Industrial policy tools challenged at the WTO*

Verónica Fossati
María Florencia Iborra
Adriana Molina**

Abstract

Many of the public policy tools that had been used by currently industrialized countries were restricted or even prohibited after the creation of the General Agreement on Tariffs and Trade and, even more so, after the emergence of the World Trade Organization in 1994. In this context, several instruments, used by developing countries to achieve industrialization, have been challenged by their peers within the framework of this multilateral body. This work will seek to identify them with a view to detect specific aspects which, if flexibilized, would allow these countries to recover some of these tools.

To that aim, surveys have been conducted of the complaints presented in the minutes of specific WTO's councils and committees and of the cases brought before the Dispute Settlement Body. Results indicate that most of the questioning is made by industrialized countries against a small number of developing countries, and it mostly relates to domestic or export subsidies, import licensing and local content requirements.

*This work is a by-product of a larger initiative developed by the CEI under the name of "*Friends of Industrialization*". See CEI (2015).

** The authors specially acknowledge Federico Lavopa, as the creator and promoter of the idea for this work.

CEI Centre for International Economy

Ministry of Foreign Affairs and Worship
Argentine Republic

CEI Centre for International Economy

Industrial policy tools challenged at the WTO

Verónica Fossati, María Florencia Iborra and Adriana Molina

June 2016

1. Introduction

Virtually all currently developed countries made intensive use of different public policy tools in their early stages of industrialization, which include from import tariffs and domestic or export subsidies, to performance requirements for investment and weak regimes of intellectual property rights protection.

After the second post-war period, many of these policy tools started being removed from the options available to the governments of developing countries. An important number of these limitations appeared with the creation of the General Agreement on Tariffs and Trade (GATT) in 1947. However, major restrictions on the use of industrial policy have been brought by its successor, the World Trade Organization (WTO), established in 1994.

As a result of the adoption of the rules of the Uruguay Round, countries have lost a significant number of public policy tools and their scope of action has been limited in others. In general, there is consensus in the literature that the most burdensome rules in this regard were the Agreement on Subsidies and Countervailing Measures, the Agreement on Trade-Related Investment Measures and the Agreement on Trade-Related Aspects of Intellectual Property Rights.

However, with the new millennium –and particularly since the 2008 global financial crisis – the paradigm in which the WTO was conceived started being increasingly objected.[1] From the theoretical standpoint, there is a growing challenge to the neoliberal conceptual framework; whereas from the practical viewpoint, numerous examples of state intervention in the markets can be identified, both in developed and developing countries[2].

The revival of the industrial policy as a central tool for development and the increase in the relative weight of emerging economies in international negotiations create an appropriate context to seek the incorporation of discussions relating to the recovery of these policy instruments into the WTO agenda. However, it should be borne in mind that this favourable context could change as a result of the growing proliferation of North-South trade agreements,

[1] The current WTO regulatory framework reflects a paradigm of economic development –the neoliberal paradigm– and a world power structure –the unipolar structure– which begin to show signs of exhaustion.

[2] The proof of this is in the reports that the WTO has been preparing since 2009 on the evolution of trade measures as a result of the international financial crisis and the Trade Policy Reviews of its members.

the possible signing of mega-regional agreements[3], and the emergence of a new theoretical framework –based on the concept of global value chains– which stands for the deepening of trade liberalization and market deregulation.

The main objective of this work is to recognize the public policy tools that developing countries use –or intend to use– in the pursuit of their industrialization and that are challenged by their peers in the WTO framework. This is a way to contribute to the identification of specific aspects in the package of multilateral trade rules, in which a certain flexibilization would allow developing economies to recover industrial policy tools which are now prohibited or limited.

To that aim, two surveys have been carried out: the first one concerns the complaints presented in the minutes of certain WTO's councils and committees, and the second one relates to the cases filed before the Dispute Settlement Body (DSB). This will help identify and classify the industrial policy instruments that face major impediments within the scope of this multilateral body.

The work is organized as follows. The second section summarises the literature that documents the use of industrial policies by currently developed countries, followed by a brief description of the new rules that have appeared since the creation of the WTO and a review of the debate on the reduced space left to developing countries for industrial policy. Section 3 describes the methodology used to carry out the surveys and the following section presents the main results obtained. Lastly, the final considerations are exposed.

2. Literature Review

2.1. Historical background

The specialized literature provides in-depth documentation of how the vast majority of currently developed countries and of those considered "late-industrializing" countries actively used trade and industrial policies to promote –and not just to protect— their infant industries during their early stages of industrialization.

The best known examples are those of the United Kingdom (between 1721 and 1846) and of the United States (from 1820 to the aftermath of World War II). These countries, which today are fervent advocates of free trade, applied aggressive industrial promotion strategies, based mainly on high tariff protection and the granting of subsidies (Chang, 2002 and 2005).

In turn, countries like Germany, France and Sweden –with lower average tariff rates– made intensive use of other types of interventionist policies to promote strategic industries, such as the establishment of state-owned "model factories", government financing of risky investment, support for research and development (R&D) and promotion of public-private

[3] For example, the Trans-Atlantic Free Trade Area between the United States and the European Union or the Trans-Pacific Partnership Agreement (Australia, Brunei, Canada, Chile, United States, Japan, Malaysia, Mexico, New Zealand, Peru, Singapore and Vietnam).

cooperation. Switzerland and the Netherlands, on the other hand, profited from the absence of intellectual property protection laws to reach the highest level of technological knowledge of the time (Chang, 2002).

With the establishment of the General Agreement on Tariffs and Trade in 1947, many of these policy tools began to be phased out of the options available to governments. However, despite limiting border restrictions (basically, import tariffs and tariff rate quotas), the GATT preserved in the hands of States an important menu of options for intervention in the pursuit of industrialization.

In this context, both Japan and the "late-industrializing" countries –including South Korea, Taiwan, and Singapore[4]– were able to take advantage of the policy tools available to achieve their goals of economic development. Among other measures, these economies gradually and selectively freed their markets, granted subsidies, regulated foreign direct investment (FDI) and applied policies related to human resources training and technological learning (Chang, 2002)[5].

In most of these countries, the State intervened by granting subsidies, both for production and exports, to stimulate the economic activity. A distinctive feature, particularly in the case of South Korea, was that the government exerted discipline on the recipients of subsidies and established "reciprocal control mechanisms" to ensure that the aid granted to enterprises was used productively (Amsden, 1987). Therefore, performance standards were imposed on private companies in exchange of subsidies, usually related to workers' training, R&D investment, foreign technical assistance, and quantities to be produced and, above all, to be exported.

This group of countries also resorted to the limitation and regulation of foreign investment to ensure that they contribute to the national long-term development[6]. Among the most commonly used measures there stand out the restrictions on the entry in specific sectors (prohibiting the entry or allowing it only on certain conditions) and the use of informal mechanisms to prevent hostile acquisitions and takeovers[7] (for example, through the presence of state-owned companies or government ownership of shares in key-sector companies, or the regulation of corporate governance). In the cases where the entry of FDI was allowed, numerous performance requirements[8] were established for balance of payment purposes or

[4] These tools were also used by the countries included in the "second wave" of industrialization (Indonesia, Malaysia, Thailand) and by others, such as Brazil and Mexico.

[5] Singh (1996) presents a list of industrial policy measures used by countries in East Asia. Many examples can be found in Kumar and Gallagher (2007).

