries exporting goods produced using 'bad' slave labour, it therefore remains open to being challenged under balancing factor (3): the impact of the measure on trade. The balancing process undertaken by a Panel needs to take account of all three factors, but given that the objective of a QMA measure is to restrict the access to the domestic market of 'bad' products, the Panel will likely find factors (1) and (2) compelling enough to justify the trade restrictive QMA measure. The Appellate Body in the Brazil-Tyres dispute found that if the analysis yields a preliminary conclusion that the measure is necessary, the result must be confirmed by comparing the measure with possible alternatives, which may be less trade restrictive while providing an equivalent contribution to the achievement of the objective. This comparison should be carried out in the light of the importance of the interests or values at stake. It is through this process that a panel determines whether a measure is necessary.[68] The Appellate Body likewise found that the EU Seal Regime was necessary in making some contribution to its legitimate objective of protecting the public morals of EU citizens due to their evident concern for animal welfare.[69]

While the responding Member must defend a measure as necessary, it does not have to 'show, in the first instance, that there are no reasonably available alternatives to achieve its objectives'.[70] A complainant Member may argue that there are alternative measures to a contested QMA scheme. For example, it could be argued that alternative GATT-consistent measures are available in the form of advocacy, diplomatic persuasion and targeted development aid to increase the expertise and capacity of these countries to improve their production methods. However, the Appellate Body has also stated that the Chapeau authorizes 'an importing Member to condition market access on exporting Members putting in place regulatory programmes comparable in effectiveness to that of the importing Member.'[71] Neither of these alternatives can be considered as 'equally effective'.

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66 GATT Panel Report, *Japan- Alcoholic Beverage*s I, para161

67 Appellate Body Report, *US- Shrimp*, para 164.

68 Appellate Body Report, Korea-Beef, para 166; Appellate Body Report, Brazil – *Measures Affecting Imports of Retreaded Tyres*, WT/DS332/AB/R (December 17, 2007), para 187.

69 Panel Report, EC- *Asbestos*, para 5.203.

70 Appellate Body Report, *Brazil –Retreaded Tyres*, para 165.

71 Appellate Body Report, *US-Shrimp*, para 144.

Therefore, a QMA type scheme could be successfully defended under Article XX as necessary particularly if a) the standards referenced in the scheme are internationally recognised; b) the Panel determine the impact on trade to be not disproportionate to the contribution made by the measure to achieving the legitimate objective; and c) the importance of the common interests or values being protected by the scheme is demonstrated.

6.6. The Chapeau

To successfully defend a QMA scheme under Article XX, two elements must be considered sequentially. First, and as discussed above, it must be determined whether the QMA measure at issue falls within the scope of one of the subparagraphs. Secondly, it must in compliance with the introductory clause or "*chapeau*".[72] The burden of showing that a measure complies with the requirements of the chapeau of Article XX falls on the defending party, even after that party has established that the measure qualifies under one of the subheadings of Article XX. The Appellate Body has stated that this is, of necessity, a heavier task than that involved in showing that an exception encompasses the measure at issue.[73]

The chapeau is designed to ensure that a contested measure is 'not applied in a manner which would constitute a means of arbitrary or unjustifiable discrimination' or a 'disguised restriction on international trade'. Whether or not a QMA measure conforms to the chapeau would depend on whether or not the measure subjected the designated 'bad' product to the same penalty import tax regardless of its country origin. The Appellate Body regarded various factors of relevance to a QMA scheme as "unjustifiable discrimination" under the chapeau in the Shrimp/Turtle dispute.[74] For example, in practice the US government required other countries to adopt essentially the same comprehensive programme[75] without taking into consideration different conditions which may occur in the territories of those other members.[76] The US embargo also included 'good' shrimp but from non-certified countries. Furthermore, the application of the measure resulted in differential treatment among countries because the U.S. negotiated a convention with some countries but not others, providing those signatories with a longer compliance time and greater technology transfer efforts. The Appellate Body held that the US scheme was applied in a manner which amounted not only to "justifiable discrimination" but also to "arbitrary discrimination" between countries where "the same conditions prevail". As a result, the Appellate Body concluded that the U.S. measure could not be justified under the GATT XX.

6.7. Summary of Legal Assessment

This legal analysis indicates that differential tariff treatment based on NPR PPMs is likely to be seen as a violation of Articles II and I because of the narrow like product analysis considered for tariffs. For non-tariff QMA measures, while controversial, it is also likely that tax or regulatory distinctions based on NPR PPMs will be considered a violation of Article III national treatment obligations. NPR PPMs are not likely to survive a like-product analysis. For while the factor

72 Appellate Body Report, *United States –Standards for Reformulated and Conventional Gasoline*, WT/DS2/AB/R (May 20, 1996), 22.

73 Ibid., 22-23; *see* also WTO Analytical Index, Vol. 1, 340-342.

74 Appellate Body Report, *US-Shrimp*, para 176.

75 Turtle Excluder Devices (TEDs).

76 Appellate Body Report, *US-Shrimp*, para 164.

of consumer tastes and habits provides some potential to differentiate products based on NPR PPMs, the case law has been more focused on assessing the competitive relationships among essentially identical products. While there is a legal possibility of differential treatment within the like product grouping, it is not clear how cases based on this 'group' identification standard would actually be treated in the practice.

Notwithstanding this pessimistic prognosis, the outcome is more hopeful for Article XX defences. There is considerable scope to justify particular QMA schemes under these exceptions, as long as the QMA measure being defended is based as far as possible, on non-origin criteria that recognises products and producers rather than countries or regions. This would be further aided by any international norm of soft law supporting such qualifying distinctions. The Appellate Body in the EC-Seals dispute accepted the discriminatory aspects of the EU Seals Regime because the exception for indigenous communities and seal products obtained from seals hunted for purposes of marine resource management -were consistent with the public morals exception under Article XX(a). This is of legal consequence for defending any NPR PPM QMA scheme that was implemented in order to protect public morals under the WTO Dispute Settlement Understanding.

7. Conclusions

This paper discusses a particular proposal for the use of trade penalties to punish partners whose labour or environmental standards do not meet those of an importer, NPR PPMs. The specific "Qualified Market Access" proposal was made a by European Parliamentarians to the European Commission, but it was not adopted. It has however resurfaced in a number of guises, including the proposal for Border Carbon Adjustments.[77] The TPP Agreement, signed as we were completing this text, also has explicit requirements on national labour and environment rules.

We conclude in our analysis that a proposal such as the QMA plan is not inconsistent with basic welfare economics, provided we recognise the existence of psychic externalities. This view has a long history going back to Adam Smith. Howse and Regan argued it should be applied in trade law.

We assume in this paper that European consumers suffer genuine disutility when they consume products within the EU knowing they have been produced in socially or environmentally undesirable ways, whether the consumption is their own or by other people. Making these assumptions we conclude that we cannot accept or reject the case for QMA on *a priori* grounds, when a welfare comparison is made between a status quo in which the externality exists and one in which the QMA proposal is applied. We find that the welfare effects depend on a number of unobserved parameters such as the degree of preference of the domestic consumers, as also the number of consumers who dissent from the majority view.

The economic analysis is followed by a legal analysis which in parallel comes to a conclusion that recent WTO jurisprudence, notably the Shrimp-Turtle and Seals cases, suggests that policies of this nature cannot be ruled out a priori as WTO-illegal. We are thus departing from the traditional view that argues that trade measures should never be used to enforce environmental aims. However, as

77 Peter Holmes, T. Reilly and Jim Rollo, "Border Carbon Adjustments and the Potential for Protectionism," *Climate Policy* 11, no. 2 (2011): 883.

was the case with BCAs[78], the authors would argue for the same reasons that in the absence of a convincing welfare case in favour of these measures, we should err on the side of prudence and avoid such measures. It is also likely that greater scope for genuine environmentally motivated measures would stimulate spurious claims inspired by producers, as might possibly be happening in the US-Vietnam Shrimp anti dumping case. This opening of the Pandora's box would not only invite retaliation, but would also be a window of opportunity to countries which objected to EU or US social practices of using trade sanctions.

78 Holmes et al., "Border Carbon Adjustments and the Potential for Protectionism", 883.

Export Orientation, Import Competition and Plant Survival in Indian Manufacturing

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ABSTRACT

While there have been a large number of studies on survival of industrial plants and firms, most undertaken for industrialized countries, there is hardly any such study for India. In this paper, survival of organized sector manufacturing plants in India is analyzed by estimating the Cox Proportional Hazard Model from two sets of plant-level data, one for the period 1998-99 to 2012-13 and the other for the period 2006-07 to 2012-13, both drawn from the Annual Survey of Industries (Central Statistics Office, Government of India). The main issue investigated is how survival probability of Indian manufacturing plants is impacted by (a) their export orientation and (b) the import competition they face in domestic markets. The results of the econometric analysis indicate that increased export orientation of manufacturing plants in India tends to improve their survival probabilities, consistent with the finding of several similar studies undertaken for other countries, and that enhanced import competition in India, particularly from China, tends to reduce survival probabilities of manufacturing plants. Also, there is indication from the empirical analysis that the 2008-2012 global recession had increased the risk of closure of manufacturing plants in India.

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The views and opinions reflected in this paper are that of the authors alone.

1. Introduction

There has been a large number of studies on the determinants of survival and closure (or exit) of manufacturing plants or manufacturing firms (based on plant-level or firm-level data). Most of these studies have been undertaken in the context of developed countries, though such studies for emerging nations or developing countries are also available. The Cox Proportional Hazard Model has commonly been applied in such studies to examine the impact of various factors on the survival (or risk of closure) of manufacturing plants/ firms (other models such as Probit or Complementary log-log have also been applied).[1] A variety of determinants have been considered for the analysis, and accordingly the focus of the studies has varied. The issues investigated include the impact of trade on plant/firm survival and whether plants belonging to multinational firms have lower survival probabilities than plants belonging to domestic firms. Other issues considered in the studies include the impact of productivity and the size of the plant/firm on survival probability. There has been hardly any study on the survival of manufacturing plants/firms in India. One notable exception is the study of survival of pharmaceutical firms in India undertaken by Chadha and Ying.[2] They have examined the restructuring that has taken place in India's pharmaceuticals industry after TRIPS and how that restructuring has impacted the survival probabilities of pharmaceutical firms. This paper makes an attempt to analyze the impact of export orientation of manufacturing plants in India on their survival probabilities. The impact of import competition on plant survival is also examined. The analysis is undertaken by estimating the Cox Proportional Hazard Model[3] from plant-level data for manufacturing drawn from the Annual Survey of Industries (Central Statistics Office, Government of India). In trying to link trade with plant survival, this study is perhaps the first of its kind for India.

Trade is expected to have a significant impact on survival probabilities of manufacturing plants. Going by the findings of earlier studies (discussed later), it seems logical to hypothesize that greater export orientation of a manufacturing plant will enhance its survival probability whereas an increased import competition will lower its survival probability. These two hypotheses are empirically tested in this paper by using data on organized sector manufacturing plants in India. The paper is organized as follows. The next section discusses briefly the findings of some of the earlier studies on plant/firm survival which had a focus on the impact of trade and globalization. Section 3 describes the data sources used for the present study and the construction of variables. Section 4 presents an analysis of export orientation of manufacturing plants in India. Section 5 is devoted to the analysis of plant survival. It presents the estimates of the Cox Proportional Hazard Model and discusses the results obtained. Finally, in Section 6, some concluding remarks are made.

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1 Probit model has been applied for survival analysis in Andrew B. Bernard and J. Bradford Jenson, "Firm Structure, Multinationals and Manufacturing Plant Deaths," *Review of Economics and Statistics* 89, no. 2 (2007): 193; Holger Görg and Marina-Eliza Spaliara, "Financial health, Exports, and Firm Survival: Evidence from UK and French Firms," *Economica* 81, no. 323 (2014); Complementary log-log model has been applied in Ana M. Fernandes and Caroline Paunov, "The Risks of Innovation: Are Innovating Firms Less Likely to Die?," *World Bank Policy Working Pape*r, no. 6103 (2012).

2 Alka Chadha and Zhiliang Ying, "TRIPs, Innovation and Survival of Indian Pharmaceutical Firms," *Editorial Express*, 2008, https://editorialexpress.com/cgi-bin/conference/download.cgi?db_name=IIOC2008&paper_id=229 (accessed November 18, 2015).

3 This is a standard and commonly used technique of survival analysis and hence details are not provided in the paper. Interested readers may see, among others, A. Colin Cameron and Pravin K. Trivedi, *Microeconometrics: Methods and Applications* (Cambridge: Cambridge University Press, 2005), 573.

2. Findings of Some Earlier Studies

As mentioned above, a large number of studies have been undertaken on the determinants of survival and closure/exit of manufacturing plants or manufacturing firms. One group of studies has looked into the co-relation of plant/firm survival to foreign direct investment. Bernard and Jensen, for instance, in their study of manufacturing plants in the US, find that plants belonging to multi-plant firms and those owned by US multinationals are less likely to exit.[4] They point out, however, that the superior survival chances are due to the characteristics of the plants and not because of the nature of the firms. Thus, when they control for plant and industry attributes, they find that plants owned by multi-plant firms and US multinationals are more likely to close. Similar findings have been reported by Bandick from a study of Swedish manufacturing plants. He finds that plants belonging to MNEs (multinational enterprises) are more likely to quit than non-MNE plants.[5] Among non-MNE plants, the probabilities of exit are higher in non-exporting ones than in exporting ones. The study also comes to the conclusion that the increased foreign presence in Swedish manufacturing may have caused higher exit rates of plants that are non-exporting and non-MNE. The issue of why plants belonging to multi-plant firms tend to have a higher probability of exit has been examined by Inui et al by using data on Japanese plants.[6] They find that such a relationship arises because the domestic multi-plant firms often close the weakest element of the group. As for multi-plant multinationals, their analysis reveals that such firms are more likely to shut plants that lie further upstream in the production process relative to the rest of the firm.

It should be pointed out here that the empirical evidence on the impact of foreign ownership on the probability of firm closure is mixed (although dominated by studies finding the risk of closure to be higher for plants belonging to MNEs than the plants belonging to domestic firms). Studies undertaken by Colombo and Delmastro for Italy,[7] Görg and Strobl for Ireland,[8] Bernard and Sjöholm for Indonesia,[9] et al for Spain,[10] and Gullstrand for Sweden[11] have found that the probability of closure is greater for foreign owned plants than domestically owned plants. The findings of the studies of Bernard and Jensen for the US, and Bandict for Sweden mentioned earlier also point in the same direction. By contrast, some studies do not find this result or have found the opposite result. For instance, the study undertaken by Mata and Portugal for firms in Portugal does not find any marked difference between domestic firms and MNEs in regard to survival probabilities.[12] It may be added here that Ferragina et al have studied firm survival in

4 Bernard and Jenson, "Firm Structure, Multinationals and Manufacturing Plant Deaths," 193.

5 Roger Bandick, "Multinationals and plant survival in Swedish manufacturing," *University of Nottingham*, 2007,https://www.nottingham.ac.uk/gep/documents/conferences/2007/2007postgradconf/bandick-pgrconf07.pdf (accessed November 12, 2015).

6 Tomohiko Inui et al., "What Causes Plant Closure within Multi-Plant Firms?," *The University of Nottingham*, 2010, http://www.nottingham.ac.uk/gep/documents/papers/2010/10-20.pdf (accessed November 12, 2015).

7 M.G. Colombo and M. Delmastro, "A Note on the Relation between Size, Ownership Status and Plant's Closure Sunk Costs vs. Strategic Size Liability," *Economics Letters*, 69, no. 3 (2000): 421.

8 H. Görg and E. Strobl, "Multinational Companies, Technology Spillovers and Plant Survival," *Scandinavian Journal of Economics* 105, no. 4, (2003): 581.

9 A. B. Bernard. and F. Sjoholm, "Foreign Owners and Plant Survival," *National Bureau of Economic Research*, 2003, http://www.nber.org/papers/w10039 (accessed January 22, 2016).

10 Silviano Esteve Pérez, et al. "The Determinants of Survival of Spanish Manufacturing Firms," *Review of Industrial Organization* 25, no. 3 (2004): 251.

11 Joakim Gullstrand, "Industry Dynamics in the Swedish Textile and Wearing Apparel Sector," *Review of Industrial Organization* 26, no. 3 (2005): 349.

12 José Mata and Pedro Portugal, "The Survival of New Domestic and Foreign-Owned Firms," *Strategic Management Journal* 23, no. 4 (2002): 323.

Italy and come to the conclusion that, during the period 2005-07, the foreign MNEs had a greater probability of exit than national firms, but the domestic MNEs had a higher chance of survival.[13]

In a number of studies, the link between export orientation and survival of plants/firms has been explored. A common finding is that greater export orientation improves survival probabilities. As mentioned above, Bandick in his study of Swedish plants finds that among non-MNE plants, the probabilities of exit are higher in non-exporting firms than in exporting firms. A study of Japanese firms undertaken by Kimura and Fujii brings them to the conclusion that global commitments help the Japanese firms improve their survival chances.[14] Small firms benefit from exporting activity, whereas large firms gain from foreign direct investment and foreign outsourcing.

To give a few more examples, Harris and Li have studied survival of UK firms and have found that exporting firms have better survival prospects.[15] The firms that are exporting on a continuous basis have better survival probabilities than the firms that sell only to the domestic markets. The firms that intermittently enter and exit the export market have distinctly higher survival probabilities. In a study of Chinese firms, Dai et al find that exporters have higher survival probabilities than non-exporters irrespective of the trade regime.[16] Similarly, in the previously mentioned study of Spanish firms undertaken by Pérez et al, the authors find that survival probability is relatively higher for exporting firms and firms that are engaged in R&D.[17]

Turning now to import competition, a number of studies have found that import competition tends to enhance the probability of closure among domestic manufacturing firms. To give some examples, Gullstrand found such an effect of import competition on firm survival for Swedish textile firms.[18] Baggs found that tariff reductions in Canada raised the hazard rate of closure of Canadian firms.[19] The study of US manufacturing plants undertaken by Bernard, et al has revealed that competition from imports from low wage countries adversely affects survival of manufacturing plants in the US.[20] They find evidence that the domestic firms adjust their product mix in response to import competition. Harris and Li, in their study of UK firms mentioned earlier, have found that an increase in import penetration leads to higher hazard for the firms that have never participated in international markets and that have exit from exporting.[21]

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13 Anna Maria Ferragina, et al., "Does Multinational Ownership Affect Firm Survival in Italy," *Journal of Business Economic and Management* 15, no. 2 (2014): 335.

14 Fukunari Kimura and Takamune Fujii, "Globalizing activities and the rate of survival: Panel data analysis on Japanese firms," *Journal of the Japanese and International Economies* 17, no. 4 (2003): 538-560.

15 Richard I.D. Harris and Qian Cher Li, "Export-market dynamics and the probability of firm closure: Evidence for the United Kingdom," *Scottish Journal of Political Economy* 57, no. 2 (2010): 145.

16 Meihong Dai et al., "Exports and Firm Survival: Do Trade Regimes and Productivity Matter?," *Applied Economic Letters* 23, no.6 (2016): 457.

17 Pérez, et al., "The Determinants of Survival of Spanish Manufacturing Firms," 251.

18 Gullstrand, "Industry Dynamics in the Swedish Textile and Wearing Apparel Sector", 349.

19 Jen Baggs, "Firm Survival and Exit in Response to Trade Liberalization," *Canadian Journal of Economics* 38, no. 4 (2005): 1364

20 Andrew B. Bernard, et al., "Survival of the Best Fit: Exposure to Low-Wage Countries and the (Uneven) Growth of US Manufacturing Plants," *Journal of international Economics* 68, no. 1 (2006): 219.