[6] In the WTO (2002), many examples can be found of measures regarding trade-related investment, implemented both by developed and developing countries.

[7] It consists in the takeover of a company through the purchase of the majority share package.

[8] "Performance requirements" or "result-related provisions" are generally used to influence the behaviour of investors. They can consist of conditions for the establishment and/or operation of investment or demands that the investor must meet to receive subsidies or other incentives. Among them, there stand out: i) local content requirements (which require manufactured products to contain a

to ensure local businesspeople acquire advanced technologies and business skills from the interaction with foreign investors, either through local content requirements or technology transfer obligations (Chang and Green 2003).

Moreover, to narrow the technological gap with developed countries, foreign know-how was used: the ways to acquire technology changed from copying and imitating, to investing in foreign licenses and technical support (Amsden, 1987). For a long period of time, many countries allowed their companies not only to copy technologies developed abroad, but even to patent them under their name –we need only remember that Japan, Taiwan and South Korea were known at the time as "the counterfeit capitals" (Wade, 2003).

Other instruments commonly used by this group of countries were the differential exchange rates and interest rates and the selective liberalization of imports.

Thus, the many success stories of economic development taking place over the last 50 years show that infant-industry protection was vital during the early stages of industrialization. However, as it will be described in the next section, most of these tools were prohibited or severely limited with the establishment of the WTO in 1994. Resorting to the renowned metaphor of Friedrich List –which was later used as the title of one of the most cited books in the matter of economic development (Chang, 2002)– it could be argued that once developed countries climbed up the development ladder, they kicked it away so others could no longer go up.

2.2. Limitations on industrial policy tools

Before the Uruguay Round, multilateral trade rules were essentially limited to tariffs for non-agricultural products and some other border measures. Since the creation of the WTO, the multilateral trading system has evolved, leading to an increasing limitation of the permitted commercial behaviour, especially by incorporating agreements that regulate the measures implemented "behind the border" and extend beyond the trade in goods.

These rules apply uniformly to all members, regardless of their level of development. While there are some exceptions given to developing countries, after the Uruguay Round, provisions on Special and Differential Treatment (S&DT) were basically reduced to the granting of longer transition periods for the full application of rules and commitments, particularly to the group of least-developed countries (LDC)[9].

In general, consensus is observed in the specialized literature, that the rules that most

certain quantity of materials of domestic production); (ii) export performance requirements (which require the export of part of the production); and (iii) trade-balancing requirements (which require the use of export revenues for the payment of imports).

[9] In the GATT era, the S&DT focused on the needs of development of members, so they were given greater flexibility to implement agreements or policies needed to stimulate supply and competitiveness of domestic firms (Hamwey, 2006).

restricted the actions of developing countries were the Agreement on Subsidies and Countervailing Measures, the Agreement on Trade-Related Investment Measures and the Agreement on Trade-Related Aspects of Intellectual Property Rights. There follows a detailed description of the main limitations to policy space imposed by each agreement.

2.2.1. Agreement on Subsidies and Countervailing Measures

After the creation of the WTO, with the Agreement on Subsidies and Countervailing Measures (SCM Agreement), the use of subsidies was strongly limited. This agreement sets forth important restrictions on subsidies for the production of non-agricultural goods[10], among which there stands out the general prohibition on the use of export subsidies and on subsidies related to local content requirements[11]. The SCM Agreement also establishes a set of permitted subsidies, related to the promotion of R&D and higher education activities, assistance to disadvantaged regions and support for the adaptation of facilities to new official environmental requirements[12].

It is worth highlighting that these permitted subsidies are, basically, those used by industrialized countries. Conversely, those subsidies which were successfully used by late-industrializing countries –such as export or production subsidies tied to performance requirements– that could help developing countries to diversify and promote their industries are prohibited or actionable.

On the other hand, the agreement regulates the use of countervailing measures where there is injury to the domestic industry as a result of production subsidies in third countries. In addition, the scope of the SCM Agreement extends to subsidies granted by sub-national governments and public enterprises.

The strict regulation of subsidies for the production of non-agricultural goods clearly contrasts with the historical evidence described in the previous section: despite the agreements signed in the Tokyo Round, both developed countries and those of recent industrialization actively applied these tools to develop their industries. At the same time, important differences can be seen in the treatment received by subsidies in the agricultural sector, where disciplines are much more permissive. Developed countries constantly grant large sums of money to their

[10] The SCM Agreement regulations do not apply to the agricultural or services trade.
[11] Countries with a per capita income of less than USD 1,000 are exempt from this prohibition.
[12] The SCM Agreement originally set forth three categories of subsidies: i) prohibited, ii) actionable and iii) non-actionable. The provisions on non-actionable subsidies were in force for 5 years. Their application could have been extended for an additional period by consensus in the Committee on Subsidies and Countervailing Measures, but as such agreement was not reached, the provisions expired. Since the year 2000, the subsidies included in this category became actionable (i.e. they can be challenged if shown to cause adverse effects). Some authors argue that the current status of this type of subsidies is not clear, since the review to determine whether their application should be extended was not carried out (Bosch, 2009). Others argue that, given the political significance of this kind of subsidies in some countries, there is an implicit agreement of moderation when it comes to challenging them (UNDP, 2003).

agricultural producers, through instruments such as the EU Common Agricultural Policy or the US Farm Bill, and distort international raw material markets by encouraging commodities trade at prices below production costs.

2.2.2. Agreement on Trade-Related Investment Measures

As detailed in section 2.1, in the GATT era several late-industrializing countries resorted to the limitation and regulation of FDI to achieve their economic development goals. However, since the implementation of the Agreement on Trade-Related Investment Measures (TRIMs), the space to generate positive ties and spill-over effects has been greatly reduced.

Through this agreement, WTO member countries are required to eliminate trade-related performance requirements (this includes local content, trade-balancing and export performance requirements) and prohibits the regulation of the activities of multinational corporations regarding the purchase of domestic inputs. Members are required to give a "no less favourable treatment" to FDI than that accorded to domestic capital investments. Countries that try to establish this type of requirements can be brought before the WTO DSB.

In this way, the TRIMs Agreement also restricts the ability of governments to condition the support given to production to the achievement of export goals, an instrument which was widely used by East Asian countries to monitor companies' performance.

Among the instruments which remain compatible with WTO rules are those measures that do not impose quantitative restrictions and that do not discriminate between domestic and foreign investors, including joint venture requirements[13] or requirements for minimum participation of domestic capital, technology transfer demands or local R&D requirements, and provisions concerning the minimum percentage of domestic personnel recruited for work of a technological nature. However, in practice, these measures can only be implemented by countries that have considerable influence on foreign investors (UNCTAD, 2006).

Also, in the General Agreement on Trade in Services (GATS) a series of limitations on the possibility to regulate FDI in different service sectors were included[14]. Even though this agreement extends the principles of most-favoured-nation and national treatment for trade in services and seeks to increase market access, it contains a broader exception clause than the other agreements. Under this clause, the sectors and requirements that wish to be excluded from liberalization commitments can be listed[15]. For example, performance requirements

[13] Long-term joint investment trade agreement between two or more parties, aimed at carrying out a specific task (e.g., developing a product or entering a new market). Each party is responsible for the profits, losses and costs related to it. However, the company is an entity of its own, independent from the other trade interests of the parties.

[14] While the GATS focuses on multilateral rules in the field of trade in services, as it includes the establishment of companies in foreign countries for the provision of services, the agreement is also an agreement on investment.

[15] These lists are referred to as "positive lists" of liberalization.

could still be applied, but only in those sectors included in the positive lists of liberalization.

Given that ensuring the provision of public services is a primary responsibility of governments, the GATS constitutes a significant intrusion in the domestic economic policy (Wade, 2003). It should also be noted that this situation has been strongly aggravated by the emergence of Bilateral Investment Treaties (BITs), which further limit the possibility to regulate foreign investment.

2.2.3. Agreement on Trade-Related Aspects of Intellectual Property Rights

The disciplines related to intellectual property protection were established in the Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS), which entered into force in 1996. The agreement includes regulations for the entire realm of intellectual property rights: patents, copyright, trademarks, industrial design, integrated circuits layout design, geographic indications and secret data. It sets minimum protection standards to be granted by WTO member countries, as well as the procedures that should be available to ensure compliance.

Patents are of particular interest for the industrialization objectives of developing economies. In this matter, the TRIPS Agreement sets, inter alia, restrictions on government capacity to deny patents for certain types of products or processes, a minimum term of 20 years for patents and limits to the flexibility of States regarding the use of products or technologies patented in their territory. These clauses have a noticeable impact on the possibilities of technological development of the least advanced economies, because they limit technology diffusion, native technological learning and development and they increase technology access costs[16].

The acquisition of knowledge subject to intellectual property rights has been one of the major determining factors of both early and late industrialization. Historical evidence shows that countries apply a relaxed intellectual property rights protection policy until they reach such level of development that the industrial sector becomes interested in the protection of these rights (Chang, 2002).

On the other hand, a significant asymmetry is seen in the design of the agreement, which mainly focuses on the establishment of incentives for innovation and knowledge creation –activities that occur primarily in industrialized countries–, whereas the conditions relating to technology transfer and technical cooperation –of crucial importance to developing countries– are based on the "goodwill" of the members and are vaguely formulated (UNCTAD, 2006).

[16] There is an unavoidable trade-off between providing incentives for the creation of knowledge and facilitating the use of such knowledge. Intellectual property rights protection can boost knowledge creation through incentives for innovation. In the absence of this type of protection, inventions may take on the character of public goods and be subject to collective action problems resulting in under provision. But at the same time, intellectual property protection restricts knowledge dissemination. This limited access to knowledge can, in turn, rebound negatively on future innovations, as the creation of knowledge is an incremental process (Shadlen, 2005).

The governments of developing countries, however, still hold some discretion in the application of intellectual property protection policies. Within the options available, there stands out the possibility to grant mandatory licenses[17] under certain conditions. This is a very important exception when it comes to public health, but it has also been used with objectives of industrialization, for example through local exploitation requirements, as it has been done by Brazil and India[18]. However, there are discrepancies regarding whether the TRIPS Agreement allows countries to impose mandatory licenses in the absence of local production[19] (Shadlen, 2005), which may deter the use of these mechanisms by industrializing economies.

A matter that has been recurrently raised is how to ensure that population access to pharmaceutical products and medical technologies is not hampered by patent protection systems –especially concerning least-developed countries– while maintaining incentives for R&D activities aimed at creating new drugs. For this purpose, in 2001 the WTO members signed a declaration (WTO, 2001) by which they agreed that the accord will not prevent members from adopting measures for public health protection. This document highlights that countries can make use of the flexibilities provided for in the agreement and that these flexibilities apply to all areas, not only to public health.

Despite the criticism aroused by this agreement, according to several authors (namely Wade, 2003; Shadlen, 2005; UNCTAD, 2006), the main threat to the use of intellectual property protection policy to reach objectives of development comes from trade agreements signed between developed and developing countries. Most of the flexibilities still in use in the multilateral system are lost there, through the imposition of "TRIPS-plus" requirements, as for example the establishment of restrictive conditions to resort to the use of compulsory licenses.

2.3. The debate on the space for industrial policy

A significant number of authors agree that the multilateral trade rules that have appeared since the creation of the WTO have reduced the margin that developing countries have to apply industrial policies. For example, Hamwey (2005) argues that the new exogenous restrictions imposed by the multilateral trade system have significantly reduced the space for policies available, especially in the case of developing countries. Similarly, Wade (2003) argues that the Agreements on Services, the TRIMs and the TRIPS do not only constitute a restriction to the space for development of countries, but also for their self-determination.

[17] Mandatory or compulsory licenses are permits that can be granted by a government to produce a product or use a procedure that is patented, without the consent of the patent holder. The flexibility to resort to this tool was almost unlimited until the adoption of the TRIPS that imposed a series of disciplines and conditions for its use.

[18] The concept of local exploitation refers to the condition imposed by some countries to patent holders, that their patented product or procedure must be used or produced in the country that granted the patent. This condition has the effect of forcing foreign patent holders to locate production facilities in the patent-granting country.

[19] As it arises from the dispute raised by the US against Brazil (DS199). See section 4.2.

UNCTAD (2006) also states that the expansion of the multilateral regime has weakened the influence of domestic policy instruments on national objectives. The same reasoning is held in the latest Trade and Development Report (UNCTAD, 2014a), which highlights that the WTO members had to give up measures which had played an important role in successful development processes in the past, such as the use of subsidies, the establishment of performance requirements on foreign investors, and the use of reverse engineering and counterfeiting as ways to access new technologies.

Bora *et al*. (2000) conclude that the new disciplines reduced industrial promotion tools to generic instruments, which has an effect of "levelling the playing field" for international trade, but does not allow countries to develop certain industries through specific policy tools. Kumar and Gallagher (2007) add that besides limiting a valuable space for policy, the Uruguay Round Agreements failed to address many of the existing distortions in developed countries, for example, those present in the agricultural sector or tariff peaks and tariff escalation in the field of industrial products.

Di Caprio and Gallagher (2006) point out that some instruments have remained in use despite being prohibited. This statement is confirmed by the claims presented to the Dispute Settlement Body, where there are many complaints related to the control of imports and to export and production subsidies. In general, late-industrializing countries tried to justify the use of these prohibited measures through S&DT provisions or by "reclassifying" their industrial policies, so that they enjoy the protection of instruments consistent with the WTO (e.g., notifying the exceptions).

At the same time, most authors recognize that, despite these greater restrictions, the members hold some flexibility for the implementation of policies that seek industrialization. In this sense, Lall (2003) stresses that WTO rules do not prohibit all selective interventions, but only those which affect trade. It is possible to implement measures aimed at promoting industries that offer a particular contribution to national development strategies, provided the incentives do not relate to exports, or discriminate according to the origin of the capital. Also, it is preferable that stimuli are aimed at the field of services or the environment (Padilla Pérez and Alvarado Vargas, 2014).

Some of the areas in which governments can still operate include the following: i) tariffs, since many countries hold unbound lines and there are differences between applied and bound tariffs[20]; (ii) the use of certain types of subsidies and standards, basically to promote R&D and innovation activities; (iii) the granting of export credits; (iv) the possibility to impose specific entry conditions by sector for FDI and to use –although with limitations– the mechanisms of

[20] In addition, members may apply safeguards and other mechanisms to protect specific industries threatened by an increase in imports, or the entire economy if imports are on a level that threatens the balance of payments. There is also the possibility to protect individual industries from unfair trade practices.

mandatory licenses and parallel imports[21] (UNCTAD, 2014a). In addition, it is still possible to promote exports and attract investment, whether by means of passive policies (the promotion of comparative advantages or the establishment of an institutional framework that will make it easier for FDI to flow in) or of active policies (the creation of bodies for the promotion and attraction of investment, fiscal and financial incentives). Other authors also praise the positive role that can be produced by policies focused on generating a favourable businesses environment and those that seek to strengthen market competition (Padilla Pérez and Alvarado Vargas, 2014).