21 Harris and Li, "Export-market Dynamics and the Probability of Firm Closure: Evidence for the United Kingdom," 145.

3. Data Sources and Construction of Variables

The basic data source for this study is the Annual Survey of Industries ("ASI") which is brought out by the Central Statistics Office, Ministry of Statistics and Programme Implementation, Government of India. ASI covers organized sector industrial units. It covers units registered under Sections 2m(i) and 2m(ii) of the Factories Act, 1948 (this includes factories employing 10 or more workers with the use of power or 20 or more workers without the use of power). It also covers bidi and cigar manufacturing establishments under the Bidi & Cigar Workers (Conditions of Employment) Act, 1966 with coverage same as above. Bulk of the industrial units or plants covered by ASI belongs to manufacturing and a small portion of the units covered does not belong to manufacturing. In the empirical analysis presented in the paper, only the manufacturing plants have been considered.

For the industrial units surveyed each year, ASI unit-level data contains information on their operational status (whether they were in operation, and if not in operation, whether they were closed or non-existent or open but not operating, etc.). This information has been obtained from unit-level ASI data for surveys for different years, which has then been used to ascertain spells of survival and time points of closure of factories selected for the study. This could be done because there are common factory identifiers across unit-level data of different surveys, from 1998-99 to 2012-13.

To explain this further, in the survey for 2012-13, nine codes have been given for the status of surveyed industrial units. These are: (1) open/operating, (2) closed (for less than three years), (3) non-operating (for less than or equal to three years), (4) deleted, (5) existing but closed and the owner/occupier is not traceable, (6) not existing and the owner/occupier is not traceable, (7) non-response because production not started or accounting year not closed, (8) non-response for other reasons (e.g., relevant records are with court), and (9) deleted due to de-registration or other reasons. Of these codes, code (1) has been treated as survival i.e. the unit is surviving, and codes (2) to (6) have been treated as failure, i.e. the unit is not surviving. The survey data reveal that in 2012-13 about 80% of the surveyed units were open/operating, about 18% of the units were closed, non-operating, deleted or non-existent, and the remaining 2% were non-response cases for other reasons.

It should be pointed out that the ASI survey has two components – the census sector and the sample sector. The census sector covers units employing 100 or more workers. It also covers all eligible units in the north-eastern states of India, whether the employment is above or below 100 (as long as it is registered under the Factories Act or Bidi and Cigar Workers Act i.e. either employing 10 or more with power; or employing 20 or more without power). The units having employment less than 100 and not belonging to north eastern states may also get included in the census sector under certain conditions. When the number of units in the frame for a stratum (a particular four-digit industry, according to National Industrial Classification ("NIC"), in a particular state) falls below a specified limit (at present, the limit for inclusion in the census sector is 4 units or less), all units are taken in the census sector. The census sector units are completely enumerated. The remaining units form the sample sector. Out of the sample sector units, a portion is covered in the survey each year based on probability sampling (in 2012-13, the average sampling proportion was 12%).

The nature of sampling procedure adopted in ASI, described above, is such that some units (relatively large ones or those in north eastern states) get covered each year, while others get covered with a

gap (some may not get covered at all within a particular period under consideration). Accordingly, for some units, the year of transition from operating to non-operating state can readily be identified. But, for others, such precise information on the time-point of transition is not available. Yet, one can find from the survey data, the last year when a particular industrial unit was covered in the survey and what was its operational status in that year, which is sufficient for estimating the Cox Proportional Hazard Model, used in this paper for studying the survival of plants. Two datasets have been prepared for the empirical analysis undertaken in this paper. The first dataset covers about 2300 plants. These are those plants which began production in the years 1991-92 to 1998-99 and were found be operational in the ASI survey undertaken for 1998-99. These 2300 plants are traced till 2012-13. The second dataset contains information on around 14,000 plants. These plants started production in the years 2000-01 to 2006-07 and were found to be operational in the ASI survey for 2006-07. These plants have been traced till 2012-13.

Attention may be drawn here to the fact that a unit which is not operational in a year may turn into an operating unit in a subsequent year. This introduces the possibility of multiple spells for a factory – closing down and becoming non-operational in one year and then reviving again in a subsequent year. In the survival analysis literature, econometric techniques have been suggested to handle multiple spells.[22] However, the analysis in this paper has been kept simple. Only the first spell of the selected factories during the period under study has been considered for the analysis; this is from the time a factory starts production and till the time the factory becomes non-operational or till the time the factory becomes right-censored, i.e., the factory was in operation at the last time it was surveyed and no information on its operational status is available for subsequent years.

As explained above, the information on the status of surveyed units in unit-level data of ASI provides data on survival spells of factories needed for the estimation of the Cox Proportional Hazard Model. Additionally, data is needed on covariates or regressors. For a factory selected for the study, data on some of the covariates such as ownership and organizational form of the firm to which the selected factory belongs, and the location of the factory (the state in which the factory is located; whether it is in a rural area or in an urban area) has been obtained from the unit-level data of ASI. Since the focus of the study is on the impact of trade on survival of manufacturing plants, some trade related variables have been incorporated in the model estimation. This is further explained below, along with the data sources used.

In the analysis based on the first dataset which covers the period 1998-99 to 2012-13, an attempt has been made to relate inter-temporal changes in the global trade scenario and import competition in India to the survival of manufacturing plants. Thus, the growth rate in world exports[23] and the growth rate in India's non-oil imports have been taken as explanatory variables. Data on India's imports has been taken from Handbook of Statistics on Indian Economy published by the Reserve Bank of India. Data on global exports has been taken from International Trade Statistics (World Trade Organization).

In the analysis based on the second dataset which covers the period 2006-07 to 2012-13, a much

22 Cameron and Trivedi, *Microeconometrics: Methods and Applications*, 640.

23 Since the analysis of the first dataset focuses on inter-temporal changes in the trade scenario and the factory level data on export share in output is available only for a limited period, the years 2008-09 to 2012-13, but not for earlier years, export orientation of factories has not been included as an explanatory variable in the models estimated from the first dataset.

more analysis treatment has been given to trade orientation of manufacturing plants and import competition faced by them. The ratio of exports to output has been obtained for the selected factories for the years 2008-09 to 2012-13 from unit level data of ASI and an average for the five years has been taken for each firm.[24] [25] A second set of variables have been formed at the four-digit industry level of NIC. The variables are the ratio of imports to domestic production and the ratio of imports from China to total imports from all sources. Computation of these ratios required data on India's imports and data on domestic production. All these data are needed at four-digit NIC level. Domestic production data at industry-level have been taken from the published reports of ASI. Trade data have been taken from UN COMTRADE by using the WITS software of the World Bank. The advantage of using this source is that trade data are available in ISIC (International Standard Industrial Classification) Revision-3 which can be matched with domestic production data obtained from ASI.

Two sets of ratios have been computed: one for the years 2005-06 to 2007-08 and the other for the years 2008-09 to 2012-13. In the former case, the production and trade data could be well matched for a majority of four-digit industries comprising manufacturing (because trade data could be obtained according to ISIC revision-3, and it is this classification that was the basis of the industrial classification used by ASI). In the latter case, i.e., ratios for the years 2008-09 to 2012-13, there were some difficulties in matching (because from 2008, ASI shifted to a classification based on ISIC revision-4, whereas the WITS provides data at ISIC revision-3) the production and trade data. The aforesaid two ratios relating to imports could be computed for a majority of the four-digit industries, but the matching of trade data with domestic production data was not as good as that obtained for the years 2005 to 2007. For use in the econometric estimation of the model, the import related ratios have been averaged over years; one set of ratios is the average for the period 2005-06 to 2007-08 and the other set is the average for the period 2008-09 to 2012-13.

4. Export Intensity of Manufacturing Plants

Analysis of the impact of trade on plant survival is presented in the next section, i.e., Section 5. One of the hypotheses put to test is that relatively greater export orientation of manufacturing plants enhances their survival probabilities. As an initial step towards the analysis of the link between export orientation and plant survival, it would be useful to study inter-plant variation in export intensity of plants. This is attempted in this section.

It should be pointed out here that the information on export intensity of plants provided in unit-level data of ASI is not regarded as entirely reliable as this piece of information is not a validated one. Nonetheless, an analysis of export intensity of plants in ASI unit-level data may provide valuable insight into export behavior of manufacturing plants in India. Table 1 shows the percentage

24 For a portion of the factories, this information on export intensity is not available. The reason is that such factories were covered in the 2006-07 ASI survey, but did not get covered in the surveys for the years 2008-09 to 2012-13. Consequently, when export intensity is used as a regressor for the estimation of the Cox model, a sizeable part of the observations cannot be used. The same problem is there with the import competition variable. In this case too, the required information is missing for a sizeable part of the observations.

25 It should be pointed out that for some factories data on export intensity is available for five years, 2008-09 to 2012-13, but for some others, it is available for only for one or two years. The average has been computed accordingly. The factories for which export intensity data are not available at all get excluded from the model when export orientation is included as an explanatory variable.

distribution of plants according to the reported level of export share in output for the year 2012-13. The percentage of all manufacturing plants (about 54,600 plants) and manufacturing plants belonging to private limited and public limited companies (about 23,700 plants) has been shown in the second and third columns of the table respectively. In the last column, a comparison is made with distribution of manufacturing companies according to their export intensity (ratio of exports to sales). The data on manufacturing companies (about 6000 companies for 2012-13) has been taken from the Ace Equity database.

TABLE 1: PERCENTAGE DISTRIBUTION OF PLANTS/FIRMS ACCORDING TO EXPORT INTENSITY, 2012-13

Export intensity range	All manufacturing plants in ASI survey, 2012-13 (%)	Manufacturing plants in ASI survey 2012-13 belonging to private and public limited companies (%)	Manufacturing companies (%)
Nil	92.0	87.1	65.3
Positive and up to 1%	0.4	0.8	5.1
Above 1% and up to 5%	0.8	1.5	6.9
Above 5% and up to 10%	0.6	1.1	3.7
Above 10% and up to 25%	1.1	2.1	7.3
Above 25% and up to 50%	1.1	1.9	4.9
Above 50%	4.0	5.5	6.8
All	100.0	100.0	100.0

(Source: Authors' computations based on unit-level data of ASI for 2012-13, and firm-level data taken from Ace Equity database.)

It is seen from Table 1 that the distribution of all plants according to their level of export intensity is not very different from that for corporate sector plants. In the former case, about 92% of plants report no exports. In the latter case, the corresponding figure is 87%.

The last column of the table brings out that about 35% of manufacturing companies have positive exports. This figure is substantially higher that the corresponding figure (about 13%) for manufacturing plants belonging to private and public limited companies. The gap does not necessarily point to a serious deficiency in the export intensity data in ASI. One needs to allow for the possibility that a company may own several plants and if any of the plants is engaged in exports, the export intensity of the company will be found to be positive whereas some of its plants will be recording zero exports in ASI data. In sum, therefore, the export intensity data available from ASI, despite its known limitations, may be good enough for use in empirical analysis of export behavior and related issues.

Inter-plant variation in export intensity

To study inter-plant variation in export intensity, an export function has been estimated. Data on export intensity of manufacturing plants for the year 2011-12 has been used for this analysis. The analysis is confined to 20 major states.

The estimated exports function is presented in Table 2. The dependent variable is export intensity, i.e., ratio of exports to output. The explanatory variables used for the model are (a) plant sizemeasured by logarithm of value of fixed assets, (b) ratio of imported materials to total materials consumed, (c) technical efficiency of the plant which has been obtained by estimating a stochastic frontier production function,[26] (d) share of contract workers out of total workers employed, (e) effective excise duty on the plant measured by the ratio of excise duty payment made by the plant to the value of output, and (f) a dummy variable reflecting whether the plant is located in urban areas. In addition to these variables, industry dummy variables (at two-digit NIC level) and state dummy variables have been included in the model to take into account industry-specific and state-specific effects. For a very high proportion of plants (over 90%), the reported export intensity is zero (as indicated by Table 1 which shows the distribution for 2012-13). Thus, the Tobit model has been applied for econometric estimation, taking the lower limit of the dependent variable as zero and upper limit as 100%.

From the estimated export function shown in Table 2, the following inferences may be drawn: (a) Export intensity is positively related to plant size, i.e., *ceteris paribus*, export intensity is relatively higher for bigger plants. (b) Export intensity is positively related to import intensity of a plant. A plant in which imported materials form a relatively high portion of total materials used has higher export intensity than a similar plant that does not use imported materials. (c) Export intensity bears a positive relationship with the level of technical efficiency of a firm. Thus, relatively more efficient firms have relatively higher export intensity.

TABLE 2: DETERMINANTS OF EXPORT INTENSITY OF MANUFACTURING PLANTS, 2011-12, ESTIMATES OF TOBIT MODEL

Explanatory variables	Coefficient	t-statistic
Plant size (logarithm of net fixed capital stock)	15.24	32.38#
Ratio of imported materials to total materials consumed	0.84	18.19#
Technical efficiency of the plant (estimated with the help of a stochastic frontier production function)	32.75	5.93#
Share of contract workers out of total workers employed	15.64	5.99#
Effective excise duty rate (excise duty paid by the plant in a year divided by annual output)	-294.8	-10.06#
Located in urban areas (dummy)	11.05	5.48#
Industry effects (two-digit industry dummies)	Yes	
State effects (state dummies)	Yes	
Pseudo R-squared	0.09	
No. of observations	37,088	

 # statistically significant at one percent level.
(Source: Authors' computations using unit level data of ASI for 2011-12.)

26 The form of the production function is taken as Cobb-Douglas. Value added is taken as the measure of output and labour and fixed capital are taken as two inputs. The estimation of technical efficiency by using a stochastic frontier production function is a standard econometric technique, and hence the methodological details are not provided here. Interested readers may see, Subal C. Kumbhhkar and C.A. Knox Lovell, *Stochastic frontier analysis* (Cambridge: Cambridge University Press, 2003).

One may here raise an econometric issue that export intensity may have a two-way relationship with import intensity – the two variables may be interdependent. The same issue may be raised about the relationship between export intensity and technical efficiency of a plant. For properly addressing this econometric issue, the instrumental variable method needs to be applied.[27] This is not done in this paper. Yet, it seems it would not be wrong to infer that higher levels of technical efficiency and the use of imported materials enable manufacturing plants to attain a relatively higher level of export intensity.

The estimates of the export function given in Table 2 indicates that, *ceteris paribus*, a plant located in an urban area has higher export intensity than a similar plant located in a rural area. This is perhaps a reflection of greater availability of infrastructure in urban areas and greater awareness of international markets. Interestingly, the use of contract workers seems to bear a positive relationship with export intensity. This is possibly a reflection of the flexibility needed for serving international market which is provided by the use of contract workers.

Another interesting finding is the strong negative relationship observed between the effective rate of excise duty on a plant and the export intensity of the plant. Since the exported items of a manufacturing plant are not subject to excise duty, the observed negative effect is probably a reflection of the financial constraint a plant faces because of excise duty burden. This matter needs further investigation which is beyond the scope of this paper.

Inter-state differences in export intensity of manufacturing plants

While examining inter-plant variation in export intensity, an interesting issue to investigate is how different states in India fare in this regard. Such an analysis is difficult to undertake using company balance sheet data. But, ASI data has an advantage. In ASI unit-level data, the location of the plant is known and it becomes easier to compare states in terms of export intensity of manufacturing plants. The comparison is shown in Table 3 in respect of 20 major states. First, the average export intensity of all (organized sector) manufacturing plants is shown for different major states, and then the ratio is shown for relatively bigger plants – those employing 50 or more persons. The last column of the table gives the estimated coefficients of the state dummy variables in the exports model presented in Table 2. The advantage in examining the coefficients of state dummy variables is that differences in industry composition and certain other factors such as plant size, import intensity, efficiency have been controlled for.

Table 3 brings out that export intensity of manufacturing plants is relatively high in Haryana, Karnataka, Kerala, Maharashtra, Tamil Nadu and Uttar Pradesh, whereas it is relatively low in Assam, Bihar, Chhattisgarh, Goa, Himachal Pradesh, Jharkhand, Madhya Pradesh, Odisha, and Uttarakhand.

27 For a discussion on instrumental variable method, see, among others, Marno Verbeek, *A Guide to Modern Econometrics* (New Jersey: John Wiley & Sons, 2008).

TABLE 3: EXPORT INTENSITY OF MANUFACTURING PLANTS, BY STATE

State	Average export intensity (%), all plants	Average export intensity (%), plants with 50 or more employees	Coefficient of the state dummy variable in the estimated export model@
Andhra Pradesh	3	6	-37.1(-8.7)#
Assam	2	1	-23.4(-3.0)#
Bihar	1	0	-54.3(-4.3)#
Chhattisgarh	1	1	-68.8(-5.8)#
Goa	2	3	-80.0(-5.7)#
Gujarat	4	5	-33.7(-9.5)#
Haryana	15	21	21.2(5.1)#
Himachal Pradesh	1	1	-73.7(-9.0)#
Jharkhand	0.3	1	-102.8(-5.6)#
Karnataka	7	10	-16.9(-4.3)#
Kerala	10	17	33.2(6.6)#
Madhya Pradesh	1	1	-99.1(-9.8)#
Maharashtra	8	11	0
Odisha	1	1	-91.9(-6.8)#
Punjab	5	9	-8.4(-2.0)
Rajasthan	4	6	-28.3(-5.5)#
Tamil Nadu	9	14	-4.6(-1.5)
Uttar Pradesh	14	22	24.0(6.9)#
Uttarakhand	1	1	-89.1(-11.5)#
West Bengal	6	9	-4.5(-1.0)
All 20 states	6	10	

 # statistically significant at one percent level. @ Maharashtra taken as base category, t-statistic shown in parentheses. (Source: Authors' computations using unit level data of ASI for 2011-12.)

Considering the coefficients of the state dummy variables shown in the last column along with the average export intensity shown in the previous two columns, it seems reasonable to conclude that as compared to manufacturing plants in Maharashtra, the manufacturing plants in Bihar, Chhattisgarh, Himachal Pradesh, Jharkhand, Madhya Pradesh, Odisha, and Uttarakhand have relatively low export orientation. Probably infrastructure bottlenecks and other such factors, including difficulties caused by state level policies, are coming in way of the manufacturing units fully realizing their export potential. This issue needs further investigation, but is beyond the scope of the present paper.

5. Plant Survival: Cox Proportional Hazard Model

This section is divided into two sub-sections. Section 5.1 presents an analysis of plant survival based on the first dataset which covers the period 1998-99 to 2012-13. Section 5.2 presents an analysis of plant survival based on the second dataset which covers a much larger number of plants, but for a shorter time period, 2006-07 to 2012-13. The analysis has been done by applying the Cox Proportional Hazard Model. The analysis in Section 5.1 primarily focuses on inter-temporal

variation in determinants of plant survival, while the analysis in Section 5.2 focuses on cross-sectional variation in determinants of plant survival.

5.1. Plant Survival Analysis, 1998-99 to 2012-13

The estimated Cox Proportional Hazard Model is presented in Table 4. Five explanatory variables have been considered. Three of them are plant specific (dummy variables), i.e., (1) whether the plant is located in urban areas, (2) whether the plant belongs to a private limited or public limited company, and (3) whether there is government ownership in the plant. The other two explanatory variables are common to all plants but vary over time. These are: (i) growth rate in India's non-oil imports, and (ii) growth rate in world exports. For each plant, the values of these two time-varying variables are taken for the year in which the plant was last observed in the dataset. The estimates of the model, shown in Table 4, indicates that the risk of closure or exit is higher for a plant located in urban areas than a plant located in rural areas.[28] The survival probability is relatively greater for a plant belonging to a private limited company or public limited company than a plant belonging to other forms of organization such as proprietorship or partnership. Also, if there is government ownership in the plant, the survival probability is significantly higher than a similar plant which is entirely privately owned.

Turning now to the trade variables, it is seen from Table 4 that a relatively high rate of growth in India's non-oil imports is associated with enhanced risk of plant closure. This is arguably the impact of import competition. The hazard ratio for the variable representing growth in global exports is less than one and the difference is statistically significant. The interpretation of this result is that a relatively faster growth in global trade tends to bring down the risk of closure of Indian manufacturing plants.

TABLE 4: ESTIMATES OF THE COX PROPORTIONAL HAZARD MODEL, INDIAN MANUFACTURING PLANTS, 1998-99 TO 2012-13

Explanatory variables	Hazard ratio	t-statistic
Growth rate in India's non-oil imports	1.063	12.78***
Growth rate in world exports	0.961	-6.38***
Located in urban area (dummy)	1.321	3.79***
Belongs to a private limited or public limited company (dummy)	0.824	-2.58***
Government ownership (dummy)	0.254	-2.36**
log likelihood	-5606.5	
LR chi-square [Prob.>Chi-square]	331.5 [0.000]	
No. of observations	2295	

/ statistically significant at five and one percent level respectively.*
(Source: Authors' computations based mainly on unit-level data of ASI.)

28 In Table 4, the coefficients of the estimated Cox Proportional Hazard Model are shown in terms of hazard ratios. Whether the hazard ratio for an explanatory variable is above one or below one indicates the direction of effect of the explanatory variable on the hazard. If the hazard ratio is above one, then an increase in the value of the explanatory variable increases the probability of plant closure (since the hazard ratio is found to be more than one for the urban dummy variable, it may be inferred that if the urban dummy variable changes value from zero to one, the hazard increases). If the hazard ratio is below one, an increase in the value of the explanatory variable reduces the probability of plant closure. Whether the hazard ratio is significantly above one or below one is given by the t-statistic.

The finding that a fast or slow growth in global exports (as the case may be) tends to accordingly lower or raise the risk of closure of manufacturing plants in India (in the model estimate shown in Table 4) would imply that the risk of plant closure had gone up in the recent global economic crisis. This is corroborated by the results of analysis of plant survival based on the Kaplan-Meier estimator of survivor function. When data for the period 1998-99 to 2012-03 is used, it is found that the survivor function falls by about 30% in the first nine years. By contrast, when data for 2006-07 to 2012-13 is used, the survivor function falls by 30% in six years. This shows that the risk of failure was greater in the latter period within which most years were marked by global recession.

5.2. Plant Survival Analysis, 2006-07 to 2012-13

The estimates of the Cox Proportional Hazard Model using data for the period 2006-07 to 2012-13 are is shown in Table 5. The following explanatory variables (or regressors) have been used:

A. Ratio of imports to domestic production in the four-digit industry to which the plant belongs (average for 2005-06 to 2007-08, and average for 2008-09 to 2012-13);

B. Share of China in imports of relevant category of products corresponding to the four-digit industry to which the plant belongs (average for 2005-06 to 2007-08, and average for 2008-09 to 2012-13);

C. Export intensity of the plant (average for 2008-09 to 2012-13);

D. Whether the plant is located in an urban area (dummy variable);

E. Whether plant is located in one of the states with high industrial concentration (dummy variable, assigned value one for Andhra Pradesh, Gujarat, Maharashtra & Tamil Nadu, and zero for other states);[29]

F. Whether the plant belongs to a private limited or public limited company (dummy); and

G. Whether there is government ownership in the plant (dummy).

As noted earlier in the paper, for variables A and B, two variants have been used, because the trade and domestic production data match well for the year 2005-06 to 2007-08, but not for subsequent years. Nonetheless, in both cases, the values of the variables are not available for a portion of four-digit industries. Hence, the model is estimated from a much smaller number of plants than what is available (about 14,000 plants) in the dataset prepared for 2006-07 to 2012-13.[30] The estimates of the model clearly indicate that a plant located in an urban area has higher risk of closure than a plant located in a rural area. This finding is consistent with the estimates of the model presented in Table 4 using data for a smaller number of plants for the period 1998-99 to 2012-13. Similarly, there is indication that a corporate sector plant has lower risk of closure, which is consistent with the results in Table 4. The hazard ratio for the variable representing government ownership is less than one, as in Table 4, but the coefficient is not statistically significant. Nonetheless, considering the two sets of results together, it may be inferred that a plant with government ownership has lower risk of closure than a similar plant entirely under private ownership.

29 These four states have been chosen as their share in the number of factories in ASI data was 9 percent or more.

30 The ratio of imports to domestic production takes very high values for certain industries. Hence, winsorization at 99th percentile has been done so that the model results do not get affected by high values of this variable for certain observations.

TABLE 5: ESTIMATES OF THE COX PROPORTIONAL HAZARD MODEL, INDIAN MANUFACTURING PLANTS, 2006-07 TO 2012-13

Explanatory variable	Model-1		Model-2		Model-3	
	Hazard ratio	t-statistic	Hazard ratio	t-statistic	Hazard ratio	t-statistic
Located in urban area (dummy)	1.475	8.09***	1.455	7.91***	1.478	8.76***
Plant belongs to a corporate sector firm, private or public limited company (dummy)	0.771	-5.38***	0.824	-4.08***	0.785	-5.40***
Government owned (dummy)	0.636	-1.19	0.864	-0.36	0.548	-1.59
Located in a state with high industrial concentration (dummy)	1.266	4.76***	1.252	4.67***	1.236	4.64***
Export intensity of the plant	0.978	-8.76***	0.977	-9.53***	0.977	-9.51***
Ratio of Imports to domestic production in the industry, 2008-12	1.179	2.55**				
Ratio of Imports to domestic production in the industry, 2005-07			1.150	2.21**		
Share of China in imports of the relevant category of products, 2008-12	1.632	3.77***				
Share of China in imports of the relevant category of products, 2005-07			1.329	2.57**		
No. of observations	8536		8603		9766	
Log-likelihood	-15258		-16020.2		-17870.2	
LR chi-squared [prob.>chi-squared]	259.9 [0.000]		256.5 [0.000]		276.5 [0.000]	

Explanatory variable	Model-4		Model-5		Model-6	
	Hazard ratio	t-statistic	Hazard ratio	t-statistic	Hazard ratio	t-statistic
Located in urban area (dummy)	1.403	8.21***	1.374	7.27***	1.388	6.84***
Plant belongs to a corporate sector firm, private or public limited company (dummy)	0.785	-5.86***	0.826	-4.36***	0.740	-6.25***
Government owned (dummy)	0.583	-1.52	0.912	-0.24	0.688	-0.98
Located in a state with high industrial concentration (dummy)	1.175	3.81***	1.188	3.85***	1.245	4.42***
Export intensity of the plant						
Ratio of Imports to domestic production in the industry, 2008-12					1.200	2.81***
Ratio of Imports to domestic production in the industry, 2005-07			1.135	2.14**		
Share of China in imports of the relevant category of products, 2008-12					1.560	3.42***
Share of China in imports of the relevant category of products, 2005-07			1.393	3.25***		
No. of observations	13399		11869		8540	
Log-likelihood	-21174.		-19023.6		-15332.6	
LR chi-squared [prob.>chi-squared]	122.8 [0.000]		97.3 [0.000]		129.4 [0.000]	

***, *** statistically significant at five and one percent level respectively.*
(Source: Authors' computations based mainly on unit-level data of ASI)

The results indicate that a plant located in a state with high industrial concentration has a relatively greater risk of closure. The hazard ratio for this dummy variable is consistently above one and the coefficient is statistically significant at one percent level. One would expect industrial agglomeration to provide greater strength to the factories and, hence, enhance their survival probabilities. But, an opposite result is obtained. This is perhaps a reflection of the fact that in industrially concentrated states there is more intense competition and this raises the risk of plant closure.

Turning now to the trade related variables, export intensity variable has a hazard ratio below one and the coefficient is statistically significant at one percent level. It may be inferred, therefore, that export orientation improves survival probabilities of plants vis-à-vis the plants that do not export. This finding is in agreement with the findings of earlier studies. Regarding import competition, the results clearly indicate that an increase in import competition raises the risk of plant closure. The risk is relatively greater if import competition is from Chinese goods.

To check the robustness of the econometric results obtained, the Cox Proportional Hazard Model has been estimated from data for corporate sector plants, i.e., plants belonging to private limited or public

limited companies. The results are reported in Table 6. Two new variables have been added. One is plant size measured by logarithm of fixed capital stock (in 2006-07). The other is a dummy variable to capture the multi-plant character of the firm to which the plant belongs. This dummy variable is assigned value one if the plant belongs to a company that has more than one plant, and zero otherwise.

The model estimates in Table 6 are similar to those in Table 5 and, thus, do not require a detailed discussion. Three points need to be highlighted. First, the results indicate that bigger plant size is associated with relatively lower risk of closure. Second, a plant belonging to a company that has more than one plant has relatively greater risk of closure. This is consistent with the finding of earlier studies (refer to Section 2 of the paper). Third, import competition seems to have less adverse effect on survival probabilities of corporate sector plants. However, when the competition is from Chinese goods, such plants seem to be adversely affected as in the case of plants not belonging to the corporate sector.

TABLE 6: ESTIMATES OF THE COX PROPORTIONAL HAZARD MODEL, CORPORATE SECTOR PLANTS, INDIAN MANUFACTURING, 2006-07 TO 2012-13

Explanatory variable	Model-1		Model-2		Model-3	
	Hazard ratio	t-statistic	Hazard ratio	t-statistic	Hazard ratio	t-statistic
Located in urban area (dummy)	1.347	3.85***	1.423	4.64***	1.392	4.67***
Government owned (dummy)	1.083	0.19	1.006	0.01	0.846	-0.41
Located in a state with high industrial concentration	1.226	2.64***	1.187	2.28**	1.194	2.53**
Export intensity of the plant	0.979	-5.69***	0.979	-6.00***	0.980	-5.96***
Ratio of Imports to domestic production in the industry, 2008-12	1.153	1.46				
Ratio of Imports to domestic production in the industry, 2005-07			1.178	1.92*		
Share of China in imports of the relevant category of products, 2008-12	2.480	4.29***				
Share of China in imports of the relevant category of products, 2005-07			2.592	5.10***		
Plant belongs to a corporate sector firm, which has more than one plant (dummy)	1.220	2.48**	1.226	2.61***	1.234	2.85***
Plant size (logarithm of fixed capital stock)	0.835	-10.45***	0.838	-10.17***	0.833	-11.24***
No. of observations	4011		3869		4624	
Log-likelihood	-5800.0		-6025.1		-6988.5	
LR chi-squared (prob.>chi-squared)	225.2 [0.000]		227.7 [0.000]		239.2 [0.000]	

, **,* statistically significant at ten, five and one percent level respectively.*
(Source: Authors' computations based mainly on unit-level data of ASI.)

As a further check on the robustness of the results of econometric analysis presented in Tables 5 and 6 above, Models 1, 2 and 3 of Table 5 have been re-estimated by including plant size (measured by logarithm of value of fixed capital stock) as an additional explanatory variable. The results are reported in Table 7.

It is evident from the results presented in Table 7 that plant size has a major impact on survival probabilities. The risk of closure is greater for small-size plants. The hazard ratio is below one and it is statistically significant. This is in agreement with the results reported in Table 6 for plants belonging to the corporate sector.

The results in Table 7 in respect of variables representing plant location in an urban area and plant location in a state with high industrial concentration are similar to that in Table 5. The same holds true for the export intensity of the plants. It may be inferred that an export oriented plant has a better survival probability than a plant that does not export. Also, other things remaining the same, a plant located in an urban area or in a state marked by high industrial concentration, or both, has relatively greater risk of closure.

The hazard ratio in respect of government owned plants is less than one but statistically insignificant as in the results reported in Table 5. However, the hazard ratio for corporate sector dummy variable is found to be greater than one in the results reported in Table 7. This result is at variance with the results reported in Tables 4 and 5. It appears that the previous finding that a corporate sector plant has relatively lower risk of closure is to a large extent attributable to the fact that corporate sector plants are generally bigger in size than plants belonging to proprietorship or partnership firms, and once the effect of plant size is controlled for, the corporate sector plants do not have an advantage in survival probabilities. Rather, the fact that the hazard ratio is consistently above one in all three models estimates in Table 7 and statistically significant in two cases seems to suggest that after controlling for plant size, the risk of closure is relatively larger for corporate sector plants.

As regard the import competition variables, the results in Table 7 are similar to those in Table 5. The hazard ratio for the variable representing Chinese import competition is well above one and statistically significant. Thus, taking together the results reported in Tables 5, 6 and 7, there is a clear indication that import competition, particularly from China, tends to increase the risk of closure of indigenous manufacturing plants in India.

TABLE 7: ESTIMATES OF THE COX PROPORTIONAL HAZARD MODEL, INDIAN MANUFACTURING PLANTS, 2006-07 TO 2012-13, ROBUSTNESS CHECK

Explanatory variable	Model-1a		Model-2a		Model-3a	
	Hazard ratio	t-statistic	Hazard ratio	t-statistic	Hazard ratio	t-statistic
Located in urban area (dummy)	1.394	6.73***	1.401	6.91***	1.390	7.19***
Plant belongs to a corporate sector firm, private or public limited company (dummy)	1.095	1.53	1.130	2.11**	1.133	2.27**
Government owned (dummy)	0.851	-0.42	0.985	-0.04	0.727	-0.84
Located in a state with high industrial concentration (dummy)	1.261	4.57***	1.260	4.68***	1.238	4.57***
Export intensity of the plant	0.982	-7.23***	0.981	-7.95***	0.982	-7.84***
Ratio of Imports to domestic production in the industry, 2008-12	1.170	2.41**				
Ratio of Imports to domestic production in the industry, 2005-07			1.176	2.57**		
Share China in imports of the relevant category of products, 2008-12	1.551	3.30***				
Share China in imports of the relevant category of products, 2005-07			1.318	2.47**		
Plant size (logarithm of fixed capital stock)	0.876	-10.91***	0.882	-10.29***	0.870	-12.23***
No. of observations	8341		8404		9553	
Log-likelihood	-14536.9		-15309.2		-17061.3	
LR chi-squared [prob.>chi-squared]	363.9 [0.000]		351.2 [0.000]		405.7 [0.000]	

, statistically significant at five and one percent level respectively.*
(Source: Authors' computations based mainly on unit-level data of ASI.)

6. Concluding Remarks

Survival of manufacturing plants and firms in India and the factors that determine the risk of closure and exit has remained, by and large, a neglected area of research although a large number of studies on these issues have been undertaken for other countries, particularly industrialized countries. This paper has made an attempt to fill this important gap in the literature. The focus of the paper was on the impact of export orientation and import competition on survival of manufacturing plants in India. Other determinants of plant survival (and risk of closure) have also

been considered. The Cox Proportional Hazard Model has been used for the analysis, which has found wide application for survival analysis.

It is found from the econometric analysis that export orientation improves survival probabilities of manufacturing plants while intensification of import competition raises the risk of plant closure. These findings of the study are in agreement with the findings reported in the international literature on plant/firm survival.

To highlight some other findings of the study, it is found that a plant belonging to the corporate sector has greater survival probability than a plant not belonging to the corporate sector. But, this advantage is essentially due to relatively bigger size of plants belonging to corporate sector firms. The econometric results indicate that the survival probability of a plant tends to increase with plant size. Once this factor is controlled for, the advantage of corporate sector disappears. Instead, the results seem to suggest that after controlling for plant size, corporate sector plants have relatively greater risk of closure. Also, among corporate sector plants, it is found that a plant belonging to a company having multiple plants has greater risk of closure than a plant belonging to a company that has only one plant. This finding about multi-plant firms is consistent with the findings reported in several other studies.

While there is a concern about import competition from Chinese goods in India, substantial econometric evidence has not been presented till now to indicate that imports of Chinese goods are adversely affecting Indian manufacturing. This paper presents some econometric evidence to that effect. The analysis presented in the paper clearly indicates that in the recent past, import competition from Chinese goods has raised the risk of closure and exit of manufacturing plants in India.

Is a right to use trademarks mandated by the TRIPS Agreement?

Carlos M. Correa*

ABSTRACT

In light of recent complaints based on bilateral investment treaties and WTO rules against laws limiting the use of tobacco-related trademarks, this article discusses whether there exists a positive right to use trademarks under the TRIPS Agreement. It examines the claim that Article 20 and other provisions in the TRIPS Agreement should be interpreted as requiring WTO members to recognize such a right. With the aid of WTO jurisprudence, the article concludes that the obligation on members is to only provide negative rights in relation to trademarks. A positive right of use would neutralize the regulatory power of States and prevent them from adopting measures they deem necessary for the protection of public health.

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The views and opinions reflected in this paper are that of the author alone.

1. Introduction

A growing number of countries are adopting legislations that restrict the use of trademarks on tobacco products, including the prohibition on use of certain trademarks such as those of a figurative nature. The purpose of such legislations is to curb smoking and thereby protect the public health. Figurative trademarks may incentivize smoking; given that they are not intended to neutrally distinguish the products of one firm from those of its competitors but to increase the consumption of tobacco products.[1]

Article 11.1(a) of the WHO Framework Convention on Tobacco Control of 2003 ("FCTC") requires contracting parties to ensure that 'tobacco product packaging and labeling do not promote a tobacco product by any means that are false, misleading, deceptive or likely to create an erroneous impression about its characteristics, health effects, hazards or emissions, including any term, descriptor, trademark, figurative or any other sign…'.[2] Furthermore, Article 13.4(c) of the FCTC more specifically mandates the contracting parties to 'restrict the use of direct or indirect incentives that encourage the purchase of tobacco products by the public'. The guidelines for the implementation of Article 13 of the FCTC in this regard note:

> Promotional effects, both direct and indirect, may be brought about by the use of words, designs, images, sounds and colours, including brand names, trademarks, logos, names of tobacco manufacturers or importers, and colours or schemes of colours associated with tobacco products, manufacturers or importers, or by the use of a part or parts of words, designs, images and colours (para 9).

In their bid to implement FCTC, two countries have introduced measures that, in some way, impede or limit the use of tobacco-related trademarks. These measures have been challenged at international fora. Three companies controlled by Phillip Morris International submitted a complaint under the Uruguay-Switzerland Bilateral Investment Treaty (BIT) against Uruguay.[3] Philip Morris Asia (a company based in Hong Kong) similarly served a notice of claim on the Australian Government under the Hong-Kong –Australia BIT,[4] Further, Ukraine initiated proceedings under the Dispute Settlement Understanding (DSU) of the World Trade Organization (WTO) against Australia.[5] Other tobacco producing countries (Cuba, Honduras, Dominican Republic and Indonesia) also

1 It has been noted in this regard that '[t]here is a solid evidentiary basis to show the link between use of descriptors and colour or imagery and false health beliefs about tobacco…'Sarah Bennett, "Plain Packaging in Australia: Not Necessarily Compatible with TRIPS", *Australian Intellectual Property Journal* 22 (2011):83.