Taking into account that the new WTO rules would leave wide space for countries to promote the development of their manufacturing sectors and their exports and that there still is certain flexibility concerning the application of tariffs, Amsden (2003) considers that "the bark of the WTO is stronger than its bite". However, the author acknowledges that governments are more restricted to apply "reciprocal control mechanisms", which are key on the model used by several late-industrializing countries, but she argues that there would be no inconvenience in continuing to use other types of performance standards as those tied to the professionalization of management practices, the increase in capacity-building or the generation of assets based on knowledge specific to a company, or those related to the promotion of a country's strategic priorities.

However, as Bosch (2009) highlights, many of the permitted tools –especially subsidies– are not available to all developing countries, but only to those with a consolidated industrialization level and that are in a stage of high-tech industrial development. In this sense, Singh (1996) says that the impact of the Uruguay Round Agreements largely depends on the level of development of each country: the restrictions to policy space are much more onerous for those countries lagging behind –regardless of the special concessions they may be granted–, while those that are technically and industrially more advanced can make better use of the space available to try to follow the example of the Asian Tigers. In turn, Bora *et al*. (2000) argue that the gaps in the WTO Agreements that would allow developing countries to continue using subsidies and other instruments to promote their industrial policy objectives constitute a double-edged weapon, since the same opportunities are available to industrialized countries. Therefore, developing countries are unable to win comparative advantages in the face of economies that became developed with the use of these policy tools.

It is also important to take into account that many authors point out that greater policy space restrictions are not the result of multilateral trading system rules, but of the signing of trade agreements and investment treaties between developed and developing countries, since most of them consider the obligations of the Uruguay Round Agreements as mere starting points and incorporate much more restrictive provisions than those imposed by the WTO (the so-called "WTO plus") or even add topics not covered by those multilateral agreements (UNCTAD, 2014a; Wade, 2003, among others).

[21] Parallel imports are a mechanism by which products sold by the patent holder in one country are imported into another country without the holder's approval. Not all governments allow this practice.

Amsden and Hikino (2000), in turn, consider that the more coercive aspect of the new economic world order is not a result of formal legal restrictions established by the WTO rules, but of the informal political pressure exerted by developed countries on emerging economies so that they open their markets.

Lall (2003) considers all these limitations, added to the existing pressure for a greater liberalization, threaten with freezing the comparative advantages in areas where capabilities already existed at the time of liberalization, hence negatively affecting the perspectives for countries with lower level of development. Facing this scenario, experts recommend recovering the policy space lost through negotiation efforts of new and more effective S&DT provisions or general rules that take into account the countries' different level of development.

Conversely, Evans (2005) suggests that the limitations imposed by multilateral trading system rules have served to isolate States from irrational excesses that have brought about the collapse of previous industrialization attempts, which led them towards a more intelligent industrial policy. Current rules would serve to encourage the governments of least-developed countries to implement development strategies based on capabilities and national innovation systems, which would allow a wider distribution of public investment and higher returns to ordinary citizens than those strategies that characterized the industrial policy in the past.

In the same line, Rodrik (2004) argues that what limits a sensible industrial policy today is not the tools available, but the will to do so. An "intelligent" industrial policy requires strategic cooperation between the public and private sectors that would make it easier to find the desirable areas and types of intervention to achieve economic development and industrialization. This process does not necessarily involve finding new products or processes, but discovering that a specific product –already established in international markets– can be competitively produced by the country.

3. Methodology

To identify and classify those industrial policy tools that developing countries tried or are trying to use, and that are challenged by their peers within the WTO framework, the following items were surveyed:

i) minutes of previously selected Councils and Committees; and

ii) cases brought before the DSB.

As the category "developing countries" covers a great number of economies with very dissimilar features, surveys focused in newly industrialized or industrializing countries. For this, an *ad hoc* definition based on that of "Emerging Industrialized Economies" (EIE) of UNIDO was

used[22]. For comparative purposes, the survey also included the remaining developing countries and those considered industrialized. The group of least-developed countries was not included. Annex 1 presents the list of countries included in each category.

The period under study spans from 1995 to 2013, inclusive.

Only those instruments concerning the trade in non-agricultural goods were analysed[23]. Therefore, the tools that affect trade in agricultural products or services were excluded from the analysis. Also, to narrow the universe under study and focus on the most frequently used mechanisms of industrialization, the instruments of trade defence, the sanitary and phytosanitary measures and the technical barriers to trade were not taken into consideration.

The measures were grouped according to a modified version of the classification of non-tariff barriers of UNCTAD (UNCTAD, 2013) which appears in Annex 2.

3.1. Survey of minutes in selected Councils and Committees

The first step was to identify and classify the industrial policy measures implemented by the newly industrialized or industrializing countries which were –or are being– challenged by other members. To this aim, the minutes of the meetings of the following WTO's Councils and Committees for the period 1995-2013 were surveyed:

• Goods Council:

- Committee on Market Access

- Committee on Subsidies and Countervailing Measures

-Committee on Import Licensing

- Committee on Trade-Related Investment Measures.

• General Council:

- Committee on Balance-of-Payments Restrictions

• Council for Trade-Related Aspects of Intellectual Property Rights

[22] Under UNIDO statistics, countries are classified into four categories according to their stage of industrial development: i) industrialized countries; ii) emerging industrialized economies; iii) other developing economies and iv) least-developed countries. Categories ii) and iii) make up the group of developing countries. The thresholds that separate each category depend on the following variables: per capita manufacturing value added (MVA), per capita GDP and share in the global MVA (Upadhyaya, 2013).

[23] Non-agricultural products are those which are not included in the definition of "agricultural product" in Annex 1 of the Uruguay Round Agriculture Agreement. It includes manufactured products (electronics, vehicles, machinery, textiles and clothing, leather articles, chemicals), fuels and products of the extractive industries, fish and fisheries and forestry products.

The information collected includes the challenged members and those who make the complaint, the agreements involved, the type of measure challenged and the relevant dates in each case. Also, in order to analyse the degree of "intensity" or reiteration of each complaint, the number of countries that challenged the same measure, the number of minutes in which they appeared and if they were treated or not in more than one committee was taken into account.

The mechanism followed to select the cases consists in reviewing each of the minutes, taking into consideration those measures adopted by the different member countries, which were challenged because of their apparent lack of compliance with the WTO rules –regardless of the validity of the complaint–. This includes both the measures reported by the countries themselves and those measures that third countries point that should have been announced, without regard to their subsequent referral or not to the DSB. However, it only adheres to measures effectively applied and reported by official sources, without considering the countries' presumed intentions, as suggested by UNCTAD (2014b).

On the other hand, the analysis leaves out the transitional reviews of China (section 18 of China's Protocol of Accession) and the challenges related to both the procedures used by each country –in compliance or not with the rules– and the full or partial failure to notify certain measures. Questions and answers reports on measures challenged in the minutes are also not analysed, unless the document itself provides sufficient information, i.e.: countries involved and measures challenged. Only in this case, additional documents were used for an in-depth survey.