2 The FCTC –the only binding instrument adopted under Article 19 of the Constitution of the World Health Organization (WHO) - currently has 180 Parties, http://www.who.int/fctc/signatories_parties/en/ (accessed December 21, 2015).

3 *See FTR Holdings S.A. (Suiza) y otros v. República Oriental del Uruguay, Caso CIADI n. o ARB/10/7* (July 2, 2013) http://www.italaw.com/sites/default/files/case-documents/italaw1532.pdf (accessed December 21, 2015). See Carlos Correa, "Hazards in Bilateral Investment Treaties (BITs): Investors' Rights v. Public Health," *South Bulletin No*. 69, (Geneva: South Centre, November 21, 2012).

4 *See*, e.g., Henning Gross Ruse-Khan, "Litigating Intellectual Property Rights in Investor-State Arbitration: From Plain Packaging to Patent Revocation," *Max Planck Institute for Innovation and Competition Research Paper Series*, no. 14-13 (2014), http://ssrn.com/abstract=2463711 (accessed April 12, 2016).

5 *Australia — Certain Measures Concerning Trademarks and Other Plain Packaging Requirements Applicable to Tobacco Products and Packaging*, https://www.wto.org/english/tratop_e/dispu_e/cases_e/ds434_e.htm (accessed January 15, 2016).

initiated WTO proceedings to challenge the consistency of the Australian legislation with WTO rules.[6]

One of the main arguments articulated in these cases revolves around the nature of the rights that ought to be granted to the owner of a trademark under the Agreement on Trade Related Aspects of Intellectual Property Rights ("TRIPS Agreement") and the Paris Convention for the Protection of Industrial Property ("Paris Convention").[7] It is asserted, in particular, that tobacco-related legislation would violate the *right to use* a trademark which, according to the claimants, could be derived from Article 20 of the TRIPS Agreement[8], as interpreted in light of Articles 2.1, 16.1, and 16.3 of the TRIPS Agreement. A central piece in this type of argumentation is that, in order to give Article 20 a proper meaning, some (positive) right to use a trademark must exist under the TRIPS Agreement, and that the concept of 'special requirements' in this Article includes measures that prevent the use of trademarks.

This paper examines these arguments in the context of the policy space left to WTO members to implement measures to protect public health under the TRIPS Agreement.

2. Interpreting the obligations under the TRIPS Agreement

The TRIPS Agreement provides for a set of substantive and procedural minimum standards that need to be observed by the WTO members. On considering the scope of the obligations set out by the TRIPS Agreement, three initial considerations are pertinent.

First, the provisions of the TRIPS Agreement must be interpreted in accordance with the interpretive rules of the Vienna Convention on the Law of Treaties ("VCLT"). This is in line with the unambiguous jurisprudence developed under the GATT and WTO. These rules do not allow for an expansive interpretation of the provisions of the TRIPS Agreement, including the trademark section, to imply obligations WTO members have not agreed upon. *A fortiori*, these rules do not allow adding, by way of interpretation, the commitments not accepted by WTO members. Moreover, the role of WTO panels and the Appellate Body is limited to the *clarification* of obligations under the WTO agreements. Rules cannot be created on issues that were left out of the TRIPS Agreement, even if it is considered that additional disciplines would be necessary or convenient to address a particular situation subject to a dispute. As observed in United States — Certain EC Products[9]

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6 Cases DS434 (brought by Ukraine), DS435 (Honduras), DS441 (Dominican Republic), DS458 (Cuba) and DS467 (Indonesia).

7 Article 2.1 of the TRIPS Agreement mandates WTO members to 'comply with Articles 1 through 12, and Article 19, of the Paris Convention (1967)'.

8 Article 20: 'The use of a trademark in the course of trade shall not be unjustifiably encumbered by special requirements, such as use with another trademark, use in a special form or use in a manner detrimental to its capability to distinguish the goods or services of one undertaking from those of other undertakings. This will not preclude a requirement prescribing the use of the trademark identifying the undertaking producing the goods or services along with, but without linking it to, the trademark distinguishing the specific goods or services in question of that undertaking'.

9 *See* Appellate Body Report, *United States – Import Measures on Certain Products from the European Communities*, WT/DS165/AB/R, (January 10, 2001), para. 92, emphasis added.

> Pursuant to Article 3.2 of the DSU, the task of panels and the Appellate Body in the dispute settlement system of the WTO is to preserve the rights and obligations of Members under the covered agreements, and to *clarify the existing provisions* of those agreements in accordance with customary rules of interpretation of public international law.

In India — Patents (US),[10] the Appellate Body held:

> These rules must be respected and applied in interpreting the *TRIPS Agreement* or any other covered agreement. … Both panels and the Appellate Body must be guided by the rules of treaty interpretation set out in the *Vienna Convention*, and must not add to or diminish rights and obligations provided in the WTO Agreement.

In this regard, it is to be noted that the trademarks' section of the TRIPS Agreement does not seem to establish a full-fledged trademark law regime. It only sets out obligations in respect of certain aspects of the subject matter.[11] The TRIPS Agreement only requires WTO members to comply with the obligations specifically set out therein. WTO members cannot be obligated to provide a protection broader than what is specifically mandated,[12] nor are they prepared to do so: '*WTO members do not readily embrace the idea that they have agreed to confer rights that are not expressed as such*'.[13]

Second, it should be highlighted that the alleged right to use a trademark is primarily inferred, by their proponents, from Article 20 of the TRIPS Agreement. However, this provision cannot be read in isolation from other provisions of the TRIPS Agreement, including those setting forth its principles and objectives. WTO members have repeatedly expressed the relevance of Articles 7 and 8 to interpret the TRIPS Agreement provisions, particularly as they relate to public health policies.[14] In reviewing the scope of Article 30 of the TRIPS Agreement, the Panel in Canada-Pharmaceutical Patents[15] stated that:

> Both the goals and the limitations stated in Articles 7 and 8.1 must obviously be borne in mind when doing so as well as those of other provisions of the TRIPS Agreement which indicate its object and purposes (para 7.26).

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10 *See* Appellate Body Report, *India -- Patent Protection for Pharmaceutical and Agricultural Chemical Products*, WT/DS50/AB/R, (January 16, 1998), para. 46.

11 This is reflected in the title of the TRIPS Agreement itself: 'Agreement on Trade-related *Aspects* of Intellectual Property Rights' (emphasis added).

12 See Article 1.1 of the TRIPS Agreement.

13 Mark Davison and Patrick Emerton, "Rights, privileges, legitimate interests and justifiability: Article 20 of TRIPS and plain packaging tobacco", *American University International Law Review* 29, 2014, no. 3 : 547, http://digitalcommons.wcl.american.edu/cgi/viewcontent.cgi?article=1815&context=auilr (accessed January 15, 2016).

14 *See* Canada's arguments and various submissions by third parties in *Canada – Patent Protection of Pharmaceutical Products*, WT/DS114/R, March 17, 2000. *See* also the Communication from the European Communities and their Member States to the Council for Trade-Related Aspects of Intellectual Property Rights (IP/C/W/280, June 12, 2001).

15 *See* Panel Report, *Canada – Patent Protection of Pharmaceutical Products*, WT/DS114/R (March 17, 2000) para 7.26. In this sense, the Doha Declaration recognized that 'In applying the customary rules of interpretation of public international law, each provision of the TRIPS Agreement shall be read in the light of the object and purpose of the Agreement as expressed, in particular, in its objectives and principles'

Third, while the main objective of the Doha Declaration on TRIPS Agreement and Public Health ("Doha Declaration") was access to medicines, the same applies to *any* measure relating to the fulfillment of public health objectives. According to para 4 of the Doha Declaration:

> [w]e agree that the TRIPS Agreement does not and should not prevent members from taking measures to protect public health. Accordingly, while reiterating our commitment to the TRIPS Agreement, we affirm that the Agreement can and should be interpreted and implemented in a manner supportive of WTO members' right to protect public health and, in particular, to promote access to medicines for all.

Tobacco-related legislation that may restrict the use of trademarks clearly falls under the category of a 'measure to protect public health'. Although a 'declaration' has no specific legal status within the framework of WTO law and it is not, strictly, an authoritative interpretation in terms of Article IX.2 of the Marrakesh Agreement establishing the WTO, the content and mode of approval of the Doha Declaration indicates that it has the same legal status as an authoritative interpretation. The Doha Declaration can also be regarded as a 'subsequent agreement' between the parties under Article 31.3(a) of the VCLT.[16] In the minimum, the Doha Declaration will be an essential part of the context for the interpretation of any provision of the TRIPS Agreement that may have implications in the area of public health.[17] In fact, WTO jurisprudence has already made it clear that WTO members have the right to determine the level of protection of health that they consider "appropriate in a given situation", adding that the protection of public health is "vital and important in the highest degree" and that "few interests are more vital".[18]

It is also worth mentioning that in interpreting the scope of WTO obligations, the Appellate Body has taken into account other international agreements. Thus, it has explicitly taken into consideration international conventions and declarations related to living resources, including the United Nations Convention on the Law of the Sea, the Convention on Biological Diversity and the Convention on International Trade in Endangered Species of Wild Fauna and Flora ("CITES").[19]

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16 *See* Appellate Body Report, *United States — Measures Affecting the Production and Sale of Clove Cigarettes*, WT/DS406/AB/R, (April 24, 2012). In *US-Clove Cigarettes* (paras. 251-255), the Appellate Body considered whether the Doha Ministerial Decision on implementation-related issues and concerns constituted an authoritative interpretation under Article IX:2 of the WTO Agreement. It concluded that this was not the case for procedural reasons, but that the declaration could still constitute a subsequent agreement within the terms-of Article 31(3)(a) of the VCLT.

17 According to the European Commission, 'in the case of disputes (e.g. in the context of WTO dispute settlement procedures) Members can avail themselves of the comfort provided by this Declaration. Panelists are likely to take account of the provisions of the TRIPS Agreement themselves as well as of this complementary Declaration, which, although it was not meant to affect Members' rights and obligations, expresses the Members' views and intentions. Hence, the Declaration is part of the context of the TRIPS Agreement, which, according to the rules of treaty interpretation, has to be taken into account when interpreting the Agreement,' European Commission, WTO Ministerial Declaration on the TRIPS Agreement and Public Health. Brussels, European Commission, November 19, 2001.

18 *See* Appellate Body Report, *European Communities – Measures Affecting Asbestos and Asbestos-Containing Products*, WT/DS135/AB/R (April 5, 2001), paras.168 and 172.

19 *See* Appellate Body Report, *United States -- Import Prohibition of Certain Shrimp and Shrimp Products*, WT/DS58/AB/R, (November 06, 1998), paras. 130-132. The Appellate body recalled in this case, based on an opinion of the International Court of Justice, that "an international instrument has to be interpreted and applied within the framework of the entire legal system prevailing at the time of the interpretation" (Namibia Advisory Opinion (1971) I.C.J. Rep., 31) (footnote 109 of the AB Report).

The FCTC should similarly be taken into account in dealing with WTO controversies relating to measures on tobacco products.

3. The context of Article 20

Proponents of the argument that the TRIPS Agreement mandates WTO members to recognize a right to use a trademark fail to provide reference to any provision in the TRIPS Agreement (or the Paris Convention) that specifically alludes to such right. This is because such a provision does not really exist. Of course, an excessively literal interpretation of treaty provisions is not what is required under the rules of the VCLT which mandates to take the object and purpose of the treaty along with the context of a particular provision into account. But in the present instance neither the object and purpose of the TRIPS Agreement, nor the context of Article 20 confirms the existence of such a right to use a trademark.

The *object* of the TRIPS Agreement is to establish *certain minimum* binding standards and not to articulate a comprehensive regime of intellectual property rights. As noted, the TRIPS Agreement only covers certain matters while leaving the rest to the discretion of WTO members as part of their policy space to regulate intellectual property issues. The *purpose* of the TRIPS Agreement is to protect intellectual property rights and *at the same time* to ensure that policy space is retained by WTO members to implement public policies, as is clearly stated under Article 8, as mentioned above.

Various provisions of the trademarks section of the TRIPS Agreement (and of the Paris Convention) are certainly relevant, in accordance with Article 31 of the VCLT, for clarifying the meaning of Article 20 of the TRIPS Agreement. But contextual provisions cannot create, by themselves, an obligation not spelled out in the TRIPS Agreement, which would erode the policy space that the WTO members have retained when adopting that the TRIPS Agreement.

Article 15.4 of the TRIPS Agreement provides that WTO members may not refuse the registration of a trademark because of the nature of the goods or services the mark is applied to. This means that a trademark registration may not be refused merely because a mark identifies, for instance, tobacco products or other products which may be deemed hazardous to public health or whose distribution could be regarded as immoral. The only obligation established by this provision is, however, to ensure registration of a trademark, not to permit its use. Thus no right to use a trademark can be inferred from this provision.

Articles 16.1 and 16.3 may be deemed part of the context for interpreting Article 20 of the TRIPS Agreement as well. Article 16.1, however, only requires WTO members to provide for an 'exclusive right to prevent all third parties not having the owner's consent from using in the course of trade identical or similar signs…'. This is clearly a *negative* right. There is no reasonable way in which this provision could be read as obligating WTO members to guarantee a positive right to use a trademark.

Similarly, Article 16.3 of the TRIPS Agreement confirms and expands the protection conferred by the Paris Convention against the *use by third parties* of well-known trademarks. This is, once again, a negative right. The method of interpretation codified by VCLT does not provide any legal basis to derive a positive right to use a well-known trademark from a right to exclude.

A right to use a trademark cannot be derived either from Article 6*bis* or other provisions of the Paris Convention. In particular, the obligation to refuse or to cancel the registration, and to prohibit the use, *ex officio* or at the request of an interested party, of a 'well-known' trademark (Article 6*bis* (1) of the Paris Convention) cannot be equated to a right to use such trademark.

Similarly, Article 17 of the TRIPS Agreement cannot grant a right to use a trademark. It only refers to uses of a trademark *by third parties* and not by the trademark owner himself. The measures that limit the use of tobacco-related trademarks affect their use by *the trademark owner*. The exceptions to the exclusive rights granted to the owner of a registered trademark that a WTO member may provide for, cannot be read as limiting the sovereign rights preserved under the TRIPS Agreement to regulate the use of trademarks, including restrictions to their use.

Article 19.1 of the TRIPS Agreement also forms part of the context for understanding Article 20. It allows WTO members to require the use of a trademark to maintain a registration and stipulates certain conditions that apply to the cancelation of registration of a trademark in case of non-use. Under Article 19.1, the trademark owner may invoke 'valid reasons based on the existence of obstacles to such use' to preserve a trademark:

> Circumstances arising independently of the will of the owner of the trademark which constitute an obstacle to the use of the trademark, such as import restrictions on or *other government requirements* for goods or services protected by the trademark, shall be recognized as valid reasons for non-use.(Emphasis added)

Article 19.1 only applies when a WTO member requires use as a condition to maintain registration of a trademark.[20] There is, however, no obligation to establish this requirement. In addition, the fact that the trademark owner has an *obligation* (imposed by national law, not by the TRIPS Agreement) to use the trademark for the purpose of conserving its registration is not equivalent to having a *right* to use it. Moreover, Article 19.1 specifically requires WTO members to recognise as valid, reasons for non-use 'circumstances arising independently of the will of the owner of the trademark which constitute an obstacle to the use of the trademark'. This provision in fact confirms that WTO members have retained their regulatory powers to restrict the use of trademarks. Article 19.2, in turn, just mentions 'use' (by another person). It alludes to a factual element, not to a right to use. The only right recognized is to maintain registration.

If WTO members could not impose 'requirements' that create an 'obstacle' to the use of trademarks, Article 19.1 would be meaningless. Such a reading would be incompatible with the accepted principle of '*effet utile*' on treaty interpretation. The proper (and logical) reading of the TRIPS Agreement is that WTO members preserved the regulatory authority to impede the use of trademarks; the only obligation they have is to consider the obstacles imposed as a valid justification for non-use by a trademark owner if use was required to maintain registration.

In summary, an obligation to provide a positive right to use a trademark cannot be derived from the provisions in the trademarks' section of the TRIPS Agreement that may be invoked as part

20 Tania Voon and Andrew Mitchell, "Implications of WTO Law for Plain Packaging of Tobacco Products" in *Public Health and Plain Packaging of Cigarettes: Legal Issues* ed. Tania Voon et. al. (Cheltenham: Edward Elgar Publishing Limited, 2012), p. 8.

of the context for interpretation of Article 20. On the contrary, Article 19.1 leads to the opposite conclusion.

4. An implicit right?

In the absence of a provision in the TRIPS Agreement mandating WTO members to confer a right to use a trademark, the proponents of the theory have been forced to argue that such a right is implicit in the TRIPS Agreement. Some authors contend that Article 20 presupposes or otherwise creates a right to use a trademark. A. Kur has held that 'a total ban against the use of tobacco trade marks on other products ... would contradict, not the letter, but the *spirit* of international conventions' (emphasis added).[21] D. Gervais has also argued that 'the *spirit* of TRIPS is to allow the use of marks'.[22]

An interpretation based on the 'spirit' of a treaty is unviable under the principles of treaty interpretation codified by VCLT. These arguments seem to assume that there is something like an 'international trademark law' from which certain binding rules can be derived and imposed on the WTO members. The Paris Convention and the TRIPS Agreement, however, only contain a *limited* number of mandatory standards that need to be observed by national trademark regimes. Only those standards, specifically provided for in those treaties, are binding.

A clarification is important at this point. While the rights conferred under Article 16.1 of the TRIPS Agreement may be exercised *against infringing third parties*, the alleged right to use a trademark would be exercised *against the State*. In the case of tobacco-related trademarks, this would limit its regulatory authority to pursue legitimate public health objectives. It is not reasonably conceivable that a right that would constrain the sovereignty of the WTO members in such a way was deemed to be created in an implicit manner or that it could be derived from merely contextual provisions.

The need to take the actual text of a covered treaty into account was stressed in several WTO cases. For instance, in EC-Hormones[23], it was held that:

> The fundamental rule of treaty interpretation requires a treaty interpreter to read and interpret the words actually used by the agreement under examination, not words the interpreter may feel should have been used.

Similarly, in India – Patents (US)[24], the Appellate Body stated:

> The duty of a treaty interpreter is to examine the words of the treaty to determine the intentions of the parties. This should be done in accordance with the principles of treaty interpretation set out in Article 31 of the *Vienna Convention*. But these principles of

21 Annette Kur, "The right to use one's own trade mark: a self-evident issue or a new concept in German, European and international trademark law?", *European Intellectual Property* Review 18, no.4 (1996): 198, 203

22 D. Gervais, "Analysis of the Compatibility of certain Tobacco Product Packaging Rules with the TRIPS Agreement and the Paris Convention", *Physicians for a Smoke-Free Canada*, 2010, para. 30 http://www.smoke-free.ca/trade-and-tobacco/Resources/Gervais.pdf (accessed December 21, 2015).

23 *See* Appellate Body Report, EC Measures Concerning Meat and Meat Products (Hormones), WT/DS48/AB/R, (February 13, 1998), para. 181.

24 *India -- Patents (US)* AB Report, *supra* note 10, para. 45.

> interpretation neither require nor condone the imputation into a treaty of words that are not there or the importation into a treaty of concepts that were not intended.

Significantly, the exclusive rights recognized in the TRIPS Agreement are established through *explicit* provisions in respect of some of the categories of intellectual property protected under the TRIPS Agreement.[25] No WTO member is obliged to grant exclusive rights in areas in the absence of explicit provisions to that effect. Trade secrets protection is an example of this. The reason is that exclusive rights represent such a drastic derogation of the principle of free circulation of ideas and knowledge that they cannot be simply considered to be implicit in the text. The same applies, *a fortiori*, to the case of a right to use which could be exercised against a sovereign State to limit its regulatory autonomy, and not just against private third parties to prevent infringing commercial conduct. In this sense, the Advocate General of the European Court of Justice opined, in a case relating to the validity of the European Tobacco Products Directive, that:

> …the essential substance of a trademark right does not consist in an entitlement as against the authorities to use a trademark unimpeded by provisions or public law. On the contrary, a trademark right is essentially a right enforceable against other individuals if they infringe the use made by the holder.[26]

Moreover, if by hypothesis, there was an ambiguity in respect of whether a right to use a trademark is required or not under the TRIPS Agreement, the issue should be addressed under the international law principle of *in dubio mitius*. In case of ambiguity, a treaty provision must be understood in a way that imposes minimum obligations on the parties to the treaty. Any ambiguity must be resolved in the manner that is less onerous for the State parties and which allows them to retain their regulatory power.[27] This means that, in deference to the sovereignty of States, an obligation cannot be assumed if it interferes with the regulatory powers of the State. It cannot be just assumed that WTO members in adopting the TRIPS Agreement surrendered their regulatory powers and consecrated the supremacy of trademark owners' rights over governments' legitimate right to regulate the use of intellectual property.

5. The functions of trademarks

One of the considerations made to invoke the existence of a right to use a trademark under the TRIPS Agreement is that the core function of a trademark, i.e. to distinguish the products or services of one undertaking from those of other undertakings, cannot be fulfilled if the trademark is not used.

However, a large number of registered trademarks are never used. When used, they may serve

25 See in particular Articles 16, 26 and 28 of the TRIPS Agreement.

26 *See The Queen v. Secretary of State for Health, ex parte British American Tobacco (Investments) Ltd and Imperial Tobacco Ltd*, Case C-491/01 (December 10, 2002) para. 266.

27 *EC-Hormones* AB Report, *supra* note 23, which in referring to the principle of in *dubiomitius*, the Appellate Body noted that '[w]e cannot lightly assume that sovereign states intended to impose upon themselves the more onerous, rather than the less burdensome, obligation by mandating *conformity or compliance with* such standards, guidelines and recommendations' (para. 165). The International Court of Justice, in *Frontier Between Turkey and Iraq, Advisory Opinion*, noted that 'If the wording of a treaty provision is not clear, in choosing between several admissible interpretations, the one which involves the minimum of obligations for the parties should be adopted' (1925 P.C.I.J. 25 (ser. B) No. 12, November 21, 1925, p. 25).

different functions that are beneficial to producers and consumers, while in some cases they may also negatively affect the public interest, such as when they serve to promote consumption of goods that may create health risks (such as the use of milk powder as a substitute for maternal feeding in poor settings). A (positive) right to use a trademark allegedly conferred *under the TRIPS Agreement* cannot be derived from a conceptual construction about what functions trademarks perform. Any such right could only be derived from the provisions of the TRIPS Agreement itself. In addition, the primary function of distinguishing the goods and services of one undertaking from those of its competitors is achieved through granting and enforcing the negative right to exclude unauthorized uses. A positive right to use would mean nothing if the right holder would be unable to prevent its trademark to be used by third parties without an authorization.

The only requirement under Article 15 of the TRIPS Agreement is to allow for registration of certain signs capable of distinguishing between the goods and services of different undertakings. There is nothing in the TRIPS Agreement requiring WTO members to take measures to preserve the distinctive character of a trademark. Distinctiveness is a *condition* to obtain protection; there is no right to distinctiveness. Moreover, the non-use of a trademark may not lead to a loss of distinctiveness, as a sign may continue to 'be capable' of distinguishing the goods or services of an undertaking.

The extent to which a trademark is distinctive is a function of the characteristics of the protected sign and of the trademarks used by competitors, as well as of public perceptions. The wide use of a trademark may or may not enhance its distinctiveness; it may also dilute it.[28] In any case, if it were true that distinctiveness may be enhanced through use, this would still not prove that the TRIPS Agreement requires WTO members to recognize the right to use a trademark.

Further, in accordance with Article 15.1 of the TRIPS Agreement, '[m]embers *may* make registrability depend on distinctiveness acquired through use' (emphasis added). This means that they may or may not give any effect to distinctiveness acquired through use. Hence, a measure that would prevent a sign from acquiring distinctiveness through use does not violate the TRIPS Agreement, since there is no obligation to allow for such an acquisition. In addition, the fact that use may be a condition to acquire distinctiveness does not mean that there is a right to use, but only that WTO members are not obliged to protect trademarks that are not sufficiently distinctive.

Similarly, the TRIPS Agreement defines, under Article 16.3, the special protection available when a trademark has acquired well-known status through use or promotion. It determines the *conditions* for an enhanced protection, but does not create an *obligation* to guarantee preservation of the well-known character of a trademark through a right to use. The only obligation of WTO members is to give owners of well-known trademarks specific protection against third parties, as long as a trademark is deemed to be well-known: '[t]he purpose of TRIPS is "to reduce distortions and impediments to international trade," but it is not the purpose of TRIPS to protect the economic value of particular trademark owners'.[29]

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28 "Trademark dilution is defined as the lessening of the capacity of a famous mark to identify and distinguish goods or services, regardless of the presence or absence of competition between the owner of the famous mark and other parties or of likelihood of confusion." International Trademark Association, http://www.inta.org/TrademarkBasics/FactSheets/Pages/TrademarkDilution.aspx (accessed December 21, 2015).

29 Davison and Emerton, "Rights, Privileges, Legitimate Interests and Justifiability: Article 20 of TRIPS and Plain Packaging Tobacco".

The TRIPS Agreement requires WTO members to provide for a number of measures against *infringement by third parties* of the rights conferred in relation to the categories of intellectual property dealt with thereunder.[30] However, it does not confer a right to enforce rights *against the States* where protection is obtained. In addition, a prohibition to use a trademark does not prevent its owner to prevent others from using it in a way that may create confusion about the source of the products or services. The enforcement provisions in the TRIPS Agreement, including criminal sanctions, may continue to be applied in cases of infringement.

Finally, it is worth noting that the function of a trademark not only relates to distinctiveness. They are often used –as it is the case with figurative trademarks- with the intent of influencing consumer choice by exploiting their feelings or expectations. In the case of tobacco, trademarks are deliberately used to promote smoking, for example, through messages that evoke health, life style, self-esteem, adventure or dynamism.[31] The TRIPS Agreement cannot be interpreted as supporting an absolute right to use trademarks and preventing governments from adopting measures to protect the public interest.

6. Article 20 of the TRIPS Agreement

The above analysis shows that the theory that the TRIPS Agreement obligates WTO members to recognize a right to use a trademark finds no support in its text, when interpreted in accordance with the rules of VCLT. In fact, this conclusion has already been reached in the context of the WTO dispute settlement mechanism.

In EC-Trademarks and Geographical Indications (US)[32], the Panel dismissed recognition of a positive right to use a trademark under the TRIPS Agreement. It observed the lack of any specific wording granting such a right under Article 24.5 of the TRIPS Agreement. It held that:

> …the verb "shall not prejudice" is not capable of supporting this interpretation. It does not provide for the conferral of new rights on trademark owners or GI holders, but provides that the specifically mentioned rights shall not be affected by the measures that are the subject of the provision. *If the drafters had intended to grant a positive right, they would have used positive language.* Indeed, Article 14(2) of the Regulation (which was adopted prior to the end of the TRIPS negotiations) expressly provides that "a trademark ... may continue to be used" under certain conditions. In contrast, there is no language in Article 24.5 of the TRIPS Agreement which would provide for the conferral of a right to use a trademark. Instead, it is a saving provision which ensures that "the right to use a trademark" is not prejudiced, or affected, by measures adopted to implement Section 3 of Part II. Irrespective of how the right to use a trademark arises, there is no obligation under Article 24.5 to confer it (para 7.610). (Emphasis added)

30 *See* Part III of the TRIPS Agreement.

31 Enrico Bonadio and Alberto Alemanno, "Plain Packaging of Tobacco Products under EU Intellectual Property Law", *European Intellectual Property Review* (2012): 8. *See also* Benn McGrady, "TRIPs and Trademarks: The Case of Tobacco," *World Trade Review* 3, no. 1 (2004): 57-58.

32 *See* Panel Report, *European Communities – Protection of Trademarks and Geographical Indications for Agricultural Products and Foodstuffs*, WT/DS174R, (April 20, 2005).

The same argument articulated by the panel in respect of Article 24.5 is applicable to the trademark-related provisions examined above. There is no 'positive language' which creates a right to use a trademark. The panel also added in the referred case that:

> More specifically, the Panel notes that Article 8 of the TRIPS Agreement sets out the principles of that agreement. Article 8.1 provides as follows:
>
> "1. Members may, in formulating or amending their laws and regulations, adopt measures necessary to protect public health and nutrition, and to promote the public interest in sectors of vital importance to their socio-economic and technological development, provided that such measures are consistent with the provisions of this Agreement." (para. 7.20)
>
> These principles reflect the fact that the TRIPS Agreement does not generally provide for the grant of positive rights to exploit or use certain subject matter, but rather provides for the grant of negative rights to prevent certain acts. This fundamental feature of intellectual property protection inherently grants Members freedom to pursue legitimate public policy objectives since many measures to attain those public policy objectives lie outside the scope of intellectual property rights and do not require an exception under the TRIPS Agreement. (para 7.210)

While stressing that the grant of 'negative rights' is a 'fundamental feature of intellectual property protection', the panel rejected the argument that the TRIPS Agreement confers positive rights, such as the right to use a trademark. The panel did acknowledge, however, the possibility that such positive rights may be conferred at the national level: '[t]he right to use a trademark is a right that WTO members may provide under national law' (para 7.611). This is, of course, something completely different from arguing that there is an obligation under the TRIPS Agreement to recognize such right.

The World Intellectual Property Organization has also expressed the view that the TRIPS Agreement only mandates WTO members to grant negative rights:

> As was already provided for in Article 7 Paris Convention in respect of goods, and has been confirmed and extended by Article 15.4 of the TRIPS Agreement, Members may not refuse the registration of a trademark because of the nature of the goods or services the mark is applied to. Thus, a trademark registration may not be refused merely because the mark identifies products which could be considered immoral, dangerous or otherwise undesirable.
>
> This does, of course, not mean that governments cannot regulate the sale of the goods bearing trademarks. Rather, this rule reflects the nature of intellectual property rights as essentially negative rights – i.e. rights to prevent the use of a trademark by other parties – and not as positive rights to sell or market products.[33]

33 World Intellectual Property Organisation, *Introduction to Trademark Law & Practice: The Basic Concepts: A WIPO Training Manual* (Geneva: WIPO, 1993), 51-52.

A right to use a trademark cannot be derived from Article 20 of the TRIPS Agreement. The Article allows WTO members to World Intellectual Property Organisation, Introduction to Trademark Law & Practice: The Basic Concepts: A WIPO Training Manual (Geneva: WIPO, 1993), 51-52. take a measure that is justifiable with regard to the use of trademarks, including measures that may impair the distinctive character of a trademark. As noted by Pires de Carvalho, 'governments may adopt encumbrances that are detrimental to the distinctiveness of marks. They can do so provided that they have a justification'.[34] In other words, governments may not be prevented from taking justifiable measures on the ground that the distinctive character of a trademark may be negatively affected. Article 20 only requires a justification when it is established that certain 'special requirements' encumber the use of a trademark in the course of trade. Since the premise of this provision is the regulatory autonomy of WTO members, the burden of proof that a measure is not justified should be borne by a complaining WTO member, not by the member adopting the challenged measure.

An important question is whether Article 20 only applies to cases where the use of a trademark is permitted but 'encumbered by special requirements', or whether it also applies when the use of a trademark is banned. The wording of Article 20, clearly alludes to 'special requirements' and provides examples thereof. There is nothing in the wording of Article 20, interpreted under the rules of VLCT, which would permit the interpreter to consider that *prohibitions* on the use of a trademark are also covered.[35] The text clearly addresses a hypothesis where the use is permitted but 'encumbered'. A contrary conclusion could only be reached at through a distortion of the language used in the provision. Article 20 'prevents only measures that impose positive obligations upon the trademark owner, but does not prevent measures in the form of prohibitions on use'.[36] As noted by Pires de Carvalho:

> Article 20 (like Article 8.1) is about government regulation and its limits. Article 20 does not supersede the rights of WTO Members to organize their economies as they see fit. Article 20, therefore, does not oblige WTO Members to authorize the com¬mercialization of all branded products and services - otherwise, the provisions of Article 15.4, which imply that some goods or services may be excluded from commercialization, and of Article 19.1, which refer to restrictions to commercial¬ization, would make no sense. Nor does Article 20 provide, explicitly or implicitly, that WTO Members are obliged to recognize the right to use trademarks, even if commercialization of goods is permitted.[37]

As mentioned, the TRIPS Agreement only covers certain aspects of intellectual property rights. There are many matters that are not dealt with at all. The fact that a particular situation was not

34 Nuno Pires de Carvalho, *The TRIPS Regime of Trademarks and Designs*, (Laiden: Kluwer Law International, 2011), para 20.22.

35 The history of negotiations dealing with the adoption of this provision confirms this interpretation. *See*, e.g,, UNCTAD/ICTSD, *Resource Book on TRIPS and Development* (Cambridge University Press, 2005).

36 McGrady, "TRIPs and Trademarks: The Case of Tobacco", 62.

37 Carvalho, *The TRIPS Regime of Trademarks and Designs*, para. 20.1. See also McGrady, "TRIPs and Trademarks: The Case of Tobacco"; Justin Malbon, Charles Lawson and Mark Davison, *The WTO Agreement on Trade-related Aspects of Intellectual Property Rights. A Commentary* (Cheltenham: Edward Elgar, 2014), para. 20.4; Mark Davison and Patrick Emerton, "Rights, Privileges, Legitimate Interests and Justifiability: Article 20 of TRIPS and Plain Packaging Tobacco"; Enrico Bonadio and Alberto Alemanno, "An Analysis of Plain Packaging of Tobacco Products under EU Intellectual Property Law"; Carlos Correa, *Trade Related Aspects of Intellectual Property Rights*, (Volume VI of Commentaries on the GATT/WTO Agreements (Oxford: Oxford University Press, 2007), 186.

regulated—as is the case of a ban on the use a trademark—simply means that it was left to WTO members to legislate on that situation, without interference from the WTO rules. There is extensive literature on the 'flexibilities' of the TRIPS Agreement that discusses which areas are subject to its rules and which are not.[38] Prohibition on the use of trademarks is one such unregulated area where the concept of 'flexibilities' of the TRIPS Agreement fully apply.

The final issue is whether an arbitral tribunal would be empowered to develop a binding interpretation of Article 20 or other provisions of the TRIPS Agreement in a dispute settled under a BIT. As mentioned, the violation of the TRIPS Agreement has been invoked in investment cases against Uruguay and Australia. A key consideration in this regard is that, in accordance with Article 23 of the DSU, any dispute arising with regard to compliance with a 'covered agreement' is subject to the sole jurisdiction of the WTO Dispute Settlement Body. As noted in Australia's Response to Notice of Arbitration (21 December, 2011) in Philip Morris Asia v. Australia,

> It is not the function of a dispute settlement provision such as that contained at Article 10 of the BIT to establish a roving jurisdiction that would enable a BIT tribunal to make a broad series of determinations that would potentially conflict with the determinations of the agreed dispute settlement bodies under the nominated multilateral treaties.[39]

There is a potential risk that interpretations made by arbitral tribunals in accordance with BITs' rules, in a completely different context, influence those under the WTO dispute settlement mechanism. However, such risk is limited by the constraint imposed on WTO panels, *inter alia*, by Article 3.2 of DSU and adherence of the WTO bodies to the customary principles of treaty interpretation enshrined in VCLT.[40]

7. Conclusions

Accepting the notion that a positive right to use a trademark is implicitly recognized by the TRIPS Agreement would have systemic implications in the context of WTO. On one hand, it would mean that the interpretative rules of VCLT are replaced by expansive standards of interpretation and that the expressed will of the WTO members is ignored. On the other, it would mean that a public policy, including in the vital area of public health, could be overridden by an alleged private right to use intellectual property. If this were the case, for instance, a patent owner could not be prevented from using his patented invention even if damaging to the environment or public health.

However, the TRIPS Agreement does not oblige WTO members to confer a right to use a trademark. Such a right would nullify the sovereign right to regulate—including prohibition of the use of trademarks- which is a right that WTO members retained under that Agreement. Sovereign

38 *See* Germán Velásquez, Correa Carlos and Seuba, Xavier, IPR, R&D, Human Rights and Access to Medicines - An Annotated and Selected Bibliography (Geneva: South Centre, 2012).

39 See Australia's Response to the Notice of Arbitration, *Philip Morris Asia Limited vs. The Commonwealth of Australia*, UNCITRAL, PCA Case No. 2012-12, December 21, 2011.

40 *See*, Carlos Correa, "Impact of the Economic Partnership Agreements on WTO law," in *EU Bilateral Trade Agreements & Intellectual Property For Better or Worse, ed. Josef Drexl*, Henning Grosse Ruse-Khan and Souheir Nadde-Phlix (Cham: Springer MPI Studies series, 2013).

States cannot be deemed to have given up their regulatory rights except to the extent that they have explicitly agreed to restrict them, as under Article 20 of the TRIPS Agreement.

While a right to use a trademark would curtail the policy space retained by WTO members to pursue public policy objectives, the exclusive rights guaranteed under Article 16.1 of the TRIPS Agreement only limit private commercial acts that may affect the interests of the trademark owner. It is hard to think that the drafters of the TRIPS Agreement agreed to create a right to use a trademark—nonexistent under the Paris Convention—that is enforceable against the State without even mentioning it.

Liberalisation of Services Sector in Malaysia: Domestic Regulatory Reforms and the Impact on Professional Services

Rokiah Alavi[*], Norsiah Mohamad[+], and Ruslan Abdul Aziz[#]

ABSTRACT

In 2012, the Malaysian Government announced liberalisation of 27 services sectors, including selected professional services. This announcement came as a surprise to the industry players because they had been protected all this while and that it came unexpectedly too soon. This paper intends to investigate the level of awareness and the readiness of professional service providers in Malaysia in facing greater competition as a result of liberalisation of the sector. For this purpose, a case study was conducted on consultant engineers in Malaysia using survey and questionnaire research methods. The findings show that though majority of the respondents are aware of the liberalisation announcements, they have low level of understanding on the actual implications of the liberalisation exercise. It is also found that consultant engineers in Malaysia are highly domestic oriented and many of them lack confidence in seizing opportunities created by greater market access in overseas market. The findings of this study also confirm that regulatory reforms and liberalisation initiatives can only be effective in achieving the intended objectives when the government and stakeholders have in-depth understanding of the industry at the sectoral and disaggregated levels, and have appropriate knowledge of the industry's competitive strengths, weaknesses and opportunities. It is also important for the policy makers to identify the market failures that impede the progress and competitiveness of service providers, thus the call for informed policy interventions.

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The views and opinions reflected in this paper are that of the authors alone.