Regarding the Council on Trade-Related Aspects of Intellectual Property Rights, a different methodology was used, given that minutes do not provide the same information as the one present in the other cases. Since these relate to discussions that are more theoretical and concerned with regulations, those complaints that were filed with the DSB were selected as relevant cases. In only a few opportunities it was possible to identify other challenges to measures relevant to this study within the body of the minutes.

3.2. Cases brought before the DSB

To identify the industrial policy tools or related that were most challenged before the WTO Dispute Settlement Body, the WTO Dispute Settlement database prepared by the CEI was used[24]. This database records all disputes initiated at the WTO between 1995 and 2013 and has information about requests for consultation and the different stages of the dispute settlement process reached in each case. Each category describes both the cases[25] and the

[24] For more information on the preparation of the database, see Daicz *et al.* (2014).
[25] "Case" is understood as the number of times an agreement was invoked, regardless of the number of provisions included in it that have been mentioned.

complaints[26].

This database records 506 bilateral cases[27], of which 62% relate to disputes against developed countries, 31% to claims initiated against emerging industrialized economies, 7% correspond to the rest of the developing countries and there is only 1 case against least-developed economies.

For the purposes of this work, all those disputes in which some emerging industrialized economy was challenged in relation to trade in non-agricultural products were selected. In addition, in order to make comparisons, the claims against the remaining developing countries and against the industrialized economies were also surveyed. Information on complaining and responding members was included together with the agreements involved, the type of measure challenged, the stage of the dispute settlement process reached in each case and its outcome.

Disputes only relating to trade in agricultural products or services were not considered. Cases regarding trade remedies or protocols of accession for new members were also not included.

Of the total bilateral cases recorded in the database, 141 were selected which account for 28% of the total disputes recorded[28].

4. Results

4.1. Survey of minutes in selected Councils and Committees

Out of the total surveyed minutes, 169 cases were selected, almost 32% (54 cases) of which correspond to measures challenged to industrialized economies (IE), while 68% refers to measures objected to the group of developing countries (115 cases). However, within this group, 93% of the measures challenged affects emerging industrialized economies (EIE), and only 8 measures implemented by the other developing economies (ODE) are recorded.

Both in the case of developed countries and emerging industrialized economies, the Committee that recorded the highest number of measures challenged was that of Subsidies and Countervailing Measures, accounting for 48.1% and 42.1% of the total number of complaints for each group, respectively (Table 1). As regards industrializing countries, there follow in order of importance the challenges filed before the Committee on Import Licensing (21.5%) and the Committee on Trade-Related Investment Measures (18.7%), while in the case

[26] It refers to each of the specific provisions of an agreement that were invoked against a member country.
[27] If one request for consultations involves more than one complainant or more than one respondent, the case is computed as many times as pairs of parties there are.
[28] The cases selected account for 24% of those recorded in the database that affect industrialized economies, 44% of those that involve emerging industrialized countries, and 13% of those corresponding to other developing countries.

of developed countries there stands out the number of measures challenged before the Council for Trade-Related Aspects of Intellectual Property Rights (27.8%).

Table 1

Council / Committee-presented complaints, by group of countries challenged

Share of the total number of cases in each group

Council / Committee	Challenged Group			Total
	IE	EIE	ODE	
Subsidies and Countervailing Measures	48.1%	42.1%	25.0%	**43.2%**
Import Licensing	7.4%	21.5%	12.5%	**16.6%**
Trade-Related Investment Measures	3.7%	18.7%	0%	**13.0%**
Intellectual Property Rights	27.8%	6.5%	0%	**13.0%**
Market Access	11.1%	9.3%	37.5%	**11.2%**
Balance of Payments	1.9%	1.9%	25.0%	**3.0%**
Total	**100.0%**	**100.0%**	**100.0%**	**100.0%**

Source: CEI

Regarding the type of measure, the most frequently challenged measures against emerging industrialized economies were those related to exports (31.8%), followed by quantity control measures (22.4%) and domestic subsidies (18.7%) (Table 2). On the other hand, if we consider the number of times a single measure was objected in the different minutes of a single Committee, quantity control measures come before those related to exports. The same conclusion is drawn when analysing which was the most challenged policy instrument by most countries.

In the case of developed countries, almost 40% of objections refers to domestic subsidies, followed, in order of importance, by intellectual property rights protection measures (27.8%) and quantity control and export-related measures (11.1% each).

It is worth noting that there is a high recurrence of challenges to measures of a different nature that involve some kind of domestic content requirement. More than 25% of the total measures recorded are subject to some condition of domestic content, among which 80% corresponds to measures challenged against the EIE. The type of measure presented includes mostly subsidies (44.4%) and measures on exports (22.2%).

Table 2
Type of measure objected, by group of countries challenged
Share of the total number of cases in each group

Type of Measure	Challenged Group			Total
	IE	EIE	ODE	
Measures on Exports	11.1%	31.8%	25.0%	**24.9%**
Subsidies	38.9%	18.7%	0%	**24.3%**
Quantity Control Measures	11.1%	22.4%	25.0%	**18.9%**
Intellectual Property Rights Protection	27.8%	6.5%	0%	**13.0%**
Tariffs	5.6%	5.6%	37.5%	**7.1%**
Customs Procedures and Administrative Practices	1.9%	5.6%	0%	**4.1%**
Restrictions on Government Procurement	1.9%	5.6%	0%	**4.1%**
Charges and Taxes	1.9%	0.9%	12.5%	**1.8%**
Price Control Measures	0%	2.8%	0%	**1.8%**
Total	**100.0%**	**100.0%**	**100.0%**	**100.0%**

Source: CEI

On the other hand, 80.8% of complaints regarding measures implemented by the EIE were filed by developed countries (Table 3), mainly by the US and the EU or some of its members, followed, although by far, by Japan, Canada and Switzerland.

Table 3
Complaints filed, by complainant and challenged country group
Share of the total number of cases in each group

Complainant Group	Challenged Group			Total
	IE	EIE	ODE	
Industrialized Economies (IE)	77.6%	80.8%	70.0%	79.3%
Emerging Industrialized Economies (EIE)	20.7%	9.2%	10.0%	12.6%
Other Developing Economies (ODE)	1.7%	10.0%	20.0%	8.1%
Total	**100.0%**	**100.0%**	**100.0%**	**100.0%**

Source: CEI

It should be noted that some of the most challenged emerging industrialized economies are China, Brazil, India, Argentina, Indonesia and Malaysia, as shown in Table 4. On the other hand, if we count the number of times challenged measures are repeated in the minutes of a single committee, of a total of 237 references to EIE, India leads the ranking of the most challenged countries, followed by Brazil, Indonesia and China.

On the contrary, if we analyse each complaint individually, it should be noted that the most challenged emerging industrialized economy on a single case was Argentina (13 times), followed by Indonesia and Brazil (11 times each). In addition, the three most challenged cases by a greater number of countries correspond to Argentina and Ukraine. Finally, as for the challenges that have been presented in more than one Committee, there stand out those filed against India and Ukraine.