1. Introduction

The New Economic Model[1] (NEM) envisages Malaysia to be a developed and high-income nation by 2020 by shifting the orientation of the economy towards knowledge-intensive and high-value added industries. Professional services have been identified as a catalyst to this transformation (ETP, 2011). The professional services sector encompasses services rendered by professionals such as engineers, accountants, lawyers, designers and architects that are linked to a wide range of industrial sectors such as aerospace, oil and gas, construction, automotive and so on. Hence, the sector's potential for growth is enormous. Out of the 11 services sub-sectors that have been identified as New Key Economic Areas (NKEAs) under the NEM in terms of their potential to contribute to Gross National Income (GNI) and export competitiveness, six sub-sectors are under the professional services, namely Medical Services, Environmental Engineering, Accounting Services, Architectural Services, Civil and Mechanical Engineering and Oil and Gas Engineering.

In 2012, the Malaysian Government announced an extensive liberalisation of 27 services sectors including the professional services. The objectives of this liberalisation exercise were to stimulate the potential of the selected services sector to be productive and internationally competitive and also to attract foreign investments and talents into the sector. Theoretically, openness in services trade is expected to increase consumer and producer's welfare arising from competitive pricing and greater choice and higher quality of services available in the market. Freer trade would also mean that the country's capacity to absorb and adapt new technology would improve, generate and attract higher quality investment, create opportunities for skilled manpower and high-paying jobs and open new business opportunities. In addition, domestic players will have greater market access in foreign countries thus improving their scope to expand and compete internationally.

However, trade openness also creates stiffer competition for domestic service providers. Removal of trade restrictions will expose local players to not only competition from more established large multinational firms but also low cost service providers from developing countries. The announcement to liberalise the 27 service sectors mentioned earlier has raised concerns among many local industry players because it came unexpectedly too soon and therefore some of them are not ready to face the competition and many are not in the position to benefit from the opportunities created by a more liberal market.

The focus of this paper in general is on professional services and specifically on engineering services. We chose this sector because as shown earlier, three out of the six sub-segments of professional services identified as NKEAs are from this sector, namely Environmental Engineering, Civil and Mechanical Engineering and Oil and Gas Engineering. We investigate the level of awareness and the readiness of consultant engineers and engineering firms in Malaysia in facing stiffer competition in domestic market and venturing into the global market. Survey and questionnaire methods were used to gauge the views of Malaysian professional engineers in the Klang Valley. This paper has four sections. The first section elaborates on the background of professional services in Malaysia focusing on the sector's contribution to GDP, value added and trade. The second section analyses Malaysia's initiatives in liberalising the engineering services through unilateral policy actions and through its engagements in trade agreements. Services trade liberalisation will be meaningless

1 Government of Malaysia, National Economic Advisory Council, *New Economic Model for Malaysia*, Putrajaya: National Economic Advisory Council, 2009.

without reforms in the domestic regulations. Thus, this section will discuss the reforms that have been undertaken by the government in general as well as in the engineering services sector. The third section presents the result of the survey on the consultant engineers in Malaysia. The last section concludes with policy recommendations.

2. Professional Services: Contribution to GDP, Value Added and Trade

The services sector has steadily gained importance in the Malaysian economy with its overall contribution to the country's Gross Domestic Product (GDP) expanding from 38.3% in 1970, to 46.8% in 1990, and to 55.3% in 2014. The sector is the largest provider of employment in Malaysia accounting for 59.4% of total employment in 2014 (Treasury Malaysia, 2014). Malaysia is relatively a new player in services trade and its share in the global services trade is insignificant. In 2014, Malaysia's services exports accounted for only 0.79% of total global services trade (see Table 1). In comparison, 2.6% of global services trade originated from Singapore, while the share of India and China was 3.2% and 4.4% respectively in the same year.[2]

TABLE 1 : MALAYSIA: SHARE IN TOTAL GLOBAL SERVICES EXPORTS, 2010-14

	2010	2011	2012	2013	2014
Global Total Services Trade (US$ Thousand)	3,924,369,870	4,388,754,976	4,525,225,897	4,772,389,956	4,972,237,653
Malaysia's Total Services Trade (US$ Thousand)	32,019,500	36,145,100	37,883,500	398,11,600	39,484,044
Malaysia's Share in Global Services Trade (%)	0.82	0.82	0.84	0.83	0.79

(Source: International Trade Centre (2015). Data available at http://www.intracen.org/itc/market-info-tools/trade-statistics/; accessed on November 4, 2015)

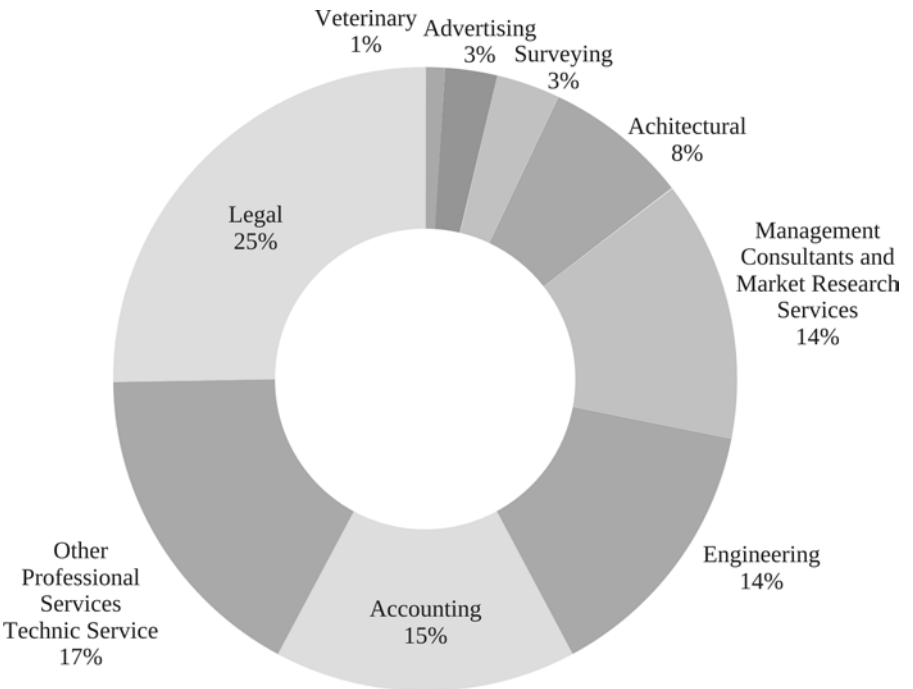
The share of professional services in the GDP is small, accounting for only 1.3% in 2013 (EPU, 2015). Data on professional services is difficult to obtain as they are scattered among different agencies and professional bodies. The Department of Statistics also does not segregate data on professional services. ETP (2011) provided some information on the sector but professional services were grouped under business services that encompass a wide range of services such as information technology, management, engineering, accounting, legal, design and architecture. The recently published strategic paper on services[3] by the Economic Planning Unit under the Prime Minister's Department reported that professional services sub-sector experienced an impressive growth of 9.8% per annum between 2011 and 2013, with employment in the sector expanding by

2 Calculated using data obtained from International Trade Centre, Trade Statistics, http://www.intracen.org/itc/market-info-tools/trade-statistics/ (accessed November 4, 2015).

3 Government of Malaysia, Economic Planning Unit, Prime Ministers Department, "*Transforming Services* Sector,", Working Paper no. 18, Putrajaya: Economic Planning Unit, 2015, http://rmk11.epu.gov.my/pdf/strategy-paper/Strategy%20Paper%2018.pdf (accessed October, 2015).

23% during the period. The report further noted that there were 20,372 professional services firms in the country in 2012 whose distribution of establishments in the professional services is shown in Figure 1.

FIGURE 1: ESTABLISHMENTS IN THE PROFESSIONAL SERVICES SUB-SECTOR, 2012



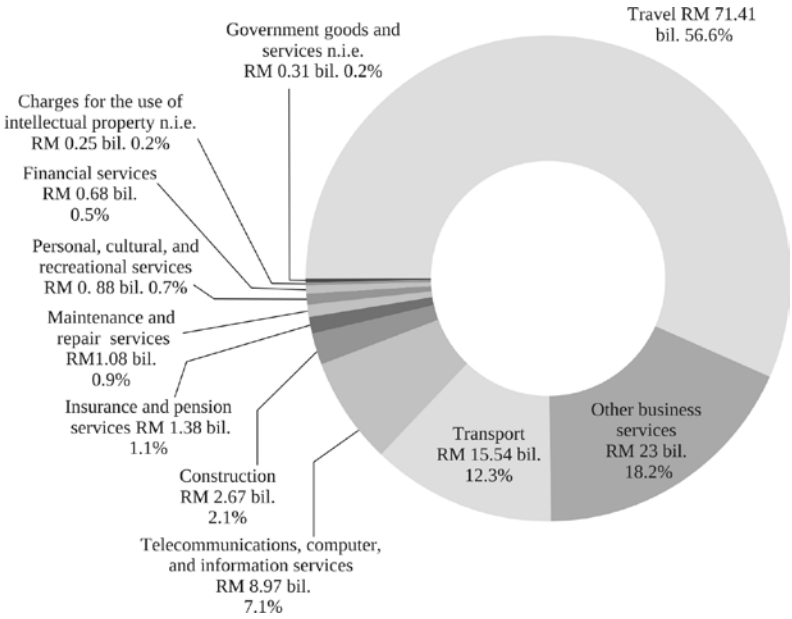
(Source: Based on data obtained from EPU (2015))

Flaaen, Ghani and Mishra (2013) noted that the growth of modern services[4] exports including professional services in Malaysia has been slow in contrast to other countries in the region. Hence, Malaysia's services exports continue to be dominated by traditional sectors[5] that accounted for 71.7% of total services exports in 2014. Figure 2 shows the composition of Malaysia's total services exports in 2014. In the traditional sector, the share of travel services exports was the largest (56.6%), followed by transport services (12.3%), construction (2.1%) and personal, cultural and recreational services (0.7%).

4 Modern services include telecommunications, computer and information services, other business services, financial services, insurance, royalties, and licence fees.

5 Traditional services include travel, transportation, construction, and personal, cultural and recreational services.

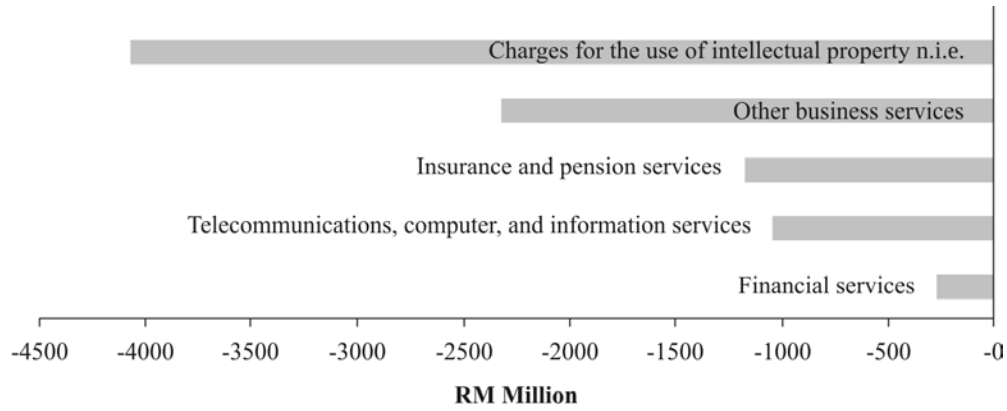
FIGURE 2: COMPOSITION OF MALAYSIAN SERVICE EXPORTS IN 2014.



(Source: Department of Statistics Malaysia, unpublished)
Note: n.i.e. - not included elsewhere

Malaysia's import of modern services has always surpassed exports. Figure 3 presents the trade balance of selected modern services in 2014. It is evident that Malaysia is a net importer of these key services and that the services trade balances were negative for all the selected sectors. The largest deficit was for payments for the use of intellectual property rights.

FIGURE 3: MALAYSIA: TRADE BALANCE FOR SELECTED SERVICES SECTOR, 2014.



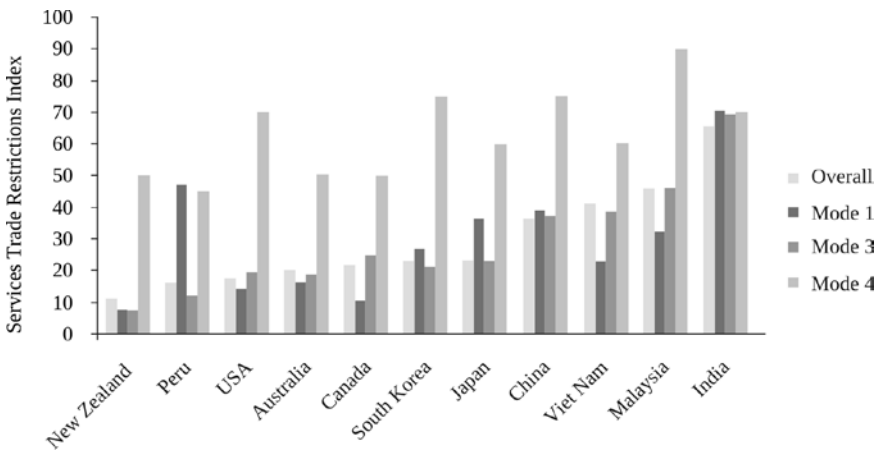
(Source: Department of Statistics Malaysia, unpublished)
Note: n.i.e. – not included elsewhere.

3. Liberalisation and Domestic Regulatory Reforms in Professional Services Sector

Services sector in Malaysia is subjected to strong doses of protection and the progress in eliminating trade and investment restrictions remains limited. Resistance from local players partly contribute to the slow reform process. Professional associations, for example, of lawyers, nurses, architects and doctors still oppose freer mobility of professionals from abroad, despite conclusion of many free trade agreements.

Figure 4 compares the STRI[6] indices of Malaysia's key trading partners. The indices reveal that services sectors in Vietnam, China, Malaysia and India are highly restrictive. The figure also shows that for Malaysia, trade in services through mode 4 is the most restrictive in comparison to other modes. Commitments to liberalise trade in services are made based on 4 different modes of supply viz., Mode 1 - Cross border Supply; Mode 2 – Consumption abroad; Mode 3 – Commercial Presence; Mode 4 – Movement of natural persons.

FIGURE 4: SERVICES TRADE RESTRICTIONS INDEX FOR SERVICES SECTORS - SELECTED COUNTRIES.



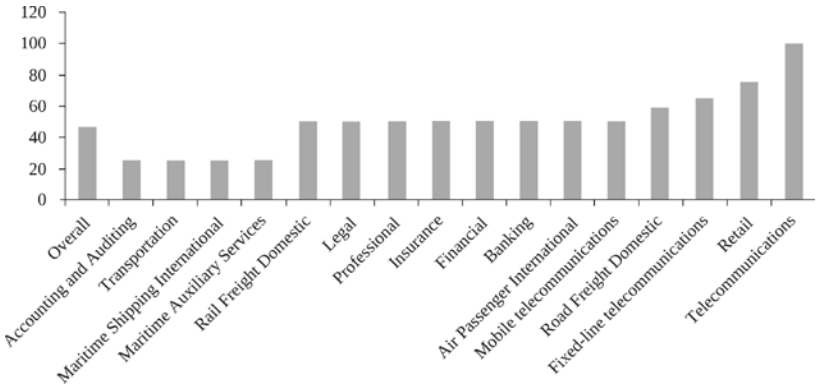
(Source: World Bank, Services Restrictions Database, accessed from http://iresearch.worldbank.org/servicetrade/home.htm)

Note: Each country in the database is covered in one year from within the 2008-11 range. Policy measures covered include restrictions on entry and legal form, licensing and operations as well as aspects of the regulatory environment.

Figure 5 presents a comparison of the sectoral incidence of policy restrictiveness in the services sectors in Mode 3 (commercial presence) for Malaysia. With the exception of accounting and auditing, transportation and maritime shipping and auxiliary services, all other sub-sectors registered considerably high level of protection.

6 STRI ranges on a scale from 0 (fully open) to 100 (fully closed).

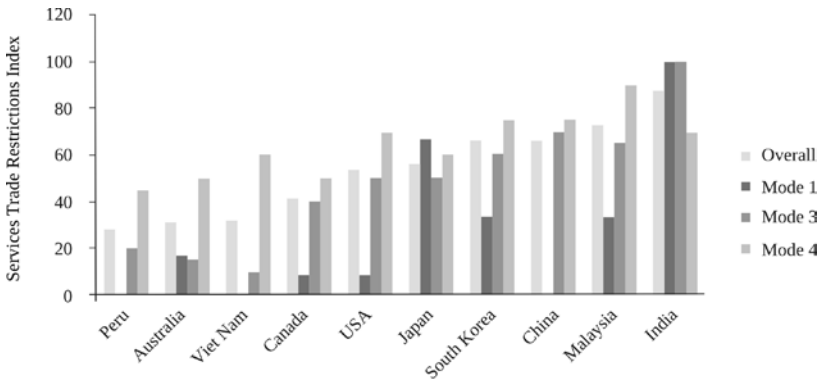
FIGURE 5: MALAYSIA: STRI FOR MODE 3 FOR SERVICES SUB-SECTORS



(Source: World Bank STRI database, accessed from http://iresearch.worldbank.org/servicestrade/ home.htm on January 19, 2016)

An analysis of Modes 3 and 4 restrictions for professional services in select countries show even higher level of restrictiveness (see Figure 6).

FIGURE 6: SERVICES TRADE RESTRICTIONS INDEX FOR PROFESSIONAL SERVICES - SELECTED COUNTRIES



(Source: World Bank, Services Restrictions Database, accessed from http://iresearch.worldbank.org/servicetrade/ home.htm in November 2015)

Malaysia has undertaken extensive liberalisation for most of its professional services under the General Agreement of Trade in Services ("GATS"), ASEAN Framework Agreement on Services ("AFAS"), Transpacific Partnership Agreement ("TPPA"), bilateral and regional free trade agreements as well as through autonomous[7] initiatives. ASEAN has concluded nine packages of services commitments so far, while Malaysia has concluded six bilateral FTAs as of June 2014 namely with Japan, Pakistan, New Zealand, India, Australia and Chile (no commitments were

7 Autonomous liberalisation refers to policy measures taken by member countries to liberalise specific economic sector independently, and not as part of their commitments in the GATS or any regional or bilateral trade agreements

made for services sector). Under ASEAN, Malaysia is a party in ASEAN-wide FTAs with China, Korea, Japan, India, Australia and New Zealand. Table 2 shows that Malaysia has offered 7 sub-sectors of professional services under GATS and extended an additional sub-sector namely urban planning and landscape architectural services for liberalisation under AFAS.

TABLE 2: MALAYSIA'S COMMITMENTS IN PROFESSIONAL SERVICES IN GATS AND AFAS, AS OF OCTOBER 2015.