Table 4

Complaints against Emerging Industrialized Economies, by challenged country

Number of cases and share of the total

Challenged Country	Number of cases	% in total cases	Reiteration of the complaint *
China**	27	25.2%	33
Brazil	16	15.0%	44
India	14	13.1%	52
Indonesia	11	10.3%	44
Argentina	11	10.3%	27
Malaysia	10	9.3%	10
Mexico	6	5.6%	6
Ukraine	5	4.7%	8
Thailand	4	3.7%	6
South Africa	2	1.9%	6
Uruguay	1	0.9%	1
Total	**107**	**100.0%**	**237**

Note: *This includes the number of times each questioning is repeated in the minutes of each Committee

**It includes Chinese Taipei

Source: CEI

4.2. Cases brought before the DSB

If we analyse the 141 disputes selected from the Dispute Settlement Database, it can be seen that industrialized economies face 51% of the claims, while the remaining 49% correspond to disputes challenging some developing country (Table 5). Within this group, 94% of complaints are against industrializing economies, while the group of other developing countries is affected in only 4 cases.

Table 5

Cases selected, by respondent and complainant country group

Number of consultations initiated

Complainant Group	Respondent Group			
	IE	EIE	ODE	Total
Industrialized Economies (IE)	55	52	2	**109**
Emerging Industrialized Economies (EIE)	18	7	2	**27**
Other Developing Economies (ODE)	0	5	0	**5**
Total	**73**	**64**	**4**	**141**

Source: CEI

In turn, disputes that involve developing countries are centred in only 14 countries of the hundred countries that make up the group. In particular, more than 78% of the claims faced by emerging industrialized economies are concentrated in four countries: China, India, Brazil and Argentina (Table 6).

In addition, 81% of the cases filed against some emerging industrialized country are initiated

by developed countries, and more than three-quarters correspond to disputes initiated by the US or the EU.

All these factors could be evidencing the existence of a bias in the disputes presented before the DSB against those economies that have a greater productive potential.

Table 6

Cases against Emerging Industrialized Economies, by respondent and complainant country

Share of the total number of consultations initiated

Respondent Country	%	Complainant Country	Group	%
China	29.7%	United States	IE	34.4%
India	20.3%	EU	IE	28.1%
Brazil	17.2%	Japan	IE	7.8%
Argentina	10.9%	Mexico	EIE	7.8%
Indonesia	6.3%	Canada	IE	4.7%
Mexico	4.7%	Panama	ODE	4.7%
Colombia	4.7%	Chile	EIE	3.1%
Uruguay	1.6%	Guatemala	ODE	3.1%
Thailand	1.6%	Australia	IE	1.6%
Malaysia	1.6%	New Zealand	IE	1.6%
Philippines	1.6%	Singapore	IE	1.6%
Total	**100.0%**	Switzerland	IE	1.6%
		Total		**100.0%**

Source: CEI

The most frequently invoked agreement in the claims selected is the GATT 1994, regardless of the respondent country group (Table 7). This is because the cases selected involve trade in goods and this agreement constitutes the core of the rules governing such flows.

In the case of disputes in which a complaint is filed against some industrializing economy, it is worth noting that about half of the consultations initiated against the EIE invoking the GATT 1994, make reference to article III (national treatment) and/or XI (general elimination of quantitative restrictions), while about a quarter refers to article I (most-favoured nation treatment). Article III is often used to complain against the "discriminatory treatment" implied in local content requirements in production, while articles I and XI are generally used against policies that link quantities imported to exports made.

Among the main agreements invoked against the EIE there follow in order of importance: the SCM Agreement and the TRIMs Agreement –both closely related to the industrial development policies that these countries often need in order to achieve their industrialization goals, such as subsidies, performance requirements for foreign investors or local content requirements in production. There is also a significant number of challenges linked to the Import Licensing Agreement, which includes control measures of quantities imported, typically used as a tool to protect infant industries. However, despite its importance in the learning of and the access to new technologies, the TRIPS Agreement is invoked only in 4% of the disputes.

When the respondents are developed countries, the most frequently mentioned agreements after the GATT 1994 are those of Subsidies and Countervailing Measures and of Intellectual Property Rights Protection. The relatively low proportion of disputes that invoke the TRIMs Agreement (7.7%) can be explained due to the fact that developed countries have been replacing the specific performance requirements by others that produce similar effects, but in a manner consistent with the WTO rules. An example of this is the "screwdriver" regulations used by the EU to control the import of parts and components[29], or the use of rules of origin in preferential agreements to achieve minimum domestic content targets.

The results described usually remain unchanged if only the disputes that had a ruling by the Panel are analysed.

Table 7

Agreements invoked by respondent country group. Stages of Consultation and Panel

Share of the total cases selected

Agreement	Consultation				Panel			
	IE	EIE	ODE	Total	IE	EIE	ODE	Total
GATT 1994	29.1%	33.3%	75.0%	32.2%	30.8%	34.9%	-	32.9%
Subsidies and Countervailing Measures	23.9%	12.9%	0%	17.1%	30.8%	16.3%	-	23.2%
TRIMs Agreement	7.7%	12.3%	0%	10.3%	7.7%	18.6%	-	13.4%
Intellectual Property Rights	15.4%	4.1%	25.0%	8.9%	10.3%	9.3%	-	9.8%
Protocol of Accession	0%	9.9%	0%	5.8%	0%	14.0%	-	7.3%
Import Licensing Procedures	0.9%	8.8%	0%	5.5%	0%	2.3%	-	1.2%
Textiles and Clothing	6.8%	0.6%	0%	3.1%	7.7%	0%	-	3.7%
Customs Valuation	0.0%	2.9%	0%	1.7%	0%	0%	-	0.0%
Government Procurement	3.4%	0%	0%	1.4%	2.6%	0%	-	1.2%
Rules of Origin	2.6%	0.6%	0%	1.4%	2.6%	2.3%	-	2.4%
Other Agreements	10.3%	14.6%	0%	12.7%	7.7%	2.3%	-	4.9%
Total	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**-**	**100.0%**

Source: CEI

Similar conclusions are reached by analysing the policy measures implemented by the EIE which are most frequently subject to dispute: slightly over 40% of disputes involve subsidies, whether domestic or on exports, while quantity control measures are concentrated in a quarter of the complaints (Table 8). It is also worth noting, that in 25% of the disputes, the measures challenged include some type of requirement of local content or of trade balance compensation. In the case of subsidies in particular, this percentage amounts to 50%.

Regarding cases filed against developed countries, the measures subject to major disputes are internal subsidies, those related to intellectual property rights protection and to quantity control. Local content requirements are recorded in 7% of the disputes.

[29] These regulations consist in the application of an anti-dumping measure on an input, except that the product that contains said input complies with certain minimum local content requirements.

Table 8

Type of measure challenged, by respondent country group

Share of the total cases selected

Type of Measure	Respondent Group			
	IE	EIE	ODE	Total
Subsidies	34.2%	27.3%	0%	30.1%
Quantity Control Measures	13.2%	24.2%	0%	17.8%
Intellectual Property Rights Protection	25.0%	9.1%	25.0%	17.8%
Measures on Exports	7.9%	15.2%	25.0%	11.6%
Charges and Taxes	6.6%	10.6%	50.0%	9.6%
Customs Procedures and Administrative Practices	1.3%	9.1%	0%	4.8%
Restrictions on Government Procurement	6.6%	0%	0%	3.4%
Rules of Origin	3.9%	0%	0%	2.1%
Tariffs	1.3%	1.5%	0%	1.4%
Price Control Measures	0%	3.0%	0%	1.4%
Total	**100.0%**	**100.0%**	**100.0%**	**100.0%**

Source: CEI

As regards the products subject to dispute, most of the differences regarding intellectual property rights protection relate to the sector of pharmaceutical or chemical products. In turn, the disputes that challenge the use of export subsidies are concentrated in heavy manufacturing industries, such as aeronautics or automobile industries, while most of the cases that question the application of local content requirements involve the latter industry.