Professional Services Sub-Sectors in GATS	Malaysia's Commitment in GATS	Malaysia's Commitment in AFAS (8th Package)
Legal Services	√	√
Accounting, Auditing and Bookeeping Services	√	√
Taxation Services	√	√
Architectural Services	√	√
Engineering Services	√	√
Integrated Engineering Services	√	√
Urban Planning and Landscape Architectural Services	x	√
Medical Services	√	√
Veterinary Services	x	x
Services provided by midwives, nurses, physiotherapists and paramedical personal	x	x

(Source: Schedules of commitments under GATS were obtained from WTO official website https://www.wto.org/english/tratop_e/serv_e/serv_commitments_e.htm while commitments under AFAS were retrieved from Malaysia's Ministry of International Trade and Industry's website http://www.miti.gov.my/index.php/pages/view/2109?mid=150)

To have a clearer understanding on the details of liberalisation commitments by Malaysia, the ensuing discussion provides a detailed analysis on one of the professional services, namely engineering services. Modes 1 and 2 of Malaysian engineering services are fully liberalised. It means all transactions of engineering services through these modes can freely enter the country without any restrictions. As in most of the countries in the world, Malaysia's modes 3 and 4 of services supply are highly restricted. In the engineering sub-sector, the inscribed limitations in services specific schedules reflect domestic regulations that are stipulated in Malaysia's Engineering Act. Professional engineers in Malaysia are bound by the Registration of Engineers Act (1967) and regulated by the Board of Engineers Malaysia ("BEM"). As of February 2014, there were 10,775 Professional Engineers and 73,297 Graduate Engineers that were registered with BEM.

The Engineering Act (as revised in 2007), apart from listing the professional qualifications for engineers, also stipulates that only Malaysian citizens are allowed to register with BEM. This means that foreign engineers are not allowed to register with BEM and hence, not allowed to practice in Malaysia as a natural person. Nevertheless, foreign engineers are allowed to practice in Malaysia as temporary engineers, but not permitted to operate independently or serve as directors or shareholders of an engineering and consulting services ("ECS") firm. In addition, foreign professional engineers are allowed only to practise in specific projects for a renewable period of one calendar year and must be sponsored by a Malaysian ECS firm. Malaysian companies that wish to hire foreign engineers are required to show proof that local engineers with the necessary experience for a particular technical position are not available in Malaysia (Wong, 2012). The Act also stipulates the following conditions for foreign engineers:

1. must be registered as a professional engineer in their home country;
2. have a minimum of ten years working experience; and
3. have a physical presence of at least 180 days in one calendar year.

Commercial presence of foreign engineering firms in Malaysia is also highly restricted. Under the Engineering Act (1967), any firm that wishes to offer engineering consultancy practices must register with BEM. The Act also stipulates that Single Disciplinary Practice ("SDP") is subject to the following requirements:

1. in the case of sole proprietorship, the sole proprietor should be a Professional Engineer;
2. in the case of partnership, all the partners should be Professional Engineers;
3. in the case of a body corporate, it (i) has a board of directors comprising of persons who are Pro fessional Engineers; (ii) has shares held by members of the board of directors mentioned in sub paragraph (i) solely or with any other persons who are Professional Engineers.

Since foreign engineers are not allowed to register with the BEM as Professional Engineers, this automatically means foreign firms cannot establish a company in Malaysia in SDP. As for multi-disciplinary practices ("MDP"), Malaysia allows a maximum of 30 per cent foreign ownership which has to be in the form of joint ventures with Malaysian professional engineers registered with the BEM. Also, the director of the JV company has to be a Malaysian citizen. Table 3 shows the prescribed restrictions in Mode 3.

TABLE 3: MALAYSIA'S COMMITMENTS IN ENGINEERING SERVICES (MODE 3) IN GATS, AFAS AND BILATERAL AGREEMENTS, AS OF AUGUST 2014.

Trade Agreement	Limitations on market access	Limitations on national treatment
GATS ASEAN-Korea ASEAN-China Malaysia-Pakistan Malaysia-Japan	a) Engineering services may be supplied only by a natural person b) For multi-disciplinary practices (Architecture, Engineering and/or Quantity Surveying), foreign equity up to a maximum of 30 per cent for joint ventures by professionals who are registered in the country of origin. Foreign directorship is not allowed.	a) None b) Unbound
AFAS ASEAN-Australia-NZ Malaysia-NZ Malaysia-NZ	For multi-disciplinary practices (Architecture, Engineering and/or Quantity Surveying), foreign equity up to a maximum of 30 per cent for joint ventures by professionals who are registered in the country of origin. Foreign directorship is not allowed.	None

(Source: Extracted from Specific Schedules of various services agreements, accessed from www.miti.gov.my.)

Autonomous liberalisation is a common practice and has been progressively undertaken by the government. The autonomous liberalisation that was undertaken in 2009 and 2012 has the most significant impact on domestic regulations. In 2009, twenty-seven services sub-sectors were liberalized with the target of allowing 100% foreign ownership by 2012.[8] The second round of

8 Government of Malaysia, Ministry of International Trade and Industry, 2015, http://myservices.miti.gov.my/web/guest/autonomous (accessed January 19, 2015).

liberalisation in 2012 further added 18 services sub-sectors, which included engineering services. Nevertheless, there is a limitation that at least two-third of the Board of Directors shall be Professional Engineers (local or foreign) with Practising Certificate. Foreign engineers are now allowed to register with BEM as professional engineers, which means Professional Engineers of any nationality with a Practising Certificate is allowed to establish SDP in Malaysia, with 100% foreign ownership.

Trade restrictions in professional services are largely imposed on the movement of professional engineers across borders (Mode 4) and on the commercial establishment of foreign engineering firms (Mode 3). The mobility of professional workers is largely restricted by domestic laws, policies and licensing requirements. Dixon (2013) listed the following requirements that have become barriers for foreign-trained and registered engineers to seek job abroad:

1. Licensing and standard requirements may differ between countries, thus creating barriers for engineers in countries with lower requirements to move into those with higher levels;
2. Countries tend to have varied scope of tasks for different types of engineering jobs and therefore limits the opportunities for engineers to bid for a specific engineering contract;
3. Education and training requirements to qualify and register as a professional engineer differ between countries, where some countries just require formal engineering degree while others condition practical experience.

Table 4 shows Malaysia's commitment in the GATS and AFAS agreements as well as in the FTAs for Mode 4 of engineering services.

TABLE 4: COMMITMENTS IN ENGINEERING SERVICES (MODE 4), AS OF OCTOBER 2015.

Type of Trade Agreement	Limitations on market access	Limitations on national treatment	Additional commitments
GATS Malaysia-Pakistan Malaysia-Japan	Unbound except as indicated in the horizontal section and in respect of 2 b)*, subject to temporary registration for a period of one year per temporary registration	Unbound except for the categories of natural persons referred to under market access	The qualifying examination to determine the competence and ability to supply the service for the purposes of registration with the professional bodies will be conducted in the English language
ASEAN-China ASEAN-NZ ASEAN-Rep. of Korea Malaysia-Australia Malaysia-NZ	Same as GATS	Engineering services must be authenticated by a registered professional Engineer in Malaysia.	Same as GATS
AFAS	Same as GATS	Engineering services must be authenticated by registered professional Engineer in Malaysia.	• Same as GATS; • Other requirements as per in ASEAN Chartered Professional Engineer (ACPE) Registry.

(Source: Summarised from Malaysia's Specific Commitment Schedule in various trade agreements, available from www.miti.gov.my)

*Note * - 2(b) of horizontal section provides that "professionals being persons who possess necessary academic credentials, professional qualifications, experience and/or expertise which have been duly recognized by the professional bodies in Malaysia and registered with those respective professional bodies".*

As can be seen from Table 4, some of the limitations that were inscribed in the GATS Agreement for market access were liberalised or amended in the subsequent FTAs. For example, under the AFAS agreement, professional engineers from ASEAN countries who comply with the requirements of the ASEAN Chartered Professional Engineer (ACPE) Registry are allowed to practice in Malaysia. In order to facilitate the mobility of ASEAN engineers within the ASEAN countries, a Mutual Recognition Agreement (MRA) on Engineering Services was signed at the 11th ASEAN Summit on 9th December 2005 in Kuala Lumpur. The MRA allows the qualifications of professional services suppliers to be mutually recognized by signatory member countries. In 2012, ASEAN Economic Ministers signed the Agreement on the Movement of Natural Persons (MNP). The objective of MNP is to facilitate the free flow of goods, services, investment, and skilled labour, thus contributing to the establishment of an ASEAN single market and production base under the ASEAN Economic Community initiative.

The 2012 autonomous liberalisation measures that withdrew citizenship requirement for foreign engineers to practise in Malaysia require changes to be made to the Engineering Act[9]. Abdul Majid (2013) highlighted four sections in the Act that would be affected by the liberalisation:

1. Section 7: Restrictions on unregistered persons;
2. Section 8: Only Professional Engineers may submit plans, drawings etc;
3. Section 10: Qualifications for registrations; and
4. Section 10A: Registration of Temporary Engineers.

Section 10A of the Act will have to be deleted since Temporary Engineers registration will be redundant with the deletion of citizenship requirement. Another important change is that engineers with equivalent professional qualifications such as Chartered Engineer status need not clear the Professional Assessment Examination (PAE). In the existing Act, Professional Engineers must pass a PAE conducted by BEM or its corporate member of the Institution of Engineers (Malaysia).

It can be seen from the above discussion that Malaysia has progressively liberalized its engineering services sectors under the GATS. Intal et al. (2014) found that service sector liberalization commitments of the ASEAN members under the AFAS have gone significantly beyond the GATS. Thanh and Bartlett (2006) reported that on average there is a decline in the level of restrictiveness in ASEAN of about 10% since the AFAS was signed. They found that Malaysia's restrictiveness index declined from 80% under GATS to 76.3% under the AFAS. It is expected that there will be deeper and broader liberalisation commitments with forthcoming AFAS packages (i.e. AFAS 9 to AFAS 12) and the TPPA. Fukunaga and Ishido (2015) have found that there is evidence of progressive deepening of liberalisation commitments as a result of Malaysia's participation in various trade agreements.

9 The amendment to the Act was gazetted on February 24, 2015 and became effective on July 31, 2015.

TABLE 5: MALAYSIA'S HOEKMAN INDEX BY 11 SECTORS

Sector	GATS (2006)	AANZFTA (2012)	AFAS 8 (2012)	ASEAN MNP (2012)
Business Services	0.01	0.10	0.39	0.45
Communication Services	0.00	0.02	0.25	0.31
Construction and related engineering services	0.00	0.50	0.50	0.50
Distribution services	0.00	0.00	0.30	0.40
Educational services	0.00	0.30	0.25	0.25
Environmental services	0.00	0.00	0.25	0.25
Financial services	0.00	0.38	0.38	0.38
Health related and social services	0.00	0.25	0.50	0.50
Tourism and travel related services	0.00	0.25	0.50	0.50
Recreational, cultural and sporting services	0.00	0.20	0.30	0.30
Transport services	0.00	0.04	0.16	0.19
Simple average of all sectors	0.00	0.17	0.36	0.38

(Source: Fukunaga and Ishido (2015))

Note: GATS (General Agreement on Trade in Services; AANZFTA (ASEAN-Australia- New Zealand FTA); AFAS (ASEAN Framework Agreement on Services); ASEAN MNP (Movement of Natural Persons).

Table 5 presents the Hoekman Index[10] for Malaysia that measures the degree of commitments in the services sector. The results show that Malaysia's services sectors experienced progressive liberalisation over the years from GATS (0.00 - unbound) through AANZFTA (0.17) and AFAS 8 (0.36) and finally to the ASEAN MNP (0.38). The transport services recorded the lowest score of liberalisation commitments of 0.19. Business services, construction and related engineering services, health related and social services and tourism and travel related services experienced deeper and broader liberalisation obligations.

4. Case Study on Consultant Engineers in Malaysia

This section presents the findings of the survey on the level of awareness among professional engineers in Malaysia on the government's initiative in liberalising the engineering services and their readiness to face greater competition in domestic and international market. Before we go into the discussion on the survey and its findings, it will be useful to have a brief overview on the Malaysian engineering services.

4.1 Overview of Engineering Services in Malaysia

Engineering services industry in Malaysia largely consists of small firms. A survey done by BEM-ACEM 2003 as reported in Abdul Majid (2013) found that 63% of the engineering consulting

10 The index assigns value 1 when the said sector is "fully liberalised"; 0.5 when "limited" (but bound); 0 when "unbound" (government has not committed to liberalise) by sub-sector.

industry consists of small firms, medium (34%) and large (3%). As of March 2014, there were a total of 2,127 engineering consulting practices registered with the BEM.[11] This consists of 959 sole proprietorships (45.1%), body corporate (44.9%) and partnerships (9.0%). As of October 2015, there were only 9 foreign engineers registered with the BEM. The large firms generally offer multi-disciplinary services that include civil, mechanical and electrical services and these firms export their services mainly to ASEAN and Middle Eastern countries (Wong, 2012). In 2014, there were only 19 multi-disciplinary practices in Malaysia.[12] Most of the engineering consulting firms in Malaysia heavily rely on domestic market. Looi (2003) reported that only 12% of Malaysian engineering firms surveyed in his study received revenue from overseas market and earnings from exports accounted only 1.5% of total industry revenue.

None of the Malaysian firms have so far made it into the rank of global top engineering firms. A large percentage of the global engineering services industry's activity is concentrated in developed economies, accounting for 75% of the industry's revenue (Ibis World, 2013). In 2010, out of 20 top global engineering firms, 19 firms originated from the OECD countries, out of which nine firms are from the United States, six from Europe, two from Canada, two from Australia and one from Japan. Only one firm is from the developing world, namely Constructora Norbero Odebrecht from Brazil (Fernandex-Stark, Bamber and Gereffi, 2010). American firms accounted for 34.4% of total revenue from overseas engineering projects in 2012, followed by European (34.2%), Australian (10.2%), Canadian (8.9%), Chinese (3.1%) and Japanese (1.9%) firms. Nevertheless, an increasing number of developing countries have begun exporting their engineering services for the past one decade. Brazil, India, the Republic of Korea, the Russian Federation, Middle East and Singapore are emerging exporters of engineering services (Catteneo, Engman, Saez and Stern, 2010). In 2012, an Egyptian company, Egypt Dar Al-Handasah Consulting, was ranked 10th in terms of international revenue earnings, while Aurecon a Singaporean company was listed at the 20th position. In addition, about 10 firms from China made it into the top 100 international engineering and design firms.[13]

4.2 Survey Findings

This section presents the findings of the survey on the professional engineers' awareness on the Malaysian government's initiative in liberalising the engineering services and their readiness to face a more competitive market. This survey was undertaken and analysed in 2013.

4.2.1 Background of the respondents

This survey was conducted on consultant engineers who are employed by engineering firms and those who own engineering firms in Klang Valley (Federal State of Kuala Lumpur and Selangor). Consultants are the best representatives for the objectives of this research, as they are most affected by the liberalisation policy since they provide professional services to the public and private clients on a larger scale. In 2013, there were a total of 1300 consultant engineers in Malaysia and out of that 956 are based in Klang Valley. Questionnaires were sent to all consultant engineers operating

11 Information on the registration of professional engineers is updated periodically at the Board of Engineers Malaysia's website, www.bem.org.my.

12 Ibid.

13 Based on the list of top 225 international firms provided by ENR (2013).

in Klang Valley by email. In addition to sending by email, questionnaires were also given directly to twenty (20) professional engineers and for another 20 respondents, we obtained feedback through direct face to face interviews using the same questionnaire. A total of 103 responses were received, with a response rate of 10.8%. We followed up by telephone calls and emails, but the response was still low.

TABLE 6: DEMOGRAPHY PROFILE OF THE RESPONDENTS

Demographic type	Description	Frequency	Percentage
Age (in years)	20-29	8	7.8
	30-39	14	13.6
	30-49	46	44.7
	50 and above	35	34.0
Highest education level	Diploma	0	0
	Professional diploma	0	0
	Bachelor Degree	74	71.8
	Master Degree	25	24.3
	PHD	4	3.9
Engineering Discipline	Civil & Structural	64	62.2
	Mechanical	18	17.5
	Electrical	21	20.4
	Chemical	0	0
	Other	0	0
Registration with Board of Engineers Malaysia	Not registered	0	0
	Graduate Engineer	4	3.9
	Professional Engineer (Ir.)	99	96.1
Type of organization	Sole Proprietor	43	41.7
	Partnership	15	14.6
	Body Corporate (Sdn. Bhd.)	45	43.7
	Multi Disciplinary Practice (Eng, Arch, QS)	0	0
	Other, please specify:	0	0
Number of employees in the company	0-10	0	0
	1-10	61	59.2
	11-20	25	24.3
	21-50	16	15.5
	100 and above	1	1.0

Position in organization	Owner/Director/Executive	93	90.3
	Senior Management	8	7.8
	Middle Management	2	1.9
	Junior level personnel	0	0
Years of experience in the engineering practice	1-5	4	3.9
	6-10	7	6.8
	11-15	20	19.4
	16-20	17	16.5
	more than 20 years	55	53.4
Type of work that your firm has experience in. **(You may circle more than one)**			
a) Building works			
i) Civil and structural	-	65	63.1
ii) Mechanical works	-	33	32.0
iii) Electrical works	-	37	35.9
b) Other works		-	
i) Geotechnical	-	24	23.3
ii) Roads	-	4	3.9
iii) Bridges	-	28	27.2
iv) Tunnels	-	2	1.9
v) Dams	-	18	17.5
vi) Airports	-	6	5.8
Is your company involved or have joint ventures with foreign consultants for any consultancy work **in Malaysia?**	No	93	90.3
	Yes		
	10	9.7	
Is your company involved or have joint ventures with foreign consultants for any consultancy work **outside of Malaysia**?	No	92	89.3
	Yes	11	10.7

Table 6 shows the demography profile of the respondents. The majority of respondents are between 30 to 49 years of age (44.7%), followed by those 50 years and above (34%), 30-39 years (13.6%) and 20-29 years (7.8%). Respondents are mostly civil engineers (62.2%), followed by electrical (20.4%) and mechanical (17.5%). Ninety six per cent (96%) of the respondents are professional engineers registered with the BEM.

In terms of the type of organisation, 43.7% are from body corporates, followed by sole proprietors (41.7%) and partnership (14.6%). Majority of the respondents are owner/director/executive (90.3%) of their own companies with more than 20 years of experience (53.4%). This demography of the respondents provides reliability to the results of the research as the respondents have strong background in terms of knowledge and experience in engineering consultancy practice. The respondents largely do not have any joint ventures with foreign consultants for consultancy work in Malaysia (90.3%) or outside of Malaysia (89.3%). Simple statistical test method by calculating frequency and percentage analysis was used to analyse the responses.

4.2.2 Awareness of the Professional Engineers on Liberalisation Exercise

Table 7 presents results of the survey on the level of awareness of the professional engineers on the government's decision to further liberalise the sector. The findings show that though 76% of the respondents are aware of the government's initiatives, majority of them were not aware that the policy will be effective in 2012 and that the Registration of Engineers Act, 1967 will be amended accordingly.

TABLE 7: AWARENESS OF LIBERALISATION OF ENGINEERING SERVICES.

Statement		Frequency	Percent
I am aware of the Government's announcement to liberalise the engineering services.	Yes	76	73.8
	No	27	26.2
I am aware that liberalisation of the engineering services will be effective by 2012.	Yes	33	32.0
	No	70	68.0
I am aware that the liberalisation of the engineering services by Government of Malaysia is in line with international agreements.	Yes	61	59.2
	No	42	40.8
I am aware of the Registration of Engineers Act 1967.	Yes	98	95.1
	No	5	4.9
I am aware that the Registration of Engineers Act 1967 will be amended in view of the liberalisation of engineering services.	Yes	36	35.0
	No	67	65.0

This raises concern because even professionals are not fully aware of current policy developments that have direct effect on them.