When analysing the stage reached by the disputes initiated against industrializing countries, it is seen that more than half of them reached the instance of request for the constitution of a Panel, and for approximately 60% of these disputes the Panel's decision was circulated. Said ruling was appealed in 60% of cases. On the other hand, 40% of the complaints that did not go beyond the consultation stage arrived to a mutually agreed solution.

It is worth highlighting that the proportion of complaints which reach the instance of adoption of Panel Report and that refer to the TRIPS agreement are high above the average. With respect to those differences that invoke the TRIMs and SCM Agreements, the proportion of challenges that advanced to that instance slightly exceeds the average, and in the case of the TRIMs, the percentage is higher than that seen for developed countries. Finally, while the number of consultations that invoke the Agreement on Import Licensing is high, the percentage of disputes that goes beyond the instance of adoption of Panel Report is low, which could be showing a trend by the IE of making a high number of challenges to create a "deterrent" effect on the use of these tools.

Box 1

Flagship cases linked to industrial policy

Among the most important disputes recorded against industrializing countries, some relevant cases can be mentioned. For example, the differences raised by Japan, the United States and the European Union against Indonesia in connection with its incentive programmes to the automotive industry, which invoke violations of the TRIMS and SCM Agreements[a]. This is a clear example of questioning to political measures that were successfully applied during the GATT years, but that are not compatible with the WTO rules, since there is objection to the use of domestic content requirements and the granting of subsidies subject to the use of national products.

Regarding export subsidies, there stands out the case of Canada against Brazil in relation to government payments made by this country to foreign buyers of aircraft from the Brazilian corporation Embraer in the framework of the *Programa de Financiamento às Exportações*[b] (PROEX). Brazil argued that those subsidies were covered by the S&DT provisions granted to developing countries by the SCM Agreement, but the ruling was favourable to the complainant.

Within the cases that refer to the TRIPS Agreement, there stands out the dispute between Brazil and the United States with regard to the provisions of the Industrial Property Law of Brazil[c]. This Law authorizes the granting of compulsory licenses in the case of health emergencies or when manufactured goods are not produced locally. This local exploitation requirement for the usufruct of exclusive patent rights generated the dispute, since its application extends beyond the area of health. Finally, both countries reached an agreement that did not clarify the uncertainty on whether a local exploitation requirement, as provided for in the Brazilian legislation, is a violation of the WTO rules. This obviously creates a strong deterrent effect on any other country that aims to use a similar tool.

Another relevant case was that presented by the United States and the European Union against India[d] due to the alleged absence of formal systems which allow the filing of patent applications and provide exclusive trade rights for pharmaceuticals and agricultural chemicals. India, which fostered growth of its pharmaceutical industry with the reduction of the scope of protection granted, only to processes (not to products), by the 1970 Patent Law, had to modify the corresponding legislation to give way to the recommendations and rulings of the DSB.

a DS 54, 55, 59 and 64: Indonesia - Certain measures affecting the automotive industry.
b DS 46: Brazil - Export Financing Programme for Aircraft.
c DS 199: Brazil - Measures affecting patent protection.
d DS 50 y 79: India - Patent protection for pharmaceuticals and agricultural chemicals.
A brief description of each of these cases can be found at http://www.wto.org/spanish/tratop_s/dispu_s/dispu_status_s.htm.

5. Final considerations

Most currently developed countries and late-industrializing economies actively used trade and industrial policies to promote their infant industries. However, since the adoption of the Uruguay Round Agreements –in particular those referred to Subsidies and Countervailing Measures, Trade-Related Investment Measures and Trade-Related Aspects of Intellectual Property Rights– developing countries lost all or part of their capacity to use a large number of public policy instruments.

The aim of this work is to distinguish those industrial policy measures implemented by developing countries that were questioned by their peers at the WTO, with a view to empirically compare the theoretical literature and contribute to the identification of specific aspects regarding which a relaxation of the WTO rules would allow this group of countries to recover some of the public policy tools now prohibited or limited.

The results of the surveys of the minutes of several WTO's Councils and Committees and the disputes filed before the DSB show a possible bias in the questioning of developed countries (particularly the US and the EU) against those economies that have a higher productive potential, since most of the claims made are directed to developing countries and are particularly concentrated in few countries (China, India, Brazil and Argentina).

Likewise, there stands out the high recurrence of questioning to emerging economies regarding subsidies –whether internal or for production– and to control measures on quantities imported. In addition, it is worth highlighting that an important proportion of the instruments challenged –particularly subsidies– includes some type of requirement of local content or of trade balance compensation.

Current trade negotiations in the framework of the Doha Round –although today virtually stalled– and most bilateral agreements signed between developing and developed countries –whether related to trade or investment– threaten to further limit the space for policies available to emerging economies. Therefore, it is important to profit from the window of opportunity provided by the greater relative weight of these economies in international negotiations and the revival of industrial policy as a tool for development, to seek the incorporation of discussions relating to the recovery of industrial policy instruments in the multilateral agenda.

Annexes

Annex 1

Classification of countries by industrialization level

Industrialized Economies (IE)			
Australia	France	Latvia*	Russian Federation
Austria	Germany	Lithuania	Singapore
Bahrain	Greece*	Luxembourg	Slovakia
Belgium	Hong Kong, SAR of China	Macao, SAR of China	Slovenia
Bulgaria*	Hungary	Malta	Spain
Canada	Iceland	Netherlands	Sweden
Croatia*	Ireland	New Zealand	Switzerland
Cyprus*	Israel	Norway	Taiwan, prov. of China
Czech Republic	Italy	Poland*	Turkey
Denmark	Japan	Portugal	United Arab Emirates
Estonia	Korea, Republic of	Qatar	United Kingdom
Finland	Kuwait	Romania*	United States

Emerging Industrialized Economies (EIE)			
Argentina	Costa Rica	Mexico	Thailand
Belarus	India	Oman	Tunisia
Brazil	Indonesia	Philippines***	Turkey
Brunei Darussalam	Kazakhstan	Saudi Arabia	Ukraine
Chile	Macedonia, former Yugoslav Republic of	Serbia	Uruguay
China	Malaysia**	South Africa	Venezuela
Colombia	Mauritius	Suriname	

Other Developing Economies (ODE)			
Albania	Dominica	Jordan	Papua New Guinea
Algeria	Dominican Republic	Kenya	Paraguay
Angola	Ecuador	Kyrgyzstan	Peru
Antigua and Barbuda	Egypt	Lebanon	Saint Kitts and Nevis
Armenia	El Salvador	Libya	Saint Lucia
Autonomous Palestinian Territories	Equatorial Guinea	Maldives	Saint Vincent and the Grenadines
Azerbaijan	Fiji	Marshall Islands	Seychelles
Bahamas	Gabon	Moldova	Syria
Barbados	Georgia	Micronesia, Fed. States of	Sri Lanka
Belize	Ghana	Mongolia	Swaziland
Bolivia	Granada	Montenegro	Tajikistan
Bosnia and Herzegovina	Guatemala	Morocco	Tonga
Botswana	Guyana	Namibia	Trinidad and Tobago
Cameroon	Honduras	Nicaragua	Turkmenistan
Cape Verde	Iran	Nigeria	Uzbekistan
Congo	Iraq	Pakistan	Vietnam
Cuba	Ivory Coast	Palau	Zimbabwe
Dem. People's Rep. of Korea	Jamaica	Panama	

Least-Developed Countries			
Afghanistan	East Timor	Malawi	Sierra Leone
Bangladesh	Eritrea	Mali	Solomon Islands
Benin	Ethiopia	Mauritania	Somalia
Bhutan	Gambia	Mozambique	South Sudan
Burkina Faso	Guinea	Myanmar	Sudan
Burundi	Guinea-Bissau	Nepal	Tanzania
Cambodia	Haiti	Niger	Togo
Central African Republic	Kiribati	Republic of Yemen	Tuvalu
Chad	Laos	Rwanda	Uganda
Comoros	Lesotho	Samoa	Vanuatu
Dem. Rep. of the Congo	Liberia	São Tomé and Príncipe	Zambia
Djibouti	Madagascar	Senegal	

Notes:

* The following countries are considered "Emerging Industrialized Economies" by UNIDO: Bulgaria, Croatia, Cyprus, Greece, Latvia, Poland and Romania. Since they are all members of the EU, they are included in the group of "Industrialized Countries".