4.2.3 Readiness to Face Competition

Table 8 presents the findings on the readiness of professional engineers in facing greater competition with more liberal entry of foreign engineers and engineering firms. To understand whether they are ready to face stiffer competition in the future, we inquired on their capabilities and strength in providing engineering services in Malaysia.

TABLE 8: CAPABILITIES & STRENGTH OF PROFESSIONAL ENGINEERS IN MALAYSIA.

Statement		Frequency	Percent
Malaysian engineering consultants have the **EXPERTISE** to provide consultancy services **in Malaysia** with regards to:			
a) Knowledge in **all fields** of engineering	Strongly agree	36	35.0
	Agree	42	40.8
b) Technical skills /competencies	Strongly agree	33	32.0
	Agree	49	47.6
Malaysian engineering consultants have the **CAPACITY** to provide consultancy services **in Malaysia** with regards to:			
a) Manpower	Strongly agree	34	33.0
	Agree	57	55.3
b) Technology	Strongly agree	29	28.2
	Agree	45	43.7
c) Finance	Strongly agree	25	24.3
	Agree	51	49.5
Malaysian engineering consultants are capable to **COMPETE** with foreign engineering consultants to provide engineering services **in Malaysia** with regards to:			
a) Securing a job	Strongly agree	26	25.2
	Agree	31	30.1
b) Standard of service	Strongly agree	27	26.2
	Agree	43	41.7
Malaysian engineering consultants require **SUPPORT** from the government to **COMPETE** with foreign consultants, in terms of:			
a) Regulatory requirements	Strongly agree	52	50.5
	Agree	40	38.8
b) Financial incentives	Strongly agree	38	36.9
	Agree		
	42	40.8	

In terms of the capacity to provide consultancy services in Malaysia, majority of the respondents agree that professional engineers in the country are able to cater for manpower needs of the industry (88.3%), provide expertise in technical skills/competencies (79.6%) and have knowledge in all fields of engineering (75.7%). The findings also show that about three quarter of the respondents agree that Malaysian engineering consultants have the capacity in terms of financial strength and technological capability.

On the question of whether they have the ability to compete with foreign engineering consultants in projects tendered in Malaysia, 68% of the respondents agreed that they will be able to compete for standard of service while only 55.3% said they would be able to compete in terms of securing a job. These results show that even though the Malaysian consultants have the capacity with regards to manpower, and expertise with regards to technical skills/competencies and knowledge in all fields of engineering, many of them are not ready to compete directly with foreign engineering consultants yet.

We then asked whether they would require support from the government to compete with foreign consultants, 89.3% of the respondents said that they would need support in terms of regulatory requirements, while 77.7% said they would need financial incentives. The results suggest that the respondents are concerned about the liberalisation effects and do require support from the government.

4.2.4 Strengths of Professional Engineering Services

The objective of this analysis is to examine the respondents' perceptions on the strength of professional engineering services in Malaysia, with the aim of understanding their capabilities to compete with foreign services providers. The results are presented in Table 9.

TABLE 9: STRENGTH AND WEAKNESSES OF PROFESSIONAL ENGINEERING SERVICES IN MALAYSIA

Statement		Frequency	Percent (%)	Total (%)	Rank
STRENGTH					
Malaysian engineering consultants have the expertise to provide consultancy services in Malaysia with regards to:					
a) knowledge in all fields of engineering	Strongly Agree	36	35.0	75.7	3
	Agree	42	40.8		
b) technical skills /competencies	Strongly Agree	33	32.0	79.6	2
	Agree	49	47.6		
Malaysian engineering consultants have the capacity to provide consultancy services in Malaysia with regards to:					
a) manpower	Strongly Agree	34	33.0	88.3	1
	Agree	57	55.3		
b) technology	Strongly Agree	29	28.2	71.8	5
	Agree	45	43.7		
c) finance	Strongly Agree	25	24.3	73.8	4
	Agree	51	49.5		
Malaysian engineering consultants are the capacity to provide consultancy services in Malaysia with regards to:					
a) securing a job	Strongly Agree	26	25.2	55.3	7
	Agree	31	30.1		
b) standard of service	Strongly Agree	27	26.2	68.0	6
	Agree	43	41.7		
	Agree	42	40.8		

The results show that Malaysian engineering consultants have the capacity to provide consultancy services in Malaysia with regards to man power, expertise in technical skills/competencies and knowledge in all fields of engineering. The results also show that professional engineering services in Malaysia have sufficient capability to provide services in terms of expertise (knowledge in all fields of engineering, technical skills /competencies) and capacity (manpower, technology and finance).

Nevertheless, only 68% of the respondents admitted that they would be able to compete with foreign engineering consultants in Malaysia with regards to equivalent standard of service. In terms of securing a job in the domestic market in case they have to compete with foreign engineering service providers, only 55.3% said they would be able to secure the job successfully. These results show that even though the Malaysian consultants perceive that they have the capacity in terms of manpower, expertise, technical skills /competencies and knowledge in all fields of engineering, their major concern is whether they would be able to compete with foreign engineering consultants if the domestic market is open to foreign competition.

4.2.5 Impact of Liberalisation of Engineering Services

The results in Table 10 show that in order of ranking, the respondents feel that the most significant impact of liberalisation would be reduction in the opportunities to secure jobs in the domestic market if foreign consultants are free to enter the market (rank 1 =77.7%). Most respondents agree that foreign consultants and firms will be encroaching into their business territory and that they are not ready for it yet.

TABLE 10: IMPACT OF LIBERALISATION

Statement			Frequency	Percent (%)	Total (%)	Rank
Increase Foreign Direct Investment (FDI) into Malaysia	10	Strongly agree	10	9.7	37.9	10
		Agree	29	28.2		
Increase competitiveness of engineering consultancy services in Malaysia.	3	Strongly agree	16	15.5	66.0	3
		Agree	52	50.5		
Introduce international best practices	4	Strongly agree	12	11.7	62.1	4
		Agree	52	50.5		
Encourage new technologies in consultancy services	2	Strongly agree	14	13.6	71.8	2
		Agree	60	58.3		
Increase the level of service to local clients/ customers with regards to:						
a) Quality of service	10	Strongly agree	11	10.7	50.5	6
		Agree	41	39.8		
b) Cost effectiveness	3	Strongly agree	7	6.8	47.6	8
		Agree	42	40.8		
Encourage the mergers of small consulting companies to match larger foreign companies.	4	Strongly agree	11	10.7	49.5	7
		Agree	40	38.8		

Reduce the opportunities of securing jobs with the influx of foreign consultants	2	Strongly agree	46	44.7	77.7	1
		Agree	34	33.0		
Reduce the quality and safety of service in Malaysia by cheaper players from lesser developed countries.	10	Strongly agree	24	23.3	56.3	5
		Agree	34	33.0		
Encourage Malaysian consultants to venture internationally.	3	Strongly agree	11	10.7	46.6	9
		Agree	37	35.9		

On the positive effects of liberalisation, the respondents acknowledge that liberalisation of professional services would encourage new technologies in consultancy services (rank 2, 71.8%); increase competitiveness of engineering consultancy services in Malaysia (rank 3 = 66%); and introduce international best practices (rank 4 = 62.1%).

As for the negative impact of liberalisation, about 56% of the respondents concur that if liberalisation leads to greater inflow of engineers from less developed countries in the region, services might be offered at lower costs but will come at the expense of quality and safety of services in Malaysia. Fifty per cent of respondents agree that there are other positive impacts of liberalisation that would contribute to improvements in the quality of service; encourage the merger of small consulting companies to match larger foreign companies (49.5%); enhance cost effectiveness for local clients (47.6%); and, encourage Malaysian consultants to venture internationally (46.6%).

4.2.6 Strategies to Mitigate the Negative Impact of Liberalisation

Table 11 presents the frequency of results and ranking on the strategies for liberalisation of engineering services in Malaysia. The results show that in order of ranking, there are three most important strategies which are all ranked 1 (92.2%). They are: amendment of Engineers Act should address and safeguard the interest of Malaysian engineering consultants; in order to face liberalisation, Malaysian consultants need capacity building in the variety areas of expertise ;and skills/ competencies. The results and discussion above show that it is important that the interest of Malaysian engineering consultants be addressed and safeguarded through the amendment to the Engineers Act. Besides this, other strategies are capacity building in the three areas of knowledge, skills/competencies and technology, which show that these factors are important for competing with the foreign consultants especially with regard to the standard of engineering services. It has also been acknowledged that Malaysian consultants need capacity building in the area of finance and technology transfer since liberalisation increases business competition in the market.

TABLE 11: STRATEGIES FOR LIBERALISATION OF ENGINEERING SERVICES IN MALAYSIA

Statement		Frequency	Percent (%)	Total (%)	Rank
Amendment of Engineers Act should address and safeguard the interest of Malaysian engineering consultants	Strongly agree	75	72.8	92.2	1
	Agree	20	19.4		

Introduction of competency assessment on local by-laws for **ALL** foreign and local consultants in order to give advantage to Malaysian engineering consultants	Strongly agree	45	43.7	75.7	4
	Agree	33	32.0		
In order to face liberalisation, Malaysian consultants need **capacity building** in the following areas:					
a) Manpower	Strongly agree	29	28.2	75.7	4
	Agree	49	47.6		
b) Knowledge	Strongly agree	37	35.9	92.2	1
	Agree	58	56.3		
c) Skills/ competencies	Strongly agree	37	35.9	92.2	1
	Agree	58	56.3		
d) Technology	Strongly agree	33	32.0	89.3	2
	Agree	59	57.3		
e) Finance	Strongly agree	31	30.1	79.6	3
	Agree	51	49.5		
To allow foreign consultants, up to **100% equity ownership** of local consulting companies to **encourage growth** of the engineering services.	Strongly agree	2	1.9	7.8	5
	Agree	6	5.8		

5. Conclusions and Policy Recommendations

Malaysia has a long way to go to be a regional hub for services and a world-class service provider. We have seen from the discussion in this paper that Malaysia's service sector is still highly protected. In most cases, barriers result from restrictive domestic regulations that hinder the development and competitiveness of the domestic service industry. Ishido and Fukunaga (2012) assert that to maximize the gains from trade liberalisation, domestic regulatory reforms are vital and must be supported by complementary policies.

Hence, it is pertinent that Malaysia undertakes comprehensive domestic regulatory reforms and enhance complementary socio-economic elements such as improving education and skills training, tackle the brain drain issue and enhance institutional governance – all factors that are important drivers of growth and competitiveness of the services industry. Regulatory reforms can only be effective if the policy-makers and stakeholders have in-depth understanding of the industry at the sectoral and disaggregated levels, and a clear knowledge of the industry's competitive strengths and weaknesses, and a clearer sense of the market failures warranting informed policy interventions. Cali et al. (2008) noted that appropriate complementary policies would vary from sector to sector; thus careful consideration is needed in drawing up and executing required policies. The challenge for domestic policy-makers will be to identify sector-specific reform road maps and address the knowledge gaps. It is also important to draw up strategies to minimize the impact of liberalisation on local services providers. In the case of engineering services, some of the recommendations that were gathered from the survey and interviews are as follows:

i) *The amendment of Engineers Act* should address and safeguard the interest of Malaysian engineering consultants; and

ii) Malaysian consultants need *capacity building* in the areas of *knowledge and skills/competencies, technology, finance and manpower.*

In addition, the regulatory bodies would face new challenges in monitoring and ensuring the standards of foreign engineers that come with different background, experience and standards. Hence, the regulatory bodies must be prepared to face these developments by improving the administrative system in the country and by heightening cooperation with similar regulatory bodies in partner countries.

Reciprocal liberalisation measures undertaken by trading member nations imply that Malaysian engineering consultants and firms would have better market access abroad. It is also important to recognise that easy movement of professionals and skilled workers do provide opportunities for Malaysia to fill skill-gaps in specific areas. However, Malaysian engineering services providers are still at an infant stage in terms of international business ventures. Institutional support both in terms of capacities and capabilities by merging the expertise and professionalism might assist local players to become successful global players. Lack of international accreditation in quality standards, and of capacities and capabilities of financial management marketing and other resources, currently work against the Malaysian professional service providers' ability to compete internationally in a significant way (BEM, 2000).

Nevertheless, Malaysian consultant engineers and firms have made inroads in foreign market and have the capacity to export their services in specific niche engineering areas including large scale infrastructure projects such as highways, ports, airports, water supplies, and oil and gas facilities. Further research on the actual impact of implementation of the government's policy to liberalise services, particularly engineering services, would be beneficial. It could also focus on the progress of the strategies and recommendations made in this research and the effectiveness of the initiatives taken by the various parties concerned. The research would be ideally conducted after a few years from the implementation of liberalisation considering the duration of projects completed. It would then be more practical to gauge the response and impact of Malaysian engineering service provider globalising and venturing their services outside of Malaysia.

A higher level of integration and liberalisation may also be achieved through closer collaborations between ASEAN partner countries and dialogue partners. Further liberalisation of Mode 3 and Mode 4 market access within ASEAN and FTA partner countries would enhance the availability of technology, expertise and capital and this is a stepping stone for Malaysian professionals to later compete with more established and competitive professionals from developed nations. Effective implementation of liberalisation commitments, however, requires compliance and reforms of domestic regulations, which can only be successfully implemented if there is a strong political will, effective inter-agency coordination and decisive leadership in politics and business circles. But the scenario on the ground is to the contrary.

BOOK REVIEW

A History of Law and Lawyers in the GATT/WTO: The Development of the Rule of Law in the Multilateral Trading System

(Edited by Gabrielle Marceau)

(Cambridge: Cambridge University Press, 2015. ISBN 978-1-107-08523-7)

Shailja Singh*

"The life of the law has not been logic; it has been experience."

- Oliver Wendell Holmes Jr.

The international trading system has undergone a major transformation since the second half of the twentieth century. What began as an interim arrangement with the General Agreement on Tariffs and Trade (GATT) in 1948 has now metamorphosed into a full-fledged multilateral regime embodied in the World Trade Organisation (WTO). While there is no dearth of scholarly work tracing this development, the role that law and lawyers have played in the entire process has been overlooked to a large extent, especially in the pre-WTO era. Evolving from a 2012 conference celebrating 30 years of the WTO's Legal Affairs Division, Gabrielle Marceau from the WTO Secretariat brings out a unique collection of 43 essays from 44 current and former GATT and WTO staff, as well as Appellate Body Members. These essays, grouped chronologically, are a personal, anecdotal, legal and, at times, a philosophical account of the authors' experiences during their time at the GATT/WTO. The book, divided into four parts, and tied together by a comprehensive introduction by Marceau, Porges and Baker makes for a highly invigorating, nostalgic and refreshing read.

The book touches upon a number of issues, viz. – the institutional changes in the GATT/WTO over the years; the evolution of the dispute settlement mechanism and other related aspects like panel composition, expert consultation; the role of the Dispute Settlement Body; the various non-

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dispute related work performed by lawyers, especially relating to negotiations; establishment of the Appellate Body (AB); publication of the Analytical Index; interaction of the GATT/WTO law with the larger body of public international law; and the accession procedures, to name a few. It is beyond the scope of this review to look into each of these issues in detail, and I will, hence, only attempt to draw attention to the broad theme of the book.

The first part of the book traces the GATT from 1948-1992, which is perhaps the least documented period of the history of law and lawyers, meriting a slightly more detailed discussion here. With many of the GATT's negotiators being "ambivalent or even hostile to attempts to 'judicialize' international trade"[1], it is no surprise that the GATT had no dedicated legal team or formal guidance on how disputes were to be resolved in its early years. This despite the first two heads of the GATT Secretariat being, in fact, lawyers by training. Diplomacy or pragmatism was preferred over an overtly legalised system. Roessler provides a frank criticism of the so called "management" approach which shrouded trade issues into secrecy with no mechanism to ensure that decisions were made taking into account interest of the public at large.[2] With increasing complexity of trade disputes, a series of panel decisions considered legally unsound, and the growth in the size and agenda of the organisation - the European Economic Community (**EEC**), which had traditionally opposed the creation of a legal office, softened its position. These factors together contributed to the creation of an Office of Legal Affairs, GATT in 1981 - marking an important milestone in the history of GATT. Contributions by Tuinen, Lindén, Roessler and Petersmann, who played a pioneering role in this phase, provide a window into the struggles faced by the early lawyers of GATT.[3]

The second part of the book looks into the legal work relating to the entry into force of the WTO from 1993-1995. The lawyers during this period had to tackle a number of interesting issues besides disputes, especially pertaining to the transition from the GATT to the WTO[4] and the various Uruguay Round negotiations, including the Understanding on Rules and Procedures Governing the Settlement of Disputes (DSU). The third part of the book captures the changing legal character of the multilateral trading system from 1996 till date. The first years of the WTO dispute settlement were instrumental in putting the DSU into operation, establishing the quasi judicial panel system that we are familiar with today, along with launching the brand-new Appellate Body. It is striking that despite the establishment of a Legal Affairs Division and as late as in 1999 – almost 50 years since the inception of GATT – the clash between the "rule(s) of lawyers and the ethos of diplomats" had not completely disappeared from the WTO, with LAD lawyers being advised to stick to helping panels and "nothing else".[5]

A number of contributions by former and current Appellate Body **(AB)** Members and Debra Steger, the first Director of the AB Secretariat, reflect upon some of the daunting challenges that the newly established Appellate Body faced after its inception, primary among them being - building reputation, legitimacy and respect for the newly established body. Not all authors agree on every issue, and it is this diversity of views that makes the book extremely engaging. For

1 Marceau, Porges and Baker, Chapter 1, 7.
2 Roessler, Chapter 11, 163.
3 See Tuinen, Chapter 7; Roessler, Chapter 11; Linden, Chapter 8. Petersmann, Chapter 13.
4 See Porges, Chapter17.
5 Kuijiper, Chapter 26, 377.

instance, an interesting aspect of AB procedures – collegiality through "exchange of views" that takes place among all seven members in every appeal has been considered to be a contributing factor in maintaining the consistency and coherence of the AB decisions by Steger[6] and Lacarto-Muró[7]. Matsushita, on the other hand, suggests that given the costs involved in the process in terms of time and financial resources, the DSU should be amended to make the views of the AB Members who are not part of the Division deciding a particular dispute more relevant.[8]

The fourth and last part of the book looks into new challenges and opportunities that lie ahead for lawyers at the WTO. Innovative suggestions for tackling the increasing workload of the WTO panels and Appellate Body is one of the themes touched upon in this part.

To sum up, the book is a rare gem for those interested in the multilateral trading system, especially law students and legal professionals working in the area. It lucidly captures how the presence of lawyers, was gradually accepted at GATT, "first as unavoidable, then as useful, and finally as indispensable"[9]. By addressing a wide range of issues through insider's reflections, the book provides a rare glimpse into the GATT/WTO as an organisation, together with the people who make it – without being self-laudatory. The multitude of authors, each with his/her own distinct style of writing - sharing their personal history along with the organisations' – add a certain charm to the book, making it extremely enjoyable and a delight to read. It is also extremely heartening to note the important role women have played in the history of GATT/WTO at various legal positions, as captured in their contributions to this book. Despite the diversity in experiences, style, and the period of association of the authors with GATT/WTO, a sense of camaraderie between them is palpable in the writings. But what, perhaps, leaves a lasting impression on the reader is the commitment, effort and contribution of the authors in ensuring a rule-based multilateral trading system.

6 Steger, Chapter 31, 457.
7 Lacarto-Muró, Chapter 33, 479.
8 Matsushita, Chapter 37, 552-553.
9 Roessler, Chapter 11, 169.