** It is considered an "Industrialized Economy" based on UNIDO's classification. For the purposes of this work the category of "Emerging Industrialized Economy" is included, since it is part of the most recent group of "New Industrialized Countries (NICs)".

*** Even though it is classified as "Other Developing Economies" on UNIDO's list, it is included in the group of "Emerging Industrialized Economies" because it belongs to the most recent group of NICs.

Source: CEI based on Upadhyaya (2013)

Annex 2

Classification of Measures

1. Tariffs
2. Sanitary and Phytosanitary Measures
3. Technical Barriers to Trade
4. Quantity Control Measures
5. Charges and Taxes
6. Price Control Measures
7. Trade Defence Measures
8. Customs Procedures and Administrative Practices
9. Other Non-tariff Measures
10. Subsidies*
11. Restrictions on Government Procurement
12. Rules of Origin
13. Measures on Exports
14. Intellectual Property Rights Protection

Note: * It includes all domestic subsidies granted by the government, but it does not cover export subsidies, which are classified as "measures on exports".

References

Amsden, Alice H. (1987). "The paradigm of late industrialization". *Political Economy, Studies in the Surplus Approach*, 3 (2): 133-159.

Amsden, Alice H. (2003). "Industrialization under new WTO law". In *Trade and Development: Directions for the 21st Century*, John Toye (editor), 82-99. Cheltenham and Northhampton: Edward Elgar Publishing.

Amsden, Alice H., and Takashi Hikino (2000). "The bark is worse than the bite: new WTO law and late industrialization". The *Annals of the American Academy of Political and Social Science*, 570 (1): 104-114.

Bora, Bijit, Peter J. Lloyd and Mari Pangestu (2000). "Industrial policy and the WTO". Policy Issues in International Trade and Commodities Study Series No. 6. UNCTAD.

Bosch, Robert (2009). "Las negociaciones comerciales y la reducción del espacio de políticas para el desarrollo industrial". *Revista del CEI: Comercio Exterior e Integración*, 14: 117-132.

CEI (2015). "Momento de redefiniciones en el sistema multilateral de comercio ¿Oportunidad para recuperar las herramientas de política industrial perdidas?" At http://www.cei.gov.ar/userfiles/Informe%20Friends%20of%20 Industrialization_0.pdf

Chang, Ha Joon (2002). *Kicking away the ladder. Development strategy in historical perspective.* London: Anthem Press.

Chang, Ha Joon (2005). *Why developing countries need tariffs? How WTO NAMA negotiations could deny developing countries' right to a future*. Geneva: South Centre.

Chang, Ha Joon and Duncan Green (2003). *The northern WTO agenda on investment: Do as we say, not as we did*. Geneva: South Centre.

Laura Daicz, Carlos Galperín, Federico Lavopa and Adriana Molina (2014). "Radiografía del Entendimiento de Solución de Diferencias de la OMC: una caracterización cuantitativa del sistema a 20 años de su creación". *Revista Argentina de Economía Internacional*, 3: 60-92.

Di Caprio, Alisa and Kevin P. Gallagher (2006). "The WTO and the shrinking of development space. How big is the bite?" *Journal of World Investment and Trade*, 7 (5): 781-803.

Evans, Peter (2005). "Neoliberalism as a political opportunity: Constraint and innovation in contemporary development strategy". In *Putting Development First: The Importance of Policy Space in the WTO and International Financial Institutions*, Kevin P. Gallagher (editor). London and New York: Zed Books.

Hamwey, Robert M. (2005). "Expanding national policy space for development: Why the multilateral trading system must change". Trade-Related Agenda, Development and Equity (T.R.A.D.E.), Working Papers 25. South Centre.

Kumar, Nagesh and Kevin P. Gallagher (2007). "Relevance of 'policy space' for development: Implications for multilateral trade negotiations". RIS Discussion Papers #120. Research and Information System for Developing Countries.

Lall, Sanjaya (2003). "Reinventing industrial strategy. The role of government policy in building industrial competitiveness". G-24 Discussion Paper Series No. 28.

WTO (2001). "Declaration on the TRIPS agreement and public health". WT/MIN (01) /DEC/2, 20th November.

WTO (2002). "Trade-Related Investment Measures and Other Performance Requirements, Part II, Evidence on the Use, the Policy Objectives, and the Impact of Trade-Related Investment Measures and Other Performance Requirements". Joint Study by the WTO and the UNCTAD Secretariats. G/C/W/307/Add.1, February.

Padilla Pérez, Ramón and Jennifer Alvarado Vargas (2014). "El resurgimiento de la política industrial". In *Fortalecimiento de las Cadenas de Valor como Instrumento de la Política Industrial. Metodología y Experiencia de la CEPAL en Centroamérica*, Ramón Padilla Pérez (editor), 33-75. Santiago de Chile CEPAL.

Rodrik, Dani (2004). "Industrial policy for the twenty-first century". KSG Working Paper No. RWP04-047.

Shadlen, Ken (2005). "Policy space for development in the WTO and beyond: The case of intellectual property rights". Global Development and Environment Institute. Working Paper No. 05-06.

Singh, Agit (1996). "The post-Uruguay Round world trading system, industrialization, trade and development: Implications for the Asia-Pacific developing countries", in *Expansion of Trading Opportunities to the year 2000 for Asia-Pacific Developing Countries: Implications of the Uruguay Round and Adaptation of Export Strategies*: 147-190. Geneva: UNCTAD.

UNCTAD (2006). *Trade and Development Report 2006. Global partnership and national policies for development*. New York and Geneva: United Nations.

UNCTAD (2013). *Classification of non-tariff measures. February 2012 version*. New York and Geneva: United Nations.

UNCTAD (2014a). *Trade and Development Report 2014. Global governance and policy space for development*. New York and Geneva: United Nations.

UNCTAD (2014b). *Guidelines to collect data on official non-tariff measures*. September 2013 version. New York and Geneva: United Nations.

UNDP (2003). *Making global trade work for people*. London and Sterling, Virginia: Earthscan Publications Ltd.

Upadhyaya, Shyam (2013). “Country grouping in UNIDO statistics”. Development Policy, Statistics and Research Branch. Working Paper 1/2013. UNIDO.

Wade, Robert H. (2003). “What strategies are viable for developing countries today? The World Trade Organization and the shrinking of ‘development space’”. *Review of International Political Economy*, 10 (4): 621-644.